

**APPENDIX 5.8:**  
**COMMENTS AND RESPONSES REPORT**



## 1. DRAFT ESIA REPORT COMMENT PERIOD

In the interest of protecting stakeholder's contact details, in line with the requirements of the Protection of Personal Information Act, 2014 (No 4 of 2014) (POPI Act), comments received have been copied and pasted into this Comments and Responses Report. Copies of all original submissions received will, however, be submitted to the Competent Authority, together with the final ESIA Report.

### 1.1 Draft Impact Assessment Phase Comments and Responses Report - Emails and Attachments

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
1.	Barry Jacobs - Gourikwa Khoisan stamhuis	26 July 2022 – Email	Goeiedag. Kan ons n Gesprek in Groot-brakrivier het asb. Hoor graag.	This comment was received after the closure of the draft Scoping Report comment period, which extended from 20 May to 4 July 2022.
2.		14 August 2022 – Email	We as the Gourikwa Khoisan stamhuis request n conversation in Great-brakriver please. People from Mosselbay can be included.  Like to hear from you.	Chief Jacobs was invited to the focus group meeting held with the traditional and indigenous leaders stakeholder group on 31 October 2022, as well as the public online meeting held on 7 November 2022. Chief Jacobs did not attend these meetings.
3.	Gilbert Martin – We are South Africans	29 July 2022 – Email	You have not answered my question on who the shareholders are (the individuals) of the holding's companies and what their political affiliation is, and your answers are vague to say the least. I request that you stop submission and answer properly and satisfactorily.  We will oppose this in court if you cannot give the information to us, we require.  Then, an additional question – because you took so long to respond to our initial questions asked.  Please provide the full project documentation for the 2D/3D seismic survey performed in 2020 – we believe the PPP was flouted here.	This comment was received after the closure of the draft Scoping Report comment period, which extended from 20 May to 4 July 2022.  TEEPSA holds 40% interest in Block 5/6/7 and is the operator of the Block (since February 2020). TEEPSA's two partners are Shell Exploration and Production South Africa B.V. ("Shell") with 40% shareholding and the Petroleum Oil and Gas Corporation of South Africa (SOC) Ltd ("PetroSA") with 20% shareholding. It is recommended that Mr Martin obtain the shareholder company structures for the individual companies, as SLR does not have the details of each shareholder of each of these companies.  During the draft Scoping Report comment period, various requests were made for additional information to inform I&AP comment. All requested information, including the 3D seismic survey close-out report,

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		5 August 2022 – Email	<p>Thanks for the response. I want to know the process you used to get the seismic survey approved in 2020 when the planet, including us was shut down. I want the public participation process used for the gathering of this data and how it was approved.</p> <p>Then you are avoiding my question on political affiliation of the shareholders completely. Why is that?</p>	was uploaded to the SLR and data free websites by 22 June 2022 and all registered I&APs were notified. This information was provided in good faith and it is not considered to be directly related to the current application for Environmental Authorisation and associated ESIA.
4.	Envir Onmental	29 July 2022 – Email	<p>And climate change in South Africa. South Africa coastline is the breeding ground of whales. If oil leaks into the sea, what about seabirds or fish? Coast communities who need sea livelihood will be destroyed by oil and gas. Just look at the country where oil and gas are done with more pollution. Study shows by Bureau Safety and Environmental Enforcement people who die or get injuries and people die was 6 and people who injusries was 274. The oil spill can kill fish.</p> <p>NO means NO. Green hydrogen must better oil and gas. Green hydrogen is sustainable, and oil and gas are unsustainable.</p>	<p>This comment was received after the closure of the draft Scoping Report comment period, which extended from 20 May to 4 July 2022. The potential impact related to an unlikely oil spill is assessed in the ESIA - refer to Chapter 10 of the final ESIA Report.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050.</p> <p>These national and international strategic agreements, laws, policies and plans will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p>
5.	Mega Machinery Maintenance	29 July 2022 – Email	<p>Does that mean you will be killing and/or upsetting the marine life with this project? Aren't we going green? Electric cars and all that? Why are you doing this???</p>	<p>This comment was received after the closure of the comment period on the draft Scoping Report, which extended from 20 May to 4 July 2022. The potential impacts of the proposed project are assessed in Chapters 9 and 10 of the final ESIA Report. The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report.</p>

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6.	Knysna Municipality	01 August 2022 – Email	<p>ACKNOWLEDGEMENT OF RECEIPT</p> <p>We acknowledge receipt of your letter regarding TOTALENERGIES - ESIA FOR PROPOSED EXPLORATION DRILLING IN BLOCK 5/6/7: NOTIFICATION OF SUBMISSION OF FINAL SCOPING REPORT FOR ACCEPTANCE and wish to confirm that the matter is receiving attention and a reply will be forthcoming in the near future. Kindly use the Collab reference number 1201580 in future correspondence regarding this matter.</p>	This response is noted.
7.	Swartland Municipality	01 August 2022 – Email	<p>We Acknowledge receipt of your letter dated 2022-08-29 regarding NOTIFICATION OF SUBMISSION OF FINAL SCOPING REPORT FOR ACCEPTANCE: ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) FOR A PROPOSED OFFSHORE EXPLORATION WELL DRILLING IN BLOCK 5/6/7, SOUTH-WEST COAST, SOUTH AFRICA (DMRE REF: 12/3/224) and confirm that the correspondence is being referred to the relevant Department for attention. Reference Number: 4326919</p>	This response is noted.
8.	Barend Fredericks	04 July 2022 – Email	<p>We as the SMALL SCALE FISHER BIGAI COMMUNITY KNYSNA making a living out of the sea for almost centuries ago now, since before the white colonizers robbed us of mineral resources, starting from 1652.</p> <p>We can't allow SHELL, EXXON... big business to do seismic survey in The Wild Coast and West Coast.</p> <p>They never succeed in getting full authorizations because they violate the MPRDA and NEMA.</p> <p>They, the exploitators, decide to go against the will of the people, they never follow FPIC procedures, but sidestep different processes as to consult on a proper and legitimate way, with the government/people which symbolizes collectiveness!</p>	<p>The impact on small-scale fishers is assessed in the ESIA for both normal operations and unplanned events. During normal operations, no impact is anticipated on small-scale fishers, as they fish inshore of the proposed Area of Interest and estimated zones of impact for noise and sediment plume - refer to Section 9.2.2.2 and 9.2.3.2. However, in the unlikely event of a large oil spill from a well blow-out, small-scale fishers could be significantly impacted - refer to Section 10.4.3.3 and 10.4.3.4.</p>

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			<p>Oil spills, drillings, voice pollution is a massive contribution towards the disturbance of the ecosystems, and this is a factor for increasing in the climate change above 1,5 c</p> <p>Our fisher community fishermen, woman and youth is concerned about the drilling for oil and gas in our oceans!</p> <p>Our ocean is sacred and need to protect by spilling of oil and gas! article 24 - S.A Constitution</p> <p>... everyone got the right to their natural resources...whiles economical and social needs is to be addressed...</p> <p>we stand against the approval of lisencing shell for doing seizmic surveys on coasts in S.A!</p> <p>Public participation processes need to be implimented in all communities, mass mobilization, awareness programs, a budget must be tabled on government table!</p> <p>We appose oil and gas exploitation on all levels of the governance in S.A!! With the implications of Renewable Energy as a natural solution to our energy crisis in our country! The seven Renewable Energy outlets can safe our country from a total disaster of darkness!</p> <p>I thank you for your your co-operation in solving the nation plide for a clean, green healthy environment!!</p> <p>#stopenslavementofAfricaContinent</p>	<p>Impacts related to both normal operations and unplanned events (e.g. oil sills) are assessed in Chapter 9 and 10, respectively.</p> <p>During normal operations, no impact is anticipated on small-scale fishers, as they fish inshore of the proposed Area of Interest and estimated zones of impact for noise and sediment plume - refer to Section 9.2.2.2 and 9.2.3.2 of the ESIA Report.</p> <p>The impact on people's intangible cultural heritage is assessed in Section 9.1.7 and 10.4.3.4 of the ESIA Report.</p> <p>No 2D or 3D seismic surveys are planned as part of the proposed project, only vertical seismic profiling (which is undertaken for up to 9 hours per well as part of well logging), which is assessed in Sections 9.2.3.1.2 and 9.2.3.2.2 of the ESIA Report.</p> <p>A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans will need to be taken into consideration by the Competent Authority in the decision-</p>

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				making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.
9.	Thandeka Mbambo - DFFE	16 August 2022 – Email attachment	<p>The Branch Oceans &amp; Coasts (O&amp;C) of the Department of Forestry, Fisheries, and the Environment (DFFE) appreciates the opportunity granted to comment on the Final Scoping Report for the Environmental and Social Impact Assessment (ESIA) for the Proposed Offshore Exploration in Block 5/6/7, South-West Coast, South Africa. This Branch has provided recommendations in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), (“NEMA”) and the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008) (“ICM Act”). The Branch O&amp;C has the mandate to ensure the holistic management of the coast and estuarine areas as an integrated system and promote coordinated coastal management. It ensures that the ecological integrity, character, and economic, social, and aesthetic value of the coastal zones are maintained, and that people, properties, and economic activities are guarded against dynamic coastal processes. Guided by the principles of integrated coastal management, this Branch continues to strive for social equity and promote the sustainable use of coastal resources.</p> <p>1. This Branch further reiterates the issues and concerns that have been raised as part of the public participation which critiques the need and desirability of exploration and production, given potential environmental, social, and economic risks to marine ecology, fishing industry, coastal communities, and South Africa’s commitments to climate change and net zero carbon emissions by 2050.</p>	<p>This comment was received after the closure of the comment period on the draft Scoping Report, which extended from 20 May to 4 July 2022.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans will need to</p>

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			<p>2. The Branch O&amp;C notes the submission of the Final Scoping Report for review to the competent authority. This Branch further notes that the proposed Marine Ecology Impact Assessment, Fisheries Impact Assessment, Socioeconomic Impact Assessment, and Climate Change and Air Emissions Impact Assessment studies have not yet been undertaken at this stage of this application. As such, this Branch cannot decide on this application.</p> <p>3. Further detailed comments and recommendations are subject to the specialist findings and information contained in these reports. Inputs will be submitted after the comprehensive review of the adequacy of proposed mitigation measures in the Marine Ecology Impact Assessment, Fisheries Impact Assessment, Socioeconomic Impact Assessment, and Climate Change and Air Emissions Impact Assessment.</p> <p>4. Areas for further Review and Further Input for the Attention of the Environmental Assessment Practitioner (EAP) and Competent Authority (CA):</p> <p>4.1 The report outlines that TEEPSA proposes to drill one exploration well, and success-dependent, up to four additional wells within an Area of Interest within Blocks 5/6/7 to explore hydrocarbons. The area of interest for drilling is 10 000 km<sup>2</sup> in extent and is located offshore roughly between Cape Town and Cape Agulhas, approximately 60 km from the coast at its closest point and 170 km at its furthest, in water depths between 700 m and 3 200 m. Seabed features that are near the area of interest</p>	<p>be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>This comment is noted.</p>



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			<p>include Cape Canyon, Cape Point Canyon, Protea Seamount, Mount Marek, and Brown's Bank.</p> <p>4.2 The report further outlines that there is marginal overlap with the Cape Canyon habitat. In terms of the National Biodiversity Assessment, Cape Canyon habitats are rated Vulnerable in terms of their ecosystem threat status. The rest of the area of interest boasts ecosystems rated as of Low or 'Least Concern'. While there are no Marine Protected Areas (MPAs) in the interest area, there is a 5% overlap with Critical Biodiversity Areas. The proposed exploration area supports a rich diversity of marine life including sensitive benthic habitats/species, plankton, fish and shark, turtles, seabirds, and marine mammals (including whales, dolphins, and seals) which could be adversely affected by this development application.</p> <p>4.3 Various potential impacts associated with proposed activities for this project have been outlined. The report correctly details disturbance of marine fauna (especially whales and dolphins) due to underwater noise; introduction of alien invasives (ballast water); seabed disturbance, smothering of fauna and habitat, increased turbidity, and reduced water quality, due to discharge of drill cuttings and other operational discharges; local to regional effects on water quality, species and coastal habitats from the potential major oil spill, among key threats the integrity of the marine and coastal environment. This Branch is satisfied with the extent to which key issues for further investigation have been detailed in the plan of study for each specialist assessment. The Branch O&amp;C will provide further detailed comments and recommendations when these specialist studies have been made available.</p>	<p>This comment is noted. No further comment was received by the time the final ESIA Report was finalised. Should further comment be received after submission of the final ESIA Report for decision-making, it will be forwarded onto the Competent Authority for consideration.</p>

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			<p>4.4 As part of the previous comments submitted, this Branch made recommendations for the inclusion of a section that assesses the potential impacts of light emissions from vessels and operations, on seabirds and the potential long-term, cumulative, and unintended impacts of oil spills on commercial and small-scale fisheries, including recommending mitigation measures to ensure these that impacts are, mitigated, minimise, or avoided. This Branch notes the EAPs response that these impacts associated with localised disturbance and/or behavioral changes to marine and coastal fauna will be assessed in the ESIA. The Branch O&amp;C will provide further comments on the adequacy of the assessment of these impacts when these studies are made available.</p> <p>4.5 This report states that during normal operations, the proposed exploration activities could potentially affect fishing activities, because of fishing exclusion from the 500 m operational safety zones around the drilling unit; increased underwater noise disturbance during drilling and VSP activities, and the abandonment of the wellheads on the seafloor. These activities could have an impact on commercial fisheries that operate in the area through the reduction in catch rates and/or an increase in fishing efforts. Maintaining or enhancing sustainable livelihoods and the intensity of the assets on which livelihoods depend is at the heart of sustainable development and integrated management. This Branch continues to strive for a balance to be achieved between promoting development, equal sharing of benefits, and ensuring that negative impacts on human health, the environment, and societies are mitigated, abated, and/or avoided. This Branch will provide further inputs pending findings of the Fisheries impacts Assessment and Socioeconomic Impact Assessment.</p>	<p>Potential impacts raised are assessed in the following sections of the ESIA Report:</p> <ul style="list-style-type: none"> <li>• Lighting from the drilling unit and support vessels is assessed in Section 9.1.5.</li> <li>• Cumulative impact is assessment in Section 9.4.</li> <li>• Oil spill is assessed in Section 10.3 (small accidental release) and 10.4 (well blow-out).</li> </ul> <p>4.5 This comment is noted. No further comment was received by the time the final ESIA Report was finalised. Should further comment be received after submission of the final ESIA Report for decision-making, it will be forwarded onto the Competent Authority for consideration.</p>

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			<p>4.6 This Branch notes the EAPs response that the scope of assessment for cumulative impact will only consider the proposed exploration project as it relates to past, present, and reasonably foreseeable future developments or impacts, and not future production in Block 5/6/7. This Branch continues to advocate for the scope of assessment to include cumulative impacts and take into account the long-term, unintended impacts resulting from similar activities within one area of interest (other seismic surveys/exploration drilling expeditions, oil, and gas activities).</p> <p>4.7 The report identifies that this proposal will potentially result in a localised reduction in air quality due to emissions from the combustion of diesel fuel for generators and other machinery used to power the drilling operations and support vessels, aviation fuel for aircraft, and helicopters, and well flow testing (flaring). However, the extent, duration, or magnitude of the impact is unspecified. The EAP's response that this will be determined in the next phase of the ESIA.</p> <p>4.8 The main effects of climate change (including increased temperatures, changing weather patterns, and sea-level rise) are related to increased atmospheric CO<sub>2</sub> concentrations necessitating the need for improved consideration of issues of air quality and emissions and the long-term, cumulative, and unintended impacts associated with the absence of proper monitoring actions. Concerted efforts need to go into clarifying how this proposal will contribute towards decreasing carbon dioxide emissions, including positively contributing towards meeting global and international obligations for zero use of fossil fuels. Further inputs will be provided pending outcomes of the Climate Change and Air Emissions Impact Assessment.</p>	<p>4.6 Cumulative impact is assessment in Section 9.4 of the ESIA Report.</p> <p>4.8 The potential impacts on air quality and climate change are assessed in Section 9.1.1.1 and 9.1.1.2, respectively.</p>

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			<p>4.9 All air quality and climate change impacts should be further elaborated on and measures to ensure identified impacts are mitigated, minimise, and/or reduced throughout all proposed development stages should be clearly outlined in the following report.</p> <p>4.10 The environmental and social interaction matrix to rate the magnitude of impact on sensitive receptors rates the potential impact of well drilling (including ROV site selection, installation of conductor pipes; wellhead, BOP and riser system, well logging and plugging) and discharge of drill cuttings and drilling fluid and residual cement of moderate to high negative interaction on the seabed and sediment profile, benthic communities and habitat communities and seabird features and on maritime heritage.</p> <p>4.11 Further to this, the proposed drilling discharges, including cumulative impacts associated with a variety of sources, including deck drainage, machinery space drainage, sewage, and galley wastes from the drilling unit and support vessels could potentially result in the localised reduction in water quality in marine and coastal environment. The applicant is encouraged to further engage with this Branch Coastal Pollution via email at: CWDP@dffe.gov.za or YPeterson@dffe.gov.za for more information on the requirements of a Coastal Waters Discharge Permit and/or Coastal Waters Offshore Dumping Permit.</p> <p>4.12 This Branch will provide detailed comments and recommendations during the next public process when the outlined specialist studies have been undertaken, and when more information is available.</p> <p>Kindly note that the Department reserves the right to revise its comments and request further information based on any</p>	<p>4.9 The potential impacts on air quality and climate change are assessed in Section 9.1.1.1 and 9.1.1.2, respectively.</p> <p>4.10 The environmental and social interaction matrix provides an initial assessment of the impact. All impacts have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report.</p> <p>4.11 Notification of the release of the draft ESIA Report for review and comment was sent to YPeterson@dffe.gov.za.</p> <p>4.12 This comment is noted.</p>

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			additional information received. All future correspondence and documentation (hard copy and an electronic copy) must be submitted to our office via OCEIA@dfe.gov.za / or Physical Address: Department of Forestry, Fisheries & the Environment (DFFE), Branch: Oceans and Coast, 2 East Pier Building, East Pier Road, Victoria and Alfred Waterfront, Cape Town, 8001	
10	Rooiels Ratepayers Association	18 August 2022 – Email attachment	<p>RERA's initial objections to the exploration project were registered as:</p> <ol style="list-style-type: none"> <li>1. The exploration for fossil fuels is counter to the worldwide phasing out of fossil fuels.</li> <li>2. The environmental impact on for example whales as noted at the recent public participation meeting.</li> <li>3. Impact on the economy</li> </ol> <p>This note expands on objection 1 and a little on objection 2.</p> <p>Introduction</p> <p>TotalEnergies' exploration well drilling project has the purpose of confirming and testing "the presence and quality of hydrocarbon resources" (2022, p78)1 in the seabed. Hydrocarbons in the context of this project are aimed mainly at discovering "natural" gas.</p> <p>The project involves:</p> <ul style="list-style-type: none"> <li>• Well drilling (5 wells);</li> <li>• Vertical Seismic Profiling (using acoustic pulses);</li> <li>• Well flow testing and flaring.</li> </ul> <p>Objection 2 deals mostly with the immediate impacts of the project (or "the activity") relating to the three operations above.</p>	

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			<p>Objection 1 is, in contrast, strategic in nature and is concerned with the likely hydrocarbon extraction and usage implications that follow exploration. Unfortunately, an Environmental &amp; Social Impact Assessment (ESIA) as a tool is limited to the project or activity itself, and not the wider and eventual strategic implications. Although the ESIA is required to consider “cumulative impacts” of the activity, as can be seen from the Scoping Report the cumulative impacts of exploration and production activities alone are to be considered. The eventual combustion of the hydrocarbons is not considered a “cumulative impact”.</p>	<p>The cumulative impact is assessed in Section 9.4 of the ESIA Report. The EIA Regulations 2014 require the consideration of the ‘cumulative impact’, which includes the “reasonably foreseeable future impact of an activity”. While it is foreseeable that future production activities could arise from the Exploration Right (if granted and successful), there is not currently sufficient information to make reasonable assertions as to nature of any future activities. This is due to the current lack of relevant geological information, which the proposed exploration process aims to address. The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a petroleum resource(s) is discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project. Potential impacts cannot be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts. The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplates, that the potential impacts and risks of productions activities must be considered and assessed at the exploration stage. Any potential future production activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate ESIA process. This is typical of the lifecycle of a development project. -</p>

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			<p>Objection 1:</p> <p>Objection 1 is reframed as “exploration for new fossil fuel reserves, especially natural gas, must be avoided to limit greenhouse gas emissions and thus mitigate climate change”. Although there is a move away from fossil fuels globally, this energy system transformation is occurring because of the emerging climate crisis, which is in turn caused by anthropogenic greenhouse gas (GHG) emissions. The objection is based on the latest peer-reviewed science as reviewed and documented by the UN’s Intergovernmental Panel on Climate Change (IPCC). This science is accepted globally by climate scientists, the most eminent of which are authors of the IPCC’s reports. The Scoping Report provides a comprehensive overview of South African energy and climate legislation, policies and international commitments in chapter 5. It notes (p73) the apparent contradiction between South Africa’s emissions reduction commitments and the inclusion of natural gas in the country’s energy mix. Inclusion is argued on the basis of gas being a “transition fuel” on the pathway to carbon-neutrality by 2050 because it emits less CO<sub>2</sub> than coal or oil.</p> <p>Warnings from the IPCC and climate scientists, however, are stark:</p> <ul style="list-style-type: none"> <li>• The IPCC (2022)<sup>2</sup> states that “cumulative net CO<sub>2</sub> emissions to limit likely warming to 2°C or lower could already be exhausted by current and planned fossil fuel infrastructure<sup>3</sup> (medium confidence) even though this estimate only covers a fraction of all infrastructure developments over the 21st century”. Furthermore, Welsby et al (2021)<sup>4</sup> find that 59% of gas reserves must remain unextracted.</li> </ul> <p>Clearly expansion of reserves, and the eventual exploitation of them, are irresponsible.</p>	<p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>UN IPCC Report II (February 2022) and Report III (March 2022) are summarised in Section 5.2.16 of the ESIA Report. The report notes that cutting emissions requires a "substantial reduction in overall fossil fuel use", energy efficiency, low-emission energy sources, such as renewables and alternative energy carriers, such as hydrogen.</p> <p>South Africa has limited proved reserves of oil and natural gas and currently uses its large coal deposits to meet most of its energy needs. It is envisioned that natural gas will replace coal and diesel fuel sources,</p>

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			<p>Some of these scientists (Heede &amp; Oreskes, 2016)<sup>5</sup> emphasise that “more immediate urgency lies with the private sector [companies like TotalEnergies], and that investor and consumer pressure should focus on phasing out these companies’ on-going exploration programs”, because “of their ability and expressed intent to continue to explore for new sources of fossil fuels, and to convert existing probable and possible reserves into additional proved reserves”.</p> <p>As to “natural” gas being a “transition” fossil fuel, it should be noted that its main ingredient is methane, which is 80 times more effective at trapping heat in the Earth’s atmosphere than CO<sub>2</sub>, although its lifetime in the atmosphere is an order of magnitude shorter. As such methane is a short-term accelerant of climate change and the second largest source of methane emissions (26%) are from oil and gas operations (2021)<sup>6</sup> i.e. leaks from fossil fuel infrastructure and flaring. As UNEP reports (2022)<sup>7</sup> previously unknown emissions of methane in fossil fuel infrastructure are of great concern because methane is already responsible for 25% of global heating. In fact, the International Energy Agency reports (2022)<sup>8</sup> that methane emissions are 70% higher than officially reported by governments. Unless the oil and gas industry seriously deal with methane leaks, the promise of gas as a “transition fuel” is empty; it may be even more dangerous.</p> <p>We believe that the above provides the most compelling reasons why the exploration project should not be approved.</p> <p>Objection 2</p> <p>Objection 2 centres around the possible impacts of seismic surveys on marine mammals.</p>	<p>which are more emissions-intensive. Eventually, gas would be phased out by 2050 and replaced by greener alternatives like green hydrogen once the latter is developed and becomes more affordable (refer to “Just Transition and Climate Pathways Study for South Africa” (NBI, 2021).</p> <p>All the national and international strategic agreements, laws, policies and plans, including the UN IPCC Reports, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The comment regarding the use of natural gas having a much greater impact than CO<sub>2</sub> is related possible when gas is not combusted (e.g. leaks, fugitive emissions, etc.). However, when combusted, methane gets converted to CO<sub>2</sub>, H<sub>2</sub>O, CO and a small amount of CH<sub>4</sub> may remain in the combustion plume and contribute to GHG together with CO<sub>2</sub>. When combusted it emits significantly less greenhouse gases than other fossil fuels, such as coal, which is the main fuel used to generate electricity in South Africa. The potential impacts on air quality and climate change are assessed in Section 9.1.1.1 and 9.1.1.2, respectively.</p>



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			<p>The exploration project intends conducting vertical seismic profiling (VSP) using acoustic pulses. Although early studies about these impacts have been inconclusive, more recent studies are showing that seismic surveys significantly reduce the sighting of cetaceans over very large areas (2019)9.</p> <p>South Africa's National Environmental Management legislation enshrines the Precautionary Principle which requires society to be cautious and refrain from potentially harmful activities even in the absence of extensive scientific knowledge about an activity's impacts.</p> <p>We would argue that this legal principle should be applied in this case and all similar cases.</p>	No 2D or 3D seismic surveys are planned as part of the proposed project, only vertical seismic profiling (which is undertaken for up to 9 hours per well as part of well logging), which is assessed in Sections 9.2.3.1.2 and 9.2.3.2.2 of the ESIA Report.
11.	Department of Forestry, Fisheries and the Environment - Directorate: Sustainable Aquaculture Management - Michelle Pretorius	18 August 2022 – Email 18 August 2022 – Email	<p>It is noted that the Final Scoping report has been made available and the project is moving into the Impact Assessment phase of the scoping report is approved. Please could you register the DFFE: Aquaculture and Economic Development Chief Directorate as an I&amp;AP for the project please use my contact details below.</p> <p>Please note that the DFFE notes that the project is an offshore project however please ensure the specialists investigate that the proposed operations do not have impacts on the aquaculture industry which are located inshore. I can also assume that any risks to the Fisheries industry will also be covered in the planned specialist reports.</p>	Ms Pretorius was notified on 7 November 2022 that the Draft ESIA Report is out for review and comment until 7 December 2022 and a copy of the notification letter was attached to the email. In the email it was noted that ESIA included a fisheries assessment and that no impact is expected on the aquaculture industry during normal operations. A large oil spill, although unlikely, could however have a significant impact on aquaculture activities (refer to Sections 10.4.3.2 and 10.4.3.3).
12.		07 November 2022 – Email	Thank you for the notification and clarity regarding the impact of the development on aquaculture	
13.	News 24 – Elise Tempelhoff	24 October 2022 – Email	<p>Thank you! Please send a map of the blocks that you are targeting.</p> <p>People do not understand the blocks that you are targeting.</p>	An email was sent to Ms Tempelhoff on 28 October 2022 indicating that all the maps are in the report which is available for download by following the links below.

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				<ul style="list-style-type: none"> <li>SLR Website: <a href="https://www.slrconsulting.com/en/public-documents/TEEPSA-567">https://www.slrconsulting.com/en/public-documents/TEEPSA-567</a></li> <li>Data Free Website: <a href="https://slrpublicdocs.datafree.co/en/public-documents/TEEPSA-567">https://slrpublicdocs.datafree.co/en/public-documents/TEEPSA-567</a></li> </ul>
14.	Cape Nature – Ismat Adams	24 October 2022 – Email	Please send on Google Earth KML files or QGIS shapefiles of the development footprint.	The requested KMZ files we sent to Mr Adams on 4 November 2022.
15.	Cape Nature – Pierre de Villiers	25 October 2022 – Email	<p>Please note that there are existing MPAs and EBSAS off-shore along the South West Coast of South Africa.</p> <p>Please ensure that exploration does not take place in the designated MPA areas. If exploration does take place within the boundaries of an EBSA, mitigating actions need to be provided in terms of mitigating the impacts on the associated ecosystems and species.</p> <p>This broader area is also inhabited by Humpbacked and Southern Right Whales that migrate through and are sometimes resident. All impacts on whales species need to be identified and mitigated.</p>	The area of interest for drilling does not overlap with any MPAs or EBSAs. The potential impacts on marine fauna (including cetaceans) for the proposed drilling operation have been assessed in the ESIA - refer to Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report.
16.	Kevin Harris	25 October 2022 – Email	<p>I formally object as a citizen of South Africa.</p> <p>The negative long-term impact on this tourism Hotspot of SA coastline could prove disastrous.</p> <p>This flies in the face of the commitments SA made at COP 27 and the finding we received in good faith in order to move away from fossil fuels.</p>	We note your objection with regards to the proposed project. This correspondence will be included in the Comments and Responses Report, which will be appended to the final ESIA Report. The final ESIA Report will be submitted to the competent authority for decision-making.
17.	Envir Onmental	25 October 2022 – Email	Offshore oil and gas will pollute air quality. Leakage pipe can info sea. It will impact marine life in the ocean. Oil leak in ocean.	<p>The potential impacts on air quality and climate change are assessed in Section 9.1.1.1 and 9.1.1.2, respectively.</p> <p>Oil spill is assessed in Section 10.3 (small accidental release) and 10.4 (well blow-out).</p>

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18.	Korana Fishing – Lynn	28 October 2022 – Email	We are directly affected by this process. Could you please send us a copy of the ESIA Report for comment and review please.	<p>An email was sent to Korona Fishing on 4 November 2022 indicating that all information available for review and comment has been uploaded to the SLR websites (including the ESIA report). SLR Website:</p> <ul style="list-style-type: none"> <li>SLR Website: <a href="https://www.slrconsulting.com/en/public-documents/TEEPSA-567">https://www.slrconsulting.com/en/public-documents/TEEPSA-567</a></li> <li>Data Free Website: <a href="https://slrpublicdocs.datafree.co/en/public-documents/TEEPSA-567">https://slrpublicdocs.datafree.co/en/public-documents/TEEPSA-567</a></li> </ul>
19.	Mae Naude	28 October 2022 – Email	<p>I strongly object to the proposed exploration off the South-West Coast of South Africa.</p> <p>The scoping report has already indicated that there will be a wide range of impacts and risks, from the contribution to greenhouses gases and climate change to reduction in air and water quality. In addition, the displacement of fauna from important feeding and breeding sites, physical seabed and habitat disturbance, destruction of eggs and larvae, and displacement of fish will all result in further reduction of fish populations. Furthermore, the underwater continuous drilling noise will disturb all forms of marine life including marine mammals. The oiling of coastal habitats and marine fauna, together with the risks mentioned above, will cause a reduction in income for secondary and tertiary sectors that support the current vivid tourism local industry, the fishing and other active coastal economies.</p>	All potential impacts, including those listed, have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report.
20.	Melanie Sammons	30 October 2022 – Email	<p>Comments regarding the proposed works:</p> <p>As can be seen from your map, this drilling zone is in an extremely sensitive area for biodiversity and in fact incorporates some protected areas while being adjacent to many protected areas.</p>	Although the area of interest for drilling does not overlap with any MPAs or EBSAs, it does overlap with a Critical Biodiversity Area. All potential impacts have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report. A summary

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			<p>The oil pollution will pollute the area that supports many vital species, important, not only to the biodiversity of the area but to the tourism industry that creates large employment.</p> <p>Drilling for oil is totally contrary to the direction of travel of the rest of the world as they move away from fossil fuel to renewable energy. So why is investment in renewable energy not prioritised, employing far greater numbers than the oil industry?</p> <p>I fear this is another resource, like coal that will be exported to China while damaging the wildlife that provides tourism from all over the world.</p> <p>Not only will oil pollute the environment and wildlife but seismic activity, that is proven to damage sensitive sea life, will either encourage them to move elsewhere to kill them, thus damaging the thriving tourist industry in the area.</p> <p>Economically, this doesn't make sense, environmentally it doesn't make sense and most of all, it is accelerating global warming. What good will money be when we can't eat, drink water or lose our land to rising sea levels and fish to red algae blooms due to pollution and no natural systems remaining to clean our pollution up?</p> <p>Very shortsighted greed at the cost of so much!!</p>	<p>of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>No 2D or 3D seismic surveys are planned as part of the proposed project, only vertical seismic profiling (which is undertaken for up to 9 hours per well as part of well logging), which is assessed in Sections 9.2.3.1.2 and 9.2.3.2.2 of the ESIA Report.</p>

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21.	Frans van der Walt	06 November 2022 – Email	For some reason the OCR code to Register to attend the Virtual Public Meeting on 07/11/2022 does not work on my cellphone. Please share the correct link.	The QR code is to register for the public meetings and other details on how to join the meeting from a mobile device were email to Mr van Der Walt on 18 November 2022. It was also noted that the meetings will be recorded and uploaded to the SLR's website and a data free website (details provided below) after the meetings.
22.	Michael Dyssel	07 November 2022 – Email	I've been struggling to get access via the link for the last 10 minutes. (Will send my comments/questions via email though).	This comment was noted.
23.	Adam Ward	08 November 2022 – Email	Unfortunately, I was unable to follow the on-line discussions on 7 November due to load shedding.	Audio recordings of all public meetings were uploaded to the SLR and data free websites, so others could listen to the presentations, comments raised, and responses provided. Minutes of all public and focus group meetings are presented in Appendix 5.7 of the ESIA Report.
24.	GroundUp - Liezel Human	09 November 2022 – Email	I am a journalist for GroundUp news.  I have a query regarding Total's Proposed Offshore Exploration in Block 5/6/7, South-West Coast. Currently, the public meetings link is not working. Could you please send us the planned meetings schedule. Link here: <a href="https://www.slrconsulting.com/en/public-documents/TEEPSA-567">https://www.slrconsulting.com/en/public-documents/TEEPSA-567</a>	The Public Meetings schedule was emailed to Ms Human on 14 November 2022. It was also noted that an additional meeting had been scheduled for Hawston on 11 November 2022.  Ms Human was present at the public meeting held on 10 November in Hermanus.
25.	Annemarie Hendrikz	09 November 2022 – Email	Please advise dates, times and locations of public meetings in the Cape Town metro (the link on the website is not working: it states that it is closed)	Ms Hendrikz was notified that all the public meetings took place during the first 2 weeks of November 2022. It was, however, noted that the meetings will be recorded and uploaded to the SLR's website and a data free website (details provided below) after the meetings.
26.	Timothy Elliott	09 November 2022 – Email	Please can you let me know if there is any way I can comment on or a petition to sign regarding this proposal. I look forward to hearing from you.	Mr Elliot was notified on 15 November 2022 that he may submit formal objections or comments via email to the TEEPSA-567@slrconsulting.com address.
27.	Blue Continent Products - Mike Sands	09 November 2022 – Email	Thanking you for your prompt response.  The very mechanism of upwelling on our West Coast is what prompted me to raise the issue on the NW direction of plume. In	At the online public meeting held on 7 November 2022, Mr Sands asked why the sediment plume extends in a north-westerly direction away

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			<p>the upper water column I fully understand as is illustrated below and which I know. You have surface water moving offshore driven by the prevailing winds in summer. The movement of nutrient rich cold bottom water onto the shelf was my concern. Your figure 3 showing the cold water along the coastline (inshore) came from the deep cold bottom water moving onto the shelf. It may be slow moving and not carry sediment (particles) but it surely could/would carry chemicals and oil should there be a spill.</p> <p>From the info below you are saying that the cuttings or dust and chemical discharge from sea bed would migrate vertically upward from drill point and then catch the upper water NW movement created from upwelling.</p> <p>Further to figure 3 the very warm water you see offshore on the west coast originates from the Agulhas current retroflexion. The very cold water inshore (blue) comes from the cold bottom water moving onto the shelf replacing the warmer surface water moving offshore or NW'ly by the prevailing winds. The stronger the winds and for longer duration promotes stronger upwelling and more cold bottom water onto the shelf and toward the coast line.</p> <p>Further see a comment in <b>red</b> below.</p> <p>"The ocean circulation near the ocean floor over the slope should not be seen as a towards-the-coast current, but rather as convective cells ascending over the water column. The cuttings discharged at the seafloor remain for up to 10 years based on the weak seabed currents in the area. Figure 3 shows surface water temperature off the west coast and the Cape Columbine Upwelling Cell – this shows the upwelling occurring inshore of the area of interest. <b>Yes, and this very cold water came from somewhere – the</b></p>	<p>from the coast, while upwelling brings in cooler water onto the continental shelf during the summer.</p> <p>The drilling cuttings modeller has confirmed that upwelling was taken into account in the modelling for the current project, and provided input into the response below.</p> <p>The coastal, wind-induced upwelling characterising the Western Cape coastline, is the principle physical process which shapes the marine ecology of the Southern Benguela Ecoregion. Most winds in summer come from the south to south-south-east, which drives the massive offshore movements of surface water. This offshore movement of surface water, which needs to be replaced, draws up cooler, nutrient-rich bottom waters (upwelling) during the summer months. These south to south-south-east winds will also then naturally result in the sediment plume from cuttings discharged from the drilling unit extending in a north-westerly direction away from the continental shelf edge.</p> <p>The ocean circulation near the ocean floor over the slope should not be seen as a towards-the-coast current, but rather as convective cells ascending over the water column. The cuttings discharged at the seafloor remain for up to 10 years based on the weak seabed currents in the area.</p>

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			cold bottom water which moves onto the shelf and towards coast line."	
28.	Eric Milton	11 November 2022 – Email	<p>I attended the "Public Participation" meeting at Sandbaai yesterday.</p> <p>I would like to add a few comments to the list we produced yesterday:</p> <p>1. "Participation"</p> <p>I did not count, but I think there could not have been more than 50 people who attended the meeting. The point was noted at the meeting that it was not well-advertised. SLR's response was that it was advertised in many newspapers and on radio stations. I guess the Applicant and SLR are within their rights to only advertise as they did. However, I submit that if they really wanted to have significant attendance and participation, they could have embraced the modern-day medium of social media. They have CLOs. All they had to do was to ask the CLOs to collect the WhatsApp groups of the areas and to send out a message a week before the time. My request is that the Applicant and SLR improve this aspect when/if it comes to the next phase of the project.</p>	<p>1. A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report. The suggestion to use social media will be considered going forward.</p> <p>As noted in the comment, TEEPSA appointed site liaison officers in the West Coast District, City of Cape Town and Overberg District as part of its long-term strategy for community engagement outside the ESIA process. The purpose of these stakeholder relations officers during the ESIA was to help notify community members of the public about the proposed project, draft ESIA Report review and comment period and public meetings. Their notification approach included the placement of posters in high human traffic areas such as tuck shops, taxi ranks and harbours. They also distributed flyers door-to-door and assisted those wanting to be registered as I&amp;APs. Where community members expressed an interest to attend public meetings, they were supported with transportation facilitated through the site liaison officers. Transport was provided on request to disadvantaged communities in St Helena Bay, Saldanha Bay, Mitchells Plain, Hout Bay, Kleinmond and Hermanus.</p>

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			<p>2. Impact on commercial fishing</p> <p>In the presentation, the impact is outlined in respect of Cuttings and Noise. In both cases, the presentation depicts a chart showing the volume of fish caught in the Area of Interest as a % of the National Catch. The presentation then concludes that the impact is either negligible or there is no impact. To me, this is a flawed argument, or at the very least, it does not paint the full picture. In some ways, it is similar to making the evidence fit the crime. It seems to intimate that because the catch in the Area of Interest is very small compared to the National Catch, the impact on commercial fishing will be negligible. That might be the case from a National perspective, but we are not informed about aspects such as the impact on commercial fishing in and around the Area of Interest – could the impact be to wipe out all fishing around the Western Cape, or a % thereof. So, although the impact on fishermen in the country as a whole might be negligible, the impact on fishermen in the Western Cape might be severe. This aspect is not clear in the presentation. Another aspect that seems to be ignored is the quality perspective. I draw a comparison to the abalone industry... if you apply the same argument as the presentation seems to intimate, to the international abalone industry, one could suggest that it is OK to wipe out the entire SA abalone industry, because it is relatively small compared to the volumes around the world, especially China. What you would be ignoring in that instance is the fact that the quality of SA abalone is of a very high standard compared to the rest of the world. So, while volumes may be small, the economic impact ("nationally") is huge. I believe that it would be prudent in an analysis of impact, to consider all aspects, not simply one that seems to fit the agenda.</p>	<p>2. The agenda is the fishing industry and the specialist has described, quantified and assessed potential impacts on each fishing sector.</p> <p>The extent of drilling cuttings discharge and noise with respect to fisheries has been described and estimated in modelling studies that were commissioned for this project, which produced measurable ranges of seabed smothering and toxicity in the water column (related to cuttings) and sound (zoned of impact related to drilling and VSP operations). This provided the fisheries specialist with the best estimated range or zone of impact for each potential impact, which was used to define the spatial extent of the potential impacts of each of the project activities.</p> <p>Each of these spatial footprints or zones of impact were then superimposed on the fishing grounds of each fishery sector. In the case of many of our commercial fisheries, there is no overlap at all and this is due to the location of the proposed area of interest for drilling being situated off the continental shelf (i.e. hake, linefish, small pelagic fisheries are situated inshore of the project area and abalone is coastal). Where there is an overlap with a fishery and the area of interest or with the impact footprint / zone of impact, the specialist has provided the measure of volume of catch and amount of effort taken within the affected area, as well as having expressed this as a proportion of the total catch and effort achieved by the sector on a national scale. These figures were provided in the presentation at the public meetings as a means of providing the audience with an overview of the scale of overlap to each sector and the significance ratings were presented. However, the significance ratings were not derived solely from the proportion of overlap. The full report provides information that was considered in reaching the eventual significance ratings for each sector (i.e. the nature, sensitivity, extent, duration, intensity, magnitude, likelihood, reversibility were factors considered with respect to each</p>



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				<p>distinct fishery type). It is agreed that the representation of proportional overlap of each fishery on a national scale does not provide detail on the local or regional fishing patterns. However, some of the fisheries only operate off the Western Cape (e.g., tuna pole-line operates west of 20E longitude with most deployments taking place from Hout Bay and Cape Town harbours with preferred fishing “hot-spots” over Cape Columbine and Cape Canyon) and thus the national scale is also representative of the region.</p> <p>Additionally, the term “wipe out” is not in line with what has been described in the report. The impact of drill cuttings discharge, noise and exclusion areas would not result in a complete loss of catch. Rather, the potential exists that there could be a reduction in the normal fishing operations, but that fishing could continue in a modified way and in adjacent areas.</p> <p>The impact on small-scale fishers is assessed in the ESIA for both normal operations and unplanned events. During normal operations, no impact is anticipated on small-scale fishers, as they fish inshore of the proposed Area of Interest and estimated zones of impact for noise and sediment plume - refer to Section 9.2.2.2 and 9.2.3.2. However, in the unlikely event of a large oil spill from a well blow-out, small-scale fishers could be significantly impacted - refer to Section 10.4.3.3 and 10.4.3.4.</p>
29.	Megan Carr – Rhinos in Africa	14 November 2022 – Email	Please confirm once again that you received my registration as an interested and affected party. Which is why I have continued to receive notifications from you.	It is confirmed that Ms Carr is a registered I&AP, which is why she continue to receive correspondence in this regard.
30.	Fanie Krige – Solid Stuff Creative	15 November 2022 – Email	The editor of Overstrand Herald asked me to follow up on the public meeting that you had in Kleinmond last Wednesday. As the time of the meeting was in the period that the newspaper is being prepared for printing, he could not be there.	The minutes and photos from all public meetings, including the one in Kleinmond, are presented in Appendix 5.7 of the ESIA Report. Audio recordings of all public meetings were uploaded to the SLR and data free websites, so others could listen to the presentations, comments raised, and responses provided.

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			<p>Your assistance would be appreciated with regard to photographs of the meeting, information on how many people attended, what the main questions or issues raised in Kleinmond were and if there will be anything following from this meeting.</p> <p>Just another question: how many public meetings were held in the affected area, where and what was the turnout. Are there still meetings going to take place and where?</p>	
31.	Arianne Milton	15 November 2022 – Email	<p>I attended the public meeting regarding the TEEPSA Well Drilling at the Sandbaai Hall on 10 November.</p> <p>Although my misgivings about damage to the environment through this exploration phase of drilling have mostly been put to rest, I know I will not and cannot support the next step in the process should oil or gas be found. The extraction and production phase will result in irreversible damage to the environment, and no amount of oil/gas, nor benefit to the economy or community, is worth that cost.</p> <p>In light of this and the global movement away from fossil fuels due to the recognised harm they cause, I am against the exploration drilling proposed by TEEPSA.</p> <p>TEEPSA and SLR Consulting are providing half the picture, I believe, by putting forward only the arguments to support this drilling and not providing the public with an assessment of the environmental impact should oil or gas be found and extracted. Sadly, this fosters mistrust in the entire system and process.</p>	<p>This comment and your objection with regards to the proposed project area noted. All potential impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10 of the ESIA Report, respectively.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050.</p> <p>These national and international strategic agreements, laws, policies and plans will need to be taken into consideration by the Competent Authority in the decision-making process, as well as the findings of this</p>

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				ESIA. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.
32.	WH Muller	19 November 2022 – Email	I hope this finds you well...I stumbled across the exploration project online and wanted to enquire about the need for ROV services and personnel? I am an MTCS certified ROV Pilot currently seeking employment, who resides in South Africa. I would love to hear back from you regarding any news or opportunities.	SLR is not involved in any procurement processes. The information distributed related to the upcoming EIA process and was not sent out as an opportunity to register to become a service provider.  WH Muller has been registered on the project database and, as such, will be notified and kept informed going forward.
33.	Menka Vansant	22 November 2022 – Email	I was informed that there is a Total consultation meeting in Langebaan this Saturday, November 26th. Could you please send me the details on time and location?	This comment related to TEEPSA Deep Water Orange Basin exploration project. A copy of the notification letter was email to Ms Vansant which included the details of the meeting in Langebaan and others.
34.		23 November 2022 – Email	Great thank you so much!	
35.	Ruan Brand – SAHRA	24 November 2022 – Email attachment	<p>The Maritime and Underwater Cultural Heritage (MUCH) unit at the South African Heritage Resources Agency (SAHRA) would like to thank you for submitting the Environmental and Social Impact Assessment (ESIA) and Cultural Heritage Impact Assessment (CHIA) reports under section 38(8) of the National Heritage Resources Act, No. 25 of 1999 (NHRA) as part of the application for Environmental Authorisation (EA) to undertake exploration well drilling in Block 5/6/7 off the South-West Coast of South Africa.</p> <p>The mitigation measures proposed during the Scoping Report phase ensured that there was no need for a Maritime Heritage Impact Assessment (MHIA), as was indicated in a comment issued on the 21st of July 2022. However, as these large offshore exploration activities can impact the dynamic ocean environment, the impacts to coastal communities' intangible cultural heritage (ICH) were identified as an area that required assessment. A CHIA was commissioned to assess this before the scoping report phase</p>	

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			<p>commenced and the CHIA report has been submitted as part of the ESIA. Although the CHIA report has assessed possible impacts and recommended mitigations for safeguarding ICH, there are several erroneous statements made throughout the report that must be amended as these might lead to incorrect information being circulated.</p> <p>On page 12 it is stated that South Africa is a signatory to the 2003 UNESCO (United Nations Educational, Scientific and Cultural Organizations) Convention for the Safeguarding of the ICH. Although there was a process underway in 2009, and another has been initiated recently, currently, South Africa is not a signatory to this treaty. The CHIA must be updated to reflect this as there are statements throughout the CHIA that refer back to this claim, such as on page 52. Furthermore, the ESIA report mentions ratified international legislation in Table 2-4 on page 18-21. Archaeology and cultural heritage are indicated on page 20, with three UNESCO conventions listed. It must be noted here that South Africa is not currently a signatory to item 26, UNESCO Convention for the Safeguarding of the ICH, 2003.</p> <p>The limitations of the CHIA report are listed on page 22-24, and although communities around the Mitchells Plain area were not targeted due to researcher safety concerns, the CHIA report indicates that a proper sample of various communities' beliefs have been obtained. It must be noted though, that there is always the chance that people, or communities were not consulted, and they might have differing views to those that were consulted, and these concerns might have to be dealt with retrospectively as they come to light.</p> <p>Furthermore, on page 30 of the CHIA report, SAHRA is described as being the implementation body of the National Heritage Council</p>	<p>The erroneous statements have been corrected in the CHIA - refer to Appendix 14 in Volume 3.</p> <p>The CHIA had been updated as requested.</p> <p>This limitation is noted in the CHIA.</p> <p>The CHIA had been updated as requested.</p>

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			<p>(NHC). This is incorrect, with SAHRA being established in terms of the NHRA and being the nationally mandated body to enforce this act. The NHC and SAHRA are two separate entities established in terms of two different acts, and this must be corrected.</p> <p>There are also several errors in some of the claims about the archaeological sites mentioned in the CHIA report and it is recommended that a specialist with an archaeological background be consulted to correct this information. Examples of some of the errors include describing West Coast shell middens as the earliest forms of tangible cultural heritage (page 29 and 30), stating that the National Heritage Site, the wreck of the São José (1794), was only discovered in 2015 and that it is located off Camps Bay with a colony of African Penguins in the vicinity (page 35), stating that Pinnacle Point and Diepkloof Rock Shelter are National Heritage Sites when they are Provincial Heritage Sites, and that Diepkloof Rock Shelter is in Langebaan (Page 36 and 49).</p> <p>Despite these errors, the CHIA identified the main ICH elements that might be impacted by the exploration drilling to be related to health in terms of the ingestion of polluted ocean water, the general pollution of water as there are beliefs about water as a connection to ancestors, as well as potential impacts to historical fishing practices. The Fisheries Impact Assessment and the Socio-Economic Impact Assessment assessed the impacts to Small Scale Fisheries to be low and as such, there appears to be no evidence that there will be impacts to historical fishing communities' livelihoods or access to practice their ICH as part of the proposed exploration well drilling.</p> <p>The CHIA report notes that under normal operating conditions, impacts to ICH will be low. The mitigation measures in the CHIA report seem satisfactory in attempting to reduce impacts to ICH</p>	<p>The CHIA had been updated as requested.</p> <p>The comment that the mitigation is deemed to be satisfactory is noted.</p>

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			<p>through the recommendation of having rigorous community participation/consultation. This mitigation measure is considered especially important if categorical opposition is raised against the proposed exploration well drilling activities. As reported on page 53, in chapter 4 of the ESIA, there have been four public meetings with a total of 82 attendees, four focus group meetings with a total of 75 attendees, as well as one workshop with small-scale fishers with an unreported number of attendees. On page 58, under section 4.4.2.9 of the ESIA, details are provided stating that there will be more public meetings and various focus groups with the aims of giving stakeholders a chance to raise grievances, issues, concerns, or simply comment on the proposed exploration well drilling. SAHRA eagerly awaits the outcomes of these consultation sessions to see whether any further impacts to ICH emerge and requests that this information be shared with us.</p> <p>Please note that all updates and/or changes to the project, supporting documentation, correspondence, reports, or any other work relating to the project must be uploaded to the case on SAHRIS to provide SAHRA with the opportunity to comment. SAHRA does not accept emailed documents or hard-copy documents received via post. Should you have any further queries, please contact the designated official using the case number quoted above in the case header.</p>	<p>Audio recordings of all public meetings were uploaded to the SLR and data free websites, so others could listen to the presentations, comments raised, and responses provided. Minutes of all public and focus group meetings are presented in Appendix 5.7 of the ESIA Report.</p> <p>The final ESIA Report will be uploaded to SAHRIS for information proposes.</p>
36.	Rafeeq Le Roux – Breede-Gouritz Catchment Management Agency	30 November 2022 – Email attachment	<p>With reference to the request for comment dated 24/09/2022, please be advised as follows:</p> <p>1. Section 21 Water Use:</p> <p>It is noted the Area of Interest is 10 000 km<sup>2</sup> in extent and is located offshore roughly between Cape Town and Cape Agulhas,</p>	

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			<p>approximately 60 km from the coast at its closest point and 170 km at its furthest.</p> <p>As the activity falls within the coastal offshore environment, it is not within the scope of the National Water Act, 1998 (Act 36 of 1998).</p> <p>2. Water Use Authorisation:</p> <p>The activity does not require water use authorisation in terms of the National Water Act, 1998 (Act 36 of 1998).</p> <p>General Comments</p> <p>3. All relevant sections and regulations of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to.</p> <p>4. No pollution of surface water or ground water resources may occur due to any activity.</p> <p>Please be advised that all relevant sections and regulations of the National Water Act, 1998 (Act 36 of 1998) regarding water use must be adhered to. The use of water without the required authorization in terms of the National Water Act, 1998 (Act 36 of 1998) may be regarded as unlawful and a criminal offence.</p> <p>The onus remains on the registered property owner to confirm adherence to any relevant legislation with regards to the activities which might trigger and/or need authorization for</p> <p>Please do not hesitate to contact this office if you have any further queries.</p> <p>Please ensure to quote the above reference in doing so.</p>	<p>1. It is noted that the National Water Act, 1998 is not applicable to offshore activities.</p> <p>2. It is noted that the proposed project does not require water use authorisation in terms of the National Water Act, 1998.</p> <p>4. There will be no pollution of onshore water resources. There will, however, be various discharges to the marine environment - refer to Section 9.1.2 and 9.2.2 of the ESIA Report.</p>
37.	Ryan Apolles – DEA&DP	01 December 2022 – Email	Hope this email finds you well.	Mr Apolles was sent the requested KMZ's on 7 December2022.

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			Is it perhaps possible to share the various blocks in a KMZ file. If you have more than just blocks 567 to share that would be most helpful.	
38.	Liesel Hein	02 December 2022 – Email	<p>As I was unaware of the public meeting held, I would like to comment that I am against the proposed offshore exploration. The world does not need any more oil and has to focus resources on renewable energy sources. This is a waste of time, money and will only cause unnecessary long term damage to the environment and peoples livelihoods and wellbeing for the profit of a few.</p> <p>If you say there were opportunities for communities to participate, who were these communities and how did you reach them in a short span of around a month and a half? Who was present?</p> <p>There needs to be more and better engaged community participation over a longer period of time.</p>	<p>This comment and your objection with regards to the proposed project area noted.</p> <p>All potential impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10 of the ESIA Report, respectively.</p> <p>One of the key recommendations of the ESIA is that TEEPSA continue to communicate with coastal communities outside the ESIA process. As part of this strategy, TEEPSA appointed site liaison officers in the West Coast District, City of Cape Town and Overberg District as part of its long-term strategy for corporate community engagement outside the ESIA process.</p>
39.	Kiara Worth	05 December 2022 – Email	<p>Wondering if you can help. I would like to submit my comments on your proposed Offshore Exploration in the West Coast of South Africa. I believe there was a local meeting in my community (Hout Bay) but we were not informed of the meeting until the day of and I was not able to attend. I followed up on your Whatsapp line asking for how to submit my comments but there has been no response. I understand the deadline for commenting is 7 December and despite following up, I have still not received any information about how to submit my comments. Please can you provide this information and let me know how residents who were unable to attend your poorly publicised meetings can still submit their comments.</p>	<p>A telephone conversation was held with Ms Worth on 5 December 2022 where she indicated that she wanted further details on the TEEPSA's Deep Water Orange Basin exploration project.</p> <p>Ms Worth noted that she had received a flyer in her letter box regarding the Deep Water Orange Basin exploration project.</p> <p>SLR confirmed that if she wanted to comment on TEEPSA's Deep Water Orange Basin exploration project that she should submit her comments to the project email address (TEEPSA-DWOB@slrconsulting.com). It was also confirmed that the comment period for the Deep Water Orange Basin exploration project had been extended to 14 December 2022.</p>



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40.	David Whitelaw – CBC Conservation Sub-Committee	05 December 2022 – Email attachment	<p>Introduction: The EIA states that South Africa’s economy will benefit if there was a local supply of oil. However, the area where the proposed exploration will occur, could have potentially significant effects on the environment.</p> <p>Blocks 5,6,7 range from St. Helena Bay to Cape Agulhas and includes a number of Marine Protected Areas as well being close to a number of IBAs (Important Bird Areas) and RAMSAR sites. This area is also the site of an intense fishing industry ranging from large commercial firms to local fishers.</p> <p>“Area of Interest” to be explored is 72,000km<sup>2</sup> ranging from 15-242km offshore, and to a depth of 4000m. It is situated Southwest of Cape Town in the Blocks 5,6,7.</p> <p>These comments will focus on the ecological aspects which may be affected by the proposed drilling but will be prefaced by comments on procedural aspects of the assessment as well. The latter relates to the key assumptions and process underlying the EIA, which affect the ability of commentators to respond to its findings. We argue that the procedural flaws we identify need to be addressed</p>	<p>All potential impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10 of the ESIA Report, respectively.</p> <p>Although the area of interest for drilling does not overlap with any MPAs or EBSAs, it does overlap with a Critical Biodiversity Area. All potential impacts have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report. A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p> <p>The impact on commercial and small-scale fishers is assessed in the ESIA for both normal operations and unplanned events. During normal operations, no impact is anticipated on small-scale fishers, as they fish inshore of the proposed Area of Interest and estimated zones of impact for noise and sediment plume, while the impact on commercial fishing is considered to be of very low to low significance depending on the sector (refer to Section 9.2.2.2 and 9.2.3.2). However, in the unlikely event of a large oil spill from a well blow-out, commercial and small-scale fishers could be significantly impacted - refer to Section 10.4.3.3 and 10.4.3.4.</p> <p>The Area of Interest is 10 000 km<sup>2</sup> in extent (not 72 000 km<sup>2</sup> as indicated in the comment) and is located approximately 60 km from the coast at its closest point and 170 km at its furthest, in water depths between 700 m and 3 200 m</p>

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			<p>before there can be any further consideration of the merits of the EIA.</p> <p><u>Procedural aspects</u></p> <p><b><i>The cost-effectiveness of this versus alternative projects</i></b></p> <p>The EIA presents the economic case for off-coast drilling. As TotalEnergies is seeking to profit from exploration, it is important to interrogate these arguments by exploring the opportunity costs associated with this project. Further information on this aspect of the proposal would allow those assessing it to have further insight into the economic aspects.</p> <p>Opportunity costs should include:</p> <ul style="list-style-type: none"> <li>the negative costs associated with damage to the environmental, fishing and cultural impacts (in both the short and long term);</li> <li>reputational damage to South Africa associated with embarking on a fossil fuel project in an era where there is global consensus that shifting to renewable energy sources is imperative; although any oil found would most probably directed to use in vehicles.</li> </ul> <p><b><i>Social justice</i></b></p> <p>Likewise, the EIA needs to make transparent who will bear the costs associated with the negative economic, environmental and cultural impacts, both in the short-term and long-term, including damage resulting from wells that are subsequently not used to extract oil. These costs need to be made explicit, agreed upon by all stakeholders, and then borne by TotalEnergies, not only during the period of oil extraction, but for as long as these impacts</p>	<p>All potential impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10 of the ESIA Report, respectively. The principle of undertaking a Cost Benefit Analysis (CBA) is fine for a project that is delivering a series of costs and benefits over time (as for a production project), but not for a once off exploration project (such as that proposed) to see if there a domestic resource exists. This is difficult without knowing the likelihood of an oil/gas resource, yields, etc. At present, all that is known is a set of private costs. The costs will be borne by TEEPSA, and from a South African perspective, there is no opportunity cost. The South African govt is not subsidising this project.</p> <p>The benefits would depend on (a) finding oil/gas in payable quantities and (b) EA is obtained to extract it. It is at this stage that undertaking a CBA would make more sense. The external costs that will be considered in the ESIA are related to the unlikely event of a large oil spill (blow-out). The external costs related to climate change from the proposed exploration project are likely not an issue. The volumes of oil/gas involved would be infinitesimal by local and global standards.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy</p>

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			<p>persist. The EIA mentions that some impacts could be felt for as long as 10 years but biological systems can take much longer to recover</p> <p><b><u>Cumulative harm</u></b></p> <p>In several places the EIA mentions that the harm caused by the project is no different to the harms caused by existing practices (such as shipping and fishing). This is a flawed argument as the fact that harmful practices already exist does not justify embarking on further practices of the same sort. On the contrary, every additional harmful impact places additional strain on fragile ecosystems: any additional stress should therefore be avoided.</p> <p>While the preceding comments cover the overall approach to assessing the EIA, the authors need to consider the following comments and enquiries which will focus on the ecological aspects which may be affected by the proposed drilling.</p> <p>While the scientific report is very detailed there are a number of issues which are not well defined:</p> <ul style="list-style-type: none"> <li>Invertebrate fauna: The composition of this group alters as the depth changes and there is no clear evidence of the effect of drilling on these differ populations. There is also a suggestion that drilling may support filter feeding organisms. Evidence is not clear and some is based on “hear say”.</li> </ul>	<p>mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>Cumulative impact is assessed in detail in Section 9.4 of the ESIA Report. This assessment considers past, present and reasonably foreseeable future developments or impacts. As part of the existing practices, shipping, fishing, mining, oil and gas exploration, etc. are considered in the assessment of the cumulative impact.</p> <p>The benthic habitats and fauna are described in detail in Section 7.4.2.1 of the ESIA Report. The following impacts on these benthic habitats and fauna are considered in the assessment (refer to Section 9.2.2 of the ESIA Report): (1) burial or smothering by drill cuttings, (2) toxicity and bioaccumulation effects, (3) increased water turbidity and reduced light penetration resulting in indirect physiological effects on marine fauna or indirect effects on primary productivity in surface waters (including disruption of filter feeding rather than supporting filter feeding), and (4)</p>

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			<ul style="list-style-type: none"> <li>Fish species: It is postulated that the shallow and deep waters have different species profile and that that pelagic species are “unlikely to be encountered”. How solid is the evidence for this?</li> <li>Turtles were tagged and movements monitored to support the assertion that they would not be affected. How many turtles were tagged and how long were they monitored?</li> <li>The reports discusses the possible effect on albatrosses and other pelagic birds. However, the African Penguin, Cape Gannet and Cape Cormorant, all listed as Endangered due to declining fish stocks, are only briefly discussed. In the case of the Penguin its foraging range is somewhat limited by it being flightless, although it has been recorded as ranging about 200km from its base. However when feeding chicks there are reports that birds who have had to forage over such long distances, due to lack of suitable prey may digest the food before reaching the nest. As a result the chicks starve and may demise. Drilling may not have a major effect on fish stocks but even disturbing their range could have an effect on this species. This emphasises the importance of fish stocks in maintaining penguin colonies. It is well documented that</li> </ul>	<p>reduced physiological functioning of marine organisms due to indirect biochemical effects on sediment surface.</p> <p>The marine ecologist has indicated that as most pelagic species likely to be encountered within the licence area are highly mobile, they would be expected to move away from the area before a physical impact could occur.</p> <p>No turtles were tagged and monitored as part of this project. The Marine Ecology Impact Assessment has adopted a ‘desktop’ approach. Consequently, the description of the natural baseline environment in the study area is based largely on the baseline descriptions based on a review and collation of existing information and data from the scientific literature, internal reports and the Generic Environmental Management Programme report compiled for oil and gas exploration in South Africa (CCA and CMS 2001), as well as and the Marine Mammal Observer (MMO) Close-Out Reports from previous seismic surveys in the area.</p> <p>Faunal sensitivity (e.g. Critically Endangered, Endangered, etc.) is taken into account in the assessment of impacts. The Area of Interest lies on the western extent of the gannet and penguin foraging areas (see Figure 7-32 of the ESIA Report) and as the area of interest lies offshore of the distribution of small pelagic fish species that constitute the main prey of these seabirds, numbers are expected to be low. The area does, however, overlap with the distributions of a number of pelagic seabirds.</p>

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			<p>several colonies along the Namibian coast have declined dramatically due to disturbance of fish stocks.</p> <ul style="list-style-type: none"> <li>The authors of this proposal need to document clearly where they intend drilling. Much of proposal focusses on the “Area of main interest” but they also seek permission to drill in Blocks 5,6,7, which is a far greater area. As mentioned previously, this area impinges on a number of MPA (marine protected areas) and IBAs (Important Bird Areas) and Ramsar sites. There are several questions which the authors of this proposal need to address: If the five holes are drilled in the “Area of Interest” yield no oil will they focus on Blocks 5/6/7.</li> <li>If this occurs will they endeavour to avoid MPAs and IBAs? What will determine where they drill these holes?</li> <li>Should one of these wells yield oil how many more will be drilled and how will the oil be transported to land?</li> <li>Another concern is the possibility of a blow-out. Several scientific articles have documented that seabirds can be significantly affected by blow outs. These may have a variety of effects – feathers may be damaged, bone marrow suppressed and acute mortality. Adults with significant pathology may have reduced ability to feed their chicks with resultant mortality.</li> <li>Light pollution: Will these rigs be illuminated at night? Many sea birds are nocturnal and it is well documented that lighted rigs can increase mortality.</li> </ul>	<p>TEEPSA is only seeking approval to drill (up to five wells) within the Area of Interest, and not in the remainder of the Block. Although the Area of Interest for drilling does not overlap with any MPAs or EBSAs, it does overlap with a Critical Biodiversity Area. A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p> <p>TEEPSA is only seeking approval to drill (up to five wells) within the Area of Interest, and not in the remainder of the Block. The proposed exploration project is to determine if a resource exists. No oil or gas will be extracted, other than during flow testing, and transported to shore. Any future extraction would be subject to a separate Production Right application and ESIA process.</p> <p>Impacts related to unplanned events (e.g. oil spills) are assessed in Chapter 10, including the impact on seabirds.</p> <p>The potential impact of operational lighting of the drilling unit and project vessels during transit and operation is assessed in Section 9.1.5 of the ESIA Report. The strong operational lighting used to illuminate</p>

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			<u>Proposal:</u> It is suggested that this proposal be forwarded to an ornithological organisation such as the Percy Fitzpatrick Institute of Ornithology and an organisation which specialises in fish ecology for their comments on possible mitigating factors.	the project vessels – and especially the drill unit - at night will increase ambient lighting in offshore areas. Increased ambient lighting may disturb and disorientate pelagic seabirds feeding in the area (direct negative impact). Operational lights may also result in physiological and behavioural effects on fish and cephalopods (direct negative impact), as these maybe drawn to the lights at night where they maybe more easily preyed upon by other fish and seabirds. It should also be pointed out that the area of interest is located in a main marine traffic route and is in an area already experiencing increased operational lighting.
41.	Tina Schubert – Project 90 by 2030	05 December 2022 – Email attachment	<p><b>Introduction:</b></p> <p>Project 90 by 2030 ('Project 90') is a social and environmental justice organisation inspiring and mobilising South African society towards a sustainably developed and equitable low-carbon future. We work with stakeholders and decision makers to identify policies and actions that support climate justice; with a specific focus on developing environmental leadership in our youth, and increasing people's ability to engage government – through active public participation – to address climate change, energy poverty, and the social injustices that intersect in their communities.</p> <p>On a daily basis we work with youth and community leaders on the Cape Flats in Cape Town. Living conditions are hard and households struggle with the lack of service delivery. But communities understand that the impacts of climate change will worsen their living conditions and that there won't be any improvement without mitigating greenhouse gas emissions from fossil fuels and investments into adaptation.</p> <p>This submission is not investigating the detailed outcomes of the ESIA but focuses on the desirability of the project and its long term</p>	

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			<p>impacts that seem to be ignored when it comes to environmental impacts assessments of exploration projects.</p> <p>This submission represents the views of Project 90 by 2030. We are part of a network of numerous civil society organisations and endorse the submissions made by The Green Connection and WWF South Africa.</p> <p><b>2. Comments and recommendations</b></p> <p><b>2.1 Desirability and need</b></p> <p>The IPCC's sixth assessment report (2022) clearly demonstrates that the climate crisis is upon us and much more severe impacts are in store, if we fail to halve greenhouse gas emissions this decade and immediately scale up adaptation. Climate change is already causing widespread disruption in every region in the world with around 1.1 degrees C of warming. Every tenth of a degree of additional warming will escalate threats to people, species and ecosystems. The limit of 1.5 degrees C is the scientifically confirmed minimum safe limit for our climate and survival, hence, climate action is needed urgently.</p> <p>In their report published in June 2021 the International Energy Agency (IEA) stated that the exploitation and development of new oil and gas fields must stop in 2021 if the world is to stay within safe limits of global heating and meet the goal of net zero emissions by 2050. New oil and gas projects cannot be part of our energy future.</p> <p>This is why Project 90 by 2030 opposes the proposed exploration well drilling in Block 5/6/7 off the South- West Coast because it doesn't only come with significant environmental risks but there is</p>	<p><u>Need and Desirability:</u> Project 90's comments on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, together with the findings of the ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The IEA report recognises that the route mapped out is a path, not necessarily the path, and so it examines some key uncertainties, including the speed with which demand and behaviours adapt, the real level of energy efficiency, the pace at which new decarbonisation technologies (such as hydrogen and carbon capture and storage) scale up, etc. The report thus concludes that the proposed pathway to net-zero emissions is just one possible pathway to achieve net-zero emissions by 2050.</p>

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			<p>also no need for further exploration of fossil fuels when we cannot afford to use the products.</p> <p>Since South Africa has signed up to the Paris agreement<sup>3</sup> which agrees to limit climate change to under two degrees C and with all efforts to limit it to 1.5 degrees, there is no space for using further hydrocarbons beyond the currently discovered reserves. If we cannot use any oil or gas that is discovered and still comply with international agreements, there is no justification for exploration activities, regardless of how minimal one might argue the direct impacts of these explorations are.</p> <p>In conclusion, fossil gas and oil expansion is inconsistent with the Paris Agreement goals, and as a signatory to the Agreement South Africa should not undertake any exploration and investment in the development of new gas or oil projects, and this includes exploration activities. The scoping report must consider desirability of the exploration in the global and long term context and not as a short term activity.</p> <p><b>2.2 Impacts of the project</b></p> <p>As part of the comments on the scoping report we made the following suggestions for additional studies, but we don't see these reflected in the report:</p> <p>While we are living in a climate emergency, we can't just look at the immediate impact of one project but have to look at the greater picture and the question of STRANDED ASSETS, CLIMATE CHANGE IMPACTS and WASTED OPPORTUNITIES.</p> <p>1. The ESIA should have looked at the financial impact of resources wasted on potentially stranded asset while the same resources could be used to invest in sustainable mitigating technologies such</p>	<p><u>Production:</u> The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly</p>



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			<p>as renewables or adaptation measures to protect South African communities?</p> <p>2. The impacts of climate change will be felt more and more, this problem will only get worse if we delay decarbonisation further and further, posing a major threat to our South African communities. In light of this, the ESIA needed to assess the potential environmental and social impacts that the project could have, if it goes ahead. The amount of potential greenhouse gas emissions should be known before investing any further in this process.</p> <p>3. At the same time, the ESIA should have analysed what opportunities might get lost if we keep following this fossil fuel path. We are missing out on the opportunity to invest in establishing an industry around renewables to produce sustainable power and jobs.</p> <p>We trust that SLR will take into account the comments and information provided in this submission when making final recommendations in the ESIA report.</p>	<p>separates 'exploration activities' from 'production activities' and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p><u>Stranded assets:</u> This exploration project is not a long-term project. There is no risk of stranded assets for this exploration project. As noted above, possible impacts from future production are not assessed in this ESIA. They would be considered, as part of a separate Environmental Authorisation application, should exploration identify a commercial resource and production be proposed by an applicant.</p> <p>A domestic resource, should it be discovered, could in fact be used by an existing asset (e.g. PetroSA GTL refinery in Mossel Bay). At the DFFE, DMRE and PASA pre-colloquium event held on 15 July 2022 to discuss how South Africa's climate change commitments translate to its energy policies, it was mentioned that the existing GTL refinery in Mossel Bay could be seen as a stranded asset if it does not obtain additional gas, as it is no longer processing gas.</p> <p><u>Cost Benefit Analysis (CBA):</u> The principle of undertaking a CBA is fine for a project that is delivering a series of costs and benefits over time (as for a production project), but not for a once off exploration project (such as that proposed) to see if there a domestic resource exists. This is difficult without knowing the likelihood of an oil/gas resource, yields, etc. At present, all that is known is a set of private costs. The costs will be borne by TEEPSA, and from a South African perspective, there is no opportunity cost. The South African govt is not subsidising this project. The benefits would depend on (a) finding oil/gas in payable quantities and (b) EA is obtained to extract it. It is at this stage that undertaking a CBA would make more sense. The external costs that will be considered in the ESIA are related to the unlikely event of a large oil spill (blow-out). The external costs related to climate change from the proposed</p>

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				<p>exploration project are likely not an issue. The volumes of oil/gas involved would be infinitesimal by local and global standards.</p> <p>All potential impacts related to both normal operations and unplanned events (e.g. oil spills) of the proposed project are assessed in Chapter 9 and 10 of the ESIA Report, respectively.</p>
42.	Chris van Melle Kamp – Sea Change Project	06 December 2022 – Email	<p>Thank you for taking my call this afternoon and for providing me with the background to this notice.</p> <p>I understand from what you said that notices were sent out to your data base and to media organisations asking for comments on this project.</p> <p>We did not pick upon any of these notifications but would like to register as interested and affected party to this project.</p> <p>We are also registering our concern about this project for the following the reasons:</p> <ol style="list-style-type: none"> <li>1. There appears to be very little detailed scientific research on the environmental impact that the drilling of these wells will have on the total under water area and the integrated ocean ecosystem of this region and beyond.</li> <li>2. To date there is very limited knowledge about the benthic layer and therefore you are not in position to pass comment on the environmental impact of drilling wells in this layer. We would therefore argue that an extremely cautious approach is required.</li> </ol>	<p>A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report.</p> <p>A large amount of information on the impacts of exportation drilling exists in scientific literature and this is all referenced in the various specialist studies.</p> <p>The benthic habitats and fauna are described in detail in Section 7.4.2.1 of the ESIA Report. It is true that most studies on the benthic fauna have concentrated on the continental shelf and nearshore regions, and consequently the benthic biota of the outer shelf and continental slope (beyond ~450 m depth) is poorly known - this is acknowledged in the Marine Ecology Impact Assessment. This said, the assessment has taken a conservative (worst case) approach in the assessment of impacts.</p>

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			<p>3. The blocks that Total want to explore for drilling are situated very close to MPAA, highly important biodiversity areas, whale migration routes and the presence of extremely rare fauna and flora. Drilling for oil and gas in these areas would place this entire system at risk, not only in the event of an oil spill in these notoriously rough oceans - which would be catastrophic - but the very process of drilling and the ongoing disturbances of the area would have an extremely negative impact on the ocean environment.</p> <p>4. We are concerned about the fact that the notice that you sent out contains comments on the need for oil and gas in the South African economy. Although aspects of this statement might be true it is an oversimplification of a much bigger debate which is now a global debate. There is no proper economic, environmental, political, social or future risk analysis in the notice from Total that backs up this statement and it appears that this comment about our need for oil and gas is used as justification for the project. A project of this nature with so many future risks for our entire ocean ecosystem would need a lot more justification than one or two sentences about the need for products which it so happens</p>	<p>The following impacts on benthic habitats and fauna are considered in the assessment (refer to Section 9.2.2 of the ESIA Report): (1) burial or smothering by drill cuttings, (2) toxicity and bioaccumulation effects, (3) increased water turbidity and reduced light penetration resulting in indirect physiological effects on marine fauna or indirect effects on primary productivity in surface waters (including disruption of filter feeding rather than supporting filter feeding), and (4) reduced physiological functioning of marine organisms due to indirect biochemical effects on sediment surface.</p> <p>The area of interest for drilling does not overlap with any MPAs or EBSAs. The area does, however, overlap with a Critical Biodiversity Area. All potential impacts have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report. A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p> <p>These concerns regarding the needs and desirability are noted. The Project's need and desirability is presented in detail in Chapter 5 of the ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, together with the findings of the ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National</p>

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			<p>are the products which your client supplies. The conflicts of interest are self-evident.</p> <p>We look forward to being kept informed on this extremely worrying proposal.</p>	<p>strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p>
43.	Christina Hagen – Birdlife South Africa	07 December 2022 – Email attachment	<p>BirdLife South Africa (BLSA) would like to thank the applicant for the opportunity to comment on the Draft ESIA report for TEEPSA for exploration well drilling for hydrocarbon resources. At this stage of the process, the primary reason for our ongoing engagement in this process is to re-iterate our position against offshore exploration for new oil and gas, that will ultimately result in the generation of greenhouse gases, thereby continuing to contribute to climate change. As recently affirmed at COP27 (by the findings of the International Institute for Sustainable Development), “according to a large consensus across multiple modelled climate and energy pathways, developing any new oil and gas fields is incompatible with limiting warming to 1.5°C”. Their primary recommendation from the analysis is as follows:</p> <p><i>Governments should prevent the development and licensing of any new oil and gas fields. Developing any fields beyond those already in operation or under development would pose substantial risks of either not meeting the 1.5°C target or creating stranded assets, because those fields would have to be decommissioned before the end of their lifespan, unless currently producing fields’ operations are significantly curtailed.</i></p> <p>Whilst we acknowledge that the transition to a decarbonised economy for South Africa cannot happen instantaneously, there are a variety of technologies, other than offshore oil or gas, that can contribute to the transition. According to South Africa’s Just Energy Transition Investment Plan (JETP), government is</p>	<p>Birdlife South Africa's concerns regarding the needs and desirability are noted. The Project's need and desirability is presented in detail in Chapter 5 of the ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, together with the findings of the ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p>

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			<p>committed in terms of its International Partnership Agreement to accelerated deployment of renewable energy and investments in sectors of the green economy.</p> <p>Consequently, BirdLife South Africa does not, in principle, support the pursuit of new gas given both the localised risks, and wider climate change related impacts that this activity poses.</p> <p>In addition, the number of exploration licences that are currently being applied off the coast of South Africa, is indicative of the speculative nature of these applications, and also heightens the risk of cumulative impacts. As the recent judgements against Shell's proposed exploration activities have affirmed, many South Africans are opposed to exploratory activities off the coast, suggesting that citizens are circumspect and distrustful about continued efforts on the part of foreign oil and gas companies seeking to exploit resources in our marine environment. In this regard, we are particularly concerned about the prospect of activities impinging on Marine Protected Areas despite assurances provided in the ESIA.</p> <p>Against the background of our stated position, the comments provided below refer more specifically to the content of the ESIA in respect of seabirds and associated ecological processes.</p> <p><b>Impact of light from drill rig and vessels</b></p> <p>Pelagic seabirds such as prions, storm petrels, and petrels are especially vulnerable to disorientation by light at sea and this can cause them to crash into structures, causing mortality, not only behavioural changes (as the report seems to suggest). As these are small birds that can be hard to notice, especially if they fall into the sea after crashing, the number of birds affected is likely to be underestimated. We do not agree with the assessment that</p>	<p>The cumulative impact is assessed in detail in Section 9.4 of the ESIA Report. This assessment considers past, present and reasonably foreseeable future developments or impacts.</p> <p>The area of interest for drilling does not overlap with any MPAs or EBSAs. The area does, however, overlap with a Critical Biodiversity Area. All potential impacts have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report. A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p> <p>The potential impact of operational lighting of the drilling unit and project vessels during transit and operation is assessed in Section 9.1.5 of the ESIA Report. The strong operational lighting used to illuminate the project vessels – and especially the drill unit - at night will increase ambient lighting in offshore areas. Increased ambient lighting may disturb and disorientate pelagic seabirds feeding in the area (direct negative impact). Operational lights may also result in physiological and</p>

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			<p>“animals in the area should be accustomed to vessel traffic and associated lighting” due to the location of the preferred drilling sites in areas of high shipping traffic. Most pelagic birds are highly mobile and not “resident” in an area. Some seabirds are attracted to light as it normally signifies a source of food (e.g., from bioluminescence) so their attraction is not likely to be lessened by prolonged exposure.</p> <p>While the effects of operational lights can be mitigated (e.g. by pointing them downwards rather than out to sea, use of red filters etc.), the effect of the very bright light emitted by flaring cannot be and this is likely to overwhelm the operational lighting. The report states that flaring will only occur for a short period (2 days per well), this will reduce the impact of the light on seabirds. If commercial level extraction goes ahead in future, this may become more of a significant issue.</p> <p>Should this proposal be authorised, the following will be important for reducing risks associated with artificial light:</p> <ul style="list-style-type: none"> <li>• Avoid flaring during foggy conditions as this exacerbates the impact on seabirds.</li> <li>• Implement best practice mitigation measures for reducing operational lighting, and include such in the Environmental Management Programme (EMPr)</li> <li>• Monitor the presence of seabirds and identify mortalities, even when birds do not land on the rig or vessel, especially in foggy conditions.</li> <li>• Include procedures in the EMPr for how to care for downed seabirds and ensure that personnel are adequately trained in this regard.</li> </ul>	<p>behavioural effects on fish and cephalopods (direct negative impact), as these maybe drawn to the lights at night where they maybe more easily preyed upon by other fish and seabirds. It should also be pointed out that the area of interest is located in a main marine traffic route and is in an area already experiencing increased operational lighting.</p> <p>It is agreed that during production, operational lighting may be more significant. The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project.</p> <p>The proposal to avoid flaring in foggy conditions, as far as possible, has been include di the ESIA and ESMP. The following recommendations are already included in the ESIA:</p> <ul style="list-style-type: none"> <li>• Reduce the lighting on the drilling unit and project vessels to a minimum compatible with safe operations whenever and wherever possible.</li> <li>• Position light sources, if possible and consistent with safe working practices, in places where emissions to the surrounding environment can be minimised.</li> <li>• Keep disorientated, but otherwise unharmed, seabirds in dark containers (e.g., cardboard box) for subsequent release during daylight hours.</li> </ul>

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			<p><b>Noise from drilling, vessels and Vertical Seismic Profiling</b></p> <p>While the report points out that the drilling will occur in already busy shipping lanes and thus not add to the ambient noise, BirdLife South Africa is, nevertheless, concerned that the areas of interest overlap with that of small pelagic fish egg density (Appendix 12, Fig. 3.4). There is still, therefore, a possibility that above-ambient noise levels will contribute to cumulative impacts on small pelagics.</p> <p><b>Well blow-out</b></p> <p>While the probability of the large-scale release of hydrocarbons as a result of a well blow-out is low, the high impact that it could have on the marine environment remains concerning. Given that the Deepwater Horizon spill took 87 days to cap, there is no guarantee that the timeframe given of 20 days would be adequate and considerable harm could still result – as is typical of a low-probability, high impact risk. Our concerns also relate to the cumulative impacts posed by multiple sources of spills and accidents. Given that the African Penguin is under imminent threat of being functionally extinct in the wild, and other endemic seabirds which would also be vulnerable to spills are Endangered, it is critical that any additional threats from mobile pollution that can impact on areas beyond their source, are curtailed.</p>	<ul style="list-style-type: none"> <li>Report ringed/banded birds to the appropriate ringing/banding scheme (details are provided on the ring).</li> </ul> <p>This comment is noted and the impact of noise has been modelled and assessed in the ESIA - refer to Section 9.2.3. The assessment takes cognisance of the estimated zones of impact for injury and disturbances in relation to various sensitivities (e.g. spawning areas, MPAs, key fishing areas, etc.). It should be noted that the underwater noise modelling study takes the current ambient noise levels into account, which are in fact 10 dB higher than the lowest level and are considered within the cumulative noise impact models.</p> <p>It is agreed that oil spilled in the marine environment will have a significant impact on the marine and coastal environments - refer to Section 10.4 of the ESIA Report. Any release of liquid hydrocarbons thus has the potential for direct, indirect and cumulative effects on the marine environment. The catastrophic Deepwater Horizon (DWH) blow-out in the Gulf of Mexico in 2010 provided opportunity for increasing the understanding of how an oil spill impacts the marine environment. Beyer et al. (2016) provide an excellent review of the plethora of research papers emanating from the research programmes initiated following the spill.</p> <p>TEEPSA motivates that 20 days is a reasonable and realistic assumption for the installation of a capping stack in the unlikely event of a blow-out. The current state of knowledge, available technology and approach to well blow-out responses by the drilling industry have advanced since, and because of, the Deepwater Horizon spill event, which occurred in</p>

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				the Gulf of Mexico in April 2010. As a result of this advancement, the duration of the Deepwater Horizon event is not considered relevant as a benchmark of a reasonable response period. It is relevant that subsea capping and subsea containment equipment (managed by OSRL, a cooperative dedicated to response to marine pollution by hydrocarbons) is installed at Saldanha and, therefore, well placed for a rapid response to an unplanned event in Block 5/6/7.
44.	Justin Meys – HIK Abalone Farm (Pty) Ltd	07 December 2022 – Email	Could a clear outline of the claims process for compensation in the event of a major blowout please be provided for the protection of local marine-centric businesses.	<p>In the event of an unplanned event (i.e. such as a well blow-out) occurring, a process of determining the economic effects and related compensation would be initiated. Such a process would typically involve government, insurers, the organisation responsible for the incident, industry organisations and the applicable legal system. TEEPSA will plan for and would implement responses in terms of the International Petroleum Industry Environmental Conservation Association - International Association of Oil and Gas Producers (IPIECA-IOGP) guideline document for the economic assessment and compensation for marine oil releases. TEEPSA would also ensure that damages and compensation to Third-Parties are included in insurance cover to financially manage the consequences of any unplanned event.</p> <p>The ESIA And ESMP recommends that TEEPSA submits all forms of financial insurance and assurances to PASA prior to drilling to manage all damages and compensation requirements in the event of an unplanned pollution event.</p>
45.	Penelope Aplon – Overstrand Municipality	07 December 2022 – Email	I hereby wish to request for an extension of time (1 week) to finalize comments on the Draft ESIA report, for above mentioned project.	In an email to Ms Aplon on 7 December 2022 it was noted that the comment period had already been extended from the standard 30 days (as required in the EIA Regulations 2014, as amended) to 44 days to allow sufficient time for people to comment. It was also note that if she submits comments after the 7 December deadline, SLR will forward



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				these onto the Competent Authority for consideration in the decision-making process.
46.	Ayanda Yekani	07 December 2022 – Email	No to oil and gas exploration till we find out which state departments and ministers are captured.	Comment / opinion is noted.
47.	Sarah Halse – Abagold Limited	07 December 2022 – Email Attachment	<p>Abagold Limited comments</p> <p>1- Regarding the Ecological Impact Assessment, the terms of reference did not address the requested specifications of the Aquaculture stakeholders with the author often citing insufficient data. This indicates that there is not sufficient information to allow for adequate decision making.</p> <p>2- The Fisheries Impact Assessment did not adequately address risk to abalone and mariculture facilities and presented a document fraught with inaccuracies. I reference a request made during scoping to reference “that abalone farmers are reliant on healthy ocean waters for production.” This is an inadequate study, indicative of a poor comprehension of the subject of aquaculture and mariculture in the area. Additionally, the figures in many instances are cut and paste (and not referenced) from other documents and the quality too poor to read. Importantly, and should the report have been conducted sufficiently it would be noted that, abalone mariculture is dependent on high quality ocean seawater input and the proposed drilling poses a threat to this – neither the fisheries nor ecological report addressed this threat, allocated appropriate significance or provided sufficient clarification on scale of effect as was requested both for clarification of impact and for insurance purposes.</p> <p>3- Impact to this industry stands to undermine significantly more jobs than are being created, with the industry directly supporting some thousand individuals. Additionally, the industry provides a</p>	<p>1. The fisheries assessment indicates that there will be no impact on the aquaculture industry during normal operations, as these are coastal operations which fall outside the estimated zones of impact from drilling (e.g., noise, sediment plume, etc.).</p> <p>2. Given the offshore location of the area of interest and that the dominant wind and current direction, which will ensure that any discharges move mainly in a north-westerly away from coast (as confirmed by the modelling studies), discharges from normal operations are expected to disperse rapidly and is unlikely to have an impact on sensitive coastal receptors.</p> <p>A large oil spill, although unlikely, could however have a significant impact on aquaculture activities (refer to Sections 10.4.3.2 and 10.4.3.3).</p> <p>3. As noted above, no impact is anticipated on the aquaculture industry during normal operations. The socio-economic and fisheries assessments do, however, note that an unlikely oil spill could have a</p>

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			<p>significant revenue stream for the Overberg in particular, as well as FOREX generation for South Africa – this was not recognised or accounted for in the Socio-Economic Impact assessment. An economic and reputation risk assessment on the effect on the Abagold and South African Abalone brand, which is synonymous with, and reliant on, the surrounding ocean environment and the assured ecological health and resilience of the system was not conducted and is notably lacking.</p> <p>4- We request upon insurance in the event of blow out or seepage from caps, accounting for potential long- and short-term effect to abalone farms, and request details in this regard.</p>	<p>significant impact on coastal activities, including aquaculture. Any future extraction would be subject to a separate Production Right application and ESIA process.</p> <p>4. In the event of an unplanned event (i.e. such as a well blow-out) occurring, a process of determining the economic effects and related compensation would be initiated. Such a process would typically involve government, insurers, the organisation responsible for the incident, industry organisations and the applicable legal system. TEEPSA will plan for and would implement responses in terms of the International Petroleum Industry Environmental Conservation Association - International Association of Oil and Gas Producers (IPIECA-IOGP) guideline document for the economic assessment and compensation for marine oil releases. TEEPSA would also ensure that damages and compensation to Third-Parties are included in insurance cover to financially manage the consequences of any unplanned event.</p> <p>The ESIA And ESMP recommends that TEEPSA submits all forms of financial insurance and assurances to PASA prior to drilling to manage all damages and compensation requirements in the event of an unplanned pollution event.</p>
48.	Thea Jordan – DEA&DP	07 December 2022 – Email Attachment	<p>1. The Draft Scoping Report dated May 2022, the Department's comments thereto dated 04 July 2022, and the email notification of 24 October 2022 notifying the Department of the availability of the Draft Environmental Impact Assessment ("EIA") Report, refer.</p> <p>2. Please find consolidated comment from various directorates within the Department on the Draft EIA Report dated October</p>	

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			<p>2022 that was downloaded from the website of the environmental assessment practitioner ("EAP").</p> <p>3. Directorate: Development Management (Region 1) – Mr Ntanganedzeni Mabasa (Email: Ntanganedzeni.Mabasa@westerncape.gov.za; Tel.: (021) 483 2803):</p> <p>3.1. It is noted that based on the specialists' findings, apart from impacts associated with the discharge of cuttings, drilling fluid and cement, and the impact on intangible cultural heritage, the potential negative impacts that were identified during normal operations can be mitigated to a low and very low negative impact significance. The recommended mitigation measures as included in the relevant sections of the Environmental Management Programme ("EMPr") must be implemented and enforced for all phases of the project proposal.</p> <p>3.2. Comments from all the relevant organs of state should be obtained, included and adequately addressed in the Final EIA Report.</p> <p>3.3. The Final EIA Report and EMPr must meet the content requirements outlined in Appendices 3 and 4 of the National Environmental Management Act, 1998 (Act No. 107 of 1998) ("NEMA") EIA Regulations, 2014 (as amended), respectively; and any other relevant considerations such as comments received, must be incorporated, where applicable.</p> <p>3.4. Proof of compliance of all steps undertaken during the public participation process ("PPP") must be included in the Final EIA Report.</p>	<p>3.2. All comments received, including those from relevant Organs of State, have been included in the Comments and Responses Report. Comments received after the closing date that are not included in this report, they will be forwarded directly to the Competent Authority for consideration.</p> <p>3.3. This final ESIA Report and ESMP has been prepared in compliance with Appendix 3 and 4 of the EIA Regulations 2014 (as amended) and is based on the Plan of Study presented in the final Scoping Report, which was accepted by DMRE on 29 August 2022.</p> <p>3.4. A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report. All proof of compliance is attended as appendices to the final ESIA Report.</p>

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			<p>4. Directorate: Climate Change – Ms Lize Jennings-Boom (Email: Lize.Jennings@westerncape.gov.za; Tel.: (021) 483 0769):</p> <p>4.1. The Climate Change and Air Emissions Impact Assessment compiled by Airshed Planning Professionals dated October 2022 included a climate change overview of global and national trends, a dynamic downscaled climate model providing information on the anticipated trends in the area, an overview of project emissions relative to appropriate international and national benchmarks, an impact assessment and rating exercise, as well as a discussion on proposed mitigation measures to offset the identified negative impacts.</p> <p>4.2. The use of some terms, including “trivial” in particular, are not appropriate to be used in a climate change technical report as the impacts of the project, no matter how small, will impact on climate change or increase the emissions contribution and can therefore not be considered as “trivial”.</p> <p>4.3. The Climate Change and Air Emissions Impact Assessment states that the impact of greenhouse gas (“GHG”) emissions has been assessed by way of comparing estimated annual GHG emissions from the project with South Africa’s baseline and projected annual GHG emissions. The exploration programme is expected to be around 1 drilling site per year, up to a maximum of 5 wells being drilled. The GHG emissions for the exploration activities have been calculated, with 67% of the emissions associated with the drilling activities, 15% linked to flaring activities, and 18% to helicopters and vessels. The estimated emissions from the activities are shown to be approximately 0.06% of SA’s total emissions; this is still quite a significant amount for a relatively small well drilling exercise. Considering that the specialist assessment does not consider GHG emissions associated with any</p>	<p>4.2. This comment is noted. "Trivial" impact in this instance can also be read as "insignificant" impact.</p> <p>4.3. Although the drilling of five wells would contribute approximately 0.07% to the 2017 South African “energy” sector total of 0.41 Gt and represent a contribution of 0.06% to the National GHG inventory total of 0.51 Gt, it is likely that only one well would be drilled per year. Thus, the contribution to the national annual inventory would be less than the 0.06% presented in the report.</p> <p>TEEPSA is only seeking approval to drill up to five exploration wells. Any future extraction would be subject to a separate Production Right application and ESIA process, which will assess the potential impacts related to production.</p>

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			<p>future activities, the impact will probably be much greater and add to the total GHG emissions for the country.</p> <p>4.4. There is a need to look at the project in a broader context of energy supply in South Africa and how these fit into the goal of net-zero emissions by 2050 that the country has publicly announced. Although this project only looks at the specific exploration related activities, this cannot be looked at in isolation.</p> <p>4.5. The Climate Change and Air Emissions Impact Assessment provides very limited information on the proposed mitigation measures to reduce the GHG emissions associated with these activities. As most of the emissions are associated with fuel use, the mitigation measures refer to opportunities to reduce fuel consumption or add efficiencies to the use of the fuels. There are, however, no alternatives given and no broader thinking around the mitigation measures. The mitigation measures section of assessment also does not include any information on estimated</p>	<p>4.4. The Project's need and desirability is presented in detail in Chapter 5 of the ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, together with the findings of the ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>As noted above, any future extraction would be subject to a separate Production Right application and ESIA process, which will assess the potential impacts related to production.</p> <p>4.5. The specialist believes that the main means to minimise GHG emissions from the project would be to lower fuel use (e.g., optimise vessel operations/logistics and ensuring the use of efficient equipment) and limit flaring - various recommendation are included in Section 9.1.1.1 of the ESIA Report. In addition to these recommendations, TEEPSA will comply with the requirements set out in MARPOL Annex VI Regulation 18 - Fuel Quality. Project vessels will be supplied with marine gasoil (MGO) or heavy fuel oil (HFO) with less than 0.5% sulphur (mass). They will be operated and maintained to ensure the efficient consumption of fuel in completion of the required activities.</p>

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			<p>calculated emission reductions due to mitigation measures proposed and implemented.</p> <p>4.6. South Africa as a signatory to the Paris Agreement (which was ratified in 2016), has committed to reducing its GHG emissions and as most of our emissions come from energy related activities, there is a strong need to ensure that any new energy related activity does not have a negative impact of the GHG profile of the country. As part of South Africa's commitment to the Paris Agreement, we need to submit a set a Nationally Determined Contributions ("NDC") to the United Nations Framework Convention on Climate Change. The NDCs are referred to several times in the Climate Change and Air Emissions Impact Assessment. The NDC includes a set of policies and plans that have been identified to will the curve of South Africa's GHG emissions towards a peak, plateau and decline range. It also states that South Africa is putting in place a mitigation system to realise the opportunities of a low carbon economy, whilst being mindful that an inclusive and just transition require time and a well planned low carbon and climate resilient development.</p> <p>4.7. To ramp up implementation of these policies and plans over time, South Africa needs to invest heavily in transforming the energy sector. The energy sector in South Africa is responsible for approximately 80% of all GHG emissions and is therefore the key sector that needs to drive the pathway to achieve a low carbon future.</p> <p>4.8. The Climate Change and Air Emissions Impact Assessment includes some information on the potential effects of climate change on the local community, environment, etc. The information used, in terms of future climate projections is mostly taken from a 2017 study completed for the South African Weather Service. It is</p>	<p>4.6. DEA&amp;DP's comments on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process. As noted above, the national and international strategic agreements, laws, policies and plans, together with the findings of the ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>4.7. See response above.</p> <p>4.8. This comment is noted and will be considered going forward. The assessment of potential impacts remains of very low significance with mitigation for this short-term exploration project.</p>

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			<p>suggested that the following report: SmartAgri: Updated Climate Change Trends and Projects for the Western Cape (2022), which was completed for the Western Cape Department of Agriculture by the Climate Systems Analysis Group at the University of Cape Town, should be consulted to determine if the most up-to-date climate science and projections have been utilised for this specialist study.</p> <p>4.9. There is a need for a more detailed assessment of the potential effects of climate change, even though this project is considered temporary in nature.</p> <p>4.10. This project will not play a significant role in reducing GHG emissions in the energy sector in the country and will keep South Africa off the low-carbon energy trajectory that is required for the country to meet the goals and objectives of the Paris Agreement.</p> <p>5. Directorate: Biodiversity and Coastal Management – Mr Ryan Apolles (Email: Ryan.Apolles@westerncape.gov.za; Tel.: (021) 483 2817):</p> <p>5.1. It is acknowledged that pre-emptive mitigation measures are proposed to mitigate potential impacts of the proposed exploration well drilling. This Directorate however advises that the conclusiveness of scientific knowledge of offshore seismic activities is currently being contested, as considered in the Western Cape High Court Judgement in the case of Christian John Adams &amp; Others v Minister of Mineral Resources and Energy &amp; Others (case number: 1306/22) where applicants in this matter presented the argument that cumulative impacts of seismic surveys have not</p>	<p>4.9. The terms of reference for this assessment were approved as part of the final Scoping Report, which DEA&amp;DP also had an opportunity to commented on (as part of the draft Scoping Report).</p> <p>4.10. As noted above, the national and international strategic agreements, laws, policies and plans, together with the findings of the ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>5.1. No 2D or 3D seismic surveys are planned as part of the proposed project, only vertical seismic profiling (which is undertaken for up to 9 hours per well as part of well logging), which is assessed in Sections 9.2.3.1.2 and 9.2.3.2.2 of the ESIA Report.</p>

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			<p>been studied in South Africa, and that the impact on fish assemblages was difficult to interpret.</p> <p>5.2. It is recommended that a Strategic Environmental Assessment ("SEA"), based on spatial planning principles, be undertaken to assess and manage potential cumulative impacts in a holistic manner and to identify and implement regional level mitigation measures. The competent authority must take cognisance of this recommendation to undertake a SEA to assist specialists and EAPs to accurately assess cumulative impacts.</p> <p>5.3. This Directorate does not support further offshore petroleum reconnaissance, exploration, prospecting, or production activities until such time that sufficient and strategic level information is available on the cumulative impacts of these activities so that this Directorate is able to apply its mind and provide informed comments on such applications.</p> <p>6. Directorate: Air Quality Management – Mr Bhawoodien Parker / Mr Thapelo Letsholo (Email: Bhawoodien.Parker@westerncape.gov.za / Thapelo.Letsholo@westerncape.gov.za; Tel.: (021) 483 8368/ 7089):</p> <p>6.1. The results of the screening dispersion simulations of the Climate Change and Air Emissions Impact Assessment indicate that no significant air quality impacts are anticipated. There is good</p>	<p>5.2. NEMA and the EIA Regulations 2014 (as amended) serve as the legal framework to be followed for an Environmental Authorisation application in respect of the proposed exploration activities. An ESIA has been identified as the environmental instrument to be utilised in informing the application for Environmental Authorisation. Thus, the undertaking of an SEA is not a requirement that needs to be complied with regard to an application for Environmental Authorisation. There is no basis in law that prohibits the consideration of an E Environmental Authorisation A application in the absence of a SEA.</p> <p>It is not within TEEPSA's authority to commission and / or undertaken an SEA. It is the understanding that an SEA can only be commissioned by a Minister and/or MEC.</p> <p>5.3. DEA&amp;DP's comment on not supporting future offshore petroleum reconnaissance, exploration, prospecting, or production activities until an SEA is undertaken is noted. See response above.</p>



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			<p>explanation of the dispersion effects over water compared to land, and these appear to have been considered in the modelling.</p> <p>6.2. The use of SCREEN3 may not be detailed enough to offer more accurate predictions and may need to be supplemented by a more complex and rigorous model output that will account for transport of emissions. However, acknowledging that the project is exploratory work, the air emissions should be of short duration and localised, as indicated. The recording of actual emissions during exploration would be a good basis for reporting of the air quality impact/s after the exploration has been completed.</p> <p>6.3. The air quality and GHG mitigation measures explored will need to be supplemented by more alternative measures that will complement the proposed measures. It appears that the current identified management measures are decided without consideration of other alternative, innovative technologies other than the current identified systems. In terms of the proposed mitigation measures, more detail is required on how exactly the applicant intends to “Optimise rig positioning, rig movement and the logistics (number of trips required to and from the onshore logistics base) in order to lower fuel consumption” and “Optimise well test programme to reduce burning as much as possible” to ensure that air emissions are well managed.</p> <p>7. Directorate: Development Facilitation – Ms Adri La Meyer (Email: Adri.LaMeyer@westerncape.gov.za; Tel.: (021) 483 2887):</p>	<p>6.2. As noted, SCREEN3 dispersion model was used to model the atmospheric emissions. SCREEN3 is a single source Gaussian plume model which provides maximum ground-level concentrations for point, area, flare, and volume sources. It is, however, noted that the model is limited in that only single emission sources can be simulated per execution. Therefore, the predicted concentrations from each of the individual simulation runs were added to approximate the downwind concentrations of the combined emission sources from the appraisal well. Despite this limitation the specialist feels that this model is adequate to model the emissions for this short-term exploration project which is located more than 670 km offshore.</p> <p>6.3. The specialist believes that the main means to minimise GHG emissions from the project would be to lower fuel use (e.g., optimise vessel operations/logistics and ensuring the use of efficient equipment) and limit flaring - various recommendation are included in Section 9.1.1.1 of the ESIA Report. In addition to these recommendations, TEEPSA will comply with the requirements set out in MARPOL Annex VI Regulation 18 - Fuel Quality. Project vessels will be supplied with marine gasoil (MGO) or heavy fuel oil (HFO) with less than 0.5% sulphur (mass). They will be operated and maintained to ensure the efficient consumption of fuel in completion of the required activities.</p>

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			<p>7.1. This Directorate acknowledges that the scoping &amp; environmental impact reporting process has exceeded the minimum PPP requirements in terms of the NEMA EIA Regulations, 2014 (as amended).</p> <p>7.2. It is noted that Activity 14 of Listing Notice ("LN") 1 and Activity 4 of LN 2 of the NEMA EIA Regulations, 2014 (as amended) are applied for.</p> <p>7.2.1. Note that only one of the listed activities will be applicable, depending on the volume of dangerous goods to be stored in containers. It is advised that the higher threshold (i.e., Activity 4 of LN 2) be applied for.</p> <p>7.2.2. Please further confirm that the handling and storage of oil, gas and/or fuel (diesel) will occur in containers to ensure applicability of one of the listed activities.</p> <p>7.2.3. Please indicate the location for the containers for the storage and/or handling of dangerous goods (i.e., on the drilling unit, support vessels, or logistics base).</p> <p>7.3. It is further noted that Activity 6 of LN 2 may be applicable "Should TEEPSA decide to incinerate waste on the drilling unit and support vessels (if considered to be "installations") an Atmospheric Emission Licence will be required in terms of the National Environmental Management: Air Quality Act, 2004". This Directorate is of the understanding that an atmospheric emission licence ("AEL") will only be required if the relevant threshold for land-based activities is met and no AEL would be required for offshore incineration.</p> <p>8. The applicant is reminded of its "general duty of care towards the environment" as prescribed in section 28 of the NEMA, 1998</p>	<p>DEA&amp;DP's acknowledgment of the extended comment period is noted.</p> <p>7.2.1 and 7.2.2. Information on the anticipated handling volumes and storage capacity for these substances is currently not available; thus, this Activity 14 in LN1 was included to provide for a situation where storage capacity exceeds 80 m<sup>3</sup> but falls below 500 m<sup>3</sup>, and Activity 4 in LN 2 was included to provide for a situation where storage capacity exceeds 500 m<sup>3</sup>. In the event that DMRE can only consider one of these listed activities, it is recommended that the more conservative volume in Activity 4 of LN 2 be considered for Environmental Authorisation.</p> <p>7.2.3. The proposed drilling operation would make use of infrastructure (e.g. fuel tanks), which would handle and potentially store oil, gas and/or fuel (diesel). Any storage would occur on the drilling unit and support vessels.</p> <p>7.3. Correct, an AEL would only be required if TEEPSA decide to incinerate waste and the relevant threshold is triggered.</p> <p>8. The comment on the duty of care is noted. In terms of Section 24P of NEMA, where prescribed, an applicant for an Environmental</p>

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			<p>which states that “Every person who causes, has caused or may cause significant pollution or degradation of the environment must take reasonable measures to prevent such pollution or degradation from occurring, continuing or recurring, or, in so far as such harm to the environment is authorised by law or cannot reasonably be avoided or stopped, to minimise and rectify such pollution or degradation of the environment”, read together with section 58 of the National Environmental Management: Integrated Coastal Management Act, 2008 (Act No. 24 of 2008), which refers to one’s duty to avoid causing adverse effects on the coastal environment. The Department reserves the right to revise initial comments and request further information based on any or new information received.</p>	<p>Authorisation relating to exploration, must, before the Competent Authority issues an Environmental Authorisation, determine the financial provision, which is required for undertaking progressive rehabilitation, decommissioning, closure and post-closure activities. The Regulations pertaining to Financial Provision (GNR No. R1147 of 2015, as amended) set out the methods for determining and making Financial Provision to guarantee the availability of sufficient funds to undertake rehabilitation and remediation of the adverse environmental impacts caused by exploration. TEEPSA will thus put in place the required financial provision for the proposed exploration activities. The estimated cost for management and / or rehabilitation of potential negative environmental impacts that might be incurred during the proposed exploration activities is provided in Appendix 10 in Volume 2.</p> <p>In terms of NEMA, the holder of an Exploration Right is accountable for any pollution or degradation of the environment as a result of their activities and would be responsible for funding the response to an oil spill. TEEPSA will have the necessary insurances and global service agreements (e.g., with companies such as OSRL) in place to manage the consequences of any unplanned event. Proof of such insurance and global service agreements will be submitted to the regulator before activities commence.</p>
49.	Monica Stassen – SANCCOB	07 December 2022 – Email Attachment	<p>For Attention: SLR Consulting (South Africa) (Pty) Ltd</p> <p>As an Interested &amp; Affected Party, the Southern African Foundation for the Conservation of Coastal Birds (SANCCOB) hereby submits comments on the Draft ESIA for proposed additional exploration drilling and associated activities in Block 567 off the south coast of South Africa. SANCCOB wants to note with concern a major gap in the ESIA process. In the ESIA itself there is no reference to or suggested recommendation for an oiled wildlife contingency plan or any wildlife response strategy. Yet there are</p>	<p>It is agreed that a wildlife response strategy and contingency plan is important. One of the key recommendations is that TEEPSA develop a well-specific response strategy and plans (including Oil Spill Contingency Plan, OSCP), which will need to be approved by SAMSA, PASA and DFFE. The primary objective of the OSCP is to identify all possible spill scenarios, level of response requirements and set in motion the necessary actions to stop any discharge of oil and to minimise its effects. The OSCP thus provides for a comprehensive response to all oil and</p>

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			<p>recommendations for the development of site-specific oil spill contingency plans, assessment of response resources and capabilities, response strategies, modelling and even an exercise.</p> <p>A wildlife contingency plan is a critical component to any oil pollution response as it provides a detailed overview of the species at risk, most appropriate response strategies, allocates roles and responsibilities and provides a detailed overview of tier 1, 2 and 3 capabilities (equipment and personnel). In addition, none of the recommendations focus on building/ having access to a stockpile of oiled wildlife response equipment nearby. Whilst the probability of an oil spill is considered low it is well documented in the scoping report and in the ESIA that should one happen; the resulting environmental impact would be significant. The oil spill modelling reinforces this concern as under the right circumstance, oil could impact sensitive areas and potentially even reach seabird colonies home to hundreds of at-risk species. This is not in line with international best practices (IPIECA 2017)<sup>1</sup>. What is even more concerning is that this point has been raised several times at various levels of engagement between SANCCOB and the TotalEnergies team, and still no effort has been made to include it. This is appearing somewhat contradictory to the very public commitments that TotalEnergies has made towards protecting biodiversity (TotalEnergies).” In the safety health environment quality charter TotalEnergies makes the following commitment “TotalEnergies implements, for all of its operations, appropriate management policies regarding safety, security, health, the environment, quality, societal commitment and a periodic risk assessment of relevant policies and measures. Any development of a project or launch of a product is undertaken upon full lifecycle risk assessment (TotalEnergies)”. The environment is specifically mentioned in the charter, and one would assume that the</p>	<p>chemical pollution emergencies in the marine environment, including responding to oil wildlife. The structure of a standard TEEPSA OSCP is presented in the ESIA Report (see Box 11-2 in Section 11.3.7.4 for further details).</p> <p>The impact related to an unlikely oil spill would be significant - refer to Chapter 10.4 of the final ESIA Report. It is acknowledged herein that an oil spill would have a significant impact on the marine and coastal environment, including seabirds.</p>

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			<p>environment includes wildlife. Despite this there is no evidence to suggest that wildlife will be include in any contingency plans. SANCCOB noted some concerns in the draft scoping report and provided a series of recommendations for the ESIA. SANCCOB wishes to reiterate some of those points below.</p> <p>1. Risk of an oil spill</p> <p>SANCCOB notes that detailed modelling has been done as per the Oil Spill Modelling (Appendix 7) for a range of scenarios that could result in an oil spill (e.g., well-blow out, vessel collision). In the Marine Ecology Assessment (Appendix 11) reference is made to these scenarios and notes that response plans will be developed (Page 241); however, it is not clear how specific the response plans will be and whether they will account for various scenarios.</p> <p>SANCCOB notes that one of the proposed mitigation measures listed on page 265 of the Marine Ecology Assessment (Appendix 11) is that response equipment should be pre-mobilization at key locations to ensure a timeous response. SANCCOB supports this but wants to emphasize that these locations should be identified and noted along with the estimated response time in the respective oil spill contingency and response plans.</p> <p>In the scoping report SANCCOB flagged the storage of fluids, chemicals, and fuels on the drilling unit and that it should be in secure water-tight containers that will not rupture easily. The ESIA does not flag this as a potential risk. SANCCOB would like to verify if this is because the items being stored are not harmful to the environment or are the containers watertight and easily recoverable in the event they are lost at sea?</p>	<p>As noted above, one of the key recommendations is that TEEPSA develop a well-specific OSCP for each well location that identifies the resources and response required to minimise the risk and impact of oiling (shoreline and offshore). This response strategy and associated plans must take cognisance to the local oceanographic and meteorological seasonal conditions, local environmental receptors and local spill response resources. The structure of a standard TEEPSA OSCP is presented in the ESIA Report (see Box 11-2 in Section 11.3.7.4 for further details).</p> <p>This comment is noted. The detail will be presented in the well-specific OSCP that is developed for each well location.</p> <p>The ESMP lists the various plans and procedures that need to be put in place prior to drilling, including a Hazardous Substances Management Plan (refer to Section 11.3.7.7 of the ESIA Report). As noted in the ESIA Report, a standard plan will provide for storage and handling procedures</p>

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			<p>2. Sensitive marine wildlife likely to be impacted SANCCOB again wishes to reiterate that it is critical that oiled wildlife response is integrated into the site-specific Oil Spill Contingency Plan (OSCP). In the Marine Ecology Assessment (Appendix 11) various references to an Oil Spill Contingency Plan are made. On Page 245 it mentioned “collect and transport oiled birds to a cleaning station”. There is very specific protocol to follow when capturing oiled seabirds that are classified as endangered and there is no mention of this in the ESIA. SANCCOB has not been afforded the opportunity to view the OSCP and cannot determine if it sufficiently addresses wildlife impacts. Therefore, in the interest of transparency the plan should be shared with relevant stakeholders.</p> <p>3. Disturbance to marine wildlife</p> <p>The concern remains that the drilling operations and the associated increase in shipping traffic, could negatively impact pelagic fish, seabirds and cetaceans surrounding the drill site. Whilst the Marine Ecology Assessment (Appendix 11) concludes that the impact of noise on pelagic and coastal species is low to very low (Page 212). It is not very clear how this was quantified particularly for seabirds. In addition to implementing all the recommended mitigation measures TEPSA should also implement a monitoring programme to determine if the operations are affecting seabirds in real time.</p> <p>SANCCOB also strongly advocates that the drilling should not take place during the winter months. In the Marine Ecology Assessment (Appendix 11), the winter months are flagged due to the presence of breeding Southern Right Whales and Humpback whales along our coastline (Page 75) as well as increased numbers of pelagic seabird species in the proposed drilling area. In addition, the oil</p>	<p>As noted above, the well-specific OSCP will provide for oil wildlife response. The OSCP will need to be approved by SAMSA, PASA and DFEE prior to drilling.</p> <p>In order to assess the potential impact of noise on marine fauna and fishing an underwater noise monitoring study was undertaken, which determine the zones of impact for injury and disturbance. The other specialist assessments considered these zones of impact in relation to various sensitivities (e.g. key feeding and spawning areas, MPAs, key fishing areas, etc.). It should be noted that the underwater noise modelling study takes the current ambient noise levels into account, which are in fact 10 dB higher than the lowest level and are considered within the cumulative noise impact models.</p> <p>The ESMP also provides for the development of a Biodiversity Management Plan - refer to Section 11.3.7.10 of the ESIA Report.</p> <p>It is recommended in the ESIA Report that all efforts to be made to avoid scheduling drilling operations during the periods when the likelihood of shoreline oiling for a blow-out is highest (namely the</p>

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			<p>spill modelling predicted that the risk of oil reaching the shoreline is much higher in winter due to the prevailing weather conditions (Page vii).</p> <p>In the comments for the scoping reports SANCCOB raised a concern around the use of lighting on the rig at night given that it could negatively affect wildlife particularly seabirds. SANCCOB is pleased to see that the ESIA does address lighting on the rig as a possible threat and notes some mitigation measures. However, the proposed mitigation measures are very vague. For example, on page 155 of the Marine Ecology Assessment (Appendix 11), it states “Keep disorientated, but otherwise unharmed, seabirds in dark containers (e.g., cardboard boxes) for subsequent release during daylight hours.” This statement could result in a bird being placed in a completely unsuitable location (e.g., box with no ventilation) that ultimately results in its death. In addition, operators require training on how to safely capture and handle a bird, so they do not cause more injury and stress. No such training is proposed. There is also no mention of what drill operators should do if a bird is injured. There is no recommendation for any wildlife response equipment to be stored on the rig so how will operators capture and care for the affected bird?</p> <p>To conclude it is clear in this ESIA that mitigation measure linked to seabirds for any incident related to the TotalEnergies operations in the Area of Interest have not been properly researched or quantified. SANCCOB strongly recommends that more thorough engagement with seabird conservation specialists be conducted before the ESIA is finalised.</p>	<p>Austral Winter). In the case of exploration wells drilled in a sequence covering this period, response needs to be enhanced.</p> <p>The proposed mitigation for disorientated birds has been updated to indicate that the box must be suitably ventilated.</p> <p>Any injured birds would need to be euthanise humanly. A Marine Mammal Observer will be onboard during drilling who will undertake monitoring of marine faunal - refer to Biodiversity Management Plan in Section 11.3.7.10 of the ESIA Report.</p>
50.	Thandile Chinyavanhu – Greenpeace Africa	07 December 2022 – Email Attachment	Greenpeace Africa (“GPAF”) is an independent environmental campaigning organisation with a vision of an Africa where people live in harmony with nature in a peaceful state of environmental	

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			<p>and social justice. In South Africa, GPAF campaigns for public and private bodies to take urgent action to address the climate crisis, including advocating for a just transition from fossil fuels to renewable energy and energy efficiency. Our campaign work stands to protect the rights and health of frontline communities directly impacted by fossil fuel operations and who will be most impacted by the climate crisis.</p> <p>Greenpeace Africa objects to the intended exploration well drilling in Block 5/6/7 off the South-West Coast of South Africa. We demand that Total Energies (“Total”), Shell Exploration and Production South Africa (“Shell”), and PetroSA cease the planned exploration. Greenpeace Africa submitted comments on the draft Environmental Impact Assessment (EIA).</p> <p>As a civil society organisation and citizens working towards achieving social, environmental and climate justice in South Africa, the key point of departure for Greenpeace Africa’s submission will be the environmental, social and climate implications of the proposed exploration project. Greenpeace Africa has noted TEEPSA’s responses regarding our submission in Appendix 4.10, as TEEPSA failed to provide a substantial commentary on issues raised by Greenpeace Africa, particularly pertaining to climate change, these points will be re-emphasized in this submission.</p> <p><b>Key Concerns</b></p> <p>1. While South Africa’s political approach supports the ongoing exploration of oil and gas reserves this is in direct opposition to South Africa’s commitments to mitigate climate change in alignment with the politically endorsed scientific consensus to limit global warming to 1.5°C above pre-industrial levels as stipulated in the Paris Agreement. Exploration for new fossil fuels will lock</p>	<p>Greenpeace Africa's objection is noted, which will need to be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Greenpeace Africa's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest.</p>



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			<p>South Africa into a carbon-intensive pathway for decades to come and is contrary to the country's commitment to act on climate change. The scientific consensus on the climate crisis makes it clear that some fossil fuels will need to stay in the ground, which means that there should be no new fossil fuel projects, and existing projects will need to be phased out in a just transition by 2040.</p> <p>2. The continued exploration for fossil fuels by carbon majors such as Shell and Total is in complete opposition to the global consensus on a "phase-down" (and ultimately a "phase-out") of fossil fuel use towards low-carbon energy sources in the face of existing judgments compelling climate action and mounting risk of litigation.</p> <p>3. Carbon majors have actively eroded progress on climate change through active denial, obfuscation and delay tactics. Carbon majors (the top 100 companies that are responsible for 71% of global emissions since 19881) continue to contribute to misinformation by falsely positioning gas as a "lower-carbon fossil fuel".</p> <p>4. The planned exploration threatens to permanently alter one of the most pristine and biologically diverse ecosystems in the world. This exploration threatens to destabilise the marine environment, food security and local informal communities, whose cultural and spiritual rights to the oceans have been recognised by South African courts. The exploration will interfere with the communities' enjoyment of natural resources, livelihoods built on fishing, ecotourism and their freedom to practice their cultural and spiritual rights. The transportation and processing of fossil fuels have proven to be detrimental to the proposed exploration area and global environment.</p> <p><b>Alignment to 1.5 degree Celsius Target and Air Quality</b></p>	<p>It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p>

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			<p>1. Greenpeace Africa's objection is rooted in the politically endorsed, scientific consensus to limit global warming to 1.5°C above post-industrial temperatures agreed upon in the Paris Agreement, to which South Africa is a signatory to. This proposed project is in direct contradiction of South Africa's commitments as expressed in the Nationally Determined Contributions (NDCs). Any additional oil exploration could jeopardize our commitments to climate mitigation, and there should be no new fossil fuel projects in South Africa.</p> <p>2. It is essential to recognise the recent findings by the Intergovernmental Panel on Climate Change (IPCC) which unequivocally linked the climate crisis to anthropogenic activity. The report went on to note that the global carbon budget may be exceeded by 2030 and that it is pivotal that carbon majors cease further coal, oil and gas exploration. It is unreasonable for Shell and Total to continue to pursue exploration projects mere years before we are expected to exceed our global carbon budget. This will lock South Africa into a dead-end fossil fuel pathway driven by a neo-colonial extractivist model that creates profits for global companies, and bypasses local communities. Greenpeace Africa believes that the planned climate change and air emissions impact assessments are non negotiable, and must consider this proposed project within the country's overall carbon budget and the alignment with a 1.5 degrees celsius trajectory.</p> <p>3. Total's company policy is not compatible with the goal of limiting global warming to 1.5°C3, nor is the company compliant with its own climate policies and commitments to becoming carbon neutral by 2050. Greenpeace Africa once again, requests that Shell and Total substantiate how this project and the multitude of other exploration projects align with their respective</p>	

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			<p>decarbonisation commitments or the judgment in Milieudefensie et al. v. Royal Dutch Shell plc<sup>4</sup> on 26 May 2021, compelling Royal Dutch Shell to reduce its GHG emissions throughout its supply chain by 45% relative to 2019 by 2030? Total has faced legal challenges concerning its Environmental and human rights abuses on the continent.</p> <p>4. Greenpeace Africa has noted TEEPSA's assessment of the potential impact of the proposed exploration on the sector and the National Inventory, stating "the maximum total CO<sub>2</sub>-e emissions from the Project, assuming 5 successful appraisal wells with tests, would contribute approximately 0.07% to the 2017 South African "energy" sector total of 0.41 Gt and represent a contribution of 0.06% to the National GHG inventory total of 0.51 Gt." The GHG Inventory report vastly underestimates the energy-related methane emissions. While the report cites the methane emissions were 265kt<sup>6</sup> The International Energy Agency's country-to-country methane tracker database estimates South Africa's energy-related emissions to be 1295kt (IEA, 2021).<sup>7</sup> There is a huge discrepancy between the reported coal-related methane emissions of 137 kt a for solid fuels. We anticipate there is potentially a massive under reporting on emissions from industry.</p> <p>This proposed project is in direct contradiction of South Africa's commitments as expressed in the Nationally Determined Contributions (NDCs)<sup>8</sup>. Any additional oil exploration could jeopardize our commitments to climate mitigation, and there should be no new fossil fuel projects in South Africa, with existing fossil fuel projects phasing out in a just transition.</p> <p>It is essential to recognise the recent findings by the Intergovernmental Panel on Climate Change (IPCC), which</p>	<p>The comment that the national GHG Inventory report vastly underestimates the energy-related methane emissions is noted.</p>

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			<p>unequivocally linked the climate crisis to anthropogenic activity. The report went on to note that the global carbon budget may be exceeded by 2030 and that it is pivotal that carbon majors cease further coal, oil and gas exploration. It is unreasonable for Shell and Total to continue to pursue exploration projects mere years before we are expected to exceed our global carbon budget.</p> <p>TEEPSA's assessment of pollutants does not provide a complete overview of greenhouse gas emissions emanating from exploration project, focusing on carbon dioxide, methane, nitrous oxide (NO) and omitting; Sulphur hexafluoride (SF6), perfluorocarbons (PFCs), Nitrogen Trifluoride(NF3), Hydrofluorocarbons. Although fluorinated gases are emitted in smaller quantities than other greenhouse gases (they account for just 2 per cent of man-made global greenhouse gas emissions), they trap substantially more heat. Indeed, the GWP for these gases can be in the thousands to tens of thousands, and they have long atmospheric lifetimes, in some cases lasting tens of thousands of years.</p> <p><b>Environmental Risk to Marine Life</b></p> <p>The risk of water pollution remains a very real threat. GPAF has campaigned on the dangers associated with the production and transportation of fossil fuels, the potentially devastatingly negative impacts became clear in the response efforts around the Mauritius oil spill and uMbilo oil spill. The proposed exploration area, its surrounding communities and the marine environment are still reeling from the impacts of the MV Apollo Sea (1994)<sup>10</sup>, MV Treasure vessel (2000)<sup>11</sup> and the SELI One Vessel (2009)<sup>12</sup> oil spills which contributed to massive environmental and ecological degradation. Exploration in Block 5/6/7, the stretch of ocean between Saldahnah Bay and Cape Agulhas, which encompasses approximately 93,077 km<sup>2</sup> is adjacent to a multitude of Marine</p>	<p>The potential impact related to an unlikely oil spill is assessed in the ESIA - refer to Chapter 10 of the final ESIA Report. It is assessed to have a significant impact on the marine and coastal environment.</p>

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			<p>Protected Areas (MPAs)<sup>13</sup> including but not limited to; Brown Bank Corals and South East Atlantic Seamount. Linefish species such as Geelbek, Snoek and Yellow-tail, which are considered a lifeline for the communities, are just a few among the many species that depend on the area as a nursery.</p> <p>Greenpeace Africa has noted that despite having a licence to conduct 2-D or 3D seismic surveys, you have opted to conduct vertical seismic profiling (VSP), with the use of a small airgun array generating a pulse noise level between the 5 to 1 000 Hz range. The profiling activity and noise have been proven to negatively impact marine biodiversity and well-being. Over 500 studies have suggested that anthropogenic marine noise has contributed towards altering ocean soundscapes and cause marine life to leave their feeding grounds, posing the biggest threat to small marine mammals, which have their best hearing sensitivity at higher frequencies. It is critical to remember that seismic surveys have been linked to decreased sightings of marine life and there is a real possibility of significant harm being created.</p> <p>Greenpeace Africa notes TEEPSA's intentions to release an Underwater Noise Modelling Study; Greenpeace Africa eagerly anticipates this study as details pertaining to the description of the types of airguns that will be deployed, the decibel attenuation for the VSP, species-specific impacts and an action plan on how TEEPSA intends to mitigate damage to these species will be of the utmost importance to stakeholders. There is already a legal precedent indicating the inherent dangers in seismic blasting in the case against Shell along the Wild Coast. The Tourism sector in the province attracts millions of tourists annually, supporting approximately 174,982 jobs (Western Cape Government, 2019).</p>	<p>No 2D or 3D seismic surveys are planned as part of the proposed project, only vertical seismic profiling (which is undertaken for up to 9 hours per well as part of well logging), which is assessed in Sections 9.2.3.1.2 and 9.2.3.2.2 of the ESIA Report.</p> <p>VSP is not the same as normal seismic surveys. VSP is an evaluation tool that would be undertaken as part of the conventional wireline logging programme when the well reaches target depth to generate a high-resolution seismic image of the geology in the well's immediate vicinity. VSP uses a small airgun array, which is operated from the drilling unit. The airgun array is deployed between 7 m and 10 m below sea level and has a gun pressure of 2 000 psi. During VSP operations, four to five receivers are positioned in a section of the borehole and the airgun array is discharged approximately five times at 20 second intervals. This process is repeated as required for different stations in the well and it may take up to nine hours to complete approximately 250 shots, depending on the well's depth and a number of stations being profiled.</p> <p>The main differences between normal seismic and VSP are:</p> <ul style="list-style-type: none"> <li>• The volumes and the energy released into the marine environment from VSP activities are significantly smaller than what is required or generated during conventional seismic surveys.</li> <li>• Drilling unit (and noise source) is stationary; where with conventional seismic surveys the vessels traverses the entire survey area.</li> </ul>

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			<p>TEEPSA, like many other carbon majors, has capitalised on the urgency created by the war in Ukraine as an opportunity to drive a push for fossil resources. The report cites the resurgence of coal in Germany as a key resource, neglecting that it was Germany's increased reliance on gas that contributed towards its energy crisis. Carbon majors like TEEPSA have gradually embedded themselves politically and economically in ways that will make it harder to implement measures to protect the environment. A gas industry further tied up in the South African economy will have the same impact as coal, leading the country to be overly reliant on gas and unable to easily decouple itself from dead-end dirty energy sources in preference to renewable energy.</p> <p>There is an over-prescription of gas by industry and government to meet South Africa's energy needs when there is no evidence to support the large-scale gas envisaged in the Gas Master Plan. Procuring gas at the current scale proposed by the South African government would prove to be unnecessarily costly and trap South Africa into a high emissions trajectory that will certainly derail the country from meeting its climate commitments. A report released by National Business Initiative (NBI) in conjunction with Sasol states that gas would only be required for peaking capacity; however, South Africa has already reserved 180 PJ/annum of gas, approximately ten times what is required to sustain the electricity system. In the World Economic Forum's latest Energy Transition Index (ETI), South Africa ranked 110 among 115 nations. The ETI benchmarks countries (scoring on a scale from 0-100) based on the performance of their energy system, as well as their readiness for transition to a secure, sustainable, affordable, and reliable energy future. South Africa scored significantly below the global average</p>	<ul style="list-style-type: none"> <li>Duration: VSP is undertaken up to 9 hrs per well, as opposed to normal seismic surveys which are undertaken over a couple of months.</li> </ul> <p>As noted above, the national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p>

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			<p>of 59; this ranking is indicative of South Africa's poor adaptive capacity and stagnation relative to other countries.</p> <p>Our poor energy performance threatens South African society at every level. Further, the global pandemic and recent geo-political conflicts have highlighted the volatility of the fossil fuels markets and underscores the need to a shift away from fossil fuels, towards renewable technology, which will insulate South Africans against global energy price fluctuations. South Africa has some of the best renewable energy resources in the world, and it's critical that we maximise on this natural advantage by removing the barriers to renewable energy urgently, and turn away from fossil fuels which will lock us into a dirty future and put critical biodiversity, and the communities who rely on the oceans at risk.</p> <p>Exploiting South Africa's fossil reserves certainly will not insulate the country against the volatility of the crude markets. South Africa needs to redirect its efforts into reducing its exposure into fuel markets and enhance its resilience through increased investment in renewable energy. Promoting gas related investments as a solution to the crisis is a false solution. The only way to increase energy security is by minimising the role that gas plays through energy efficiency measures, electrification of end-uses and a rapid build-out of renewable energy (New Climate Institute, 2021).</p> <p>Despite below-average outputs in wind-power during the European summer, Wind and solar PV provided valuable contributions to meeting electricity demands in the fourth quarter of 2021. Wind power generation increased by 3% and solar compared with the same period a year earlier. (New Climate Institute, 2021). Experts in the United Kingdom cautioned against exploration of the North Sea in an effort to thrash energy prices, warning that it would not have the desired effect.</p>	

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			<p>Even Eskom CEO Andre, Du Ruyter has affirmed Greenpeace Africa's position, stating "I can see no other opportunity to drive economic growth, to solve for energy security, to solve our environmental problems, to create employment, than by embarking on this just energy transition. If we don't do this, what else? I don't know. If we don't do this, then we would have lost an opportunity." As mentioned in TEEPSA's own report, the existing plants face a multitude of challenges which threaten their longevity besides reduced feedstock. South Africa's energy crisis requires massive reforms that will unlock our significant renewable energy potential, further exploration for fossil fuels will do little to make energy more affordable. It will only derail South Africa from its climate commitment. Further investment into this archaic industry will only further risk an accumulation of stranded assets. The exploration for and exploitation of new fossil fuels cannot be looked at in isolation of the climate crisis that is already a reality, nor can it be looked at in isolation of the very clear benefits offered by renewable energy. We simply cannot afford to lock South Africa into a dead-end future based on fossil fuels that should remain in the ground to protect our ability to limit global warming to 1.5 degrees Celsius.</p> <p><b>CONCLUSION</b></p> <p>Greenpeace Africa strongly objects to this proposed project on the basis that new fossil fuel projects are misaligned with limiting global warming to 1.5 degrees Celsius, and in fact existing fossil fuel projects will need to be phased out in a just transition. This project has the potential to create significant damage to the fragile marine environment and species and to the rights of the communities who rely so heavily on these resources. The significant environmental, social and public health risks associated</p>	<p>Greenpeace Africa's objection is noted, which will need to be taken into consideration by the Competent Authority in the decision-making process.</p>



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			with the sourcing of fossil fuels cannot be overlooked and approvals cannot simply be a tick box exercise. It is critical that there is a rigorous public participation process and that the full potential impacts of this project are assessed, including the climate change impacts. Numerous legal Challenges against carbon majors demonstrate the tide of legal risks that are on the rise. The recent judgements in <i>Sustain The Wild Coast NPC v Shell Exploration and Production and EarthLife Africa Johannesburg v Thabametsi Power Project (Pty) Ltd, and the ongoing case of South Durban Community Environmental Alliance v Department of Mineral Resources and Energy</i> , demonstrate the significance of climate considerations in environmental impact assessments. Any attempts to bypass environmental regulations will be challenged by civil society.	A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report.
51.	Janet Solomon - Oceans Not Oil	07 December 2022 – Email Attachment	<p>Submission of comments on the Environmental and Social Impact Assessment (ESIA) for Exploration Well Drilling in Block 5/6/7 off the South-West Coast of South Africa</p> <p>Herewith comments on the ESIA report on behalf of the coalition Oceans Not Oil. There are over 31 organisations affiliated with Oceans Not Oil (see below). The ultimate objective of Oceans Not Oil is the termination of offshore oil and gas operations off our coastline, inspiring South African policy makers to build an economy beyond gas and deal with climate change vulnerability that is the legacy of oil and gas.</p> <p>This letter serves to comment on and object to the proposed exploratory drilling. It also serves to highlight numerous failures and issues in need of review within this ESIA, listed below:</p> <p>1) TIME FRAMES</p> <p>a) Time frames and duration are being downplayed, the physical drilling and testing will take, at best 2 years to complete. It is</p>	<p>Oils Not Oil's objection is noted, which will need to be taken into consideration by the Competent Authority in the decision-making process.</p> <p>1a. It is clearly stated in the ESIA Report that the timeframes presented are per well. Since it is likely that TEEPSA will only drill one well a year,</p>

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			<p>stated that it will “take approximately three to four months to complete the physical drilling and testing of each well (excluding mobilisation and demobilisation)”. The duration needs to be more transparent, i.e., by simple calculation:</p> <p>Mobilisation = 45 days (x5 wells) = 225 days</p> <p>Drilling = 90 days per well (x5 wells) = 450 days</p> <p>Demobilisation = 10 days (x5 wells) = 50 days</p> <p>Total In Situ Duration = 725 days (~2 years)</p> <p>b) Environmental and social impacts are measured only during the operation of exploration, whereas the Need and Desirability section extends effects into the future beyond the project. This creates a complete lack of parity for any rational comparison of impact, effects and makes the significant ratings therefore irrational and skewed.</p> <p>The lack of environmental benefits and paltry local social/community benefits of the exploration project need to be weighed against its considerable pollution risk to the marine environment, fisheries, local communities and to intangible heritage;</p> <p>or,</p> <p>Potential production rents generated, earliest by 2030, must be weighed against:</p> <p>i. increased and more frequent climate change effects of further expansion of fossil fuel production,</p> <p>ii. a production pathway diametrically opposed to Paris-compliant Carbon Budgets. Recent findings by Calverley, D., &amp; Anderson, K. (2022) make it clear that for a 50% chance of not</p>	<p>and not five back-to-back wells, the timeframes have been reported per well.</p> <p>1b. Although the Need and Desirability is ultimately related to production (extraction), the outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, additional exploration and/or production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates ‘exploration activities’ from ‘production activities’ and sets out the distinct application/assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a petroleum resource(s) is discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of</p>

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			<p>exceeding 1.5°C, less than 10 years' worth of emissions space remains at current levels of global production and requires immediate and deep cuts in the production of all fossil fuels. By further 'front loading'/increasing the gradient of our emissions pathway, through expanding production, we render steeper rates of fossil fuel reduction earlier. Their report "makes absolutely clear that there is no capacity in the carbon budget for opening up new production facilities of any kind, whether coal mines, oil wells or gas terminals".</p> <p>iii. In this context, it remains for TEEPSA to explain how the further production of hydrocarbons "are aligned to broader societal needs" (5.1, TEEPSA Block 5, 6, 7 ESIA report),</p> <p>iv. new capital investment in renewable energy,</p> <p>v. asset stranding ,</p> <p>vi. the social costs of carbon, including monetising the impacts on human health and the cost to remedy it,</p> <p>vii. protracting a just transition,</p> <p>viii. potential Carbon Border Adjustments Mechanism sanctions imposed by Western trading partners,</p> <p>ix. considerable pollution risks to the marine environment, fisheries, local communities and to intangible heritage.</p> <p>c) 5.2.6 National Climate Change Response White Paper (2014)</p> <p>The claim that renewable energy and not fossil fuel /gas is ultimately recommended for climate change mitigation contradicts, but would also overarch, the Draft Integrated Energy Plan (2013) consideration of natural gas for power generation.</p>	<p>the environmental impacts of an undefined project. Potential impacts could not be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts.</p> <p>The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplate, that potential impacts and risks of productions activities must be considered and assessed at the exploration stage. Any potential further or future activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate EIA process. This is typical of the lifecycle of a development project.</p> <p>Thus, a decision on the current EA application does not in any way guarantee the holder future approvals that would be required to undertake future production activities.</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p>

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			<p>2) UNRELIABLE ASSUMPTIONS</p> <p>5.1.2.1 South African Energy Sector and Energy Mix</p> <p>As the country's economy grows, it is critical to ensure that energy resources are available, and that there is access to energy services in an affordable, reliable and sustainable manner, while minimising the associated adverse environmental impacts (DoE, 2019).</p> <p>a) It is trite that the adverse environmental impacts, including decreases in carbon emissions space/budget, of further hydrocarbon exploration with the view to production/consumption are of an existential scale.</p> <p>b) The ESIA relies on outdated assumptions by the NGP (2011) that natural gas is needed for peaking. The ESIA process should reflect up-to-date research upon which decision makers can rely:</p> <p>i. Brown et al have shown the feasibility and economic viability of a 100% renewable electricity system for South Africa, meeting the "energy needs of all citizens at all times" is "cost-competitive with fossil- fuel-based systems, even before externalities such as global warming, water usage and environmental pollution are taken into account".</p> <p>They have established that a 100% renewable-electricity system requires no 're- invention' of the power system, rather only a "directed evolution of the current system is required to guarantee affordability, reliability and sustainability". In far less than the 6 years there could be sufficient renewable electricity generation and storage technology to convert entirely to renewables.</p> <p>ii. In February, the National Business Initiative (NBI) — a coalition of 86 major companies, including Eskom, Sasol and</p>	<p>2. Oils Not Oil's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p>

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			<p>Shell – published a study showing that the electricity sector likely needs just 17 petajoules (PJ) of gas a year until 2035. South Africa already imports 180 PJ a year from Mozambique, repudiating any demand for further exploration.</p> <p>5.2.2. New Growth Path (2011)</p> <p>...Priorities in this regard included strengthening the regional integration of energy by undertaking urgent improvements in electricity interconnectors and exploring other opportunities for enhancing clean energy across central and southern Africa, including natural gas.</p> <p>a) Hartley et al (2019) have shown in their working paper Quantifying the Macro- and Socio-Economic Benefits of a Transition to Renewable Energy in South Africa that “removing the constraints on renewable energy deployment leads to increases in real GDP and employment under conservative renewable energy costs (and to greater ones under optimistic costs), despite a decline in coal production and employment”.</p> <p>b) Please remove all misleading associations of natural gas with “clean energy” unless TEEPSA can assure South Africans, and indeed the global community, that they capture the emissions, literally and genuinely, alternatives to fossil fuels must act as energy alternatives.</p> <p>i) Studies show further development of gas infrastructure is incompatible with the Intergovernmental Panel on Climate Change (IPPC) target of keeping global increases in temperature below 2°C. This all begs the question of the employment outlook, a just transition, economics and plain</p>	

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			<p>logic in the South African context. South Africa has already warmed at around twice the rate of global warming.</p> <p>a) Methane is one of the GHGs declared as a priority pollutant, and therefore subject to pollution prevention plans and various provisions of NEMA and NEMAQA. It is also covered in the SA National GHG inventory.</p> <p>5.2.3. National Development Plan 2030 (NDP) (2013)</p> <p>The ESIA claims “Thus, the ongoing exploration of local natural gas reserves is a key action required to ensure that natural gas is a viable transitional fuel for use in the national electricity generation mix “</p> <p>This needs to be substantiated if,</p> <p>a) The latest gas-to-power IPP round has been budgeted at R2.47/kWh, according to Eskom's Multi-Year Price Determination (MYPD) submission which is significantly more expensive than Eskom's MYPD renewable energy projects modelled at 79c/kWh?</p> <p>b) There is no reasonable justification for paying more per kilowatt, especially since renewable costs are decreasing.</p> <p>c) While gas is cheaper per petajoule (PJ) than diesel, gas requires a massive infrastructural spend, increasing pricing on low volume purchases of gas.</p> <p>d) Gas is going to take longer to meet South Africa's energy needs than other energy options.</p> <p>e) The risk of stranding further jobs in the fossil fuel industry needs very serious consideration.</p>	

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			<p>f) Global carbon budget imperatives demand that this feasibility must be compared to returns on the cost of investment in renewable power generation projected to 2050 and should include externalised costs of emissions and include monetising the impacts on human health and the cost to remedy it.</p> <p>5.2.4. Draft Integrated Energy Plan (2013)</p> <p>The ESIA highlights further contentious claims that “The use of natural gas for power generation is also considered as an option to assist South Africa to move towards a low carbon future given that natural gas has a lower carbon content than coal.”</p> <p>a) Whether gas can achieve substantial climate benefits in the transition from coal-based electricity is highly contentious. That perception of gas climate compatibility was derived from the fact that gas burns cleaner than coal, generating roughly half of the carbon emissions. However, that calculation ignores the enormous volumes of methane into the atmosphere up and down the supply chain – at drilling sites, compressor stations, pipelines, and liquefaction facilities. That calculation also ignores the energy used to transport it.</p> <p>b) Recent findings on the extent of methane leakage from gas infrastructure undermine claims of environmental benefits over other fossil fuels. A Natural Resources Defence Council (NRDC) study (December, 2020) found that the climate benefit of LNG compared to coal is only modest at best, and because of the leakage inherent in producing the gas and the energy required to cool it and transport it, it ultimately presents a significant threat to the climate.</p>	

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			<p>c) The ESIA assumes well-run gas infrastructure. Cumulative emissions of nitrogen oxides, carbon monoxide and volatile organic compounds from new fossil gas plants in South Africa will add to the existing emissions and health impacts from the coal sector.</p> <p>5.2.9. Integrated Resources Plan (2019)</p> <p>The potential availability of gas provides an opportunity to convert to closed-cycle gas turbines (CCGT) and run open-cycle gas turbine plants at Ankerlig (outside Cape Town), Gourikwa (Mossel Bay), Avon (Outside Durban) and Dedisa (Coega IDZ) on gas.</p> <p>a) The CSIR Strategic Environmental Assessment (SEA) for the development of a Gas pipeline network for South Africa report indicates that Eskom do not have the financial resources to convert coal-powered power stations into gas-powered power stations. Please justify this statement.</p> <p>b) OCGTs and CCGTs will become obsolete soon with the introduction of batteries and a concerted effort to decarbonise the national grid. Also advances in electricity system operation will also lead to less renewable (wind) curtailment, massively reducing the need for backup thermal generation.</p> <p>6.4.5 Demobilisation and Well Abandonment</p> <p>a) It is not sufficient for the Environmental Assessment to claim that well plugging “lasts a lifetime”. Well failure is a common enough issue and serious. It is imperative that understanding of barrier regulations, standards and implementation is adequate and proactive. Well integrity failure could have</p>	<p>6.4.5a. Well plugging and abandonment are undertaken to ensure safe closure of a non-producing offshore wells. Wells are sealed, plugged, tested for integrity and abandoned according to international best practices. The ultimate goal of these measures is to provide permanent containment of the formation fluids and to prevent migration from the reservoir to the seabed, i.e. isolate permeable and hydrocarbon bearing formations. The principal technique applied to prevent cross flow</p>



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			catastrophic implications and incident prevention should be the highest priority.	<p>between permeable formations is plugging of the well with cement, thus creating an impermeable barrier between two zones. Depending on the formations encountered a well may be plugged at multiple locations. The integrity of cement plugs can be tested by a number of methods. The cement plugs will be tag tested (to validate plug position) and weight tested, and if achievable then a positive pressure test (to validate seal) and/or a negative pressure test will be performed. Additionally, a flow check may be performed to ensure sealing by the plug.</p> <p>The leakage of hydrocarbons from an abandoned well can be initiated through a compromised well barrier either by degradation overtime or natural seepage, or both. For the proposed activities a maximum of five wells may be drilled, but only those which encounter hydrocarbon bearing formations could potentially leak. Although a leak from an abandoned well is unlikely, it could result in the release of large quantities oil or gas. The quantities released are, however, likely to less than in the case of a well blow-out. The impacts associated with a well blow-out (i.e. the worst case) is assessed in the ESIA (see Section 10.4 of the ESIA Report).</p> <p>TEEPSA will remain responsible for all abandoned wells until a closure certificate is obtained from the DMRE, after which DMRE will take over the responsibility.</p> <p>There have been in the order of 358 wells drilled in the South African offshore environment to date with no apparent issues related to the leaking of abandoned wells. PASA confirmed that it is not aware of any issues related to abandoned well (email of 12 December 2022).</p> <p>6.4.5b. At this stage no contactors have been identified or appointed. This would only be undertaken if TEEPSA receive Environmental Authorisation and it decides to proceed with exploration.</p>

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			<p>b) Please advise as to which actual contractor will be used for well plugging.</p> <p>8.1 Environmental and Socio-Economic Interaction Matrix</p> <p>a) Scoping out public health and safety for “accidental hydrocarbon spills / releases (minor) waste management and air emissions” minimises the potential ecological risks, and the consequential impacts to lives and livelihoods of small offshore spills, and erases their actual impact as cumulative environmental hazards. This coastal region has a large informal economy as well as intangible heritage dependent on a healthy ocean. Since these are not benign events it is the exact purpose of the ESIA to assess for them to inform the development of mitigation measures and decision-making.</p> <p>b) A cost-benefit analysis for the region is imperative.</p>	<p>8.1a. The specifics of what was screened out is presented in Table 8-3. It was only routine operational discharges from vessels and drilling unit on public health and safety that was screened out - Table 8-1 has been corrected. The area of interest for proposed exploration drilling is located approximately 60 km from the coast at its closest point and is thus far removed from any coastal receptors. The dominant current direction will also ensure that any discharges move mainly in a north-westerly direction away from coast. Given the offshore location of the survey and drill areas and the total volume of likely operational discharges, such discharges are expected to disperse rapidly to undetectable concentrations and are unlikely to have an impact on sensitive coastal receptors. There is no potential for accumulation of discharged substances leading to any detectable long-term impact.</p> <p>8.1b. The principle of undertaking a Cost Benefit Analysis (CBA) is fine for a project that is delivering a series of costs and benefits over time (as for a production project), but not for a once off exploration project (such as that proposed) to see if there a domestic resource exists. This is difficult without knowing the likelihood of an oil/gas resource, yields, etc. At present, all that is known is a set of private costs. The costs will be borne by TEEPSA, and from a South African perspective, there is no opportunity cost. The South African govt is not subsidising this project. The benefits would depend on (a) finding oil/gas in payable quantities and (b) EA is obtained to extract it. It is at this stage that undertaking a CBA would make more sense. The external costs that will be considered in the ESIA are related to the unlikely event of a large oil spill (blow-out). The external costs related to climate change from the proposed</p>

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			<p>3) FATAL FLAWS</p> <p>Paris Agreement - United Nations Framework Convention on Climate Change (2015)</p> <p>As a signatory to the Paris Agreement, South Africa is required to investigate alternatives to existing industries which have high carbon-emissions. A shift away from coal-based energy production within the energy sector and increased reliance on alternative energy sources is therefore anticipated.</p> <p>a) The need and desirability of the project have not been addressed according to guidelines (Guideline on Need and Desirability, 2017) wherein it states, “it must be decided which alternatives represent the “most practicable environmental option”, which in terms of the definition in NEMA and the purpose of the EIA Regulations, are that option that provides the most benefit and causes the least damage to the environment as a whole, at a cost acceptable to society, in the long-term as well as in the short-term.”</p> <p>b) Offshore hydrocarbon exploration whose ultimate aim is the consumption of oil and methane gas in the years to come, is no longer a practice in societal development. The Scientific Advisory Group on Emergencies (SAGE), Academy of Science of South Africa (ASSAf) have weighed up the systemic risks of</p>	<p>exploration project are likely not an issue. The volumes of oil/gas involved would be infinitesimal by local and global standards.</p> <p>All potential impacts related to both normal operations and unplanned events (e.g. oil spills) of the proposed project are assessed in Chapter 9 and 10 of the ESIA Report, respectively.</p> <p>3a. Oils Not Oil's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if</p>

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			<p>this aim as it relates to ocean systems and the climate crisis showing that it will increase climate harms,</p> <ul style="list-style-type: none"> <li>i. altering winds, water temperatures, sea ice cover and ocean circulation; ,</li> <li>ii. ocean acidification, which is now irreversible for centuries to come , ,</li> <li>iii. altering the physiological functioning, behaviour, biological interactions, and productivity of organisms, which, in turn, could lead to shifts in marine life size structure, spatial range, seasonal abundance, community structure and ecosystem function;</li> <li>iv. transferring nutrients from surface waters down into the deep ocean, leaving less at the surface to support plankton growth;</li> <li>v. potentially suppressing marine biological productivity for a millennium;</li> <li>vi. ultimately destroying the fisheries and marine tourism industries of all countries, including South Africa, resulting in devastating job losses, food insecurity, and other adverse socioeconomic consequences; ,</li> <li>c) plus increase economic costs, and injustice will undermine the immediate realisation of viable alternatives (Singh. J et al, 2022). Ongoing threats from GHG emissions include,</li> <li>vii. ocean deoxygenation</li> <li>viii. sea level rise.</li> <li>d) Impacts on coral reefs from marine heat waves (1980 to 2020) encompass coral bleaching records from 14 405 sites in 93 countries. Since coral reefs create coastal protection, which</li> </ul>	<p>Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p>

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			<p>provides food and income to humans, their destruction has systematic consequences. The top part of the ocean is warming up 24% faster than it did a few decades ago, and this is accelerating.</p> <p>e) The Global Coral Reef Monitoring Network (GCRMN) report on The Status of Coral Reefs of the World: 2020, utilising data from over 12,000 collection sites across 73 countries spanning from 1978 to 2019, claims the world has lost about 14% of its coral reefs since 2009. Over 25% of the ocean's fish and over half a billion people currently rely on healthy coral reefs.</p> <p>f) Howarth et al., (2011, 2014) and (Howarth, 2021) have shown that the radiative forcing of methane means its larger global warming role (Howarth, 2014) than coal or oil "for any possible use of natural gas" (Howarth et al., 2012). Further pursual of this exploration right will not align with the third instalment of the IPCC's Sixth Assessment Report (AR6) requiring "immediate and deep" cuts in emissions everywhere.</p> <p>With this climate science as the actual baseline for this project, It is clear that there is no "need" for this project in terms of the broader societal/ public interest nor in terms of the well-being of future generations. In fact, due to South Africa's sensitivity to climate impacts (and the ESIA has not acknowledged that climate change is likely to have a significant impact on South Africa's economy) there is a categoric need not to pursue the project and that the choice of alternative energy cannot be another hydrocarbon option.</p> <p>Appraising this full ecological and socio-economic cost, including hazard and externality costs is imperative to establish no-go alternatives</p>	

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			<p>4) REQUEST RAISED DURING ESIA SCOPING MEETING, JUNE 2022</p> <p>a) The request to supply the public with the EIA reports for the 2D seismic survey undertaken between 1 December 2012 and 11 February 2013 has still not been met. A 3D report was sent.</p> <p>5) FAILURES</p> <p>a) Failure to identify the true scale of climate impacts: It is a fatal flaw in this SEIA that it has not drawn on the Sustaining the Wild Coast NPC &amp; Others v Minister of Mineral Resources and Energy &amp; Others, High Court of South Africa, Eastern Cape Division, Makhanda – Case No. 3491/2021, to produce a climate impact assessment. Without such an assessment, there is a severely understated existential risk to present and future generations. The ESIA, therefore, fails to place all relevant considerations before the decision-maker, as contemplated under Section 6(2)(e)(iii) of the Promotion of Administrative Justice Act.</p> <p>b) Despite indicating that it would describe 'key... socio-economic resources..... in areas potentially affected by the project' and 'provide data to aid the prediction and evaluation of possible impacts',</p> <p>a) the ESIA report has failed to identify, predict or quantify the actual or potential impact on the socio-economic conditions of these areas, despite the oil spill model indicating that accidental spills will reach the coastline;</p>	<p>4a. The Close-Out Report prepared for the 2020 3D seismic survey, that TEEPSA was involved with, was uploaded to the SLR and data free websites. This information was provided in good faith and it is not considered to be directly related to the current application for Environmental Authorisation and associated ESIA process. It was indicated during the Scoping Phase that the original ESIA Reports, prepared by PetroSA, should be obtained from PASA.</p> <p>5a. As noted above, TEEPSA is only seeking approval to drill up to five exploration wells. Any future extraction would be subject to a separate Production Right application and ESIA process, which will assess the potential impacts related to production. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application/assessment processes by which an applicant would have to obtain further Environmental Authorisation. This is typical of the lifecycle of a development project, and is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIAs undertaken in South Africa. Thus, a decision on the current Environmental Authorisation application does not in any way guarantee the holder future approvals that would be required to undertake future production activities.</p> <p>5a. The assessment of economic impacts as a result of unplanned events (i.e. such as a well blow-out) is challenging to accurately perform due to the many variables, assumptions and uncertainties that would be involved. The outputs of such an assessment are likely to be so broad</p>

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			<p>b) The potential of an accidental spill reaching the coastline is downplayed;</p> <p>c) nor have the impacts of a catastrophic spill on the broader South African economy been described or quantified.</p> <p>c) Failure to include a dispersant use plan.</p>	<p>that it would be of little direct value in informing the impact assessment process or the development of mitigation measures and ultimately decision-making. Thus, the Socio-Economic Impact Assessment considers the board socio-economic impacts related to an unlikely large oil spill. The level of information provided in the assessment of an unlikely oil spill is considered adequate to inform the assessment and to inform decision-making in this regard. The impact of an unlikely oil spill is assessed to be of very high significance and any additional information will not change the assessment.</p> <p>5c. One of the key recommendations is that TEEPSA develop a well-specific response strategy and plans (including Oil Spill Contingency Plan, OSCP), which will need to be approved by SAMSA, PASA and DFFE. The primary objective of the OSCP is to identify all possible spill scenarios, level of response requirements and set in motion the necessary actions to stop any discharge of oil and to minimise its effects. The OSCP thus provides for a comprehensive response to all oil and chemical pollution emergencies in the marine environment, including the use of dispersants. The structure of a standard TEEPSA OSCP is presented in the ESIA Report (see Box 11-2 in Section 11.3.7.4 for further details).</p>
			<p>6) WASTES &amp; IMPLICATIONS FOR REMEDIATION</p> <p>a) It is misleading to describe lower toxicity NADF (Group III NADF) as “biodegradable and not persisting in the long-term” (6.4.4.3.2.), since there is research that shows that chronic intermittent exposure of species such as corals, shrimp, scallop, including larval stages of many species, to dilute concentrations of operational drilling wastes (characterised by</p>	<p>6a and 6i. The Drilling Discharges Modelling study considers the toxicity of drilling fluids (both WBM and NADF) in the determination of environmental risk. Due to the weak seabed currents in the Area of Interest, the duration for sediment toxicity is assessed to be of long-term duration.</p>

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			<p>tests as practically non-toxic) can affect growth, reproductive success and survival , .</p> <p>i. At 3570m hypoxic conditions are likely to make biodegradation extremely slow (Rye et al. 2006a).</p> <p>b) What assurances are there that drill cuttings will be treated to reduce oil content before disposable over board? 6.9% oil content is extremely high.</p> <p>a) Offshore thermal desorption offers an alternative method to treat drilled cuttings offshore and reduce the oil concentration on cuttings to typically less than 0.5% by weight prior to marine discharge. Is this a method being considered?</p> <p>b) The Drilling Discharges Modelling Study must evaluate the contamination by not only 234 230 Kgs of Non-aqueous Drilling Muds per well, but also model for the risk of the cumulative exposure to toxic and non-toxic stressors (dissolution of the chemicals, transport and deposition of particles, biodegradation, attachment of chemicals to particles, and eventually formation of agglomerated particles),</p>	<p>6b. It is recommended in the ESMP that the selected drilling fluids are tested for toxicity, barite contamination and zero oil content (for WBM) and less than 6% (for NADF) to ensure the specified discharge standards are maintained. Monitoring and auditing will be undertaken to confirm adequate implementation of the ESMP, as well as the effectiveness of mitigation measures in avoiding or minimising impacts - refer to Section 11.6 of the ESIA Report.</p> <p>6a. Offshore thermal desorption is not being considered as an alternatives, as indicated in Table 6-12 of the ESIA Report. Drilling discharges will be disposed at sea. This is in line with most countries (including South Africa) for early exploration development phases. The rationale for this is based on the low density of drilling operations in the vast offshore area and the high energy marine environment. As such, TEEPSA proposes to use the “offshore treatment and disposal” option for their drilling campaign in Block 5/6/7. The same method was applied for drilling of their exploration wells in Block 11B/12B (namely Brulpadda and Luiperd wells). Thus, this ESIA only assesses this disposal method.</p> <p>6b. The specialist studies consider the impact of drilling up to five wells, as well as the cumulative impact.</p>



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			<p>and the fates of the discharge compounds in the sediment (e.g., concentrations and biodegradation in the sediment, bioturbation, equilibrium partitioning for organic chemicals and heavy metals, oxygen content in the porewater, change of grain size, and burial) from 1.17115 tonnes of discharge from five wells.</p> <p>c) Please advise as to which actual licenced waste contractor will be used for disposing of volumes of NADF remaining from the project. It is understood that this option may not be used, but we believe it is in the public interest to know the name of the contractor should the option be employed.</p> <p>d) Please advise as to which actual licenced waste contractor will be used for disposing hazardous wastes from the project, for the same reasons as above.</p> <p>7) CLIMATE CHANGE AND AIR EMISSIONS IMPACT ASSESSMENT</p> <p>a) TEEPSA's estimate of 10 000 bbl oil to be flared per test, "i.e., up to 20 000 bbl over the two tests associated with an appraisal well' needs to be expanded given that there may be up to five wells in total). A more realistic total estimate then stands at 100 000bbl or 15 899 000 litres of oil. To understand the carbon footprint of this oil TEEPSA/SLR need to provide an estimate of their carbon percentage, by weight.</p> <p>b) What carbon budget has been allocated by the Minister of Forestry, Fisheries and the Environment for this project?</p>	<p>6c &amp; 6d. At this stage no contactors have been identified or appointed. This would only be undertaken if TEEPSA receive Environmental Authorisation and it decides to proceed with exploration.</p> <p>7a. The Climate Change and Air Emissions Impact Assessment considers the flaring of all five wells; i.e. 5 x 20 000 bbl.</p> <p>7b. Based on the published 2017 National GHG annual Inventory, the total CO2-e emissions from the proposed project, assuming five successful appraisal wells with tests, would contribute approximately 0.07% to the 2017 South African "energy" sector total of 0.41 Gt and represents a contribution of 0.06% to the National GHG inventory total of 0.51 Gt. It is recommended that the Project GHG reporting is aligned with national policy. In addition, TEEPSA would need to submit an</p>

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			<p>c) Has a greenhouse gas mitigation plan been prepared and submitted to the Minister for approval?</p> <p>d) Total Energies and Shell have endorsed the Zero Routine Flaring by 2030 (Shell ZRF by 2025) initiative launched by the World Bank and the United Nations in 2015 for new field development, so what consequence does this hold for this operation?</p> <p>e) The ESIA should suggest adopting integrated system engineering designs for reducing flaring, (Bawazir, I. et al. (2014), Qatargas Flare Reduction Program, Society of Petroleum Engineers, presentation at International Petroleum Technology Conference, Doha, Qatar,) such as using it onsite for operational energy, or reinjecting it for pressure support or permanent disposal (IEA (2021), Flaring Emissions, IEA, Paris <a href="https://www.iea.org/reports/flaring-emissions">https://www.iea.org/reports/flaring-emissions</a>).</p> <p>8) UNDERWATER NOISE</p> <p>a) The ESIA acknowledges that the noise generated by vessels, well-drilling operations and the Vertical Seismic Profiling (VSP), falls within the hearing range of most fish, mammals</p>	<p>annual Carbon Tax environmental levy in July of each year after operations commence</p> <p>7c. Certain production processes indicated in Annexure A of the Declaration of Greenhouse Gases as Priority Pollutants (Government Gazette 40966 of 21 July 2017) with GHG in excess of 0.1 Megatonne (Mt) annually, measured as CO<sub>2</sub>-e, are required to submit a Pollution Prevention Plan (PPP) to the Minister for approval. The PPP regulations under Sections 29(3), 53(o) and (p) read with section 57(1)(a) of the NEM: AQA, prescribe the requirements for the development and submission of PPPs. Whilst the Production and/or Processing of Natural Gas and the Production and/or Refining of Crude Oil are included in Annexure A, exploration and well testing is not specifically included in the list. Thus, the current project does not require a PPP.</p> <p>7d. TEEPSA exploration Right expires before 2030 and the proposed project would be completed by then. Thus, the deadline for zero routine flaring by 2030 would not be applicable to this project.</p> <p>7e. The mitigation recommended to reduce the impact are flaring are based on the International Finance Corporation's (IFC) Environmental, Health and Safety Guidelines for offshore oil and gas development, April 2007.</p> <p>8a. The Underwater Noise Modelling Study determine noise transmission loss with distance from the drill site and zones of impact relating to permanent or temporary injury and behavioural disturbance</p>

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			<p>and reptiles and would be audible and detrimental (risk of physiological injury or behavioural changes) for considerable ranges before attenuating to below threshold levels. While it is acknowledged, and ignored, by putting it aside due to pitiful mitigation measures, the actual cost to fisheries and tourism remain to be down-played and no attempt has been made to solve the problem at hand. The problem being that virtually no ocean noise research has been undertaken within South Africa. At what point is industry going to take responsibility in solving this massive and reoccurring issue together with the relevant national government environmental and fisheries departments?</p> <p>b) What alternatives to Vertical Seismic Profiling have been investigated?</p> <p>c) Please include the number of airguns being used.</p> <p>d) Please include the decibel attenuation for the Vertical Seismic Profiling.</p>	<p>- refer to Appendix 8 in Volume 2. It should be noted that the underwater noise modelling study takes the current ambient noise levels into account, which are in fact 10 dB higher than the lowest level and are considered within the cumulative noise impact models.</p> <p>The estimated zones of impact have been used by the marine ecologist and fisheries specialist in their assessment of potential impacts.</p> <p>8b. Once the target depth is reached, the well will be logged and possibly tested. Well logging involves the evaluation of the physical and chemical properties of the rocks in the sub-surface, and their component minerals, including water, oil and gas, to confirm the presence of hydrocarbons and the petrophysical characteristics of the rock through which the hole has been drilled. VSP is just one evaluation tool that may be used when the well reaches target depth to generate a high-resolution seismic image of the geology in the well's immediate vicinity. Other logging activities that may be undertaken include Wireline Logging and Logging While Drilling</p> <p>8c. Detail of the airguns modelled are presented in the Underwater Noise Modelling Study - refer to Appendix 8 in Volume 2. The modelling considered a Dual Delta Sodera G-Gun array of 1 200 cubic inch (CUI) supplied by Nitrogen gas quads for the VSP operations. The array consists of 6 active G-Gun airgun units (3x250 CUI + 3x150 CUI) and has an average towing depth of 10 m and an operating pressure of 2 000 pounds per square inch (PSI).</p>

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			<p>e) Recurring impacts along this section of coastline where there is a wide range of extractive activities and the possibility of concurrent seismic surveys, have not been considered, by the EIAR. Parsons et al. (2009) warn that some of the more insidious, and potentially devastating, impacts arise through long-term, repeated, persistent or cumulative exposures. Cumulative acoustic limits should be established. These limits should be appropriately matched to the spatiotemporal scale and exposure rate of the risks to individuals and populations. Measurement of noise budget, such as those under consideration under the EU Marine Strategy Framework Directive (Tasker et al. 2010), should lead to limits on the source levels that are introduced on a regional scale.</p> <p>f) The Underwater Noise Modelling Study also needs to establish a hearing threshold-based safety zone based on a Permanent and Temporary Threshold Shift is imperative to reduce the likelihood of physiological effects resulting in killing of individuals.</p> <p>g) What international operational guidelines will be followed for mitigation of noise during this operation?</p> <p>h) Please assess the full scale of this acoustic footprint including impacts caused by vibration through drill string and casing, vibration into the seabed, vibration of drill bit.</p> <p>i) Please indicate any electromagnetic operations and the effects to vulnerable species eg. Chondrichthyans.</p> <p>9) DRILLING DISCHARGES MODELLING</p>	<p>8e. The Underwater Noise Modelling Study takes the current ambient noise levels into account, which are in fact 10 dB higher than the lowest level and are considered within the cumulative noise impact models.</p> <p>8f. The Underwater Noise Modelling Study determines the zones of impact relating to permanent (PTS) or temporary (TTS) injury and behavioural disturbance - refer to Appendix 8 in Volume 2. The estimated zones of impact have been used by the marine ecologist and fisheries specialist in their assessment of potential impacts.</p> <p>8g. The mitigation measures recommended for VSP activities have been adapted from JNCC guidelines for geophysical surveys.</p> <p>8h. The zones of impact relating to permanent (PTS) or temporary (TTS) injury and behavioural disturbance are presented in the Underwater Noise Modelling Study (refer to Appendix 8 in Volume 2).</p> <p>8i. No electromagnetic operations are proposed as part of this project. Refer to project description in chapter 6 of the ESIA Report.</p>

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			<p>a) The modelling acknowledges a high environmental risk (at Point 1) where maximum concentrations of cuttings, Barite and Bentonite calculated at the end of operations for each season are high, and the concentrations of the main contributor to the chemical risk (fatty acid in the EZ MUL NT and in the INVERMUL NT) are lower than the weighting agents but very superior to their PNEC values. It is concerning that the following line was inserted into the interpretation of the impact of the discharge modelling results “The calculated risk has also to be balanced because of the very conservative approach used in the model”. This line suggests that best-case values to potential risks were used in the modelling and gives false sense of risk, while down-playing the actual threat.</p> <p>b) A rough chemical composition of the drill cuttings and various discharges are given in the report. However, the implications of these cuttings and discharges being disturbed, and releasing these chemicals, some of which are known to be of high environmental risk, months or years after the operations are not mentioned.</p> <p>c) Furthermore, given the grain size of the drill cuttings and various discharges will be different to that of the seabed, the implications of smothering and change of benthic communities and infauna within these areas are not interrogated.</p> <p>10) OIL SPILL MODELLING</p> <p>a) The interpretation of the oil spill modelling in the impact assessment document severely downplays the oil spill modelling report.</p>	<p>9a. As noted, the Drilling Discharges Modelling adopted a very conservative approach and considered the worst-case scenario.</p> <p>9b. The Drilling Discharges Modelling study considers the toxicity of drilling fluids (both WBM and NADF) in the determination of environmental risk. Due to the weak seabed currents in the Area of Interest, the duration for sediment toxicity is assessed to be of long-term duration.</p> <p>9c. Grain size is one of the parameters considered in the Drilling Discharges Modelling study - refer to Appendix 6 in Volume 2. The risk induced by the discharges considers the physical effects, including thickness deposit and grain size change.</p>

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			<p>The probability of oiling on the coastline is actually quite severe:</p> <ul style="list-style-type: none"> <li>i. Season 3 has the highest shoreline probability of oiling (up to 99%) assumably due to stronger northward currents and winds from NW, especially during June and July, driving the oil towards the shoreline in an easterly direction. Consequently, west coast of Cape Peninsula has the highest probability of impact during winter.</li> <li>ii. Season 2 and Season 4 have a significant shoreline oiling probability (up to 89% and up to 83%, respectively).</li> <li>iii. Season 1, the shoreline oiling probability is the lowest (up to 60% in general, and up to 15% for west coast of Cape Peninsula) due to NW surface currents (Benguela Current) and predominant winds from the SE, driving the oil towards offshore waters.</li> <li>iv. Arrival time of spilled surface oil to shore between 1 and 20 days.</li> <li>v. For Release Point 1 the most impacted shoreline would be the coast from St. Helena Bay to the Cape Peninsula, including North of Cape Town, and sometimes further south reaching Hermanus.</li> <li>vi. For Release Point 2, the most impacted coastline would be from Hermanus to Cape Agulhas.</li> <li>vii. Additionally, an oil spill from Release Point 1 could reach the Namibian offshore waters (&lt;5% of probability) and the Namibian shoreline (&lt; 30% of probability), while an oil spill from Release Point 2 would not reach Namibian offshore waters and shoreline.</li> </ul>	<p>10a. The assessment of an unlikely large oil spill does not downplay the results of the Oil Spill Modelling Study. The assessment provided in Chapter 10 of the ESIA Report provides just a summary of the modelling report. All the detail referred to in this comment is presented in the full report, which is appended to the ESIA Report. All details are available for review. Further to this, based on the results of the modelling study, the impact of an unlikely oil spill is assessed to be of very high significance on the marine and coastal environments.</p>

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			<p>b) The probability of deep layer contamination is also severe, even though it's accepted that dispersant decreases the size of the droplets, reducing the speed of ascent to the surface, thereby increasing the presence of oil in the deep layers, especially close to the release point. Therefore, the contamination area and the depth of contamination are:</p> <p>i. At Release Point 1 there is a 90% probability of contamination up to 18 km (with a maximum distance of 61 km to the south east, and 114 km to the north west). Up to maximum depths of 400 – 420 m,</p> <p>ii. At Release Point 2, the contamination area extends up to 18 km south east (90% probability for Season 1), but with a maximum distance of 62 km south east for Season 4, and maximum depths of 980 – 1 000 m.</p> <p>c) Therefore Season 1 is the 'best-relative-to-shore-based-life' period to have an oil spill - with the lowest amount of oil onshore (especially January and February) due to the main surface currents towards the W-NW and winds from the SE that drive the oil spill towards NW, avoiding the coastline. If a spill starts between the end of January and beginning of March, there is almost no oil onshore. While Season 3 is the worst period with the highest amount of oil onshore, this is due to the main surface currents towards N and NW and winds from NW to SE that drive the spill towards N and E directly on the coast.</p> <p>d) Furthermore, the predicted quantity of oil expected to reach the shore is not highlighted in the impact assessment document. Even in the best-case scenarios, where minimum</p>	

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			<p>values are used (757-4414 tons of onshore oil) will devastate fisheries and coastal community livelihoods.</p> <p>i. Given that drilling operations will be for approximately 2 years and accidents are unpredictable, these results should be clearly indicated to coastal communities, they are currently lost in a technical report.</p> <p>ii. An assessment of the receiving onshore environment of oil and mitigation is needed. Buried oil contaminants can resurface as the beach erodes. Buried oil must be removed through mechanical excavation. The ESIA needs detailed modelling of cross-shore distribution of oil contaminants relating to beach morphodynamic terminology to help optimize beach clean-up planning.</p> <p>11) EMERGENCY RESPONSE</p> <p>a) Emergency response preparedness calls for plans for mitigating a worst-case scenario, not a reasonable response period of a 20-day installation of a capping stack. Considering depths of 3570m, a worst-case scenario time period must be deliberated. Saying that Deepwater Horizon will never happen again because technology has advanced since that spill is equivalent to the Captain of the Titanic saying it cannot sink.</p>	<p>d) The predicted maximum quantities of oil reaching the shore are presented in the oil spill modelling Report - refer to Appendix 7 in Volume 2.</p> <p>11a. The catastrophic Deepwater Horizon (DWH) blow-out in the Gulf of Mexico in 2010 provided opportunity for increasing the understanding of how an oil spill impacts the marine environment. Beyer et al. (2016) provide an excellent review of the plethora of research papers emanating from the research programmes initiated following the spill.</p> <p>TEEPSA motivates that 20 days is a reasonable and realistic assumption for the installation of a capping stack in the unlikely event of a blow-out. The current state of knowledge, available technology and approach to well blow-out responses by the drilling industry have advanced since, and because of, the Deepwater Horizon spill event, which occurred in</p>



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			<p>b) Plans for worst-case scenarios such as an underground blow-out which cannot be contained using blow-out preventers must be also considered.</p> <p>12) MARINE ECOLOGY REPORT</p> <p>a) The residual impacts on marine habitats and communities associated with the proposed drilling activities are given together with 43 main mitigation measures. It is of concern that these mitigation measures are, at best, suitable but there is no guarantee that TEEPSA during their activities will implement any of these measures, unless they are specified in their operational conditions/ permit. There are too many (43) of these measures to be specified in a permit condition, it is not understood how all these measures can be ensured.</p> <p>b) Similarly, how will the 28 mitigation measures be applied to the residual impacts on marine habitats and communities associated with possible unplanned events associated with the proposed drilling activities.</p> <p>c) All the ROV data and videos – presumably this will be embargoed as with all bathymetric and seismic survey data that TEEPSA and partners have gathered. These data, specifically the ROV footage should be placed in the national biodiversity catalogue and be available online as a gesture of goodwill from TEEPSA. Providing it to institutions such as the South African National Biodiversity Institute or the Department of Forestry, Fisheries and the Environment with no-share or no-access conditions is not in the spirit of</p>	<p>the Gulf of Mexico in April 2010. As a result of this advancement, the duration of the Deepwater Horizon event is not considered relevant as a benchmark of a reasonable response period. It is relevant that subsea capping and subsea containment equipment (managed by OSRL, a cooperative dedicated to response to marine pollution by hydrocarbons) is installed at Saldanha and, therefore, well placed for a rapid response to an unplanned event in Block 5/6/7.</p> <p>11b. A well blow-out occurs when the blow-out preventer fails. Thus, blow-out failure has been considered in the modelling and the assessment.</p> <p>12a &amp; b. All specialist recommendations are included in the ESMP, which TEEPSA is legally obliged to implement as a condition of approval, assuming it received Environmental Authorisation. Monitoring and auditing will be undertaken to confirm implementation of the ESMP, as well as the effectiveness of mitigation measures in avoiding or minimising impacts - refer to Section 11.6 of the ESIA Report.</p> <p>12c. It is agreed that TEEPSA should, where possible, take steps to share data collected during the drilling programme (e.g. ROV video footage of the benthic environment), if requested, to resource managers (including DFFE, South African National Biodiversity Institute and appropriate research institutes). TEEPSA is in the process of sharing data with SANBI and the DFFE. Non-disclosure agreements would need to be in place.</p>

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			<p>enhancing South Africa’s marine biodiversity and biological resource knowledge.</p> <p>NOISE</p> <p>It is acknowledged that while equipment is in water, the “noise produced will be low relative to the drilling noise and the dynamic positioning system (DPS)”.</p> <p>a) Does this include the Vertical Seismic Profiling?</p> <p>i. And how does that compare to the noise cumulatively to the DPS and the drilling operations?</p> <p>SPECIES LISTS</p> <p>a) The use of the IUCN Red List categories (global and national/local), Threatened or Protected species (TOPS) categories, and endemism is used inconsistently in the various tables. The endemism status for all chondrichthyans is missing, while many of the IUCN categories are out dated and incorrect.</p> <p>b) Furthermore, some of the shark species were included in maps, most of these are not those which are threatened according to the IUCN, i.e., no Critically Endangered chondrichthyans are included.</p> <p>c) Moreover, according to the IUCN, categories CR, EN and VU are regarded as threatened. The VU category is being downplayed.</p> <p>d) It is very concerning that the area of interest has the highest concentration of cetaceans in the great area. Given that the drilling activities are anticipated to occur for possibly more</p>	<p>a. No, this statement does not relate to VSP. VSP is considered in the Underwater Noise Modelling Study.</p> <p>a. The Marine Ecology Impact Assessment and final ESIA Report have been updated.</p> <p>d. Impact on whale migration is considered in the ESIA. Whales may experience disturbance within 2.2 km from the drilling unit and since the drilling unit is stationery whales will easily be able to avoid the area; thus, it is unlikely that whale migration will be affected.</p>

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			<p>than 24 months, how are these activities going to account for migration periods?</p> <p>MARINE PROTECTED AREAS (MPAS), ECOLOGICALLY AND BIOLOGICALLY SENSITIVE AREAS (EBSA'S), CRITICAL BIODIVERSITY AREAS (CBA'S) AND BUFFER ZONES</p> <p>a) The MPAs in South African form a Network which covers 5% of the EEZ around South Africa. These areas are recognised and have documented special features, including representative, unique and sensitive ecosystems, their importance for providing sanctuaries for threatened species and their essential habitats, and their role in supporting rebuilding populations of over-exploited fish species.</p> <p>b) There are twenty-one MPAs which could potentially be impacted by the exploratory drilling, which may pose significant risk from minor operational leakages, spills and pollution and/or a major oil spill if there is a blow-out. Two MPAs overlap with the Block, including Brown's Bank and Southeast Atlantic Seamounts MPAs, while Offshore Marine Protected Areas adjacent to the area, including Orange Shelf Edge MPA, Namaqua Fossil Forest MPA, Child's Bank MPA, Benguela Muds MPA, Cape Canyon MPA, Robben Island MPA, Agulhas Bank Complex MPA, Agulhas Muds MPA, South West Indian Seamount MPA. Coastal Marine Protected Areas adjacent to the area, included the Namaqua National Park MPA, Rocher Pan MPA, West Coast National Park MPA, Table Mountain National Park MPA, Helderberg MPA, Betty's Bay MPA, Walker Bay MPA, De Hoop MPA, Goukamma MPA and Robberg MPA.</p>	<p>a - e. Although the Area of Interest for drilling does not overlap with any MPAs or EBSAs, it does overlap with a Critical Biodiversity Area. A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p>

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			<p>c) There are also three Ecologically and Biologically Sensitive Areas (EBSAs). The principal objective of the Ecologically or Biologically Significant Areas (EBSAs) is identification of features of higher ecological value that may require enhanced conservation and management measures. Even though EBSAs currently carry no legal status. Block 5/6/7 overlaps with five EBSAs (namely the Cape Canyon and Associated Islands, Seas of Good Hope, Protea Seamount Cluster, Brown's Bank and Benguela Upwelling System EBSAs), the Area of Interest for proposed exploration drilling avoids all EBSAs.</p> <p>d) There are also a number of EBSAs in the indirect area of influence: Orange Seamount and Canyon Complex EBSA, Orange Cone EBSA, Namaqua Fossil Forest EBSA, Childs Bank and Shelf Edge EBSA, Namaqua Coastal Area EBSA, Mallory Escarpment and Trough EBSA, Agulhas Bank Nursery Area EBSA, Shackleton Seamount Complex EBSA, Kingklip Corals EBSA, Tsitsikamma-Robberg EBSA.</p> <p>e) An evaluation of each of these MPA's &amp; EBSA's has been completed as a paragraph each, their sensitivities and critical ecosystem functions have been identified, however, there is no concern and a simple lack of acknowledgement that these areas could be devastated by a blow-put or other accidents.</p> <p>f) Buffer areas surrounding the above areas have been noted but it remains unclear if these will actually be part of the operational plan or if they are a mere mention.</p>	<p>f. All specialist recommendations are included in the ESMP, which TEEPSA is legally obliged to implement as a condition of approval, assuming it received Environmental Authorisation. Monitoring and auditing will be undertaken to confirm implementation of the ESMP, as well as the effectiveness of mitigation measures in avoiding or minimising impacts - refer to Section 11.6 of the ESIA Report.</p>

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			<p>13) SOCIO ECONOMIC ENVIRONMENT.</p> <p>The proposed exploration is not likely to create long-term jobs for South Africans; however, the proposed activities “could potentially affect fishing activities, as a result of fishing exclusion from the 500m operational safety zones around the drilling unit; increased underwater noise disturbance during drilling and Vertical Seismic Profiling activities, the abandonment of the wellheads on the seafloor.”</p> <p>a) A full Cost Benefit Analysis is required.</p> <p>b) Furthermore, according to the Scoping Report, Southern right whales may be affected by the drilling while passing through the Block enroute to their coastal breeding grounds.vii Given that the noise and disturbance from the drilling may affect the presence and behaviour of cetaceans like Southern right whales, the drilling could affect tourism along the Whale Coast, which relies on the presence of these whales to generate tourism revenue for the region.</p>	<p>13a. The principle of undertaking a Cost Benefit Analysis (CBA) is fine for a project that is delivering a series of costs and benefits over time (as for a production project), but not for a once off exploration project (such as that proposed) to see if there a domestic resource exists. This is difficult without knowing the likelihood of an oil/gas resource, yields, etc. At present, all that is known is a set of private costs. The costs will be borne by TEEPSA, and from a South African perspective, there is no opportunity cost. The South African govt is not subsidising this project. The benefits would depend on (a) finding oil/gas in payable quantities and (b) EA is obtained to extract it. It is at this stage that undertaking a CBA would make more sense. The external costs that will be considered in the ESIA are related to the unlikely event of a large oil spill (blow-out). The external costs related to climate change from the proposed exploration project are likely not an issue. The volumes of oil/gas involved would be infinitesimal by local and global standards.</p> <p>All potential impacts related to both normal operations (including impacts on cetaceans and tourism mentioned in the comment) and unplanned events (e.g. oil spills) of the proposed project are assessed in Chapter 9 and 10 of the ESIA Report, respectively.</p> <p>14. A comprehensive public participation process has been undertaken as part of the ESIA, including engagement with the commercial and small-scale fishing sectors - refer to Chapter 4 of the ESIA Report.</p>

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			<p>14) FISHERIES ACTIVITIES</p> <p>The exploration activities will be undertaken for an extended period of time (~24 months). From the scoping report, the impacts on the various fisheries range from no impact to impacting substantially. Up to now, fisheries appear to have had little to no say that their areas are being intercepted and they are expected to stay out of the areas. There is no evidence of the Fisheries sector being consulted, the Pelagic longline and demersal trawl are expected to be the most impacted by drilling and post-drilling phase.</p> <p>For all the reasons stated above, it is our urgent request that the proposed exploration does not proceed.</p> <p>We look forward to your most urgent response.</p>	
52.	Stefania Falcon – WAPFSA	07 December 2022 – Email Attachment	<p><b>PREAMBLE</b></p> <p>The Wildlife Animal Protection Forum South Africa (WAPFSA) submitted preliminary comments to the Draft Scoping Report (DSR) on the 4th of July 2022. This network consisting of thirty-one member organisations remains deeply concerned about the overall lack of urgency in addressing the shift towards renewable energy alternatives in South Africa.</p> <p>We highlight the fact that the public response to the DSC (Annexure 4.2- Comments to the DSR) reflects an overwhelming outcry against the proposed project.</p> <p>This negative response to the proposed project included well represented feedback from local municipalities, provincial and national government authorities, and National Parks and Provincial Environmental authorities.</p>	

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			<p>The public adverse response to the project included representation from ratepayers' associations, community associations, councils and coalitions, scientists and researchers, representatives of local businesses and a very large number of concerned local residents.</p> <p>WAPFSA members hereby highlight and reiterate many of the issues raised, especially the contradictions and crucial unresolved questions that cannot be mitigated, such as:</p> <p>a. South Africa has a high dependency on fossil fuels and as a result, is responsible for about 50% of Africa's GHG emissions. As one of the top 20 global GHG emitters, South Africa will need to make substantial emission cuts.</p> <p>The proposed TEEPSA 5/6/7 project will contribute to further emissions which could exacerbate climate change affecting life on both land and in the ocean; such as increased risks of prolonged droughts in an already droughts sensitive region, increased risks of wildfires and coastal systems collapse, climate change-related impacts in the ocean including sea level rise and associated storm swell and change in currents;</p> <p>b. The National Climate Change Response White Paper recommends renewable energy and not fossil fuels (including gas), and the transition to clean energy must be fair and inclusive, leaving nobody behind. This project will offer only about 170 local jobs; furthermore, we believe that continuing to associate natural gas with clean energy is disingenuous and misleading;</p> <p>c. There are considerable predicted risks of impacts on marine wildlife, habitats, and ecosystems. It is of great concern that the area targeted for drilling encompasses one of the most pristine marine environments in South Africa and globally;</p>	<p>a. - c. WAPFSA 's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA</p>

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			<p>d. The effects of drilling activities on cetaceans and other mammals and fish include tissue damage; in mammals, behavioural changes could involve changes in time spent at the water's surface, dive times and energy costs due to having to travel greater distances in an attempt to evade the sound. The stress can change body physiology, affecting growth and reproduction and can even result in death. Migratory patterns of large pelagic fish species, as well as their typical behaviour patterns, stand to be affected by drilling activities. These species include various tuna, billfish and shark species;</p> <p>e. While the abundance of turtle species in the project area is expected to be low, their exact numbers are unknown. Leatherback, Loggerhead and Green turtles are all found in the area and with six of the seven sea turtle species already endangered, the potential effects of drilling activities on turtle populations could have dire consequences; in addition, the project area overlaps with the Atlantic Southeast 19 IBA (Important Bird Area), which is a distinct area that has been identified to provide essential habitats for bird species;</p> <p>f. Spills, be them during regular operations or in the event of a blowout, will have severe impacts on the ecology and economy and the livelihoods of the area; businesses that are the pillars of the local economy will be put at risk; there are risks of reduction in income for secondary and tertiary sectors. Minor spills from</p>	<p>and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>d. &amp; e. All potential impacts, including those listed, have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report.</p> <p>f. The potential impact related to an unlikely oil spill is assessed in the ESIA - refer to Chapter 10 of the final ESIA Report. It is assessed to have a significant impact on the marine and coastal environment.</p>



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			<p>refuelling at sea will have an immediate detrimental effect on water quality while there are no studies on the impacts major spills will have on a such biodiverse area including on kelp beds and the consequent potential social-economic effects from any possible degradation of them. Spills will have toxic effects on marine fauna and will also result in the oiling of coastal habitats and seabirds;</p> <p>g. Drilling discharges and normal discharges such as deck drainage, machinery space drainage, sewage and galley wastes from the drilling unit and support vessels will all result in turbidity, pollution and a general reduction of water quality in the area;</p> <p>h. Short and long-term impacts on human health, on air and water quality; water pollution must be prevented by law. Ballast water discharge from operational vessels will contain a variety of biological materials, including plants, animals, viruses, and bacteria. The discharge of ballast water could lead to the introduction of alien invasive species and cause extensive ecological and economic damage to the local aquatic ecosystems;</p> <p>i. Diesel fuel would be used to power generators used in the project, machinery used to power the drilling operations and the support vessels. Aviation fuel would be used for aircraft, helicopters and well flow testing. The combustion of this diesel would result in emissions which would reduce the air quality of the area, contribute to GHG emissions and have respiratory effects on the local communities;</p> <p>j. Impacts on fisheries and historically disadvantaged small-scale fishers and vulnerable communities. There are 68 communities that have been registered for small-scale fishing rights, comprising a total of 2031 fishers, and while they are thought to be in the shore of the area of interest, the far-reaching effects of the</p>	<p>g. Impact related to operational discharges is assessed in Section 9.1.2 of the ESIA Report.</p> <p>h. Impact related to ballast water discharges is assessed in Section 9.1.3 of the ESIA Report.</p> <p>i. Impact related to air quality and GHG emission discharges is assessed in Section 9.1.1 of the ESIA Report.</p> <p>j. The impacts on commercial and small-scale fishers are assessed in the ESIA for both normal operations and unplanned events. During normal operations, no impact is anticipated on small-scale fishers, as they fish inshore of the proposed Area of Interest and estimated zones of impact for noise and sediment plume, while the impact on commercial fishing is</p>

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			<p>proposed drilling cannot be known with complete certainty. This would, in turn, affect the income and livelihoods of these communities. The local communities will also be affected in terms of an alteration in sense of place and cultural/spiritual reliance on the sea. Local service providers and suppliers may also have extra pressure placed on them when expected to support the proposed project;</p> <p>k. Impacts on and conflict with well-established businesses and with tourism; reputational risks that have never been assessed. The Western and Eastern Cape both rely heavily on tourism as an important economic activity and the direct and indirect impacts of a drilling project along these coastlines will have detrimental effects on tourism in the area. Hermanus is considered the most well-known area in the country for whale watching and whale related activities.</p> <p>l. Various causes of noise pollution, such as increased underwater noise from vessels, drilling and VSP, noise from the drilling unit, support vessels and helicopter operations, as well as ambient lighting from said operations will result in disturbance of and behavioural changes to marine and coastal faunal species. Marine species could potentially be displaced from important feeding and/or breeding areas and experience a loss of sense of place</p> <p>m. On the seafloor, drilling activities and infrastructure placement will result in sediment disturbance. Sedentary benthic species and other relatively immobile species will experience smothering and biochemical effects, such as direct toxicity and bioaccumulation) of the discharge of cuttings, drilling fluid and cement during the well drilling process. No provision appears to have been made for the long-term monitoring of well plugs and other structures that will be abandoned at the end of the project life cycle. Also, alien</p>	<p>considered to be of very low to low significance depending on the sector (refer to Section 9.2.2.2 and 9.2.3.2). However, in the unlikely event of a large oil spill from a well blow-out, commercial and small-scale fishers could be significantly impacted - refer to Section 10.4.3.3 and 10.4.3.4 of the ESIA Report.</p> <p>k. All potential impacts related to both normal operations (including impacts on tourism mentioned in the comment) and unplanned events (e.g. oil spills) of the proposed project are assessed in Chapter 9 and 10 of the ESIA Report, respectively.</p> <p>l. Impacts related to noise are assessed in Section 9.1.4 (helicopters) and 9.2.3 (drilling, vessels and VSP) of the ESIA Report.</p> <p>l. Impacts related to infrastructure on the seabed and discharge of cuttings are assessed in Section 9.2.1 and 9.2.2 of the ESIA Report, respectively.</p>

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			<p>invasive marine species will also potentially be introduced into the area due to international vessels and equipment being used and ballast water discharge;</p> <p>n. There is a possibility of collision hazards due to the equipment being lost and drifting to the surface, which may pose a public health and safety risk. Lost equipment would also pose a significant risk in terms of the entanglement of marine animals;</p> <p>o. Activities and mitigation procedures are difficult to be independently monitored or enforced.</p> <p><b>NEED AND DESIRABILITY</b></p> <p>The current crisis in global energy markets shows that there is absolutely no reason for South Africa to increase its reliance on fossil fuels. Overall fossil gas expansion is inconsistent with the Paris Agreement goals, and as a signatory to the Agreement South Africa should not undertake any exploration and investment in the development of new gas projects.</p> <p>South Africa is committed under the United Nations Framework Convention on Climate Change (UNFCCC) to contribute to the global climate change effort of limiting warming to well below 1.5 degrees above pre-industrial levels.</p> <p>Investing in fossil fuels explorations is robbing South Africa of the economic opportunity to change its energy to renewables, including producing green hydrogen with electrolysis from solar and wind resources; the demand for green hydrogen is in fact</p>	<p>n. The potential impacts related to an unplanned event, including faunal strikes, are assessed in the ESIA - refer to Chapter 10 of the final ESIA Report.</p> <p>O. All specialist recommendations are included in the ESMP, which TEEPSA is legally obliged to implement as a condition of approval, assuming it received Environmental Authorisation. Monitoring and auditing will be undertaken to confirm implementation of the ESMP, as well as the effectiveness of mitigation measures in avoiding or minimising impacts - refer to Section 11.6 of the ESIA Report.</p> <p>WAPFSA 's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making</p>

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			<p>steadily growing; investing in this sector would offer opportunities and build capacity, while significantly reducing in the long-term carbon emissions and environmental risks.</p> <p>In addition, to properly interpret the EIA Regulations' requirement to consider "need and desirability", it is necessary to turn to the principles contained in NEMA, which serve as a guide for the interpretation, administration and implementation of NEMA and the EIA Regulations. With regard to the issue of "need", it is important to note that this "need" is not the same as the "general purpose and requirements" of the activity.</p> <p>While the "general purpose and requirements" of the activity might to some extent relate to the specific requirements, intentions and reasons that the applicant has for proposing the specific activity, the "need" relates to the interests and needs of the broader public.</p> <p>The consideration of "need and desirability" in EIA decision-making, therefore, requires the consideration of the strategic context of the development proposal along with the broader societal needs and the public interest. The government decision-makers, together with the environmental assessment practitioners and planners, are therefore accountable to the public and must serve their social, economic and ecological needs equitably. Ultimately development must not exceed ecological limits to secure ecological integrity, while the proposed actions of individuals must be measured against the short-term and long term public interest to promote justifiable social and economic development.</p> <p>Considering the merits of a specific application in terms of the need and desirability considerations, it must be decided which</p>	<p>process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p>

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			<p>alternatives represent the "most practicable environmental option", which in terms of the definition in NEMA and the purpose of the EIA Regulations are that option that provides the most benefit and causes the least damage to the environment as a whole.</p> <p><b>CONCLUSION</b></p> <p>South Africa should not undertake any exploration and investment in the development of new gas projects. This also means no new infrastructure for production, refining, exporting and transport. These massive investments in new infrastructure create new fossil fuel dependence, making the transition to actual low-carbon and no-carbon energy even more difficult.</p> <p>Numerous legal challenges and countrywide protests against oil corporations demonstrate that the public is against the continuation of fossil fuel explorations in the country. The recent judgements in Sustain The Wild Coast NPC v Shell Exploration and Production and Earthlife Africa Johannesburg v Thabametsi Power Project, and the ongoing case of South Durban Community Environmental Alliance v Department of Mineral Resources and Energy, indicate the overwhelming position against climate change triggers.</p> <p>Any proposal attempting to bypass environmental and human rights legislation will be challenged by civil society.</p> <p><b>RECOMMENDATIONS</b></p> <p>The project should be suspended until an independent objective study can demonstrate the “need and desirability” of developing natural gas resources and prove that natural gas exploration and</p>	<p>WAPFSA's comments and opinions are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p>

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			extraction are preferred environmental and socio-economic strategies.	
53.	Paulita Mostert	07 December 2022 – Email	I think oil and gas cant mix and it will be an negatively influed for us as fishers that way we say no no no and please respect our culture and custermary rights we all have a right to stay in a safe and clean environment and same as the oceans please put your hands off our oceans we eat and give our families a living out of the sea so please respect us cause when you gonna drill our fish will disappear so please let we as fishers have a living I thank you	<p>The impacts on commercial and small-scale fishers are assessed in the ESIA for both normal operations and unplanned events. During normal operations, no impact is anticipated on small-scale fishers, as they fish inshore of the proposed Area of Interest and estimated zones of impact for noise and sediment plume, while the impact on commercial fishing is considered to be of very low to low significance depending on the sector (refer to Section 9.2.2.2 and 9.2.3.2). However, in the unlikely event of a large oil spill from a well blow-out, commercial and small-scale fishers could be significantly impacted - refer to Section 10.4.3.3 and 10.4.3.4 of the ESIA Report.</p> <p>Potential impacts on people's intangible cultural heritage is assessed in Sections 9.1.7 (normal operations) and 10.4.34 (oil spill).</p>
54.	Ricky Stone – Cullinan & Associates (acting on behalf of their client the EMS Foundation)	07 December 2022 – Email Attachment	<p>1. We continue to act for the EMS Foundation (“client”), a registered Interested and Affected Party (“I&amp;AP”) in respect of the proposed offshore exploration well drilling in block 5/6/7, South-West Coast, South Africa (“Project”).</p> <p>2. SLR Consulting (South Africa) (Pty) Ltd (“SLR”) has been appointed by TotalEnergies EP South Africa Block 567 (Pty) Ltd (“TEEPSA”) as the environmental consultants (“EAP”) for the Project and SLR is authorised to take responsibility for the public participation process (“PPP”) and to prepare the Environmental and Social Impact Assessment (“ESIA”) on TEEPSA’s behalf.</p> <p>Introduction</p> <p>3. We thank you for granting a forty-four (44) day period for I&amp;APs to submit comments on the draft ESIA. We do however point out that such a period is still too short to allow I&amp;APs the opportunity</p>	<p>3. The comment raised regarding to the extended comment period still being too shorting is noted. It should, however, be note that only one other request for an extension to the comment period on the draft ESIA Report was received and this was from the Overstrand Municipality,</p>

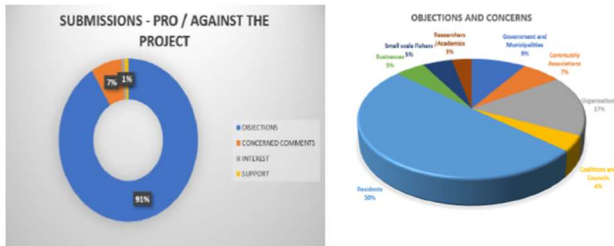
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			<p>to engage their own experts to provide substantive comments and critique on the Specialist Studies and the various Modellings, such as the Drillings Discharges, the Oil Spill, and the Underwater Noise Modelling. It must be appreciated that these are highly technical Studies and Modellings, and I&amp;APs should be afforded sufficient time, of at least ninety (90) days, to consult their own independent experts to ensure that they can meaningfully contribute to the final ESIA and place the necessary (conflicting) expert evidence before the decisionmaker so that they can make an informed decision.</p> <p>3.1. The need to provide sufficient time for I&amp;APs to engage their own experts becomes more pertinent when the specific EAP, in this case, SLR, and the Specialists, in this case, Capricorn Marine Environmental, have rendered professional advice and services to TEEPSA in respect of the self-same “block” for the prior seismic surveys which were undertaken by TEEPSA.</p> <p>3.2. The independence and objectivity of SLR and Capricorn is therefore questioned as their continued “business” and “financial” interests in Block 5/6/7 does not meet the requisite standard of independence and objectivity required by Regulation 13 of the EIA Regulations made under the National Environmental Management Act, 107 of 1998 (“NEMA”).</p> <p>4. At the outset and considering TEEPSA’s significant interests in various offshore licence blocks in South Africa, wherein it holds exploration rights and has applied / is applying, for production</p>	<p>who requested an additional week. Thus, it can be assumed that the comment period was satisfactory for most people.</p> <p>3.1. In response to the EMS Foundations request for an extension of the draft ESIA Report comment period (received during the Scoping Phase) as it wanted to appoint its own experts and specialists to independently assess the accuracy of the specialist reports and technical studies, it was suggested that it make those appointments during the Scoping Phase, rather than waiting for the commencement of the comment period on the Draft ESIA Report. This would ensure that the experts will have the full comment period in which to complete their review.</p> <p>3.1. &amp; 3.2. SLR is of the opinion that having done other work for the applicant does not, itself, impair SLR's or CapMarine's professional integrity or independence. It is disputed that SLR and CapMarine have any business or financial interest in TEEPSA's offshore gas exploration projects. SLR and specialist consultants, including CapMarine, have no vested interest in the proposed project other than fair payment for consulting services rendered as part of the ESIA process. SLR has declared its independence as required by the EIA Regulations 2014, as amended (see Appendix 1 of the Scoping Report).</p> <p>4. &amp; 4.1. NEMA and the EIA Regulations 2014 (as amended) serve as the legal framework to be followed for an Environmental Authorisation application in respect of the proposed exploration activities. An ESIA</p>

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			<p>rights, our client considers it highly appropriate, and indeed necessary, that TEEPSA commissions and undertakes a Strategic Environmental Assessment (“SEA”) before embarking on any further exploration or production activities.</p> <p>4.1. We therefore request that to the extent that the Competent Authority is inclined to approve this application for an Environmental Authorisation – which we submit it should not – then the Competent Authority should make it conditional on TEEPSA first undertaking an SEA in respect of all of its offshore interests generally, and the cumulative effect of TEEPSA’s interests and those of other oil and gas companies more broadly. The outcome of such SEA would then determine whether the proposed Project is both needed and desirable (and whether the myriad other exploration and production applications are equally needed and desirable).</p> <p>5. Our comments on the draft ESIA, as submitted on our client’s behalf and special request, will be shaped under the following themes which go to the heart of the flaws in the draft ESIA:</p> <p>5.1. Public Participation Process</p> <p>5.1.1. Adequate Public Participation;</p> <p>5.1.2. Social Licence to Operate;</p> <p>5.2. Need and Desirability of the Project; and</p> <p>5.3. The National Environmental Management: Integrated Coastal Management Act.</p>	<p>has been identified as the environmental instrument to be utilised in informing the application for Environmental Authorisation. Thus, the undertaking of an SEA is not a requirement that needs to be complied with regard to an application for Environmental Authorisation. There is no basis in law that prohibits the consideration of an E Environmental Authorisation A application in the absence of a SEA.</p> <p>It is not within TEEPSA's authority to commission and / or undertaken an SEA. It is the understanding that an SEA can only be commissioned by a Minister and/or MEC.</p>



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			<p><b>Public Participation Process (“PPP”)</b></p> <p><i>Adequate Public Participation</i></p> <p>6. I&amp;APs are now well accustomed to being subjected to PPP that are neither adequate nor meaningful. In essence, that the PPP continues to be a mere tick-box exercise undertaken by applicants such as TEEPSA and EAP’s such as SLR. It is reasonable to draw such a conclusion when one has regard to the Comments and Response Report, in that, regardless of the substantive nature of the specific comment or comments received from the respective I&amp;AP; SLR has merely referred the I&amp;AP to a section of the draft ESIA, instead of meaningfully responding to the specific comment in a manner which would constitute an answer to the concern raised by the I&amp;AP, or in a fashion which shows that the proposed Project will be varied and/or reconsidered in light of such comment/s.</p> <p>7. As SLR would know, the Petroleum Agency of South Africa (“PASA”) has published Guidelines on Consultation with Interested and Affected Parties (“Consultation Guidelines”). The most recent version of the Consultation Guidelines, dated 23 February 2016, therefore finds application in addition to the principles enshrined in the Constitution, NEMA, and the EIA Regulations, 2014.</p> <p>7.1. In terms of paragraph 1 of the Consultation Guidelines, “(c)onsultation serves to provide the necessary and enabling tool for interested and affected parties to protect their rights”. Furthermore, the Consultation Guidelines “...are meant to serve as a tool to assist applicants to undertake proper consultation as prescribed by the Act and interpreted by our courts.”</p> <p>7.2. Paragraph 2 of the Consultation Guidelines, under the heading “What Constitutes Consultation” goes on to record that “(i)t is</p>	<p>6. SLR is required to respond to all comments within the stringent legislated timeframes specified in the EIA Regulations 2014 (as amended). Where necessary, specific responses are provided to the comment (such as this response). However, where possible, the reader is referred back to the relevant sections in ESIA Report rather than repeating what is presented in the report. There have need numerous comments and opinions on the need and desirability of the project that don't necessarily require a response from SLR, but rather need to be considered by the Competent Authority in the decision-making process. The national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>7. A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report.</p>

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			<p>clear that consultation, as envisaged by the Act and interpreted by our courts, is more than a mere formal process and it requires a genuine and effective engagement of minds between the consulting and the consulted parties.”</p> <p>8. Accordingly, the formalistic approach adopted by SLR when undertaking the PPP for the proposed Project on TEEPSA’s behalf falls short of what is required by the Consultation Guidelines (and the NEMA framework), since SLR has not attempted to genuinely and effectively engage the minds between the consulting and the consulted – substantive comments raised by I&amp;APs are merely responded to with reference to a section in the draft ESIA without actually engaging with the substance of the I&amp;APs comment/s in any meaningful manner, and without taking the substance of the specific comment/s into account and amending the scope of the proposed Project accordingly.</p> <p><i>Social Licence to Operate</i></p> <p>9. We note from the Comments and Response Report included in the draft ESIA that an overwhelming majority of I&amp;APs have expressed their objection to the proposed Project. The objecting I&amp;APs range from individuals, community-based organizations, registered non-profit organizations or companies, to local government institutions, such as Municipalities.</p> <p>10. We have accordingly analysed the mix of comments submitted on the draft Scoping Report and captured those results in graphs to provide the decisionmaker and Competent Authority with a visual illustration of the number of objecting I&amp;APs versus those that have indicated support for the proposed Project.</p>	<p>8. SLR disagrees with this comment, as a comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report.</p> <p>9. - 11. It is agreed that the majority of comments received are in opposition to the proposed project. This is not dissimilar to many other ESIAs that SLR has been involved with, including renewables projects (e.g. wind and solar), where the majority of people that participate are opposed to the project. Seldom, if ever, you will an ESIA process where the majority of the comments are in support of a project. If people are in support they generally do no participate.</p> <p>Based on the findings of the ESIA and associated technical and specialist studies, SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts and National strategic policy issues</p>

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			 <p>11. We submit, with respect, that the absence of any true support (being less than 1% support) for the proposed Project is indicative that TEEPSA, as a fact, has not received its so-called “Social Licence to Operate”.</p> <p>11.1. The status of the Social Licence to Operate in projects which may have a detrimental effect on the environment is something which PASA itself has publicly remarked as a necessity in considering applications for the exploration (and production) of offshore oil and gas.</p> <p>11.2. The importance of the Social Licence to Operate is intrinsically linked to the legal concept and right encompassing Free, Prior and Informed Consent (“FPIC”). That is, a specific right that pertains to Indigenous Peoples and which finds its legal recognition in the United Nations Declaration on the Rights of Indigenous Peoples (“UNDRIP”).</p> <p>11.3. UNDRIP, in turn, by giving effect to the FPIC right, allows Indigenous Peoples to give or withhold consent to a project that may affect them or their territories. Furthermore, the FPIC right enables these Indigenous Peoples and Communities to negotiate the conditions under which a project will be designed,</p>	<p>relating to energy and climate change, as well as public opposition to oil and gas development.</p> <p>11. SLR and TEEPSA respectfully acknowledge the comments reflected and the views expressed by Cullinan and Associates on behalf of the EMS Foundation. While the views, perspectives, and objections of all I&amp;APs raised through the regulatory ESIA process, including these comments, are noted, TEEPSA should like to affirm its commitment to comply with South African legislation relevant to the proposed Block 5/6/7 project. In this respect, the requirement for public participation is embedded in South Africa’s Constitution and regulatory processes. Notably, Section (2)(4)(f) and (o) of the National Environmental Management Act, 1998 states <i>“the participation of all interested and affected parties (I&amp;APs) in environmental governance must be promoted and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured, and - the environment is held in public trust for the people, the beneficial use of environmental resources must serve the public interest and the environment must be protected as the people’s common heritage”</i>. In addition, according to the Protection, Promotion, Development and Management of Indigenous Knowledge Act, 2019 (No. 6 of 2019) <i>“prior informed consent”</i> means the consent in respect of indigenous knowledge granted by a trustee, which has been obtained (a) free from any manipulation, interference or coercion; (b) after full disclosure of the intent and scope of the activity; and (c) in a language</p>

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			<p>implemented, monitored and evaluated. The FPIC right is also embedded within the universal right to self-determination.</p> <p>11.4. We note and record that the Comments and Response Report, read with the minutes of the meeting convened between SLR (on TEEPSA's behalf) and the West Coast Guriqua Council, explicitly records that some of the most affected Indigenous Peoples and Communities have exercised their FPIC right and withheld consent.</p> <p>11.5. As such, the proposed Project has not garnered the support and consent of those Communities protected by the UNDRIP nor has TEEPSA more broadly obtained its Social Licence to Operate from the registered I&amp;APs, the majority of whom have expressed that they do not support, and therefore object to, the proposed Project.</p> <p>12. On the aforementioned basis, the public participation process cannot be deemed to have been meaningful in any sense, and the Competent Authority is accordingly justified in refusing to grant TEEPSA an Environmental Authorisation for the Project on this basis alone.</p>	<p>and process understandable to the community. To this end SLR and TEEPSA firmly believe that the ESIA process followed complied with the above requirements. SLR and TEEPSA have consulted with all registered I&amp;APs, including Indigenous Peoples, in the project affected area, and provided information about the proposed project, opportunities for comment and considered issues raised in the specialist studies during the ESIA. As such, SLR is obliged to reflect all the issues, concerns, questions, objections, and recommendations raised through the ESIA. South African laws mandate the country's Government to make decisions regarding exploration right and Environmental Authorisation applications. TEEPSA is currently in the process of applying for an Environmental Authorisation to undertake exploration activities, as such TEEPSA holds the view that it is premature at this stage to claim that it has attained, or not, a "social licence to operate". Should Environmental Authorisation be granted for the proposed project, TEEPSA will continue to engage and collaborate with Indigenous Peoples in the project affected area to obtain their consent about aspects that may directly impact them as a result of the project. In this respect, TEEPSA also undertakes to work with Indigenous People within the project affected area to determine how best to co-develop a sustainable corporate social investment programme insofar it is possible, given that by nature, exploration projects require significant capital investment. At this stage, the application is for exploration only.</p> <p>12. SLR disagrees with this comment, as a comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report.</p>

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			<p><b><u>Need and Desirability of the Project</u></b></p> <p>13. When considering an application for an Environmental Authorisation, the Competent Authority must take into account the considerations specified in section 24O of NEMA, these include:</p> <p>13.1. any pollution, environmental impacts or environmental degradation likely to be caused if the application is approved or refused;</p> <p>13.2. measures which may protect the environment from harm or prevent or mitigate any environmental impact; and</p> <p>13.3. where appropriate, <b><u>any feasible and reasonable alternatives to the activity, including feasible and reasonable modifications to the activity</u></b>, which includes the option of not implementing the activity.</p> <p>(Our emphasis).</p> <p>14. An EIA process is intended to achieve various objectives, including:</p> <p>14.1. to determine the nature, significance, extent, duration and probability of the impacts occurring to inform the identified preferred alternatives;</p> <p>14.2. to <b><u>describe the need and desirability of the proposed activity</u></b>; and</p> <p>14.3. to determine the nature, significance, consequence, extent, duration and probability of the impacts occurring to inform identified preferred alternatives, and the degree to which these impacts can be reversed, may cause irreplaceable loss of resources, and can be avoided, managed or mitigated.</p>	<p>13. - 17. EMS Foundation's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>As noted above, SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an</p>

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			<p>(Our emphasis).</p> <p>15. Furthermore, the Competent authority must take into account any guideline published in terms of section 24J of NEMA and any minimum information requirements for the application for Environmental Authorisation.</p> <p>15.1. These guidelines include the 2017 Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa ("the Guideline").</p> <p>15.2. Chapter 4 of the Guideline states that the "need for and desirability of a proposed activity should specifically and explicitly be addressed throughout the EIA process when dealing with individual impacts and specifically in the overall impact summary by taking into account the answers to inter alia the following questions." Detailed questions are then set out.</p> <p>15.3. The Guideline also states that the assessment of "need and desirability" must include considerations of how the "geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity" (p.9 of the Guideline).</p> <p>16. It is accordingly not sufficient to pass the "need and desirability" requirement to be awarded an Environmental Authorisation that an applicant, such as TEEPSA, can rely exclusively on State policy in respect of energy needs, including the mix of gas that may or may not be required to form part of the Just Transition to a decarbonised future.</p>	<p>informed decision on the proposed project taking into consideration the significance of potential impacts and National strategic policy issues relating to energy and climate change, as well as public opposition to oil and gas development.</p>

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			<p>16.1. Much more is required, and TEEPSA is required, factually, to show that the proposed Project is both needed and desirable, and that no alternatives exist, for example, that they are unable to explore for gas elsewhere nor to apply to produce gas elsewhere (which we record it is busy applying for in block 11B/12B).</p> <p>16.2. Plainly, the consideration is the extent to which there is a need to explore to discover further deposits of oil and gas, and whether it is desirable to do so given the climate crises, South Africa's obligations to reduce its emissions of greenhouse gases, and that exploration activities are ecologically harmful. Globally, the proven reserves of oil and gas far exceed what can be used without causing catastrophic climate change. Such change would also result in catastrophic impacts on human rights. These are issues that TEEPSA is required to deal with under the need and desirability requirement, yet it has failed to do so.</p> <p>16.3. Indeed, TEEPSA wishes to explore for oil and/or gas for the sole purpose of discovering deposits that they can then exploit. In other words, exploration activities and production activities are both steps in a single process, and it is artificial to exclude consideration of the impacts of the production process, or of the need for, and desirability of, producing oil and gas, when deciding whether or not to authorise exploration activities.</p> <p>17. If the exploitation of oil and gas in the area proposed by TEEPSA is not necessary or is not desirable, then exploring for that oil and gas cannot be necessary or desirable, particularly given the ecological risks associated with the proposed exploration. In other words, any assessment of the need and desirability of exploration activities, inevitably requires an assessment of the need and</p>	<p>16.1. It is interesting that the EMP Foundation mentions the current Projection Right application for Block 11B/12B (draft Scoping Report released for comment on 1 December 2022), as the same comments regarding the need and desirability are being raised on that application.</p>

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			<p>desirability of undertaking long-term hydrocarbon production in those areas.</p> <p>18. Impacts related to production activities are reasonably foreseeable impacts eventuating from exploration. If the impacts and risks associated with production are unacceptable, then any and all risks and impacts associated with exploration activities are unnecessary, undesirable and completely avoidable.</p> <p>19. Companies such as TEEPSA apply for exploration rights and are willing to invest very significant amounts of money and effort into oil and/or gas exploration on the basis that they will be authorised to exploit any deposits that they may discover. If no assessment of the anticipated impacts of production are made before initiating a process that is intended to lead to production, the project will acquire a momentum (by virtue of the investment of large amounts of money and effort by both the applicant, TEEPSA, and the regulators, PASA). If the full adverse environmental impacts of production only become known once exploitable oil and/or gas deposits have been discovered (at great cost), then TEEPSA will suffer significant losses if they abandon the Project and the prospects of a regulator or the court stopping the production is significantly lower.</p>	<p>18. &amp; 19. The cumulative impact is assessed in Section 9.4 of the ESIA Report. The EIA Regulations 2014 require the consideration of the 'cumulative impact', which includes the "reasonably foreseeable future impact of an activity". While it is foreseeable that future production activities could arise from the Exploration Right (if granted and successful), there is not currently sufficient information to make reasonable assertions as to nature of any future activities. This is due to the current lack of relevant geological information, which the proposed exploration process aims to address. The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a petroleum resource(s) is discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project. Potential impacts cannot be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts. The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplates, that the potential impacts and risks of productions activities must be considered and assessed at the exploration stage. Any potential future production activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate ESIA process. This is typical of the lifecycle of a development project.</p>



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			<p>20. In any event, most of the discovered reserves of oil and gas cannot be burnt if we are to stay on the pathway to keep global average temperature increases below 1.5 degrees Celsius. Therefore, authorising new oil and gas exploration, with its goal of finding exploitable oil and/or gas reserves and consequently leading to production, is not consistent with South Africa complying with its international climate change commitments.</p> <p><b>National Environmental Management: Integrated Coastal Management Act, 24 of 2008 ("ICMA")</b></p> <p>21. The draft ESIA, under the Administrative and Legal Framework section in Chapter 2, only contains a broad stroke reference to the ICMA. There, SLR paints a somewhat vague picture of the integral part that the ICMA plays in the decision-making process by only referring to two (2) of the requirements contained in Section 63 of the ICMA (whilst ignoring the objects of the ICMA as a whole), and which requirements (in addition to the other legislated requirements) the decisionmaker must take into account when deciding whether or not to grant TEEPSA an Environmental Authorisation for the proposed Project.</p> <p>22. The integrated coastal management approach, as regulated in South Africa through the ICMA, is widely accepted internationally</p>	<p>Thus, a decision on the current EA application does not in any way guarantee the holder future approvals that would be required to undertake future production activities.</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIAs undertaken in South Africa.</p> <p>20. Refer to response above on the need and desirability - it is not repeated here.</p> <p>It is important to highlight what is actually meant by achieving Net Carbon Zero by 2050. Put simply, net zero refers to the balance between the amount of greenhouse gas produced and the amount removed from the atmosphere. It does not mean that oil and gas will not be used beyond 2050.</p> <p>21. - 25. Chapter 2 provides a summary outline of the South African administrative framework, key legislative requirements (including ICMA) and other relevant local legislation and international conventions applicable to the proposed exploration activities and the ESIA process.</p> <p>In making a decision on the current application the Competent Authority will need to consider the findings of this ESIA, other relevant legislation (e.g., ICMA), and national strategic policy relating to energy and climate change. It is noted in the ESIA Report that as the proposed project falls under the definition a "coastal activity" and is located within "coastal waters", the Competent Authority, in terms of Section 63, must take a number of factors into consideration in deciding on the application for Environmental Authorisation, including, amongst other:</p>

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			<p>as an appropriate means of managing human activities and protecting the environment within the complex and highly dynamic marine and coastal environment.</p> <p>22.1. The ICMA was therefore enacted with the specific purpose of introducing an integrated approach to coastal management in response to the failures of traditional management approaches in which different organs of state regulate activities within the coastal zone independently of one another and without proper consideration of the interactions between, and cumulative impacts of the various activities.</p> <p>22.2. Indeed, one of the objects of the ICMA is: "to provide, within the framework of the National Environmental Management Act, for the coordinated and integrated management of the coastal zone by all spheres of government in accordance with the principles of cooperative governance;" (section 2(b)).</p> <p>23. The ICMA was accordingly introduced to establish an integrated system for managing activities within the coastal zone and affords a particularly high level of protection to "coastal public property".</p> <p>23.1. "Coastal public property" has a special legal status which is intended to ensure that coastal and marine environments receive a particularly high degree of protection; are used, managed, protected, conserved, and enhanced in the interest of the whole community; and are safeguarded by the State as trustee on behalf of all South Africans, including future generations.</p> <p>23.2. One of the objects of the ICMA is "to preserve, protect, extend and enhance the status of coastal public property as being held in trust by the State on behalf of all South Africans, including future generations" (section 2(c)).</p>	<ul style="list-style-type: none"> <li>• The likely impact of the proposed activity on the coastal environment, including cumulative effect of its impact together with those of existing activities.</li> <li>• The likely impact of coastal environmental processes on the proposed activity.</li> </ul>

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			<p>23.3. The purposes for which coastal public property is established includes, “to protect sensitive coastal ecosystems” (section 7A(1)(b)).</p> <p>23.4. Coastal public property is owned by the citizens of South Africa (i.e., not by the State) and cannot be alienated (section 11). Thus, coastal public property is held in trust by the State on behalf of the citizens of South Africa (section 11(1)).</p> <p>24. The draft ESIA, however, seemingly ignores the fact that the area where TEEPSA intends to drill exploratory wells enjoys a special legal status, by virtue of the many Marine Protected Areas and Critical Biodiversity Areas situated within close proximity (and in some cases, overlapping) to the Area of Interest. This affords the environment within this area a particularly high level of protection and necessitates that decisions affecting it be taken in a manner that complies with the requirements of the ICMA as a whole (and not only the considerations contained in section 63).</p> <p>24.1. As is apparent from the locality maps contained in the draft ESIA, this area is situated within South Africa’s territorial waters and/or exclusive economic zone (EEZ). This means that for the purposes of the ICMA:</p> <p>24.1.1. the Area of Interest of the proposed Project is situated within “coastal waters”, which are “coastal public property” and fall with the “coastal zone”; and</p> <p>24.1.2. undertaking the drilling of exploratory wells would constitute “coastal activities” and consequently, when deciding whether or not to grant an Environmental Authorisation to TEEPSA, the decisionmaker is required to consider the factors referred to in section 63(1) of the ICMA.</p>	<p>24. The area of interest for drilling does not overlap with any MPAs or EBSAs. The area does, however, overlap with a Critical Biodiversity Area. All potential impacts have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report. A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p>

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			<p>25. Section 63 of ICMA therefore requires that decisionmakers that are responsible for making decisions regarding Environmental Authorisations for coastal activities must take account of specific issues, some of which are relevant to the determination of need as desirability, such as:</p> <p>25.1. the extent to which the proposed project is consistent with the purpose for establishing and protecting coastal public property (section 63(1)(c));</p> <p>25.2. the socio-economic impact if the activity is authorised and if it is not authorised (section 63(1)(e));</p> <p>25.3. whether the proposed project is inconsistent with the objective of conserving and enhancing coastal public property for the benefit of current and future generations (section 63(1)(h)(i)); and</p> <p>25.4. whether the proposed project would be contrary to the interests of the whole community (as required by section 63(1)(h)(vii)).</p> <p>26. The Competent Authority, as decisionmaker, is therefore required to evaluate, and TEEPSA is bound to place the necessary information before them, that when making their decision to either grant or refuse TEEPSA's application for an Environmental Authorisation:</p> <p>26.1. that the decisionmaker is required to make their decision as a public trustee responsible for safeguarding coastal public property owned not by the State, but by all South Africa citizens; and</p> <p>26.2. that, as public trustee of coastal public property, they are required by law (i.e., the ICMA):</p>	<p>26. SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts and National strategic policy issues relating to energy and climate change, as well as public opposition to oil and gas development and other legislation (e.g., ICMA).</p>

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			<p>26.2.1. to ensure that coastal public property is used, managed, protected, conserved and enhanced in the interests of the whole community (section 12(a));</p> <p>26.2.2. to take whatever reasonable legislative and other measures it considers necessary to conserve and protect coastal public property for the benefit of present and future generations (section 12(b)); and</p> <p>26.2.3. to engage in the process of coastal management in a manner that requires the application of an integrated and holistic approach to the regulation of coastal activities that takes account of potential adverse effect on people, future generations and other living organisms.</p> <p>Conclusion</p> <p>27. Our client's submissions and comments on the draft ESIA, in summary, are that the Competent Authority should find that:</p> <p>27.1. the Public Participation Process has been neither adequate nor meaningful;</p> <p>27.2. TEEPSA has not obtained its Social Licence to Operate nor received the Free, Prior, and Informed Consent of the Indigenous Peoples and Communities who will be most impacted by the adverse effects resulting from TEEPSA's exploration activities;</p> <p>27.3. the proposed Project is neither needed nor desirable;</p> <p>27.4. TEEPSA has failed to demonstrate that its proposed Project is consistent with the ICMA as a whole, including that it is needed or desirable in the interests of the whole community; and</p>	<p>27. Responses to the EMS Foundation's conclusions are provided above.</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>27.5. TEEPSA has failed to place the necessary relevant information before the decisionmaker to allow them to make a decision which is consistent with the provisions of the ICMA.</p> <p>28. For the avoidance of any doubt, our client's submission of these comments on the draft ESIA should not be construed as support for the Project, and to the necessary extent, our client's rights to oppose the Project remain reserved.</p> <p>29. We look forward to hearing from you in due course.</p>	<p>28. EMS Foundation's objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p>
55.	Warren Blouw – Climate Justice Group Central Karoo	07 December 2022 – Email	<p><i>Comment was received in Afrikaans and translated to English below:</i></p> <ul style="list-style-type: none"> <li>-We as activists insist that we will not allow any explorations in the karoo.</li> <li>-Oil and Gas explorations have a large negative impact on our environment and can also cause after-effects such as bad health conditions and so on.</li> <li>-Explorations Will also have a big impact on the farming sector certain native plants that will not continue in their habitat as well as certain karoo native species.</li> <li>-We as environmental activists stick to our position to look at the alternatives and thus take the agenda forward.</li> <li>-We in the karoo also stand against the development of gas and oil from our oceans as well as against the development of Karpowerships. We feel that our fishermen's bread is being taken from their mouths as well as the sea villages' entertainment Will be negatively affected.</li> <li>-We stand for #RenewableEnergie, fisherman and livestock Emergent development and not Toxic killing Explorations</li> </ul>	<p>Climate Justice Group's opinion is noted and should be taken into consideration by the Competent Authority in the decision-making process. It should, however, be pointed out that the project is not located in the Karoo, but rather of the South-West Coast - Refer to Figure 1-1 in the ESIA Report. There will be no impact on farming in the Karoo.</p> <p>Impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10, respectively.</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
56.	Adrian Pole – Adrian Pole Attorneys on behalf of Green Connection	07 December 2022 – Email Attachment	<p>1.</p> <p>A. INTRODUCTION</p> <p>These comments are submitted by the Green Connection, a registered non-governmental organisation, that believes that economic growth and development, improvement of socio-economic status and conservation of natural resources can only take place within a commonly understood framework of sustainable development. The Green Connection aims to provide practical support to both the government and non-governmental/civil society sectors, which are an integral part of sustainable development.</p> <p>2.</p> <p>The comments are in respect of an application by TotalEnergies EP South Africa Block 567 (Pty) Ltd (TEEPSA) for environmental authorisation to undertake exploration well drilling in Block 5/6/7 off the West Coast of South Africa. A draft Environmental Impact Report (EIR) prepared as part of the Environmental and Social Impact Assessment (ESIA) process being undertaken has been made available for public comment. TEEPSA proposes to drill up to five wells, depending on the success of the initial well, in water depths ranging between 700 m and 3 200 m. The anticipated well depth is 3 570 m, with the closest point of the application area being 60 km from the shoreline. The anticipated earliest commencement date is between the last quarter of 2023 and second quarter of 2024. Drilling of the well is indicated to take approximately 3 to 4 months (excluding mobilisation and demobilisation processes).</p> <p>3.</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>These comments focus primarily on two major concerns:</p> <p>- Firstly, the draft EIR reveals that that the risk of a major oil spill (wellhead blowout) cannot be eliminated, and that the significant ecological and socio-economic impacts that are likely to occur as a result of such a spill cannot be prevented: even with capping, spill response and the application of subsea dispersants (assuming that such mitigation measures are not thwarted by extreme weather conditions common to the area) the impact significance is rated as VERY HIGH or HIGH. The proposed area of interest for the exploration well drilling is located in relative close proximity to the Cape Peninsular, and (depending on weather conditions and the season) any oil spill is predicted to reach the shoreline in as little as 0.6 days. In addition to Cape Town being an important economic hub that supports various fishing sectors and a multi-billion rand tourism industry, the potentially affected shoreline (which also includes the West Coast and Southern Cape Coast) includes important and sensitive habitats (such as estuaries).</p> <p>The socio economic impacts associated with a major oil spill have in the Green Connection's view not been adequately assessed, and in particular the socio-economic impacts on small-scale fishers and fishing dependent communities has not been fully assessed (in terms of magnitude) or quantified. The ocean in which the proposed drilling will take place is also a unique, ecologically rich and diverse marine ecosystem that provides habitat for numerous species that would be impacted by a major oil spill. Various commercially and culturally important fish species are to be found in the broader area (such as Hake and Snoek), which also serves as spawning grounds and provides nursery areas for a number of these species. The area also provides habitat for numerous other marine species, including threatened and endangered species such</p>	<p>3. The potential impact related to an unlikely oil spill is assessed in the ESIA - refer to Chapter 10 of the final ESIA Report. Oil spilled from a well can severely impact the offshore marine environment and also have impacts on the coastal environment where coastal community livelihoods, fishing, recreation, marine ecology, and estuaries are likely to be affected. The impact associated with an oil spill is high to very high significance. It is, however, important to noted that the probability of a well blow-out occurring is considered to be extremely unlikely, and this will need to be taken into consideration by the Competent Authority in decision-making. In a South Africa context, 358 wells have been drilled in the offshore environment to date and no well blow-outs have been recorded. Global data maintained by Lloyds Register indicates that frequency of a blow-out from normal exploration wells is in the order of <math>1.43 \times 10^{-4}</math> per well drilled. The probability is lowered further as TEEPSA has gained valuable experience and is well aware of the local conditions and requirements to operate in these conditions, as it has successfully drilled two wells off the South Coast (in 2019 and 2020) and one well off southern Namibia (in 2022), with the metocean conditions off the South Coast (strong Agulhas Current) considered to be more extreme than those in Block 5/6/7.</p> <p>The assessment of economic impacts as a result of unplanned events (i.e. such as a well blow-out) is challenging to accurately perform due to the many variables, assumptions and uncertainties that would be involved. The outputs of such an assessment are likely to be so broad that it would be of little direct value in informing the impact assessment process or the development of mitigation measures and ultimately decision-making. Thus, the Socio-Economic Impact Assessment considers the board socio-economic impacts related to an unlikely large oil spill. The level of information provided in the assessment of an</p>



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			<p>as certain species of whales, turtles and turtle hatchlings, seals and seabirds. Oil is toxic and would negatively impact marine species through various pathways, including (but not limited to) direct oiling and ingestion of prey contaminated by oil. This in turn has ecosystem-wide implications for certain species, and would also put humans that eat contaminated fish and other seafoods at risk. Furthermore, the oil spill modelling indicates that (depending on the season and well location), a major oil spill could reach as far as southern Namibia and Gqeberha, as well as international waters outside of South Africa's exclusive economic zone (i.e. would be regional and international in extent).</p> <p>- Secondly, the draft EIR fails to adequately assess the need and desirability - from a climate crisis and right to food perspective - of the proposed exploration well drilling project and the oil and/or gas extraction, production and usage that would follow should commercially exploitable oil and gas be found, extracted, produced and used. The development of new oil or gas fields is inconsistent with international efforts to respond to the climate crisis by limiting global warming to 1.5° C (which will require rapid, deep and sustained reductions in global Greenhouse Gas (GHG) emissions). The extraction, production and use of fossil fuels (including for electricity generation) is a major contributor of GHGs such as carbon dioxide and methane gas emissions (which are estimated at having 84-86 times more global warming impact than carbon dioxide over a 20 year period). With long lead-in times of about a decade, developing new oil and gas fields is not a magic pill that will solve South Africa's energy and electricity needs in the short-term, and could lead to stranded assets and a burden on future generations when gas is inevitably phased out in the future (while also exposing South Africa to additional risks, such as the risk that in the future tariffs will be levied on various goods</p>	<p>unlikely oil spill is considered adequate to inform the assessment and to inform decision-making in this regard. The impact of an unlikely oil spill is assessed to be of very high significance and any additional information will not change the assessment.</p> <p>Green Connection's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential</p>

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			<p>exported by fossil-fuel dependent countries). Rather than assessing need and desirability of fossil fuels (and in particular gas) from a security of supply perspective, the Green Connection believes that the EIA should rather assess whether more oil and gas is needed from a climate change and right to food perspective, including a thorough and balanced assessment of whether alternative renewable technologies could meet South Africa's needs with less harm and risk to the people of South Africa, the environment and the planet.</p> <p>4.</p> <p>Other concerns raised in these comments relate to: the adequacy of assessment of alternatives (including location alternatives given the sensitivity of the area that would be impacted by a major oil spill, as well as the potential benefits of the no-go option); the failure to make the blowout contingency plan and oil spill contingency plan available for public comment; the lack of meaningful public participation (in particular by small-scale fishers and fishing dependent communities); the role played by PASA in the early stages of the EIA (in particular in hosting pre-application meetings with the application); and concern over the independence of the EAP and fisheries specialist. Notwithstanding that the Green Connection believes that environmental authorisation should be refused, additional submissions are made</p>	<p>impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>As noted above, SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts and National strategic policy issues relating to energy and climate change, as well as public opposition to oil and gas development and other legislation (e.g., ICMA).</p> <p>4. One of the key recommendations is that TEEPSA develop a well-specific response strategy and plans (including OSCCP), which will need to be approved by SAMSA, PASA and DFFE. The primary objective of the OSCCP is to identify all possible spill scenarios, level of response requirements and set in motion the necessary actions to stop any discharge of oil and to minimise its effects. The OSCCP thus provides for a comprehensive response to all oil and chemical pollution emergencies in the marine environment, including responding to oil wildlife.</p> <p>TEEPSA indicate that the inputs (e.g. location, type of resource, season, contractor, response services) to an OSCCP and Blow-Out Contingency Plan (BOCP) are unique and specific to each operation and contractor. Thus, the specific content of these plans cannot be developed in detail ahead of time. The ESMP thus specifies commitments on the approach to and key components of such plans. The structure of a standard</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>relating to the avoidance of drilling during the Austral Winter (when the likelihood of a major oil spill reaching the shoreline is highest), the avoidance of key migration and breeding seasons (when the impacts of a major oil spill on various species and their reproductive success would be highest), and monitoring of abandoned exploration wells for leaks.</p> <p>5.</p> <p>The Green Connection also submitted comments on the draft Scoping Report. While some of the issues raised have been revisited in these comments on the draft EIR, other comments have not been included. While the Green Connection notes the responses to its comment provided by SLR in the Comments and Responses Report, the Green Connection stands by its submissions on the draft Scoping report (which should be read as specifically incorporated into these comments on the draft EIR).</p> <p>6.</p> <p>The Green Connection submits that for the these (and other) reasons, the proposed exploration drilling project exposes South Africa to an unacceptable risk of significant pollution, ecological degradation and socio-economic impacts (both in the event of a major oil spill and from a climate change perspective), and that environmental authorisation should be refused.</p> <p>7.</p> <p><b>B. MAJOR OIL SPILL (UNPLANNED EVENT) WOULD RESULT IN UNACCEPTABLE POLLUTION, ECOLOGICAL DEGRADATION AND SOCIO-ECONOMIC IMPACTS</b></p> <p>The draft EIR acknowledges that:</p>	<p>TEEPSA OSCP is presented in the ESIA Report (see Box 11-2 in Section 11.3.7.4 for further details).</p> <p>Further to this, a copy of TEEPSA's generic OSCP was uploaded to the SLR website and data free website for review. Liz McDaid, Green Connection's Strategic Lead, was notified at the Hout Bay public meeting held on 8 November 2022 that the generic OSCP was available for review. This statement is acknowledged in Section E (Point 166) of Green' Connection's comment.</p> <p>6. Green Connection's opposition is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p>

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			<p>Offshore drilling operations carry an inherent risk of oil entering the marine environment as a consequence of an unplanned oil spill event. The greatest environmental threat from offshore drilling operations, although unlikely, is the risk of a major spill of crude oil/condensate occurring from a well blow-out.</p> <p>8.</p> <p>While considered ‘unlikely’, major oil spills (such as a spill resulting from an uncontrolled well-head blowout) can and do occur (such as the infamous Macondo / Deep Water Horizon catastrophe in the Gulf of Mexico in 2010, the Montara incident (loss of well control) in the Timor Sea, Australia in 2009, and a blowout on Total’s 22/30c-G4 well on the Elgin Wellhead Platform on 25 March 2012). There is also a higher risk of spills in deep water locations, as well as locations that experience extreme and challenging weather conditions (which could in turn prevent, hinder or reduce the effectiveness of spill response measures).</p> <p>9.</p> <p>The specialist studies conducted as part of the TEEPSA-567 ESIA include oil spill modelling (OSM), as well as specialist reports on marine ecology, fisheries, social impact assessment and cultural impact assessment (among others). These specialist reports and the draft EIR were in turn informed by the OSM.</p> <p>10.</p> <p>The following sections of the Green Connection’s comments highlight some of the key issues and likely impacts of a major oil spill (wellhead blowout) that are highly relevant to the decision on authorisation.</p>	<p>8. Refer to response above regarding oils spills and the likelihood thereof (Pont 3 above). The response is not repeated here.</p>

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			<p>11.</p> <p>(i) OSM</p> <p>The draft EIR includes modelling of a crude oil spill scenario as a 'worst-case' scenario (in comparison to a gas condensate spill scenario). Two discharge or release points (i.e. hypothetical exploration well drilling locations) were selected at different locations closest to the coast and sensitive areas at two different depths. Release Point 1 is located 72 km from the coast at a 719m depth, while Release Point 2 is located 155 km from the coast at a depth of 1357m.</p> <p>12.</p> <p>Four modelling periods were considered for the OSM, namely Season 1: Dec - Feb; Season 2: Mar - May; Season 3: June - Aug; Season 4: Sept – Nov. The modelling took two approaches, namely a stochastic simulation (a statistical calculation/analysis based on results from many sets of similar releases under a wide range of weather and/or seasonal conditions) and a deterministic simulation (which studies the trajectory and fate of an individual oil slick). 2 The modelled scenarios simulated a continuous blow-out of 25 000 bbls/day and 700 000 Sm<sup>3</sup> of gas/day for a period of 20 days.</p> <p>13.</p> <p>In its comments on the draft Scoping Report, the Green Connection highlighted its concerns regarding the assumed duration of a worst-case scenario oil spill (well-head blowout), as well as its concern that various assumptions and parameters for an various assumptions and parameters used in the OSM were not made available for public comment at the Scoping phase. While</p>	<p>13. TEEPSA motivates that 20 days is a reasonable and realistic assumption for the installation of a capping stack in the unlikely event of a blow-out. The current state of knowledge, available technology and approach to well blow-out responses by the drilling industry have advanced since, and because of, the Deepwater Horizon spill event, which occurred in the Gulf of Mexico in April 2010. As a result of this advancement, the duration of the Deepwater Horizon event is not</p>

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			<p>the Green Connection does not agree that the assumed duration, volume and input parameters subsequently used in the OSM represent the 'worst-case scenario' (the Macondo blowout was only capped after 87 days, and it is unclear how long it would take should capping be unsuccessful and should the drilling of a relief well be required), this section of the comment relies on the results of the OSM provided - with the caveat that less conservative assumptions and input parameters would inevitably show greater impacts. In addition, the Green Connection records its objection to the assumptions and parameters not having been subject to public consultation.</p> <p>14.</p> <p><b>Release Point 1</b></p> <p>In brief, the OSM report indicates regarding <b>Release Point 1</b> that (among other things):</p> <ul style="list-style-type: none"> <li>- The stochastic and deterministic results for show that the period with the maximum oil onshore is Season 3 (June to August) due to northward surface currents and winds driving the oil slick towards North of Cape Town area (i.e. North from Table Mountain National Park), and then strong winds from northwest driving the spill directly towards the South African shoreline.</li> </ul>	<p>considered relevant as a benchmark of a reasonable response period. It is relevant that subsea capping and subsea containment equipment (managed by OSRL, a cooperative dedicated to response to marine pollution by hydrocarbons) is installed at Saldanha and, therefore, well placed for a rapid response to an unplanned event in Block 5/6/7.</p> <p>It should also be note that modelling a longer period would not change the assessment of an unlikely oil spill, as the impact is considered to be of very high significance on the marine and coastal environment.</p> <p>Details on the relevant parameters and assumptions used in the Oil Spill Modelling are provided in the Oil Spill Modelling report. These parameters and assumptions were reviewed by an independent per review, who is an experienced modelling specialist, to confirm they were reasonable. Green Connections has had opportunity to review and comment on the modelling assumptions, but no comments have been submitted in this regard.</p> <p>These comments are largely related to a summary of the ESIA and specialist findings, responses are provided where necessary.</p>

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			<p>- During the rest of the year, west to northwest currents are dominant, driving the spill away from the coasts, especially for Season 1 (December to February). This is indicated as the period with the lowest probability of oil reaching the coast and lowest amount of oil onshore.</p> <p>- The Cape Peninsula (i.e. from Kommetjie to Simon's Town) always has the highest probability of impact (up to 99% during Season 3). The coast of North of Cape Town displays low to medium probability of impact.</p> <p>- Even with efficient Surface Response and SSDI (subsea dispersants injection), the Cape Peninsula remains highly susceptible to shoreline oiling during Season 3 (up to 95% with Surface Response and SSDI), due to the currents and winds main directions drifting oil quickly onto the nearby coastline.</p> <p>- During the rest of the year (Seasons 1, 2 and 4), a spill seems to have less impact on the shoreline (with capping only or with additional surface response and SSDI) than during Season 3, with the lowest probability of shoreline impact during season 1 (December-February).<sup>3</sup></p> <p>15.</p> <p>A summary of the results in respect of Release Point 1 are presented in the OSM in Table 22 (reproduced below).<sup>4</sup> The following is highlighted:</p> <p>- The maximum shoreline impact probability is 99% (with capping only) and reduces to 95% with Surface Response and SSDI (Season 3). The lowest probability of shoreline impact probability is 33% with Surface Response and SSDI (Season 1).</p>	

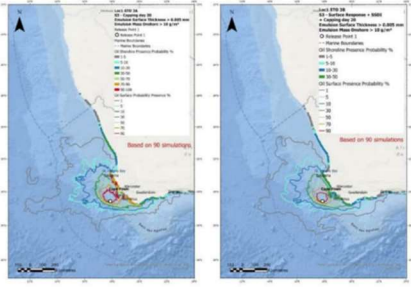
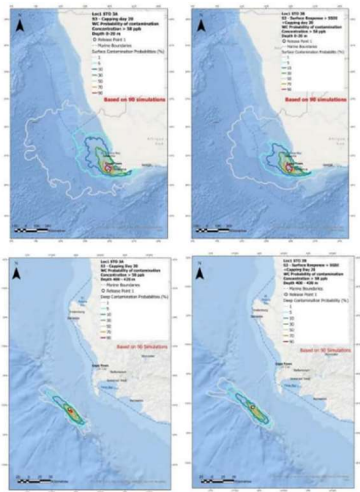
No.	Organisation and Contact Person	Method and Date of communication	Comment	Response																																																																																																												
			<p>- The minimum Shoreline Arrival Time for spilled oil is 0.6 days under both capping and with Surface Response and SSDI (Season 3). The maximum Shoreline Arrival Time is 1.6 days (Season 1).</p> <p>- The maximum amount of oil reaching the shore is 6159 tons (stochastic) (Season 3).</p> <p>- The deterministic worst case maximum oil shoreline concentration is 14.6 kg/m2 (Season 2).</p> <p>- The deterministic worst-case maximum shoreline length with oil concentration &gt;0.01kg/m2 is 1230km (Season 4).</p> <p>Table 22: Summary of the results for Release Point 1</p> <table><tr><th>Scenario</th><th>1A / Capping Only</th><th>1B / Surface Response + SSDI</th><th>2A / Capping Only</th><th>2B / Surface Response + SSDI</th><th>3A / Capping Only</th><th>3B / Surface Response + SSDI</th><th>4A / Capping Only</th><th>4B / Surface Response + SSDI</th></tr><tr><td>Spill</td><td colspan="8">Blowout - Crude Oil Release</td></tr><tr><td>Flow Rate / Amount</td><td colspan="8">Qoil = 25 000 bbl/day Qgas = 700 000 Sm3/day</td></tr><tr><td>Period</td><td>Season 1</td><td>Season 1</td><td>Season 2</td><td>Season 2</td><td>Season 3</td><td>Season 3</td><td>Season 4</td><td>Season 4</td></tr><tr><td>Stochastic - Max Distance of Oil Presence Probability&gt;1% in 60 days / Drift Direction (Thickness &gt;5µm)</td><td>1105 km NW from release point</td><td>648 NW from release point</td><td>770 km NW from release point</td><td>661 NW from release point</td><td>690 km W from release point</td><td>633 NW from release point</td><td>700 km WNW from release point</td><td>687 km WNW from release point</td></tr><tr><td>Stochastic - Shoreline length that could receive oil (considering all the simulations)</td><td>2640 km</td><td>1163 km</td><td>1830 km</td><td>1367 km</td><td>2063 km</td><td>1642 km</td><td>1894 km</td><td>1346 km</td></tr><tr><td>Stochastic - MAX. % shoreline impact probability</td><td>60</td><td>33</td><td>89</td><td>80</td><td>99</td><td>95</td><td>83</td><td>76</td></tr><tr><td>Stochastic MAX. Oil amount onshore (tons)*</td><td>4414</td><td>894</td><td>5432</td><td>2080</td><td>6159</td><td>3494</td><td>3490</td><td>1430</td></tr><tr><td>Stochastic - Minimum Shoreline Arrival Time (days)</td><td>1.6</td><td>1.6</td><td>1.1</td><td>1.1</td><td>0.6</td><td>0.6</td><td>1</td><td>1</td></tr><tr><td>Stochastic - Water Column Probability of contamination</td><td>Surface: 90% until 165 km NW Deep: 90% until 14 km SE</td><td>Surface: 90% until 96 km NW Deep: 90% until 18 km SE</td><td>Surface: 90% until 76 km NW Deep: 90% until 10 km SE</td><td>Surface: 90% until 92 km NW Deep: 90% until 14 km SE</td><td>Surface: 90% until 76 km NW Deep: 90% until 9 km SE</td><td>Surface: 90% until 83 km NW Deep: 90% until 4 km SE</td><td>Surface: 90% until 111 km NW Deep: 90% until 5.5 km SE</td><td>Surface: 90% until 112 km NW Deep: 90% until 5.6 km SE</td></tr><tr><td>Deterministic Worst-case Maximum Oil Shoreline Concentration</td><td>12.8 kg/m²</td><td>6.2 kg/m²</td><td>14.6 kg/m²</td><td>14.5 kg/m²</td><td>13.9 kg/m²</td><td>13.1 kg/m²</td><td>9.9 kg/m²</td><td>8.7 kg/m²</td></tr><tr><td>Deterministic Worst-case Maximum Shoreline Length with Oil Concentration &gt;0.01 kg/m³</td><td>960</td><td>505</td><td>650</td><td>492</td><td>860</td><td>709</td><td>1230</td><td>1031</td></tr></table> <p><i>*The maximum oil amount onshore corresponds to the single deterministic simulation part of the stochastic scenario with the maximum oil amount onshore at the end of the simulation duration (60 days)</i></p>	Scenario	1A / Capping Only	1B / Surface Response + SSDI	2A / Capping Only	2B / Surface Response + SSDI	3A / Capping Only	3B / Surface Response + SSDI	4A / Capping Only	4B / Surface Response + SSDI	Spill	Blowout - Crude Oil Release								Flow Rate / Amount	Qoil = 25 000 bbl/day Qgas = 700 000 Sm3/day								Period	Season 1	Season 1	Season 2	Season 2	Season 3	Season 3	Season 4	Season 4	Stochastic - Max Distance of Oil Presence Probability>1% in 60 days / Drift Direction (Thickness >5µm)	1105 km NW from release point	648 NW from release point	770 km NW from release point	661 NW from release point	690 km W from release point	633 NW from release point	700 km WNW from release point	687 km WNW from release point	Stochastic - Shoreline length that could receive oil (considering all the simulations)	2640 km	1163 km	1830 km	1367 km	2063 km	1642 km	1894 km	1346 km	Stochastic - MAX. % shoreline impact probability	60	33	89	80	99	95	83	76	Stochastic MAX. Oil amount onshore (tons)*	4414	894	5432	2080	6159	3494	3490	1430	Stochastic - Minimum Shoreline Arrival Time (days)	1.6	1.6	1.1	1.1	0.6	0.6	1	1	Stochastic - Water Column Probability of contamination	Surface: 90% until 165 km NW Deep: 90% until 14 km SE	Surface: 90% until 96 km NW Deep: 90% until 18 km SE	Surface: 90% until 76 km NW Deep: 90% until 10 km SE	Surface: 90% until 92 km NW Deep: 90% until 14 km SE	Surface: 90% until 76 km NW Deep: 90% until 9 km SE	Surface: 90% until 83 km NW Deep: 90% until 4 km SE	Surface: 90% until 111 km NW Deep: 90% until 5.5 km SE	Surface: 90% until 112 km NW Deep: 90% until 5.6 km SE	Deterministic Worst-case Maximum Oil Shoreline Concentration	12.8 kg/m²	6.2 kg/m²	14.6 kg/m²	14.5 kg/m²	13.9 kg/m²	13.1 kg/m²	9.9 kg/m²	8.7 kg/m²	Deterministic Worst-case Maximum Shoreline Length with Oil Concentration >0.01 kg/m³	960	505	650	492	860	709	1230	1031	
Scenario	1A / Capping Only	1B / Surface Response + SSDI	2A / Capping Only	2B / Surface Response + SSDI	3A / Capping Only	3B / Surface Response + SSDI	4A / Capping Only	4B / Surface Response + SSDI																																																																																																								
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16.



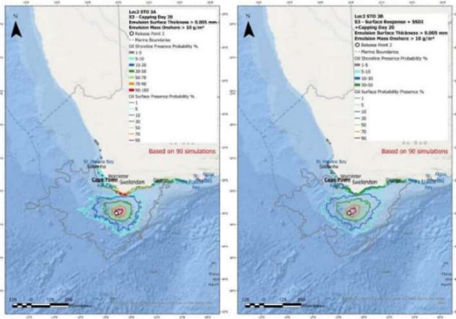
No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>The modelling also indicates regarding water column and surface layer probability of contamination that, depending on the season, stochastic simulation results of the oil spill modelling study indicated that at Release Point 1 the hydrocarbon mixture escaping from the well reaches the higher probability for contamination of the deep layers at 380 m to 420 m depth before forming a subsurface plume that is transported in a NW direction by the current. For this deep layer, 90% probability is reached at distances between approximately 9 km and 14 km from the well site, but spreading up to 70 km to the SE (Season 1) and in the direction of the sensitive Brown's Bank MPA and EBSA, and up to 97 km to the NW (Season 4) in the direction of the Cape Canyon. The probability of contamination of surface water (0-20 m depth) extends up to 165 km to the NW (90% probability), but spreading up to 1 420 km to the NW (Worst case: Season 1). The draft EIR goes on to state that considering the mitigated scenario, the implementation of SSDI results in an increase in the deep layer contamination area and the depth of contamination at both release points. For Release Point 1 there is a 90% probability of contamination up to 18 km and maximum distance 61 km SE to 114 km NW at maximum depths of 400 – 420 m, as the dispersant decreases the size of the droplets, reducing the speed of ascent to the surface, thereby increasing the presence of oil in the deep layers, especially close to the release point.</p> <p>17.</p> <p>The results of the OSM stochastic simulation in respect of surface and shoreline oiling probability results for Season 3 at Release Point 1 are depicted in the diagram below:</p>	

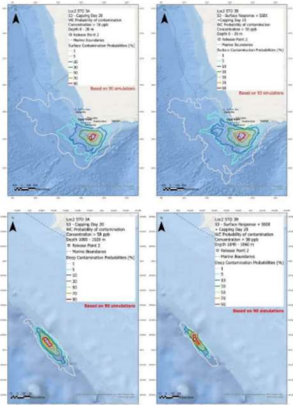
No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<div></div> <p>Figure 35: Loc1 - Stochastic Simulation No Response (A) VS Response (B) - Season 3 - Surface and shoreline results</p> <p>18.</p> <p>The results of the OSM relating to water column probability of contamination is indicated in the diagram below:</p> <div></div> <p>Figure 37: Loc1 - Stochastic Simulation No Response (A) VS Response (B)- Season 3 - Water Column Probability of Contamination - Top Figures: Surface Layers; Bottom Figures: Deep layers</p> <p>19.</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p><b>Release Point 2</b></p> <p>In brief, the OSM indicates regarding <b>Release Point 2</b> that (among other things):</p> <ul style="list-style-type: none"> <li>- From all the results (Stochastic and Deterministic simulations), the period with the maximum probability and highest amount of oil onshore is Season 3 (June to August) due to eastward to north-eastward surface currents and winds from W-NW directly driving the spill towards E-NE thus towards the South African shoreline.</li> <li>- During the rest of the year, west to northwest currents are dominant, driving the spill away from the coasts, especially for Season 1 (December to February), which is the period with the lowest probability of oil reaching the coast and lowest amount of oil onshore.</li> <li>- The coastline from Hermanus to Cape Agulhas has the highest probability of impact (up to 98% during Season 3 – without response), and North of Cape Town and vicinity of George remain sheltered most of the time. The coast of the Cape Peninsula and False Bay (i.e. from New Cape Point Lighthouse to Rooi-Els) displays low to medium probability of impact.</li> <li>- Even with efficient Surface Response and SSDI, Cape Agulhas remains highly susceptible to be impacted during Season 3 (up to 87% with response) due to the main direction of the currents and winds drifting oil quickly onto the nearby coastline. During the rest of the year (Seasons 1, 2 and 4), a spill seems to have less impact on the shoreline (with capping only or with Surface Response and SSDI) than during Season 3, with the lowest probability of shoreline impact during Season 1 (December-February).</li> </ul> <p>20.</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>A summary of the OSM results in respect of Release Point 2 are presented in the OSM in Table 25 (reproduced below). The following is highlighted:</p> <ul style="list-style-type: none"> <li>- The maximum shoreline impact probability is 98% (with capping only) and reduces to 87% with Surface Response and SSDI (Season 3). The lowest probability of shoreline impact probability is 37% with Surface Response and SSDI (Season 1).</li> <li>- The minimum Shoreline Arrival Time for spilled oil is 2.2 days under both capping and with Surface Response and SSDI (Season 3). The maximum Shoreline Arrival Time is 4.4 days (Season 4).</li> <li>- The maximum amount of oil reaching the shore is 1700 tons (stochastic) (Season 3).</li> <li>- The deterministic worst case maximum oil shoreline concentration is 9.4kg/m<sup>2</sup> (Season 3).</li> <li>- The deterministic worst case maximum shoreline length with oil concentration &gt;0.01kg/m<sup>2</sup> is 800km (Season 3).</li> </ul>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response																																																																																																												
			<div>Table 25 : Release point 2: Summary of the Stochastic and Deterministic Simulation for Release Point 2 – Capping Only and Surface Response + SSDI scenarios</div> <table><tr><th>Scenario – Loc2</th><th>1A / Capping Only</th><th>1B / Surface Response + SSDI</th><th>2A / Capping Only</th><th>2B / Surface Response + SSDI</th><th>3A / Capping Only</th><th>3B / Surface Response + SSDI</th><th>4A / Capping Only</th><th>4B / Surface Response + SSDI</th></tr><tr><td>Spill</td><td colspan="8">Blowout - Crude Oil Release</td></tr><tr><td>Flow Rate / Amount</td><td colspan="8">Oil = 25 000 bbl/day Gas = 700 000 Sm<sup>3</sup>/day</td></tr><tr><td>Period</td><td>Season 1</td><td>Season 1</td><td>Season 2</td><td>Season 2</td><td>Season 3</td><td>Season 3</td><td>Season 4</td><td>Season 4</td></tr><tr><td>Stochastic - Max Distance of Oil Presence Probability&gt;1% in 60 days / Drift Direction (Thickness &gt;5µm)</td><td>755 km NW from release point</td><td>613 km NW from release point</td><td>703 km NW from release point</td><td>802 km NW from release point</td><td>600 km W from release point</td><td>499 km NW from release point</td><td>590 km from release point</td><td>556 km from release point</td></tr><tr><td>Stochastic - Shoreline length that could receive oil (considering all the simulations)</td><td>940 km</td><td>609 km</td><td>1634 km</td><td>1262 km</td><td>1533 km</td><td>1211 km</td><td>1635 km</td><td>887 km</td></tr><tr><td>Stochastic - MAX. % shoreline impact probability</td><td>47</td><td>37</td><td>90</td><td>75</td><td>98</td><td>87</td><td>80</td><td>65</td></tr><tr><td>Stochastic – MAX. oil onshore amount (tons)*</td><td>1629</td><td>757</td><td>1210</td><td>996</td><td>1700</td><td>946</td><td>1405</td><td>818</td></tr><tr><td>Stochastic - Minimum Shoreline Arrival Time</td><td>3.3</td><td>3.9</td><td>3.1</td><td>3.1</td><td>2.2</td><td>2.2</td><td>4.4</td><td>3.9</td></tr><tr><td>Stochastic - Water Column Probability of contamination</td><td>Surface: 90% until 91 km NW Deep: 90% until 8 km SE</td><td>Surface: 90% until 93 km NW Deep: 90% until 18 km SE</td><td>Surface: 90% until 84 km NW Deep: 90% until 16 km SE</td><td>Surface: 90% until 87 km NW Deep: 90% until 13 km SE</td><td>Surface: 90% until 87 km NW Deep: 90% until 11 km SE</td><td>Surface: 90% until 74 km NW Deep: 90% until 16 km SE</td><td>Surface: 90% until 77 km NW Deep: 90% until 14 km SE</td><td>Surface: 90% until 77 km NW Deep: 90% until 14 km SE</td></tr><tr><td>Deterministic Worst-case Maximum Oil Shoreline Concentration</td><td>7.9 kg/m<sup>2</sup></td><td>5.6 kg/m<sup>2</sup></td><td>6.5 kg/m<sup>2</sup></td><td>4.2 kg/m<sup>2</sup></td><td>9.4 kg/m<sup>2</sup></td><td>7.3 kg/m<sup>2</sup></td><td>10.3 kg/m<sup>2</sup></td><td>9.3 kg/m<sup>2</sup></td></tr><tr><td>Deterministic Worst-case Maximum Shoreline Length with Oil Concentration &gt;0.01 kg/m<sup>2</sup></td><td>570</td><td>450</td><td>730</td><td>660</td><td>800</td><td>714</td><td>520</td><td>527</td></tr></table> <div><p><i>*The maximum oil amount onshore corresponds to the single deterministic simulation part of the stochastic scenario with the maximum oil amount onshore at the end of the simulation duration (60 days)</i></p></div> <div>21.</div> <div>The modelling also indicates regarding water column and surface layer probability of contamination that depending on the season, for Release Point 2 in deeper water, higher probability for contamination of the deep layers is reached at between 1 000 m and 1 020 m depth, with the oil in most cases being transported in a NW direction by the current reaching 90% probability between approximately 8 km and 16 km from the well site (depending the season), but spreading up to 77 km to the SE (Season 1) and in the direction of the sensitive Brown’s Bank MPA and EBSA. The probability of contamination of surface water (0-20 m depth) extends up to 91 km to the NW (90% probability) but spreading up to 1 172 km to the WNW (Worst case: Season 1). Again considering the mitigated scenario, the implementation of SSDI results in an</div>	Scenario – Loc2	1A / Capping Only	1B / Surface Response + SSDI	2A / Capping Only	2B / Surface Response + SSDI	3A / Capping Only	3B / Surface Response + SSDI	4A / Capping Only	4B / Surface Response + SSDI	Spill	Blowout - Crude Oil Release								Flow Rate / Amount	Oil = 25 000 bbl/day Gas = 700 000 Sm <sup>3</sup> /day								Period	Season 1	Season 1	Season 2	Season 2	Season 3	Season 3	Season 4	Season 4	Stochastic - Max Distance of Oil Presence Probability>1% in 60 days / Drift Direction (Thickness >5µm)	755 km NW from release point	613 km NW from release point	703 km NW from release point	802 km NW from release point	600 km W from release point	499 km NW from release point	590 km from release point	556 km from release point	Stochastic - Shoreline length that could receive oil (considering all the simulations)	940 km	609 km	1634 km	1262 km	1533 km	1211 km	1635 km	887 km	Stochastic - MAX. % shoreline impact probability	47	37	90	75	98	87	80	65	Stochastic – MAX. oil onshore amount (tons)*	1629	757	1210	996	1700	946	1405	818	Stochastic - Minimum Shoreline Arrival Time	3.3	3.9	3.1	3.1	2.2	2.2	4.4	3.9	Stochastic - Water Column Probability of contamination	Surface: 90% until 91 km NW Deep: 90% until 8 km SE	Surface: 90% until 93 km NW Deep: 90% until 18 km SE	Surface: 90% until 84 km NW Deep: 90% until 16 km SE	Surface: 90% until 87 km NW Deep: 90% until 13 km SE	Surface: 90% until 87 km NW Deep: 90% until 11 km SE	Surface: 90% until 74 km NW Deep: 90% until 16 km SE	Surface: 90% until 77 km NW Deep: 90% until 14 km SE	Surface: 90% until 77 km NW Deep: 90% until 14 km SE	Deterministic Worst-case Maximum Oil Shoreline Concentration	7.9 kg/m <sup>2</sup>	5.6 kg/m <sup>2</sup>	6.5 kg/m <sup>2</sup>	4.2 kg/m <sup>2</sup>	9.4 kg/m <sup>2</sup>	7.3 kg/m <sup>2</sup>	10.3 kg/m <sup>2</sup>	9.3 kg/m <sup>2</sup>	Deterministic Worst-case Maximum Shoreline Length with Oil Concentration >0.01 kg/m <sup>2</sup>	570	450	730	660	800	714	520	527	
Scenario – Loc2	1A / Capping Only	1B / Surface Response + SSDI	2A / Capping Only	2B / Surface Response + SSDI	3A / Capping Only	3B / Surface Response + SSDI	4A / Capping Only	4B / Surface Response + SSDI																																																																																																								
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No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>increase in the deep layer contamination area and the depth of contamination. At Release Point 2, the contamination area extends up to 18 km SE for the 90% probability for Season 1, but with a maximum distance of 62 km SE for Season 4, and maximum depths of 980 – 1 000 m.</p> <p>22.</p> <p>The results of the OSM stochastic simulation in respect of surface and shoreline results for Season 3 at Release Point 2 are depicted in the diagram below:</p>  <p>Figure 67: Loc 2: Stochastic Simulation No Response VS. Response - Season 3 - Surface and shoreline results</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response																																																																										
			<p>The results of the OSM relating to water column probability of contamination is indicated in the diagram below:</p>  <p>Figure 69: Loc 2: Stochastic Simulation No Response VS. Response – Season 3 – Water Column Probability of Contamination – Top Figures: Surface Layers; Bottom Figures: Deep layers</p> <p><b>Release Points 1 and 2</b></p> <p>A comparison of the shoreline oiling results for Season 3 at both Release Points 1 and 2 is presented in the OSM in Table 26 (reproduced below):</p> <table><caption>Table 26: Point 1 versus Point 2 worst period stochastic comparison</caption><thead><tr><th rowspan="2">Release Point</th><th colspan="2">Release Point 1</th><th colspan="2">Release Point 2</th></tr><tr><th>Season 3: Oiling Only Response = 500%</th><th>Season 3: Surface Response = 500%</th><th>Season 3: Oiling Only Response = 500%</th><th>Season 3: Surface Response = 500%</th></tr></thead><tbody><tr><td>Flow Rate / Amount</td><td>1000 m³ / 1000 m³</td><td>1000 m³ / 1000 m³</td><td>1000 m³ / 1000 m³</td><td>1000 m³ / 1000 m³</td></tr><tr><td>Mean direction of the spill</td><td>Southwards</td><td>Southwards</td><td>Southwards</td><td>Southwards</td></tr><tr><td>MAX. distance of the 95% oil spill probability contour</td><td>50 km from Release Point 1</td><td>50 km from Release Point 1</td><td>47 km NE from Release Point 2</td><td>47 km NE from Release Point 2</td></tr><tr><td>MAX. volume of the 95% oil spill probability contour</td><td>400 km³ from Release Point 1</td><td>400 km³ from Release Point 1</td><td>400 km³ from Release Point 2</td><td>400 km³ from Release Point 2</td></tr><tr><td>Offshore station sheltered by the spill</td><td>South African and International</td><td>South African, Namibian, and International</td><td>South African and International</td><td>South African and International</td></tr><tr><td>Shoreline length that could be oiled as a consequence of the spill</td><td>2000 km</td><td>1500 km</td><td>1500 km</td><td>1211 km</td></tr><tr><td>MAX. % shoreline impact probability</td><td>98%</td><td>98%</td><td>98%</td><td>97%</td></tr><tr><td>North of Cape Town probability of shoreline oiling</td><td>10 to 80%</td><td>10 to 77%</td><td>10 to 70%</td><td>10 to 4%</td></tr><tr><td>North of Cape Town probability of shoreline oiling</td><td>up to 30%</td><td>up to 10%</td><td>10 to 70%</td><td>10 to 47%</td></tr><tr><td>East of Cape Town probability of shoreline oiling</td><td>up to 95%</td><td>up to 95%</td><td>10 to 70%</td><td>10 to 33%</td></tr><tr><td>Homestead Bay to Cape Agulhas probability of shoreline oiling</td><td>up to 95%</td><td>up to 95%</td><td>10 to 95%</td><td>10 to 87%</td></tr><tr><td>MAX. Oil volume amount spilled</td><td>1700</td><td>3000</td><td>1700</td><td>900</td></tr><tr><td>Maximum Response Arrival Time</td><td>0.0 day</td><td>0.0 day</td><td>2.2 days</td><td>2.2 days</td></tr></tbody></table> <p><small>*The maximum oil amount onshore corresponds to the single deterministic simulation part of the stochastic scenario with the maximum of amount onshore at the end of the simulation duration (90 days)</small></p>	Release Point	Release Point 1		Release Point 2		Season 3: Oiling Only Response = 500%	Season 3: Surface Response = 500%	Season 3: Oiling Only Response = 500%	Season 3: Surface Response = 500%	Flow Rate / Amount	1000 m³ / 1000 m³	1000 m³ / 1000 m³	1000 m³ / 1000 m³	1000 m³ / 1000 m³	Mean direction of the spill	Southwards	Southwards	Southwards	Southwards	MAX. distance of the 95% oil spill probability contour	50 km from Release Point 1	50 km from Release Point 1	47 km NE from Release Point 2	47 km NE from Release Point 2	MAX. volume of the 95% oil spill probability contour	400 km³ from Release Point 1	400 km³ from Release Point 1	400 km³ from Release Point 2	400 km³ from Release Point 2	Offshore station sheltered by the spill	South African and International	South African, Namibian, and International	South African and International	South African and International	Shoreline length that could be oiled as a consequence of the spill	2000 km	1500 km	1500 km	1211 km	MAX. % shoreline impact probability	98%	98%	98%	97%	North of Cape Town probability of shoreline oiling	10 to 80%	10 to 77%	10 to 70%	10 to 4%	North of Cape Town probability of shoreline oiling	up to 30%	up to 10%	10 to 70%	10 to 47%	East of Cape Town probability of shoreline oiling	up to 95%	up to 95%	10 to 70%	10 to 33%	Homestead Bay to Cape Agulhas probability of shoreline oiling	up to 95%	up to 95%	10 to 95%	10 to 87%	MAX. Oil volume amount spilled	1700	3000	1700	900	Maximum Response Arrival Time	0.0 day	0.0 day	2.2 days	2.2 days	
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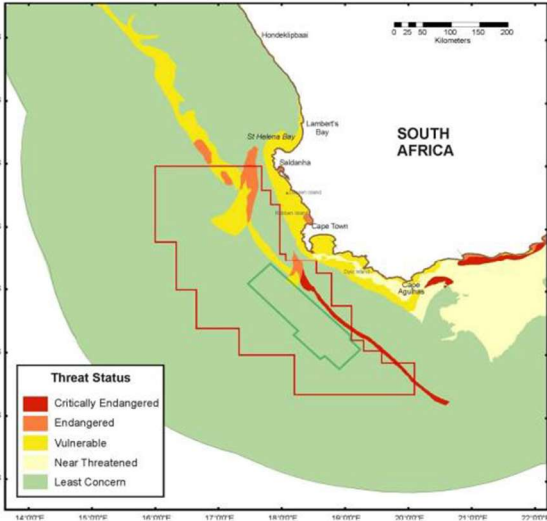
No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>25.</p> <p>The above table shows that under certain modelled scenarios the oil spill reaches Namibian waters, as well as international waters outside of South Africa's exclusive economic zone (EEZ).</p> <p>26.</p> <p>The OSM indicates further that:</p> <ul style="list-style-type: none"> <li>- Despite the different localization of the two release points, strong winds and currents drive the oil spill directly towards the shoreline during Winter (Season 3).</li> <li>- For both release locations for Season 3, the addition of Surface Response and SSDI reduces the probability of shoreline oiling: it is more effective in reducing the probability of shoreline oiling for Release Point 2 than for the Point 1, but it is less effective in decreasing its oil surface probability and shows greater results in reducing the oil surface probability for Release Point 1 than for Release Point 2.</li> <li>- An oil spill from the Release Point 2 would be less impactful than from the Release Point 1: a lower oil amount reaches the shore, the oil presence probability on the coast is lower, and arrival times to shore higher.</li> <li>- For the rest of the year, for both release points, Season 1 displays a maximum probability of shoreline oiling in one point lower than for other seasons (47% for Release Point 2 and 60% for Release Point 1). Seasons 2 and 4 show approximately similar probability of shoreline oiling.</li> <li>- Even if the probability of shoreline oiling is not significantly different from one Release Point to another, the coastline areas</li> </ul>	



No.	Organisation and Contact Person	Method and Date of communication	Comment	Response																																													
			<p>susceptible to be the most impacted are different. For Release Point 1, the most impacted shoreline would be the coast from St. Helena Bay to the Cape Peninsula, including North of Cape Town, and sometimes further south reaching Hermanus. For Release Point 2, the most impacted coastline would be from Hermanus to Cape Agulhas.</p> <p>- The deterministic simulations show that the Surface Response and SSDI is more efficient when surface and winds direction are constant and less efficient when surface and winds are highly variable.</p> <p>- Additionally, an oil spill from Release Point 1 could reach the Namibian offshore waters (&lt; 30% of probability), while an oil spill from Release Point 2 would not reach Namibian offshore waters and shoreline.</p> <p>27.</p> <p>The OSM presents a summary of the main results of the onshore impact of an oil spill from Release Point 1 and Release Point 2 for the worst and best case scenarios in Table 27:</p> <p>Table 27 Summary of the worst case / best case onshore impact results for both release points</p> <table><tr><th></th><th colspan="4">Release Point 1</th><th colspan="4">Release point 2</th></tr><tr><th>Period</th><th colspan="2">Worst Case</th><th colspan="2">Best Case</th><th colspan="2">Worst Case</th><th colspan="2">Best Case</th></tr><tr><th>Season</th><th>Season 3 - Capping Only</th><th>Season 3 - Surface Response + SSDI</th><th>Season 1 - Capping Only</th><th>Season 1 - Surface Response + SSDI</th><th>Season 3 - Capping Only</th><th>Season 3 - Surface Response + SSDI</th><th>Season 1 - Capping Only</th><th>Season 1 - Surface Response + SSDI</th></tr><tr><td>MAX. % shoreline impact probability</td><td>99%</td><td>95%</td><td>60%</td><td>33%</td><td>98%</td><td>87%</td><td>47</td><td>37</td></tr><tr><td>MAX. Oil onshore amount (tons)*</td><td>6159</td><td>3494</td><td>4414</td><td>894</td><td>1700</td><td>946</td><td>1629</td><td>757</td></tr></table> <p><small>*The maximum oil amount onshore corresponds to the single deterministic simulation part of the stochastic scenario with the maximum oil amount onshore at the end of the simulation duration (60 days)</small></p> <p>- Additionally, an oil spill from Release Point 1 could reach the Namibian offshore waters (&lt; 30% of probability), while an oil spill</p>		Release Point 1				Release point 2				Period	Worst Case		Best Case		Worst Case		Best Case		Season	Season 3 - Capping Only	Season 3 - Surface Response + SSDI	Season 1 - Capping Only	Season 1 - Surface Response + SSDI	Season 3 - Capping Only	Season 3 - Surface Response + SSDI	Season 1 - Capping Only	Season 1 - Surface Response + SSDI	MAX. % shoreline impact probability	99%	95%	60%	33%	98%	87%	47	37	MAX. Oil onshore amount (tons)*	6159	3494	4414	894	1700	946	1629	757	
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Season	Season 3 - Capping Only	Season 3 - Surface Response + SSDI	Season 1 - Capping Only	Season 1 - Surface Response + SSDI	Season 3 - Capping Only	Season 3 - Surface Response + SSDI	Season 1 - Capping Only	Season 1 - Surface Response + SSDI																																									
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No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>from Release Point 2 would not reach Namibian offshore waters and shoreline.<sup>12</sup></p> <p>27.</p> <p>The OSM presents a summary of the main results of the onshore impact of an oil spill from Release Point 1 and Release Point 2 for the worst and best case scenarios in Table 27:</p> <p>28.</p> <p>Synthesis</p> <p>In summary, the OSM predicts that in the event of an uncontrolled oil spill as a result of a wellhead blowout, the oil spill will (depending on wind and current directions prevalent at the time) quickly reach South Africa's shoreline, and in more limited scenarios may reach as far as Namibian and international waters. While capping, Surface Response and SSDI reduces the concentration of surface oil reaching South Africa's coastline, it does not eliminate the probability of significant shoreline contamination.</p> <p>29.</p> <p>The OSM also predicts that a subsurface plume would under some of the modelled scenarios spread in the direction of the sensitive Brown's Bank MPA and EBSA (Release Points 1 and 2) and in the direction of the Cape Canon (Release Point 1). The implementation of SSDI results in an increase in the deep layer contamination area and the depth of contamination for both release points.</p> <p>30.</p> <p>As mentioned earlier, these OSM results are in turn relied upon to inform the assessment of the significance of the impact of a major</p>	<p>As noted above, these comments are largely related to a summary of the ESIA and specialist findings, responses are provided where necessary.</p>

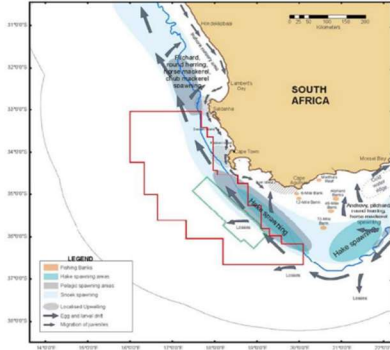
No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>oil spill on marine ecology, fisheries, socio-economic sectors and on culture. These impacts are discussed in the sections that follow.</p> <p>31.</p> <p><b>(ii) Marine Ecology</b></p> <p>The Marine Ecology Impact Assessment Report includes an assessment of the significance of (among other things) an uncontrolled oil spill on marine ecology. The potential impacts are indicated as including toxic effects on marine biota and reduced faunal health, and pollution and smothering of coastal habitats.<sup>13</sup></p> <p>32.</p> <p>The report indicates that the highest sensitivities to a major oil spill (unplanned event) are:</p> <ul style="list-style-type: none"> <li>• Large migratory and resident cetaceans;</li> <li>• Brown's Bank and Cape Canyon deep-water reefs that support potentially vulnerable, long-lived benthic invertebrate species;</li> <li>• Offshore MPAs, EBSAs and CBAs in the broader project area;</li> <li>• Coastal and estuarine habitats along the West Coast;</li> <li>• African Penguins and Cape Gannets, who have their largest colonies on the Saldanha Bay Islands, Dassen Island and at Robben Island;</li> <li>• Critically endangered, endangered and vulnerable pelagic seabirds (primarily albatrosses); and</li> <li>• Loggerhead and leatherback turtles that migrate through the area.</li> </ul> <p>33.</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>The table reproduced below shows the close proximity of the exploration drilling area of interest (AOI) to critically endangered, endangered and vulnerable ecosystems (which would be impacted by a major oil spill under certain weather conditions):</p>  <p>Figure 53: Block 5/6/7 (red polygon) and the Area of Interest for drilling (green polygon) in relation to the ecosystem threat status for coastal and offshore benthic and pelagic habitat types on the South African West and South Coasts (adapted from Sink <i>et al.</i> 2019).</p> <p>While it is noted that the Marine Ecology report indicates that TEEPSA positioned the AOI to avoid MPAs and EBSAs,<sup>16</sup> it is submitted that although this may reduce the impacts of 'normal' drilling operations on such areas, it would not necessarily prevent mobile oil in the water column or on the surface from being transported to and impacting on such areas.</p> <p>34.</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>The Marine Ecology report also highlights the risk of a major spill, stating that:</p> <p>...the greatest environmental threat from offshore drilling operations is the risk of a major spill of crude oil occurring either from a blow-out or loss of well control. A blow-out is the uncontrolled release of crude oil and/or natural gas from a well after pressure control systems have failed'.<sup>17</sup> The report warns that 'oil spilled in the marine environment would have an immediate detrimental effect on water quality, with the toxic effects potentially resulting in mortality (e.g. suffocation and poisoning) of marine fauna or affecting faunal health (e.g. respiratory damage). If the spill reaches the coast, it can result in the smothering of sensitive coastal habitats'.<sup>18</sup></p> <p>35.</p> <p>Importantly, the report goes on to point out that although the AOI is 'located in the marine environment, far removed from coastal MPAs and any sensitive coastal receptors (e.g. key faunal breeding/feeding areas, bird or seal colonies and nursery areas for commercial fish stocks), a large spill could still directly affect these sensitive coastal receptors, as well as migratory pelagic species transiting through the drill area'.<sup>19</sup> The report states further that the while benthic biota inhabiting unconsolidated sediments of the outer shelf and continental slope are very poorly known, at the depths of the proposed well are expected to be relatively ubiquitous. However, while the AOI for drilling avoids vulnerable marine ecosystem (VME) species in the Brown's Bank Corals EBSA and MPA, it does overlap with Critical Biodiversity Areas (CBAs).</p> <p>36.</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>The report goes on to report as follows:</p> <p>Being highly toxic, oil released during a blow-out would negatively affect any marine fauna it comes into contact with. The taxa most vulnerable to hydrocarbon spills are coastal and pelagic seabirds. Some of the species potentially occurring in the drill area, are considered regionally 'Endangered' (e.g. African Penguin, Cape Gannet, Cape Cormorant, Bank Cormorant, Roseate Tern, Atlantic and Indian Yellow-nosed Albatross, Northern Royal Albatross, Sooty Albatross, Grey-headed Albatross) or 'Vulnerable' (e.g. White Pelican, Caspian Tern, Damara Tern, Wandering Albatross, Southern Royal Albatross, Leach's Storm Petrel, White-chinned Petrel, Spectacled Petrel). Numerous species of fish, turtles and cetaceans occurring in the project area are also considered regionally 'Critically Endangered' (e.g. Leatherback turtle, blue whale), 'Endangered' (e.g. loggerhead and green turtles, Fin and Sei whales, shortfin mako, whale shark, southern bluefin tuna), 'Vulnerable' (e.g. longfin mako, great white shark, whitetip sharks, sperm whale) or 'Near threatened' (e.g. blue shark). Although species listed as 'Endangered' or 'Vulnerable' may potentially occur in the drill area, due to their extensive distributions their numbers are expected to be low. Overall sensitivity of offshore receptors to a large oil spill is considered to be HIGH.</p> <p>As the oil is predicted to reach the shore, sensitive nearshore and coastal receptors must also be considered. Ecosystem types between Cape Agulhas and Cape Columbine considered 'Critically Endangered' (Southeast Atlantic Upper Slope), 'Endangered' (Cape Upper Canyon and Southern Benguela Muddy Shelf Edge) and 'Vulnerable' (Cape Lower Canyon, Southern Benguela Rocky Shelf Edge and Southern Benguela Sandy Shelf Edge) could potentially be affected by a spill. Coastal sensitivity along most of the</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>southwestern Cape coast is considered 'Vulnerable' although portions of the coastline (particularly in Table Bay and Saldanha Bay) are considered 'Endangered' .... Similarly, there are a number of estuaries considered 'Critically Endangered' and 'Endangered' along the West Coast ..., with most others between Cape Agulhas and Mossel Bay considered 'Vulnerable'. Although not all of these habitats will be impacted concurrently, and the species inhabiting them have fairly extensive distributions, the sensitivity of the coastal habitats, especially coastal bird breeding colonies (e.g. Saldanha Bay Islands, Dassen Island, Robben Island, Dyer Island) is considered of VERY HIGH sensitivity.</p> <p>The overall sensitivity of marine ecology/environment to a large oil spill is considered VERY HIGH.(underlining added)</p> <p>37.</p> <p>The Marine Ecology report states further that the components of oil known to be toxic to marine organisms include volatile organic compounds (VOCs) such as benzene, toluene, ethylbenzene, and xylene, collectively known as BTEX, as well as polycyclic aromatic hydrocarbons (PAHs), which are known for their persistence in the environment.</p> <p>38.</p> <p><b>Plankton</b></p> <p>The draft EIR indicates that plankton is particularly abundant in the shelf waters off the West Coast, being associated with the upwelling characteristic of the region. This includes phytoplankton (the principle primary producers), zooplankton and ichthyoplankton (fish eggs and larvae). Major fish spawning areas (including for hake, snoek, sardine and anchovies) are presented in</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>Figure 7-23 of the draft EIR (reproduced below):</p>  <p>FIGURE 7-23: BLOCK 5/6/7 AND THE AREA OF INTEREST IN RELATION TO MAJOR SPAWNING AREAS IN THE SOUTHERN BENGUELA REGION  <small>Adapted from Cruikshank 1990</small></p> <p>39.</p> <p><b>Sandy Shores</b></p> <p>Regarding sandy shores, the Marine Ecology report indicates that while only a portion of the oil spilled from an offshore well typically reaches the shoreline, even small amounts can cause widespread contamination of coastal habitats and ecosystems (including estuaries and wetlands).</p> <p>40.</p> <p>Weathered oil from a spill can appear on beaches as tar mats, and despite clean-up efforts can remain on sandy shorelines for a number of years, as smaller oil fragments and mats can become buried in the sediments to depths of over a metre through accretion. Heavy weather conditions and littoral drift can re-expose these deposits, redistributing the oil particles and mats along the shore and resulting in the re-oiling of beaches even three years after the initial oil stranding.</p>	



No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>41.</p> <p>The report states that oil spilled on beaches results in significant declines in abundance, biomass and diversity of meiofaunal and macrofaunal communities, with recovery of macrofaunal communities typically occurring at between 2-5 years but with recovery of burrowing and long-lived species potentially taking up to 10 years on heavily oiled beaches. Recovery of meiobenthos is typically more rapid, while in some cases recovery of the invertebrate communities is hampered by both re-oiling frequency and the type and degree of beach clean-up following the spill, while in other cases clean-up attempts promote recovery.</p> <p>42.</p> <p><b>Rocky Shores</b></p> <p>With regard to rocky shores, the Marine Ecology report indicates that natural recolonisation begins after the processes of physical and chemical degradation have started, with recovery of benthic communities typically occurring within three years. However, active clean-up operations of rocky shores can have a negative or marginal influence on the rate of recovery (sterilising the substratum by removing or killing those biota that survived the initial effects of oiling, which biota would have formed the basis of the subsequent recovery process).</p> <p>43.</p> <p><b>Estuaries</b></p> <p>The Marine Ecology report indicates that there are 64 estuarine systems along the West Coast between the Orange River and Cape Agulhas, with a further 30 systems between Cape Agulhas and Plettenberg Bay. Approximately 75% of the Cool Temperate</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>bioregion estuarine ecosystem (West Coast) types are 'Critically Endangered' or 'Endangered', while 13% are considered 'Vulnerable'.</p> <p>44.</p> <p>The draft EIR notes that estuaries are highly productive systems and offer rich feeding grounds, warmer temperatures and sheltered habitat for many organisms. The high productivity is exploited by many line-fish and harvested invertebrate species either as a nursery or later in life either directly through habitat availability or indirectly through the contribution to overall coastal productivity. The contribution of the estuarine nursery function has been estimated as R960 million in 2018 terms (equivalent to over R1 billion in 2020) to the South African economy, with the highest value attributed to the estuaries of the South-Western and Eastern Cape.</p> <p>45.</p> <p><b><i>Marine Protected and Sensitive Areas</i></b></p> <p>The draft EIR indicates that while License Blocks 5/6/7 overlap with two offshore MPAs (Brown's Bank and Southeast Atlantic Seamounts MPAs), the AOI for the proposed exploration drilling avoids these MPAs. Notwithstanding this, it is submitted that these MPAs (and other sensitive areas discussed below) could be impacted by a major oil spill if the subsea plume or surface oil was transported in the direction of these MPAs by prevailing current and wind directions.</p> <p>46.</p> <p>According to the draft EIR, coastal MPAs within the project's indirect area of influence include the Namaqua National Park MPA,</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>Rocher Pan MPA, West Coast National Park MPA network (Langebaan Lagoon, Sixteen Mile Beach, Marcus Island, Malgas Island and Jutten Island), Table Mountain National Park MPA, Helderberg MPA, Walker Bay MPA, De Hoop MPA, Goukamma MPA and Robbeberg MPA. Offshore MPAs within the project's indirect area of influence include Orange Shelf Edge MPA , Namaqua Fossil Forest MPA, Child's Bank MPA, Benguela Muds MPA, Cape Canyon MPA, Robben Island MPA, Agulhas Bank Complex MPA, Agulhas Muds MPA and the South West Indian Seamount MPA.</p> <p>47.</p> <p>Block 5/6/7 also overlaps with five EBSAs (although the AOI for the exploration drilling avoids these EBSAs), while there are also a number of other EBSAs in the indirect area of influence (to the north and east).</p> <p>48.</p> <p>Importantly, the draft EIR indicates that Block 5/6/7 overlaps with areas mapped as Protected Area, Critical Biodiversity Area 1 (CBA 1) Natural, CBA 1 Restore, Critical Biodiversity Area 2 (CBA 2) Natural, CBA 2 Restore and Ecological Support Area (ESA), whereas the AOI for the proposed exploration drilling overlaps with CBA 1 Natural &amp; Restore and CBA 2 Natural &amp; Restore mainly in the north, but also marginally in the south. Approximately 5.4 % of the AOI is covered by CBA 1 and CBA 2. CBA 1 indicates irreplaceable or near-irreplaceable sites that are required to meet biodiversity targets with limited, if any, option to meet targets elsewhere, whereas CBA 2 are "best design sites" and there are often alternative areas where feature targets can be met; however,</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>these will be of higher cost to other sectors and / or will be larger areas.</p> <p>49.</p> <p>The draft EIR points out that numerous coastal Important Bird Areas (IBAs) are also located in the general project area, inshore of Block 5/6/7. Block 5/6/7 overlaps with the proposed Bird Island / Dassen Island / Heuningnes River and estuary system / Lower Berg river wetlands marine IBA and the Atlantic Southeast 19 IBA. The AOI for the proposed exploration drilling overlaps with the proposed Atlantic Southeast 19 IBA.</p> <p>50.</p> <p>Eleven Ramsar Sites also occur within the project's indirect area of influence.</p> <p>51.</p> <p>The draft EIR goes on to point out that while much of the West Coast of South Africa has not yet been assessed with respect to its relevance as an Important Marine Mammal Area (IMMA), the coastline from the Olifants River mouth on the West Coast to the Mozambiquan border overlaps with three declared IMMAs. While these are not located in the AOI for the proposed exploration drilling, these IMMAs could be impacted by (for example) a major oil spill.</p> <p>52.</p> <p><b>Fish</b></p> <p>The Marine Ecology report states that adult free-swimming fish in the open sea seldom suffer long-term damage from oil spills because oil concentrations in the water column decline rapidly</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>following a spill, rarely reaching levels sufficient to cause mortality or significant harm. Adult pelagic fish are expected to actively avoid very contaminated waters, and consequently documented cases of fish-kills in offshore waters are sparse. However in extreme cases of coastal spills when gills become coated with oil, effects can be lethal, particularly for benthic or inshore species.</p> <p>53.</p> <p>The report goes on to point out that sub-lethal and long-term effects can include disruption of physiological and behavioural mechanisms, reduced tolerance to stress and opportunistic pathogens, and incorporation of PAHs through ingestion of contaminated sediments or prey that has accumulated oil. Gene expression and potential effects on sex determination, sexual differentiation, growth regulation and DNA damage in fish was found to be a robust indicator of oil exposure in fish.</p> <p>54.</p> <p>The draft EIR indicates further that the embryonic and larval life stages of fish show acute toxicity to PAHs, even at low concentrations, although effects vary depending on the species and the extent of exposure. Toxicity effects on the early life stages of fish are generally defined by the occurrence of pericardial edema, which is often accompanied by reduced heart rate and atrial contractility, particularly in large predatory pelagic species such as tunas and billfish. The cardiotoxic effect may also be accompanied by spinal curvature, finfold damage, and craniofacial malformations. Impaired cardiovascular development in fish embryos is thought to reduce individual cardiovascular performance and reduce swimming performance in later life, and</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>there is therefore a high risk for reduced productivity of some commercially-important species.</p> <p>55.</p> <p>The Green Connection submits that there is also a risk of humans eating contaminated fish (which could be weaker and more prone to being predated or caught), including a risk of bioaccumulation in the food chain.</p> <p>56.</p> <p><b>Seabirds</b></p> <p>With regard to seabirds, the Marine Ecology report states that chronic and acute oil pollution is a significant threat to both pelagic and inshore seabirds, many of which breed on the Saldanha Bay Islands, Dassen Island, Robben Island and Dyer Island, which could be impacted by a large spill.</p> <p>57.</p> <p>The report states that diving sea birds that spend most of their time on the surface of the water are particularly likely to encounter floating oil, and will die as a result of even moderate oiling, which damages plumage and eyes. The majority of associated deaths are as a result of the properties of the oil and damage to the water repellent properties of the birds' plumage. This allows water to penetrate the plumage, decreasing buoyancy and leading to sinking and drowning. In addition, thermal insulation capacity is reduced requiring greater use of energy to combat cold. Oil is also ingested as the birds preen in an attempt to clear oil from plumage and may furthermore be ingested over the medium to long term as it enters the food chain. The effects of ingested oil include anaemia, pneumonia, intestinal irritation,</p>	


No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>kidney damage, altered blood chemistry, decreased growth, impaired osmoregulation, and decreased production and viability of eggs. Furthermore, even small concentrations of oil transferred from adult birds to the eggs can cause embryo mortalities and significantly reduce hatching rate.</p> <p>58.</p> <p>Oil spills can thus affect shorebirds through direct acute mortality, as well as indirectly or long term by sub-lethal effects on bird health and behaviour. Habitat degradation of distant feeding or breeding areas may affect bird populations in ways that carry over to subsequent seasons.</p> <p>59.</p> <p><b>Turtles</b></p> <p>The Marine Ecology report states that turtle hatchlings carried southwards in the Agulhas Current and into the Agulhas retroflexion zone may become oiled. As turtles spend much of their time at the surface, inhalation of the volatile oil fractions will occur leading to respiratory stress, while coating of eyes, nostrils and mouths with oil will cause vision loss, inhalation and ingestion. Indirect ingestion of oil through contamination of their gelatinous prey or coastal foraging sites is also possible.</p> <p>60.</p> <p>The report points out that as turtles often feed in convergence zones, they are particularly at risk to oiling as such oceanic features tends to accumulate oil. Direct miring in oil is the most likely impact, decreasing an animal's ability to move and dive, causing exhaustion, dehydration, overheating, and eventually death. Any turtle deaths from oil exposure would remove them from the</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>breeding population. For species considered 'endangered' or 'critically endangered' such a loss can be significant.</p> <p>61.</p> <p><b>Seals</b></p> <p>The Marine Ecology report indicates that little work has been done on the effect of an oil spill on fur seals and sea lions (pinnipeds), but states that they are expected to be particularly vulnerable as oil would clog their fur and - depending on how they maintain their core body temperature - they may die of hypothermia.</p> <p>62.</p> <p>The report documents that seal colonies within the broader project area that may be affected by a spill are at Bucchu Twins near Alexander Bay, at Cliff Point (~17 km north of Port Nolloth), at Kleinzee (incorporating Robeiland), Strandfontein Point (south of Hondeklipbai), Paternoster Rocks and Jacobs Reef at Cape Columbine, Vondeling Island, Robbesteen near Koeberg, Seal Island in False Bay, Geyser Rock at Dyer Island, Quoin Point and Seal Island in Mossel Bay.</p> <p>63.</p> <p>The report goes on to point out that although pinnipeds should be able to detect oil through vision and/or smell, they apparently do not actively avoid oil, and are therefore likely to come in contact with it if it comes into their habitat. Acute and long-term chronic exposure to oil in pinnipeds negatively affects the mucous membranes, eyes, ears, external genitalia, and internal organ systems. However, due to small sample sizes, the magnitude of the harm and its long-term consequence to individuals and local populations remain unknown.</p>	



No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>64.</p> <p>The report advises that sea lions, seals, walrus and elephant seals are likely to be less vulnerable to oiling. However, fur seals rely mostly on air trapped in their fur, rather than blubber for insulation, and individuals would likely face a serious challenge in maintaining their core body temperature if oiled.</p> <p>65.</p> <p>The report also points out that population-level impacts are also likely if spilled oil reaches the haul-out sites and rookeries where these seals rest or annually mass to breed. An ill-timed large spill in the vicinity of a fur seal breeding colony would thus likely be devastating.</p> <p>66.</p> <p>The feeding and movement pattern of pinnipeds would also directly affect their susceptibility to an oil spill, especially in species that forage at great distances from their breeding colonies. Fur seals tend to forage in the coastal zone along the continental shelf and will thus be more susceptible to both the acute and chronic effects of an oil spill, especially where the oil is transported to the coast. Differences in foraging behaviour will also result in differences in exposure after an oil spill, with benthic foragers being more susceptible to chronic exposure through bioaccumulation of PAHs in their prey than pelagic-feeding species.</p> <p>67.</p> <p><b>Whales</b></p> <p>According to the Marine Ecology report, several species of whales and dolphins occur off the southern African coast, with 35 species</p>	

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			<p>known or likely to occur in the waters of the South-West Coast, including the ‘critically endangered’ blue whale, ‘endangered’ sei whales, and ‘vulnerable’ fin and sperm whales.</p> <p>68.</p> <p>Humpback whales are indicated as likely to be the most frequently encountered baleen whale in the project area, ranging from the coast out beyond the shelf, with year round presence but numbers peaking during the northward migration in June – February and a smaller peak with the southern breeding migration around September – October but with regular encounters until February associated with subsequent feeding in the Benguela ecosystem.</p> <p>69.</p> <p>The report indicates further that with regard to Southern Right whales, given that a high proportion of the population is known to feed in the southern Benguela, and current numbers reported, it is highly likely that several hundreds of right whales can be expected to pass through Block 5/6/7 when migrating southwards from the feeding areas between April and June.<sup>35</sup> The area of interest coincides with ‘blue corridors’ or ‘whale superhighways’ used by Humpback and Southern Right whales when migrating between southern Africa and the Southern feeding grounds:</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			 <p>Figure 39: Block 5/6/7 in relation to 'blue corridors' or 'whale superhighways' showing tracks of Humpback whales (orange) and Southern Right whales (green) between southern Africa and the Southern Ocean feeding grounds (adapted from Johnson et al. 2022).</p> <p>70.</p> <p>The Marine Ecology report advises that the effects of oil pollution on cetaceans are poorly understood but suggests low vulnerability to oil attributable to their ability to detect and avoid slicks (although the report also points out that conflicting reports on this exist).</p> <p>71.</p> <p>According to the report, dispersants added to oil spills have been found to be cytotoxic and genotoxic to whale skin fibroblast cells. The most likely immediate impact of an oil spill on cetaceans is the risk of inhalation of volatile, toxic benzene fractions when the oil slick is fresh and un-weathered. Common effects attributable to the inhalation of such compounds include absorption into the circulatory system leading to narcosis and drowning, inflamed mucous membranes, lung congestion leading to pneumonia, neurological damage and liver disorders, compromised health status and increased disease prevalence, and mild irritation to</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>permanent damage to membranes of eyes, mouth and respiratory tract.</p> <p>72.</p> <p>The report points out that for certain species that frequent or live in nearshore waters, a spill may pose significant risk. For example, populations of coastal-oriented odontocetes (that show strong site fidelity restricted to nearshore habitats) could be significantly impacted by a spill oiling nearshore waters. If those habitats were oiled, the animals would experience both acute and chronic exposure through their respiratory system and through ingestion of oil-contaminated prey, which could have long-term effects on population structure and size.</p> <p>73.</p> <p>The report goes on to point out that, in contrast, in highly mobile, wide-ranging species, the contact with an oil spill would be relatively brief. In offshore species, the potential for oil disrupting the reproductive behaviour is indicates as remote. However, it is a concern for inshore reproducers, particularly in highly social species, where the disruption of social groups through loss of some key individuals could potentially impact reproductive success over the long-term.</p> <p>74.</p> <p>The report points out that the impact of oil pollution on local and migrating cetacean populations will obviously depend on the timing and extent of the spill. The report assumes that the majority of cetaceans will be able to avoid oil pollution, though effects on the population could occur where the region of avoidance is critical to population survival. However, oil pollution in areas of</p>	

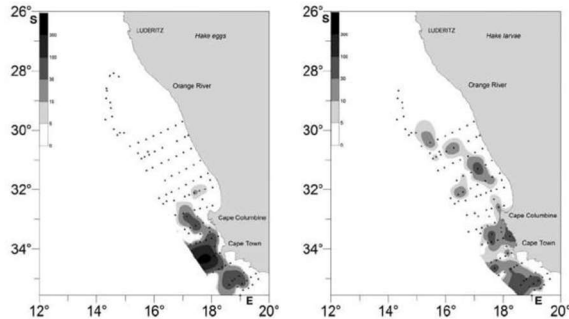
No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>cetacean critical habitat (areas important to the survival of the population), such as the extreme near-shore calving / nursing grounds of the Southern Right whale (e.g. in the vicinity of False Bay, Walker Bay and St Helena Bay), could be the most likely to impact populations.</p> <p>75.</p> <p><b>Significance</b></p> <p>The Marine Ecology report rates the impacts of an oil spill on marine fauna before mitigation as being of VERY HIGH significance. With the implementation of various best-practice mitigation measures, the residual impact to deep-sea benthic macrofauna, pelagic fish and larvae, seabirds, marine mammals and turtles would still be of high intensity but the extent and duration would decrease. However, 'Overall, the residual impacts would be of VERY HIGH significance'.</p> <p>76.</p> <p><b>(iii) Fisheries</b></p> <p>With regard to the impacts of a major oil spill (unplanned event), the Fisheries Impact Assessment report indicates that there are several possible direct and secondary impacts of hydrocarbon spills on fisheries, namely:</p> <ul style="list-style-type: none"> <li>- Oil contamination of mobile finfish species, in particular of juveniles in nursery areas could result in displacement of species from normal feeding and protective areas as well as possible physical contamination and/or physiological effects such as clogging of gills, both of which would lead to fish mortality;</li> </ul>	

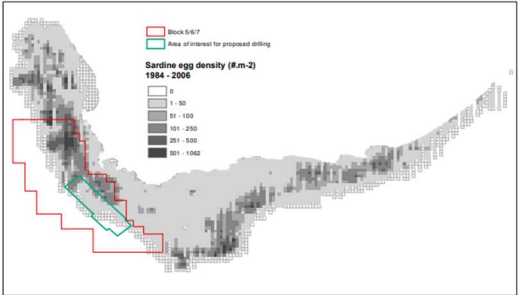
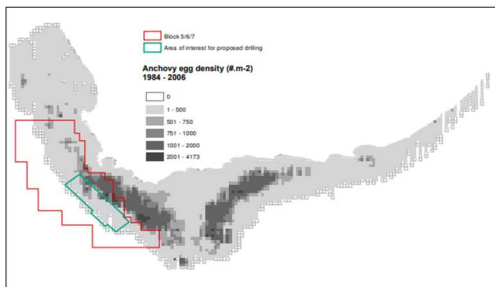
No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>- Oiling of sessile or sedentary species would result in physical clogging on individuals, disturbance and or removal of habitat for these species and gill clogging for filter feeding species such as mussels, all of which is likely to result in mortality;</p> <p>- Oiling of passively drifting spawn products (eggs and larvae) would result in their contamination and mortality (the extent of mortality would depend on the nature and extent of the contaminants) leading to reduced recruitment and loss of stock;</p> <p>- Exclusion of fisheries from areas that may be polluted or closed to fishing due to contamination of sea water by the oil or for example the chemicals used for cleaning oil spills; and</p> <p>- Gear damage due to oil contamination.</p> <p>77.</p> <p>Regarding the sensitivity of receptors, the Fisheries report refers to the Marine Ecology report as providing a review of the effects of a large-scale oil blow-out on marine fauna for the proposed project (see the Marine Ecology section of these comments above).</p> <p>78.</p> <p>The Fisheries report goes on to consider the spatial and temporal distribution of spawning areas, inshore nursery ground areas and fishing grounds in relation to the spatial distribution of the various different oiling scenario probabilities presented in the OSM report. The spatial extent of surface oiling is also considered in assessing the potential scale of an impact of contamination of fishing grounds:</p> <p>A variety of pelagic species, including anchovy, pilchard, and horse mackerel, are reported to spawn off the Western, Southern and</p>	

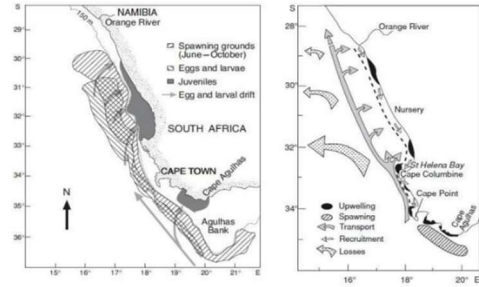
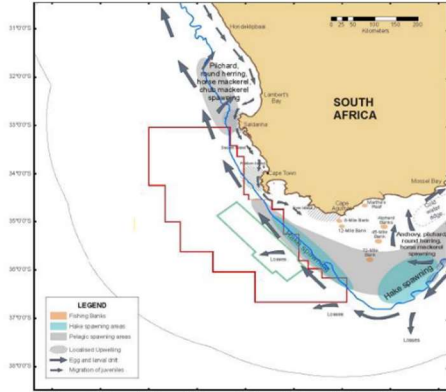
No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>Eastern Agulhas Bank. The eggs and larvae spawned in this area are thought to largely remain on the Agulhas Bank. Demersal species that spawn along the South Coast include the cape hakes and kingklip. Spawning of the shallow-water hake occurs primarily over the shelf (&lt;200m) whereas that by the deep-water hake occurs off the shelf. Similarly, kingklip spawn off the shelf edge to the south of St Francis and Algoa Bays. Squid spawn principally in the inshore waters (&lt;50m) between Knysna and Gqeberha, with larvae and juveniles spreading westwards. The inshore area of the Agulhas Bank serves as an important nursery area for numerous linefish species, a significant proportion of which originate from spawning grounds along the east coast, as adults undertake spawning migrations along the South Coast into KwaZulu-Natal waters... The eggs and larvae are subsequently dispersed southwards by the Agulhas Current, with juveniles using the inshore Agulhas Bank as nursery grounds. As is evident above, off the South Coast spawning areas are mostly located inshore (that is on the shelf from the coastline to approximately the 200 m depth contour). The coastal bays and estuarine environments are critical nursery areas for many of the fish stocks on which the various commercial fisheries are based. In particular, the small pelagic species of anchovy, sardine, red-eye round herring and juvenile horse mackerel and numerous linefish and demersal species are found in these protected areas in their juvenile stages. Any contamination of these areas would result in mortality of ichthyoplankton and impact in the short term on recruitment of species to the demersal trawl sectors, demersal longline, small pelagic purse-seine, midwater trawl, linefish and squid jig sectors.</p> <p>The eggs and larvae are also carried around Cape Point and up the coast in northward flowing surface waters. At the start of winter every year, the juveniles recruit in large numbers into coastal</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>waters across broad stretches of the shelf between the Orange River and Cape Columbine to utilise the shallow shelf region as nursery grounds before gradually moving southwards in the inshore southerly flowing surface current, towards the major spawning grounds east of Cape Point. Following spawning, the eggs and larvae of snoek are transported to inshore (&lt;150m) nursery grounds north of north of Cape Columbine and east of Danger Point, where the juveniles remain until maturity. There is, therefore, some overlap of Block 5/6/7 with the northward egg and larval drift of commercially important species, and the return migration of recruits. Thus, ichthyoplankton abundance in the inshore portion of the Area of Interest is likely to be seasonally high, particularly in late winter and early spring. The embryonic and larval life stages of fish, however, show acute toxicity to PAHs, even at low concentrations, although effects vary depending on the species and the extent of exposure. In the context of the detrimental effect on ichthyoplankton (spawn products) on recruitment to fisheries, all affected fishing sectors are considered to be vulnerable to unplanned and uncontrolled major events and are rated as HIGH sensitivity.</p> <p>Mariculture activities are highly sensitive to water quality variability. The effects of oil spills would potentially have the greatest impact on sessile filter feeding (e.g. mussels and oysters) and grazing species (e.g. abalone) resulting in mortality through physical clogging and or direct absorption. For shore-based collection of abalone, white mussels and any mariculture activities, any pollution associated with oil reaching the shoreline could be devastating for the industry resulting in complete loss of stock. Oil reaching the shoreline could contaminate any water intake for fish farming at the various shore-based aquaculture facilities.... Any discharge into the Saldanha Bay area may affect both natural fish</p>	



No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>populations and bivalve mariculture within the ADZ area. Impacts on juvenile and adult fish can be lethal, as gills may become coated with oil. Sub-lethal and long-term effects can include disruption of physiological mechanisms, reduced tolerance to stress, and incorporation of carcinogens into the food chain... The result of which would cause severe decrease in overall production rates of any farm within the vicinity of the contaminated area.</p> <p>Although the Area of Interest is located in the offshore marine environment (more than 60 km offshore), a large spill could directly affect sensitive coastal receptors such as inshore nursery grounds for commercial fish stocks.</p> <p>79.</p> <p>Figure 3.2 below shows the distribution of eggs and larvae for both species of hakes:</p>  <p>Figure 3.2: Station map showing the distribution of eggs (left) and larvae (right) of Cape hakes (both species combined) during a research survey conducted between September and October 2005. Numbers per 10 m<sup>2</sup> (Stenevik <i>et al.</i>, 2008).</p> <p>80.</p> <p>Figure 3.4 below shows a composite distribution map for sardine eggs:</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			 <p>Figure 3.4: Block 5/6/7 and the area of interest in relation to the distribution of sardine spawning areas, as measured by egg densities (Source DFFE).</p> <p>81.</p> <p>Figure 3.5 below shows a composite distribution map for anchovy eggs:</p>  <p>Figure 3.5: Block 5/6/7 and the area of interest in relation to the distribution of anchovy spawning areas, as measured by egg densities (DFFE).</p> <p>82.</p> <p>Figure 3.843 below shows the spawning grounds, distribution and transport of eggs and larvae, and nursery areas in respect of snoek:</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<div><p>Figure 3.8: Conceptual model depicting the life history of snoek (left; Source: Griffiths, 2002) and anchovy (right; Hutchings et al., 1992) in the southern Benguela ecosystem, including spawning grounds, distribution and transport of eggs and larvae, and the nursery areas.</p></div> <p>83.</p> <p>Figure 3.9 below shows the known spawning periods of key commercial species off the South and West Coasts:</p> <div><p>Figure 3.9: Block 567 (red polygon) and the area of interest for drilling (green polygon) in relation to major spawning areas in the southern Benguela region (Pulfrich, 2021 adapted from Cruikshank, 1990).</p></div> <p>84.</p> <p>The Fisheries report indicates regarding water column and surface layer probability of contamination that the plume can move in the</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>direction of Brown's Bank MPA and EBSA.<sup>45</sup> The report also points out that the application of SSDI at the Release Points results in an increase in the deep layer contamination area and the depth of contamination.</p> <p>85.</p> <p>The Fisheries report indicates further that with regard to large spills, the extent of the surface oiling could be regional to international. Large scale effects on fishing operations would also be likely to include area closures and exclusion of fisheries from areas that may be polluted or closed to fishing due to contamination of surface waters by oil or the chemicals used for cleaning oil spills. Based on the possible extent of surface oiling (and overlap with major fish spawning and nursery areas, and key fishing areas), the intensity of the impact on most commercial fisheries would be high. Based on the extent of surface oiling of a large-scale blow-out, the operations of most commercial fisheries would be affected on a regional scale, namely the demersal trawl, midwater trawl, demersal longline, small pelagic purse-seine, large pelagic longline, tuna pole-line, traditional linefish, west coast rock lobster, south coast rock lobster and squid jig.</p> <p>86.</p> <p>The report states further that in addition to these offshore fisheries, nearshore small-scale fishing (beach seine, gillnet, seaweed harvesting, white mussels, oysters, abalone, etc.) as well as aquaculture facilities could be affected by shoreline oil contamination.</p> <p>87.</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>The report points out that for crude oil, the weathering processes over the short-term (hours to weeks) include evaporation, dispersion, dissolution, photo-oxidation, emulsification and spreading, whereas biodegradation and sedimentation dominate the weathering processes over the medium- to long-term (weeks to years).</p> <p>88.</p> <p>Due to the scale (regional to international) extent and medium-term duration (due to impact on recruitment) of the impact, the magnitude of the impact on these sectors is expected to be VERY HIGH. In all cases impacts are partially reversible.</p> <p>89.</p> <p>Regarding residual impact after the implementation of the mitigation measures, the report indicates that although the intensity and duration would remain, the extent would decrease, thereby reducing the magnitude to high and significance to HIGH significance.</p> <p>90.</p> <p><b><i>(iv) Social (Socio-Economic)</i></b></p> <p>The Social Impact Assessment (SIA) report indicates that an oil spill (unplanned event) can result in several (indirect negative) socio-economic impacts.</p> <p>91.</p> <p>The SIA report acknowledges that 'All coastal communities and activities along the South-West coastline (key area affected) are considered to be of very high sensitivity to major oil spills: it is a high value coastline that services extensive regional tourism,</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>recreation, residential development, and near-shore and offshore fishing’.</p> <p>92.</p> <p>The SIA report states that in a worst-case scenario, ‘the socio-economic impacts associated with an unlikely large oil spill will likely be focused along portions of the coastline between southern Namibia and Gqeberha depending on the well location and season. Specifically, if the blowout were to happen in mid-winter when there are westerly winds blowing, and the emergency response from Saldanha does not cap it, oil could reach the shores in the densely populated areas between Saldanha and Cape Agulhas.’</p> <p>93.</p> <p>The SIA states that ‘the ramifications of an actual unplanned events in terms of social impacts are beyond this scope of this SIA. However, the legal, financial and reputational risks are likely to be substantive’.</p> <p>94.</p> <p>The Green Connection submits that the socio-economic impacts of a major oil spill have not been adequately assessed, and in particular the potential socio-economic impact on small-scale fishers and communities that are dependent on the oceans for their livelihoods has not been fully assessed (including in terms of magnitude) or quantified. Such impacts are likely to be devastating to small-scale fishers and fishing dependent communities and could also have a significant impact on other sectors (and those employed) such as marine aquaculture. Small-scale fishers are simply mentioned in the draft EIR as a sector that ‘could be affected by shoreline oil contamination’, an oil spill is indicated as</p>	<p>94. - 96. The assessment of economic impacts as a result of unplanned events (i.e. such as a well blow-out) is challenging to accurately perform due to the many variables, assumptions and uncertainties that would be involved. The outputs of such an assessment are likely to be so broad that it would be of little direct value in informing the impact assessment process or the development of mitigation measures and ultimately decision-making. Thus, the Socio-Economic Impact Assessment considers the broad socio-economic impacts related to an unlikely large oil spill. The level of information provided in the assessment of an unlikely oil spill is considered adequate to inform the assessment and to inform decision-making in this regard. The impact of an unlikely oil spill</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>potentially resulting in a reduction in small-scale (and other) fishing (exclusion areas for fishing, non-consumption due to toxicity, decline in fish stocks), while in terms of magnitude only an estimated reduction in commercial fishing is quantified as an 'indicator'. The Green Connection submits that the failure to fully assess and quantify negative socio-economic impacts of a major oil spill on some sectors constitutes a fatal flaw in the EIA.</p> <p>95.</p> <p>The Green Connection recorded is concern regarding the planned socio-economic assessment in its comment on the draft Scoping Report, noting that despite acknowledging that the greatest potential risk of oil and gas exploration activities in the marine environment is the impact of an unplanned event such as a well blow-out with negative social and economic impacts, the draft Scoping Report suggested that that the 'assessment of the economic impacts as a result of unplanned events (i.e. such as a well blow-out) is challenging to accurately perform due to the many variables, assumptions and uncertainties that would be involved. The outputs of such an assessment are likely to be so broad that it would be of little direct value in informing the impact assessment process or the development of mitigation measures and ultimately decision-making'. It was pointed out further that the draft Scoping Report sought to rely on the applicant's oil spill response planning and the development of well-specific OSCPs (in respect of which only framework documents would be included in the ESMP for public comment) and OSM. It was also noted that the draft Scoping Report suggested that the management of compensation in the event of a major oil spill falls outside of the scope of the ESIA process and will not be addressed directly, and that a process of determining the economic effects and related</p>	<p>is assessed to be of very high significance and any additional information will not change the assessment.</p> <p>In the event of an unplanned event (i.e. such as a well blow-out) occurring, a process of determining the economic effects and related compensation would be initiated. Such a process would typically involve government, insurers, the organisation responsible for the incident, industry organisations and the applicable legal system. TEEPSA will plan for and would implement responses in terms of the International Petroleum Industry Environmental Conservation Association - International Association of Oil and Gas Producers (IPIECA-IOGP) guideline document for the economic assessment and compensation for marine oil releases. TEEPSA would also ensure that damages and compensation to Third-Parties are included in insurance cover to financially manage the consequences of any unplanned event.</p> <p>The ESIA And ESMP recommends that TEEPSA submits all forms of financial insurance and assurances to PASA prior to drilling to manage all damages and compensation requirements in the event of an unplanned pollution event.</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>compensation would be initiated. The Green Connection stands by its submission that, notwithstanding that it may be difficult to perform, an assessment of the socio-economic impacts of a major spill is a crucial aspect of the EIA which cannot be ignored, and that an assessment of the economic impacts of a major spill (acknowledged in the draft Scoping Report as the greatest potential risk of oil and gas exploration) and the adequacy of provisions made by TEEPSA to compensate anyone impacted by such a spill, should be conducted in the assessment phase of the EIA. The Green Connection submitted further that not only would such an assessment be directly relevant to a consideration of the Need and Desirability of the planned exploration drilling activities, but the potential economic impact of a major oil spill (including but not limited to the potential economic impact on small-scale fishers and communities that are dependent on the oceans for their livelihoods) is a highly relevant factor that the decision-maker will have to take into account when making the decision on authorisation. An ex post facto determination of the economic impacts of an oil spill defeats the objective of an EIA process, which is to identify and assess the potentially significant impacts of a proposed project. The Green Connection stands by these submissions.</p> <p>96.</p> <p>Notwithstanding the failure to thoroughly assess and quantify the negative economic impacts of a major spill (including but not limited to the economic impacts on small-scale fishers and fishing dependent communities, the SIA report provides some limited information on the likely 'range and nature' of socio-economic impacts that could likely occur from such an event, namely:</p>	



No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>1. Degradation of portions of the coastline in terms of aesthetic and landscape appeal. This would be seen as a major and significant impact immediately on coastal cities and communities, particularly those dependent on tourism and beach associated recreation, and would draw national attention. Wesgro reports that, in 2019, total visitor spend in Western Cape was R26.3 billion. In a survey, 61.5% of visitors to the Western Cape gave "holiday" as the reason for their visit, others were visiting relatives etc. Assuming a spill that lasts a full month, and cuts tourism visits completely by an equivalent amount (i.e. by 1/12th of those visiting for holiday reason), visitor spend would drop by roughly R1.35 billion.</p> <p>2. Degradation of portions of the coastline that supports a variety of commercial and private recreational activities. In affected areas, such activities will probably need to be suspended during the clean-up along the coastline. This will result in losses for commercial enterprises while disrupting the use of beaches by the public at large.</p> <p>3. The affected coastline supports domestic and international tourism, and the degradation of portions of the coastline will likely result in the temporary, but significant, reduction in tourism during and after the clean-up along the impacted coastline. This will result in losses for tourism operators and establishments, while potentially disrupting tourism trends in the region in the near future.</p> <p>4. Reduction in recreational, small-scale, and commercial fishing in the impacted area, including near-shore and offshore fishing. This may result in undermining fishing by the public at large. Large scale effects on fishing operations would also be likely to include area closures and exclusion of fisheries from areas that may be polluted</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>or closed to fishing due to contamination of surface waters by oil or the chemicals used for cleaning oil spills. Based on the possible extent of surface oiling (including major fish spawning and nursery areas), the intensity of the impact on most commercial fisheries would be high. As an indicator, assuming a 10% drop in value of fisheries, sustained over a full three years, the revenue lost would be about R600m a year. The percentage dop is however difficult to estimate.</p> <p>5. Reduction in income for secondary and tertiary sectors that support tourism, recreational, fishing, and other coastal economies. Reduction in income and livelihoods impacts on those dependant on small scale fisheries.</p> <p>6. Pressure on national, regional, and local public services and facilities as part of any shoreline responses. Given the relatively undeveloped oil and gas sector nationally, there may be insufficient capacity, resourcing, and expertise to manage and respond to any major spills.</p> <p>7. National, regional, and local collapse in public trust and increase in conflict related to environmental and social impacts from major spills.</p> <p>8. Impacts on national GDP and economic growth which may see both a negative downturn as well as a positive upswing from clean-up costs.</p> <p>97.</p> <p>The Green Connection also takes issue with statements made in the draft EIR document set which suggest that clean-up costs associated with a major oil spill could have positive impacts on GDP, as well as a footnote comment that ‘typically unemployed</p>	<p>97. Although some companies may benefit from the response strategies outlines in the OSCP and clean-up operations, the impact is assessed to be of very high <u>negative</u> significance.</p>

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			<p>people earn an income cleaning beaches, and those who suffer directly can put in a claim. This would be money coming into the country from abroad. This impact is not considered in the assessment however'. In the context of the devastating negative ecological and socio-economic impacts associated with a major oil spill, the attempt to categorise clean-up costs as a positive impact on GDP (without even attempting to substantiate this reach) is misguided and insensitive. The SIA goes on to state that the 'social impacts will, however, be substantive in the case of unplanned events with severe negative outcomes'. The socio economic and social impacts in the event of catastrophic events (well blow-out) are indicated as be of VERY HIGH significance both before and after mitigation.</p> <p>98.</p> <p><b>(v) Cultural Heritage</b></p> <p>The draft EIR indicates regarding 'intangible cultural heritage' that in addition to the impact of a major oil spill on the marine environment, it would also result in the degradation of the coastline in terms of aesthetic and landscape appeal, and that any impact on the integrity of the coastal and marine ecosystem through a large oil spill could in turn impact various aspects that makes up people's intangible cultural heritage (indirect negative impact).</p> <p>99.</p> <p>The draft report recognises (among other things) that the sea is described as 'living' waters and is believed to play a critical role in spiritual and health management in indigenous groups specifically (First Peoples and Nguni), and that any impact on these 'living' waters may, therefore, impact communication with the ancestors</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>or its use as an emetic or in other ritual practices. The sensitivity of this receptor is rated as HIGH to VERY HIGH, as ritual practice and spiritual engagement with the sea requires a healthy ocean, or at the very least, a not visibly polluted ocean. It also recognises that certain stakeholder groups display a high regard of the sea due to their spiritual and cultural connection with the ocean and are directly reliant on the ocean and coast for their livelihood (such as fishing, shellfish harvesting, leisure, tourism, etc). The sensitivity of this receptor to an oil spill is also rated as VERY HIGH having regard to the many coastal communities that rely on the ocean and coast for their livelihoods.</p> <p>100.</p> <p><b>(vi) Synthesis</b></p> <p>The OSM clearly shows that in the event of a major oil spill (well-head blowout), there is a high probability that (depending on the season) broad expanses of sensitive coastline and nearshore areas will be impacted by surface oil polluting the shoreline. Depending also on the season as well as the location of the well, the spill could be regional and international in extent (reaching as far as southern Namibia on the West Coast and Gqeberha on the South-East Coast).</p> <p>101.</p> <p>The draft EIR and various specialist reports indicate the significance of such impacts would be VERY HIGH (in respect of marine ecology, commercial fisheries, coastal and nearshore users and cultural heritage) without mitigation, and remain VERY HIGH (marine ecology and coastal/nearshore users) and HIGH (commercial fisheries and cultural heritage) with effective mitigation (capping,</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response																																										
			<p>Surface Response and SSDI), as shown in the table below:</p> <table><tr><th>No.</th><th>Activities</th><th>Aspects</th><th>Impacts on Main Receptors</th><th>Pre-Mitigation Significance</th><th>Project Controls / Key Mitigation</th><th>Residual Significance</th></tr><tr><td>4</td><td>WELL BLOW-OUT</td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>1.3.1</td><td>Loss of well control / well blow-out</td><td>Reduction of water quality and smothering of coastal resources</td><td>Impacts on marine ecology/environment</td><td>VERY HIGH</td><td>• Design and Technical Integrity • Detailed Technical Risk Analysis • Blow-out Preventer • Oil Spill Contingency Plan • Emergency Response Plan • Blow-Out Contingency Plan • Cap and Containment Equipment • Grievance mechanism</td><td>VERY HIGH **</td></tr><tr><td>1.3.2</td><td></td><td></td><td>Impacts on marine commercial fishing</td><td>VERY HIGH</td><td></td><td>HIGH</td></tr><tr><td>1.3.2</td><td></td><td></td><td>Impacts on coastal and nearshore users</td><td>VERY HIGH</td><td></td><td>VERY HIGH</td></tr><tr><td></td><td></td><td></td><td>Impacts on intangible cultural heritage</td><td>VERY HIGH</td><td></td><td>HIGH</td></tr></table> <p>102.</p> <p>The Green Connection submits that a major oil spill would also have devastating socio-economic impacts on affected small-scale fishers and fishing dependent communities, who rely on the oceans for their livelihoods. Other activities such as aquaculture (and the jobs provided by such activities) would also be significantly impacted.</p> <p>103.</p> <p>The OSM also shows that in the event of a major oil spill (well-head blowout), the subsurface plume would under some of the modelled scenarios spread in the direction of the sensitive Brown’s Bank MPA and EBSA (Release Points 1 and 2) and in the direction of the Cape Canon (Release Point 1), and that the implementation of SSDI results in an increase in the deep lawyer contamination area and the depth of contamination for both release points.</p> <p>104.</p> <p>The Green Connection submits that the competent authority cannot close its eyes to the possibility of a major oil spill occurring either during the proposed exploration well drilling and testing or during potential future production well drilling and operation. While considered ‘unlikely’, wellhead blowouts can and do occur, and it is submitted that a major oil spill as a result of a wellhead blowout will clearly result in unacceptable pollution, ecological</p>	No.	Activities	Aspects	Impacts on Main Receptors	Pre-Mitigation Significance	Project Controls / Key Mitigation	Residual Significance	4	WELL BLOW-OUT						1.3.1	Loss of well control / well blow-out	Reduction of water quality and smothering of coastal resources	Impacts on marine ecology/environment	VERY HIGH	• Design and Technical Integrity • Detailed Technical Risk Analysis • Blow-out Preventer • Oil Spill Contingency Plan • Emergency Response Plan • Blow-Out Contingency Plan • Cap and Containment Equipment • Grievance mechanism	VERY HIGH **	1.3.2			Impacts on marine commercial fishing	VERY HIGH		HIGH	1.3.2			Impacts on coastal and nearshore users	VERY HIGH		VERY HIGH				Impacts on intangible cultural heritage	VERY HIGH		HIGH	<p>102. This comment is in line with the findings of the ESIA which assesses as the impact on coastal and nearshore users to be of very high significance - refer to Section 10.4.3.3 of the ESIA Report).</p> <p>104. Green Connection's objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts including those related to an unlikely oil spill and</p>
No.	Activities	Aspects	Impacts on Main Receptors	Pre-Mitigation Significance	Project Controls / Key Mitigation	Residual Significance																																								
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			<p>degradation and socio-economic impacts. As a result, and given that the risk of a major spill (well-head blowout) cannot be eliminated or the significant impacts of a major oil spill prevented, it is submitted that environmental authorisation should be refused.</p> <p>105.</p> <p><b>C. NEED AND DESIRABILITY</b></p> <p>The NEMA EIA Regulations stipulate that one of the objectives of the EIA process is to, through a consultative process, describe the need and desirability for the proposed activity, including the need and desirability of the activity in the context of the development footprint of the approved site as contemplated in the accepted scoping report. An EIA report must contain</p> <p>NEMA EIA Regulations, Appendix 3, section 2(b). With regard to need and desirability, a distinction is drawn between the 'general purpose and requirements' of the proposed activity and 'need and</p>	<p>National strategic policy issues relating to energy and climate change, as well as public opposition to oil and gas development and other legislation (e.g., ICMA). It is, however, important to noted that the probability of a well blow-out occurring is considered to be extremely unlikely, and this will need to be taken into consideration by the Competent Authority in decision-making. In a South Africa context, 358 wells have been drilled in the offshore environment to date and no well blow-outs have been recorded. Global data maintained by Lloyds Register indicates that frequency of a blow-out from normal exploration wells is in the order of <math>1.43 \times 10^{-4}</math> per well drilled. The probability is lowered further as TEEPSA has gained valuable experience and is well aware of the local conditions and requirements to operate in these conditions, as it has successfully drilled two wells off the South Coast (in 2019 and 2020) and one well off southern Namibia (in 2022), with the metocean conditions off the South Coast (strong Agulhas Current) considered to be more extreme than those in Block 5/6/7.</p> <p>105. - 111. Green Connections's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>desirability'. The 2017 Guideline on Need and Desirability states as follows (at p10):</p> <p>In order to properly interpret the EIA Regulations' requirement to consider "need and desirability", it is necessary to turn to the principles contained in NEMA, which serve as a guide for the interpretation, administration and implementation of NEMA and the EIA Regulations. With regard to the issue of "need", it is important to note that this "need" is not the same as the "general purpose and requirements" of the activity. While the "general purpose and requirements" of the activity might to some extent relate to the specific requirements, intentions and reasons that the applicant has for proposing the specific activity, the "need" relates to the interests and needs of the broader public.</p> <p>The consideration of "need and desirability" in EIA decision-making therefore requires the consideration of the strategic context of the development proposal along with the broader societal needs and the public the information that is necessary for the competent authority to consider and come to a decision on the application, and must include (among other things), a motivation for the need and desirability for the proposed development, including the need and desirability of the activity in the context of the preferred development footprint within the approved site as contemplated in the accepted scoping report.</p> <p>106.</p> <p>Chapter 5 of the draft EIR report addresses need and desirability, and is in some respects similar to the same chapter presented in the draft Scoping Report. However, the draft DSR Chapter 5 downloaded from SLR's website by the Green Connection ended on page 56, and was thus incomplete. It is noted that the final</p>	<p>process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p>

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			<p>Scoping Report (which was released to the public but not for comment) included a number of additions, including:</p> <ul style="list-style-type: none"> <li>- Reference to South African refinery shutdowns;</li> <li>- Reference to the Western Cape Climate Change Response Strategy (February 2016);</li> <li>- Paragraphs 5.2.10 on, namely sections on the SA Economic Reconstruction and Delivery Plan (2020); SA's Low-Emission Development Strategy (SA-LEDS) 2050 (February 2020); South Africa's Nationally Determined Contribution (NDC) (2021); South Africa's Gas Masterplan Base Case Report (DMRE, 2021); International Energy Agency: Net Zero by 2050 – a Roadmap for the Global Energy Sector (IEA, 2021); Just interest. The government decision-makers, together with the environmental assessment practitioners and planners, are therefore accountable to the public and must serve their social, economic and ecological needs equitably. Ultimately development must not exceed ecological limits in order to secure ecological integrity, while the proposed actions of individuals must be measured against the short-term and long-term public interest in order to promote justifiable social and economic development – i.e. ensuring the simultaneous achievement of the triple bottom-line. Considering the merits of a specific application in terms of the need and desirability considerations, it must be decided which alternatives represent the “most practicable environmental option”, which in terms of the definition in NEMA and the purpose of the EIA Regulations are that option that provides the most benefit and causes the least damage to the environment as a whole, at a cost acceptable to society, in the long-term as well as in the short-term. (emphasis added)</li> </ul>	



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			<p>The Guideline requires need and desirability assessments to address the impact of planned activities on global and international responsibilities relating to the environment, including climate change (at p11).</p> <p>Ibid, section 3(f).</p> <p>The draft Scoping Report has been removed from SLR's website, and the Green Connection was thus unable to verify whether the draft DSR Chapter 5 was incomplete, or whether the documents downloaded by the Green Connection failed to download fully. Notwithstanding this, the reference to the refinery shutdowns and the section titled 'Implications of the No-Go Alternative' are underlined and were therefore additions to the final Scoping Report.</p> <p>Transition and Climate Pathways Study for South Africa (NBI, 2021), Climate Change Bill (2022);</p> <ul style="list-style-type: none"> <li>- A section titled 'Consistency with NEMA principles';</li> <li>- Brief sections titled 'Securing ecological sustainable development and use of natural resources' and Promoting justifiable economic and social development'. While referring to further investigations to be conducted in the Assessment Phase, these sections are identically reproduced in the draft EIR report;</li> <li>- A Need and Desirability Summary; and</li> <li>- A section titled 'Implications of the No-Go Alternative' (this section is omitted from Chapter 5 of the draft EIR report, and is indicated as being discussed in Section 9.5).</li> </ul> <p>107.</p>	<p>The draft Scoping Report was replaced by the final Scoping Report, which was also available for download during the comment period on the draft ESIA Report. SLR received no requested for the draft Scoping Report to be re-uploaded.</p>

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			<p>Similar to the Chapter 5 of the draft DSR, Chapter 5 of the draft EIR includes an overview of need and desirability for the proposed project and indicates that it essentially considers the strategic context of the proposal within broader societal needs and the public interest. The chapter seeks to highlight the applications for the use of hydrocarbons, and to indicate how these applications are aligned within the strategic context of South Africa[n] national policy and energy planning, broader societal needs, and regional planning.</p> <p>108.</p> <p>Regarding the use of hydrocarbons and the petroleum industry in South Africa, the draft EIR also draws information based ‘mostly’ on information summarised from a report by KPMG for the South African Petroleum Industry Association. The report indicates that South Africa relies on imports of crude oil and refined fuels to meet its liquid fuel needs, and that South Africa has limited proven reserves of oil and natural gas. The market for refined products is indicated as ‘essentially flat’. The draft EIR adds that a number of South Africa’s six refineries have shutdown (ENREF, SAPREF and NATREF) or lack feedstock (PetroSA GLT Plant), resulting in increased quantities of refined product being imported.</p> <p>109.</p> <p>Regarding alignment with national policy and energy planning, the draft EIR report references various outdated or draft policy documents that mostly pre-date the ‘climate crisis’. Several references are made to the potential use of LNG as a ‘transitional fuel’ in power generation, while reference is made to Operation Phakisa’s (2014) key target of drilling 30 exploration well within ten years. TEEPSA’s drilling of up to 5 exploration wells is</p>	

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			<p>presented as ‘an opportunity to further establish the extent and economic viability of the indigenous gas reserves and/or oil in Block 5/6/7 and contribute to the above-mentioned target of the drilling of exploration wells’.</p> <p>110.</p> <p>It is also noted that the draft EIR report includes a discussion on how the NEMA section 2 principles were taken into account during the ESIA process. The Green Connection does not seek to engage on each and every point made by SLR in this section of its comment, but where appropriate raises selected inconsistencies with the NEMA section 2 principles elsewhere in this submission.</p> <p>111.</p> <p><b>(i) Climate change</b></p> <p>The draft EIR’s ‘need and desirability’ motivation does not include an assessment of the need and desirability of ultimately producing and using new oil and gas reserves (including in the context of the climate change crisis and the right to food). And while a Climate Change and Air Emissions Impact Assessment specialist report was undertaken, the climate change assessment was limited to the exploration well drilling stage only.</p> <p>112.</p> <p>In its responses to the Green Connection’s comments on the draft DSR relating to this issue, the environmental assessment practitioner SLR states as follows:</p> <p>The scope of this ESIA is limited to the assessment of activities proposed as part of this exploration project, i.e. drilling up to five exploration wells. Possible impacts from future production (i.e.</p>	<p>111. - 157. The Need and Desirability is ultimately related to production (extraction). The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, additional exploration and/or production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates ‘exploration activities’ from ‘production activities’ and sets out the distinct application/assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>extraction) are not assessed in this EIA. They would be considered as part of a separate EA application, should exploration identify a commercial resource and production be proposed by the applicant.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the license block. Should the results of the currently proposed exploration be promising, a separate EIA application would need to be undertaken in order the future to assess the potential impacts associated with the next phase in the lifecycle a typical development project. Thus, additional exploration and/or production activities (not currently proposed and assessed as part of the current ESIA) will only take place if an EA is granted. This is in line with the MPRDA and EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application/assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>The EIA Regulations 2014 require the consideration of the 'cumulative impact', which includes the "reasonably foreseeable future impact of an activity". While it is foreseeable that further exploration and future production activities could arise from the Exploration Right (if granted and successful), there is not currently sufficient information to make reasonable assertions as to [the] nature of any future activities. This is due to the current lack of relevant geological information, which the proposed exploration aims to address. The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a petroleum resource(s) is discovered, its size, properties and</p>	<p>duration depending on whether a petroleum resource(s) is discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project. Potential impacts could not be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts.</p> <p>The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplate, that potential impacts and risks of productions activities must be considered and assessed at the exploration stage. Any potential further or future activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate EIA process. This is typical of the lifecycle of a development project.</p> <p>Thus, a decision on the current EA application does not in any way guarantee the holder future approvals that would be required to undertake future production activities.</p> <p>The issues raised relating to production will need to considered as part of the Production Right application should the project move onto production, including climate change impacts associated with production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project. Potential impacts could not be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in in ascertaining potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts.</p> <p>The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplate, that potential impacts and risks of productions (sic) activities must be considered and assessed at the exploration stage. Any potential further or future activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate EIA process. This is typical of the lifecycle of a development project.</p> <p>Thus, a decision on the current EA application does not in any way guarantee the holder future approvals that would be required to undertake further exploration and future production activities.</p> <p>This is in line with the numerous onshore and offshore exploration / production and prospecting / mining EIAs undertaken in South Africa.</p> <p>As a result, the draft EIR does not consider or assess the potential climate change impacts of subsequent oil and gas production and use, even in broad terms.</p> <p>113.</p>	

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			<p>While the Green Connection is aware that the NEMA EIA listing notices list exploration activities separately to other stages in upstream offshore oil and gas development (such as activities requiring a production right under the MPRDA), it is submitted that in reality these activities are successive steps in a single process (which culminates in the production and combustion of oil and gas and the emission of GHGs that will exacerbate the climate crisis and impact on the livelihoods and access to food of small-scale fishers and fishing-dependent communities). The Green Connection submits that it is artificial to exclude a consideration of the impacts of future offshore oil and gas production, as well as the need for and desirability of producing oil and gas, when assessing the potential impacts of the exploration activities. Under the MPRDA, the close connection between exploration and production is also clear: section 82 of the MPRDA provides that the holder of an exploration right 'has the exclusive right to apply for an be granted a production right in respect of the petroleum and the exploration area in question'. The granting of environmental authorisation for exploration drilling lays the foundation for the future approval of an environmental authorisation for production (as well as the future granting of a production right under the MPRDA).</p> <p>114.</p> <p>Further to the above, the issue of whether the decision-maker properly considered climate change impacts was referred to in the judgment of the full bench of the Makhanda High Court in the Shell Wild Coast seismic survey case. The court stated in its judgement that the intervening parties' contention that the decision-maker gave no proper consideration to climate change impacts of the</p>	

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			<p>decision to grant the exploration right is an important factor to be considered in the process of granting an exploration right.</p> <p>115.</p> <p>The court referred to expert testimony relied upon to support this contention, which showed that ‘most of the discovered reserves of oil and gas cannot be burnt if we are to stay on the pathway to keep global average temperature increases below 1.5 degrees Celsius. Authorising new oil and gas exploration, with its goal of finding exploitable oil and/or gas reserves and consequently leading to production, is not consistent with South Africa complying with its international climate change commitments’.</p> <p>116.</p> <p>The court noted that according to the respondents (Shell and others) in the case, climate change considerations are irrelevant when considering an application for an exploration right, and these considerations are premature because they fall to be considered at a much later stage.</p> <p>117.</p> <p>The court pointed out that on the authority of the Save the Vaal case, the ‘processes are discrete stages in a single process that culminates in the production and combustion of oil and gas, and the emission of greenhouse gases that will exacerbate the climate crisis and impact communities’ livelihoods and access to food’. The court stated further that the respondent’s thesis did not find support in Earthlife Africa Johannesburg v Minister of Environmental Affairs and Others either, and referred approvingly to the following passage in Murphy J’s judgement:</p>	

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			<p>The absence of express provision in the statute requiring a climate change impact assessment does not entail that there is no legal duty to consider climate change as a relevant consideration and does not answer the interpretative question of whether such a duty exists in administrative law. Allowing for the respondents' argument that no empowering vision in NEMA or the regulations explicitly prescribes a mandatory procedure or condition to conduct a formal climate change assessment, the climate change impacts are undoubtedly a relevant consideration as contemplated by section 24O of NEMA for the reasons already discussed. A formal expert report on climate change impacts will be the best evidentiary means of establishing that this relevant factor in its multifaceted dimensions was indeed considered, while the absence of one will be symptomatic of the fact that it was not.</p> <p>118.</p> <p>The court in the Shell Wild Coast seismic survey case went on to state the following:</p> <p>It seems clear from the foregoing, even taking into account the contentions raised by the respondents, that, had the decision-maker had the benefit of considering a comprehensive assessment of the need and desirability of exploring for new oil and gas reserves for climate change and the right to food perspective, the decision-maker may well have concluded that the exploration is neither needed nor desirable. (emphasis added)</p> <p>119.</p> <p>In light of the above, the Green Connection submits that the draft EIR does not include information that is necessary for the competent authority to consider and come to a decision on the application: the draft EIR is deficient, and the 'need and</p>	<p>119. SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts including those related to an unlikely oil spill and National strategic policy issues relating to energy and climate change, as</p>



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			<p>desirability' consideration and motivation incomplete, without at the very least a broad assessment of the climate change impacts should commercially exploitable oil and gas resources be identified through the exploration drilling (and should these resources ultimately be produced and utilised). It would be pointless to authorise this (and other) exploration drilling should such an assessment conclude that the development of new oil and gas fields is incompatible with South Africa's climate change commitments.</p> <p>120.</p> <p>Given that exploration operations are intended to define traps to be tested by drilling of a well with the intention of locating a discovery (of hydrocarbons below the seabed), and which in turn would likely lead to production operations should commercially exploitable hydrocarbon resources be discovered, the Green Connection is of the view that addressing the need and desirability within the context of ecologically sustainable development should give consideration to the potential impacts of the proposed exploration for new offshore oil and gas resources throughout its life cycle (rather than ring-fencing the consideration of need and desirability to the exploration well drilling phase only).</p> <p>121.</p> <p><b><i>(ii) The 'climate crisis'</i></b></p> <p>The need and desirability (from a climate change perspective) of conducting exploration drilling (which aims to identify oil and gas resources to be used in energy production and/or processing or manufacturing of materials) is particularly important given that climate change has been acknowledged as a 'crisis' with human-induced climate change impacts being experienced in every region.</p>	<p>well as public opposition to oil and gas development and other legislation (e.g., ICMA).</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p>

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			<p>It is also recognised that the climate change ‘crisis’ requires immediate, rapid and large-scale reductions in greenhouse gas (GHG) emissions to limit global warming to 1.5°C (including accelerated action in this decade to reduce global carbon dioxide emissions by 45 per cent by 2030 relative to the 2010 level and to net-zero around mid-century). In support of these submissions, some of the recent developments relating to the climate crisis are discussed briefly below.</p> <p>122.</p> <p>In August 2021, the Intergovernmental Panel on Climate Change (IPCC) (an international body for assessing the science related to climate change) released its 6th Assessment Report (AR6). In its summary for policymakers, the IPCC indicates (among other things) that:</p> <ul style="list-style-type: none"> <li>- It is unequivocal that human influence has warmed the atmosphere, ocean and land, and that widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred;</li> <li>- The scale of recent changes across the climate system as a whole – and the present state of many aspects of the climate system – are unprecedented over many centuries to many thousands of years;</li> <li>- Human-induced climate change is already affecting many weather and climate extremes in every region across the globe. Evidence of observed changes in extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones, and, in particular, their attribution to human influence, has strengthened since AR5;</li> </ul>	

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			<p>- Global surface temperature will continue to increase until at least mid-century under all emissions scenarios considered, and that global warming of 1.5°C and 2°C will be exceeded during the 21st century unless deep reductions in CO2 and other GHG emissions occur in the coming decades;</p> <p>- Many changes in the climate system become larger in direct relation to increasing global warming. They include increases in the frequency and intensity of hot extremes, marine heatwaves, heavy precipitation, and, in some regions, agricultural and ecological droughts; an increase in the proportion of intense tropical cyclones; and reductions in Arctic sea ice, snow cover and permafrost;</p> <p>- Continued global warming is projected to further intensify the global water cycle, including its variability, global monsoon precipitation and the severity of wet and dry events;</p> <p>- Many changes due to past and future GHG emissions are irreversible for centuries to millennia, especially changes in the ocean, ice sheets and global sea level;</p> <p>- From a physical science perspective, limiting human-induced global warming to a specific level requires limiting cumulative CO2 emissions, reaching at least net zero CO2 emissions, along with strong reductions in other GHG emissions. Strong, rapid and sustained reductions in CH4 emissions would also limit the warming effect resulting from declining aerosol pollution and would improve air quality.</p> <p>123.</p> <p>On 9 August 2021, the IPCC issued a press release relating to its AR6 report. It states that the report provides new estimates of the</p>	

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			<p>chances of crossing the global warming level of 1.5°C in the next decades, and finds that unless there are immediate, rapid and large-scale reductions in GHG emissions, limiting warming to close to 1.5°C or even 2°C will be beyond reach.</p> <p>124.</p> <p>Also on 9 August 2021, UN Secretary-General António Guterres described the AR6 report as nothing less than "a code red for humanity. The alarm bells are deafening, and the evidence is irrefutable".</p> <p>125.</p> <p>Guterres is reported as noting that the internationally agreed threshold of 1.5 degrees above pre-industrial levels of global heating was perilously close, and that we are at imminent risk of hitting this threshold in the near term. Guterres is indicated as advising that the only way to prevent exceeding this threshold, is by urgently stepping up our efforts, and pursuing the most ambitious path. Guterres is reported as stating that solutions are clear: "Inclusive and green economies, prosperity, cleaner air and better health are possible for all, if we respond to this crisis with solidarity and courage". Ahead of the COP26 climate conference in Glasgow in November 2021, Guterres stated that all nations needed to join the net zero emissions coalition and reinforce their promises on slowing down and reversing global heating "with credible, concrete, and enhanced Nationally Determined Contributions (NDCs)" that lay out detailed steps.</p> <p>126.</p> <p>In April 2022, Guterres tweeted that '[c]limate activists are sometimes depicted as dangerous radicals. But the truly dangerous</p>	

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			<p>radicals are the countries that are increasing the production of fossil fuels. Investing in new fossil fuels infrastructure is moral and economic madness'. Addressing graduate students in May 2022, Guterres expressed the view that Investing in fossil fuels is now "a dead end - economically and environmentally. No amount of greenwashing or spin can change that. So, we must put them on notice: Accountability is coming for those who liquidate our future."</p> <p>127.</p> <p>The 26th Conference of the Parties of the UNFCCC (COP26) was held in Glasgow in the last quarter of 2021. Recognition of the climate 'crisis', as well as the urgent need to increase effort and to accelerate action to address climate change (including by developing nations), are reflected in the outcome of COP26 and recorded in the Glasgow Climate Pact. The Glasgow Climate Pact (among other things):</p> <ul style="list-style-type: none"> <li>- Expresses alarm and utmost concern that human activities have caused around 1.1°C of global warming to date and that impacts are already being felt in every region;</li> <li>- Reaffirms the long-term global goal to hold the increase in the global average temperature to well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C above pre-industrial levels, recognizing that this would significantly reduce the risks and impacts of climate change;</li> <li>- Recognizes that the impacts of climate change will be much lower at the temperature increase of 1.5°C compared with 2°C and resolves to pursue efforts to limit the temperature increase to 1.5°C;</li> </ul>	

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			<ul style="list-style-type: none"> <li>- Recognizes that limiting global warming to 1.5°C requires rapid, deep and sustained reductions in global GHG emissions, including reducing global carbon dioxide emissions by 45 per cent by 2030 relative to the 2010 level and to net zero around mid-century as well as deep reductions in other GHGs;</li> <li>- Also recognizes that this requires accelerated action in this critical decade, on the basis of the best available scientific knowledge and equity, reflecting common but differentiated responsibilities and respective capabilities and in the context of sustainable development and efforts to eradicate poverty;</li> <li>- Invites Parties to consider further actions to reduce by 2030 non-carbon dioxide GHG emissions, including methane (which has been identified as a driver of climate change and the main polluting emission from natural gas);</li> <li>- Calls upon Parties to accelerate the development, deployment and dissemination of technologies, and the adoption of policies, to transition towards low-emission energy systems, including by rapidly scaling up the deployment of clean power generation and energy efficiency measures, including accelerating efforts towards the phasedown of unabated coal power and phase-out of inefficient fossil fuel subsidies, while providing targeted support to the poorest and most vulnerable in line with national circumstances and recognizing the need for support towards a just transition;</li> <li>- Emphasizes the importance of protecting, conserving and restoring nature and ecosystems, including forests and other terrestrial and marine ecosystems, to achieve the long-term global goal of the Convention by acting as sinks and reservoirs of GHGs</li> </ul>	

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			<p>and protecting biodiversity, while ensuring social and environmental safeguards.</p> <p>128.</p> <p>The climate 'crisis' is also recognised by the International Energy Agency (IEA), of which South Africa is an IEA associated country. During or about July 2021, the IEA published its Net Zero by 2050 – A Roadmap for the Global Energy Sector report. In the foreword to this report, the Executive Director of the IEA states (among other things) as follows:</p> <p>We are approaching a decisive moment for international efforts to tackle the climate crisis – a great challenge of our times. The number of countries that have pledged to reach net-zero emissions by mid-century or soon after continues to grow, but so do global greenhouse gas emissions. This gap between rhetoric and action needs to close if we are to have a fighting chance of reaching net zero by 2050 and limiting the rise in global temperatures to 1.5 °C.</p> <p>Doing so requires nothing short of a total transformation of the energy systems that underpin our economies...</p> <p>Despite the current gap between rhetoric and reality on emissions, our Roadmap shows that there are still pathways to reach net zero by 2050. The one on which we focus is – in our analysis – the most technically feasible, cost-effective and socially acceptable. Even so, that pathway remains narrow and extremely challenging, requiring all stakeholders – governments, businesses, investors and citizens – to take action this year and every year after so that the goal does not slip out of reach.</p> <p>This report sets out clear milestones – more than 400 in total, spanning all sectors and technologies – for what needs to happen,</p>	

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			<p>and when, to transform the global economy from one dominated by fossil fuels into one powered predominantly by renewable energy like solar and wind. Our pathway requires vast amounts of investment, innovation, skilful policy design and implementation, technology deployment, infrastructure building, international co-operation and efforts across many other areas.</p> <p>Since the IEA's founding in 1974, one of its core missions has been to promote secure and affordable energy supplies to foster economic growth. This has remained a key concern of our Roadmap, drawing on special analysis carried out with the International Monetary Fund and the International Institute for Applied Systems Analysis. It shows that the enormous challenge of transforming our energy systems is also a huge opportunity for our economies, with the potential to create millions of new jobs and boost economic growth.</p> <p>Another guiding principle of the Roadmap is that clean energy transitions must be fair and inclusive, leaving nobody behind. We have to ensure that developing economies receive the financing and technological know-how they need to continue building their energy systems to meet the needs of their expanding populations and economies in a sustainable way. It is a moral imperative to bring electricity to the hundreds of millions of people who currently re deprived of access to it, the majority in of them in Africa...</p> <p>129.</p> <p>On fossil fuels used in energy production, the report states that:</p> <p>There is no need for investment in new fossil fuel supply in our net zero pathway.</p>	<p>129. The IEA report recognises that the route mapped out is a path, not necessarily the path, and so it examines some key uncertainties, including the speed with which demand and behaviours adapt, the real level of energy efficiency, the pace at which new decarbonisation</p>



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			<p>Beyond projects already committed as of 2021, there are no new oil and gas fields approved for development in our pathway, and no new coal mines or mine extensions are required.</p> <p>130.</p> <p>When natural gas is burned for energy, it releases carbon dioxide into the atmosphere. More importantly, the extraction, processing, transport and use of natural gas cause significant amounts of methane to be released into the atmosphere too. According to the United Nations, methane is a 84-86 times more potent greenhouse gas than carbon dioxide over a 20-year period, and 28-34 times more potent over 100-year period. More research is also showing that methane often leaks during the production, transport and use of natural gas. Therefore, its contribution to climate change is significantly unaccounted for. Drones, laser absorption spectroscopy, and satellites, among other new methane monitoring technologies, have improved the identification and quantification of emissions across the gas lifecycle, leading researchers to conclude that national governments have almost universally underestimated these emissions.</p> <p>131.</p> <p>If 3,000 megawatts of new gas-to-power plants were built to meet South Africa's 2019 Integrated Resource Plan for Electricity, and the plants were fuelled by imported LNG, the annual emissions from this fuel use would be more than 2.5 million tonnes of CO<sub>2</sub>e (carbon dioxide equivalent) if the plants ran at 75% capacity. This is the equivalent of driving over half a million gasoline-powered vehicles for a year. For gas or any other fossil fuel, a life-cycle analysis is therefore necessary to quantify the total amounts of GHG emissions (predominantly carbon dioxide and methane) that</p>	<p>technologies (such as hydrogen and carbon capture and storage) scale up, etc. The report thus concludes that the proposed pathway to net-zero emissions is just one possible pathway to achieve net-zero emissions by 2050.</p> <p>130. The comment regarding the use of natural gas having a much greater impact than CO<sub>2</sub> is related possible when gas is not combusted (e.g. leaks, fugitive emissions, etc.). However, when combusted, methane gets converted to CO<sub>2</sub>, H<sub>2</sub>O, CO and a small amount of CH<sub>4</sub> may remain in the combustion plume and contribute to GHG together with CO<sub>2</sub>. When combusted it emits significantly less greenhouse gases than other fossil fuels, such as coal, which is the main fuel used to generate electricity in South Africa. The potential impacts on air quality and climate change are assessed in Section 9.1.1.1 and 9.1.1.2, respectively.</p>

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			<p>result from every step in the energy production process: from extracting the fossil fuel at the well or mine to burning it at a power plant or other facility. This is therefore important because all these processes are linked and should not be viewed in isolation.</p> <p>132.</p> <p><b><i>(iii) South Africa's international climate change commitments</i></b></p> <p>South Africa is a Party to the United Nations Framework Convention on Climate Change (UNFCCC), which enjoins State Parties to take precautionary measures to anticipate, prevent or minimize the causes of climate change (Article 3.3).</p> <p>133.</p> <p>South Africa, as a Party to the UNFCCC that ratified the Kyoto Protocol and adopted the Paris Agreement, has committed to 'working with others to ensure temperature increases are kept well below 2°C above pre-industrial levels, which could include a further revision of the temperature goal to below 1.5°C in light of emerging science' by reducing GHG emissions. South Africa has also committed (among other things) to:</p> <ul style="list-style-type: none"> <li>- Preparing, communicating and maintaining Nationally Determined Contributions (NDCs) that it intends to achieve reach global peaking of GHG emissions as soon as possible, and to undertake rapid reductions thereafter; and</li> <li>- Striving to formulate and communicate long-term GHG emission development strategies.</li> </ul> <p>134.</p>	

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			<p>There have been various Conferences of the Parties and meetings since, with decisions related to Nationally Determined Contributions (NDCs) contained in decisions 4/CMA.1 and 18/CMA.1 and their annexes.</p> <p>135.</p> <p>South Africa revised its NDC in 2021:</p> <p>Table 2 - South Africa's updated NDC mitigation targets</p> <table><tr><th>Year</th><th>Target</th><th>Corresponding period of implementation</th></tr><tr><td>2025</td><td>South Africa's annual GHG emissions will be in a range from 398-510 Mt CO<sub>2</sub>-eq.</td><td>2021-2025</td></tr><tr><td>2030</td><td>South Africa's annual GHG emissions will be in a range from 350-420 Mt CO<sub>2</sub>-eq.</td><td>2026-2030</td></tr></table> <p>136.</p> <p>South Africa's energy sector is estimated at contributing about 84% percent to the country's overall GHG emissions (including Carbon Dioxide and Methane).</p> <p>137.</p> <p>In February 2020, South Africa submitted to the UNFCCC its first long-term low GHG emission development strategy titled South Africa's Low Emission Development Strategy 2050. It is indicated in the executive summary of this strategy that South Africa, as one of the top 20 global GHG emitters and with a high dependency on fossil fuels, will need to make substantial emission cuts to contribute its fair share to global GHG emission reductions.</p> <p>138.</p> <p>The draft EIR does not provide any indication (or estimation) of how future GHG emissions (resulting from future exploitation of oil and gas that may be discovered through the exploration drilling</p>	Year	Target	Corresponding period of implementation	2025	South Africa's annual GHG emissions will be in a range from 398-510 Mt CO <sub>2</sub> -eq.	2021-2025	2030	South Africa's annual GHG emissions will be in a range from 350-420 Mt CO <sub>2</sub> -eq.	2026-2030	
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			<p>project) would impact on South Africa’s ability to achieve its updated GHG emissions targets (as set out in South Africa’s revised NDC). This is particularly relevant given that the emissions targets for the 2026-2030 period are lower than the targets for the 2021-2025 period, while offshore oil and gas developments could take at least a decade to reach the production stage. This could result in offshore oil and gas investments (as well as associated gas infrastructure developments) in the future becoming unneeded ‘stranded assets’ and a burden on future generations. There is also a risk that in the future tariffs will be levied on various goods exported by fossil-fuel dependent countries – the European Union is reported to be gradually phasing in its Border Adjustment Mechanism as part of the EU’s Green Deal.</p> <p>139.</p> <p><b><i>(iv) Gas as a transition fuel</i></b></p> <p>Chapter 5 of the draft EIR also seeks to make the case for the use of liquified natural gas (LNG) as a transition fuel. In addition to its potential use in peaking plants (in place of diesel currently used), reference is made to the IRP2019, highlighting that while the capacity allocations see a significant increase in renewables and a decrease in hydrocarbons (coal, oil and gas), ‘the IRP209 acknowledges that gas-to-power technologies are required to provide the flexibility required to complement renewable energy in the “just transition” to a net-zero and climate resilient society’. The draft EIR acknowledges that South Africa has developed a promising renewable power programme, ‘which has been very successful’, but points to grid constraints in high yield wind and solar areas restraining further development in the Northern and Western Cape, and recycling the outdated argument that ‘[i]n any event, renewables capacity inherently expose the system to</p>	

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			<p>weather risk (lack of wind and or sun), further current battery technology is unproven at very large-scale for protracted periods. There is, therefore, a potential role for natural gas fired power generation at least as a transition fuel’.</p> <p>140.</p> <p>Reference is also made to DMRE policy relating to accelerating exploration of local resources, while in the short-term pursuing gas import options.</p> <p>141.</p> <p>While the draft EIR sets out various government policies in support of the use of gas as a transitional fuel (and for further offshore oil and gas exploration), importantly the report concedes that ‘[t]he use of fossil fuels is, however, not aligned with other national and international agreements, laws, policies and plans, which identify the need to reduce the reliance on fossil fuels and for the global community, including South Africa, to reduce its GHG emissions and meet international law obligations and commitments.’</p> <p>142.</p> <p>Notwithstanding the DMRE’s policy relating to accelerating exploration of local resources, while in the short-term pursuing gas import options, the Green Connection submits that the competent authority is not bound by such policy and must independently apply its mind to the need and desirability of the proposed project. Rigid adherence to policy in making an administrative decision fetters the decision-maker’s discretion, in violation of basic principles of just administrative action (it is a fundamental rule of administrative law that the decision-maker vested with a discretionary power may not fetter its discretion by rigid</p>	

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			<p>adherence to a pre-determined policy). What is required of an administrator is that he or she is independently satisfied that the policy is appropriate to the circumstances of the particular case. The decision-maker cannot elevate principles or policies into rules that are considered to be binding with the result that no discretion is exercised at all. While policies in keeping with the empowering legislation may be used to assist decision making, they may not inevitably determine the outcome of the decision, lest they “preclude the person exercising the discretion from bringing his mind to bear in a real sense on the particular circumstances of each and every individual case coming up for decision.”</p> <p>143.</p> <p>Chapter 5 of the draft EIR also includes a section referring to the "Just Transition and Climate Pathways Study" (NBI, 2021) in support of the contention that that a lack of gas supply ‘poses a risk to the decarbonisation ambitions of key sectors of the South African economy, which will rely on gas as a transition fuel or low carbon feedstock’.</p> <p>144.</p> <p>However, as was pointed out by the Green Connection in its comment on the draft Scoping Report, recent independent studies challenge the view that fossil gas is necessary for electricity generation and as a transition fuel.</p> <p>145.</p> <p>The International Institute for Sustainable Development’s (IISD) Gas Pressure: Exploring the case for gas-fired power in South Africa (March 2022) report points out that while there used to be a rational view that fossil gas would be necessary either during a</p>	

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			<p>transition to low-carbon energy or as part of the long-term energy mix for electricity production:</p> <p>....revolutions first in renewable energy costs and then in battery storage costs have upended this view. Analysis of the South African electricity system shows that gas supply is not technically necessary until at least 2035, if ever. In the last few years, either the risks associated with gas have increased, or the understanding of existing risks has increased. Consequently, South Africa may see significant negative outcomes from developing a large gas-to-power system now... the trend toward decarbonization, coupled with cost reductions for renewable energy and storage, creates risks for gas investment. Investment in gas can reasonably be expected to lead to higher costs for consumers, just transition challenges for workers, and losses for investors.</p> <p>The ISSD report highlights some of the risks associated with gas-to-power investment in South Africa. These risks include significant contributions to climate change (as a consequence of CO2 and methane emissions when gas is burned), increasing international pressure to move away from gas due to climate impacts, financial risks linked with gas-to-power, the risk of reduced security of affordable gas supply, the risk of stranded assets, and the risk of creating an additional just transition burden (future gas workers and communities face a repeat of the transition hardships currently faced by the coal sector).</p> <p>146.</p> <p>Meridian Economics' 'Hot Air about Gas – An Economic Analysis of the Scope and Role for Gas-Fired Power Generation in South Africa' (June 2022) report points out that while South Africa's large-scale use of gas appears to be central to current energy</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>policy direction in South Africa, ‘this rests on a 2012 vision which pre-dates dramatic reductions in renewable energy costs and carbon emissions space’. The report goes on to state that independent analysis of the power sector across multiple recent studies shows that South Africa’s power needs can be met both now and in the future with very little use of gas, and that there is ‘no evidence to support the large-scale gas envisaged in the GMP; this is uneconomical even before carbon emissions are considered’. Meridian point out that ‘the assumption that gas-fired power generation would replace coal ignores the fact that other technology combinations are now better at replacing coal-fired power than gas, and it is against these technologies that gas-fired generation should actually be compared’. Meridian demonstrate that existing modelling provides no economic rationale for “big gas” in the power sector, and that ‘the impact of using large volumes of gas to generate power will be borne by electricity consumers and will essentially be a subsidy provided by power consumers to otherwise unviable gas use in other sectors’</p> <p>147.</p> <p>The Vital Ambition Report by Meridian Economics in collaboration with the Council for Scientific and Industrial Research (“CSIR”) Energy Centre (“Vital Ambition Report”) states that gas to power is only justified in the South African energy mix in so far as it is required for low-utilisation flexible capacity (peaker plants) for balancing the system during peak power demand. The report confirms that no investments in gas infrastructure for energy production and generation is needed now or in the near future. Furthermore the 2019 IRP will likely need to be updated in the foreseeable future to align with South Africa’s 2021 Nationally Determined Contribution under the Paris Agreement and to keep</p>	



No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>pace with quickly evolving science and significant reductions in price for solar and wind energy. However, even the 2019 IRP, which is rooted in an outdated and scientifically and economically unsound understanding of the necessity for any gas in the energy mix, only projects the collective contribution of gas and diesel to the 2030 energy mix to be 1.3% combined.</p> <p>148.</p> <p>According to a recent report prepared by Robert W. Howarth titled "Methane emissions and climate warming risk from hydraulic fracturing and shale gas development: implications for policy" the climate impacts of gas are greater than those of coal per unit of energy produced when evaluated over a 20-year timeframe, the period most relevant for climate change if humans are to avoid catastrophic run-away warming. Though gas emits less carbon dioxide per unit energy than coal, its upstream GHG emissions are more problematic for the climate, as it leaks and vents potent methane throughout its lifecycle; researchers have been able to better detect emissions across the lifecycle of gas ever more accurately thanks to new methodologies and technologies (particularly "top-down" measurements using satellite and aerial assessments).</p> <p>149.</p> <p>The use of fossil fuels must be phased out quickly due to the urgent need to address global warming. A recent study published in Nature, the world's leading multidisciplinary science journal, discovered that "by 2050, we find that nearly 60% of oil and fossil methane gas, and 90% of coal, must remain unextracted to stay within a 1.5 °C carbon budget." According to the study, "most regions must reach peak production now or within the next</p>	

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			<p>decade, making many operational and planned fossil fuel projects unviable." It is common practice that proposed exploration activities such as reconnaissance, only commence months and sometimes years after the need and desirability assessment is undertaken, with extraction and production only commencing years later. According to one study, the world's largest oil and gas fields took an average of 5.5 years from discovery to first production and 17 years to reach peak output. Chevron Corporation's (CVX) Gorgon natural gas development project off the coast of Australia took 30 years to complete, and another six years to begin producing liquefied natural gas. Therefore exploration projects whose objectives are to locate gas deposits for energy companies to exploit through the construction and production of fossil fuels, run the risk of creating risks for such infrastructure to become stranded assets which invariably impacts on the development potential of South Africa in achieving its climate goals. With no economic justification for large-scale gas use in power, such a strategy would result in assets that are stranded before their first kWh of power is generated. Given this, the proposed reconnaissance project in no way provides a remedy nor will address in the immediate future South Africa's current energy insecurity issues.</p> <p>150.</p> <p>Importantly, exploration drilling for oil and gas will not have any immediate impact on South Africa's energy security, as any oil and gas extracted would not belong to South Africa, but would invariably belong to the companies that extract for profit. Energy companies compete for access to petroleum rights granted by governments by either entering a concession agreement, meaning any discovered oil and gas are the property of the producers, or</p>	

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			<p>form part of a production-sharing agreement which favours the interest of the producers and ultimately diminishing the general interests of the broader South African Republic.</p> <p>151.</p> <p>The oil and gas that will be eventually extracted by oil and gas companies is ultimately exploited for profit. It is not used to generate a benefit that results in broad based security for energy production nor does it lead to the production of energy for South Africa and its citizens. If oil and gas found following a successful reconnaissance, and that are ultimately exploited, are not used to produce energy for South Africa, this invariably undermines the sole stated goal underpinning the need and desirability of this proposed reconnaissance project—its supposed contribution to energy security for South Africa—and provides no tangible benefit for South Africans.</p> <p>152.</p> <p>While the increased use of gas as a ‘transitional fuel’ is promoted by government and vested interest groups, the Green Connection is concerned that the increased use of gas (especially in electricity generation) will lead to increased emissions of climate warming GHGs, and methane (CH<sub>4</sub>) in particular. While natural gas combustion is less carbon-intensive than that of coal, fugitive emissions arising from the production, transport, storage and use of natural gas have a much greater climate impact than CO<sub>2</sub>. In particular, over a 20-year period (which is particularly relevant since the next 20 years are a critical window for addressing the climate crisis) methane emissions, which make up approximately 70-90% of natural gas emissions, are projected to be 82.5 times as impactful as those of CO<sub>2</sub>. The desirability of using gas as a</p>	

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			<p>'transitional' fuel is also questionable having regard to volatile international gas prices, as well as the potential risk of Carbon Border Taxes being introduced in the future. This risk will impose restrictions on the export of products with a high carbon footprint, putting South Africa's economy at greater risk of developing gas to power rather than clean renewable alternatives. This invariably diminishes the need and desirability for promoting new gas development projects, as the negative climate impacts and financial risks undermine the potential for gas to represent a viable solution for South Africa's ambitions to address development whilst respecting universal and regional climate change obligations.</p> <p>153.</p> <p>The fundamental outcome of the need and desirability assessment should not be centred on the determination of whether gas technology will ensure security of supply for electricity. Instead, due to the climate crisis, this assessment should be centred on whether South Africa needs, or should rely on, gas to provide security of supply of electricity and whether alternative technologies could meet the same supply objectives with less harm and risk. Renewable energy and/or storage can replace gas to provide reliable and cost-effective generating capacity while greatly reducing the environmental and health risks associated with gas.</p> <p>154.</p> <p>The call for gas as part of the energy mix set forth in the 2019 IRP does not excuse the decision-maker from taking climate change impacts into account, including as part of the need and desirability assessment. The case for need and desirability must address</p>	

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			<p>climate impacts and cannot simply rest on the 2019 IRP as evidence of need or desirability as relied upon by the EAP in the BAR. In the judgment of the High Court in Earthlife Africa, the court expressed that with respect to a decision maker's reliance on the IRP when rendering a decision on an application for environmental authorisation, the following is important to acknowledge:</p> <p>(a) "Policy instruments developed by the Department of Energy cannot alter the requirements of environmental legislation for relevant climate change factors to be considered".</p> <p>(b) Establishing the need and desirability of a proposed project, is a key objective of each stage of scoping and impact assessment and must account for South Africa's 2021 NDC under the Paris Agreement. The EAP must therefore provide a broad and robust analysis of multiple alternative literature on renewable energy resources and make a justifiable and reasonable case for a project's need and desirability having considered the available literature, without relying solely on the 2019 IRP and other policy documents. This invariably assists the decision maker to prioritise the granting of the best decision which will prioritize the integrity of the environment, and the social welfare, health and safety aspects of the socio-economic environment for present and future generations.</p> <p>155.</p> <p>(v) Ecological and Economic Risk of a Major Oil Spill</p> <p>Catastrophic oil spills could occur as a result of an uncontrolled wellhead blowout related to offshore oil and gas exploration and/or production drilling. Oceans play a critical role in regulating the climate and mitigating global warming by absorbing carbon dioxide. Oil spills pose a significant threat to functioning marine</p>	<p>155. The potential impact related to an unlikely oil spill is assessed in the ESIA - refer to Chapter 10 of the final ESIA Report.</p>

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			<p>ecosystems, to living organisms in South Africa’s coastal waters, and to communities that depend upon the oceans for their livelihoods. Small-scale fishers and fishing-dependent communities are particularly vulnerable to the negative impacts of a large uncontrolled oil spill which could (among other things) lead to a depletion in the fish stocks upon which the livelihoods of these small-scale fishers and fishing communities depend.</p> <p>156.</p> <p>The Green Connection submits that it is not in the interests of the whole community (from and intra- and inter-generational perspective, as well as having regard to potential impacts on living organisms in South Africa’s coastal waters) to expose our oceans and coasts to the increased risk of a potentially catastrophic major oil spill during exploration drilling, or during subsequent production operations.</p> <p>157.</p> <p><b><i>(vi) Synthesis</i></b></p> <p>The Green Connection submits that, for the reasons set out above, and having regard to the need to effectively address the climate change crisis and achieve the rapid, deep and sustained reductions in GHG emissions that are required to limit global warming to 1.5°C (including accelerated action in this decade to reduce global carbon dioxide emissions by 45 per cent by 2030 relative to the 2010 level and to net zero around mid-century), further exploration for oil and gas is not needed, nor is it desirable. It follows that the proposed exploration drilling is also not needed or desirable, and environmental authorisation should be refused due to the unacceptable likely risks of harm that will arise from activities that contribute towards exacerbating the climate crisis</p>	

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			<p>and thereby significantly reducing resilience against impacts to human health and the environment more broadly, as well as the inordinately high costs involved in gas power generation for energy.</p> <p>158.</p> <p><b>D. ALTERNATIVES</b></p> <p><b><i>(i) Location Alternatives</i></b></p> <p>With regard to the proposed exploratory well drill-site locations, the draft EIR indicates that as TEEPSA is 'the holder and operator of Block 5/6/7, drilling will be limited to the Block 5/6/7 licence area. TEEPSA is, however, proposing to limit the well drilling to an area of interest within the Block'.</p> <p>159.</p> <p>Given that a major oil spill (such as from an uncontrolled wellhead blowout) have been assessed to have VERY HIGH impacts both before (and in some instances) after mitigation, and having regard to the relative close proximity of the License Block to Cape Town and surrounds, the Green Connection submits that location alternatives (alternative License Blocks) should have been considered. The draft EIR ought to have factored into its assessment of alternative locations whether coastal public property, the coastal protection zone or coastal access land will be affected, and if so, the extent to which the proposed development or activity is consistent with the purpose for establishing and protecting those areas. In doing so, the EAP would have actively considered alternative options which would factored in the appropriateness of exploration drilling and whether such activities</p>	<p>159. Since the TEEPSA is the holder and operator of Block 5/6/7, drilling will be limited to the Block 5/6/7 licence area. TEEPSA is, however, proposing to limit the well drilling to an area of interest within Block 5/6/7 based on the results of the 2020 3D seismic survey. However, at this stage, the precise location of the drilling sites within the area of interest are not known (as is normal for project at this stage of exploration). As such, the ESIA and specialist studies assessed worst-case well drilling locations within this defined area. Although the oil spill modelling study considered the worst-case scenarios, the impact of an unlikely oil spill is considered to remain of very high significance, no matter where in the area of interest the well is drilled. Thus, the impact assessment is thus considered to be representative of well drilling at any location within the defined area of interest.</p>

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			<p>would be consistent with the purpose of establishing protective zones within those areas.</p> <p>160.</p> <p><b><i>(ii) The No-Go Alternative</i></b></p> <p>The draft EIR indicates that the no-go alternative:</p> <p>...represents the option not to proceed with the proposed exploration well drilling activities. This would leave the project area of influence in its current state (refer to the baseline description in Chapter 7), except for ongoing natural variations and changes caused by other human activities (e.g., fishing, commercial shipping, etc.). It thus represents the current status quo against which all potential project-related impacts will be assessed. Opting for the No-Go alternative means that none of the impacts anticipated from normal exploration drilling operations would occur. Additionally, the No-Go alternative would preclude the risks associated with accidental drilling-related events. (underlining added)</p> <p>161.</p> <p>The draft EIR goes on to state that:</p> <p>...the South African Government and international policy both promote the use of natural gas in the energy mix in the pathway to net-zero emissions by 2050, i.e. gas is needed in the just transition. At present, and in the proximate future (and therefore also in the 'No Go' option), this gas will have to be imported. Despite there potentially being local reserves that could be used instead of imports. The government has a continuing view that any existing oil or gas resources should be developed... The presence and</p>	<p>160. - 165. Green Connection's comments and opinions on the No-Go Alternative are noted and should be taken into consideration by the Competent Authority in the decision-making process, together with the opinion of the economic specialist who help draft the No-section of the ESIA Report (see Section 9.5).</p>



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			<p>activity of TEEPSA, and other oil and gas exploration operators, in South African territory is as a result of this policy.</p> <p>The No-Go alternative (which here assumes no future oil and gas exploration and production in South Africa) means that any domestic oil and gas resources that might occur in the area of interest cannot be identified and South Africa will not be able to optimise the use of its own domestic oil and gas resources, should they exist.</p> <p>162.</p> <p>The draft EIR to summarise what it considers selecting the no-go alternative would mean to South Africa, primarily raising issues relating to the purported benefits of gas in the South African energy mix and power generation in particular (see Chapter 5, section 9.5 of the draft EIR for details).</p> <p>163.</p> <p>The draft EIR concludes its discussion of the implications of the no-go alternative by stating as follows:</p> <p>The No-Go alternative would prevent South Africa from identifying domestic gas that could offer an energy supply that could be competitively priced, produce relatively low carbon dispatchable power (lower carbon emissions than coal, oil or oil-fired generation) without the inherent weather risk of solar or wind generation (in the absence of utility scale batteries) and reduce South Africa's exposure to the highly volatile international oil and gas markets (fluctuating price). Further to this, using a domestic resource would have a lower carbon footprint than importing from abroad and should not be seen to be in conflict with reaching carbon neutrality by 2050.</p>	

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			<p>164.</p> <p>The Green Connection submits that the assessment of the no-go alternative fails to provide a balanced consideration of the no-go alternative, and in particular fails to set out the negative implications of potential future oil and gas development and attendant economic and social costs that will or may result. This would necessarily include the economic and social costs of GHG emissions that would result from future oil and gas development (including extraction, production and use), as well as the social and economic costs that would result from a major oil spill arising from an uncontrolled wellhead blow-out (during both exploration and subsequent production phases).</p> <p>165.</p> <p>The Green Connection is also of the view that the a proper assessment of the No-Go alternative should have identified and assessed the potential ecological and socio-economic benefits of the no-go option for small-scale fishers and fishing dependent communities. The assessment should also necessarily have included a consideration of alternative means to generate energy and provide sustainable feedstocks for associated industrial applications, including renewable energy alternatives that do not pose a significant inter-generational ecological and socio-economic risk.</p> <p>166.</p> <p><b>E. BLOWOUT CONTINGENCY PLAN (BOCP) AND OIL SPILL CONTINGENCY PLAN (OSCP)</b></p> <p>It is noted that TEEPSA have put up a framework OSCP as part of the 'additional information' provided on its website. It is noted</p>	<p>166. - 169. One of the key recommendations is that TEEPSA develop a well-specific response strategy and plans (including OSCP), which will</p>

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			<p>further that the EAP argues that there is no specific requirement to include the BOSP and OSCP in the EIA document set, stating that these will be site-specific and are internal documents.</p> <p>167.</p> <p>In its comments on the draft Scoping Report, the Green Connection pointed out that it was indicated that '[a]lthough the probability of a well blow-out is extremely low, it is a worst-case scenario that provides the greatest environmental risk during drilling operations.' The draft Scoping Report stated further that TEEPSA will have a BOCP in place that sets out its detailed response plan and intervention strategy. The draft Scoping Report also indicated in relation to an uncontrolled wellhead blow-out that '[a] key response to such unplanned events, is a well-specific Oil Spill Contingency Plan (OSCP) that is driven by well-specific oil spill modelling, intensive pre-planning and appropriate preparation', and that the '[t]he ESMP will specify commitments on the approach to and key components of an OSCP. Framework documents for OSCP and Blow-Out Contingency Plan (BOCP), which give an indication of the typical content, will be included in the ESMP'.</p> <p>168.</p> <p>The Green Connection submitted further that the final Scoping Report should have clearly indicated that an OSCP and BOSCP would be included in the draft EIA report document set, and that (among other things) these plans should deal with specific equipment that will be available (including any offshore drilling equipment should a relief well need to be drilled), as well as the logistics informing actual response time etc. (such as – but not limited to - transport or shipping requirements for both the</p>	<p>need to be approved by SAMSA, PASA and DFFE. The primary objective of the OSCP is to identify all possible spill scenarios, level of response requirements and set in motion the necessary actions to stop any discharge of oil and to minimise its effects. The OSCP thus provides for a comprehensive response to all oil and chemical pollution emergencies in the marine environment.</p> <p>TEEPSA indicate that the inputs (e.g. location, type of resource, season, contractor, response services) to an OSCP and Blow-Out Contingency Plan (BOCP) are unique and specific to each operation and contractor. Thus, the specific content of these plans cannot be developed in detail ahead of time. The ESMP thus specifies commitments on the approach to and key components of such plans. The structure of a standard TEEPSA OSCP is presented in the ESIA Report (see Box 11-2 in Section 11.3.7.4 for further details). As noted in Green Connection's comment, a copy of TEEPSA's generic OSCP was uploaded to the SLR website and data free website for review. No specific comments have been raised by Green Connection on TEEPSA's generic OSCP.</p>

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			<p>Saldanha Bay and Aberdeen capping stack mobilisation scenarios, implications of attempting to install a capping stack at a deep sea location in potentially adverse and challenging weather conditions, implications of having to drill a relief well should capping fail, and associated time requirements for all scenarios).</p> <p>169.</p> <p>The Green Connection stands by its submissions that a failure to make these plans available for comment by I&amp;APs during the EIA process is procedurally unfair, and will result in any decision on authorisation being unlawful and vulnerable to being set aside on appeal and/or judicial review. Notwithstanding the above, in the absence of site-specific BOCPs and OSCPs being made available for public comment during the EIA process, it is submitted that in the event that the exploration drilling is authorised (which authorisation the Green Connection does not support), the Record of Decision should include a condition specifying that such 'internal' documents must be made publicly available for comment.</p> <p>170.</p> <p><b>F. PUBLIC PARTICIPATION</b></p> <p>The applicant's public consultation process is set out in Chapter 4 of the draft EIR. It is noted that for the impact assessment phase, public participation steps are indicated as having included a workshop with the South African United Fishing Front on 'meaningful consultation at a grass roots level' and distribution of the draft ESIA report for a period of 44 days. It is indicated further that (among other things) the availability of the draft ESIA report and notice of public meetings would be published in adverts in various local and regional newspapers (in English, Afrikaans and</p>	<p>169. The Competent Authority will need to consider Green Connection's request to make the OSCP and BOCP publicly available.</p> <p>170. - 173. A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report.</p>

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			<p>isiXhosa), that notices providing the same information would be placed at various locations in the direct area of influence, that radio announcements (also in English, Afrikaans and isiXhosa) would be made etc.</p> <p>171.</p> <p>While these steps are noted, the Green Connection records that it remains concerned regarding the public participation process given the volume of (highly technical) information contained in the draft EIR report and Appendices (notwithstanding the non-technical summary), the number offshore oil and gas authorisation processes that are being undertaken over the same period, as well as the number of public meetings relating to these various applications (which target the same group of I&amp;APs, many of whom are small-scale fishers that are often unable to attend these scheduled public meetings due to the need to go to sea to fish). In recent months, these applications have included the Searcher seismic survey Basic Assessment application (deadline for comment 13 October 2022), the TGS seismic survey Basis Assessment application (deadline for comment 25 November 2022), the TEEPSA 567 exploration drilling EIA (deadline for comment 7 December 2022), the TEEPSA DWOB exploration drilling EIA (deadline for comment extended to 14 December 2022), and the TEEPSA Block 11B/12B production EIA (deadline for comment 3 February 2022). While not relating to offshore oil and gas exploration, many of the targeted I&amp;APs also have an interest in the Karpowership EIA (deadline for comment 13 December 2022).</p> <p>172.</p>	

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			<p>The Green Connection points out that section 2(4)(f) of NEMA requires that the participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured.</p> <p>173.</p> <p>Having regard to the issues raised above, the Green Connection is of the view that even the 44 day commenting period provided was insufficient for I&amp;APs (and small-scale fishers and fishing dependent communities in particular) to have a reasonable opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation.</p> <p>174.</p> <p><b>G. ROLE OF PASA IN NEMA EIA PROCESS</b></p> <p>In its comments on the draft Scoping Report, the Green Connection noted that key steps in the Scoping Phase included:</p> <ul style="list-style-type: none"> <li>- A pre-application meeting held with the Petroleum Agency of South Africa (PASA) on 19 May 2021 'to inform them of TEEPSA's proposed project and application for Environmental Authorisation, as well as to obtain agreement on the ESIA process'. A follow-up meeting was held with PASA on 21 February 2022; and</li> <li>- Compiling an Application Form for Environmental Authorisation and DFFE National Screening Tool and submitting it to PASA.</li> </ul> <p>175.</p>	<p>173. The comment raised regarding to the extended comment period still being too shorting is noted. It should, however, be note that only one other request for an extension to the comment period on the draft ESIA Report was received and this was from the Overstrand Municipality, who requested an additional week. Thus, it can be assumed that the comment period was satisfactory for most people.</p> <p>174. - 184. PASA has been delegated in terms of Section 70 of the MPRDA, which states that the Minister may designate an Organ of State or an agency belonging to the State to perform the functions referred to in Chapter 6 of the MPRDA.</p> <p>Section 71 of MPRDA deals with the functions of the designated agency. Functions of the designated agency include, inter alia:</p> <ul style="list-style-type: none"> <li>• receiving applications for reconnaissance permits, technical co-operation permits, exploration rights and production rights in the prescribed manner.</li> <li>• evaluating such applications and make recommendations to the Minister.</li> <li>• monitoring and reporting in respect of compliance with such permits or rights.</li> </ul>

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			<p>The draft Scoping Report indicated further that completion of the Scoping Phase would include the '[s]ubmission of the final Scoping Report to PASA for consideration and review. PASA will then make a recommendation on the acceptance or rejection of the report to DMRE, who will make the final decision'. With regard to the Impact Assessment Phase, the draft Scoping Report indicated that the 'final ESIA Report will be submitted to PASA for consideration and review', whereafter PASA would provide a recommendation to the DMRE on whether or not to grant an environmental authorisation.</p> <p>176.</p> <p>The Green Connection pointed out that on 18 June 2004, the then Minister of Minerals and Energy designated PASA to perform the functions set out in Chapter 6 of the Minerals &amp; Petroleum Resources Development Act (MPRDA). It was pointed out further that it was relevant to note that the Minister was exercising powers conferred in terms of section 70 of the MPRDA, and not NEMA. Section 71 of the MPRDA sets out the functions of PASA as the designated agency, which include (among other things) that the designated agency must:</p> <p>review and make recommendations to the Minister with regard to the acceptance of environmental reports and the conditions of the environmental authorisations and amendments thereto.</p> <p>177.</p> <p>The MPRDA as the enabling statute thus mandates PASA to perform a very limited role relating to environmental matters, namely to review and make recommendations to the DMRE Minister with regard to:</p> <p>- the acceptance of environmental reports; and</p>	<p>SLR agrees that PASA does not have any decision-making powers under either the MPRDA or the EIA Regulations, but its steps taken to ensure TEEPSA's compliance with the laws regulating the application processes cannot be said to be irregular. As Green Connection is probably aware that the EIA Regulations 2014 (as amended) do not actually make provision for pre-application meetings, but these are routinely held without any criticism that these are irregular. DMRE is the competent authority under both the MPRDA and the EIA Regulations 2014 and it is assumed that it will continue to make decisions concerning the application (as it did, for example, regarding the request for extending the deadline for the submission of the final scoping report and final ESIA Report). It is also assumed that PASA will continue to exercise its relevant powers under the MPRDA (namely to review and make recommendations to the Minister with regard to the acceptance of environmental reports and the conditions of the environmental authorisations and amendments thereto). In addition, it is assumed that PASA will comply with its obligations under the EIA Regulations 2014 as an "organ of state" which has jurisdiction in respect of the activity to which the application relates.</p> <p>Thus, DMRE will be responsible for accepting / rejecting the ESIA Report, and granting / refusing the EA.</p>

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			<p>- the conditions of environmental authorisations and amendments thereto.</p> <p>178.</p> <p>In terms of the NEMA EIA Regulations Listing Notice 2 of 2014, the Minister responsible for Mineral Resources is identified as the competent authority where the listed activity is or is directly related to (among other things) exploration of a petroleum resource. Section 42B of NEMA provides that the Minister responsible for Mineral Resources may in writing delegate a function entrusted to him/her in terms of the Act to the Director-General (DG) of the Department of Minerals and Energy; or any officer in the department of Minerals and Energy. The Green Connection pointed out that it was relevant to note that s42B of NEMA does not empower the Minister responsible for Mineral Resources to delegate a function to state-owned agencies or companies, such as PASA. Section 42B of NEMA also does not include a power to subdelegate.</p> <p>179.</p> <p>Thus while PASA is empowered to receive applications (made under the MPRDA) for reconnaissance permits, technical co-operation permits, exploration rights and production rights in the prescribed manner, and to evaluate such applications and make recommendations to the Minister, it is not empowered in NEMA environmental impact assessment (EIA) processes to, hold pre-application meetings with the applicant, agree the ESIA process, or to make recommendations on whether or not to grant environmental authorisation.</p> <p>180.</p>	



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			<p>The Green Connection submitted that the pre-application meeting held with PASA on 19 May 2021 ‘to inform them of TEEPSA’s proposed project and application for Environmental Authorisation, as well as to obtain agreement on the ESIA process’, and the subsequent meeting with PASA on 21 February 2022, were functions that should have be performed by the competent authority.</p> <p>181.</p> <p>The Green Connection submitted further that the intended submission of the final ESIA Report to PASA ‘for consideration and review’ and for PASA to thereafter provide a recommendation to the DMRE on whether or not to grant an environmental authorisation, was also not authorised by the empowering provisions of NEMA. And while PASA is empowered under a separate statutory scheme (namely the MPRDA) to review and make recommendations with regard to the acceptance of environmental reports and the conditions of environmental authorisations, PASA is not empowered under the MPRDA to perform the functions of the competent authority in accepting the final ESIA Report or to make recommendations to the DMRE on whether or not to grant an environmental authorisation.</p> <p>182.</p> <p>The Green Connection stated that this was particularly concerning given that the MPRDA imposes a mandatory obligation on PASA to promote offshore exploration for an production of petroleum, and it was submitted that by allowing PASA to perform functions that should be undertaken by it as the competent authority, the DMRE was unlawfully abdicating its responsibilities in the EIA process. It is also misconstruing the statutory functions of the DMRE as the</p>	

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			<p>competent authority in NEMA EIA processes, and the functions to be performed by PASA under the MPRDA (a material error of law).</p> <p>183.</p> <p>The Green Connection submitted further that in order for the EIA process to be lawful and procedurally fair, PASA should strictly limit its role in the EIA process to functions mandated under section 71(i) of the MPRDA.</p> <p>184.</p> <p>The Green Connection stands by these submissions.</p> <p>185.</p> <p><b>H. CONCERN OVER INDEPENDENCE OF EAP AND FISHERIES SPECIALIST</b></p> <p>In its comments on the draft Scoping Report, the Green Connections noted with concern that the environmental assessment practitioner (EAP) (SLR Consulting) for the ESIA, as well as the fisheries specialist (Capricorn Marine Environmental) appointed by SLR to conduct the Fisheries Impact Assessment in the ESIA, have both previously provided consulting services to the applicant (TEEPSA) in relation to Block 5/6/7.</p> <p>186.</p> <p>By way of example, it was pointed out that the CB203D-01 3D Seismic Survey in Block 5/6/7 (ER12/3/224): Survey Close Out Report by SLR dated June 2020 indicated that:</p> <p>- SLR was appointed in an 'environmental management and quality control role for the duration of the seismic survey' and to undertake 'environmental compliance', and that SLR's services to TEEPSA included: compilation of the close-out report on behalf of</p>	<p>185. - 190. SLR is of the opinion that having done other work for the applicant does not, itself, impair SLR's or CapMarine's professional integrity or independence. It is disputed that SLR and CapMarine have any business or financial interest in TEEPSA's offshore gas exploration projects. SLR and specialist consultants, including CapMarine, have no vested interest in the proposed project other than fair payment for consulting services rendered as part of the ESIA process. SLR has declared its independence as required by the EIA Regulations 2014, as amended (see Appendix 1 of the Scoping Report).</p>

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			<p>TEEPSA (including a close-out audit and performance assessment); compilation of a legal register prior to the commencement of the seismic survey; compilation of a Communications Plan on behalf of the Operator prior to the commencement of the seismic survey; conducting environmental awareness training for all the seismic vessel crew members; distributing a Notice to Mariners on behalf of the Operator to all I&amp;APs on the project database; submitting an Environmental Notification to PASA on behalf of the Operator; and distributing an end of survey notification to I&amp;APs.</p> <p>- Capricorn Marine Environmental (aka CapMarine) 'was appointed to provide on-board independent Marine Mammals Observer (MMO), Passive Acoustic Monitoring (PAM) and Fisheries Liaison Officer (FLO) services for the duration of the survey', and that CapMarine produced a close-out report summarising their onboard activities.</p> <p>187.</p> <p>As was noted in its comments on the draft Scoping Report, the EIA Regulations stipulate that an EAP and a specialist must be independent. The EIA Regulations define independent as follows:</p> <p>"independent", in relation to an EAP, a specialist or the person responsible for the preparation of an environmental audit report, means:</p> <p>(a) that such EAP, specialist or person has no business, financial, personal or other interest in the activity or application in respect of which that EAP, specialist or person is appointed in terms of these Regulations; or</p>	

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			<p>(b) that there are no circumstances that may compromise the objectivity of that EAP, specialist or person in performing such work;</p> <p>excluding:</p> <p>(i) normal remuneration for a specialist permanently employed by the EAP; or</p> <p>(ii) fair remuneration for work performed in connection with that activity, application or environmental audit;</p> <p>188.</p> <p>The Green Connection recorded its concern that SLR's and CapMarine's prior involvement as consultants for TEEPSA in the Block 5/6/7 3D seismic survey may compromise the objectivity of both SLR (as the EAP) and CapMarine (as the fisheries specialist) in the current exploration EIA for Block 5/6/7. Having regard to the services provided during the 3D seismic survey, the Green Connection is further concerned that SLR and CapMarine have prior and ongoing business and/or financial interests in TEEPSA's offshore oil and gas exploration project.</p> <p>189.</p> <p>In its responses to the Green Connections comments, SLR responded by disputing that it or CapMarine have any business or financial interest in TEEPSA's offshore gas exploration other than fair payment for consulting services rendered as part of the ESIA process.</p> <p>190.</p> <p>The Green Connection notes SLR's response but remains concerned that SLR's and CapMarine's prior involvement as</p>	

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			<p>consultants for TEEPSA in the Block 5/6/7 3D seismic survey may compromise the objectivity of both SLR (as the EAP) and CapMarine (as the fisheries specialist) in the current exploration EIA for Block 5/6/7. The Green Connection also remains concerned, having regard to the services provided during the 3D seismic survey, that SLR and CapMarine have prior and ongoing business and/or financial interests in TEEPSA's offshore oil and gas exploration project, and are likely in the future have additional business and/or financial interests (for example by providing Marine Mammal Observers, or undertaking other oil and gas exploration and production EIAs). The Green Connection is concerned that such interests make it difficult for a consultant to, for example, recommend against the authorisation of a project as doing so could potentially prejudice prospects of securing future contracts.</p> <p>191.</p> <p><b>I. OTHER COMMENTS</b></p> <p><b><i>(i) Avoid Drilling during Austral Winter</i></b></p> <p>It is noted that the draft ESMP indicates 'All efforts to be made to avoid scheduling drilling operations during the periods when the likelihood of shoreline oiling for a blow-out is highest (namely the Austral Winter). In the case of exploration will drilled in a sequence covering this period, response needs to be enhanced'. This contradicts statements made in the draft EIR which indicate that 'TEEPSA's strategy for future drilling is that drilling can be undertaken throughout the year (i.e. not limited to a specific seasonal window period).' In the event that the competent authority decides to authorise the exploration drilling project (which authorisation the Green Connection does not agree with), it</p>	<p>191. SLR is of the opinion that there is not contraction. TEEPSA indicated, as part of the project description, that it wants to potential drill at throughout the year, however, based on the findings of the oil spill modelling it is recommended that all efforts to be made to avoid scheduling drilling operations during the Austral Winter. However, in the case of exploration wells drilled in a sequence covering this period, it is recommended that oil spill response be enhance.</p> <p>Green Connection's recommendation of including the exclusion period is noted and should be considered by the Competent Authority in the decision-making process.</p>

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			<p>is submitted that the record of decision should include a specific condition prohibiting the drilling and testing of any exploration well during the Austral Winter.</p> <p>192.</p> <p><b>(ii) Avoid key migration seasons</b></p> <p>In the event that the competent authority decides to authorise the exploration drilling project (which authorisation the Green Connection does not agree with), the Green Connection submits that the record of decision should restrict exploration drilling activities to periods that avoid key migration, breeding and spawning periods of marine species that have been identified as being vulnerable to the negative impacts of a major oil spill (wellhead blowout).</p> <p>193.</p> <p><b>(iii) Assessment of impact of oil leak from abandoned well</b></p> <p>It is noted that the Closure Planning Framework (Decommissioning Plan) by WSP indicates that:</p> <p>The leakage of hydrocarbons from an abandoned well can be initiated through a compromised well barrier either by degradation overtime or natural seepage, or both. For the proposed activities up to five wells may be drilled, but only those which encounter hydrocarbon bearing formations could potentially leak. Although a leak from an abandoned well is unlikely, it could result in the release of considerable quantities oil or gas. The quantities released are, however, likely to be less than in the case of a well blow-out.</p> <p>194.</p>	<p>192. Green Connection's recommendation is noted and should be considered by the Competent Authority in the decision-making process.</p> <p>193. - 196. Well plugging and abandonment are undertaken to ensure safe closure of a non-producing offshore wells. Wells are sealed, plugged, tested for integrity and abandoned according to international best practices. The ultimate goal of these measures is to provide permanent containment of the formation fluids and to prevent migration from the reservoir to the seabed, i.e. isolate permeable and hydrocarbon bearing formations. The principal technique applied to prevent cross flow between permeable formations is plugging of the well with cement, thus creating an impermeable barrier between two zones. Depending on the formations encountered a well may be plugged at multiple locations. The integrity of cement plugs can be tested by a number of methods. The cement plugs will be tag tested (to validate plug position) and weight tested, and if achievable then a positive pressure test (to validate seal) and/or a negative pressure test</p>

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			<p>With regard to post-well abandonment monitoring, the report indicates that:</p> <p>Generally, monitoring of sealed wells is required only if there is a demonstrable risk of a significant adverse effect on the environment (European Commission, 2022) which would be indicated by monitoring during the operational phase, or in the event that the well is targeted for recommissioning during future production activities. As such, TEEPSA currently do not anticipate the requirement for ongoing monitoring of the well once the seal performance standard requirements have been met.</p> <p>Monitoring gauges to monitor pressure and temperature through wireless communication with frequencies between the transmitter and the receiver in the 12.75 to 21.25 kHz range may be installed on wells where TEEPSA will return in the future for appraisal / production purposes.</p> <p>195.</p> <p>As far as can be determined by the Green Connection, the potential significance of environmental impacts of leakage of hydrocarbons from an abandoned well (which could result in the release of considerable quantities oil or gas) has not been assessed in the draft EIR. In addition, the draft EIR does not appear to require TEEPSA to monitor the sealed well in circumstances where there is a demonstrable risk of a significant adverse effect on the environment, or in the event that the well is targeted for recommissioning during future production activities) – it simply indicates in the specialist report that TEEPSA ‘may’ install pressure and temperature monitoring gauges on wells where it may return in the future for appraisal / production purposes.</p>	<p>will be performed. Additionally, a flow check may be performed to ensure sealing by the plug.</p> <p>The leakage of hydrocarbons from an abandoned well can be initiated through a compromised well barrier either by degradation overtime or natural seepage, or both. For the proposed activities a maximum of five wells may be drilled, but only those which encounter hydrocarbon bearing formations could potentially leak. Although a leak from an abandoned well is unlikely, it could result in the release of large quantities oil or gas. The quantities released are, however, likely to less than in the case of a well blow-out. The impacts associated with a well blow-out (i.e. the worst case) is assessed in the ESIA (see Section 10.4 of the ESIA Report).</p> <p>TEEPSA will remain responsible for all abandoned wells until a closure certificate is obtained from the DMRE, after which DMRE will take over the responsibility.</p> <p>There have been in the order of 358 wells drilled in the South African offshore environment to date with no apparent issues related to the leaking of abandoned wells. PASA confirmed that it is not aware of any issues related to abandoned wells (email of 12 December 2022).</p>

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			<p>196.</p> <p>Without an assessment of the significance of a potential oil leak from any abandoned wells, it is not possible for the decision-maker to evaluate whether or not there is 'a demonstrable risk of a significant adverse effect on the environment' (including the climate change impacts if leaking methane gas). Accordingly, the Green Connection submits that any authorisation granted in the absence of such an assessment would be fatally flawed. The Green Connection submits further that in the event that the exploration well drilling application is authorised (which authorisation the Green Connection does not agree with), the ESMP should stipulate that TEEPSA will be required to monitor all abandoned wells (unless it can be demonstrated that there there is no risk of a significant impact on the environment from the well in question) for leakage (which requirement should also be made a condition of the authorisation).</p> <p>197.</p> <p><b>J. CONCLUSION</b></p> <p>The Green Connection submits that for the reasons set out above, TEEPSA's application for environmental authorisation to conduct exploration drilling in petroleum license Blocks 5/6/7 located off the South West Coast of South Africa should be refused.</p>	<p>197. Green Connection's objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p>
57.	Makhanya, Nokwethaba - WWF	07 December 2022 – Email Attachment	<p>WWF South Africa comments on the CLIMATE CHANGE AND AIR EMISSIONS IMPACT ASSESSMENT for exploration well drilling in block 5/6/7 off the Southwest coast of South Africa</p> <p>We want to raise the concern that our previous submission to the scoping report sent on 17 June 2022 to TEEPSA-567@slrconsulting.com under the subject line "WWF</p>	



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			<p>Submission_TEEPSA-567 DSR" was not acknowledged and reflected in the public consultation annexe, Appendix 4.10: Comments and Responses Report. Therefore, this previous submission is submitted again as an attachment.</p> <p>WWF, as a result of this, reaffirms our opposition to the proposed exploration well drilling because:</p> <p>1. Exploration is a gateway to extraction.</p> <p>Marine seismic surveys for the hydrocarbon industry are a harbinger of additional greenhouse gas (GHG) emissions. Climate change caused by the extraction and consumption of fossil fuels affects essential components that drive marine ecosystems, such as winds, water temperatures, sea ice cover, and ocean circulation.<sup>1</sup> The resultant rise in atmospheric CO<sub>2</sub> and increased oceanic CO<sub>2</sub> uptake are fuelling ocean acidification. <sup>2</sup> Such changes in ocean temperature and chemistry may alter organisms' physiological functioning, behaviour, biological interactions, and productivity, which, in turn, could lead to shifts in the size of marine life structure, spatial range, seasonal abundance, community structure, and ecosystem function. <sup>3</sup> For instance, disruptions related to climate change will transfer nutrients from surface waters down into the deep ocean, leaving less at the surface to support plankton growth. <sup>4</sup> Such an outcome will have ripple effects on the entire ocean food chain. Studies show that sustained high levels of GHG emissions could suppress marine biological productivity for a millennium.<sup>1</sup> If left unchecked, such changes will ultimately destroy the fisheries and maritime tourism industry of the southwest coast, resulting in devastating job losses, food insecurity, and other adverse socioeconomic consequences.<sup>5</sup></p>	<p>WWF comments on the draft Scoping Report were erroneously omitted from the final Scoping Report and are presented and responded to below.</p> <p>1. No 2D or 3D seismic surveys are planned as part of the proposed project, only vertical seismic profiling (which is undertaken for up to 9 hours per well as part of well logging), which is assessed in Sections 9.2.3.1.2 and 9.2.3.2.2 of the ESIA Report.</p>

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			<p>WWF acknowledges that the EIA provides a Climate Change and Air Emissions Impact Assessment; however, this assessment appears only to assess the Climate Change impacts of the exploration phase. TEEPSA's proposed offshore oil and gas exploration will increase South Africa's overall GHG emissions if additional commercially viable resources are discovered and exploited for the production phase. The impacts (including cumulative impacts<sup>6</sup>) of such GHG emissions must be identified in the EIA and assessed in the next stage of the EIA process as a reasonably foreseeable future impact that may become more significant when added to the existing and reasonably foreseeable GHG impacts from similar offshore oil and gas exploration and production activities in South Africa's exclusive economic zone. WWF argues that the competent authority should consider these impacts at this stage in the EIA process. If the life-cycle climate change impacts are deemed unacceptable, TEEPSA should not be allowed to proceed with the subsequent steps of exploration and production authorisation and permitting processes. It is critical to ensure that anticipated exploratory activities (including reasonably foreseeable future exploration well drilling and oil and gas production activities) do not jeopardise South Africa's capacity to fulfil the revised NDC's reduced GHG emission targets.</p>	<p>TEEPSA is only seeking approval to drill up to five exploration wells, and as such the current ESIA only assesses the potential impact related to the drilling of up to five wells. The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project.</p> <p>The EIA Regulations 2014 require the consideration of the 'cumulative impact', which includes the "reasonably foreseeable future impact of an activity". While it is foreseeable that future production activities could arise from the Exploration Right (if granted and successful), there is not currently sufficient information to make reasonable assertions as to nature of any future activities. This is due to the current lack of relevant geological information, which the proposed exploration process aims to address. The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a petroleum resource(s) is discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project. Potential impacts cannot be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts. The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplates, that the</p>

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			<p>The EIA must consider the effects of climate change on oceans. The Intergovernmental Panel on Climate Change (IPCC) has indicated that climate change will influence coastal systems due to sea level rise and storm swells<sup>7</sup>. Furthermore, there is moderate consensus that climate change will cause upwelling intensity variations in the Benguela system. As a result, the EIA should include a review of the potential consequences that changes in ocean currents and increased storm intensity could have on future exploration and production activities (including the possible effects of increased extreme weather conditions on the ability of future production activities to operate).</p>	<p>potential impacts and risks of productions activities must be considered and assessed at the exploration stage. Any potential future production activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate ESIA process. This is typical of the lifecycle of a development project.</p> <p>Thus, a decision on the current EA application does not in any way guarantee the holder future approvals that would be required to undertake future production activities.</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p> <p>The potential impacts on air quality and climate change related to the proposed exploration project are assessed in Section 9.1.1.1 and 9.1.1.2, respectively.</p>

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			<p>WWF proposes that in addition to the potential impacts covered in the EIA, the following significant implications need to be taken into account:</p> <p>(i) The impacts of climate change on the proposed exploration drilling project over its entire lifetime, including those caused by reasonably anticipated future production activities (as well as by the usage of any oil and gas produced), should commercially viable reserves of oil and gas be discovered.</p> <p>(ii) The risk of hydrocarbon leaks from plugged and abandoned wells. The EIA classifies the possibility of hydrocarbon leaks from a plugged and abandoned well as a minor impact that has been excluded from the impact assessment, even though a leak from an abandoned well "may result in the release of huge quantities of oil or gas." The EIA contains no information on the lifespan of a wellhead (concrete deteriorates over time). However, monitoring gauges 'may' be installed on appraisal wells where TEEPSA intends to return in the future for well evaluation or production purposes. There is no mechanism for long-term monitoring of a plugged and abandoned well. Furthermore, the EIA should compare the costs of removing the well infrastructure with the costs of not doing so.</p>	<p>(i) Response to assessing production impact is responded to above.</p> <p>(ii) Well plugging and abandonment are undertaken to ensure safe closure of a non-producing offshore wells. Wells are sealed, plugged, tested for integrity and abandoned according to international best practices. The ultimate goal of these measures is to provide permanent containment of the formation fluids and to prevent migration from the reservoir to the seabed, i.e. isolate permeable and hydrocarbon bearing formations. The principal technique applied to prevent cross flow between permeable formations is plugging of the well with cement, thus creating an impermeable barrier between two zones. Depending on the formations encountered a well may be plugged at multiple locations. The integrity of cement plugs can be tested by a number of methods. The cement plugs will be tag tested (to validate plug position) and weight tested, and if achievable then a positive pressure test (to validate seal) and/or a negative pressure test will be performed. Additionally, a flow check may be performed to ensure sealing by the plug.</p> <p>The leakage of hydrocarbons from an abandoned well can be initiated through a compromised well barrier either by degradation overtime or natural seepage, or both. For the proposed activities a maximum of five wells may be drilled, but only those which encounter hydrocarbon bearing formations could potentially leak. Although a leak from an</p>

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			<p>2. New exploration is not aligned with climate science and international commitments.</p> <p>Given the catastrophic effects of human-induced climate change, the global market is moving away from fossil fuels. If South Africa and the world are to meet the goals of the Paris Agreement, which have been recently reaffirmed at COP27 to limit global warming to less than 1.5°C, no new gas and oil fields should be approved beyond projects committed as of 2021.8 In addition, the international community has just pledged over R131 billion to help South Africa decrease its reliance on fossil fuels. The potential short- term, non-sustainable benefits gained from oil and gas are outweighed by the environmental risks posed by exploring for and using these non-renewable energy resources, especially along this vulnerable coastline. WWF believes expanding</p>	<p>abandoned well is unlikely, it could result in the release of large quantities oil or gas. The quantities released are, however, likely to less than in the case of a well blow-out. The impacts associated with a well blow-out (i.e. the worst case) is assessed in the ESIA (see Section 10.4 of the ESIA Report).</p> <p>TEEPSA will remain responsible for all abandoned wells until a closure certificate is obtained from the DMRE, after which DMRE will take over the responsibility.</p> <p>There have been in the order of 358 wells drilled in the South African offshore environment to date with no apparent issues related to the leaking of abandoned wells. PASA confirmed that it is not aware of any issues related to abandoned wells (email of 12 December 2022).</p> <p>2. WWF's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p>

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			<p>renewable energy technology is the best way forward for environmental sustainability and local job creation.</p> <p>3. Catastrophic short-term effects.</p> <p>Marine vertical seismic profiling (VSP) is a crucial hydrocarbon exploration activity and typically involves airgun arrays that are towed behind vessels and produce high-intensity, low-frequency impulsive sounds at regular intervals. Seismic airgun arrays are considered 'disruptive technologies' which can cause acoustic disturbance over 3,000 km from the survey vessels.<sup>9</sup> This stream of energy is significant in an aquatic environment where sound waves travel much further than in the air, where most wildlife relies on acoustic communication throughout their life cycles. Therefore, it constitutes noise pollution and a threat to marine life behavioural patterns and survival.</p> <p>Seismic operations have been implicated in altering the behaviour of marine life, such as whales and dolphins attempting to escape airgun surveys.<sup>10</sup> Several other disruptions to marine biota have been documented, including altering penguin behaviour<sup>11</sup> and decimating larval krill populations<sup>12</sup>, which are vital prey for species such as humpback whales (<i>Megaptera novaeangliae</i>). In controlled experiments, negative impacts on zooplankton have been documented more than 1 km from the sound source, a significantly wider reach than the predicted 10 m-impact range. <sup>12</sup></p> <p>The lack of data on seismic airgun impacts in South Africa does not imply that they are harmless or have a low chance of causing harm<sup>29</sup>. Instead, it emphasises the need to perform local research on the subject, notably on microbiota and meiofauna, which frequently dominate benthic faunal biomass at abyssal depths and are crucial for deep-sea ecosystem functioning. <sup>13</sup></p>	<p>3. As noted above, no 2D or 3D seismic surveys are planned as part of the proposed project, only vertical seismic profiling (which is undertaken for up to 9 hours per well as part of well logging), which is assessed in Sections 9.2.3.1.2 and 9.2.3.2.2 of the ESIA Report.</p> <p>Regarding the comment on the zone of impact on plankton, the Underwater Modelling Study determined that the zone of impact for zooplankton to suffer physiological injury is in relatively close proximity to the operating sound source. This faunal group, however, cannot move away from the approaching sound source, and is therefore likely to suffer mortality and/or physiological injury within the zone of impact, and the cumulative zones of impact would apply (potential mortal injury for fish eggs and larvae is modelled to be within 40 m). Potential impacts on ichthyoplankton and pelagic invertebrates would thus be of high intensity at close range, but highly localised and transient due to the localised and short-term nature of the VSP operations. The volumes and the energy released into the marine environment are significantly smaller than what is required or generated during conventional seismic surveys (A typical seismic volume of energy is 3 000 cubic inches, while a VSP is around 1 000 cubic inches. In addition, the energy dissipated by a VSP is concentrated in one place, while a seismic survey covers a larger area). Impacts are, therefore, <u>not comparable to the significant declines in zooplankton abundance within a maximum range of 1.2 km of an airguns' passage as reported by McCauley et al. (2017)</u>. Although the major spawning areas of commercially important species, such as hake, pilchards, horse mackerel and anchovy, all lie inshore of the area of interest, and should in no way be affected by the highly localised VSP operations, there is some overlap with egg and larval distribution of</p>

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			<p>Furthermore, the fact that oil and gas companies have conducted seismic surveys in South African waters in the past does not establish an irrevocable precedent or endow such activities with eternal validity.</p> <p>References</p> <ol style="list-style-type: none"> <li>1. Moore KJ, Fu W, Primeau F, Britten GL, Lindsay K, Long M, et al. Sustained climate warming drives declining marine biological productivity. <i>Science</i>. 2018; 6380:1139–1143.</li> <li>2. Feely RA, Doney SC, Cooley SR. Ocean acidification: present conditions and future changes in a high-CO2 world. <i>Oceanography</i>. 2009;22:36–47.</li> <li>3. Doney SC, Ruckelshaus M, Duffy JE, Barry JP, Chan F, English CA, et al. Climate change impacts on marine ecosystems. <i>Ann Rev Mar Sci</i>. 2012;4:11–37.</li> <li>4. Moore KM. Climate change could alter ocean food chains, leading to far fewer fish in the sea [webpage on the Internet]. c2018 Available <a href="https://phys.org/news/2018-04-climate-ocean-food-chainsfish.html">https://phys.org/news/2018-04-climate-ocean-food-chainsfish.html</a></li> <li>5. Intergovernmental Panel on Climate Change (IPCC). Climate change 2022: Impacts, adaptation, and vulnerability. Summary report for policymakers.</li> <li>6. NEMA: EIA Regulations of 2014 (GNR 326)</li> <li>7. Intergovernmental Panel on Climate Change (IPCC). Climate change 2014: Impacts, Adaptation, and Vulnerability. Part B: Regional Aspects.</li> <li>8. IEA (2021), Net Zero by 2050, IEA, Paris Available <a href="https://www.iea.org/reports/net-zero-by-2050">https://www.iea.org/reports/net-zero-by-2050</a>, License: CC BY 4.0</li> </ol>	<p>these species in the inshore portion of the area of interest only. Declines in zooplankton abundance as a result of VSP operations are therefore likely to be negligible.</p>

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			<p>9. Nieu Kirk, S. L., Stafford, K. M., Mellinger, D. K., Dziak, R. P., &amp; Fox, C. G. (2004). Low-frequency whale and seismic airgun sounds recorded in the mid-Atlantic Ocean. The Journal of the Acoustical Society of America, 115(4), 1832-1843.</p> <p>10. Gomez, C., Lawson, J. W., Wright, A. J., Buren, A. D., Tollit, D., &amp; Lesage, V. (2016). A systematic review on the behavioural responses of wild marine mammals to noise: the disparity between science and policy. Canadian Journal of Zoology, 94(12), 801-819.</p> <p>11. Pichegru, L., Nyengera, R., McInnes, A. M., &amp; Pistorius, P. (2017). Avoidance of seismic survey activities by penguins. Scientific Reports, 7(1), 1-8.</p> <p>12. McCauley, R. D., Day, R. D., Swadling, K. M., Fitzgibbon, Q. P., Watson, R. A., &amp; Semmens, J. M. (2017). Widely used marine seismic survey air gun operations negatively impact zooplankton. Nature ecology &amp; evolution, 1(7), 1-8.</p> <p>13. Ingels J, Vanreusel A, Pape E, Pasotti F, Macheriotou L, Martínez Arbizu P, et al. (2021). Ecological variables for deep-ocean monitoring must include microbiota and meiofauna for effective conservation. Nat Ecol Evol, 5, 27–29.</p>	
58.	Makhanya, Nokwethaba - WWF	07 December 2022 – Email Attachment	<p>[Note: This comment from WWF on the draft Scoping Report was erroneously omitted from the final Scoping Report and is responded to below].</p> <p>TEEPSA 5/6/7 DRAFT SCOPING REPORT WWF SUBMISSION</p> <p>WWF South Africa hereby submits its response to the draft Scoping Report (hereafter “the DSR”) prepared as part of the Environmental and Social Impact Assessment (ESIA) process that is being undertaken for an application by TotalEnergies to undertake exploration well drilling in Block 5/6/7 off the South-West Coast of</p>	



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			<p>South Africa. We oppose the proposed exploration well drilling because,</p> <ol style="list-style-type: none"> <li>1. Fossil gas expansion is inconsistent with the Paris Agreement goals, and as a signatory to the Agreement South Africa should not undertake any exploration and investment in the development of new gas projects. This also means no new infrastructure for production, refining, exporting and transport as well as use of oil and fossil gas. These massive investments in new infrastructure create new fossil fuel dependence, making the transition to actual low-carbon and no-carbon energy even more difficult (Swanson, Levin, Stevenson, Mall &amp; Spencer 2020). Renewable-based alternatives for most of fossil gas uses are either already cheaper or are expected to be within a few years (IRENA 2020).</li> <li>2. To allow for a 50 per cent probability of limiting warming to 1.5 °C, oil and fossil gas production must decline globally by 3 per cent each year until 2050 with most regions needing to reach peak production now or during the next decade (Welsby, Price, Pye &amp; Ekins 2021). By 2040, global gas use needs to be halved from 2020 (IPCC 2018). This means that any fossil gas production &amp; distribution capacities South Africa might invest in will need to be subject to considerations of shorter life spans, making them likely to end up as stranded assets or lock South Africa to a fossil fuel development pathway.</li> <li>3. South Africa's position as a developing country is well-established and entitles us to slower fossil phase out compared to developed countries, but as the country responsible for some 50% of Africa's GHG emissions, we have a singular responsibility for action on the continent. In line with the 1.5°C threshold and based on historic responsibilities, as an upper-middle income country</li> </ol>	<p>WWF's objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>1. - 3. WWF's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the</p>

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			<p>South Africa should lead the Southern African region in the quest to stop any production of oil and fossil gas by 2050.</p> <p>4. It is of great concern that the area targeted for drilling encompasses one of the most pristine marine environments in South African waters, which contains important and diverse marine habitats, sustains endangered species, and also supports key environmental services.</p> <p>Commentary on specific sections of the DSR (titled “Section-by-Section comments”) follows. We end our submission with comments on marine-specific environmental impacts, underlining however that even if it could be undertaken such that there will be minimal negative impact on the marine environment and coastal communities, this exploration should not proceed because of the climate change reasons.</p> <p>SECTION-BY-SECTION COMMENTS</p> <p>EXECUTIVE SUMMARY:</p> <p>Need and desirability</p> <p>Gas is required to “provide the flexibility required to complement renewable energy sources”</p> <p>At the low penetration levels currently seen in South Africa (and most of the Global South), grid management needs for integrating renewables are modest and low-cost and will suffice until storage</p>	<p>distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>As noted above, SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts and National strategic policy issues relating to energy and climate change, as well as public opposition to oil and gas development and other legislation (e.g., ICMA).</p> <p>4. Impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10, respectively.</p> <p>Refer to response on the need and desirability above.</p>

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			<p>costs will have fallen further. But countries with a good solar resource such as South Africa have a strong advantage, as greater sunlight consistency through the year makes solar energy strongly pairable with batteries, creating less need for longer-term storage. In some countries (including South Africa, as demonstrated by the recent Risk Mitigation IPP), the combined cost of wind or solar with batteries is already less than that of flexible “peaker” gas plants. Considering South African peaker gas plants are mostly running on expensive diesel, makes this likely the case here as well.</p> <p>“the South African Government policy currently supports exploration for indigenous oil and gas resources and currently promotes the use of natural gas as part of the energy mix in the short- to medium-term up to 2030 (as per the Integrated Resource Plan (IRP)2019)”</p> <p>The lead time in developing new gas resources is long. In Norway<sup>1</sup>, the average lead time from a gas discovery to production is 16 years, and in South Africa, it is likely to be longer. Even if fossil gas is discovered in the next year, production could potentially start in the late 2030s, and could be allowed to continue for barely over a decade to still reach the net-zero goal of 2050. This makes the financial feasibility of fossil gas very challenging. On the other hand, continuing production for longer would lock South Africa in a fossil fuel development pathway inconsistent that will require more and more subsidies to remain competitive (Muttitt et al. 2021).</p> <p>“It is acknowledged that the proposed exploration project would not result in the production of oil and gas, but rather the generation of information on possible indigenous resources.”</p>	

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			<p>The DSR uses this reason as a basis to limit the assessment of impacts to the exploration stage only. However, a clear and obvious consequence of successful exploration is the development of oil and fossil gas projects in the identified areas. Given that new fossil gas exploration and production takes us away from a Paris aligned pathway (IPCC 2018) and into a climate catastrophe, it is material to consider the climate impacts of the oil and gas projects and thus should be a subject for consideration in this DSR. In short, if development of oil and gas resources is not to follow then there is no reason whatsoever to undertake exploration, and any marine impacts of the DSR are unjustified.</p> <p>“The proposed exploration project, as contemplated (i.e., not considering possible production), has no direct influence on South Africa’s reliance on fossil fuels and whether consumers use more or less oil or gas, nor on which types of fossil fuels contribute to the country’s energy mix.”</p> <p>As noted above, considering the exploration without also considering the purpose is disingenuous. South Africa has superior wind and solar resources and harnessing them creates opportunities to change its energy mix to a renewables based one. In addition, South Africa is supremely positioned to produce green hydrogen for which demand is growing fast and which can significantly reduce the carbon emissions from a number of sectors including electricity, transport, and industry. With new indigenous gas production, oil and gas products become available and will be sold into the local market for a variety of uses, robbing the country of the opportunity to transition to renewables.</p> <p>“The proposed exploration project will potentially lead to South Africa optimising its own indigenous resources to provide its identified oil and gas needs until the 2050 deadline to achieve</p>	<p>TEEPSA is only seeking approval to drill up to five exploration wells, and as such the current ESIA only assesses the potential impact related to the drilling of up to five wells. The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project.</p> <p>The EIA Regulations 2014 require the consideration of the ‘cumulative impact’, which includes the “reasonably foreseeable future impact of an activity”. While it is foreseeable that future production activities could arise from the Exploration Right (if granted and successful), there is not currently sufficient information to make reasonable assertions as to nature of any future activities. This is due to the current lack of relevant geological information, which the proposed exploration process aims to address. The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a petroleum resource(s) is discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project. Potential impacts cannot be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts. The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplates, that the</p>

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			<p>carbon neutrality, rather than having to mainly import, as at present.”</p> <p>As we have mentioned earlier in our response, this development requires South Africa to develop new infrastructure with a significant risk of fossil fuel lock in (Muttitt et al. 2021). In addition, local production does not mitigate against price and supply shocks in a global market. Since the developers of the resource are internationally-traded companies, they will sell the resource at market prices to the highest bidder, regardless of the site of production. As such, the “optimisation of local resources” is not true. Only products that cannot readily be exported, such as local electricity supply onto the local grid or through a regulated provider meet this criterion – another reason to focus on renewable energy rather than gas.</p> <p>INTRODUCTION:</p> <p>Opportunity to comment and attend public information-sharing meetings Consultation is only provided for in three venues (Cape Town, Hermanus and Saldanha) and one virtual. This is not adequate considering that there are approximately 68 communities (2 031 fishers) adjacent to the exploration region. Communities should be properly consulted as this activity does pose a huge risk to their livelihoods.</p> <p>ENVIRONMENTAL AND SOCIO-ECONOMIC SCREENING AND KEY IMPACTS:</p>	<p>potential impacts and risks of productions activities must be considered and assessed at the exploration stage. Any potential future production activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate ESIA process. This is typical of the lifecycle of a development project.</p> <p>Thus, a decision on the current EA application does not in any way guarantee the holder future approvals that would be required to undertake future production activities.</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p> <p>A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report. Additional public meetings held during the Impact Assessment Phase.</p>

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			<p>Summary of key potential impacts and preliminary mitigation measures</p> <p>Several studies (Day, McCauley, Fitzgibbon, Hartmann &amp; Semmens 2017, 2019; McCauley et al. 2017; Pichegru, Nyengera, McInnes &amp; Pistorius 2017; Solan et al. 2016) have shown that drilling has an impact on the habitat and marine life as well and no mitigation in place can be able to keep the environment as it is with zero negative impact. These impacts include but not limited to noise and water pollution, oil spills, displacement of species, damage of habitat and critical biodiversity areas. The report further mentions that 'only' 5% (footprint) of the main exploration will overlap with critical biodiversity area, while that sounds exceedingly small but is very relative. The exploration drilling should in no way overlap with any critical biodiversity areas.</p> <p>The impacts in the exploration area are likely to be observed in proximity environments as well. These are enough reasons to not be exploring next to these sensitive areas.</p> <p><b>MARINE ENVIRONMENT</b></p> <p>The Agulhas Bank is the place of convergence between one of the world's fastest flowing currents, namely the warm Agulhas Current, and the cold Benguela Current. Sea conditions in this region are notoriously treacherous, which has caused the demise of many ships. This convergence zone provides a nutrient cycle for marine life and consequently supports South Africa's most important commercial fisheries. A number of coastal fishing communities are also located adjacent to the Agulhas Bank. These communities have been traditionally dependent on fishing and fishing- related activities as an important source of livelihood.</p>	<p>The area of interest for drilling does not overlap with any MPAs or EBSAs. The area does, however, overlap with a Critical Biodiversity Area. All potential impacts have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report. A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p> <p>The impacts on commercial and small-scale fishers are assessed in the ESIA for both normal operations and unplanned events. During normal operations, no impact is anticipated on small-scale fishers, as they fish inshore of the proposed Area of Interest and estimated zones of impact for noise and sediment plume, while the impact on commercial fishing is considered to be of very low to low significance depending on the sector (refer to Section 9.2.2.2 and 9.2.3.2). However, in the unlikely event of</p>

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			<p>African penguins are endangered and are decreasing at an alarming rate with further colony extinctions predicted by 2030. In relatively close proximity to the proposed drilling sites are four of the largest (more than 1,000 breeding pairs) African penguin colonies remaining that are of conservation concern. Further conservation concerns relate to the decreasing number southern right whales that frequent this part of the coastline as an important breeding and calving area. The whale migrations also supports a number of related eco-tourism activities and is already under threat, which is likely due to the impacts of climate change.</p> <p>Although the area for exploration does not encompass any Marine Protected Areas (MPA) it is adjacent (only a few kilometres away) to two important ones. These are the Browns Bank Corals MPA and South East Atlantic Seamount MPA. These MPAs were declared for the following reasons: the cold-water corals preserve records of past climates, protects corals that are important for the eggs and larvae of fish, protects hake spawning grounds and important seamount ecosystems, takes care of sensitive habitats and slow growing creatures and important for seabirds and turtles life history.</p> <p>Given the above information, drilling for oil in this region is opposed by WWF-SA as any oil spill, no matter what mitigation measures are in place, will not be able to be contained in this high energy and dynamic area. This would have catastrophic impacts on existing jobs, livelihoods, endangered species, and MPAs and is not worth the risk.</p>	<p>a large oil spill from a well blow-out, commercial and small-scale fishers could be significantly impacted - refer to Section 10.4.3.3 and 10.4.3.4 of the ESIA Report.</p> <p>All potential impacts, including those listed on seabirds and whales, have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report.</p> <p>A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p> <p>WWF's objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p>

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			<p>REFERENCES</p> <p>Day, RD, McCauley, RD, Fitzgibbon, QP, Hartmann, K &amp; Semmens, JM. 2017. Exposure to seismic air gun signals causes physiological harm and alters behavior in the scallop <i>Pecten fumatus</i>. Proceedings of the National Academy of Sciences. 114(40). doi.org/10.1073/pnas.1700564114.</p> <p>Day, RD, McCauley, RD, Fitzgibbon, QP, Hartmann, K &amp; Semmens, JM. 2019. Seismic air guns damage rock lobster mechanosensory organs and impair righting reflex. Proceedings of the Royal Society B: Biological Sciences. 286(1907):20191424. doi.org/10.1098/rspb.2019.1424.</p> <p>IPCC. 2018. Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change,. doi.org/10.1038/291285a0.</p> <p>IRENA. 2020. Renewable Power Generation Costs in 2020. Abu Dhabi. Available from: <a href="https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/Jun/IRENA_Power_Generation_Costs_2020.pdf">https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/Jun/IRENA_Power_Generation_Costs_2020.pdf</a>.</p> <p>McCauley, RD, Day, RD, Swadling, KM, Fitzgibbon, QP, Watson, RA &amp; Semmens, JM. 2017. Widely used marine seismic survey air gun operations negatively impact zooplankton. Nature Ecology &amp; Evolution. 1(7):0195. doi.org/10.1038/s41559-017-0195.</p> <p>Muttitt, G, Sharma, S, Mostafa, M, Kühne, K, Doukas, A, Gerasimchuk, I &amp; Roth, J. 2021. Step off the gas: International public finance, natural gas, and clean alternatives in the Global South. Winnipeg. Available from:</p>	



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			<p><a href="https://www.iisd.org/system/files/2021-06/natural-gas-finance-clean-alternatives-global-south.pdf">https://www.iisd.org/system/files/2021-06/natural-gas-finance-clean-alternatives-global-south.pdf</a>.</p> <p>Pichegru, L, Nyengera, R, McInnes, AM &amp; Pistorius, P. 2017. Avoidance of seismic survey activities by penguins. Scientific Reports. 7(1):16305. doi.org/10.1038/s41598-017-16569-x.</p> <p>Solan, M, Hauton, C, Godbold, JA, Wood, CL, Leighton, TG &amp; White, P. 2016. Anthropogenic sources of underwater sound can modify how sediment-dwelling invertebrates mediate ecosystem properties. Scientific Reports. 6(1):20540. doi.org/10.1038/srep20540.</p> <p>Swanson, C, Levin, A, Stevenson, A, Mall, A &amp; Spencer, T. 2020. Sailing To Nowhere: Liquefied Natural Gas Is Not an Effective Climate Strategy Prepared By. New York. Available from: <a href="https://www.nrdc.org/sites/default/files/sailing-nowhere-liquefied-natural-gas-report.pdf">https://www.nrdc.org/sites/default/files/sailing-nowhere-liquefied-natural-gas-report.pdf</a>. Welsby, D, Price, J, Pye, S &amp; Ekins, P. 2021. Unextractable fossil fuels in a 1.5 °C world. Nature. 597(7875):230–234. doi.org/10.1038/s41586-021-03821-8.</p>	
61.	Matt Pretorius	07 December – Email	<p>I am a citizen of South Africa and I officially object to the approval of the TEEPSA-567 application by Total, Shell and PASA.</p> <p>The Western Cape coast is home to a very diverse and fragile ecosystems and due to the extreme weather conditions along our coast, there would be no guarantee that oil spills would be prevented. Furthermore, the South African Government has made a commitment to the UN/COP that we will not proceed with a future in coal, oil and gas. Accepting this application goes against that agreement and every South Africans constitutional right to safe and environmentally friendly country.</p>	<p>Mr Pretorius' objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10, respectively.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These</p>

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			Please keep me updated as part of all proceedings regarding this matter.	national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.
62.	Kathleen Samson	07 December – Email	<p>I would like to hereby register my objection to the TotalEnergies Proposed Offshore Exploration in Block 5/6/7, South-West Coast, South Africa.</p> <p>Offshore explorations for fossil fuels, gas and oil are unacceptably harmful for fragile and necessary ecosystems. I reject another move by consultancies funded by oil conglomerates to further destabilise socio-environmental communities which see no benefits, only continuing losses. This is not development, it is the unsustainable extractivism.</p> <p>As a concerned and angered citizen of South Africa, I register my objection to all forms of exploration off the coast by companies like TotalEnergies. Future energy sources must be green, sustainable, and benefit all levels of local communities, first and foremost the poorest.</p>	<p>Ms Samson's objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10, respectively.</p> <p>SLR and the specialists have no business or financial interest in TEEPSA's offshore gas exploration projects. SLR and specialist consultants have no vested interest in the proposed project other than fair payment for consulting services rendered as part of the ESIA process. SLR has declared its independence as required by the EIA Regulations 2014, as amended (see Appendix 1 of the Scoping Report).</p>
63.	Patrick Bond – University of Johannesburg	07 December – Email Attachment	<p>1. Introduction</p> <p>I am a University of Johannesburg sociologist (a distinguished professor), specialising in public policy and environmental economics. I am writing in particular about the implications of the proposed exploratory well drilling for South Africa's climate politics. (The views expressed below are personal, not institutional.) I hold a PhD in Geography and Environmental Engineering from Johns Hopkins University (1993), having earlier studied economics at Swarthmore College and the University of Pennsylvania Wharton School of Finance. I also have engaged in</p>	Mr Bond's comments and opinion are noted and should be taken into consideration by the Competent Authority in the decision-making process.

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			<p>many South African policy processes, having drafted the Reconstruction and Development Programme White Paper (1994) and many others. I also work closely with civil society organisations in South Africa, Africa and across the world.</p> <p>I am particularly interested and affected, as are all South Africans, and indeed the world's citizens, by the climate components of the proposed exploratory well drilling, but I also believe it is important to question whether TotalEnergies and its managerial leadership – as well as allied local firms – are “fit and proper” for work of this sort. The economic impacts of the exploratory well drilling could be enormous because, as the Makhanda High Court ruled on 1 September 2022, when it mandated a full – not salami-sliced – analysis of the impacts of gas and oil exploration, extraction, processing, transport, combustion and disposal: “the processes are discrete stages in a single process that culminates in the production and combustion of oil and gas, and the emission of greenhouse gases that will exacerbate the climate crisis...”</p> <p>The work of SLR Consulting will be considered incomplete and in contempt of this court finding, if the full implications of not just exploratory well drilling but the rest of the discrete stages are not considered as a whole. It is vital for SLR Consulting to engage the concern that billions of barrel-equivalents of oil and gas will be discovered and subject to exploitation, and to make cost-benefit and environmental-impact assessments on that assumption. Even rudimentary application of the Precautionary Principle, at a time of worsening climate crises, suggests that SLR must improve its capacity to analyse climate impacts of such oil and gas exploration.</p> <p><b>(excerpt, and emphasis added in bold)</b></p>	<p>TEEPSA is only seeking approval to drill up to five exploration wells, and as such the current ESIA only assesses the potential impact related to the drilling of up to five wells. The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project.</p> <p>The EIA Regulations 2014 require the consideration of the ‘cumulative impact’, which includes the “reasonably foreseeable future impact of an activity”. While it is foreseeable that future production activities could arise from the Exploration Right (if granted and successful), there is not currently sufficient information to make reasonable assertions as to nature of any future activities. This is due to the current lack of relevant geological information, which the proposed exploration process aims to address. The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a petroleum resource(s) is discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project.</p>

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			<p><b>IN THE HIGH COURT OF SOUTH AFRICA (EASTERN CAPE DIVISION, MAKHANDA)</b></p> <p>CASE NO: 3491/2021</p> <p>Reportable</p> <p>In the matter between:</p> <p>SUSTAINING THE WILD COAST NPC MASHONA WETU DLAMINI, DWESA-CWEBE COMMUNAL PROPERTY ASSOCIATION, NTSINDISO NONGCA VU SAZISE MAXWELL PEKAYO CAMERON THORPE, ALL RISE ATTORNEYS FOR CLIMATE AND THE ENVIRONMENT NPC, NATURAL JUSTICE, GREENPEACE ENVIRONMENTAL ORGANIZATION</p> <p>and</p> <p>MINISTER OF MINERAL RESOURCES AND ENERGY MINISTER OF ENVIRONMENT, FORESTRY AND FISHERIES,</p> <p>SHELL EXPLORATION AND PRODUCTION SOUTH AFRICA B V, IMPACT AFRICA LIMITED, BG INTERNATIONAL LIMITED</p> <p>JUDGMENT</p> <p>...</p> <p>[109] The intervening parties' contention that the decision-maker gave no proper consideration to the climate change impacts of the decision to grant the exploration right is an important factor to be considered in the process of granting an exploration right.</p> <p>[110] Reliance for this contention, by the intervening parties, is placed on expert testimony<sup>113</sup> showing that most of the</p>	<p>Potential impacts cannot be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts. The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplates, that the potential impacts and risks of productions activities must be considered and assessed at the exploration stage. Any potential future production activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate ESIA process. This is typical of the lifecycle of a development project.</p> <p>Thus, a decision on the current EA application does not in any way guarantee the holder future approvals that would be required to undertake future production activities.</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production, including climate change impacts associated with production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p>

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			<p>discovered reserves of oil and gas cannot be burnt if we are to stay on the pathway to keep global average temperature increases below 1.5 degrees Celsius. <b>Authorising new oil and gas exploration, with its goal of finding exploitable oil and/or gas reserves and consequently leading to production, is not consistent with South Africa complying with its international climate change commitments.</b></p> <p>[111] According to the respondents, climate change considerations and the right to access food and livelihood are irrelevant when considering an application for an exploration right; these considerations are premature because they fall to be considered at a much later stage.</p> <p>[112] On the authority of Director: Mineral Development, Gauteng Region and Another v Save the Vaal Environment and Others<sup>114</sup> <b>the processes are discrete stages in a single process that culminates in the production and combustion of oil and gas, and the emission of greenhouse gases that will exacerbate the climate crisis and impact communities' livelihoods and access to food.</b></p> <p>[113] The respondents' thesis does not find support from Earthlife Africa Johannesburg v Minister of Environmental Affairs and Others,<sup>115</sup> either, where Murphy J said: 'The absence of express provision in the statute requiring a climate change impact assessment does not entail that there is no legal duty to consider climate change as a relevant consideration and does not answer the interpretative question of whether such a duty exists in administrative law. Allowing for the respondents' argument that no empowering vision in NEMA or the regulations explicitly prescribes a mandatory procedure or condition to conduct a formal climate change assessment, the climate change impacts are</p>	

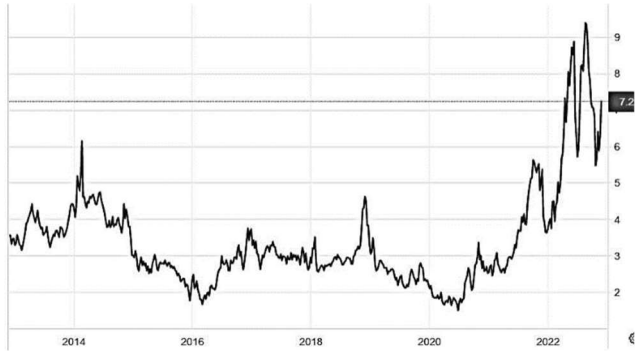
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			<p>undoubtedly a relevant consideration as contemplated by section 240 of NEMA for the reasons already discussed. <b>A formal expert report on climate change impacts will be the best evidentiary means of establishing that this relevant factor in its multifaceted dimensions was indeed considered, while the absence of one will be symptomatic of the fact that it was not.</b><sup>116</sup></p> <p>[114] It seems clear from the foregoing, even taking into account the contentions raised by the respondents, that, <b>had the decision-maker had the benefit of considering a comprehensive assessment of the need and desirability of exploring for new oil and gas reserves for climate change and the right to food perspective, the decision-maker may very well have concluded that the proposed exploration is neither needed nor desirable...</b></p> <p>113 Professor New.</p> <p>114 (133/98) [1999] ZASCA 9 (12 March 1999).</p> <p>115 (2017) JOL 37526 (GNP); [2017] ZAGPPHC (GP); [2017] 2 All SA 519 (GP).</p> <p>116 Para 88.</p> <p>In addition, consistent with the National Environmental Management Act's "polluter pays" foundational principle, it is vital for SLR to properly cost the exploration, by including the adverse effects of consequent greenhouse gas emissions. (If there is an intent by TotalEnergies to use the gas and oil for non-combustible purposes in which hydrocarbons are extracted to provide lubricants, synthetic materials, necessary plastics, pharmaceutical products, etc, then this should be clarified. The assumption from the application's discussion of gas and oil use, however, is that the product is aimed at providing energy through hydrocarbon</p>	<p>Based on the published 2017 National GHG annual Inventory, the total CO<sub>2</sub>-e emissions from the proposed project, assuming five successful appraisal wells with tests, would contribute approximately 0.07% to the 2017 South African "energy" sector total of 0.41 Gt and represents a contribution of 0.06% to the National GHG inventory total of 0.51 Gt. It is recommended that the Project GHG reporting is aligned with national</p>

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			<p>combustion.) The following pages assume gas condensate deposits will be found and combusted, because if there was not a strong possibility of that outcome, there would be no formal well drilling.</p> <p><b>2. Failure to calculate climate implications through gas life-cycle analysis</b></p> <p>As is well known, methane – the main ingredient (usually 90%) in Liquefied Natural Gas (LNG) – is released during a wide variety of processes between exploratory drilling and final combustion. The exploratory well drilling proposal is, in essence, climate-denialist by failing to recognise this basic reality. In short, the life-cycle of natural gas is vital to account for, so as to quantify the total emissions in at least five stages:</p> <ul style="list-style-type: none"> <li>• “upstream” gas production, including exploratory drilling, extraction, processing and pipeline transport;</li> <li>• liquefaction;</li> <li>• tanker transport;</li> <li>• regasification; and</li> <li>• power plant operations when the gas is burned to generate electricity.</li> </ul> <p>The Natural Resources Defense Council illustrates these steps as follows:</p> <p>UPSTREAM: Extraction of gas at the well, processing, and domestic pipeline transport; occurs in exporting country; greenhouse gas emitted: predominantly methane.</p>	<p>policy. In addition, TEEPSA would need to submit an annual Carbon Tax environmental levy in July of each year after operations commence.</p>

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			<p>LIQUEFACTION: Gas is cooled to -162 degrees Celsius to reduce its volume and convert it to liquid form; occurs in exporting country; greenhouse gas emitted: almost all carbon dioxide.</p> <p>TANKER TRANSPORT: Liquefied natural gas is loaded onto an LNG tanker and transported to its destination port; occurs on the high seas; greenhouse gas emitted: mostly carbon dioxide.</p> <p>REGASIFICATION: Liquefied natural gas is re-warmed to convert it to a gas; occurs in importing country; greenhouse gas emitted: mostly methane.</p> <p>POWER PLANT OPERATIONS: Gas is burned in a power plant to generate electricity; occurs in importing country; greenhouse gas emitted: almost all carbon dioxide.</p> <p>SLR must undertake to measure greenhouse gas emissions associated with each stage, not only combustion, but also the leakage at well heads, in storage, and in transport through pipelines that in this region are often poorly maintained or subject to vandalism and petroleum-product theft. While the U.S. Environmental Protection Agency regularly made estimates about greenhouse gas emissions from such sources, in August 2021 new research showed that the source-based estimates were only half the amount of methane release that were picked up in satellite imaging and atmospheric measurement, in studies by Stanford University analysts in Nature Communications.</p> <p><b>3. Full economic costing</b></p> <p>The exploratory drilling proposal makes estimates as to how much methane gas is potentially available in the relevant blocks, but has no information about the market value, and the environmental</p>	



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			<p>costs of likely externalities. Below are rough estimations that can guide answers to these questions.</p> <p>The extremely large gas reserves anticipated to be found both offshore and onshore South Africa, should be considered as a major potential source of greenhouse gas emissions, especially if more than 13 trillion cubic feet (tcf) of gas are capable of being extracted:</p> <ul style="list-style-type: none"> <li>• 8 tcf in the Orange Basin</li> <li>• 2 tcf in the Bredasdorp Basin</li> <li>• 3 tcf in the Outeniqua Basin</li> <li>• discoveries that are likely in the Witwatersrand and Durban-Zululand basins</li> </ul> <p>To illustrate the costs that are associated with just one particular site nearby, the Transkei-Algoa blocks on the Indian Ocean, consider three factors: the oil-barrel equivalent of estimated gas reserves; the market value price of that gas; and the estimated Social Cost of Carbon associated with these amounts.</p> <p><b>1) First, there may be the equivalent of a billion barrels of oil in the Transkei-Algoa blocks:</b> Impact CEO: “We would not be investing in the way that we are looking to invest in the area if we could not see a billion-barrel potential.”</p> <p><b>2) Second, the international market value of natural gas has zigzagged dramatically, ranging in 2022 from \$3.80 to \$9.30 per million British thermal units (MMBtu), and in November 2022 priced at around \$7.20/MMBtu.</b></p> <p><b>Price of natural gas, 2013-22</b></p>	

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			 <p>There are 4.5 MMBtu per barrel-equivalent. If in the Transkei-Algoa blocks there are a billion barrels of oil (equivalent) to be extracted, the 4.5 billion MMBtus would be worth \$32.7 billion, or R570 billion (i.e., nearly 10% of annual 2021 GDP of \$320 billion). That would be potential gross income. But as for net income, there are major costs to extraction, still to be determined by local drilling conditions, fixed capital costs, operating expenses, liabilities for local ecological damage, taxes and royalties.</p> <p><b>3) Local ecological damage can be considered priceless, especially in the event not only of exploratory drilling, but a full platform or pipeline rupture in the Agulhas Current, so it is difficult to estimate such costs. However, we do have some estimates of greenhouse gas damage to apply.</b></p> <p>Assume that methane is 80 times more potent as a greenhouse gas (in a 20-year period) than CO<sub>2</sub>. Indeed the biggest externalised environmental cost of all is the impact of the combustion of methane on climate. A barrel of gas generates 236 kg of CO<sub>2</sub>-equivalents when burned, or 0.26 tons. So if there are a billion barrels of gas available in the Transkei-Algoa blocks, we can</p>	<p>The comment regarding the use of natural gas having a much greater impact than CO<sub>2</sub> is related possible when gas is not combusted (e.g. leaks, fugitive emissions, etc.). However, when combusted, methane gets converted to CO<sub>2</sub>, H<sub>2</sub>O, CO and a small amount of CH<sub>4</sub> may remain in the combustion plume and contribute to GHG together with CO<sub>2</sub>. When combusted it emits significantly less greenhouse gases than other</p>

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			<p>assume something close to 260 million ton-equivalents of greenhouse gas emissions.</p> <p>The Social Cost of Carbon – i.e. an assessment of damages per ton – is hotly contested. Barack Obama’s administration assessed it at \$51/ton but that is expected to rise dramatically in 2022 revisions. The IMF estimates \$60/ton. The European Union currently has an Emissions Trading Scheme price closer to \$100/ton. But the latest research by scientists suggests \$3000/ton is more accurate.</p> <p>If we set the Social Cost of Carbon at \$3000/ton, and there are 260 million tons of CO<sub>2</sub>- equivalents that could be released from all the gas to be extracted in Transkei-Algoa alone, the Social Cost of Carbon would be \$780 billion. Set against the gross (not net) income from a billion barrels claimed by the Impact CEO above, valued at \$32.7 billion (before costs are subtracted), this extraction obviously doesn’t make sense if we take seriously full cost accounting.</p> <p>Comparisons in this exercise, where the applicant (Total’s regular South African and Namibian partner Impact) was honest enough to admit likely deposits of a billion barrels, are appropriate if we take the billion barrel numeraire, so that if there is \$32.7 billion in gross income and the Social Cost of Carbon associated with that extraction is \$780 billion, then the damage being done for every barrel equivalent extracted, is 23 times the net income.</p> <p><b>4. Further calculations not yet undertaken in the exploratory drilling proposal</b></p> <p>In addition to a missing Social Cost of Carbon estimate, other shortcomings are obvious. Natural capital accounting and the National Environmental Management Act’s commitment to the polluter pays principle are not referenced. It is imperative for the</p>	<p>fossil fuels, such as coal, which is the main fuel used to generate electricity in South Africa. The potential impacts on air quality and climate change are assessed in Section 9.1.1.1 and 9.1.1.2, respectively.</p>

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			<p>SLR exploration assessment to undertake full cost accounting on even the roughly-estimated CO2-equivalent emissions that are implied by any oil and gas exploration. No such estimates are attempted.</p> <p>To illustrate the danger of omitting natural capital, the Gaborone Declaration – signed in May 2012 by South African Environment Minister Edna Molewa – recognised “the limitations that GDP has as a measure of well-being and sustainable growth.” The signatories committed to “integrating the value of natural capital into national accounting and corporate planning.” For the sake of planning oil and gas extraction, SLR must take the Gaborone Declaration’s mandate seriously, not ignore it.</p> <p>There are additional costs that SLR should be considering, including the associated infrastructure to process, transport and combust natural gas for South Africa’s grid (since the TotalEnergies application rests upon LNG’s potential use as a “transitional” fuel to be deployed by Eskom or private suppliers such as Karpowerships. But a recent estimate by the International Institute for Sustainable Development of infrastructural costs associated with the most basic attempts to provide methane gas infrastructure – including gas plants, floating storage and regasification units, LNG terminals and pipelines – is in the \$13-17 billion range. Were such infrastructure built (without cost and time overruns, corruption and other economic, social and environmental drawbacks that bedevil South Africa the mega projects), it would quickly assume the status of a “stranded asset,” insofar as the broader costs of such investments to the rest of the economy – especially exporters – would soon become obvious.</p>	<p>This exploration project is not a long-term project. There is no risk of stranded assets for this exploration project. As noted above, possible impacts from future production are not assessed in this ESIA. They would be considered, as part of a separate Environmental Authorisation application, should exploration identify a commercial resource and</p>

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			<p>The claim that gas is a “transition” or “bridge” fuel was debunked yet again by a Bloomberg reporter in a February 2022 article entitled, “The case against methane emissions keeps getting stronger,” warning of the dangers of CH<sub>4</sub> emissions, which in the critical next 20 years are measured as 85 times more potent a greenhouse gas than CO<sub>2</sub>. The urgent need to reduce methane emissions by at least 45 percent during the 2020s so as to prevent global warming in excess of 2 degrees is not in question, for example at the United Nations Environment Programme, which records important public health co-benefits: “switching away from gas would reduce carbon dioxide and volatile organic compound emissions” that are causes of additional threats to public health.</p> <p>One argument on behalf of gas rests upon the back-up role played in the event of cloudy or windless days, and at night. For this purpose, however, already 2724 MW are available to Eskom in the form of pumped storage capacity in which water is lifted uphill by energy during the day, allowing for hydropower to generate electricity on its way down. (For context, demand on a typical winter day is rarely above 30 000 MW, hence at full capacity, pumped storage can provide 9 percent of the grid’s power</p>	<p>production be proposed by an applicant. A domestic resource, should it be discovered, could in fact be used by an existing asset (e.g. PetroSA GTL refinery in Mossel Bay). At the DFFE, DMRE and PASA pre-colloquium event held on 15 July 2022 to discuss how South Africa's climate change commitments translate to its energy policies, it was mentioned that the existing GTL refinery in Mossel Bay could be seen as a stranded asset if it does not obtain additional gas, as it is no longer processing gas.</p> <p>Mr Bond's comments and opinion on the project's need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p>

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			<p>already). In addition, the mining and smelting firm that has been Eskom’s largest consumer, Anglo American (with current iron ore, platinum and diamond mining), has committed to using 100 percent renewable energy by 2030. Anglo’s deal with Electricité de France Renewables calls for 3 to 5 GW of solar, wind and storage. And the single largest Eskom customer, BHP Billiton’s South32 subsidiary – for its Hillside smelter (aluminium) at Richards Bay – is seeking zero-carbon alternatives including energy storage.</p> <p><b>5. The climate-sanctions implications of ignoring full cost accounting</b></p> <p>One simple reason to carry out such accounting is the point made by President Cyril Ramaphosa on October 11, 2021, explaining the danger to the economy of further fossil fuel development. Ramaphosa referenced the “Carbon Border Adjustment Mechanism” (CBAM) that will be imposed by Western importers of South African goods, in his Presidential letter advocating a low-carbon economy and Just Transition for affected workers and communities:</p> <p>“As our trading partners pursue the goal of net-zero carbon emissions, they are likely to increase restrictions on the import of goods produced using carbon-intensive energy. Because so much of our industry depends on coal-generated electricity, we are likely to find that the products we export to various countries face trade barriers and, in addition, consumers in those countries may be less willing to buy our products.”</p> <p>He is not alone. Isaah Mhlanga, chief economist at Alexander Forbes, wrote in May 2022 that</p> <p>“SA must cut carbon emissions quickly – to protect its own economy: Carbon taxes will be applied and markets will be closed</p>	

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			<p>to those goods that have a high carbon content... SA will need to decarbonise faster to protect its exports, and thus economic growth. This is necessary because it's a matter of time before carbon taxes are levied on all sorts of goods, and markets will be closed to those goods that have a high carbon content. Even though SA has not contributed the largest share of carbon emissions by global standards, it must adjust at the fastest rate possible, not necessarily to be a leader in efforts to move to net zero, but to protect its economic interests."</p> <p>The private sector consumers of Eskom understand this threat, as well. Climate-related trade disincentives will, according to even a South African Treasury report in August 2021, soon create major vulnerabilities for exporters of iron and steel, cement, fertilizers, aluminium and automobiles. This problem will be amplified if a coal-to-methane gas transition occurs, not only because methane is a far more destructive greenhouse gas than CO2. Pro-methane advocates point out that European (especially French) elites claim that "natural gas" and nuclear energy should both be considered "green" (in the official EU taxonomy), a July 2022 decision that revealed the many dangers of dependency on Russian gas imports and need to replace these instead of moving earlier to full-fledged renewable energy. Nevertheless, the likelihood of CBAM climate sanctions strengthening against both methane gas and indirect "embedded" emissions (i.e. the use of Eskom's high-fossil energy generation in production), is inevitable, and will affect all future South African exports.</p> <p>Thus BHP Billiton's potential "wheeling" of electricity to its smelter originating in pumped storage at the proposed Tubatse scheme arises as a result of the threat of climate trade sanctions, according to Mining Weekly. As the leading mining magazine reported in</p>	

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			<p>early 2022, “the emergence of carbon border tariffs and end-user demand for green aluminium... could send the price of unabated aluminium sky-high owing to the large quantity of electricity that is required for aluminium to be produced.” There is, of course, a more general case for rationing electricity and therefore disconnecting the South32 aluminium smelter and other guzzlers, contemplated even in the business media, given the irrationalities of the status quo.</p> <p>In each case, South African economic development requires full cost accounting to assess whether, at a time coal-fired power plants are going to be retired early, their replacement by methane gas may exacerbate South Africa’s vulnerabilities. Bearing in mind the likelihood of climate sanctions if our economy remains reliant upon fossil fuels, the Social Cost of Carbon is the most appropriate polluter-pays metric to judge the full costs of the proposed exploration to be followed by exploitation and combustion.</p> <p>6. The U.S. precedent for incorporating climate-related costs (January 2022)</p> <p>In January 2022, Judge Rudolph Contrera of the Washington, DC U.S. District Court insisted that</p> <p>the full-cost accounting was not complete in the Trump administration’s permission to drill for offshore oil and gas. The Biden administration, had according to Judge Contrera, admitted that “current programs fail to adequately incorporate consideration of climate impacts into leasing decisions or reflect the social costs of greenhouse gas emissions.” Moreover, the judge found that Trump’s administration had ignored “new evidence demonstrat[ing] that existing operations in the Gulf of Mexico emit twice the amount of methane than previously thought.”<sup>20</sup></p>	




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			<p>7. Total as not “fit and proper” to carry out further fossil fuel extraction</p> <p>Finally, there is a terribly important question to pose, as South Africa’s finally grapples with private-sector corruption of its state apparatus, a problem that in December 2022 is seen as acute given impeachment proceedings against President Ramaphosa that began on 6 December, and an outstanding Zondo Commission on State Capture recommendation that Mantashe be investigated and potentially prosecuted for his own alleged corruption by the firm Bosasa during the 2010s when he was ANC Secretary General.<sup>21</sup> As a result, it is vital to enquire whether TotalEnergies is a fit and proper company, to be given responsibility for such extremely dangerous offshore gas and oil drilling. This is especially true, given SLR’s failure to engage in rudimentary analysis about the implications, in relation to humanity’s greatest crisis.</p> <p>After all, when it comes to the Paris firm’s integrity in relation to climate change, historians Christophe Bonneuil, Pierre-Louis Choquet and Benjamin Franta note that beginning in 1971, Total’s (and its predecessors’) scientists issued initial internal warnings of rising sea levels due to CO2 concentrations, and these were systematically ignored, followed by “overt denial of climate science... from at least 1989 to 1994.” This was followed by “multiple and subtler forms of agnogenesis, such as willful ignorance, responsibility-shifting, strategic philanthropy, promotion of peripheral solutions, and corporate controversy management... [with] a flow of complex, technical information that is difficult to interpret or challenge, helping Total to put the burden of proof on its critics and keep the upper hand in climate controversies.”<sup>22</sup> Only in the mid-2000s, did the firm endorse the UN’s Intergovernmental Panel on Climate Change.</p>	<p>7. Response provided by TEEPSEA: According to the Net Zero scenario put forward by the International Energy Agency (IEA), hydrocarbons are set to account for half of the world’s energy needs in 2030, and will decrease below 20% in 2050. Natural gas is genuinely a transition energy that allows for the ramp up of renewables and provides sustainable fuels in the mobility sector (natural gas for vehicles, marine LNG, etc.). Hence, it plays its full role in TotalEnergies strategy to meet global energy needs. As a multi-energy company present across the entire oil and gas value chain, TotalEnergies aims to provide hydrocarbons that are more affordable, more reliable, cleaner and accessible to as many people as possible. In an industry with an ever-growing number of constraints, TotalEnergies is harnessing its expertise and innovation capabilities to prepare the future of energy for the planet. When working to provide competitive responses to today’s energy issues and secure tomorrow’s energy solutions, TotalEnergies strength lies in its ongoing process of innovation. Already a top-tier operator, TotalEnergies has set itself a number of technical priorities to strengthen its leadership in deep offshore oil and gas. These include reducing its development and operating costs, fine-tuning innovative production and drilling technologies for use in ultra-deep offshore fields (1 500 m and deeper), and managing industrial risks and impact on the environment.</p>

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			<p>To illustrate, just before the 2015 COP21 summit in Paris, the company promoted global carbon pricing, to be administered by the United Nations (although as was accidentally revealed later by an ExxonMobil lobbyist, this was a strategic distraction – not a serious proposal – since it was extremely unlikely to be adopted).<sup>23</sup> But the flows of money within Total are revealing, for although in early 2016, Pouyanné announced “One Total 2035” allegedly consistent with the Paris Climate Agreement’s ambition to keep warming to below 1.5 degrees in the 21st century, Total was meanwhile investing in many other reserves. For Choquet, this is because the “persistence of short-termed compensation schemes in the higher corporate hierarchy impedes the elaboration and implementation of deep decarbonisation strategies at the firm level.”<sup>24</sup></p> <p>Hence from 2015-19, Total invested \$77 billion in oil and gas capital infrastructure, compared to \$5 billion in non-fossil fuel energy sources. According to the Reclaim Finance project of Les Amis de la Terre France, this trajectory – which Total admits includes its rising fossil portfolio up to a 2024 peak – would mean the company overshoots by 32 percent the level of greenhouse gas emissions in 2050 consistent with a 1.5°C degree rise. As a result, Greenpeace France, Notre Affaire à Tous, Les Amis de la Terre and ClientEarth sued Total in March 2022 for deceptive marketing, arguing that Pouyanné’s publicity campaign “violates European consumer law by falsely portraying the company as being on track to achieve net zero emissions.”<sup>25</sup></p> <p>To be sure, in mid-2020, Pouyanné’s write-off of \$7 billion worth of Canadian oil sands project reserves raised expectations, because as industry analyst Gerard Kreeft remarked, “with one swoop of a pen, Total cast aside the petroleum classification system, which</p>	

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			<p>was the gold standard for measuring oil company reserves. The company simply decided that these reserves could never be produced at a profit.”<sup>26</sup> The tar sands were among the world’s most expensive petroleum sources. But so too were Russian assets, including \$4.1 billion in a Siberian gas project that Pouyanné belatedly and grudgingly wrote down in April 2022 following Western sanctions against Moscow caused by the invasion of Ukraine (during a three-month period when thanks to skyrocketing oil prices Total recorded profits of \$9 billion).<sup>27</sup></p> <p>Also expensive, especially for the environment, society and political rule, were Total’s Southern and Central African fossil investments dating back seven decades in Portuguese-ruled Angola. Today, Total is suffering losses at various sites in the region, due to a military conflagration in Mozambique and a sharp rise in environmental and social opposition to its exploration and extraction in South Africa. In Angola, Total has operated since 1953 and has 1600 employees, producing 45 percent of the country’s oil output.<sup>28</sup> In Angola as well as Nigeria, Gabon, Congo- Brazzaville and Cameroon, oil-related corruption was prolific. One of Total’s former (pre- merger) subsidiary firms – French state-owned Elf Aquitaine – robbed the peoples and environments with exceptional irresponsibility.<sup>29</sup></p> <p>One scandal, entailing at least 305 million euro in misappropriation of assets (considered France’s worst corporate behavior on record), occurred during President François Mitterrand’s 1981-1995 term. It implicated his ally Loïk Le Floch-Prigent (Elf’s leader from 1989-93) and 29 other executives including Alfred Sirven, Alain Gillon and André Tarallo (whose nickname was “Mr. Africa” because of personal connections to the continent’s tyrannical</p>	

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			<p>rulers). In 2003, they received multiple-year jail sentences and paid tens of millions of euros in personal fines.<sup>30</sup></p> <p>While the Luanda government was at war with a rightwing guerrilla army – the National Union for the Total Independence of Angola (UNITA) – originally promoted by South Africa’s apartheid regime and the U.S. Central Intelligence Agency, Total gave UNITA founder Jonas Savimbi generous funding prior to his death in 2002.<sup>31</sup> As Global Witness reported, Total’s leadership “bribed politicians, interfered in elections and lured governments into ruinous oil-backed loans in an attempt to protect the company’s market share. By funding both sides in Angola’s civil war, Elf helped to prolong a conflict that cost an estimated 1.5 million lives and displaced millions of people.”<sup>32</sup></p> <p>In this context, Total’s current leader Pouyanné began his career as Elf’s Angola manager in 1997 at the age of 34, during one of the worst epochs of corrupt neo-colonial extraction. The country’s president, José Eduardo dos Santos, was already in power 18 years and due to stay another two decades, until 2017. During the two years Pouyanné served in Angola, the Luanda regime was already being accused of massive oil-related corruption, for as Human Rights Watch (HRW) reported, “More than \$4-billion in state oil revenue disappeared from Angolan government coffers from 1997 to 2002, roughly equal to the entire sum the government spent on all social programmes in the same period.”<sup>33</sup> In 2003, Angola was ranked by Transparency International as among the world’s ten most corrupt states.</p> <p>Matters did not improve even after peace was achieved in 2002, for the International Monetary Fund discovered unaccounted spending (mostly in the petroleum sector) of \$32 billion from 2007-10, leading HRW to criticise “corruption and</p>	

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			<p>mismanagement, including in connection with the state oil company, Sonangol.”<sup>34</sup> By 2013, Dos Santos’ eldest daughter Isabel – “Africa’s richest woman” – was exposed for her dubious acquisition of \$3.5 billion in wealth by Forbes, through family-state enterprises.<sup>35</sup></p> <p>Isabel’s father nevertheless appointed her to run Sonangol in mid-2016, and when meeting Pouyanné later that year, as she put it, “we spoke for several hours, and from there was born an intense working relationship and mutual support.”<sup>36</sup> In October 2017, as Pouyanné tweeted, they met again to “decide Total’s future projects in Angola,” at a time the French firm was responsible 40 percent of the country’s oil production.<sup>37</sup> But a month later Isabel was fired by Dos Santos’ successor João Lourenço, during an anti-corruption crackdown. She was further exposed in the “Luanda Leaks” along with her pliable accountants PwC, Boston Consulting Group and McKinsey,<sup>38</sup> and by 2019 became the target of anti-corruption proceedings in Luanda as well as in Lisbon and Paris, resulting in a freeze of all her known assets.<sup>39</sup> In November 2022, Interpol issued a “red notice” for her arrest on grounds of embezzlement, fraud, influence peddling and money laundering.<sup>40</sup></p> 	

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			<p>Meanwhile, the country's oil reserve in the offshore Cabinda fields was steadily depleting. With Sonangol nearing bankruptcy in late 2016 in part due to the state's Chinese borrowing (backed by oil as collateral), big oil companies complained of non- payment, and the number of offshore rigs fell from 18 to 2 from 2014-17.<sup>41</sup> As one Reuters specialist put it, "The search for the 'Angolan pre-salt' resulted in some of the most expensive dry wells ever drilled and sapped exploration appetite. Critics say the situation was exacerbated by Isabel dos Santos."<sup>42</sup> Total's joint ventures with Sonangol, Equinor (Norway), ExxonMobil and BP in older oil fields continued, and a national oil agency optimistically predicted that 2022-27 would see \$66 billion in new investments in the sector, up 40 percent on the prior five years.<sup>43</sup> Yet in late 2021, Pouyanné's attempt to revitalise Total's stake in deeper waters failed, when offshore drilling at an unprecedented depth – 4.6 km below the sea – failed to pay off.<sup>44</sup></p> <p>Moving to Mozambique, Total has been the main force not only in relation to gas extraction but also the construction and security arrangements in Cabo Delgado, specifically the Afungi Peninsula and nearby Palma, where terrible battles have raged since 2017 as a result of community and Islamic insurgencies. In March 2021, when social conflict became severe, as veteran journalist Alex Perry recounted, the Paris firm put its narrow self-interest above that of nearby villagers and its own contractors. By that point,</p> <p>Total knew to expect an attack in Mozambique. It knew that from its long experience with oil and gas as a flash point for conflict, especially in Africa, and in particular when a company employed the incendiary approach it adopted in Mozambique: cut a deal with a government known for corruption, keep the profits, and share as little as possible with the population... Perhaps most</p>	

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			<p>damning, Total knew an attack was likely coming, and that any bloodshed would affect all of Palma, because three months before it happened, the company's own advisers warned that it could.<sup>45</sup></p> <p>In January 2021, Pouyanné signed a deal with the government of President Filipe Nyusi – which was then ranked by Transparency International within the top 20 percent of the world's most corrupt regimes<sup>46</sup> – for military protection. Total managers rapidly made space in the Afungi Peninsula compound to house 700 soldiers and 12 Ukrainian mercenaries with helicopters. The soldiers patrolled, but as one contractor complained to Perry, "We'd come across them midweek on the road. AK in one hand, bottle of beer in the other, motherless drunk." By March 24 that year, "Total passed word that its staff would resume operations at Afungi" after many had been evacuated three months earlier due to insurgent attacks near the complex.<sup>47</sup> Also by then, the Mozambican government also recognised its own military's incapacities, having first hired Moscow mercenaries (the Wagner Group) who suffered high casualty levels – a dozen Russian deaths and two dozen injuries – in late 2019 and soon left.<sup>48</sup> They were soon followed</p> <p>by the South African firm Dyck Advisory Group, which complained that its attempt (in late March 2021) to rescue Total subcontractors under attack by Al-Shabaab were foiled by Total, whose "refusal to give fuel to rescuers trying to save civilians was stunning, and crippling." Indeed several thousand local residents went to the Afungi fortress but were turned away by guards. As Perry concluded,</p> <p>What Total also did, in employing drunk soldiers and security advisers who failed to sound a timely alarm, closing its gates to fleeing civilians, and locating its worker camps outside Afungi while its principal contractor relocated inside, was to show that, as long</p>	

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			<p>as it was protected, it didn't feel responsible for anyone else. Total employed the very people it would later exclude to build the very structures that would later exclude them... Total announced no compensation and sent no public message of condolence. By its own count, it helped evacuate just 2,100 people, a mere 4 percent of those who had fled Palma.<sup>49</sup></p> <p>Total's force majeure in late April 2021 meant the firm could reject its contractual obligations and avoid liabilities, causing chaos and anger in Cabo Delgado and ridicule elsewhere.<sup>50</sup> But Perry's critique – from the standpoints of local community residents and international contractors abused by Total – reflected only one side of the story. Other critics demanded a different approach to the offshore methane gas: leaving it be. For example, Maputo-based political economist Tomas Selemane offered an essential rationale for a Just Transition instead of Total's resource curse: "There is no military solution to the conflict which has exploded in the gas-rich northern province of Mozambique since 2017. It will end only by addressing its root causes, among them, extreme poverty, unemployment, lack of health and education services, and lack of water supply."<sup>51</sup></p> <p>While Southern African and Rwandan troops were deployed at Emmanuel Macron's request in mid-2021, they have not quelled the violence. In mid-2022, the insurgency revived just south of the Afungi Peninsular. Over the course of two weeks, a dozen attacks left 16 people dead and caused 11,000 to flee. Two Australian graphite mines closed down temporarily. The more aggressive Rwandan troops displaced the fighting from the coastal zone of Cabo Delgado to areas slightly to the west, as the guerrillas moved easily into forested terrain. But in May 2022, sporadic Al-Shabaab attacks continued, including a food raid on the town of Olumbe,</p>	



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			<p>just 20 kilometers from Afungi.<sup>52</sup> The influential Eurasia Group consultancy concluded, “The potential for Islamic State to provide funding and resources to the insurgents and the possible arrival of reinforcements from Tanzania will likely strengthen the insurgency, making the resumption of the liquefied natural gas exploration project in the next 12 years unlikely.”<sup>53</sup></p> <p>Total may continue to partner with the South African/U.S.-firm Sasol in extracting and processing Mozambican gas. The two-decade long gas extraction from Sasol’s Pande offshore field in the centre of Mozambique was beginning to wane as depletion rates rose. The main consumer of that gas is Sasol’s facility in Secunda, which remains the single largest point source of CO2 emissions in the world and also an extreme local pollution hotspot (especially SO2 and NO), in part because of inefficient operations whose roots are illustrative of South Africa’s “minerals energy complex.”<sup>54</sup> Sasol had grown most rapidly during the 1970s, given the state’s need to avert United Nations-mandated anti-apartheid oil sanctions. The firm used a technology Nazi Germany had devised to squeeze oil from coal.</p> <p>At the end of the existing pipeline running from Mozambique to South Africa – through the central and southern part of the country – is a massive petrochemical complex at Sasolberg, including the Natref refinery which is mainly owned by Sasol but 36 percent by Total. However, the South African refining industry suddenly went into decline in the 2020s, given new petrol and air quality standards and the inability of the old refineries to justify crude imports, given that refined imports were cheaper from the world’s mega-refineries. As a result, even the two operations in Africa’s largest refining complex, South Durban – one jointly owned by BP and Shell and the other by Malaysia-based Petronas</p>	

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			<p>with Nhleko as partner – shut down in April 2022 and December 2020, respectively. Natref’s fate depended in part upon whether a massive pipeline from Durban to Johannesburg could be retooled in a manner that justified further refinery contraction on sound economic grounds.<sup>55</sup></p> <p>Moreover, the other element working against Total’s operations at Natref was growing anti- pollution sentiments from local residents of Sasolburg and their national NGO and legal allies.<sup>56</sup> In mid-2022, a shortage of crude petroleum available in Transnet pipelines from Durban meant the 108,000-barrel-a-day Natref refinery shut down temporarily. Break-ins and tampering with pipelines are so common that in 2019-20, Transnet acknowledged 8.5 million liters were stolen by fuel syndicates.<sup>57</sup></p> <p>But it was on South Africa’s Atlantic coastline that Total generated most eco-social resistance in early 2022, when its plans for seismic blasting became clear. Working in conjunction with Impact Africa and a tiny company, Sezigyn (run by three men whose other online presence was in providing funeral services in rural villages in the country’s far north), Total chose a 3- dimensional exploration area (i.e. using much more intense, targeted blasting of the ocean floor). The leading public-interest lawyer in the movement, Wilmien Wicomb from the Legal Resources Centre in Cape Town, clarified how a judgement made against Shell two weeks earlier “confirmed the right of interested and affected communities to be consulted meaningfully, which includes the opportunity to voice their concerns about the proposed project and to have those concerns adequately addressed.” Total’s local partners (especially Impact Africa and Sezigyn in the 3-D zone but all the other clients of Seismic Searcher) had simply ignored their obligations, especially in relation to Wicomb’s subsistence-fisherfolk clients.</p>	

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			<p>In the same week, a “Scientific Advisory Group on Emergencies” within the Academy of Science of South Africa firmly weighed in against seismic blasting on marine-conservation grounds, detailing why “There is a reasonable apprehension of real harm to marine life.” Their case was based on the “lack of sufficient, detailed scientific information on South Africa’s offshore marine resources (both biotic and abiotic), and a flawed legal distinction between substance- based pollutants and energy-based pollutants, such as sound.”<sup>58</sup></p> <p>These lines of argument proved successful in five out of six early-2022 High Court judgements – mainly injunctions against further seismic blasting – and were backed by dozens of protests attended by people of diverse races, classes and ages, with different agendas in attempting to halt Total, Shell and local partners. On 1 September 2022, the Makhanda High Court found in favour of Shell’s critics, on various grounds including those excerpted above.</p> <p>One reason for the oil companies’ defeat is that they were seen to have potentially negated good governance through financial contributions to the ruling party, whose chairperson since 2017 has been the Minister of Mineral Resources and Energy, Gwede Mantashe. His role was seen as especially obnoxious, and as a result of his attempt to libel oil company critics, Mantashe forfeited his own right to play a regulatory role in adjudicating community and environmental complaints.</p> <p>Whether or not Mantashe felt financial influences, Shell had been implicated in making a R15 million donation (via Batho Batho Trust) and as Rob Rose of Business Day explained Judge Gerald Bloem’s finding in January 2022, that “Mantashe had ‘nailed his colours to Shell’s mast’ when he accused those</p>	

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			<p>opposing Shell – including black fishing communities – of ‘apartheid and colonialism of a special kind.’ Speaking of Mantashe’s ‘emotive language’ in the judgment, Bloem said ‘it appears the minister had made up his mind’.”<sup>59</sup> Likewise, Total’s two main local partners - Johnny Copelyn, the chair of Impact Oil (parent of Impact Africa), and Phuthuma Nhleko of Pembani Group (the firm that bought the main Shanduka holdings from Ramaphosa in 2014-16) – both donated R2 million to the Cyril Ramaphosa African National Congress presidential campaign, thus also appearing to have gained influence through donations to the ruling party.<sup>60</sup></p> <p>Corporate social responsibility is insufficient as a system of accountability, even including France’s 2017 Law on the Duty of Vigilance (based on the UN Guiding Principles on Business and Human Rights). The latter is described by Antoine Duval from the Asser Institute as “apologetic and acritical... [joining] a long tradition of processes aimed at limiting the actual responsibility of corporations.” Three NGOs critical of Total’s role in the East African Crude Oil Pipeline (linking Uganda and Tanzania) – Les Amis de la Terre, the Ugandan National Association of Professional Environmentalists, and the Africa Institute for Energy Governance – together filed a legal complaint against Total as a result.<sup>61</sup></p> <p>It should be abundantly evident that a “fit and proper” corporation test is overdue for TotalEnergies (and partners Impact Africa and Pembani, especially in the Brulpadda area, given their presumed influence – as major campaign donors – over President Ramaphosa). Such an examination would confront a recent past that, over the past quarter century, suggests the environmental, social, political and economic impacts of its oil and gas businesses are in severe conflict with sustainability and good governance.</p>	

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			<p>Firms in the extractive industries should be considered as, in essence, outsourced service providers. After all, the state owns the minerals and fossil fuels in South Africa’s political territory (including offshore exploration sites). This perspective would allow management of natural resources in a very different manner, and would allow for the transparency that is now lacking (including in environmental impact assessments). The government should be considered the principal, with the citizenry acting as the custodians or trust beneficiaries, who in turn have the right to demand from service providers fit and proper behaviour. Given Total’s record, it is hard to imagine that if there were a genuine opportunity to bid for the extraction of South Africa’s natural resources, it could be considered a serious candidate.</p> <p>8. Conclusion</p> <p>This submission has focused on the climate damage implicit in the exploratory well drilling, but additional critiques by civil society and other researchers relating to the impact on biodiversity, marine life, local economic development in areas with highly-vulnerable eco-tourism assets (e.g. fishing), and (non) consultation, are of enormous importance. But again, to remind of the stakes associated with climate damage, Southern Africa was from 2000-19 the worst-hit region within Africa, as Mozambique was considered the world’s fourth most damaged country, especially as a result of the two cyclones in 2019.<sup>62</sup> And the continent’s largest greenhouse gas emitter, South Africa, also suffered climate disasters during the 2010s, including sustained droughts in several parts of the country (resulting in a severe locust plague in 2021-22 once rain came), a “Day Zero” threat of completely depleted water reserves in the second city of Cape Town in 2017-18 and in several Eastern Cape cities in mid-2022, and four “Rain Bombs” of more</p>	

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			<p>than 100 mm/day in Durban: in 2017, 2019 and twice in 2022. The April-May storms dropped 351 mm and 267 mm, killing more than 500 people in mudslides.</p> <p>SLR's failure to address aspects of the climate catastrophe and environmental economics discussed above, as well as its failure to confront the various ways Total fails a "fit and proper" partner test, together suggest willful blindness. Due to the failure of the proposal to properly consider the full cost accounting required for such a vital natural resource (one that should also entail rudimentary natural capital accounting), due to the adverse impact on the rest of the economy as climate sanctions are imposed, due to the new precedents in which precisely such calculations led to cancellation of gas and oil offshore exploration in the United States and South Africa's Indian Ocean, and finally due to Total's status as unfit and improper, the SLR team working on Total's exploratory drilling proposal must take responsibility for redoing the work by addressing these numerous shortcomings.</p>	<p>SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts including those related to an unlikely oil spill and National strategic policy issues relating to energy and climate change, as well as public opposition to oil and gas development and other legislation (e.g., ICMA).</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p>
64.	Jennifer Olbers / Jean Harris	07 December – Email attachment	<p>Dear TEEPSA 567 ESIA Stakeholder Engagement Team,</p> <p>Submission of comments on the Environmental and Social Impact Assessment (ESIA) for Exploration Well Drilling in Block 5/6/7 off the South-West Coast of South Africa</p> <p>Thank you for the opportunity for WILDOCEANS, a programme of the WILDTRUST, to review and comment on the Environmental and Social Impact Assessment (ESIA) for the above-mentioned application. We would like to state upfront that we are extremely concerned about the proposed exploration activities that pose a serious risk and threat to marine biodiversity and livelihoods of coastal communities off the coast of South Africa and object to this application.</p>	WildOceans's objection is noted, which will need to be taken into consideration by the Competent Authority in the decision-making process.

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			<p>TIME PERIOD OF FULL EXPLORATION DOWNPLAYED</p> <p>It is of concern that the full period of exploration is being downplayed and not communicated openly. The application requires the reader to undertake calculations to understand the full duration of the project. Based on a simplistic calculation, the full project would take no less than 2.5 years to complete, i.e.</p> <p>Mobilisation: [45 days (x5 wells)] = 225 days  Drilling: [90 days per well (x5 wells)] = 450 days  Appraisal well [1 well] = 120 days  Well plugging: [15 days (x5 wells)] = 75 days  Demobilisation: [10 days (x5 wells)] = 50 days  Total Duration = 920 days (~2.5 years)</p> <p>UNDERWATER NOISE</p> <p>The ESIA acknowledges the various sources of noise generated by vessels, well-drilling operations and the Vertical Seismic Profiling, all fall within the hearing range of most marine fauna, including fish, mammals and reptiles, are audible and detrimental through risk of physiological injury or behavioural changes. It is of concern that over the past 15 years, stakeholders have been highlighting the problem that there are no ocean noise studies in the South African context being undertaken by industry or government. It is imperative that the various companies who continue to explore these fossil fuels begin to contribute to this massive gap in knowledge.</p> <p>DRILLING DISCHARGES MODELLING</p> <p>Although the modelling recognises a high environmental risk (at Point 1) where maximum concentrations of cuttings containing Barite and Bentonite calculated at the end of operations for each</p>	<p>It is clearly stated in the ESIA Report that the timeframes presented are per well. Since it is likely that TEEPSA will only drill one well a year, and not five back-to-back wells, the timeframes have been reported per well.</p> <p><u>Underwater Noise:</u> This comment relating to industry contributing to research is noted.</p> <p>The impact of noise has been modelled and assessed in the ESIA - refer to Section 9.2.3. The assessment takes cognisance of the estimated zones of impact for injury and disturbances in relation to various sensitivities (e.g. spawning areas, MPAs, key fishing areas, etc.). It should be noted that the underwater noise modelling study takes the current ambient noise levels into account, which are in fact 10 dB higher than the lowest level and are considered within the cumulative noise impact models.</p> <p><u>Drilling Discharges Modelling:</u> The cuttings discharged at the seafloor remain for up to 10 years (long-term impact) based on the weak seabed currents in the area. Thus, resuspension is limited.</p>

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			<p>season are high, it is not made clear if these cutting are disturbed years later, and what the implications would be if/when they re-enter the water column.</p> <p>OIL SPILL MODELLING</p> <p>It is clear that there is a risk of an oil spill during drilling as well as a potential blow out. The interpretation of the oil spill modelling in the impact assessment document severely downplays the oil spill modelling report. The probability of oiling on the coastline is severe (ranging between 60-99% probability) i.e.:</p> <ul style="list-style-type: none"> <li>• Where Season 3 has the highest shoreline probability of oiling (up to 99%), due to stronger northward currents and winds from NW, especially during June and July, driving the oil towards the shoreline in an easterly direction. Consequently, the west coast of the Cape Peninsula has the highest probability of impact during winter.</li> <li>• Season 2 and Season 4 have a significant shoreline oiling probability (up to 89% and up to 83%, respectively).</li> <li>• Season 1, the shoreline oiling probability is the lowest (up to 60% in general, and up to 15% for the west coast of the Cape Peninsula) due to NW surface currents (Benguela Current) and predominant winds from the SE, driving the oil towards offshore waters.</li> <li>• Arrival time of spilt surface oil on to the shore can range between 1 and 20 days.</li> <li>• For Release Point 1 the most impacted shoreline would be the coast from St. Helena Bay to the Cape Peninsula, including</li> </ul>	<p><u>Oil spill modelling:</u> The assessment of an unlikely large oil spill does not downplay the results of the Oil Spill Modelling Study. The assessment provided in Chapter 10 of the ESIA Report provides just a summary of the modelling report. All the detail referred to in this comment is presented in the full report, which is appended to the ESIA Report. All details are available for review. Further to this, based on the results of the modelling study, the impact of an unlikely oil spill is assessed to be of very high significance on the marine and coastal environments.</p>



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			<p>North of Cape Town, and sometimes further south reaching Hermanus.</p> <ul style="list-style-type: none"> <li>For Release Point 2, the most impacted coastline would be from Hermanus to Cape Agulhas.</li> </ul> <p>Despite the use of dispersants, the probability of deep-layer contamination is also severe.</p> <ul style="list-style-type: none"> <li>At Release Point 1 there is a 90% probability of contamination up to 18 km (with a maximum distance of 61 km to the south east, and 114 km to the north west). Up to maximum depths of 400 – 420 m.</li> <li>At Release Point 2, the contamination area extends up to 18 km south east (90% probability for Season 1), but with a maximum distance of 62 km south east for Season 4, and maximum depths of 980 – 1 000 m.</li> </ul> <p>Furthermore, the predicted quantity of oil expected to reach the shore is not highlighted in the impact assessment document. Even in the best-case scenarios, where minimum values are used (i.e. 757 - 4414 tons of onshore oil) will devastate fisheries and coastal community livelihoods.</p> <p>Given that drilling operations will be for approximately 2.5 years and accidents are unpredictable, these results should be clearly indicated and communicated to coastal communities and users of the oceans space, the risks are currently lost in a technical report.</p> <p>SOCIO ECONOMIC ENVIRONMENT</p> <p>The document suggests that exploration drilling for oil and gas will not have any immediate impact on South Africa's energy security. Furthermore, it is not likely to create long-term jobs. It is</p>	<p>The predicted maximum quantities of oil reaching the shore are presented in the oil spill modelling Report - refer to Appendix 7 in Volume 2.</p> <p><u>Socio-economic environment:</u> Correct, the proposed project is for exploration and not production. Thus, it will not have any immediate impact on South Africa's energy security. It will, however, determine if a resource exists. Any future extraction that could potentially play a part</p>

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			<p>concerning that although there is no demonstration of significant economic benefits to this project going ahead to the general public, the various sectors (fisheries, tourism etc) bear the risk of an oil spill. In the case of a spill, TEEPSA will call upon their insurance company to financially cover clean-up operations etc, while livelihoods could be devastated for decades. The impacts of a catastrophic spill on the broader South African economy have not been described or quantified.</p> <p>It is of concern that public health and safety for “accidental hydrocarbon spills / releases (minor) waste management and air emissions” are scoped out of the matrix. Even minor spills are not always benign events, surely the purpose of the ESIA is to assess all spills so that mitigation measures and decision- making can be thoroughly informed. It would also make sense that a cost-benefit analysis for the region is undertaken.</p> <p><b>EMERGENCY RESPONSE</b></p> <p>Articulating opinions in an ESIA such as an event of a magnitude similar to Deepwater Horizon can never happen again because technology has advanced, highlights the lack of consciousness of concern for communities and livelihoods if a spill is to occur.</p>	<p>in South Africa's energy security would be subject to a separate Production Right application and ESIA process. This is typical of the lifecycle of a development project.</p> <p>Potential impacts relating to production will need to be considered as part of the Production Right application should the project move onto production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p> <p>The specifics of what was screened out is presented in Table 8-3. It was only routine operational discharges from vessels and drilling unit on public health and safety that was screened out - Table 8-1 has been corrected. The area of interest for proposed exploration drilling is located approximately 60 km from the coast at its closest point and is thus far removed from any coastal receptors. The dominant current direction will also ensure that any discharges move mainly in a north-westerly direction away from coast. Given the offshore location of the survey and drill areas and the total volume of likely operational discharges, such discharges are expected to disperse rapidly to undetectable concentrations and are unlikely to have an impact on sensitive coastal receptors. There is no potential for accumulation of discharged substances leading to any detectable long-term impact.</p> <p><u>Emergency Response:</u> The ESIA does not note that an event of that magnitude can never happen again, but it does note that the catastrophic Deepwater Horizon (DWH) blow-out in the Gulf of Mexico in 2010 provided opportunity for increasing the understanding of how an oil spill impacts the marine environment. Beyer et al. (2016) provide an excellent review of the plethora of research papers emanating from the research programmes initiated following the spill. It is also</p>

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			<p>MARINE ECOLOGY REPORT</p> <p>The impacts of oil on marine fauna and various marine ecosystems are well documented, including its toxicity, impacts through ingestion, waterproofing of birds, suffocation, restriction of locomotion, poisoning and death. All these impacts are explained but actual consciousness of consequence in the event of a spill does not come across in the ESIA report.</p> <ul style="list-style-type: none"> <li>The various species lists and the details which are given are inconsistent. It is imperative that all species listed are accompanied by their 2022 IUCN Red List categories (global and national/local), Threatened or Protected species (TOPS) categories, and endemism to Southern Africa. Furthermore, many of the species' IUCN categories are outdated and it should be acknowledged that according to the IUCN, categories CR, EN and VU are regarded as threatened. The VU category is being downplayed.</li> <li>The highest concentration of cetaceans for the various species illustrated in the Marine Ecology Report are within the Area of Interest. The cumulative impacts of noise, operational spills and other disturbances on cetaceans will no doubt have implications on, at least, their behaviour. This could have an impact on tourism but this concern or message is not coming across in the document as a major threat.</li> </ul>	<p>acknowledged that this catastrophic event contributed to the advancement in technology and approach to well blow-out responses (e.g. subsea capping and containment equipment).</p> <p><u>Marine ecology report:</u> The Marine Ecology Impact Assessment and final ESIA Report have been updated.</p> <p>Impact on whale migration is considered in the ESIA. Whales may experience disturbance within 2.2 km from the drilling unit and since the drilling unit is stationery whales will easily be able to avoid the area; thus, it is unlikely that whale migration will be affected.</p>

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			<p>MARINE PROTECTED AREAS (MPAS), ECOLOGICALLY AND BIOLOGICALLY SENSITIVE AREAS (EBSA'S), CRITICAL BIODIVERSITY AREAS (CBA'S) AND BUFFER ZONES</p> <p>The MPAs in South African form a Network which covers 5.4% of the EEZ around South Africa. These areas are recognised and have documented special features, including representative, unique and sensitive ecosystems, their importance for providing sanctuaries for threatened species and their essential habitats, and their role in supporting rebuilding populations of over-exploited fish species.</p> <p>There are twenty-one MPAs which could potentially be impacted by the exploratory drilling, which may pose significant risk from minor operational leakages, spills and pollution and/or a major oil spill if there is a blow- out. Two MPAs overlap with the Block, including Brown's Bank and Southeast Atlantic Seamounts MPAs, while Offshore Marine Protected Areas adjacent to the area, including Orange Shelf Edge MPA, Namaqua Fossil Forest MPA, Child's Bank MPA, Benguela Muds MPA, Cape Canyon MPA, Robben Island MPA, Agulhas Bank Complex MPA, Agulhas Muds MPA, South West Indian Seamount MPA. Coastal Marine Protected Areas adjacent to the area, included the Namaqua National Park MPA, Rocher Pan MPA, West Coast National Park MPA, Table Mountain National Park MPA, Helderberg MPA, Betty's Bay MPA, Walker Bay MPA, De Hoop MPA, Goukamma MPA and Robberg MPA.</p> <p>There are also five Ecologically and Biologically Sensitive Areas (EBSAs) in the proposed area. The principal objective of the Ecologically or Biologically Significant Areas (EBSAs) is identification of features of higher ecological value that may require enhanced conservation and management measures. Even though EBSAs currently carry no legal status. Block 5/6/7 overlaps with five EBSAs</p>	<p><u>MPAs, EBSAs and CBAs:</u> Although the Area of Interest for drilling does not overlap with any MPAs or EBSAs, it does overlap with a Critical Biodiversity Area. A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p>

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			<p>(namely the Cape Canyon and Associated Islands, Seas of Good Hope, Protea Seamount Cluster, Brown's Bank and Benguela Upwelling System EBSAs), the Area of Interest for proposed exploration drilling avoids all EBSAs.</p> <p>There are also a number of EBSAs in the indirect area of influence: Orange Seamount and Canyon Complex EBSA, Orange Cone EBSA, Namaqua Fossil Forest EBSA, Childs Bank and Shelf Edge EBSA, Namaqua Coastal Area EBSA, Mallory Escarpment and Trough EBSA, Agulhas Bank Nursery Area EBSA, Shackleton Seamount Complex EBSA, Kingklip Corals EBSA, Tsitsikamma-Robberg EBSA.</p> <p>An evaluation of each of these MPA's &amp; EBSA's has been completed as a paragraph each, their sensitivities and critical ecosystem functions have been identified, however, there is no concern and a simple lack of acknowledgement that these areas could be devastated by a blow-out or other accidents.</p> <p>Buffer areas surrounding the above areas have been noted but it remains unclear if these will actually be implemented as part of the operational plan. In addition, while buffer areas may assist in mitigating operational impacts, they provide little to no protection against spills. Thus, no adequate mitigation of the risks to these areas, which are critical in preserving South Africa's marine biodiversity, have been provided.</p> <p>FISHERIES ACTIVITIES</p> <p>Even though the impact and risk to small-scale fishers and communities have been indicated as 'Very high significance', the document lacks a full economic and social impact analysis on scenarios from catastrophic spills to minor operational spills, specific to the various fishing sectors.</p>	<p>All specialist recommendations are included in the ESMP, which TEEPSA is legally obliged to implement as a condition of approval, assuming it received Environmental Authorisation. Monitoring and auditing will be undertaken to confirm implementation of the ESMP, as well as the effectiveness of mitigation measures in avoiding or minimising impacts - refer to Section 11.6 of the ESIA Report.</p> <p><u>Fishing activities:</u> The assessment of economic impacts as a result of unplanned events (i.e. such as a well blow-out) is challenging to accurately perform due to the many variables, assumptions and uncertainties that would be involved. The outputs of such an assessment are likely to be so broad that it would be of little direct value in informing the impact assessment process or the development of mitigation measures and ultimately decision-making. Thus, the Socio-Economic Impact Assessment considers the board socio-economic</p>

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			<p><b>NEED &amp; DESIRABILITY AND CLIMATE CHANGE AND AIR EMISSIONS</b></p> <p>Globally, the climate change crisis dictates that South Africa needs to move away from fossil fuels and should not continue to drill for new oil and gas. It is with this in mind that South Africa recently committed to a Just Transition at the COP27 which encourages the shift to green energy with an aim for net zero by 2050, which has included over \$10 billion in investments. It is concerning that despite this clear government mandate, the fundamental outcome of the need and desirability assessment is centred around the determination of whether gas technology will ensure security of supply for electricity. It should rather be due to the climate crisis, South Africa needs to find renewables and other alternatives which have less risk.</p> <p>The estimate of 10 000 bbl oil to be flared per test, “i.e. up to 20 000 bbl over the two tests associated with an appraisal well” needs to be expanded to the potential five wells in total. Therefore, a more realistic estimate should be given, i.e. 100 000 bbl or 15 899 000 litres of oil. Furthermore, the climate</p>	<p>impacts related to an unlikely large oil spill. The level of information provided in the assessment of an unlikely oil spill is considered adequate to inform the assessment and to inform decision-making in this regard. The impact of an unlikely oil spill is assessed to be of very high significance and any additional information will not change the assessment.</p> <p>Need and desirability and climate change: WioIdOcean's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The Climate Change and Air Emissions Impact Assessment considers the flaring of all five wells; i.e. 5 x 20 000 bbl.</p>

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			<p>implications of the entire life of the project and its implications on the climate crisis need to be quantified before an accurate assessment of the impact of this project on the most vulnerable communities can be made.</p> <p>For the reasons outlined above, the WILDTRUST believes that the proposed oil and gas exploration poses an unacceptable pollution, ecological and socio-economic risk to South Africans. A major spill cannot be completely eliminated and the WILDTRUST is of the view that an Environmental Authorization should not be issued.</p> <p>We look forward to your response.</p>	
65.	Natasha Comien James	07 December – Email	<p>Im sending this mail on behalf of the people of the Katz Korana Royal house. We want to know when will the Minister of minerals come to Hangberg nd speak to the people, we request a meeting with him at the national conferense in Cape Town nd up till today no response from him.</p> <p>The minister must come out nd address us as indigenous people nd listen to the plea of our fishers.</p> <p>We want nd need answer from him</p>	This comment is noted, but SLR cannot comment on behalf of the Minister of DMRE.
66.	Jasmine Gill - Natural Justice	08 December – Email attachment	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>Natural Justice: Lawyers for Communities and the Environment is a non-profit organisation specialising in environmental and human rights law in Africa – with a focus on the pursuit of social and environmental justice for local and indigenous communities.</p> <p>Natural Justice offers direct support to local and indigenous communities impacted by the ever-increasing demand for land and natural resources. Natural Justice also conducts comprehensive</p>	Natural Justice's opinions and comments are noted and should be taken into consideration by the Competent Authority in the decision-making process.

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			<p>research on environmental and human rights laws, as well as engaging in key national and international processes with, for and alongside indigenous peoples and local communities.</p> <p>The organisation has an interest in this project with regards to how the applicants and environmental assessment practitioner intend to address the impacts, both direct and indirect, that will be brought upon the environment and the local and indigenous peoples and communities who reside along the impacted coasts.</p> <p>1. Given the complex concerns regarding project feasibility, in light of the costs and benefits of the project, as well as the accumulating threats of climate change, it is imperative that an economic assessment evaluated the efficiency, equity and sustainability of the project. There has been no attempt to properly cost the exploratory drilling in light of its implications for gas or oil extraction, including the troubling levels of the emissions of polluting greenhouse gases such as methane<sup>1</sup> which have found to contribute significantly more to climate change.</p> <p>2. The EIAR assumes a strong possibility that gas condensate deposits will be discovered. There would be no need for exploratory drilling following the completed seismic surveys if</p>	<p>1., 5, 11 &amp; 14.. The principle of undertaking a Cost Benefit Analysis (CBA) is fine for a project that is delivering a series of costs and benefits over time (as for a production project), but not for a once off exploration project (such as that proposed) to see if there a domestic resource exists. This is difficult without knowing the likelihood of an oil/gas resource, yields, etc. At present, all that is known is a set of private costs. The costs will be borne by TEEPSA, and from a South African perspective, there is no opportunity cost. The South African govt is not subsidising this project. The benefits would depend on (a) finding oil/gas in payable quantities and (b) EA is obtained to extract it. It is at this stage that undertaking a CBA would make more sense. The external costs that will be considered in the ESIA are related to the unlikely event of a large oil spill (blow-out). The external costs related to climate change from the proposed exploration project are likely not an issue. The volumes of oil/gas involved would be infinitesimal by local and global standards.</p> <p>All potential impacts related to both normal operations and unplanned events (e.g. oil spills) of the proposed project are assessed in Chapter 9 and 10 of the ESIA Report, respectively.</p> <p>2. - 10 &amp; 16. TEEPSA is only seeking approval to drill up to five exploration wells, and as such the current ESIA only assesses the</p>



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			<p>this were not the case. Given this assumption, the project for exploratory drilling anticipates the strong possibility of the establishment of the upstream components for gas beneficiation. These upstream components will naturally include gas production, processing and pipeline transport, liquefaction, tanker transport, regasification and power plant operations when gas is burned to generate electricity.</p> <p>3. All of these components are steps in the broader gas life-cycle, and therefore should be assessed collectively, rather than in isolation of one another. The emission of greenhouse gases such as methane, carbon dioxide and nitrous oxide is negligible across each individual step of the gas life-cycle. To achieve a more accurate understanding, the cumulative impact of the entire gas life-cycle must be examined.</p> <p>4. Furthermore, social costs of greenhouse gas emissions account for the broad costs of climate impacts imposed by each ton of the planet-warming emissions. These social costs account for the financial impacts of shifts in weather patterns, as well as increases in extreme events, such as droughts, heatwaves, and floods. The EIAR fails to take these social costs into consideration. Instead, it focuses on a hyper-specific assessment of greenhouse gas emissions during the exploratory drilling phase, without any regard for the true nature of these activities – confirming the presence of resources that will contribute as inputs to the broader gas life-cycle processes.</p> <p>5. An economic cost benefit analysis, which evaluated the cost implications of the gas life- cycle, would have determined the opportunity costs of the proposed activities – the net benefit that would be yielded from liquefaction, transmission and</p>	<p>potential impact related to the drilling of up to five wells. The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block - this is not known yet. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project.</p> <p>The EIA Regulations 2014 require the consideration of the ‘cumulative impact’, which includes the “reasonably foreseeable future impact of an activity”. While it is foreseeable that future production activities could arise from the Exploration Right (if granted and successful), there is not currently sufficient information to make reasonable assertions as to nature of any future activities. This is due to the current lack of relevant geological information, which the proposed exploration process aims to address. The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a petroleum resource(s) is discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project. Potential impacts cannot be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts. The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplates, that the potential impacts and risks of productions activities must be considered and assessed at the exploration stage. Any potential future production</p>

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			<p>regasification and ultimately energy generation through combustion in light of negative cost implications of the total polluting emissions accrued by the project through the entire gas life-cycle.<sup>2</sup></p> <p>6. Although the fundamental basis of the exploratory drilling is supported by estimates of the potential gas reserves potentially available within the relevant block, a failure to develop a full economic costing that accounts for the market value of extracting and developing gas reserves, as well as the environmental and social costs associated to likely externalities, ultimately delegitimizes the financial viability or justification for the project.</p> <p>7. Natural gas's international market value has zigzagged dramatically, ranging from \$3.80 to \$9.30 per million British thermal units (MMBtu) in 2022, and hovering around \$7.20/MMBtu in November 2022.<sup>3</sup> The potential for financial viability is thus dependent on the value stability of the natural gas being explored for, which is subject to market volatility as recent months have demonstrated. When viewed in a broader context, the zigzagging of the international market value of gas may exacerbate the risks to the project's long-term success. In terms of net income, there are significant extraction costs that are still being determined by local drilling conditions, fixed capital costs, operating expenses, and liabilities for local ecological damage, taxes and royalties.</p> <p>8. When calculating the social costs, local ecological damage must be considered alongside the social cost of carbon – i.e. an assessment of damages per ton to the environment and climate associated with an increase in GHG emissions. Barack Obama's administration estimated it at \$51/ton, but that</p>	<p>activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate ESIA process. This is typical of the lifecycle of a development project.</p> <p>Thus, a decision on the current EA application does not in any way guarantee the holder future approvals that would be required to undertake future production activities.</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production, including climate change impacts associated with production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p>

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			<p>figure is expected to skyrocket in 2022 revisions. The IMF estimates \$60 per ton. Currently, the European Union's Emissions Trading Scheme price is closer to \$100 per ton. However, according to the most recent scientific research, previous values underestimated the Social Cost of Carbon, and \$3000/ton is more accurate. If the Social Cost of Carbon is set at \$3000 per ton, and there are 260 million tons of CO<sub>2</sub>-equivalents that could be released from all of the gas to be extracted in Transkei-Algoa alone, the Social Cost of Carbon is \$780 billion. As a result, when we compare the likely trillion cubic feet that is likely to be found in the much smaller Transkei-Algoa blocks, the multiples of social costs of carbon rise accordingly meaning that the social costs that will be borne by the public resulting from exploration, extraction, export, and use will invariably almost as high as its commercial value to the gas industry. The risk to society of maintaining an uninformed position over the share of regulatory costs borne by investment in this project, is very likely to be significantly higher.</p> <p>9. Natural gas distribution is a natural monopoly that is regulated to ensure that customers can purchase the gas at a fair price while providing adequate returns to utility investors. Regulations negotiated by local public utility commissions typically allow distribution companies to pass on the cost of leaked gas to retail customers. This means that distribution companies have less incentive to fix leaks than they would if the lost-gas costs were borne by them. According to the researchers, the social cost of methane leaks is far greater than the commodity value of the lost gas. Leaked methane can explode, killing people and causing property damage, and methane's contribution to climate change far outweighs the</p>	

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			<p>risks to life and property losses. Therefore it is necessary to verify all the quantifiable costs and benefits of emitting additional tonnes of methane and carbon dioxide in monetary terms during exploration in order to weigh the benefits of reduced global warming against the costs of mitigating emissions.</p> <p>10. The potential export of gas overseas must also be accounted for in domestic use, from all phases of beneficiation, as it will likely contribute the social costs of carbon and methane. In the US for example, GHG emissions from the liquefaction, shipping and regasification life cycle stages (about 10 to 21% of the total life cycle emissions) had a social cost of \$812 million to 1.7 billion of US produced gas exported in 2019. Considering international GHG accounting rules, this means that from 2019 overseas export of US produced gas increased the total life-cycle of GHG emissions of the fuel by as much as 21%, further reducing any benefits from the use of gas domestically. Therefore, the economic costs of climate change impacts from US LNG related exports -costs that are borne by the public rather than the gas industry- could exceed to \$30 billion per year by 2030. Given this, South Africa ought to carefully consider the social costs it may accrue from domestic use, as well as from international export. It is for this very reason that a full cost benefit analysis accounting for the true environmental and social economic costs of the expansion of gas extraction and production is necessary to disclose the full life cycle of GHG emissions including all indirect and cumulative emissions, as these often account for the majority of emissions from a project and cannot be dismissed.</p>	

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			<p>11. The authors of the Socio-Economic Impact Assessment determined that the principle of a cost-benefit analysis was a mooted one because the analysis should be reserved for a project that is delivering a series of costs and benefits over time, such as a production project. However, this presupposes that upstream gas activities such as exploration and well appraisals will not be subject to similar cost and benefit eventualities that govern and apply across the entire gas value chain and for which a future benefit (obtaining more information about oil and gas resources, which will be used in future decision making) is being sought for. Extraction activities such as exploratory well drilling pose dire risks and social costs for the environment.</p> <p>12. Offshore gas extraction, especially in South Africa's notoriously rough waters, carries with immeasurable risks and costs for the country's marine environment. The Agulhas current, which flows along South Africa's eastern seaboard, has been measured to flow at 2 m/s<sup>50</sup>, second only to the Gulf of Mexico Stream, which is considered the world's fastest ocean current at approximately 2.5 m/s and has been known to severely damage the steel infrastructure of oil and gas rigs due to its strong current. The Agulhas current, on the other hand, is notable for its strength<sup>52</sup>, transporting up to 122.9 Sv. (122.9 million m<sup>3</sup> /s), with an average of 69.7 Sv.<sup>53</sup>, significantly more than the Gulf Stream, which transports about 30 Sv. Total, a French energy company, had to abandon its deep-sea exploration off South Africa's east coast in 2014 because rough seas damaged its rig, highlighting the risks inherent in drilling off the coast.</p>	<p>12. Impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10, respectively.</p>

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			<p>13. Extraction risks aside, furtive emissions (unintentional leakage and discharge) resulting from the extraction of hydrocarbons and the associated GHG from hydrocarbon consumption itself poses the greatest risk and social costs to South Africa's marine environment and its associated climate. This cost can and must be accounted for, given the eventual risk further upstream, midstream and downstream impacts the total gas value chain may have on the climate and the environment in addition to the risk the project's viability is exposed to from the abandonment of exploration and production. South African taxes on fossil fuel consumption, production, and income totalled about ZAR100.5 billion in 2019-2020 (2% of South Africa's GDP and 7.4% of general government revenue).<sup>4</sup> However, such revenue is reduced by large government bailouts for state enterprises that rely heavily on fossil fuels, such as South African Airways.<sup>5</sup> Revenue from fossil fuels is also dwarfed by the government's estimated ZAR172 billion in energy subsidies in the 2020/2021 fiscal year alone.<sup>6</sup> When one considers government spending on bailouts to the state-owned energy company, Eskom (which further distorts the price of coal-generated electricity), government revenue from fossil fuels becomes insignificant. In actuality, the net annual cost of fossil fuels to society is approximately ZAR550 billion once the social costs of fossil fuels (deaths related to climate change and air pollution as well as lost working days from fossil fuel combustion) are taken into account.<sup>7</sup> These costs are estimated to be at least five times higher than fossil fuel revenues. The ability and desire of South Africa to continue pursuing a hydrocarbons-centred economy will be significantly impacted by the planned retirement of coal-fired power plants, technological</p>	<p>13. As noted above, possible impacts from future production (extraction) are not assessed in this ESIA. They would be considered, as part of a separate Environmental Authorisation application, should exploration identify a commercial resource and production be proposed by an applicant.</p>

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			<p>advancements (such as drops in the cost of green energy sources and rapid progress in energy storage), new energy market regulation, available finance, and geopolitics. In light of this, South Africa ought to transition as quickly as possible away from fossil fuels. This exercise will prove to be costly should South Africa continue to explore for and produce gas.</p> <p>14. Therefore, a full cost-benefit analysis of any mitigation action or policy for the complete life cycle of the project would ideally take into account the emission location and balance the cost of mitigation against the full suite of benefits that would accrue from all mitigated co-emissions, in addition to CO2 and methane. The Final Report provides an incomplete measure of costs. It does not account for the environmental impacts associated with all stages of the development of the gas, from initial extraction, to final use. These expenses do exist: Extreme weather events like droughts, floods, and wildfires are brought on by rising air and ocean temperatures as well as altered rainfall patterns. These extreme weather events will (and already do) kill people and harm human health. They also reduce net agricultural production, wreak havoc on property and infrastructure, and increase the cost of the energy system. Furthermore, rather than the emitter, the public currently bears the bulk of these "social costs" in the form of higher personal or governmental costs for things like health care, infrastructure upkeep, or disaster recovery.</p> <p>15. Although the authors of the Socio-Economic Impact Assessment indicate that a cost benefit analysis is mooted for an exploration project, the report fails to conduct a sufficiently meaningful economic assessment, which must include a cost benefit analysis of the full life cycle of the</p>	


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			<p>project and a calculation of the total amount of GHGs emissions through a gas life-cycle analysis.</p> <p>General comment on the need to assess cumulative impacts of exploration and production of oil and gas,</p> <p>16. The environmental impact assessment (EIA) process cannot make an arbitrary distinction between the impacts of oil and gas exploration and production.</p> <p>16.1. TotalEnergies, Shell, and PetroSA wish to explore for oil and/or gas for the sole purpose of discovering deposits that they can then exploit.</p> <p>16.2. The legislative framework itself indicates that a production right flows directly from an exploration right, meaning that the two processes are inextricably linked.</p> <p>16.3. The Mineral and Petroleum Resources Development Act (MPRDA) closely connects the rights of exploration with production by granting a holder of an exploration right the exclusive right to apply for, and be granted, the renewal of the exploration right or a production right, subject to few conditions.<sup>8</sup> It also gives the same authority (the Minister) the right to grant both exploration and production rights.</p> <p>16.4. Further, impacts related to production activities are reasonably foreseeable impacts eventuating from exploration. If the impacts and risks associated with production are unacceptable, then any and all risks and impacts associated with exploration activities are unnecessary, undesirable, and completely avoidable.</p> <p>16.5. In other words, despite the fact that exploration activities and production activities are listed separately for the</p>	



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			<p>purposes of the Environmental Impact Assessment Regulations (EIA Regulations), in reality they are steps in a single process, and it is artificial to exclude consideration of the impacts of the production process, or of the need for, and desirability of, producing oil and gas, when deciding whether or not to authorise exploration activities. The EIAr report misinterprets cumulative impacts of exploration by failing to consider the impacts associated with production as well, which leads to an artificial conclusion in the EIAr that the project is beneficial. The detrimental environmental impacts of the project, as part of an entire petroleum beneficiation process involving both exploration and production activities, may be substantial and therefore an assessment of the cumulative impacts of both exploration and production activities is required.</p> <p>17. Companies such as TotalEnergies and Shell apply for exploration rights and are willing to invest significant amounts of money and effort into oil and/or gas exploration on the basis that they will be authorised to exploit any deposits that they may discover.</p> <p>18. The summary of the draft of the EIAr Report's Needs and Desirability analysis (pages 73-74) states that the proposed exploration project will result in the generation of information, rather than the production of oil and gas. The summary also states that the proposed exploration activities do not have a direct influence on South Africa's reliance of fossil fuels and emissions of greenhouse gases. In doing so, the Report attempts to distinguish the impacts of exploration from subsequent impacts of production and consumption stages of the gas life-cycle.</p>	<p>18. - 19. Natural Justice's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in</p>

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			<p>19. In contrast, the same section of the Report also recognizes that the exploration activities “will potentially lead to South Africa optimizing its own indigenous resources to provide its identified oil and gas needs... rather than having to mainly import, as at present.” In doing so, the Report recognizes that confirmation of oil and gas resources at the exploration level sets the next stages of the gas life-cycle into motion – including production, distribution, and consumption. Even though the Report attempts to limit its focus solely to the exploration stage, the production of gas is a foreseeable and likely outcome if exploration is successful.</p> <p>19.1. If no assessment of the anticipated impacts of production is made before initiating a process that is intended to lead to production, the project will acquire momentum (by virtue of the investment of large amounts of money and effort by both the applicants and the regulators).</p> <p>19.2. If the full adverse environmental impacts of production only become known once exploitable oil and/or gas deposits have been discovered (at great cost), the applicants will suffer significant losses if they abandon the project, and the prospects of a regulator or the court stopping the production are significantly higher.</p> <p>19.3. Furthermore, the most obvious flaw in Total's exploration proposal is its failure to incorporate the 1 September 2022 judgment of the Makhanda High Court in <i>Sustaining the Wild Coast et al versus Shell et al</i>, in which the court stated that "authorizing new oil and gas exploration with the goal of finding exploitable oil and/or gas reserves and thus leading to production is not consistent with South Africa complying with its international climate change</p>	<p>the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates ‘exploration activities’ from ‘production activities’ and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p>

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			<p>commitments." The court then went on to rule at paragraph 112 that "on the authority of Director: Mineral Development, Gauteng Region and Others v Save the Vaal Environment and Others, the processes are discrete stages in a single process that culminates in the production and combustion of oil and gas, as well as the emission of greenhouse gases that will exacerbate the climate crisis and impact communities' livelihoods and access to food". The most important aspect of this decision is the court's confirmation, through judicial interpretation of applicable law, that seismic surveys, exploration, and production stages cannot be viewed as discrete, disconnected stages of what should, in reality, be viewed as an integrated process of fossil fuel exploitation. This settles the principal in law that exploration and production are inextricably linked and therefore the cumulative impacts associated to these processes must be assessed adequately in order to ensure the decision maker has been apprised of all relevant information in order to make an informed decision on the authorisation of project.</p> <p>20. It must be noted that in addition to current seismic surveys campaigns already authorised and planned for, and the various exploration projects currently authorised along the Western coastline of South Africa that should these projects be undertaken in the very near future concurrently with Total's current exploration project, To reduce cumulative noise, climate, and marine impacts to an acceptable significance, there would need to be alignment in the planning of such concurrent operations. Cumulative impacts may be likely. The exploration and reconnaissance permits that are currently available are shown on the map below.</p>	<p>20. - 23. Cumulative impact is assessed in detail in Section 9.4 of the ESIA Report. This assessment considers past, present and reasonably foreseeable future developments or impacts.</p>

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			<p>Status of knowledge: Current and recently approved applications and operations related to mining and oil and gas on the West Coast, South Africa*</p>  <p>21. It appears that this project's exploration area overlaps with these permits. Concurrent reconnaissance and exploration activities may also have a greater overall effect on fisheries through climatic and marine-based effects. The extent and magnitude of the impact on the large pelagic longline sector would increase as survey and exploration operations were conducted simultaneously. This would have an impact on the food security of small-scale fishers and exacerbate existing effects on other marine biodiversity. The large pelagic longline sector could be expected to be significantly impacted by numerous simultaneous regional-scale seismic surveys and exploration projects, both with and without the use of mitigation measures.</p> <p>22. The cumulative effects of additional proposed offshore oil and gas seismic surveys, exploration, and production in other</p>	

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			<p>Blocks within South Africa’s exclusive economic zone are not taken into account by the EIAr. Total’s proposed exploration would, if additional commercially viable resources are discovered and developed through the proposed exploration, contribute to South Africa’s international commitment to “working with others to ensure temperature increases are kept well below 2°C above pre- industrial levels, which could include a further revision of the temperature goal to below 1.5°C in light of emerging science” by reducing greenhouse gas (GHG) emissions.</p> <p>23. As a reasonably foreseeable future impact that may become more significant, particularly when combined with impacts from similar offshore oil and gas exploration and production activities, it is proposed that the cumulative impacts of such GHG emissions be identified and assessed which the current draft has failed to do. Given the lack of certainty regarding the cumulative impacts of concurrent 2D, 3D seismic survey and exploration activities, it follows that a risk-averse and cautious approach should be taken by not authorizing exploration activities which may run concurrently with other reconnaissance and exploration projects within the same regional area.</p> <p>General comment on climate change and the right to sustainable development</p> <p>24. The proposed application, through its greenhouse gas emissions and contributions to global climate change, undermines the constitutionally protected rights of present and future generations to environmental protection and ecologically sustainable development.</p>	

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			<p>24.1. Section 24 of the Constitution states:</p> <p>Everyone has the right—To have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that –</p> <p>iii. Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development (emphasis added).<sup>10</sup></p> <p>24.2. The principles and provisions of the National Environmental Management Act (NEMA) provide legislative implementation for these rights to environmental protection and sustainable development.</p> <p>24.3. NEMA states that “the environment is held in the public trust for the people and the beneficial use of the environmental resources must serve the public interest and the environment must be protected as the people’s common heritage”,<sup>11</sup> and the preambles of the Mineral and Petroleum Resources Development Act<sup>12</sup> and National Environmental Management: Integrated Coastal Management Act (NEM:ICMA)<sup>13</sup> similarly state that South Africa’s resources are held in the public trust and must be protected for future generations.</p> <p>24.4. Further, one of NEMA’s core principles is that “the exploitation of non- renewable resources must be responsible, equitable and take into account the depletion of that resource.”</p> <p>25. Therefore, not only does an applicant for environmental authorisation need to provide an assessment of the project’s localised impact on the environment and</p>	<p>24. - 64. Natural Justice's opinions and comments on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>Natural Justice in its submission on the need and desirability lists a number of provincial and local policy document. The proposed project occurs offshore within the State-controlled Exclusive Economic Zone (EEZ) and the offshore EEZ does not fall within the borders of any province of South Africa, and as such the need and desirability section has focused on national and international strategic agreements, laws, policies and plans, rather than provisional. This said, the Competent Authority should take these provisional policy documents into consideration.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical</p>

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			<p>communities, including cumulative impacts, but the project's proponents must also satisfy the decision maker that offshore oil and gas exploration and production are a responsible and equitable use of South Africa's resources and that they serve the interest of the wider South African public.</p> <p>26. In <i>Earthlife Africa Johannesburg v. Minister of Environmental Affairs and Others</i>,<sup>14</sup> the High Court held that "climate change poses substantial risk to sustainable development in South Africa, which is enshrined in the constitutional environmental right."<sup>15</sup></p> <p>26.1. The High Court elaborated on the connection between consideration of climate change and intergenerational justice:</p> <p>The effects of climate change, in the form of rising temperatures, greater water scarcity, and the increasing frequency of natural disasters pose substantial risks. Sustainable development is at the same time integrally linked with the principle of intergenerational justice requiring the state to take reasonable measures protect the environment 'for the benefit of present and future generations' and hence adequate consideration of climate change. Short-term needs must be evaluated and weighed against long-term consequences.<sup>16</sup></p> <p>26.2. Exacerbating climate change through the exploitation of new fossil fuel reserves undermines the constitutional right to sustainable development and cannot be considered as serving the public interest.</p>	<p>development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production, including climate change impacts associated with production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p>

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			<p>27. A risk-averse approach to decision-making should lead to the denial of environmental authorisations for new oil and gas exploration projects, including the proposed project.</p> <p>27.1. NEMA dictates “that a risk-averse and cautious approach should be applied which takes into account the limits of current knowledge about the consequences of decisions and actions.”<sup>17</sup></p> <p>27.2. Existing evidence indicates that oil and gas exploration and production is not a responsible or equitable use of South Africa’s natural resources. South Africa has committed to stay on a pathway to keep global average temperature increases below 1.5 degrees Celsius, which global experts agree can only be achieved if no new oil and gas reserves are exploited.<sup>18</sup></p> <p>27.3. Therefore, the proposed exploration is contrary to scientific consensus and a risk-averse approach would dictate from the outset that this project should not move forward.</p> <p>28. Exacerbating the climate crisis by exploiting new oil and gas reserves is against the public interest of South Africa, which is particularly vulnerable to the impacts of climate change, and violates the constitutional environmental rights of present and future generations.</p> <p>28.1. Climate change poses a significant threat to other rights enshrined in South Africa’s Constitution as well, including the rights to life,<sup>19</sup> housing,<sup>20</sup> water<sup>21</sup> and food.<sup>22</sup></p> <p>28.2. South Africa’s vulnerabilities include impacts on the agricultural sector from changes in precipitation, temperature and evaporation; impacts on health through an</p>	



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			<p>increased burden of disease; and threats to territorial ecosystems including rising average temperatures, more temperature extremes, shifting rainfall season, and a higher chance of extreme weather events.<sup>23</sup> Issues of particular concern include the effect of changing rainfall patterns on water resources, crop production and livestock; possible increases in insect-borne diseases such as malaria; and reduced forestry plantations.<sup>24</sup> Rising sea-levels could also pose a threat to coasts, and changes in oceanic conditions may have significant implications for fisher resources as well as for biodiversity.<sup>25</sup></p> <p>28.3. Water crises in the Eastern and Western Capes and deadly floods in KwaZulu- Natal are just a few examples of the extreme weather events in South Africa that are made more likely, frequent and severe due to climate change.<sup>26</sup></p> <p>29. Only considering the immediate impact of explorative activities would be short-sighted. It is also important to consider the downstream marine implications if they detect feasible hydrocarbon deposits. Climate change caused by the extraction and consumption of fossil fuels alters key factors that drive marine ecosystems, such as winds, water temperatures, sea ice cover, and ocean circulation.<sup>27</sup> Rising atmospheric CO<sub>2</sub> levels, along with increased oceanic CO<sub>2</sub> uptake, are accelerating ocean acidification.<sup>28</sup> Changes in ocean temperature and chemistry may affect organisms' physiological functioning, behaviour, biological interactions, and productivity, resulting in changes in marine life size structure, spatial range, seasonal abundance, community structure, and ecosystem function.<sup>30</sup> Climate change, for example, will transfer nutrients from the surface to the</p>	

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			<p>deep ocean, leaving less at the surface to support plankton growth.<sup>31</sup> Such a result would have ramifications for the entire ocean food chain. According to research, high levels of GHG emissions could suppress marine biological productivity for millennia. If left unchecked, such changes will eventually destroy all countries' fisheries and marine tourism industries, including South Africa's, resulting in devastating job losses, food insecurity, and other negative socioeconomic consequences.<sup>3233</sup></p> <p>30. Therefore, climate change must be considered in the EIAR Report, even if a climate change specialist report will ultimately be produced at a later stage. However, the EIAR Report failed to provide sufficient consideration and analysis of climate change in at least six key respects:</p> <p>30.1. The EIAR Report's assessment of need and desirability does not provide adequate consideration to the climate impacts of interlinked exploration and production activities;</p> <p>30.2. The EIAR Report's need and desirability analysis is incompatible with South Africa's international climate commitments and national climate policy context;</p> <p>30.3. The EIAR Report fails to consider relevant national, provincial, and municipal policies, including climate change policies, in assessing need and desirability;</p> <p>30.4. The EIAR Report does not sufficiently discuss climate change in its analysis of alternative activities and alternative locations;</p> <p>30.5. The EIAR Report's assessment of environmental impacts does not properly identify and assess the cumulative</p>	<p>30. The potential impacts on air quality and climate change related to the proposed exploration project are assessed in Section 9.1.1.1 and 9.1.1.2, respectively.</p>

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			<p>impacts of the project in conjunction with current and anticipated climate change impacts; and</p> <p>30.6. The EIAr Report does not address, or indicate that further studies will address, the impacts of climate change on the proposed project itself.</p> <p>30.7. These failures are explained in further detail in subsequent specific comments.</p> <p>Specific comments on the inadequacy of the EIAr's need and desirability assessment</p> <p>Overview of Need and Desirability Analysis Requirements</p> <p>31. According to the EIA Regulations, one of the main objectives of the scoping process is to "motivate the need and desirability of the proposed activity".<sup>34</sup> Therefore, a scoping report, must contain adequate information on the positive and negative impacts and policy context to motivate the need and desirability of the proposed project:</p> <p>A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include—</p> <p>(f) a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location <sup>35</sup></p> <p>32. The Scoping Report and the EIAr both affirm the call for natural gas in South Africa's New Growth Plan and National</p>	

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			<p>Development Plan and states that at page 83-85 of the need and desirability chapter:</p> <p>The use of local gas resources will allow for scaling up within manageable risk levels.” and “The proposed exploration project will potentially lead to South Africa optimising its own indigenous resources to provide its identified oil and gas needs until the 2050 deadline to achieve carbon neutrality, rather than having to mainly import, as at present (a situation which has been exacerbated by the recent closure of several South African refineries).</p> <p>33. Not only do these statements demonstrate that TotalEnergies and SLR are focusing on the need and desirability of eventual production rather than exploration, they are also explicit acknowledgements of the intrinsic link between the exploration and production phases of the proposed project.</p> <p>34. Before considering what might happen to income generated by a positive find of gas reserves, it is important to note that due to the technical and logistical hurdles that can be overcome, production is unlikely to begin for at least six years, if not ten.</p> <p>35. Both government and gas industry representatives will claim that the discovered gas could be used as a “bridge fuel” as South Africa transitions away from coal and toward renewable energy. The argument will be made that because renewable energy is currently intermittent and causes fluctuations in power supply, electricity grids require additional power sources to compensate for these fluctuations. Proponents of gas claim that it is the perfect bridge fuel to use until storage and battery technology</p>	

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			<p>advances to a stage where renewables can maintain a constant power supply. Gas is considered a “bridge fuel” because it emits only 60% of the carbon dioxide that coal does to produce the same amount of energy. The argument is then made that as more gas is used, renewable energy use can expand. In South Africa, it could also be used to replace the expensive diesel that Eskom frequently burns to manage intermittent supply. However, there are a slew of complex and interconnected issues with using gas as a “bridging fuel.” A few major issues are highlighted below:</p> <p>35.1. Gas extraction and transportation result in ‘fugitive’ methane emissions. According to research, between 1 and 9% of total gas extracted during plant life cycles leaks into the atmosphere, 90% of which is methane, with disastrous consequences for climate change.<sup>36</sup> In fact, if the leakage rate is 3.2% or higher, the ‘benefits’ of gas over coal in terms of GHG emissions are negated by methane’s tremendous ‘heating’ effect.<sup>37</sup> According to Fossil Free South Africa’s David Le Page, “this leakage completely offsets the potential benefits of using gas as a so-called transition fuel.”<sup>38</sup></p> <p>35.2. The risk of technological lock-in and path dependency is very real when switching to gas. If large sums of money are invested in gas extraction and the associated industries required for its exploitation, economies, and thus countries, can become “locked” into hydrocarbon-intensive technologies and infrastructures, despite the emergence of less expensive and less environmentally damaging alternatives. Gas spending crowds out funding for new renewable energy sources, as well as renewable energy research and improved storage. Second, the need to</p>	

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			<p>recover costs from gas plant development could lead to the use of gas being extended far beyond climate limits. Finally, it may result in stranded assets as gas plants are phased out in favour of less expensive and more environmentally sustainable renewable energy sources. Andreas Malm, an environmental historian, explains this serious problem eloquently: 'The longer business as usual continues, the more difficult it becomes to break out of it.' Every new round of pipelines, tankers, and deep-water drilling rigs adds to the ponderous mass infrastructure into which carbon has been locked: the ruts of path dependency deepen.</p> <p>35.3. The cumulative impact on South African asset prices and revenues of transitioning to a low-carbon economy in accordance with the country's international commitments has been estimated at around USD125 billion (ZAR1.8 trillion in 2019 value terms) by 2035.<sup>39</sup> South Africa will need to invest ZAR887-1173 billion to achieve its goal of transitioning to a net zero emission economy by 2050.<sup>40</sup> To optimally reduce emissions, South Africa may require up to ZAR2.9 trillion in new capital expenditure by 2050. South Africa cannot achieve these objectives without international assistance has requested a minimum of USD8 billion support per year by 2030, with a view to equally distributing funding between adaptation and mitigation.<sup>41</sup></p> <p>35.4. The likelihood of "climate sanctions" against South Africa (like the EU's Carbon Border Adjustment Mechanism beginning in January) increases significantly. Consequently, local exporters won't be able to argue that they are using energy with low enough levels of greenhouse emissions to</p>	

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			<p>evade the impending sanctions due to the growing reliance on gas and oil. In his Presidential letter supporting a low-carbon economy and Just Transition for impacted workers and communities, President Cyril Ramaphosa explained the danger to the economy of further fossil fuel development on October 11, 2021 in which the following was said:</p> <p>“As our trading partners pursue the goal of net-zero carbon emissions, they are likely to increase restrictions on the import of goods produced using carbon-intensive energy. Because so much of our industry depends on coal-generated electricity, we are likely to find that the products we export to various countries face trade barriers and, in addition, consumers in those countries may be less willing to buy our products”.</p> <p>35.5. Trade disincentives related to climate change will include higher carbon taxes based on high-CO2 local production components as well as the distance travelled by goods via shipping or air transport. It is important to keep this in mind.</p> <p>35.6. Given that South Africa's energy policies purport to support the use of gas for energy transmission and generation, it is foreseeable that production will likely result from a successful exploration, which will invariably produce emissions from burning gas to generate electricity. Gas burning produces emissions that are more than 50% higher than the global sustainable level.</p> <p>35.7. In order to combat climate change and keep global warming at or below 1.5 °C, gas-fired power production is neither a strategic nor an effective strategy, according to development goals for the electricity sector.</p>	

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			<p>35.8. Finally, due to international GHG accounting regulations, South Africa will likely bear a sizable portion of the emissions burden, while the countries that it intends to export to will benefit greatly (if there are any). It is obvious that exporting South African gas overseas will not be a successful long-term strategy to combat climate change for the United States, importing nations, or the planet as a whole.</p> <p>35.9. Natural Justice contends that without at least a general assessment of the climate change impacts should commercially exploitable oil and gas resources be identified through exploration (and should these resources be produced and used), the draft EIAR is flawed and the Needs and Desirability analysis is incomplete. If such an assessment finds that the development of new oil and gas fields is incompatible with South Africa's commitments to combating climate change, it would be pointless to authorize this (and other) exploration activities along the country's east and west coasts.</p> <p>Specific comment on the incompatibility of the stated need and desirability of the project with national climate change policies and international climate change commitments</p> <p>36. South Africa has committed itself to combat climate change under international law, with South Africa's 2021 Nationally Determined Contribution under the Paris Agreement representing an ambitious goal which will necessitate adjustments to national policies in order to achieve. However, the stated need for and desirability of the</p>	



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			<p>proposed oil and gas exploration is incompatible even with these less ambitious national policies.</p> <p>37. In Chapter 5 of its National Development Plan, South Africa commits to reduce its emissions to below a baseline of 34% by 2020 and 42% by 2025, this commitment will require a major transition to sustainable development. This plan states the vision that by 2030, “South Africa’s transition to a low-carbon, resilient economy and just society will be well under way.”</p> <p>37.1. Key contributors to this transition will include a commitment to undertake mitigation actions and policy instruments that support mitigation and an expanded renewable energy programme.</p> <p>37.2. By 2030, a substantial proportion of the low-carbon infrastructure should be in place or at an advanced stage of planning, particularly in the energy and transport sectors.</p> <p>37.3. The need and desirability chapter highlights the supposed alignment of gas extraction with the National Development Plan, but South African’s carbon space has significantly narrowed since the NDP was drafted. South Africa’s current NDC commitments and net zero aspirations have led to a finite carbon space—the upper bound of which is now 50% lower than the upper bound of the range envisaged as acceptable at the time of the NDP’s drafting.<sup>42</sup> Ignoring the reality of this limited carbon space will lead to stranded assets and could “result in the economic stranding of entire sectors of the economy.”<sup>43</sup></p>	

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			<p>38. Other national policy documents state South Africa’s intentions to cut greenhouse gas emissions, with the majority of these cuts occurring in the energy sector.</p> <p>38.1. The National Climate Change Response White Paper (2011) sets out its National Climate Change Response Objective, which includes making “a fair contribution to the global effort to stabilise [greenhouse gas] concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system.”</p> <p>38.2. This White Paper also identifies the energy sector as the main contributor to South Africa’s greenhouse gas emissions and considers “the most promising mitigation options” to be energy efficiency, demand side management and investment in renewable energy.”</p> <p>38.3. The Climate Change Bill (2018) also states the objective to “make a fair contribution to the global effort to stabilise greenhouse gas concentrations in the atmosphere at a level that avoids dangerous anthropogenic interference with the climate system...”</p> <p>39. The promise of improved energy security for South Africa underpins the need and desirability analysis, as does the supposed need for significant amounts of gas as a “transition fuel”, but this project will not remedy South Africa’s current energy insecurity. The results, which have been verified by two different modelling platforms, are startling: in 2021, Eskom would have been able to completely stop load shedding with an additional 5 GW of wind and solar energy—roughly equivalent to the capacity of two REIPPPP2 bidding rounds. Additionally, simply by</p>	

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			<p>producing electricity during the times that the open cycle gas turbine (OCGT) peakers were operating, the additional wind and solar capacity would have reduced the amount of diesel burned in the OCGT peakers by more than 70%. Eskom's pumped storage assets could have been used more effectively, which could have resulted in overall diesel savings of more than 80%. This result defies logic. The analysis based on empirical data demonstrates unequivocally that the addition of variable renewable generators to the current troubled South African power system will result in a disproportionate reduction in load shedding and an improvement in system reliability, contrary to what many observers anticipate. This understanding is essential for charting the future and avoiding costly traps and delays in doing so.<sup>44</sup></p> <p>40. Furthermore, the study from Meridian found that with the help of demand response and batteries, 5 GW of renewable energy could be added, which would end load shedding, save a sizable amount of money, and significantly reduce Eskom's yearly emissions. This is primarily because less coal must be burned as a result, which also results in lower emissions from the OCGT and related diesel burn.</p> <p>40.1. If the oil and gas that are ultimately exploited are not used to produce energy for South Africa, this undermines the sole stated goal underpinning the need and desirability of this proposed exploratory drilling—its supposed contribution to energy security for South Africa—and provides no tangible benefit for South Africans.</p> <p>40.2. Though the need and desirability analysis in the EIAR's summary chapter focuses heavily on South Africa's current</p>	

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			<p>energy insecurity, the exploration drilling will not take place until late 2023 or early 2024 with extraction and production occurring only years later. Therefore, the proposed exploration in no way provides a remedy for current energy insecurity in South Africa.</p> <p>40.3. What's more, by the time any resources discovered in Block 5/6/7 are ready for use, South Africa will have had to transition to focus on renewable energy sources if it intends to adhere to international climate commitments, meaning that oil and gas will not be as beneficial to South Africa's economy as TotalEnergies claims in its need and desirability assessment.</p> <p>41. If the oil and gas reserves that are ultimately exploited are used for energy needs in South Africa, this will prevent South Africa from fulfilling its international climate obligations, including its 2021 Nationally Determined Contribution (NDC) under the Paris Agreement, and thus eliminates the desirability of the proposed project.</p> <p>41.1. South Africa has committed to stay on a pathway to keep global average temperature increases below 1.5 degrees Celsius, which global experts agree can only be achieved if no new oil and gas reserves are exploited.<sup>45</sup></p> <p>41.2. GHGs are harmful to the environment and human health<sup>4647</sup>. South Africa is an associate member of the International Energy Agency, which made the following statement in 2021: "The energy sector holds the key to averting the worst effects of climate change, perhaps the greatest challenge humankind has faced." The energy sector is the source of approximately three-quarters of greenhouse</p>	

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			<p>gas emissions today. The goal of keeping the average global temperature increase to 1.5 °C over the long term is consistent with efforts to reduce global carbon dioxide (CO<sub>2</sub>) emissions to net zero by 2050. This necessitates nothing less than a radical change in the way we generate, transport, and use energy.</p> <p>41.3. This warning confirms earlier research that found the only way to keep global warming below 1.5 °C is through a sharp and quick decrease in fossil fuel use.<sup>4849</sup> By 2050, nearly 60% of oil and fossil methane gas and 90% of coal must still be in their natural states if we are to have any chance of staying within the "carbon budget" of 1.5 °C. South Africa adopted a Low Emissions Development Strategy in February 2020. <sup>72</sup> South Africa declared in September 2021 that it would reduce its GHG emissions to 350-420 MtCO<sub>2</sub> e by 2030 and to 398-510 MtCO<sub>2</sub> e by 2025. However, they are incompatible with the government's outspoken and open support for hydrocarbon exploitation, despite the fact that such commitments on paper are appreciated.</p> <p>42. The need and desirability analysis also relies heavily on a presumption that South Africa will require significant amounts of gas as part of its energy mix as soon as 2030. Reliance on this presumption is flawed in three key respects. First, reliance on the 2019 Integrated Resource Plan (IRP) does not excuse the EAP from undertaking a need and desirability analysis, including consideration of climate change. Second, the IRP does not indicate a need for significant amounts of gas by 2030. Finally, recent reports have suggested that even the 2019 IRP's small allocation of</p>	

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			<p>gas within the energy mix is more than will actually ever be required.</p> <p>42.1. The call for gas as part of the energy mix set forth in the 2019 IRP does not excuse the decision-maker from taking climate change impacts into account, including as part of the need and desirability assessment. As one of the primary objectives of the EIAr is to make a case for the need and desirability of the proposed project, the EIAr's case for need and desirability must address climate impacts and cannot simply rest on the 2019 IRP as evidence of need or desirability.</p> <p>42.2. The High Court in <i>Earthlife Johannesburg v Minister of Environment and Others</i> stated the following with respect to a decision-maker's reliance on the IRP in rendering a decision on an application for environmental authorisation:</p> <p>Policy instruments developed by the Department of Energy cannot alter the requirements of environmental legislation for relevant climate change factors to be considered.<sup>50</sup></p> <p>42.3. The EIAr relies on the 2019 IRP and other policy documents to suggest that gas is a necessary and desirable component of the energy mix and that oil and gas exploration is therefore necessary and desirable, but this case for need and desirability of oil and gas exploration must be established and assessed independent of the 2019 IRP.</p> <p>42.4. This was not done in the EIAr, and there is not an indication that this will be done in the planned assessments. As establishing the need and desirability of a proposed project is a key objective of the scoping process, the EIAr must</p>	

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			<p>establish and evidence the case for the project's need and desirability without reliance on the 2019 IRP.</p> <p>42.5. The 2019 IRP will likely need to be updated in the foreseeable future to align with South Africa's 2021 Nationally Determined Contribution under the Paris Agreement and to keep pace with quickly evolving science and significant reductions in price for solar and wind energy. However, even the 2019 IRP, which is rooted in an outdated and scientifically and economically unsound understanding of the necessity for any gas in the energy mix,<sup>51</sup> only projects the collective contribution of gas and diesel to the 2030 energy mix to be 1.3% combined.<sup>52</sup></p> <p>42.6. It will be more difficult to meet even the most conservative emissions targets set for just the next 10 years if gas is widely used for electricity generation. If South Africa's plans for gas to power transmission, combustion, and LNG export go as planned and the exported gas is used to generate electricity, many Asian and European states, including Japan, China, and the Middle East, won't be able to meet their already-announced climate commitments, let alone targets for more aggressive climate action, unless they make up for it by producing a lot more energy. This underlines the fact that increasing the use of gas for the production of electricity, including significant investments in long- lasting infrastructure for LNG export and gas-fired power that will support a global energy system dependent on fossil fuels, is not a realistic option for achieving planned climate change mitigation goals.<sup>53</sup></p> <p>42.7. Globally, producing all of the world's electricity by burning only gas—regardless of its source—nearly achieves the 2030</p>	

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			<p>target set by the Stated Policies Scenario for global electricity emissions, but it falls far short of the 2030 target set by the Sustainable Development Scenario, with emissions that are more than 50% higher.</p> <p>42.8. The 2019 IRP will likely need to be readjusted in the coming years to align with South Africa's 2021 Nationally Determined Contribution under the Paris Agreement. According to a recent report by Meridian Economics, the only economically rational role for gas in power generation is in very low volumes as a fuel for peaking plants, though diesel can fill this role with a similar carbon footprint, and that gas may never be a necessary or economical component of South Africa's energy mix.<sup>54</sup></p> <p>42.9. The Meridian report found that forcing high-use gas-to-power generation into the energy mix would entail a cost 40% higher than the alternative combination of peaking plant and renewables, with seven-fold higher carbon emissions for the power generation.<sup>55</sup></p> <p>42.10. Further, with no economic rationale for large-scale gas use in power, following such a strategy would deliver assets that are stranded before their first kWh of power is generated.<sup>56</sup> Even a recent report from the National Business Initiative—of which Shell is a part—heavily emphasised the risk of stranded assets that would necessarily accompany any investment in gas-to-power infrastructure.<sup>57</sup></p> <p>42.11. The additional GHG emissions that will originate from new oil and gas fields in South Africa (inland and offshore), will push the world closer to the tipping point of breaching</p>	



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			<p>the limit of 1.5 °C targeted at the 2021 COP26 UN climate summit, and should thus be avoided at all costs. Instead, South Africa should harness its impressive scientific and technical capacity to develop and harness sustainable, renewable energy sources, in line with the country's vast potential.</p> <p>43. In short, the need and desirability analysis set forth in the EIAR makes selective reference to certain policy instruments while ignoring others, does not account for South Africa's 2021 NDC under the Paris Agreement, and rests on an unsubstantiated proclaimed "need" for gas as a "transition fuel" that recent economic and scientific analyses have rejected.</p> <p>Specific comment on failure to consider regional and municipal policies relevant to need and desirability assessment</p> <p>44. The need for and the desirability of a proposed development forms a key component of any EIA application. The consideration of proposed developments in context of the various spatial planning tools and policies applicable to the study area forms an integral part of the present environmental assessment and authorisation processes.<sup>58</sup> The "need and desirability" will be determined by considering the broader community's needs and interests as reflected in a credible IDP, SDF and EMF for the area, and as determined by the EIA. It is important that national and provincial policies take cognisance of strategic concerns such as climate change and food security, as well as the sustainability in supply of natural resources and the status of our ecosystem services.<sup>59</sup></p>	

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			<p>Western Cape Climate Change Response Strategy</p> <p>45. It is imperative that as a starting point, both the EAP and the prospective decision maker consider the relevant context of the climate challenges faced by the Western Cape, by considering the latest draft climate change response strategy of the Western Cape which sets out the priorities of addressing development amidst the ever-growing challenge of climate change. Consideration of this policy document will inform and substantiate an effective approach to a need and desirability assessment.</p> <p>45.1. The response strategy prioritises its attempts to achieve by 2030, a 50% reduction in methane emissions<sup>60</sup>30% of land and sea areas, especially areas of particular importance for biodiversity and its contributions to people, are conserved.<sup>61</sup></p> <p>46. Furthermore, the Western Cape Government through its Department of Environmental Affairs, has advanced that the Western Cape needs a bold and ambitious, yet realistic climate strategy that can take the province toward net zero carbon emissions by 2050 with transformative risk reduction and adaptation actions; otherwise, all other development decisions and pathways currently being planned and implemented will be undermined.</p> <p>46.1. In other words, the need and desirability for fossil fuel developments is incompatible with the province's overall objective of ensuring development which does not exceed the ecological limits nor exacerbate ecological integrity.</p> <p>46.2. These type of developments or proposed projects must be measured against the short term and long-term public</p>	

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			<p>interest in order to promote justifiable social and economic development. The climate change response strategy identifies that to respond to climate change, the province and all its district and provincial governments must re-imagine its approaches to economic development and initiate the required shifts in key sectors that drive the economy such as agriculture, tourism and manufacturing.<sup>62</sup></p> <p>47. Having considered the current vision by the Western Cape government relating to its goal to reach net zero emissions in the province, it identifies those two crucial transitions that need to be made that are:</p> <p>(1) a shift from internal combustion engines to electric mobility and</p> <p>(2) a massive shift from fossil fuel-based energy to renewable energy sources.<sup>63</sup></p> <p>47.1. Given the rapid growth of renewable energy and energy storage technology, these predicted developments are considered plausible and desirable. As a result, the combination of the two will increasingly outcompete fossil fuels in terms of cost, facilitating a shift in the energy and transportation markets.<sup>64</sup></p> <p>47.2. Parallel to a longer-term emissions reduction program, the Western Cape Climate Change Response Strategy clearly states that the province will require a short-term focus on short-lived climate forcers. Short-lived climate forcers, such as black carbon, methane, tropospheric ozone, and hydrofluorocarbons, have a shorter atmospheric lifetime than carbon dioxide but have a higher global warming potential, which means they can warm the world faster and</p>	

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			<p>therefore exacerbate the climate change crisis within the region.</p> <p>48. As a result, the province's need and desire rests on targeted measures to cut these emissions by 2030, which can slow global warming by 0.6 degrees Celsius by 2050.65 48.1. This can and will be assisted by prioritizing renewable energy infrastructure investment, which will allow for proactive economic adaptation and low-carbon development, which the province administration realizes must take the shape of a "fair transition" to minimize further inequities.</p> <p>48.2. In terms of economics, this entails a reduction in exposure to carbon-intensive commodities or resources that will become more expensive over time, a focus on employment in sectors with the most secure and low-risk futures (such as tourism and small scale and commercial fishing on the West Coast areas), and social safety nets that reduce vulnerabilities to climate change and associated natural resource depletion.</p> <p>49. In order to achieve an equitable and inclusive transition to net zero emissions, the Western Cape Climate Change Response strategy<sup>66</sup> identifies the following actions that need to be pursued in both the short and long term:</p> <p>The energy sector must actively encourage innovation in energy services provision to accommodate renewable energy input and improve access to energy in low-income areas</p> <p>50. It is clear that the above advocates for the need and desire of shifting the province's resources and commitments towards directing development towards a more sustainable</p>	

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			<p>and resilient local economy that invests in renewable energy as a way of reducing the least cost and least regret to the economy and the environment for all residents of the province, including the residents that reside in the area of interest.</p> <p>50.1. This calls into question the findings made by the EAP pertaining to need and desirability of this particular development. It appears incompatible with the Western Cape's Climate Change Response Strategy and should be considered, referred to and discussed as part of the overall need and desirability assessment which in this case appears to not have been done by the EAP nor reflected in the need and desirability assessment outlined in Chapter 5.</p> <p>51. Lastly, with regards to the Western Cape Climate Change Response Strategy, it is imperative that the EAP draw his/her attention to the following goals or objectives which speak to the province's investment in natural climate risks and the increase in socio- economic resilience:</p> <p>The Western Cape's biological diversity and natural resources are under threat from pollution, overexploitation, invasion by alien plant species and escalating development – and this translates into a threat to our society and economy. Our land and ocean-based ecosystems are also under threat from climate impacts and need protection through long-term preparedness and forward planning. It is, imperative to address these threats and impacts, as they ultimately impact our economic potential from tourism, agriculture, the blue economy, and freshwater supplies. This affects all aspects of our lives, including industries and the economy at large; success of which are fundamentally resting on the health of our underlying ecosystems. We can no longer make</p>	

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			<p>investment and development planning decisions that undermine our natural capital and a new regenerative approach is required.<sup>67</sup></p> <p>52. Having considered the above, Natural Justice submits that it has been made clear that what is needed and desirable for the province must be considered and congruent with the province's priority as it pertains to its ambition to facilitate a just energy transition in response to climate change implications. This particular project by Total therefore must be evaluated in light of the Western Province's climate change response strategy goals and vision.</p> <p>53. Lastly, in applying the above to the context of the area of interest which implicates areas along the West Coast District, employment in the fishing and the tourism sector represent the most secure and low risk futures for a considerable amount of the population in the District Municipalities that make up the West Coast. Given South Africa's global responsibility to address climate change and adopt progressive climate change policies, the Western Cape Climate Change Response Strategy is a relevant piece of policy which the current EAP has failed to consider or refer to. A failure to factor and consider this crucial and relevant policy which is contextual to the Western Cape, invariably distorts the need and desirability of this development in favour of exploration despite the potential development grossly impacting the marine ecosystem.</p> <p>54. Without considering the Western Cape Climate Change Response strategy, Natural Justice submits that the EAP has not taken into account the carrying capacity restrictions, limits of acceptable change and thresholds that the current marine ecosystem currently maintains.</p>	

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			<p>54.1. This suggests that the current EIAr has not factored within its need and desirability assessment, the province's clear objective of reinforcing its goal and vision of prioritizing the sustainability in supply of natural resources and the status of our ecosystem services amidst climate change impacts.</p> <p>54.2. It is clear that the province has factored into its response to climate change, the need to justify the manner in which resources are to be used in addressing the current needs of society.</p> <p>54.3. It is unlikely that the development put forward by the project proponent, which is premised on the extraction of hydrocarbon resources, will not deprive future societies of the same opportunities provided by the ecosystem services of the marine environment. It cannot then be said that such a development is needed and desirable.</p> <p>West Coast District Municipality Amended IDP 2022-2027</p> <p>55. According to the West Coast District Municipality Amended IDP, its socio-economic development strategy is premised on a desired state for its coastal management strategy. This strategy focuses on facilitating socio-economic development around four key themes:<sup>68</sup></p> <ul style="list-style-type: none"> <li>• Development of marine aquaculture within the District</li> <li>• Supporting the Small-Scale Fisheries Industry</li> <li>• The facilitation of coastal tourism development</li> <li>• Preparing for the growth of the renewable energy sector</li> </ul> <p>56. In order to achieve the above, the municipality has identified a number of key priority interventions/strategies</p>	

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			<p>that will drive the implementation of the above four key themes notably:</p> <ul style="list-style-type: none"> <li>Assisting communities to benefit from the growing aquaculture industry,</li> <li>Assisting fisher folk communities along the entire West Coast to benefit from the small-scale fishing policy by supporting and facilitating in the prioritization of applications and allocations for permits.</li> <li>Promoting and supporting renewable energy projects that are being proposed in the WCDM area, provided that environmental sustainability is achieved.</li> </ul> <p>57. Given the above it is improbable that proposed gas exploration and possible production which will lead to upstream gas infrastructure, is indeed needed and desirable given the potential threats a catastrophic oil spill or decreased climate resilience poses to the Municipality's desired socio-economic development objectives which appear to prioritize the support of its marine aquaculture, and small scale fishery initiatives, the tourism sector and the growth of the renewable energy sector all to the benefit of the local community and economy. This all hinges on a resilient marine environment and ecosystem which will be threatened by climate change impacts and biodiversity impacts brought on by this potential development, which could destabilise environmental sustainability as established by the latest IPCC reports.</p> <p>City of Cape Town Climate Change Policy</p> <p>58. In the National Framework for Sustainable Development ("NFSD") (2008) it is stated that:</p>	



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			<p>"[T]he achievement of sustainable development is not a once-off occurrence and its objectives cannot be achieved by a single action or decision. It is an ongoing process that requires a particular set of values and attitudes in which economic, social and environmental assets that society has at its disposal, are managed in a manner that sustains human well-being without compromising the ability of future generations to meet their own need".</p> <p>59. This is in line with the NDP which is formulated on a range on principles that guide " the transition to an environmentally sustainable low-carbon economy, moving from policy, to process, to action". For this current project, it is important to draw the EAP and the prospective decision maker to the following principles that are the most relevant to guide a policy perspective that seeks to effectively protect the natural environment and mitigate the effects of climate change<sup>69</sup>:</p> <ul style="list-style-type: none"> <li>• Ecosystems protection: That is to acknowledge that human wellbeing is dependent on the health of the planet</li> <li>• Managed transition: That is to build on existing processes and capacities to enable society to change in a structured and phased manner</li> <li>• Opportunity focused: That is to look for synergies between sustainability, growth, competitiveness and employment creation, for South Africa to attain equality and prosperity.</li> <li>• Least regret: That is to invest early in low-carbon technologies that are least-cost, to reduce emissions and position South Africa to compete in a carbon-constrained world</li> </ul>	

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			<p>60. Natural Justice submits that it is imperative that the EIAr report's attention is to be drawn to one of the long-term goals of the City of Cape Town's Climate Change Policy, which is relevant to the current context and is necessary to factor into the need and desirability assessment. The following was stated:</p> <p>"Cape Town's natural ecosystems are protected, managed and made resilient so that they can act as effective buffers to climate change impacts and provide benefits of ecological infrastructure in support of current and future physical infrastructure". With regards to the City's ambition to ensure that short, medium, and long-term actions and decisions support its aims of reducing GHG emissions and improving resilience both directly and indirectly, it is committed to a lower carbon future, by supporting the call for responsible disinvestment in assets, companies and activities responsible for unmitigated high levels of carbon dioxide into our atmosphere."</p> <p>61. What is needed and desired for a specific area should primarily be strategically and democratically determined beyond the spatial extent of individual EIAs. The strategic context for informing need and desirability may therefore firstly be addressed and determined during the formulation of the sustainable development vision, goals and objectives of the various provincial and municipal plans and policies ("IDPs").<sup>70</sup></p> <p>61.1. Therefore, the substance of related plans, frameworks, policies and strategies must be taken into account when examining the merits of each application when "need and desirability" must be examined as part of an EIA process.</p>	

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			<p>61.2. It is in this context that it is submitted that the EIAr ought to have considered the City of Cape Town's climate change policy as part of its need and desirability assessment, in order to give effect to the underlying principles which are the consideration of the strategic context of the development proposal along with the broader societal needs and the public interest. This was not done by the current draft</p> <p>62. Furthermore, the City is committed through its climate change policy to ensure that there is the consideration and identification of climate change related impacts on the food system (food production, processing, availability, distribution, accessibility, utilisation, consumption and stability), whilst it is also committed to supporting all aspects of the food system so as to address of food security.</p> <p>62.1. The current EIAr report has not identified nor addressed the types of impacts that would befall local communities in all aspects of the food system as it relates to food production, processing, availability, distribution, accessibility, utilization and consumption and stability.</p> <p>62.2. In absence of this, it is unlikely that a finding can be made that the proposed development is needed and desirable despite such finding being incongruent with the City of Cape Town's Climate Change Policy which prioritises the support of all aspects of the food system for the benefit of food security of the local population.</p> <p>63. In order to determine whether or not the development will result in the securement of ecological sustainable development and the promotion of justifiable social and</p>	

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			<p>economic development, the specific needs of the broader community should be considered alongside the opportunity costs and distributional consequences.</p> <p>63.1. Although the draft scoping report (DSR) emphasizes that successful exploitation of oil and gas resources would contribute to economic growth and balance-of-payments relief (without addressing the economic growth opportunities presented by the further roll-out of renewable energy options), it uncritically presents 'ongoing exploration of local natural gas reserves' as a key action required to ensure that natural gas is a viable transitional fuel for use in the national electricity generation mix.</p> <p>63.2. It has not, however, addressed the need and appropriateness of exploration well-drilling within the context of environmentally sustainable development, particularly with due consideration of the potential implications for the entire development, including the complete life cycle which includes liquefaction, tanker transport, regasification and power plant operations.</p> <p>64. Therefore, to ensure ecological integrity, the need and desirability assessment ought to have considered and discussed an alternative approach to the proposed development (no go option) bearing in mind that development must not exceed natural constraints and suggested individual activities must be weighed against the short- and long-term public interest in order to support justified social and economic development. A proper EIAR assessment should have had regard to:</p>	

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			<ul style="list-style-type: none"> <li>Ecological and socio-economic consequences of a major oil spill (such as an uncontrolled wellhead blowout), including (but not limited to) potential impacts on small-scale fishers and coastal communities who rely on the ocean for their livelihoods, as well as potential impacts on living organisms in South Africa's coastal waters.</li> <li>The long-term effects of developing additional oil and gas fields within the exploration region off the entire South Western coastline, on South Africa's capacity to meet its international climate change commitments having regard to the current climate crisis.</li> </ul> <p>Specific comment on consideration of alternatives and the “no-go” option</p> <p>65. The EIA Regulations require that a scoping report contain “a full description of the process followed to reach the proposed preferred activity...”, including—</p> <p>(i) details of all the alternatives considered;</p> <p>(iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;</p> <p>(v) the impacts and risks which have informed the identification of each alternative, including the nature, significance, consequence, extent, duration and probability of such identified impacts, including the degree to which these impacts—</p> <p>(a) can be reversed;</p> <p>(b) may cause irreplaceable loss of resources; and</p> <p>(c) can be avoided, managed or mitigated;</p>	<p>65. - 69. Natural Justice's opinions and comments on the No-Go alternative are noted and should be taken into consideration by the Competent Authority in the decision-making process, together with the opinions of the economic specialist as presented the ESA Report.</p>

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			<p>(vii) positive and negative impacts that the proposed activity and alternatives will have</p> <p>on the environment and on the community that may be affected...". 71</p> <p>66. Therefore, the Scoping Report must contain a full description of the process followed to reach the proposed preferred activity—offshore oil and gas exploration drilling— including the negative impacts of the activity on the environment and community.</p> <p>67. Discussion of project alternatives was limited to the specific nature of the proposed preferred activity, such as timing/scheduling, the number of wells, and the drilling method. This information does not shed light on the process followed to reach the proposed preferred activity.</p> <p>68. The DSR did not discuss the no-go option, nor were any project alternatives offered which ought to be substantiated by the consideration of normal and worst-case scenarios particularly as they relate to issues pertaining to project feasibility. In the EIAR, the No-Go option was added, but it was assessed using an improper scale.</p> <p>69. The No-Go alternative, as discussed in Chapter 5, on page 74 of the EIAR, “assumes no future oil and gas exploration and production in South Africa” as a whole, rather than focusing on the specific No-Go alternative for this particular project’s exploration and production activities in Block 5/6/7. As a result, the negative impacts of the No-Go alternative are overly broad.</p>	<p>67. - 71. A summary of the project alternatives is presented in Section 6.6 of the ESIA Report. Although the various alternatives are considered and assessed in Chapters 9 and 10, a comparative impact evaluation of project alternatives is presented in Section 12.3, which highlights the preferred alternative, where applicable.</p> <p>68. The No-Go alternative was briefly mentioned in Table 6-11 of the draft Scoping Report. However, the No-Go alternative was presented in detail in the final Scoping Report (Section 5.7).</p>

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			<p>70. Not only does the EIAR fail to indicate whether alternative activities apart from offshore oil and gas exploratory drilling were considered, but it also fails to provide adequate analysis of the environmental harm the proposed drilling may have—particularly with respect to climate change.</p> <p>71. Where relevant, different operating scenarios (as well as probability of occurrence) should be provided including normal and worst-case scenarios to ensure that these are taken into account in the impact assessment and decision making. Furthermore, key swing variables (i.e., those key variables that influence project feasibility and the consideration of project alternatives) should be identified and defined well upfront and in clear language throughout this draft report, and not merely left for subsequent reports. This will ensure that all relevant scenarios are accounted for and addressed throughout the entire impact assessment phases. This has, however, not been addressed in the DSR.</p> <p>Specific comment on the failure to assess cumulative environmental and social impacts in the context of climate change</p> <p>72. The EIA Regulations state the following with respect to identifying cumulative impacts of the proposed activity at the scoping stage:</p> <p>“The objective of the scoping process is to, through a consultative process—</p> <p>(d) identify and confirm the preferred site, through a detailed site selection process, which includes an identification of impacts and risks inclusive of identification of cumulative impacts and a ranking process of all the</p>	<p>72. The cumulative impact is assessed in Section 9.4 of the ESIA Report. The EIA Regulations 2014 require the consideration of the ‘cumulative impact’, which includes the “reasonably foreseeable future impact of an activity”. While it is foreseeable that future production activities could arise from the Exploration Right (if granted and successful), there is not currently sufficient information to make reasonable assertions as to nature of any future activities. This is due to the current lack of relevant geological information, which the proposed exploration process aims to address. The possible range of the future exploration or production activities that may or may not arise vary hugely in scope, location, extent, and duration depending on whether a petroleum resource(s) is</p>

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			<p>identified alternatives”72</p> <p>73. Furthermore, when it comes to assessing possible cumulative impacts to the marine environment as well as climate change impacts, the specialist should assess and consider the broad context of the proposed project (i.e. beyond the boundaries of the specific site) and the role of the site within that context (e.g. whether or not the fact that the site is located within a migratory corridor influences the spatial boundary of the specialist’s input).</p> <p>74. The specialist must have considered the full spectrum of contexts within which impacts may be realized, i.e., the local, regional, national or global context. The specialist must have considered potentially significant direct, indirect and cumulative impacts of a proposed activity. This requires consideration of the following:</p> <ul style="list-style-type: none"> <li>• Conceptualisation of possible cause-effect pathways resulting from the proposed development;</li> <li>• An understanding and assessment of the current and future plans, projects and activities in the same area;</li> <li>• An awareness and identification of other threats or trends that could affect the system, communities or species located within the area in which the development is proposed;</li> <li>• An understanding of the likely resilience and status of affected systems, communities or species;</li> <li>• An understanding of broader strategic goals or targets for the area that would be affected by the proposed project.</li> </ul> <p>75. The current scoping report has failed to apply the above methodology with regards to the assessment of the cumulative impacts as required by NEMA. This methodology</p>	<p>discovered, its size, properties and location, etc. These cannot be reasonably defined until this study has been completed and further exploration undertaken. It would not be reasonable to undertake an assessment of the environmental impacts of an undefined project. Potential impacts cannot be reliably assessed, and the range of outcomes is so vast that the findings would be speculative at best and of no value in ascertaining the potential impacts. It is also possible that the proposed, or future, exploration determines that an economic petroleum resource does not exist, in which case there would be no production or potential impacts. The provisions of NEMA and the EIA Regulations 2014 neither provide for, nor contemplates, that the potential impacts and risks of productions activities must be considered and assessed at the exploration stage. Any potential future production activities would need to be subject to the requisite environmental assessment and authorisation process under the NEMA, during which, the impacts related to these activities would need to be assessed as part of this separate ESIA process. This is typical of the lifecycle of a development project. -</p>



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			<p>and approach must be considered and adopted in subsequent impact assessment reports in order to comply with the requirements of NEMA and its EIA regulations.</p> <p>76. In terms of addressing the socio-economic issue of employment, Government representatives will probably explain how the Total discovery will generate much-needed jobs in South Africa. Sad to say, it is unlikely to result in a significant increase in employment. Any employment opportunities will probably be limited to highly specialized positions related to the recovery of the gas or to any potential conversion of the gas to liquid form in South Africa. Even if such development did occur, the available jobs would, once again, be primarily of a highly skilled and technical nature.</p> <p>77. The EIAR also fails to identify important considerations, such as the impact of operational noise on other industries and activities, such as tourism, commercial fishing, and small-scale fishing. Page 203 of the Marine Ecology Impact Assessment includes a diagram which compares sources of sound in the ocean. This diagram plots the spatial extent of the noise (km), as well as the duration (hours, days, weeks, months, years, and decades). In this diagram, the operational noise from oil and gas, subsea mining, and wind farms ("operational noise") overlaps with a broad range of other sources of sound, at least in terms of intensity. These sources include fish finders and small boats, as well as more</p>	<p>76. It is noted in the ESIA that the proposed exploration project is of a relatively short-term duration (approximately six months per well) limiting any potential for long-term development benefits. In addition, TEEPSA will likely contract local contractors where the skills and expertise are available, and this will be the larger and more established businesses and bulk suppliers. There are only likely to be restricted benefits to local SMME's outside of incidental expenditure.</p> <p>The majority of the workforce will comprise highly specialised skilled staff that will come in with the drilling unit (180 - 200 people working on rotation). In addition, up to 177 local people mainly linked to existing suppliers could be appointed on the proposed project per well drilling campaign. As a result the benefits related to for local service providers and suppliers due to employment and business opportunities is of negligible significance (positive)</p> <p>77. The impact of undertaken noise is considered in the ESIA. In order to assess the potential impact of noise on marine fauna and fishing, and indirectly on tourism (whales), an underwater noise monitoring study was undertaken, which determine the zones of impact for injury and disturbance. The other specialist assessments considered these zones of impact in relation to various sensitivities (e.g. key feeding and spawning areas, MPAs, key fishing areas, etc.). It should be noted that the underwater noise modelling study takes the current ambient noise levels into account, which are in fact 10 dB higher than the lowest level and are considered within the cumulative noise impact models.</p>

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			<p>significant sources of sound, such as coastal construction, hurricanes, explosions, and seismic surveys. With respect to duration, most sources of sound fall within the range of hours to years. Only operational noise and shipping fall within the range of years to decades. This suggests that the operational noise is high in intensity and in duration. Specific assessment of the socioeconomic impacts of this sound on other industries is necessary.</p> <p>Specific comment on the failure to address climate change impacts on the proposed project</p> <p>78. In addition to assessing the impacts of the proposed project on climate change, the EIAr and subsequent environmental impact assessment process must assess the impacts of climate change on the proposed project. The EIAr does not indicate what climate change impacts may affect the proposed project, nor does it assess the effect of these impacts on the project's viability, desirability, or environmental and socio-economic impacts. Further, the EIAr fails to identify how the future climate change impact assessment and related assessments will identify, study, and assess the impacts of climate change on the project. The absence of such information from the EIAr is particularly concerning, as climate change increases the likelihood of spills and blowout events,<sup>73</sup> which would have a major environmental, economic, and human rights impact in and beyond the proposed drilling area.</p> <p>79. In <i>Earthlife Johannesburg v Minister of Environmental Affairs and Others</i>, the High Court held that a climate</p>	<p>78. - 80. As noted above, the potential impacts on air quality and climate change related to the proposed exploration project are assessed in Section 9.1.1.1 and 9.1.1.2, respectively. Potential impacts relating to production will need to be considered as part of the Production Right application and separate ESIA process should the project move onto production, including climate change impacts associated with production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIAs undertaken in South Africa.</p>

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			<p>change impact assessment must be undertaken and that such an assessment not only must include an assessment of the project's contribution to climate change over its lifetime, but the climate change impact assessment must also assess the resilience of the proposed project to the impacts of climate change.<sup>74</sup></p> <p>80. As discussed in prior comments, South Africa is particularly vulnerable to the impacts of climate change, including the impacts of sea level rise, temperature increase, and increased frequency of extreme weather events. Energy infrastructure is not immune from these impacts.</p> <p>80.1. A 2022 study published in the Journal of Marine Science and Engineering, which included a review of recent research on climate change impacts on oil and gas infrastructure, concluded that "climate change represents a serious threat to the coastal and offshore oil and gas infrastructure and contributes to the oil spill risks".<sup>75</sup></p> <p>80.2. The pressures and temperatures that exist at great depths make deep-water drilling technically difficult and dangerous. Remote submarines are required because as the drills go deeper, the water pressure increases. The pressure of the gas or oil in the reservoir increases with increasing drilling depth, making it extremely challenging to control the upward flow. Failing to do so can result in a blowout. All drilling platforms and supporting infrastructures must float due to the ocean's depths, which presents an additional challenge for all operations.</p> <p>In addition to these difficulties, the discovery is situated in some of the world's most dangerous waters.<sup>76</sup></p>	

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			<p>80.3. In recent years, Total's track record for gas exploration has not been good. In the North Sea, on Total's Elgin drilling platform, a significant gas leak happened in 2012. Up to 200 000 cubic meters of gas per day, 90% of which was methane (natural gas's primary component), which is 30 times more potent as a greenhouse gas than carbon dioxide, leaked from the platform between 25 March and 16 May. The Health and Safety Executive of the British Government ultimately fined Total R20 million for the accident, stating that "this incident was foreseeable and entirely preventable." According to insiders in the industry, the gas from flares was only saved from a major catastrophe because of the current wind conditions.<sup>77</sup></p> <p>80.4. Among other impacts, the study found that sea level rise can impact offshore oil and gas infrastructure through both flooding and erosion—putting the drilling infrastructure and pipelines at risk of damage and disruption.<sup>78</sup> Extreme wave heights and extreme weather events render offshore drilling infrastructure particularly vulnerable to damage, which of course can then lead to further environmental harm such as by the increased likelihood of oil spills.<sup>79</sup> Further rising ocean temperatures can cause maintenance issues and reduce the efficiency of the drilling process.<sup>80</sup></p> <p>81. The EIAr does not address the impact that climate change is likely to have on the proposed project. Without this information, it is not possible for the EIAr to properly motivate the need and desirability of the project or make a preliminary assessment of the project's likely environmental impacts, as required by the EIA Regulations.</p>	<p>81. - 83. Issues relating to need and desirability and assessment of impact during production have been responded to above and are not repeated here.</p>

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			<p>82. Further, the EIAr does not indicate how climate change impacts will have been considered in clear and concise and understandable language throughout the environmental impact assessment process as required by the EIA Regulations. This omission means that interested and affected parties (I&amp;APs) who may not possess their technical expertise to understand complex valuations and assessment have not had do the effective and reasonable opportunity to comment on the adequacy and scope of any study to be undertaken on these climate impacts.</p> <p>83. Without an adequate assessment of the impacts of climate change on the proposed project, including impacts efficiency, environmental harm, and likelihood of spills and blowouts, the subsequent study has failed to provide the decision-maker with sufficient information to grant an environmental authorisation.</p> <p>Specific comment on the need to include the National Environmental Management: Integrated Coastal Management Act in the Legislative Framework</p> <p>84. The EIAr mentions but does not give due consideration to the National Environmental Management: Integrated Coastal Management Act (NEM:ICMA) in describing the legislative framework, and any subsequent impact assessment must provide adequate consideration to the NEM:ICMA and its requirements.</p> <p>85. The EIA Regulations require that a scoping report contain: a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal</p>	<p>84. - 87. Chapter 2 provides a summary outline of the South African administrative framework, key legislative requirements (including ICMA) and other relevant local legislation and international conventions applicable to the proposed exploration activities and the ESIA process.</p> <p>In making a decision on the current application the Competent Authority will need to consider the findings of this ESIA, other relevant legislation (e.g., ICMA), and national strategic policy relating to energy and climate change. It is noted in the ESIA Report that as the proposed project falls under the definition a "coastal activity" and is located within "coastal waters", the Competent Authority, in terms of Section</p>

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			<p>development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process<sup>81</sup></p> <p>86. Block 5/6/7 is situated within “coastal waters”<sup>82</sup>, which are “coastal public property”<sup>83</sup> and fall with the “coastal zone”<sup>84</sup>; and the proposed exploration constitutes a “coastal activity”<sup>85</sup> and consequently the decision-maker must take account of section 63(1) of NEM:ICMA when rendering a decision on the application for environmental authorisation.</p> <p>86.1. Section 63 of NEM:ICMA sets forth numerous considerations which the decision-maker must make, and as such, it is crucial that the EIAr include these requirements and articulate how the impact assessment process will ensure that the information needed to consider all of these factors is placed before the decision-maker.</p> <p>87. The EIAr should have described the relevant requirements that NEM:ICMA stipulates for coastal property and coastal activities, including the protection and use of coastal property in the interests of the whole community.</p> <p>Specific comment on Marine Protected Areas and biodiversity</p> <p>88. Though the EIAr indicates that the exploration wells will not be drilled in the Marine Protected Areas, there are numerous MPAs within Block 5/6/7 and even more within the project’s area of indirect influence.</p> <p>88.1. The absence of drilling in the MPAs is not synonymous with the absence of harm in the MPAs. The drilling has the potential to have adverse impacts on marine life outside the</p>	<p>63, must take a number of factors into consideration in deciding on the application for Environmental Authorisation, including, amongst other:</p> <ul style="list-style-type: none"> <li>The likely impact of the proposed activity on the coastal environment, including cumulative effect of its impact together with those of existing activities.</li> <li>The likely impact of coastal environmental processes on the proposed activity.</li> </ul> <p>88. - 90. The area of interest for drilling does not overlap with any MPAs or EBSAs. The area does, however, overlap with a Critical Biodiversity Area. All potential impacts, taking these sensitive areas into consideration, have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report. A summary of the risks to sensitive habitats is provided in Section 9.2.2.1.5 of the ESIA Report.</p>

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			<p>drilling area—including in the adjacent MPAs. Further, exploration drilling adjacent to these MPAs contravenes and undermines the purposes for which the MPAs were established.</p> <p>89. At a minimum, the EIAr should have analysed whether noise pollution, habitat disruption, or other foreseeable ecosystem disturbances from the exploration drilling could cause harm outside of the testing areas, including in adjacent MPAs.</p> <p>90. The marine realms of South Africa are home to about 13 000 species, including almost a quarter of all cephalopods in the world (octopus, squid and cuttlefish). South Africa ranks third in the world for the endemism of marine species, with more than 3800 species occurring nowhere else on the planet. Even so, given the limited and dated current knowledge of marine life in South African waters, even these astounding statistics might only provide a partial picture.<sup>86</sup> For instance, samples from the coastal zone in South African waters were primarily (83%) taken from depths shallower than 100 m before 1980. <sup>11</sup> Over 65% of South Africa's abyssal zone, which is located at a depth of 5700 m, is deeper than 2000 m. The abyssal plain in South African waters is completely unexplored and has not been surveyed for marine life. Wells would eventually need to be drilled there to anchor rigs for hydrocarbon extraction.<sup>87</sup> Undoubtedly, there are still a lot more species to be found in the waters off South Africa. With the recent declaration of 20 more offshore Marine Protected Areas (MPAs) in South Africa, 5.4% of the marine environment within the country's continental EEZ is now protected, with 3% of that</p>	

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			<p>area designated as "restricted" or "no-take."88 This preservation falls short of Goal 14.5 of the 2015 United Nations Sustainable Development Goals, which calls for the protection of at least 10% of ocean ecosystems and habitats by 2020, despite being admirable.89</p> <p>90.1. The EIA Regulations require that a scoping report contain information on the potential harm to the environment:</p> <p>A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include—</p> <p>(vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects90</p> <p>90.2. No such analysis appears to have been undertaken in the EIAR. If the project moves beyond the scoping phase, the EIA process and specialist reports must assess all potential impacts on MPAs, Critical Biodiversity Areas, and Ecologically Sensitive Biodiversity Areas.</p> <p>91. If the effects of the drilling will in fact be experienced in the MPAs, this could be considered a violation of National Environmental Management: Protected Areas Act (NEM:PAA), but this legislation was not given adequate consideration in the EIAR.</p>	<p>90.1 The Scoping Report was accepted by DMRE in August 2022. This Comments and Responses Report deals with the draft ESIA Report. This said, the ESIA Report assesses impacts related to both normal operations and unplanned events (e.g. oil spills) - refer to Chapter 9 and 10, respectively.</p> <p>91. This statement is not correct. Chapter 2 provides a summary outline of the South African administrative framework, key legislative requirements (including NEM:PAA) and other relevant local legislation and international conventions applicable to the proposed exploration activities and the ESIA process.</p>



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			<p>91.1. The NEM:PAA states that no person may in a protected area “in any manner which results in an adverse effect on the marine environment, disturb, alter or destroy the natural environment...”<sup>91</sup> or “carry on any activity which may have an adverse effect on the ecosystem of the area”.<sup>92</sup></p> <p>91.2. The EIA Regulations require that an EIAr contain “a description of the policy and legislative context within which the development is proposed including an identification of all legislation, policies, plans, guidelines, spatial tools, municipal development planning frameworks and instruments that are applicable to this activity and are to be considered in the assessment process”.<sup>93</sup></p> <p>91.3. The EIAr failed to recognise the applicability and importance of the NEM:PAA in describing the legislative and regulatory context to which the proposed project is subject. Compliance with the NEM:PAA must be analysed in any EIA process that the project proponents undertake.</p> <p>92. The Marine Ecology Impact Assessment did note some information of particular concern, but this was not highlighted in the EIAr. Page 189 of the Marine Ecology Impact Assessment discusses the impact significance of Bioaccessibility of Drilling Mud Ingredients:</p> <p>In the case of discharges of cements and WBM at the well bore and NADFs below the sea surface, the potential toxicological effects of drilling mud constituents and cement additives on the low-sensitivity receptors expected in the unconsolidated sediments on the continental slope and in the water column are deemed to be of VERY LOW significance for sediment toxicity due to the high magnitude, and NEGLIGIBLE significance for the water</p>	<p>For oil and gas exploration activities, although vessels are permitted to sail through these areas, no seismic acquisition or well drilling is permitted in any proclaimed MPA. As noted above, the proposed exploration drilling within Block 5/6/7 will avoid any MPAs and no discharge or disposal of waste will take place within any MPA.</p> <p>92. - 95. The ESIA Report provides a summary of the technical and specialist studies undertaken in order to assess all potential impacts. The full specialist studies are appended and form part of the ESIA Report - these studies should be seen as part of the ESIA Report.</p> <p>The Marine Ecology Impact Assessment has adopted a ‘desktop’ approach. Consequently, the description of the natural baseline environment in the study area is based largely on the baseline descriptions based on a review and collation of existing information and data from the scientific literature, internal reports and the Generic Environmental Management Programme report compiled for oil and gas exploration in South Africa (CCA and CMS 2001), as well as and the Marine Mammal Observer (MMO) Close-Out Reports from previous</p>

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			<p>column. However, should near-bottom currents disperse the drilling muds onto the edge of the Brown's Bank MPA and EBSA, the Cape Canyon and associated Islands, Bays and Lagoons EBSA or the CBA located within the Area of Interest, the significance of potential toxicological effects would be deemed of HIGH significance due to the high sensitivity of the receptors and the high magnitude.</p> <p>93. As the sea and currents are dynamic, and conditions such as storm surges, can cause waste or chemicals to be taken up by currents and transported across significant distances, we cannot rule out the risk of pollutants reaching the above-noted protected areas.</p> <p>94. Given that the impact significance was ranked as HIGH, and that this outcome could constitute a violation of NEM:PAA, this information should have been mentioned in the EIAr.</p> <p>95. As indicated above, the EIAr must contain all relevant information on how the proposed project and site were selected, including an explanation of potential risks and negative impacts. However, key information regarding ecologically sensitive areas is missing from the EIAr, and it relies on outdated studies in making claims about sensitive habitats in the project area.</p> <p>95.1. Attention should be drawn to the following statements as outlined in the Chapter 7 detailing the receiving environment on page 132 where it is acknowledged: The Area of Interest for proposed exploration drilling is dominated by ecosystems rated as 'Least Concern' by the 2018 National Biodiversity Assessment, with only marginal overlap with the 'Vulnerable' Cape Canyon habitat. Most of</p>	<p>seismic surveys in the area. Although no additional baseline surveys will be undertaken to obtain further primary data for Block 5/6/7, TEEPSA is planning to undertake an Environmental Baseline Survey prior to drilling, assuming Environmental Authorisation is received, as well as a specific pre-drilling site survey.</p> <p>Further to the above, this comment from Natural Justice regarding not highlighting information is incorrect, as the ESIA does in fact assess the impact on vulnerable hard-ground communities as a result of drill cuttings to be of high significance prior to mitigation. This impact is, however, reduced to medium significance with mitigation.</p>

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			<p>the Area of Interest for drilling is ‘not protected’ with only the inshore portions along the shelf edge being ‘poorly protected’</p> <p>95.2. The report goes on to acknowledge that there is a current lack of knowledge of the community structure and endemism of South African infauna off the edge of the continental shelf such as the South Atlantic Bathyal and Abyssal Unconsolidated Habitat Types. These areas characterise depths beyond 500 m, and have been rated as being of ‘Least concern’ in the 2018 National Biodiversity Assessment, reflecting the great extent of these habitats in the South African EEZ.</p> <p>95.3. Given the above, the accuracy of EIA predictions is largely dependent on the quality of the ecological data already available (e.g., temporal and spatial coverage, taxonomic resolution, measures of natural variation, types of fauna observed and collected, etc.), as well as empirical data or model predictions of how ecological features respond to human stressors. Even in the most well-known deep-sea habitats, it may be necessary to conduct extensive new survey activities in order to collect planned, consistent, and ecologically sound data for EIAs.</p> <p>95.4. It is therefore submitted that given that the report acknowledges a current lack of knowledge of the community structure within the area of interest, its accuracy of its own predictions is seemingly dependent on ecological data which is either outdated or is based on data which has not considered recent empirical data on how ecological features in the area of interest will respond to further human stressors. It is imperative that more</p>	

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			<p>extensive and new assessment survey activities are planned and conducted, with ecologically sound data, within the upcoming marine ecology specialist reports/studies.</p> <p>Specific comment on heritage resources</p> <p>96. NEMA was enacted to give effect to the Constitutional right to a healthy environment encapsulated in Section 24 of the Constitution. NEMA's definition of the term "environment" specifically includes the "culture properties and conditions" of the land, water, atmosphere, and biodiversity that comprise the surroundings within which humans exist.<sup>94</sup> This means that cultural significance and values associated with the natural environment are inextricable from the environment and must be considered in identifying and assessing the impact of a proposed activity on the environment.</p> <p>96.1. According to NEMA, the tools intended to ensure integrated environmental management, such as scoping reports and environmental impact assessments, should be in furtherance of the following objective:</p> <p>"The general objective of integrated environmental management is to- (b) identify, predict and evaluate the actual and potential impact on the environment, socio-economic conditions and cultural heritage, the risks and consequences and alternatives and options for mitigation of activities, with a view to minimising negative impacts, maximising benefits, and promoting compliance with the principles of environmental management set out in section 2"<sup>95</sup></p>	

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			<p>96.2. These section 2 principles include the following, which requires environmental management to serve the cultural needs of the people equitably:</p> <p>“Environmental management must place people and their needs at the forefront of its concern, and serve the physical, psychological, developmental, cultural and social interests equitably.”<sup>96</sup></p> <p>96.3. Further, NEMA requires that environmental management is sustainable, meaning, in part, “that the disturbance of landscapes and sites that constitute the nation’s cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied”.<sup>97</sup></p> <p>96.4. The National Heritage Resources Act, 25 of 1999 ("NHRA"), provides further guidance with respect to which heritage resources are constitute “the nation’s cultural heritage”. One of the aims of the NHRA is to “promote good management of the national estate and to enable and encourage communities to nurture and conserve their legacy so it may be bequeathed to future generations" (NHRA, Preamble).</p> <p>96.5. Pursuant to this objective, “those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities”.<sup>98</sup></p> <p>97. These heritage resources must be identified and the potential impact on these resources assessed as part of a heritage impact assessment. In addition to the tangible heritage resources such as shipwrecks and associated</p>	

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			<p>debris, which are mentioned in the EIAR, heritage resources which must be considered include “places to which oral traditions are attached or which are associated with living heritage”,<sup>99</sup> and “landscapes and natural features of cultural significance”.<sup>100</sup></p> <p>98. The EIAR’s discussion of the NHRA only addresses archaeological sites and wrecks (and associated debris) and does not address living heritage, which is protected under the NHRA and which must be taken into account in identifying the heritage resources that may be impacted by the project, assessing the nature, extent and likelihood of the impact on these heritage resources, and proposing mitigation measures for these adverse impacts.</p> <p>98.1. The NHRA defines living heritage as “the intangible aspects of inherited culture, and may include — cultural tradition; oral history; performance; ritual; popular memory; skills and techniques; indigenous knowledge systems; and the holistic approach to nature, society and social relationships”.<sup>101</sup></p> <p>98.2. Even where there are not protected archaeological remains in an area, such as shipwrecks, there may be cultural traditions, rituals, or other living heritage associated with the site.</p> <p>98.3. The EAP and heritage specialist are required to place sufficient information on these heritage resources, and the project’s potential impact on these resources, before the decision-maker. The impact on these resources must also form part of the need and desirability assessment for the project, even during the scoping phase.</p>	<p>98. This statement is not correct. The impact on people's intangible cultural heritage and sense of place is assessed in the ESIA - refer to ESIA (Sections 9.1.6, 9.1.7, 10.4.3.3 and 10.4.3.4) and specialist studies (Appendix 13 and 14 in Volume 3). It should be noted that the South African Heritage Resources Agnese (SAHRA) has reviewed the Cultural Heritage Impact Assessment and, expect for a few minor corrections, has no issued with the finding of this report (see comment from SAHRA above).</p>

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			<p>98.4. Failure to properly identify heritage resources in the project area and adequately assess the potential impacts on these resources, including cumulative impacts, will result in a violation of the NHRA, as well as local and indigenous communities' cultural rights as protected under section 30 of the Constitution.</p> <p>99. The EAP and heritage specialist must consult indigenous and local communities in identifying heritage resources, including living heritage, as well as assessing the potential impacts of the project on these heritage resources and evaluating the efficacy of any proposed mitigation measures.</p> <p>99.1. NEMA requires that decisions on environmental management account for the interests, needs, and values of potentially impacted communities and integrate all forms of knowledge—including traditional knowledge and the lived experiences of communities into the decision-making process:</p> <p>"Decisions must take into account the interests, needs, and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge".102</p> <p>99.2. In order for the decision-maker to render such a decision in compliance with this requirement, the EAP must place sufficient information before the decision- maker through the scoping report, impact assessment, and specialist reports. This mandate is articulated in Appendix 2 of the EIA Regulations, in which Regulation 2(1) states the following with respect to assessment of the proposed activities and</p>	

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			<p>description of the proposed consultation process to be undertaken in the EIA phase:</p> <p>"A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including</p> <p>location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include—</p> <p>(vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects<sup>103</sup></p> <p>99.3. In light of these legislative and regulatory mandates, the EAP and heritage specialist must consult indigenous and local communities in identifying heritage resources, including living heritage, as well as assessing the potential impacts of the project on these heritage resources and evaluating the efficacy of any proposed mitigation measures. The mere fact that SAHRA is a registered stakeholder is not sufficient to ensure that all heritage resources are identified and the potential impacts on these resources assessed.</p> <p>100. The list of communities and groups who will be consulted as part of the heritage impact assessment process should have been made available to interested and affected parties during the scoping phase in order for I&amp;APs to identify gaps in the proposed consultation and assessment process.</p>	<p>99. - 109. A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report. This consultation included the consult indigenous and local communities. It should also be noted that the cultural heritage specialist did collect primary anthropological data in key local communities within the Project's indirect area of influence between Port Nolloth and Gqeberha as part of the Cultural Heritage Impact Assessment - detailed are provided in the specialist report (Appendix 14 in Volume 3).</p>



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			<p>101. The EIAr acknowledges that waterways are described as 'living' waters and are believed to play a critical role in spiritual and health management in Indigenous (First Peoples and Nguni) groups specifically. There is limited discussion on the specific beliefs concerning these 'living' waters, and the specific groups that were consulted regarding this information.</p> <p>102. Review of the Cultural Heritage Impact Assessment indicates that the authors of this study reviewed several regions and found some of the following impacts (pages 45 to 46), among others:</p> <ul style="list-style-type: none"> <li>• North Belt Coast: Normal operations may affect the marine life on which small-scale fishers depend on their livelihood and pollution may affect tourism receipts in the area.</li> <li>• Western Cape Coast: Coastal towns in this area are used for leisure, tourism, subsistence fishing, and spiritual/ancestral rituals. The residents shared deep beliefs regarding the ocean as a living thing, which whom which humans must develop a symbiotic and sustainable relationship.</li> <li>• South Cape Coast and Eastern Cape: Potential impacts may be high to very high for these sites because of the multiple uses and users of the coastline. Of note, local people in this region ingest the seawater for ritual purposes. If the water is polluted, this may impact human health.</li> </ul> <p>103. This information was not incorporated into the EIAr.</p> <p>103.1. The EIA Regulations require that the person conducting the public participation</p>	<p>103. This comment from Natural Justice regarding information not being incorporated into the ESIA Report is incorrect. The ESIA Report provides a summary of the technical and specialist studies, include the Cultural Heritage Impact Assessment, undertaken in order to assess all potential impacts. The full specialist studies are appended and form part of the ESIA Report - these studies should be seen as part of the ESIA Report.</p>

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			<p>process ensure that “(a) information containing all relevant facts in respect of the application or proposed application is made available to potential interested and affected parties”.<sup>104</sup></p> <p>103.2. The details of the proposed consultation process to be undertaken with impacted communities constitutes relevant facts and should have been made available to potential I&amp;APs for comment. These relevant details include a list of which communities will be consulted, the methodology used to identify the communities to be consulted, the proposed methodology for the consultation itself, and whether the proposed project has been subject to any prior consultation thus far with particular communities who may be impacted.</p> <p>103.3. The failure of the EAP to include this crucial information in the EIAR has deprived interested and affected parties of their right to review and comment on the development of the methodology to be adopted and to identify which cultural groups or communities should form part of the scope of the consultation to be undertaken with respect to heritage and cultural resources and rights.</p> <p>103.4. The EIAR fails to adequately describe the envisaged methodology for undertaking the heritage impact assessment and consultation process with local and indigenous communities. Because of the EIAR’s insufficiency in this regard, it is unclear whether the envisaged heritage assessment process will include proper consultation of indigenous and local communities in identifying heritage resources and the potential impacts of the project on these resources.</p>	<p>A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report. This consultation included the consult indigenous and local communities. It should also be noted that the cultural heritage specialist did collect primary anthropological data in key local communities within the Project's indirect area of influence between Port Nolloth and Gqeberha as part of the Cultural Heritage Impact Assessment - detailed are provided in the specialist report (Appendix 14 in Volume 3).</p>

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			<p>Specific comment on public participation</p> <p>104. It is an accepted principle of international law that communities have the right to grant or withhold their free, prior and informed consent to any extractive project that will significantly affect them.<sup>105</sup></p> <p>104.1. NEMA also protects communities' constitutional right to participate in environmental decision-making processes:</p> <p>"The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured."<sup>106</sup></p> <p>104.2. Regarding the scope of information that must be provided during the public participation process, "meaningful consultation entails providing communities with the necessary information on the proposed activities and affording them an opportunity to make informed representations."<sup>107</sup> The EIA Regulations state:</p> <p>"The public participation process contemplated in this regulation must provide access to all information that reasonably has or may have the potential to influence any decision with regard to an application unless access to that information is protected by law and must include consultation with...(d) all potential or, where relevant, registered interested and affected parties."<sup>108</sup></p> <p>105. Public information and participation procedures must provide interested and affected parties with a "reasonable</p>	<p>104. - 108. A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report. This consultation included the consult indigenous and local communities.</p>

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			<p>opportunity to participate in those information and participation procedures.”<sup>109</sup></p> <p>105.1. According to the Public Participation Guideline issued by the Department of Environmental Affairs (DEA), the public participation requirements outlined in the Environmental Impact Assessment Regulations represent a minimum level of obligations that is not necessarily sufficient for all applicants. The situation of all applicants is different, and the circumstances of certain applicants may call for extra steps to ensure that they have access to the process.<sup>110</sup> To this end, the Guidelines require that mechanisms used for engagement and notification “suitably allow for engagement of all I&amp;APs that may be illiterate or disabled or who may have any other disadvantage.”<sup>111</sup></p> <p>105.2. In its interim interdict decision in Adams and Others v Minister of Mineral Resources and Energy and Others, the High Court held that a notification process which included advertisements in newspapers as well as emails, web publications, and hard copies at libraries excluded poor and illiterate parties.<sup>112</sup> The Court makes it clear that public participation demands a real effort to foster meaningful participation among I&amp;AP. The Court indicated that if a corporation truly wants to ensure that members of affected communities are included in the consultation process, they should call community meetings and make effective use of other targeted and accessible means of consultation.<sup>113</sup></p> <p>105.3. TEEPSA published the notice for this project in newspapers that are infrequently read by members of affected communities, made radio announcements over a holiday</p>	<p>105.3. This comment from Natural Justice regarding advertising and radio notices, holidays and posters is factually incorrect. A</p>

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			<p>weekend, and posted notices in inconvenient locations that were inaccessible to large numbers of affected people.</p> <p>106. Databases of I&amp;APs can prove useful tools for project developers to make sure that parties are appropriately informed. It is important, however, to make sure that these databases are inclusive, otherwise they can have the opposite effect.</p> <p>106.1. The Public Participation Guideline includes specific instructions for how to determine which stakeholders should be specifically approached, including through collaborative measures such as a chain referral systems where key stakeholders are asked to assist in identifying other stakeholders.<sup>114</sup></p> <p>106.2. By relying solely on its own information to create a database of I&amp;APs, companies are likely to exclude important groups.<sup>115</sup> In <i>Sustaining the Wild Coast and Others v Minister of Mineral Resources and Energy and Others</i>, the Eastern Cape High Court has also found inadequate public participation where a database was compiled through “analysis of potential stakeholders and based on stakeholders engaged in previous similar studies in the area” and where the company declined to give further details about how the database was created.<sup>116</sup></p> <p>106.3. The EIA Regulations require the EIAR to include “a plan of study for undertaking the environmental impact assessment process to be undertaken, including— (vii) particulars of the public participation process that will be conducted during the environmental impact assessment process”<sup>117</sup></p>	<p>comprehensive process of notification and advertising was undertaken - this is presented in Chapter 4 of the ESIA Report and not repeated here.</p> <p>106. Refer to Section 4.3.1 of the ESIA Report for a description of the stakeholder identification and mapping that was undertaken as part of the ESIA. The database was continually updated and additional I&amp;APs were added to the initial database based on:</p> <ul style="list-style-type: none"> <li>• Stakeholder registration and correspondence received during the pre-application notification and registration process.</li> <li>• Attendance at public and focus group meetings held during the Scoping Phase.</li> <li>• Ad hoc discussions held with stakeholders during the Scoping Phase.</li> <li>• Correspondence received during the draft Scoping Report review and comment period.</li> </ul> <p>106.3. There is no requirement for the plan of study to be included in the ESIA Report - Refer to Appendix 3 of the ESIA Regulations 2014 (as amended).</p>

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>106.4. Though it appears from the EIAr that TEEPSA is relying heavily on a database of potential I&amp;APs, the EIAr does not provide sufficient information, as required by the EIA Regulations, to facilitate comment on the adequacy of the I&amp;AP database and community outreach efforts.</p> <p>106.5. TEEPSA claimed that their database of I&amp;APs would ensure that the necessary parties were properly informed, but in their DSR and at public meetings they declined to explain how it was created, giving parties reason to believe that the database is not inclusive.</p> <p>107. Public meetings where parties are given the opportunity to ask the project developer questions are crucial to the public participation process because they help parties understand the process and impact of the proposed project and have their questions addressed.</p> <p>107.1. Like other forms of notice, such meetings must be accessible to all interested and affected parties. If the location chosen for these meetings excludes parties from attending, they do not satisfy NEMA's public participation requirements.<sup>118</sup></p> <p>107.2. The public meetings themselves were also not inclusive of all interested and affected parties. Though Block 5/6/7 covers most of the Western Cape's coastline, only three in-person meetings were held and only one online meeting. The virtual meeting was only accessible to people with a computer and internet access, which automatically excludes many members of affected communities. The in-person meetings were exclusionary because most parties would require transportation and substantial travel time to get to</p>	<p>107.2. This comment from Natural Justice regarding the number of public meetings is factually incorrect. Refer to Section 4.3.47 and 4.4.2.9 for the full list of public meetings that were held during the ESIA process.</p>

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			<p>the meeting, both of which may be prohibitive requirements for members of affected communities.</p> <p>108. While the EIAr does not provide sufficient information on the public participation process to date to provide complete comment on its adequacy and compliance with legal requirements, the observable public participation process has thus far deprived many potentially affected parties of their right to participate meaningfully.</p> <p>Specific comment on lack of specificity in the description of the proposed activities 109. The EIA regulations require sufficient detail to be provided on the activity being proposed:</p> <p>A scoping report must contain the information that is necessary for a proper understanding of the process, informing all preferred alternatives, including location alternatives, the scope of the assessment, and the consultation process to be undertaken through the environmental impact assessment process, and must include—</p> <p>(d) a description of the scope of the proposed activity, including—</p> <p>(ii) a description of the activities to be undertaken, including associated structures and infrastructure<sup>119</sup></p> <p>110. The detail offered in the EIAr is quite vague on the composition of the fluids that operators of drilling equipment will be using. It is important to note that during public meetings attended in Hermanus and during the online meetings, the EAP described the drilling operation using certain liquids but did not disclose what those liquids consisted of and when probed, was elusive in their answer. What the composition of the drilling fluid is, whether it is</p>	<p>110. This comment from Natural Justice regarding the composition of the drilling fluids is factually incorrect. The Drilling Discharges Modelling Report provides the indicative mud composition modelled - refer to Table 11 in Appendix 6 (Volume 2). Stakeholders were referred to this appendix for the relevant details during the public meetings.</p>

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			<p>water-based or oil-based, is not clear within the EIAR. Potential impacts on seabed communities can result from both the chemical toxicants of the fluids used for the drill muds, as well as the physical disturbance brought on by the installation of drill rigs.</p> <p>111. Chemical toxicants in the drill muds used as well as waste produced from exploration activities such as drill cuttings can lead to reduction in oxygen concentration, organic enrichment, increased hydrocarbon concentrations, and increased metal abundance can alter biogeochemical processes and generate hydrogen sulphide and ammonia.<sup>120</sup> It is therefore imperative that the subsequent reports address the status and composition of the toxicants within the drill muds and adopt appropriate impact and mitigation assessments which factor in best-case and worst-case scenarios across different temporal scale, location scale, and proximity to marine biodiversity. This is to ensure that the impact assessments can adequately assess the likelihood of negative impacts on the complex and dynamic marine ecosystem within and beyond the area of interest.</p> <p>112. At page 134 of Chapter 8, in discussing the receiving environment, the following is established:</p> <p>“Deep-water corals are benthic filter-feeders generally occur at depths below 150 m with some species being recorded from as deep as 3 000 m. These communities add structural complexity to otherwise uniform seabed habitats thereby creating areas of high biological diversity (Breeze et al. 1997; MacIsaac et al. 2001) and are sensitive to disturbance and their long generation times. These habitats have been identified as sensitive, as the fauna typically associated with them are frequently slow growing, slow to mature</p>	<p>111. The Drilling Discharges Modelling study considers the toxicity of drilling fluids (both WBM and NADF) in the determination of environmental risk.</p>



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			<p>and long-lived, making them particularly vulnerable to disturbance"</p> <p>113. Therefore, it appears from the above dicta that the EAP finds that the Area of Interest for drilling could thus potentially be capable of supporting rich, deep-water benthic, filter- feeding communities. For spatial management of these sensitive areas to be effective, in field observation and up to date information on the spatial distribution of features of conservation interest is essential.</p> <p>113.1. Mapping these features can be particularly challenging in the deep sea. It must be noted however that when observing and studying the receiving environment, point source biological observations are best determined from direct seabed sampling and visual observation.<sup>121</sup> Additional data can be derived from historical data (e.g., museums and biogeographic databases such as OBIS and GBIF) or by catch from trawl fisheries.<sup>122</sup></p> <p>113.2. It is not clear from the EIAr that the EAP adopted a technique or methodology which utilized point source biological observations via direct seabed sampling and visual observations. It is nonetheless important to note that these data sets as provided within the EIAr must be interpreted with caution as they may include dead and possibly displaced organisms (i.e., coral skeletons), and the location information can be imprecise if it is based on the mid-points of trawl locations or from older records before twenty-first century improvements in global and seafloor positioning systems technology.</p>	<p>113. In order to mitigate the impact on sensitive and potentially vulnerable habitats it is recommended that a pre-drilling site surveys (with ROV) is undertaken to ensure there is sufficient information on seabed habitats, including the mapping of sensitive and potentially vulnerable habitats within 1 000 m of a proposed well site. It is further recommended that, based on the pre-drilling site survey and expert review of ROV footage, well sites are not located within a 1 000 m radius of any sensitive and potentially vulnerable habitats (e.g., hardgrounds), species (e.g., cold corals, sponges) or structural features (e.g., rocky outcrops). It should also be noted that TEEPSA is planning to undertake an Environmental Baseline Survey prior to drilling, assuming Environmental Authorisation is received, as well as a specific pre-drilling site survey.</p>

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			<p>114. Given the above, it is clear that the EIAR does not provide sufficient detail on the proposed activity, as required by the EIA Regulations. This undermines the reliability and utility of the preliminary impact assessment and deprives I&amp;APs of the opportunity for meaningful comment on this crucial information.</p> <p>1 Methane has been identified as a greenhouse gas and classified as a carbon-equivalent, which means it will be subject to carbon tax initiatives beginning next year. In the future, products made with gas-fired power may face higher tariffs when exported.</p> <p>2 The social carbon cost of greenhouse gases (SC-GHG) is the monetary value of the net societal harm caused by releasing a small amount of that GHG into the atmosphere in a given year. In general, it includes (but is not limited to) changes in net agricultural productivity, human health effects, property damage from increased flood risk natural disasters, disruption of energy systems, conflict risk, environmental migration, and the value of ecosystem services. As a result, the SC-GHG should reflect the societal value of reducing emissions of the relevant gas by one metric ton.</p> <p>3 Source: <a href="https://tradingeconomics.com/commodity/natural-gas?user=analyst14639">https://tradingeconomics.com/commodity/natural-gas?user=analyst14639</a></p> <p>4 Climate Policy Initiative. Understanding the impact of a low carbon transition on South Africa [document on the Internet]. c2019 [cited 2022 Feb 23]. Available from: <a href="https://www.climatepolicyinitiative.org/wp-content/uploads/2019/03/CPI-Energy-Finance-Understanding-the-impact-of-a-lowcarbon-transition-on-South-Africa-March-2019.pdf">https://www.climatepolicyinitiative.org/wp-content/uploads/2019/03/CPI-Energy-Finance-Understanding-the-impact-of-a-lowcarbon-transition-on-South-Africa-March-2019.pdf</a></p> <p>5 See above.</p> <p>6 See note 4 above.</p> <p>7 See note 4 above.</p> <p>8 Mineral and Petroleum Resources Development Act (MPRDA), Section 82.1.</p> <p>9 Sustaining the Wild Coast NPC and Others v Minister of Mineral Resources and Energy and Others (2022) 1 All SA 796 (ECG) para 26.</p> <p>10 Constitution of the Republic of South Africa (1996), section 24(b)(iii).</p> <p>11 National Environmental Management Act (NEMA), section 2(4)(o).</p> <p>12 Preamble of the MPRDA: "Affirming the State's obligation to protect the environment for the benefit of present and future generations, to ensure ecologically sustainable development of mineral and petroleum resources and to promote economic and social development."</p> <p>13 Preamble of the NEM:ICMA: "To promote the conservation of the coastal environment and ensure that use of natural resources is socially and economically justifiable and ecologically sustainable."</p> <p>14 Earthlife Johannesburg and Another v. Minister of Energy and Others 2017 2 All SA 519 (GP).</p> <p>15 Earthlife Johannesburg and Another v. Minister of Energy and Others 2017 2 All SA 519 (GP), para 82.</p> <p>16 Earthlife Johannesburg and Another v. Minister of Energy and Others 2017 2 All SA 519 (GP), para 82.</p> <p>17 National Environmental Management Act, section 2(4)(a)(vii).</p> <p>18 <a href="https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf">https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf</a></p> <p>19 Constitution of the Republic of South Africa (1996), section 11.</p> <p>20 Constitution of the Republic of South Africa (1996), section 26.</p> <p>21 Constitution of the Republic of South Africa (1996), section 27.</p> <p>22 Constitution of the Republic of South Africa (1996), section 27.</p> <p>23 The Draft 3rd National Communication under the United Nations Framework Convention on Climate Change, P. 16.</p> <p>24 Department of Environmental Affairs and Tourism: "Climate Change: A South African Policy Discussion Document" (undated). See also Department of Environmental Affairs South Africa's Second National Communication under the United Nations Framework Convention on Climate</p>	<p>114. SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts and National strategic policy issues relating to energy and climate change, as well as public opposition to oil and gas development and other legislation (e.g., ICMA, NEM:PAA, etc.).</p>

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			<p>Change 2011. (From commentary on environmental law, Lexis: <a href="https://www.myllexisnexis.co.za/Index.aspx?permalink=cGFyIDMuMS4yJDEwMzA0MzA1JDckTGlicmFyeSRKRCRMWjYyYXl5">https://www.myllexisnexis.co.za/Index.aspx?permalink=cGFyIDMuMS4yJDEwMzA0MzA1JDckTGlicmFyeSRKRCRMWjYyYXl5</a>)</p> <p>25 Theart M, "The Duty to Adapt to Climate Change" 2011 (18) South African Journal of Environmental Law and Policy 1; Glazewski J and Sowman M, "Planning a Legal Response to Sea Level Rise in South Africa" 1990 (7) South African Journal of Science 294; Department of Environmental Affairs and Tourism (now the Department of Water and Environmental Affairs) A National Climate Change Response Strategy for South Africa (September 2004) (available at <a href="http://unfccc.int/files/meetings/seminar/application/pdf/sem_sup3_south_africa.pdf">http://unfccc.int/files/meetings/seminar/application/pdf/sem_sup3_south_africa.pdf</a>) [accessed 26 April 2008] at 4-5. (From commentary on environmental law, Lexis: <a href="https://www.myllexisnexis.co.za/Index.aspx?permalink=cGFyIDMuMS4yJDEwMzA0MzA1JDckTGlicmFyeSRKRCRMWjYyYXl5">https://www.myllexisnexis.co.za/Index.aspx?permalink=cGFyIDMuMS4yJDEwMzA0MzA1JDckTGlicmFyeSRKRCRMWjYyYXl5</a>)</p> <p>26 See for example, King S, "Fire and floods: The new normal" Mail &amp; Guardian (15-22 June 2017) (From commentary on environmental law, Lexis: <a href="https://www.myllexisnexis.co.za/Index.aspx?permalink=cGFyIDMuMS4yJDEwMzA0MzA1JDckTGlicmFyeSRKRCRMWjYyYXl5">https://www.myllexisnexis.co.za/Index.aspx?permalink=cGFyIDMuMS4yJDEwMzA0MzA1JDckTGlicmFyeSRKRCRMWjYyYXl5</a>)</p> <p>27 Moore KJ, Fu W, Primeau F, Britten GL, Lindsay K, Long M, et al. Sustained climate warming drives declining marine biological productivity. Science. 2018;6380:1139–1143. <a href="https://doi.org/10.1126/science.aao6379">https://doi.org/10.1126/science.aao6379</a></p> <p>28 Feely RA, Doney SC, Cooley SR. 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			<p>unfccc.int/sites/ndcstaging/PublishedDocuments/South%20Africa%20First/South%20Africa%20Updated%20first%20NDC%20September%202021.pdf</p> <p>42 Meridian Economics, Hot Air About Gas: An Economic Analysis of the Scope and Role for Gas-Fired Power Generation in South Africa (2022), pages 2-3, <a href="https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf">https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf</a></p> <p>43 Meridian Economics, Hot Air About Gas: An Economic Analysis of the Scope and Role for Gas-Fired Power Generation in South Africa (2022), page 3, <a href="https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf">https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf</a></p> <p>44 Meridian Economics "Resolving the power crisis part A: Insights from 2021- SA's worst loading shedding year so far. (2022), page ii, <a href="http://meridianecomies.co.za/wp-content/uploads/2022/06/resolving-load-shedding-part-A-2021-analysis-01.pdf">http://meridianecomies.co.za/wp-content/uploads/2022/06/resolving-load-shedding-part-A-2021-analysis-01.pdf</a></p> <p>45 <a href="https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf">https://iea.blob.core.windows.net/assets/deebef5d-0c34-4539-9d0c-10b13d840027/NetZeroBy2050-ARoadmapfortheGlobalEnergySector_CORR.pdf</a></p> <p>46 McMichael AJ, Campbell-Lendrum DH, Corvalán CF, Ebi KL, Githeko AK, et al. Climate change and human health – risks and responses. Geneva: World Health Organization; 2003. Available from: <a href="http://www.who.int/globalchange/publications/climchange.pdf">http://www.who.int/globalchange/publications/climchange.pdf</a></p> <p>47 Singh JA. Why human health and health ethics must be central to climate change deliberations. 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'Sailing to nowhere: Liquefied natural gas is not an effective climate strategy. page 15-17, <a href="https://www.nrdc.org/resources/sailing-nowhere-liquefied-natural-gas-not-effective-climate-strategy">https://www.nrdc.org/resources/sailing-nowhere-liquefied-natural-gas-not-effective-climate-strategy</a></p> <p>54 Meridian Economics, Hot Air About Gas: An Economic Analysis of the Scope and Role for Gas-Fired Power Generation in South Africa (2022), page iv, <a href="https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf">https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf</a></p> <p>55 Meridian Economics, Hot Air About Gas: An Economic Analysis of the Scope and Role for Gas-Fired Power Generation in South Africa (2022), page ii, <a href="https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf">https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf</a></p> <p>56 Meridian Economics, Hot Air About Gas: An Economic Analysis of the Scope and Role for Gas-Fired Power Generation in South Africa (2022), page iv, <a href="https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf">https://meridianeconomics.co.za/wp-content/uploads/2022/06/Hot-Air-About-Gas.pdf</a></p> <p>57 National Business Institute, The Role of Gas in South Africa's Path to Net-Zero (2022), <a href="https://www.nbi.org.za/wp-content/uploads/2022/02/NBI-Chapter-3-The-role-of-Gas-in-South-Africas-path-to-net-zero_vFinal.pdf">https://www.nbi.org.za/wp-content/uploads/2022/02/NBI-Chapter-3-The-role-of-Gas-in-South-Africas-path-to-net-zero_vFinal.pdf</a></p> <p>58 DEA (2017), Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa at page 4.</p> <p>59 DEA (2017), Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa at page 4.</p>	

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			<p>61 Sarah Birch et. 2021. Western Cape Climate Change Response Strategy. Vision 2050: A vision for a resilient Western Cape. (Western Cape Government, Department of Environmental Affairs and Development Planning, Climate Change Directorate).</p> <p>62 Sarah Birch et. 2021. Western Cape Climate Change Response Strategy. Vision 2050: A vision for a resilient Western Cape. (Western Cape Government, Department of Environmental Affairs and Development Planning, Climate Change Directorate), page 11.</p> <p>63 Sarah Birch et. 2021. Western Cape Climate Change Response Strategy. Vision 2050: A vision for a resilient Western Cape. (Western Cape Government, Department of Environmental Affairs and Development Planning, Climate Change Directorate), page 12</p> <p>64 Pablo Ralon et al. IRENA (2017), Electricity Storage and Renewables: Costs and Markets to 2030, International Renewable Energy Agency, Abu Dhabi</p> <p>65 IPCC Special Report on Global Warming of 1.5oC (<a href="http://www.ipcc.ch/sr15/">www.ipcc.ch/sr15/</a>)</p> <p>66 Sarah Birch et. 2021. Western Cape Climate Change Response Strategy. Vision 2050: A vision for a resilient Western Cape. (Western Cape Government, Department of Environmental Affairs and Development Planning, Climate Change Directorate), pages 12-19.</p> <p>67 State of Environment Outlook Report: Biodiversity and Ecosystem Health (February 2018): <a href="https://www.westerncape.gov.za/eadp/files/atoms/files/04_Biodiversity%20and%20Ecosystem%20Health.pdf">https://www.westerncape.gov.za/eadp/files/atoms/files/04_Biodiversity%20and%20Ecosystem%20Health.pdf</a></p> <p>68 West Coast District Municipality IDP 2022-2027. Accessible here <a href="http://westcoastdm.co.za/wp-content/uploads/2022/06/West-Coast-DM_Final-amended-IDP-2022-2027-2.pdf">http://westcoastdm.co.za/wp-content/uploads/2022/06/West-Coast-DM_Final-amended-IDP-2022-2027-2.pdf</a> at page 78</p> <p>69 Sarah Birch et. 2021. Western Cape Climate Change Response Strategy. Vision 2050: A vision for a resilient Western Cape. (Western Cape Government, Department of Environmental Affairs and Development Planning, Climate Change Directorate), page 6.</p> <p>70 In this regard the SDF, which forms a core component of a Municipality's IDP, must, in terms of the Municipal Planning and Performance Management Regulations, specifically "set out objectives that reflect the desired spatial form of the municipality (...) contain strategies and policies regarding the manner in which to achieve the objectives (...) which strategies and policies must (...) indicate desired patterns of land use within the municipality (...) provide strategic guidance in respect of the location and nature of development within the municipality (...) provide a visual representation of the desired spatial form of the municipality, which representation (...) must indicate desired or undesired utilisation of space in a particular area"</p> <p>71 EIA Regulations, Appendix 2, Regulation 2(1)(g).</p> <p>72 EIA Regulations, Appendix 2, Regulation 1(d).</p> <p>73 Dong et al, Climate Change Impacts on Coastal and Offshore Petroleum Infrastructure and the Associated Oil Spill Risk: A Review, Journal of Marine Science and Engineering (2022), pages 7, 10, <a href="https://www.mdpi.com/2077-1312/10/7/849/pdf?version=1655978236#:~:text=Sea%20level%20rise%20can%20increase,and%20offshore%20pipelines%20and%20infrastructures">https://www.mdpi.com/2077-1312/10/7/849/pdf?version=1655978236#:~:text=Sea%20level%20rise%20can%20increase,and%20offshore%20pipelines%20and%20infrastructures</a>.</p> <p>74 Earthlife Johannesburg and Another v. Minister of Energy and Others 2017 2 All SA 519 (GP), paras. 6, 91.</p> <p>75 Dong et al, Climate Change Impacts on Coastal and Offshore Petroleum Infrastructure and the Associated Oil Spill Risk: A Review, page 10.</p> <p>76 Risky Business: challenges of deepwater drilling in the North Sea', Offshore Technology, 20 June 2012, <a href="https://www.offshore-technology.com/features/feature-risky-business-deepwater-drilling-north-sea/">https://www.offshore-technology.com/features/feature-risky-business-deepwater-drilling-north-sea/</a>. Accessed 27 Feb. 2019.</p> <p>77 S. Carrell, 'Oil and gas company Total fined more than £1m over North Sea leak', The Guardian, 22 Dec. 2015, <a href="https://www.theguardian.com/business/2015/dec/22/oil-company-total-fined-1m-north-sea-gas-leak">https://www.theguardian.com/business/2015/dec/22/oil-company-total-fined-1m-north-sea-gas-leak</a>. Accessed 27 Feb. 2019.</p> <p>78 Dong et al, Climate Change Impacts on Coastal and Offshore Petroleum Infrastructure and the Associated Oil Spill Risk: A Review, page 4.</p> <p>79 Dong et al, Climate Change Impacts on Coastal and Offshore Petroleum Infrastructure and the Associated Oil Spill Risk: A Review, page 7.</p> <p>80 Dong et al, Climate Change Impacts on Coastal and Offshore Petroleum Infrastructure and the Associated Oil Spill Risk: A Review, page 4.</p> <p>81 EIA Regulations, Appendix 2, Regulation 2(1)(e).</p> <p>82 coastal waters" means—</p>	

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			<p>(a) the internal waters, territorial waters, exclusive economic zone and continental shelf of the Republic referred to in sections 3, 4, 7 and 8 of the Maritime Zones Act, 1994 (Act No.15 of 1994), respectively; and</p> <p>(b) an estuary;</p> <p>83 “Composition of coastal public property.—(1) Coastal public property consists of—</p> <p>(a) coastal waters;</p> <p>(b) land submerged by coastal waters, including—</p> <p>(i) land flooded by coastal waters which subsequently becomes part of the bed of coastal waters; and</p> <p>(ii) the substrata beneath such land;”</p> <p>84 “coastal zone” means the area comprising coastal public property, the coastal protection zone, coastal access land, coastal protected areas, the seashore and coastal waters, and includes any aspect of the environment on, in, under and above such area;</p> <p>85 “coastal activities” means activities listed or specified in terms of Chapter 5 of the National Environmental Management Act which take place—</p> <p>(a) in the coastal zone; or</p> <p>(b) outside the coastal zone but have or are likely to have a direct impact on the coastal zone;</p> <p>86</p> <p>87</p> <p>88 South African Department of Forestry, Fisheries, and the Environment (DEFF). South Africa’s marine protection increased by the new representative network of Operation Phakisa: Oceans Economy Marine Protected Areas [media release]. 2019 May 28. Available from: <a href="https://www.dffe.gov.za/mediarelease/20marineprotectedareas_declared">https://www.dffe.gov.za/mediarelease/20marineprotectedareas_declared</a></p> <p>89 United Nations General Assembly. Transforming our world: The 2030 Agenda for Sustainable Development. Document A/RES/70/1. New York: United Nations; 2015. Available from: <a href="https://www.refworld.org/docid/57b6e3e44.html">https://www.refworld.org/docid/57b6e3e44.html</a></p> <p>90 EIA Regulations, Appendix 2, Regulation 2(1)(g)(vii).</p> <p>91 National Environmental Management: Protected Areas Act, section 48A(1)(e). 92 National Environmental Management: Protected Areas Act, section 48A(1)(f). 93 EIA Regulations, Appendix 2, Regulation 2(1)(e)</p> <p>94 National Environmental Management Act, 2014, section 1.</p> <p>95 National Environmental Management Act, 2014, section 23(2)(b) (emphasis added). 96 National Environmental Management Act, 2014, section 2(2) (emphasis added).</p> <p>97 National Environmental Management Act, 2014, section 2(4)(a)(iii).</p> <p>98 National Heritage Resources Act, 25 of 1999, section 3(1).</p> <p>99 National Heritage Resources Act, 25 of 1999, section 3(2)(b).</p> <p>100 National Heritage Resources Act, 25 of 1999, section 3(2)(d).</p> <p>101 National Heritage Resources Act, 25 of 1999, section 2(xxi).</p> <p>102 National Environmental Management Act, 2014, section 2(4)(g).</p> <p>103 EIA Regulations, Appendix 2, Regulation 2(1)(vii) (emphasis added).</p> <p>104 EIA Regulations, section 41(6)(a).</p> <p>105 Baleni and others v Minister of Mineral Resources and others, [2019] 1 All SA 358 (GP), para. 78.</p> <p>106 National Environmental Management Act, 2014, section 2(4)(f) (emphasis added)</p> <p>107 Sustaining the Wild Coast NPC and Others v Minister of Mineral Resources and Energy and Others (2022) 1 All SA 796 (ECG) para 26.</p> <p>108 Environmental Impact Assessment Regulations, 2014, section 40(2) (emphasis added)</p> <p>109 National Environmental Management Act, 2014, section 24(4)(a)</p> <p>110 Department of Environmental Affairs, Public Participation Guideline in Terms of National Environmental Management Act, 1998 Environmental Impact Assessment Regulations (2017), section 6, <a href="https://www.dffe.gov.za/sites/default/files/docs/publicparticipationguideline_intermsofnemaEIAregulations.pdf">https://www.dffe.gov.za/sites/default/files/docs/publicparticipationguideline_intermsofnemaEIAregulations.pdf</a></p> <p>111 Department of Environmental Affairs, Public Participation Guideline in Terms of National Environmental Management Act, 1998 Environmental Impact Assessment Regulations (2017), section 4,</p>	

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			<p><a href="https://www.dffe.gov.za/sites/default/files/docs/publicparticipationguideline_intermsofnemaElAregulati ons.pdf">https://www.dffe.gov.za/sites/default/files/docs/publicparticipationguideline_intermsofnemaElAregulati ons.pdf</a></p> <p>112 Adams and Others v Minister of Mineral Resources and Energy and Others (1306/22) [2022] ZAWCHC 24 (1 March 2022), para. 14.</p> <p>113 Adams and Others v Minister of Mineral Resources and Energy and Others (1306/22) [2022] ZAWCHC 24 (1 March 2022), para. 14.</p> <p>114 Department of Environmental Affairs, Public Participation Guideline in Terms of National Environmental Management Act, 1998 Environmental Impact Assessment Regulations (2017), section 4.1, <a href="https://www.dffe.gov.za/sites/default/files/docs/publicparticipationguideline_intermsofnemaElAregulati ons.pdf">https://www.dffe.gov.za/sites/default/files/docs/publicparticipationguideline_intermsofnemaElAregulati ons.pdf</a></p> <p>115 Adams and Others v Minister of Mineral Resources and Energy and Others (1306/22) [2022] ZAWCHC 24 (1 March 2022), para. 8.</p> <p>116 Sustaining the Wild Coast NPC and Others v Minister of Mineral Resources and Energy and Others (2022) 1 All SA 796 (ECG) para 21.</p> <p>117 EIA Regulations, Appendix 2, Regulation 2(1)(h)(vii).</p> <p>118 Sustaining the Wild Coast NPC and Others v Minister of Mineral Resources and Energy and Others (2022) 1 All SA 796 (ECG) para 24.</p> <p>119 EIA Regulations, Appendix 2, Regulation 2(1)(d)(ii).</p> <p>120 Cordes EE, Jones DOB, Schlacher TA, Amon DJ, Bernardino AF, Brooke S, Carney R ,DeLeo DM, Dunlop KM, Escobar-Briones EG, Gates AR, Génio L, Gobin J, Henry L-A, Herrera S, Hoyt S, Joye M, Kark S, Mestre NC, Metaxas A ,Pfeifer S, Sink K, Sweetman AK and Witte U (2016) Environmental Impacts of the Deep Water Oil and Gas Industry: A Review to Guide Management Strategies. Front.Environ.Sci.4:58. doi: 10.3389/fenvs.2016.00058, at page 9-10.</p> <p>121 Georgian,S.E.,Shedd,W.,and Cordes,E.E.(2014).High resolution ecological niche modelling of the cold-water coral Lophelia pertusa in the Gulf of Mexico. Mar. Ecol.Prog.Ser. 506,145–161.doi:10.3354/meps10816; and Rengstorf,A.M.,Mohn,C.,Brown,C.,Wisiz,M.S.,and Grehan, A. J.(2014). Predicting the distribution of deep-sea vulnerable marine ecosystems using high-resolution data: considerations and novel approaches. Deep Sea Res.I 93, 72–82.doi:10.1016/j.dsr.2014.07.007</p> <p>122 Cordes EE, Jones DOB, Schlacher TA, Amon DJ, Bernardino AF, Brooke S, Carney R ,DeLeo DM ,Dunlop KM ,Escobar-Briones EG ,Gates AR, Génio L, Gobin J, Henry L-A, Herrera S ,Hoyt S, Joye M, Kark S, Mestre NC, Metaxas A ,Pfeifer S, Sink K, Sweetman AK and Witte U (2016) Environmental Impacts of the Deep Water Oil and Gas Industry: A Review to Guide Management Strategies. Front.Environ.Sci.4:58. doi: 10.3389/fenvs.2016.00058</p>	
66.	Micha Ruwiel	08 December – Email attachment	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.] <i>Comment was received in Afrikaans and English translated to English below:</i></p> <p>1) SLR, on behalf of the applicant, did not inform the public properly and in detail of the opportunity to comment on the draft EIA report. Interested and affected parties were not aware that they could comment on the proposed project, impact assessment and proposed mitigation between 24 October and 7 December. Furthermore, stakeholders were not well informed about the public meetings for the proposed project.</p>	SLR does not agree with this statement. A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report.

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			<p>The "National Environmental Management Act, 1998 (No. 107 of 1998) (as amended) and the EIA Regulations 2014 (as amended)" were therefore not complied with.</p> <p>I illustrate the public's unawareness with a few examples. De Waal Steyn, the editor of a local Hermanus newspaper, "The Village News", was unaware of the public meetings until the day of the meetings, when the Hermanus municipality notified them. "The Village News" is a newspaper with a large readership in Hermanus, Onrus, Stanford, and surrounding towns. The readers of this paper are certainly interested parties. The next edition of "The village News" gave a report of the proposed project. This was on ..., two weeks before the closing date on December 7th.</p> <p>After I heard the news, I asked several Hermanus residents, as well as friends who live in other places (Bellville, Stellenbosch), if they had heard of the proposed project, or the current reluctance to comment. No one was aware of the current opportunity for public comment, and only a few were aware of the proposed project. The people I spoke to were predominantly people who care about climate justice and who are aware of environmental issues. For example, the owner of the "zero-waste" stall at the Hermanus Country Market was aware of the project and a petition that was drawn up in April/May.</p> <p>A further proof that the public was not properly informed is the low level of online "posts" on social media such as Facebook. Hermanus Municipality only made a "post" on the day of the meeting, on November 10, at 12:52, to inform residents of the meeting in Sandbaai, for which registration closed at 15:30.</p> <p>OceansnotOil wrote a report entitled: "TEEPSA Well Drilling off Cape Town: The DRAFT ESIA REPORT is open for COMMENT /</p>	<p>This is surprising as Ms Hedda Mittner from the Village New newspaper, who attended the Hermanus meeting during the Scoping Phase, is registered on the stakeholder database and was informed of the draft ESIA comment period and public meetings.</p>



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			<p>PUBLIC MEETINGS". Under this report, on OceansnotOil's website, one commentator wrote on November 9: "As before, I object to this proposed project, especially the drilling as close as 60km to the coast and in the path of migratory whales.</p> <p>I am very concerned that the public meetings were not advertised in the local newspapers or anywhere that the ordinary man in the street would see. Very few people are aware of them and hence the turnout will be poor (as it was for the previous meeting). Many Hermanus residents and regular visitors are against the proposed drilling but have not had the opportunity to voice their views because of the very obscure manner of notifications.</p> <p>This smacks of deceit and underhandedness and does not foster much trust in the transparency of the entire project!</p> <p>[I have tried to register to attend the meeting tomorrow at Sandbaai but the form is not available. The closing date of 4 November was for the online meeting only. There was no deadline given to register to attend the meetings in person but I will be there.]”</p> <p>If the public is properly informed about the proposed project, it will certainly never be implemented.</p> <p>2) SLR, on behalf of the applicant, hides behind government policy which is currently under serious criticism to justify the extraction of crude oil.</p> <p>The most obvious and main environmental impact of the proposed project will be the eventual burning of the extracted oil, which will lead to increased carbon levels in the atmosphere, contributing to climate catastrophe.</p>	<p>The release of the draft ESIA Report and public meetings were placed in four regional and 15 local newspapers in English, Afrikaans and isiXhosa (29 adverts in total). In addition, radio announcements were aired multiple times per day on 10 radio stations in three different languages (English, Afrikaans and isiXhosa) over a period of a few days. Refer to chapter 4 of the ESIA Report for further detail of the comprehensive public participation process that was undertaken.</p> <p>2. The Project's need and desirability is presented in detail in Chapter 5 of the final ESIA Report. This chapter considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans will need to</p>

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			<p>As justification for the proposed project, the report cites the South African government's policy to reach net zero by 2050, but still encourage economic growth through the use of fossil fuels.</p> <p>This policy should be urgently reconsidered. There is prospective pressure on the government to adjust and align their policies with what is expected of them by the citizens of the country, and by international climate policies. TEEPSA should consider that policy is under serious pressure to change. By the time the oil wells are ready to be used, the policy may look different, which means that the environmental impacts of the exploration well, including the serious danger of an oil spill, are totally unjustifiable. TEEPSA has a moral obligation to act responsibly, regardless of the outdated and immoral policies of any government. They should act in the interests of the people and nature that will be damaged by their activities.</p> <p>The fact that the impacts on the climate crisis do not form part of the report is a serious problem.</p>	be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.
67.	Marilyn Lilley	08 December – Email	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>Objection to TEEPSA 567 – Application by TotalEnergies EP South Africa Block 567 (Pty) Ltd (TEEPSA) for environmental authorisation to undertake exploration well drilling in Block 5/6/7 off the West Coast of South Africa.</p> <p>I believe that an environmental authorisation to undertake exploration well drilling in Block 5/6/7 of the West Coast of South Africa should not be granted due to many points of concerns that I have including:</p>	Ms Lilley's objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.

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			<p>1. If fracking is a method used in this project of exploration and well drilling, the many known environmental impacts and resultant health harms and impacts well documented in in this 8th Compendium below must be taken into account.</p> <p>We need to note the many onshore infrastructures related to off shore oil and gas drilling that would result in any production etc. with known environmental impacts, as in the Compendium below.</p> <p>‘Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking and Associated Gas and Oil Infrastructure, Eighth Edition, April 28, 2022</p> <p>The Compendium of Scientific, Medical, and Media Findings Demonstrating Risks and Harms of Fracking and Associated Gas and Oil Infrastructure (the Compendium) is a fully referenced compilation of evidence, spanning many scientific and social scientific fields, documenting continuing and increasing impacts on health and environment.</p> <p>The risks and harms of fracking for public health, the climate, and environmental justice are real and growing. Many early warnings in our previous editions have been borne out. The growing and substantial body of research reveals fundamental problems with the entire life cycle of operations associated with fracking and its infrastructure.</p> <p>For this eighth edition of the Compendium, as prior ones, we compiled findings from three sources: articles from peer-reviewed medical or scientific journals; investigative reports by journalists; reports from, or commissioned by, government agencies; and, when they provide otherwise inaccessible data, advocacy organizations. Our entries briefly describe these studies and reports that document harm, or risk of harm, linked with fracking</p>	<p>No hydraulic fracturing ("fracking") operations are proposed as part of this project. Refer to project description in chapter 6 of the ESIA Report.</p>

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			<p>and associated oil and gas infrastructure, and summarize the principal findings. The studies and investigations referenced in the Compendium's dated entries in the "Compilation of Studies &amp; Findings" (the main body) are current through July 15, 2021 and are organized by seventeen topic areas. The "Front Matter" contains a range of other information, including a Summary of Findings, historical, political, cultural, and economic contexts and updates, late-breaking publications, and the sixteen trends we identified—strong patterns within and across our topic areas.</p> <p>Download the full edition of the 8th Compendium ...'</p> <p><a href="https://concernedhealthny.org/compendium/">https://concernedhealthny.org/compendium/</a></p> <p>2. Right now the Law of Ecocide is under discussion at the ICC. If incorporated as a Crime it would result in individuals being held accountable for activities that result in ecocide. I believe that all activities planned in this project must be carefully scrutinised to determine if any of the planned activities would result in ecocide. If so, I believe that this entire project should not go ahead. I believe that all government officials involved in this permit authorisation should scrutinise all activities to ensure that no harm occurs to our environment and that no ecocide occurs.</p>	
68.	Anthony Andrews - West Coast Guriqua Council	08 December – Email	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>Kindly receive our comments to the public participation process for Block 5/6/7 drilling along the West Coast</p>	No comments were attached to this email.
69.	Tawnee Funston	08 December – Email	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p>	

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			<p>It's that time of year again - where we, the common people, have to have a brain for you since you can't be bothered to listen to anything but a number in your bank account.</p> <p>I'm not going to even try educating you on why TEEPSA 567 EIA is a horrible idea, you know why. It's funny how science, people's livelihoods, and any kind of moral fiber goes out of the window as soon as a big, fat oil check lands on your desk.</p> <p>This is your daily reminder that you are proposing to destroy our shoreline, its wildlife, the ocean that so many of us depend on in various ways - for what? An outdated industry that does nothing but make the filthy rich even richer, when you already know there are alternatives.</p> <p>So if you're wondering what South Africans' think about it, and I mean those of us who will actually be affected and not the one's you've paid off already, kindly read the topic line again.</p>	<p>Mr Funston's opposition to the project is noted.</p> <p>Refer to Chapter 9 and 10 of the ESIA Report for the assessment of potential impacts related to normal operations and unplanned events (e.g. oil spills), respectively.</p>
70.	Daleen Maré	08 December – Email	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>It's that time of year again - where we, the common people, have to have a brain for you since you can't be bothered to listen to anything beyond a number in your bank account.</p> <p>I'm not going to even try educating you on why TEEPSA 567 EIA is a horrible idea, you know why. It's funny how science, people's livelihoods, and any kind of moral fiber goes out of the window as soon as a big, fat oil check lands on your desk.</p> <p>This is your daily reminder that you are proposing to destroy our shoreline, its wildlife, the ocean that so many of us depend on in various ways - for what? An outdated industry that does nothing</p>	<p>Ms Maré's opposition to the project is noted.</p> <p>Refer to Chapter 9 and 10 of the ESIA Report for the assessment of potential impacts related to normal operations and unplanned events (e.g. oil spills), respectively.</p>

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			<p>but make the filthy rich even richer, when you already know there are alternatives.</p> <p>So if you're wondering what South Africans' think about it, and I mean those of us who will actually be affected and not the one's you've paid off already, kindly read the subject line again.</p>	
71.	Danny Attfield	08 December – Email	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>It's that time of year again - where we, the common people, have to have a brain for you since you can't be bothered to listen to anything beyond a number in your bank account.</p> <p>I'm not going to even try educating you on why TEEPSA 567 EIA is a horrible idea, you know why. It's funny how science, people's livelihoods, and any kind of moral fiber goes out of the window as soon as a big, fat oil check lands on your desk.</p> <p>This is your daily reminder that you are proposing to destroy our shoreline, its wildlife, the ocean that so many of us depend on in various ways - for what? An outdated industry that does nothing but make the filthy rich even richer, when you already know there are alternatives.</p> <p>So if you're wondering what South Africans' think about it, and I mean those of us who will actually be affected and not the one's you've paid off already, kindly read the subject line again.</p>	<p>Mr Attfield's opposition to the project is noted.</p> <p>Refer to Chapter 9 and 10 of the ESIA Report for the assessment of potential impacts related to normal operations and unplanned events (e.g. oil spills), respectively.</p>
72.	Alex Wegner	08 December – Email	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>It's that time of year again - where we, the common people, have to have a brain for you since you can't be bothered to listen to anything beyond a number in your bank account.</p>	<p>Mr Wegner's opposition to the project is noted.</p> <p>Refer to Chapter 9 and 10 of the ESIA Report for the assessment of potential impacts related to normal operations and unplanned events (e.g. oil spills), respectively.</p>

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			<p>I'm not going to even try educating you on why TEEPSA 567 EIA is a horrible idea, you know why. It's funny how science, people's livelihoods, and any kind of moral fiber goes out of the window as soon as a big, fat oil check lands on your desk.</p> <p>This is your daily reminder that you are proposing to destroy our shoreline, its wildlife, the ocean that so many of us depend on in various ways - for what? An outdated industry that does nothing but make the filthy rich even richer, when you already know there are alternatives.</p> <p>So if you're wondering what South Africans' think about it, and I mean those of us who will actually be affected and not the one's you've paid off already, kindly read the subject line again.</p>	
73.	Greg Matthee	08 December – Email	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>It's that time of year again - where we, the common people, have to have a brain for you since you can't be bothered to listen to anything beyond a number in your bank account.</p> <p>I'm not going to even try educating you on why TEEPSA 567 EIA is a horrible idea, you know why. It's funny how science, people's livelihoods, and any kind of moral fiber goes out of the window as soon as a big, fat oil check lands on your desk.</p> <p>This is your daily reminder that you are proposing to destroy our shoreline, its wildlife, the ocean that so many of us depend on in various ways - for what? An outdated industry that does nothing but make the filthy rich even richer, when you already know there are alternatives.</p>	<p>Mr Matthee's opposition to the project is noted.</p> <p>Refer to Chapter 9 and 10 of the ESIA Report for the assessment of potential impacts related to normal operations and unplanned events (e.g. oil spills), respectively.</p>

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			So if you're wondering what South Africans' think about it, and I mean those of us who will actually be affected and not the one's you've paid off already, kindly read the subject line again.	
74.	Unathi Yako - MamNdlane	08 December – Email	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>It's that time of year again - where we, the common people, have to have a brain for you since you can't be bothered to listen to anything beyond a number in your bank account.</p> <p>I'm not going to even try educating you on why TEEPSA 567 EIA is a horrible idea, you know why. It's funny how science, people's livelihoods, and any kind of moral fiber goes out of the window as soon as a big, fat oil check lands on your desk.</p> <p>This is your daily reminder that you are proposing to destroy our shoreline, its wildlife, the ocean that so many of us depend on in various ways - for what? An outdated industry that does nothing but make the filthy rich even richer, when you already know there are alternatives.</p> <p>So if you're wondering what South Africans' think about it, and I mean those of us who will actually be affected and not the one's you've paid off already, kindly read the subject line again.</p>	<p>M Yako - MamNdlane's opposition to the project is noted.</p> <p>Refer to Chapter 9 and 10 of the ESIA Report for the assessment of potential impacts related to normal operations and unplanned events (e.g. oil spills), respectively.</p>
75.	Judy Scott-Goldman	08 December – Email attachment	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>TEEPSA 567 – Application by TotalEnergies EP South Africa Block 567 (Pty) Ltd (TEEPSA) for environmental authorisation to undertake exploration well drilling in Block 5/6/7 off the West Coast of South Africa.</p>	



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			<p>I object strongly to Total Energies' application to undertake exploration well drilling in Blocks 5/6/7 off the West Coast of South Africa. I request that environmental authorisation be refused.</p> <p>My objections fall under five headings:</p> <ol style="list-style-type: none"> <li>1. We are in a climate emergency</li> <li>2. We are in a biodiversity crisis that threatens life on earth</li> <li>3. Oil exploration is a threat to existing livelihoods on the West Coast</li> <li>4. Starting up an oil industry could leave us with stranded assets and stranded jobs.</li> <li>5. Any oil discovered will not give South Africa greater energy security or create wealth for the majority of South Africans.</li> </ol> <p>1 We are in a climate emergency</p> <p>The climate crisis demands that we shift away from fossil fuels and do not continue to drill for new oil and gas. This is not an ideological position that can be debated. Inconvenient as it is, it is a position foisted on humanity by scientific consensus which warns us that if we do not limit warming to 1.5°C we will cause unprecedented and costly harm to life on earth. We have to make rapid, deep and sustained reductions in global greenhouse gas (GHG) emissions, including reducing global carbon dioxide emissions by 45 per cent by 2030 relative to the 2010 level and to net zero around mid-century as well as deep reductions in other GHGs.</p> <p>Research is going into carbon capture and storage but it is generally agreed that we have no technologies that are able to do this currently at the scale required. Attention is being paid to</p>	<p>Ms Scott-Goldman's objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>1. Ms Scott-Goldman's comments and opinions on the need and desirability and climate emergency are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making</p>

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			<p>methane which, according to the United Nations, is about 80-times more potent than carbon dioxide over a 20-year period, and 28-34 times more potent over a 100-year period. The oil and gas industries are major producers of methane, emitting the gas during drilling, production, and other parts of their operations. Methane is also sometimes released intentionally from oil and gas facilities for safety reasons.</p> <p>Africa is also already facing more severe effects from climate change than most other parts of the world – including massive droughts.</p> <p>2 We are in a biodiversity crisis that threatens life on earth</p> <p>The World Wildlife Fund's (WWF) Living Planet Report 2022 states that monitored wildlife populations have seen a 69% decline on average since 1970. The WWF says that we have lost almost half of marine life in the last forty years. Extinction Rebellion, of which I am a member, believes that humans must move into a precautionary paradigm where we seek to minimise our destructive impact on the planet. As we have sources of renewable energy that are less destructive to marine life and South Africa has been shown to have great potential to use these sources of energy, we believe that exploring for oil and gas in our marine environments is irrational and should be rejected.</p> <p>3 Oil exploration is a threat to existing livelihoods on the West Coast</p> <p>The West Coast has existing small businesses in fishing, fish processing and tourism. These jobs would be threatened by oil exploration and oil exploitation. The use of coastal and marine</p>	<p>process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>2. All potential impacts, including those on biodiversity, have been assessed by specialists in Chapter 9 (normal operations) and 10 (unplanned events) of the ESIA Report.</p> <p>SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts and National strategic policy issues relating to energy and climate change, as well as public opposition to oil and gas development and other legislation (e.g., ICMA).</p> <p>3. The impacts on commercial and small-scale fishers are assessed in the ESIA for both normal operations and unplanned events. During normal</p>

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			<p>resources is part of the culture of these communities and their way of life. Their voices in objecting to oil and gas exploration must be heard. Many of these communities do not have time and resources to respond to this project and it is incumbent on Total to be proactive and intentional in engaging with these communities, including creating information in local languages. Total's project is a threat to these livelihoods which cannot be dismissed lightly. Research into coastal areas that have been impacted by oil and gas exploitation has shown that reclamation of affected areas after oil and gas exploration or oil and gas spills is difficult if not impossible and that it is hard for governments to hold companies accountable for clean-up work promised in original project proposals. It is far better that we do not entertain the risk of such destruction in the first place.</p> <p>Total may argue that they will bring jobs to the area but experience has shown that many jobs go to foreigners with experience in the industry.</p>	<p>operations, no impact is anticipated on small-scale fishers, as they fish inshore of the proposed Area of Interest and estimated zones of impact for noise and sediment plume, while the impact on commercial fishing is considered to be of very low to low significance depending on the sector (refer to Section 9.2.2.2 and 9.2.3.2). However, in the unlikely event of a large oil spill from a well blow-out, commercial and small-scale fishers could be significantly impacted - refer to Section 10.4.3.3 and 10.4.3.4 of the ESIA Report.</p> <p>Impacts on tourism, sense of place, livelihoods and intangible cultural heritage are also assessed in the ESIA Report.</p> <p>It is noted in the ESIA that the proposed exploration project is of a relatively short-term duration (approximately six months per well) limiting any potential for long-term development benefits. In addition, TEEPSA will likely contract local contractors where the skills and expertise are available, and this will be the larger and more established businesses and bulk suppliers. There are only likely to be restricted benefits to local SMME's outside of incidental expenditure.</p> <p>The majority of the workforce will comprise highly specialised skilled staff that will come in with the drilling unit (180 - 200 people working on rotation). In addition, up to 177 local people mainly linked to existing suppliers could be appointed on the proposed project per well drilling campaign. As a result the benefits related to for local service providers and suppliers due to employment and business opportunities is of negligible significance (positive)</p>

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			<p>4 Starting up an oil industry could leave us with stranded assets and stranded jobs.</p> <p>There may be setbacks along the way but, especially with the United States coming on board with a massive push to renewable energy and electrification of road transport with the Inflation Reduction Act and Bipartisan Infrastructure Law, the global trajectory to renewable energy is clear. If South Africa invests in oil and gas now, rather than renewable energy, it risks destroying its coast and marine environment only to be left with stranded assets and stranded jobs in the future. The risk of stranded assets will increase as every nation is expected to increase its Nationally Determined Contributions to reducing greenhouse gas emissions over time and instruments such as carbon taxes come on stream more forcefully.</p> <p>5 Any oil discovered will not give South Africa greater energy security or create wealth for the majority of South Africans.</p> <p>We are in the middle of an energy crisis which is shaking the world with soaring energy prices. In South Africa, we are experiencing many hours of load shedding. But exploring for oil and gas will not help the current energy crisis as the lead time is very long before any oil and gas would come on stream. The lead time for renewable energy projects is generally much shorter and prices are coming down all the time. It is therefore irrational on economic grounds to be looking to oil and gas in our waters.</p> <p>Any oil and gas will be the property of Total and some money will come to the South African government but usually on terms that benefit the exploiting company, in this case, Total. There is no guarantee that the money will not go to the wealthier sectors of the population rather than bringing energy security or job security</p>	<p>4. This exploration project is not a long-term project. There is no risk of stranded assets for this exploration project. As noted above, possible impacts from future production are not assessed in this ESIA. They would be considered, as part of a separate Environmental Authorisation application, should exploration identify a commercial resource and production be proposed by an applicant.</p> <p>A domestic resource, should it be discovered, could in fact be used by an existing asset (e.g. PetroSA GTL refinery in Mossel Bay). At the DFFE, DMRE and PASA pre-colloquium event held on 15 July 2022 to discuss how South Africa's climate change commitments translate to its energy policies, it was mentioned that the existing GTL refinery in Mossel Bay could be seen as a stranded asset if it does not obtain additional gas, as it is no longer processing gas.</p> <p>5. Refer to response in Point 1 above (climate emergency).</p>

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			<p>to the poor. Nigeria has been exploiting oil and gas since the 1950s and yet had lower access to electricity than South Africa in 2020 at 50.5% of the population, according to World Bank data.</p> <p>For the reasons outlined above, that we are in a climate crisis that is driven to a large extent by the exploitation of fossil fuels, that we are in a biodiversity crisis and oil and gas exploitation carries huge risks to marine life, that oil exploitation will destroy existing livelihoods and lead South Africa into potential stranded assets and stranded jobs rather than investing in a cleaner, renewable energy future, and that it is economically irrational as renewable energy is on a price-lowering path, I requests that Total should not be given environmental authorisation to proceed with exploration well drilling in Block 5/6/7 off the West Coast of South Africa.</p>	<p>Ms Scott-Goldman's objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p>
76.	Elaine Mills - Argus Media	08 December – Email	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>This is a comment on TEEPSA application for Environmental Authorisation (EA) to undertake exploration well drilling in Block 5/6/7 off the South-West Coast of South Africa.</p> <p>I strongly oppose the proposed oil and gas exploration as it could result in unacceptable pollution, ecological damage and negative socio-economic impacts.</p> <p>My points of concern are as follows:</p> <ul style="list-style-type: none"> <li>there is a risk of an oil spill during drilling for oil and gas that could cause major oil pollution</li> <li>oil could pollute the shores from Agulhas to Northern Cape West Coast depending on weather conditions. The Cape Peninsula has the highest probability of impact and could</li> </ul>	<p>Ms Mills' objection is noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>The potential impacts related to an unlikely oil spill, including those listed in the comment (e.g., fishing, tourism, marine fauna, spawning, etc.), is assessed in the ESIA - refer to Chapter 10 of the final ESIA Report. This assessment was informed by the oil spill modelling Report - refer to Appendix 7 in Volume 2.</p>

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			<p>experience oil pollution which is difficult to mitigate given that oil could reach the shore in half a day.</p> <ul style="list-style-type: none"> <li>oil is toxic and its impacts on juvenile fish, mussels etc would then be ingested by animals that prey on fish such as birds, mammals including humans</li> <li>oil impacts on waterproofing of animals and birds – proving high risk to penguins and albatrosses which are endangered for example</li> <li>loggerhead and leatherback turtles including juveniles migrate through the area. oil will clog up their nostrils, potentially causing suffocation and poisoning and death.</li> <li>toxic chemicals known to be present in oil - volatile organic compounds (VOCs) such as benzene, toluene, ethylbenzene, and xylene, collectively known as BTEX, as well as polycyclic aromatic hydrocarbons (PAHs), which are known for their persistence in the environment</li> <li>spawning areas for fish could be impacted and estuaries that act as fish nurseries could be impacted</li> <li>Small-scale fishers and fishing-dependent communities are particularly vulnerable to the negative impacts of a large uncontrolled oil spill which could (among other things) lead to a depletion in the fish stocks upon which the livelihoods of these small-scale fishers and fishing communities depend</li> <li>fishing areas and tourism areas such as beaches could be closed due to contamination by oil or chemicals used to try to clean oil spills.</li> </ul>	

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			<ul style="list-style-type: none"> <li>the full economic and social impacts on small scale fishers and communities that depend on the sea have not been fully studied but are likely to be highly significant</li> </ul>	<p>The assessment of economic impacts as a result of unplanned events (i.e. such as a well blow-out) is challenging to accurately perform due to the many variables, assumptions and uncertainties that would be involved. The outputs of such an assessment are likely to be so broad that it would be of little direct value in informing the impact assessment process or the development of mitigation measures and ultimately decision-making. Thus, the Socio-Economic Impact Assessment considers the board socio-economic impacts related to an unlikely large oil spill. The level of information provided in the assessment of an unlikely oil spill is considered adequate to inform the assessment and to inform decision-making in this regard. The impact of an unlikely oil spill is assessed to be of very high significance and any additional information will not change the assessment.</p>
			<ul style="list-style-type: none"> <li>exploration drilling for oil and gas will not have any immediate benefit for South Africa's energy security, given the long lead times should oil be found, and as any oil and gas extracted would not belong to South Africa, but would invariably belong to the companies that extract for profit</li> <li>currently, no significant economic benefits would occur as this is just the exploration stage for oil but coastal communities would bear the risk</li> <li>the need and desirability assessment should not be centred on the determination of whether gas technology will ensure security of supply for electricity.</li> </ul> <p>Instead, due to the climate crisis, this assessment should be centred on whether South Africa needs, or should rely on, gas to</p>	<p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process</p>

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			<p>provide security of supply of electricity and whether alternative technologies could meet the same supply objectives with less harm and risk.</p> <p>For the reasons outlined above and others, I oppose TEEPSEA's proposed oil and gas exploration as it could result in unacceptable pollution, ecological damage and negative socio-economic impacts. Given that the risk of a major spill cannot be eliminated and the significant ecological and socio-economic impacts of such a spill prevented, and having regard to the climate crisis, I believe that environmental authorisation should be refused.</p>	<p>would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA and the EIA Regulations 2014 (as amended) which clearly separates 'exploration activities' from 'production activities' and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p>
77.	Jackie Sunde - One Ocean Hub Small-scale Fisheries Research Team, University of Cape Town	08 December – Email attachment	<p>[Note: Original email was sent on 7 December 2022 and Dr Sunde requested that the comment of 7 December be replaced with this comment.]</p> <p>Re: Submission on the TOTAL Energies EP South Africa Blocks 5, 6 and 7 Draft Environmental Impact Report</p> <p>Introduction</p> <p>I make this submission as an independent researcher. I have been conducting research on small-scale fisheries governance and management with small-scale fishing communities in South Africa for over two decades. For the past three years I have conducted research on the coastal and off-shore mining applications and authorizations and their impacts on small-scale and coastal fishing communities of South.</p> <p>This proposed project application for environmental authorization to undertake exploration well drilling in Block 5/6/7 off the South West and West coast of South Africa. At its closest point the application area is only 60 km from the shoreline of the Cape of Good Hope, commonly referred to as Cape Point at the end of the</p>	



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			<p>Cape Peninsula. It straddles key spawning and migration routes for a number of fish and marine mammals and lies adjacent to the area known by generations of fishers as the heart of the fishing industry in South Africa.</p> <p>I oppose this application for an environmental authorization for exploratory drilling and regard the public participation process and EIR as inadequate and request that it be rejected on the following grounds:</p> <ol style="list-style-type: none"> <li>1. Absence of an over-arching systematic, strategic planning and assessment framework</li> </ol> <p>To date the Marine Spatial Plan for this region has yet to be developed in accordance with the Marine Spatial Planning Act of 2019 which came into effect on the 1 April 2022. There is as yet no over—arching planning framework for this region of the Western Cape ocean and coast. I believe that any granting of environmental authorizations for oil and gas exploration in this context is illegal. This is contrary not only to the MSP Act but also importantly to the National Development Plan (NDP) which proposes that Strategic Environmental Assessments (SEA) must be conducted in order to plan for sustainable use of the ocean environment. This balanced, systematic planning is required in order to fulfil Section 24 of the Constitution which requires that the government’s mandate to secure the right to a healthy environment and protect the marine environment is balanced with the need for sustainable social and economic development. The delegated decision-making authority is not able to do this balancing act in the absence of the necessary guiding strategic environmental assessment that is intended to serve as a framework to guide decision-making on applications for authorizations such as this one. We argue that the decision-</p>	<p>1. NEMA and the EIA Regulations 2014 (as amended) serve as the legal framework to be followed for an Environmental Authorisation application in respect of the proposed exploration activities. An ESIA has been identified as the environmental instrument to be utilised in informing the application for Environmental Authorisation. Thus, the undertaking of an SEA is not a requirement that needs to be complied with regard to an application for Environmental Authorisation. There is no basis in law that prohibits the consideration of an E Environmental Authorisation A application in the absence of a SEA.</p> <p>It is not within TEEPSA's authority to commission and / or undertaken an SEA. It is the understanding that an SEA can only be commissioned by a Minister and/or MEC.</p>

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			<p>making authority must consider the applicable legal and policy frameworks, including the MSP Act, in order to make a decision and that the necessary planning processes prescribed by the MSP Act are not yet in place to enable a decision of this nature.</p> <p>2. Need and Desirability</p> <p>The NEMA EIA Regulations require that the need and desirability of an activity be considered in the Scoping Report. The Scoping Report and this Draft EIR fail to adequately assess the need and desirability of the project, in the context of the current climate emergency and available scientific evidence, save arguing that the project aims to identify oil and gas resources to be used in energy production. It limits its discussion to the exploration activities and does not adequately describe the need or desirability for an energy project of this nature or its potential climate change impacts. It arrogantly ignores the recent Makhanda High Court decision in the case now referred to as the Wild Coast Shell decision, where a full bench stated in its judgement that this issue, and in particular, in relation to climate change and impacts such as those on food security, a comprehensive assessment of the need and desirability of such a project is required as each stage in the process is linked. Quoting the Save the Vaal case, the judges made it clear that there is a clear obligation on behalf of the parties to discuss the need and desirability of the whole, long term aims of the project, and the EIR cannot limit itself to the exploration activities only and ignore the longer term intentions of the project in the context of South Africa's and the international carbon emissions reduction commitments. I note that SLR has chosen to interpret the law differently and not follow this judgement. In the context of the current climate crisis this division between exploration and production is an illusory one. This country cannot afford to ignore</p>	<p>2. Dr Sunde's comments and opinions on the need and desirability are noted and should be taken into consideration by the Competent Authority in the decision-making process.</p> <p>Chapter 5 of the final ESIA Report (need and desirability) considers the strategic context of the project proposal within broader societal needs and the public interest. It provides a summary (chronology) of numerous national and international policies, including the most recent national and international documents. National and international policy documents on the just transition recognise the need for natural gas in the energy mix in the pathway to net-zero emissions by 2050. These national and international strategic agreements, laws, policies and plans, as well as the findings of this ESIA, will need to be taken into consideration by the Competent Authority in the decision-making process. National strategic policy decisions relating to energy and climate change fall beyond the scope of this exploration project ESIA.</p> <p>The outcome of the proposed exploration activities will determine the nature and extent of any potential resources within the licence block. Should the results of the currently proposed exploration be promising, a separate Environmental Authorisation application and ESIA process would need to be undertaken in the future to assess the potential impacts associated with the next phase in the lifecycle of a typical development project. Thus, future production activities (not currently proposed and assessed as part of the current ESIA) will only take place if Environmental Authorisation is granted. This is in line with the MPRDA</p>

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			<p>the very real interlinkages between these two stages and currently best available evidence, confirmed by two courts, is that these processes must be considered together. This report fails to do this.</p> <p>Most importantly it is noted that whilst the report argues that government policy is in support of the use of gas as a transition fuel and hence argues that off shore exploration for oil and gas should continue, the report does conclude that the use of fossil fuels is however “not aligned with other national and international agreements, laws, policies and plans, which identify the need to reduce the reliance on fossil fuels and for the global community, including SA, to reduce its GHG emissions and meet international law obligations and commitments”.</p> <p>The South African Constitution obliges our courts to consider international law where relevant. In this instance, for South Africa to risk the health and well-being of the ocean commons and knowingly follow a path that will push up its GHG emissions in contravention of numerous commitments goes against our Constitution, the ethical principles underpinning indigenous San communities of the Cape, the principles guiding our National Environmental Management Act, our Marine Living Resources Act and all common sense.</p> <p>3. Impact of an Oil spill</p> <p>The risk of an oil spill that would have huge ecological, social, economic and cultural impacts is acknowledged in the EIR that states that “[o]ffshore drilling operations carry an inherent risk of oil entering the marine environment as a consequence of an unplanned oil spill event. The greatest environmental threat from offshore drilling operations, although unlikely, is the risk of a major spill of crude oil/condensate occurring from a well blow-out.”</p>	<p>and the EIA Regulations 2014 (as amended) which clearly separates ‘exploration activities’ from ‘production activities’ and sets out the distinct application / assessment processes by which an applicant would have to obtain further Environmental Authorisation.</p> <p>The issues raised relating to production will need to be considered as part of the Production Right application should the project move onto production, including climate change impacts associated with production. This is in line with the numerous onshore and offshore exploration / production and prospecting / mining ESIA's undertaken in South Africa.</p> <p>3. The potential impact related to an unlikely oil spill is assessed in the ESIA - refer to Chapter 10 of the final ESIA Report. Oil spilled from a well can severely impact the offshore marine environment and also have impacts on the coastal environment where coastal community livelihoods, fishing, recreation, marine ecology, and estuaries are likely to be affected. The impact associated with an oil spill is high to very high significance. It is, however, important to note that the probability</p>

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			<p>The modelling undertaken as part of the OSM as well as the expert marine ecology and fisheries reports indicates that it is likely that a well blowout would result in oil reaching the South African coastline quickly, depending on wind and currents, and may even reach as far as Namibia and would have significant impacts.</p> <p>The Marine Ecology report also highlights the risk of a major spill, stating that: “the greatest environmental threat from offshore drilling operations is the risk of a major spill of crude oil occurring either from a blow-out or loss of well control. A blow-out is the uncontrolled release of crude oil and/or natural gas from a well after pressure control systems have failed”. 13 The report warns that ‘oil spilled in the marine environment would have an immediate detrimental effect on water quality, with the toxic effects potentially resulting in mortality (e.g. suffocation and poisoning) of marine fauna or affecting faunal health (e.g. respiratory damage). If the spill reaches the coast, it can result in the smothering of sensitive coastal habitats’. Importantly, the report goes on to point out that although the AOI is ‘located in the marine environment, far removed from coastal MPAs and any sensitive coastal receptors (e.g. key faunal breeding/feeding areas, bird or seal colonies and nursery areas for commercial fish stocks), a large spill could still directly affect these sensitive coastal receptors, as well as migratory pelagic species transiting through the drill area”.</p> <p>The overall sensitivity of marine ecology/environment to a large oil spill is considered VERY HIGH and this calls for a precautionary approach.</p> <p>The EIR indicates that plankton is particularly abundant in the shelf waters off the West Coast, being associated with the upwelling characteristic of the region. This includes phytoplankton (the</p>	<p>of a well blow-out occurring is considered to be extremely unlikely, and this will need to be taken into consideration by the Competent Authority in decision-making. In a South Africa context, 358 wells have been drilled in the offshore environment to date and no well blow-outs have been recorded. Global data maintained by Lloyds Register indicates that frequency of a blow-out from normal exploration wells is in the order of <math>1.43 \times 10^{-4}</math> per well drilled. The probability is lowered further as TEEPSA has gained valuable experience and is well aware of the local conditions and requirements to operate in these conditions, as it has successfully drilled two wells off the South Coast (in 2019 and 2020) and one well off southern Namibia (in 2022), with the metocean conditions off the South Coast (strong Agulhas Current) considered to be more extreme than those in Block 5/6/7.</p>

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			<p>principle primary producers), zooplankton and ichthyoplankton (fish eggs and larvae). Major fish spawning areas (including for hake, snoek, sardine and anchovies) are adjacent to and slightly overlapping the area. These species, in particular snoek, are critical for livelihoods and food security. In addition, snoek has considerable cultural importance. Impacts from an oil spill could be devastating for thousands of fishers if snoek spawning was impacted by an oil spill. The Marine Ecology expert report indicates further that the embryonic and larval life stages of fish show acute toxicity to PAHs, even at low concentrations, although effects vary depending on the species and the extent of exposure.</p> <p>The Fisheries Impact Assessment report indicates that there are several possible direct and secondary impacts of hydrocarbon spills on fisheries, namely:</p> <ul style="list-style-type: none"> <li>- Oil contamination of mobile finfish species, in particular of juveniles in nursery areas could result in displacement of species from normal feeding and protective areas as well as possible physical contamination and/or physiological effects such as clogging of gills, both of which would lead to fish mortality;</li> <li>- Oiling of sessile or sedentary species would result in physical clogging on individuals, disturbance and or removal of habitat for these species and gill clogging for filter feeding species such as mussels, all of which is likely to result in mortality;</li> <li>- Oiling of passively drifting spawn products (eggs and larvae) would result in their contamination and mortality (the extent of mortality would depend on the nature and extent of the contaminants) leading to reduced recruitment and loss of stock;</li> </ul>	

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			<p>- Exclusion of fisheries from areas that may be polluted or closed to fishing due to contamination of sea water by the oil or for example the chemicals used for cleaning oil spills; and</p> <p>- Gear damage due to oil contamination.</p> <p>It is noted that the Fisheries Report states that the inshore area of the Agulhas Bank serves as an important nursery area for numerous linefish species, a significant proportion of which originate from spawning grounds along the east coast, as adults undertake spawning migrations along the South Coast into KwaZulu-Natal waters... The eggs and larvae are subsequently dispersed southwards by the Agulhas Current, with juveniles using the inshore Agulhas Bank as nursery grounds. As is evident above, off the South Coast spawning areas are mostly located inshore (that is on the shelf from the coastline to approximately the 200 m depth contour). The coastal bays and estuarine environments are critical nursery areas for many of the fish stocks on which the various commercial fisheries are based. In particular, the small pelagic species of anchovy, sardine, red-eye round herring and juvenile horse mackerel and numerous linefish and demersal species are found in these protected areas in their juvenile stages. Any contamination of these areas would result in mortality of ichthyoplankton and impact in the short term on recruitment of species to the demersal trawl sectors, demersal longline, small pelagic purse-seine, midwater trawl, linefish and squid jig sectors.</p> <p>The eggs and larvae are also carried around Cape Point and up the coast in northward flowing surface waters. At the start of winter every year, the juveniles recruit in large numbers into coastal waters across broad stretches of the shelf between the Orange River and Cape Columbine to utilise the shallow shelf region as nursery grounds before gradually moving southwards in the</p>	

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			<p>inshore southerly flowing surface current, towards the major spawning grounds east of Cape Point. Following spawning, the eggs and larvae of snoek are transported to inshore (&lt;150m) nursery grounds north of Cape Columbine and east of Danger Point, where the juveniles remain until maturity. This report confirms that there is, therefore, some overlap of Block 5/6/7 with the northward egg and larval drift of commercially important species, and the return migration of recruits.</p> <p>Thus, ichthyoplankton abundance in the inshore portion of the Area of Interest is likely to be seasonally high, particularly in late winter and early spring. The embryonic and larval life stages of fish, however, show acute toxicity to PAHs, even at low concentrations, although effects vary depending on the species and the extent of exposure. In the context of the detrimental effect on ichthyoplankton (spawn products) on recruitment to fisheries, all affected fishing sectors are considered to be vulnerable to unplanned and uncontrolled major events and are rated as HIGH sensitivity.</p> <p>This issue is not adequately addressed in the report which does not acknowledge that the line fish sector will be impacted by the activity. In the absence of adequate evidence of the impact of such an activity on these species, coupled with the level of risk of a major oil spill, a precautionary approach should be adopted and this activity should not go ahead.</p> <p>4. Failure to adequately assess, understand and describe the receiving environment, in particular, failure to adequately assess the cultural impact of the project on fisheries and fisher communities in the Cultural Heritage Impact Assessment Report (CHIA)</p>	

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			<p>4.1 Introduction</p> <p>The Report on the Impact Assessment of Cultural Heritage (CHIA) as a component of the Environmental Impact Assessment Report (EIR), presents a very partial and inadequate assessment of the cultural basis of the receiving environment for this project from a fisheries perspective.</p>	<p>General response from CHIA specialist: Whilst it is appreciated that the commentator is embedded in her research area and is an advocate for the rights of a section of the small-scale fisher (SSF) community, the CHIA report deals with the cultural relationship that all peoples along the West and South Coasts have with the sea. The commentator further fails to appreciate that the voice of a segment of a stakeholder group cannot be allowed to drown out the voices of all others and that an ESIA Report in a country seeking to achieve democracy must be inclusive of all communities. This comment (4), therefore, misrepresents the CHIA prepared for the proposed project.</p> <p>The comment further conflates assessment of the nature of culture and of holistic human cultural relations with the coast in South Africa, and in particular the West Coast, with the assessment of fisher cultures. The prioritisation of fisher cultures and dismissal of the assessment of other communities' cultural relations with the ocean and coast, reveals bias. The West Coast has fisher families, recreational fishermen and a whole host of diverse stakeholders who culturally value the ocean and coast. These stakeholders and their cultural valuations of the ocean are described and assessed in the CHIA report. In this regard, the CHIA report provides a comprehensive, inclusive and adequate report on a holistic human coastal cultural valuation. The report also indicates deep understanding of the complexity of coastal access in South Africa and describes the receiving environment in detail, bearing in mind historical disparities.</p> <p>It is accepted that there is need for a richer understanding of fisher cultures in general, but it is not accepted that there is no discussion or assessment of SSF and their social, spiritual or cultural relations with the</p>



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			<p>An assessment of cultural impact on Khoisan indigenous peoples is one necessary component of a cultural impact assessment and Boswell's CHIA (2022) addresses this to some extent but this is insufficient to cover the fisheries cultural component which is critical for this EIA.</p> <p>The greater Cape of Good Hope seascape is an extensive cultural-ecological area of deep significance to the people of South Africa. It is a waterbody of cultural significance to fishers and fisher communities in terms of the National Heritage Resources Act Section 3. It is a site of significance and is the subject of many fishers' oral histories. It is located at the tip of the Cape Peninsula and is simultaneously a cultural and ecological symbol of South Africa's place in the world – at the Southern most tip of the African continent, at the place where two of the most important oceans meet. This place of coming together of two important ocean currents creates a unique biodiversity hotspot as it is known as a transition area. It is the location of the meeting of the indigenous peoples of Southern Africa with the colonial nations who occupied the Cape. The unique Cape Peninsula that has survived and its surrounding Bays – Table Bay, Camps Bay, Hout Bay, False Bay, Kalk Bay, Gordon's Bay as well as the embayments further south, Betty's Bay, Walker Bay, Gansbaai and Struis Baai are all sites of great historical and cultural significance for generations of South Africans. This is a seascape that holds the memories of thousands of seafarers, slaves and fishers. It is part of the living cultural home to many indigenous and local fishers whose cultural identities as fishers have been born within and shaped by these waters and the adjacent coastline. For generations of fishers working on these</p>	<p>ocean and coast. The report mentions these relations several times throughout, as noted further below.</p> <p>Regarding the assessment of the cultural impact on Khoisan indigenous peoples, it is incorrect to state that the CHIA report does not consider SSF cultural values of the ocean or the depth and holistic nature of this relation. This comment should, therefore, be reject. The CHIA report, given its coverage of Khoisan, Nguni descendant indigenes and other ethnic/cultural groups resident along the West and South Coasts of South Africa, provides a sufficient and detailed understanding of cultural heritage and cultural valuation of the ocean, including fisher cultural valuations of the sea.</p>

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			<p>waters and along this coast their whole lives, the ocean around the Cape Peninsula is a contiguous part of their everyday material world. This includes the different indigenous peoples of the Cape who make up several groupings as well as the thousands of fishers who have worked in the fisheries sector, including both the commercial and the small-scale, artisanal and subsistence sectors.</p> <p>Whilst many of these fishers do claim Khoisan indigenous status, many do not however they do articulate their powerful cultural identity as fisher people. An assessment of cultural impact on Khoisan indigenous peoples is one necessary component of a cultural impact assessment but as stated above, this is insufficient to cover the fisheries cultural component which is critical for this EIA.</p> <p>Understanding the importance of the ocean as a space of living cultural value as well as the value of cultural ecosystem services is in its infancy internationally but the need to assess these cultural values has been recognized. As noted by Wouter (2022), “in terms of Section 3(3) of the NHRA, the cultural and living heritage associated with the communities and indigenous people along the southwestern and west coast of South Africa holds heritage significance. It is part of the national estate and holds importance as a way of life for small-scale fishers and Khoisan descendants alike. The physical and spiritual interaction with the ocean and the shorelines through millennia resulted in a maritimity that developed into the cultural fabric as they experience it today”.</p> <p>The living cultural heritages of the fisher peoples of this region are still in the process of being documented, assessed and recognized in South Africa. Although ocean and coastal cultural heritage lags behind the recognition of land-based cultural heritage, and</p>	<p>The commentator concedes the following, that the region ‘.. includes the different indigenous peoples of the Cape who make up several groupings as well as the thousands of fishers who have worked in the fisheries sector, including both the commercial and the small-scale, artisanal and subsistence sectors. Whilst many of these fishers do claim Khoisan indigenous status, many do not however they do articulate their powerful cultural identity as fisher people.’</p> <p>This statement lacks clarity. If many do claim Khoisan identity, how is a CHIA report that highlights the Khoisan/Coloured experience and valuation of the ocean, involving interviews with fisher folk in Steenberg Cove, Paternoster and other areas of the Northern Cape and West Coast, not represent this stakeholder group? And also semantic confusion, many claim the identity and ‘many do not however’, which is it?</p> <p>Furthermore, the CHIA report does not only consider those peoples who publicly articulate a Khoisan identity or status. The research recognises the transitional nature of identity in post-apartheid South Africa, the problem of forced removals along South Africa’s coasts, the fact that there are now fishers that were not fishers prior to the quota revision process – and that there are others who have lost their fisher life because of changes to the quota system and encroaching real estate development and MPA creation in recent decades. Thus, the commentator’s view of seamless fisher folk and fisher communities, as timeless and hardly changing (almost primordial) communities, although</p>

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			maritime heritage has not gained the attention it requires, it is now an area of intense research and documentation.	<p>analytically interesting, needs closer and more politically nuanced analysis than what she proposes.</p> <p>Furthermore, the CHIA report asserts that there is a diversity of people who culturally value the ocean and that these perspectives, including SSF perspectives must be taken into account.</p> <p>The report states that there are some people, historically defined as Coloured who are now seeking to reclaim their indigenous identity as Khoisan. The report, therefore, recognises that there are others who do not claim such an identity, but are nevertheless consulted for their view on the proposed developments offshore. Furthermore, the report offers verbatim accounts of fisher and cultural and health seeking relations with the sea. The report documents cultural, livelihood and well-being relation of SSF to the ocean is noted and discussed. Instances citing fisher sociocultural relations with the sea include:</p> <p><i>'Thus, they personalised the ocean and coasts more, recognised the agency of the sea itself and the social personalities of marine life. They also more keenly noted human-ocean symbiosis, the reliance of humans on the sea not only for subsistence but for sensory experience and holistic existence. In this regard, SSF have a cultural heritage relationship with the sea. Their connection with the sea and coast is not just about subsistence or commercial use of the sea.'</i></p> <p>SSF families displayed high regard of the sea as well their spiritual and cultural connection with the ocean. These stories revealed the cultural and ecological sensitivity of these coastlines, as well as their cultural value. MPA studies, the reliance of SSF families on these coastlines for subsistence, the role of the coastline in fish spawning, as well as studies of aquatic biodiversity further reveal the intangible cultural heritage of the sites.</p>

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				<p>In Paternoster, Kalk Bay, Langebaan and St James, board and kite surfers, as well as SSF and swimmers spoke of the interplay of Earth/moon gravity and the tides, their impacts on surf swells and winds, as well as the abundance of fish.</p> <p>Certain stakeholder groups are directly reliant on the ocean and coast for their livelihood and have cultivated a range of culturally significant practices with the sea and coast (e.g. use of the sea-based activities of fishing and shell- fish harvesting for the positive socialization of impoverished boys and men in Paternoster and Steenberg Cove in the Western Cape.</p> <p>Interviews with SSF communities also revealed that fishing is not just a livelihoods issue, fishing and crayfish harvesting for example advance sociality and a particular 'way' of life, meaning, it is key to cultural life and practice. The activities of fishing involve working in a socially meaningful site (having access to specific sites at sea), being part of a social group of fishers, having social boundaries and cultural processes of adaptation within this group (i.e., going from collecting bait to eventually being trusted with a boat), bringing fish home for culturally and socially meaningful meals Thus for SSF, fishing is also ICH.</p> <p>SSF depend directly on fish species they catch at sea. Their livelihoods will be negatively affected. Going out to sea for SSF and use of the sea for recreational fishing is also a ritual and gendered (male) cultural heritage in the areas of indirect influence. For example, in the West Coast of the Western Cape and in southern Cape coast (i.e., Paternoster, St Helena Bay, Steenberg Cove, Struis bay, Still Bay) SSF boys learn from older SSF men how to collect bait, catch smaller/less vulnerable fish species, how to manage a boat and to navigate at sea. The experience builds masculine solidarity, camaraderie and possibility for both livelihood and leisure. This keeps young boys and men away from the scourges of drug abuse and crime. Furthermore, anglers and deep-sea</p>

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			<p>Most regrettably, the Impact Assessment Report on Cultural Heritage for the Total Energies fails to understand this broader fishery cultural heritage and focuses more narrowly on the ancestral and ritual practices and relationships that Khoisan peoples have to the sea. Although it acknowledges that heritage is both legacy and living cultural practice it does not describe the fisheries component of living cultural practices in the receiving environment or investigate this issue in any depth. Although it does state the following:</p> <p>“5.3.18 Some of the groups encountered, such as Small-scale Fishers (SSF), demonstrated greater cultural proximity to the ocean and coast. Thus, they personalised the ocean and coasts more, recognised the agency of the sea itself and the social personalities of marine life. They also more keenly noted human-ocean symbiosis, the reliance of humans on the sea not only for subsistence but for sensory experience and holistic existence. In this regard, SSF have a cultural heritage relationship with the sea.</p>	<p>fishers organise fishing trips from which they may earn an income but via which they are promoting recreational fishing and masculine leisure. These fishers go to the ‘deep’ sea and their fishing will be affected if there is an oil spill.</p> <p>In the concluding statement, the CHIA report states:</p> <p><i>For all the sites, it is highly recommended that TEEPSA institute a comprehensive, consistent and regular consultation with indigenous groupings and leadership, as well as those who fall outside this category. The aim of such engagement is to ensure open communication, direct communication and consistent communication with stakeholders that may be affected by operations.</i></p> <p>This comment challenges the value of the CHIA report and calibre of the research done by stating that the report ‘focuses more narrowly on the ancestral and ritual practices and relationships that Khoisan peoples have to the sea’.</p> <p>It must be noted that the CHIA researchers tried to engage with the commentator (Dr Sunde) and other academics for assistance in reaching the noted fisher groups, to obtain their views but did not receive this assistance, and therefore, the detailed fisher culture ethnography asked for in comments on the CHIA report was difficult to achieve, because the requested contacts were not provided and effectively the process of consulting these groups was diminished. In a request for assistance (10 March 2022) the commentator noted that such communities would have to be engaged by the academics before the CHIA team spoke to them, as it was said that the communities were ‘wary of’ and ‘tired of consultants’ and interviewers.</p>

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			<p>Their connection with the sea and coast is not just about subsistence or commercial use of the sea” (pp 37).</p> <p>Regrettably these observations are then not followed up and considered from the perspective of impact on this ‘cultural heritage relationship’ and the baseline environment section does not elaborate on these observations.</p>	<p>The comment regarding the narrowness of the CHIA report, therefore, ignores the part of the commentator in affecting the research process. The commentator was contacted in good faith to provide input prior to the commencement of the research and did not respond when assistance was sought from others and her, a local fisheries expert.</p> <p>Nevertheless, by doing the CHIA research, even without the support and fisher contact facilitation of the commentator and others, the researchers sought to help realise the legal right of all citizens to be consulted on environmental development matters and to document, as best possible, their deep cultural valuation of the ocean.</p> <p>Finally, the commentator also fails to recognise that presenting the experiences and concerns of the Khoisan in the CHIA report, returns to these communities long overdue and much needed respect. The comment on the report being principally about the perspectives of the Khoisan, is also misplaced, since it fails to understand that many people on the West and South Coasts were forced to adopt the identity of ‘Coloured’, that the latter identity was negatively portrayed in apartheid and colonial ideology and that many people once defined as ‘Coloured’ are now reclaiming their rightful indigenous identity, including their ritual belief in the power of ancestors and the diverse ritual locales (including the sea), where they are to be found.</p> <p>The response above regarding the research process applies here.</p>

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			<p>4.2 Key cultural heritage components not addressed in the report</p> <p>Key components that are not addressed at all or addressed inadequately include:</p> <ul style="list-style-type: none"> <li>The role of the ocean and marine resources in constituting cultural identities of fisher people and fisher communities ;</li> <li>The systems of local knowledge that are part of cultural systems: The systems of fisher local ecological knowledge of the ocean and marine environment that constitute part of their culture and are key for biodiversity management and protection, particularly in times of environmental and climate change;</li> <li>Cultural and customary practices specific to fisher people: The cultural and customary practices of specific fisher communities that have become expressions of their culture;</li> <li>Fishers' sense of place which straddles both coastal land and sea and how continuity of this sense would be impacted by the proposed activity;</li> <li>Fisher-centred cultural ecosystem values: Some of the distinctive fisheries related cultural ecosystem values that are used by other sectors such as tourism and the real estate sector to articulate the value of their unique Cape brand;</li> </ul> <p>Examples of these are presented below in Section 4.4 to illustrate the gaps in the Cultural Impact Assessment report (Boswell 2022).</p> <p>4.3 Methodology</p> <p>The Report (Boswell 2022:11) states that the "CHIA report uses anthropological research methods, including fieldwork, to define</p>	<p>Regarding the 'systems of local knowledge that are part of cultural systems' comment. The CHIA report thoroughly assesses human cultural valuation of the ocean the indigenous, autochthonous and recent settler cultural systems and beliefs regarding the ocean. Therefore, comment 4.2 misinterprets the CHIA report.</p> <p>In the CHIA report (Section 5.3.4) it is noted that '<i>The ocean is not merely an asset, it is a living organism and integral part of the global ecological system.</i>' In this regard the report acknowledges and reinforces the gravity of cultural ecological knowledges in the coastal context, the holistic aspects of existence in this ecological and cultural setting, as well as holistic experiences of being with and in the sea. The discussion includes references to the physics of water, atmospheric heritages and terraqueous territories (watery territories and cultural relations within them.)</p> <p>The CHIA report mentions and highlights the importance of sense of place, in archaeological, leisure, health, belief, ritual and memory terms. These references, note fisher articulations in these senses of place.</p> <p>The commentator fails to mention that the research included stakeholders such as local coastal businesspeople, real estate investors, ordinary (non-SSF) peoples, leisure companies, surfers, swimmers, women, men, indigenes such as the Khoisan peoples, as well as Nguni descendants who after apartheid are free to move to and be in places such as the Western Cape.</p> <p>Emphasis on fishers, as a largely ungendered category in the commentator's comments, effectively excludes women as important gendered and cultural users of the sea.</p> <p>Emphasis on cultural and customary practices as processes largely unaffected by processes of change and identities as dynamic and multiply situated (i.e., that there are those for whom the fisher identity</p>

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			<p>the receptors, their sensitivity to specific impacts existing, cumulative observable impacts in the sites”.</p> <p>No where does it clearly explain how fisher culture is regarded as a ‘receptor’ or how impacts on fishers’ ability to access marine resources as the material basis of their culture, are being assessed in the report.</p> <p>The Report fails to identify the number of men and women fishers that were interviewed and whether or not an adequate representation of fishers across the different fisheries sectors was included in the report. It merely states rather vaguely that</p> <p>“The research also included interviews with participants and observations in coastal locales, where relevant activities are taking place, such as swimming, surfing, kite surfing, sailing and beach walking; and where there were local businesses and effort to leverage subsistence from the sea (i.e., fishing)”.</p> <p>Considering that this project had already identified key fisheries that the activity would have an impact on for eg, demersal trawl and tuna-pole, as well as the fact that the risk of an oil spill would impact all fishing and harvesting of marine resources, it is</p>	<p>is critical, but that these individuals also articulate other cultural identities under different circumstances) also indicates poor understanding of the nature of identity in a globalised and multicultural society.</p> <p>That the CHIA report acknowledges and recognizes the impact of apartheid on coastal communities of colour, and that those now asserting their identity as Khoisan, did not always do so because of the negative manner in which indigenous peoples and identities were treated under slavery, colonialism and apartheid.</p> <p>The response above regarding the limitation on the research process above.</p> <p>The report did not disaggregate the data and does not include names, as anonymity of interviewees was guaranteed. The reason for doing this is not merely to meet the legal requirements for ethical conduct in human related research, but to also protect interviewees in a volatile context where preference for offshore oil and gas development may be responded to with violence. Therefore, no names are provided, to protect the anonymity and integrity of those engaged in the research process.</p>



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			<p>surprising that the cultural heritage of fisheries was not investigated in any depth. The Report fails to cite any literature on the cultural identities, knowledge systems, values, customs and customary practices of current fishers or fisheries sectors that is of relevance to an assessment of the impact of the activity on fishers living cultural heritage.</p> <p>The Report does not distinguish different cultural and customary systems amongst different groups of fishers yet this is an important feature in the literature on different fisheries. For example, the literature on the histories of beach-seine (trek-net) fisheries in the Cape highlight the fact that these fishers evolved a rich system of local laws to manage their interactions in False Bay and the Van Breda court judgement recognized these as local law (van Breda). The Langebaan traditional net fishers developed a similar system of customary practices that they regarded as their local system of customary law (Sunde 2014).</p> <p>The report only mentions interviewing fishers in Paternoster, but quotes from only one individual fisher and one fisher woman who works as a fish clearner in Kalk Bay. Notably it fails to comment on the extensive local ecological knowledge that women vleklers have and the integral nature of this knowledge to their cultural identity. It makes very fleeting reference to having conducted fieldwork during the SSF west coast rock lobster season however the report fails to indicate if it interviewed any traditional line fishers and other key fisher groups with distinctive cultural identities.</p>	<p>Refer to response above regarding the mention of fisher and other cultural group memories, beliefs in relation to the sea and of coastal cultural relations with the ocean. The CHIA report is not just about different groups of fishers, but rather human coastal cultural valuations of and relations to the sea and coast.</p>

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			<p>In section 4.9 it states that fieldwork coincided with the closing of the crayfish season but this was only the closing season of crayfish for some fishers – the commercial crayfish season continues until June and this year was extended to August. The fact that the field work coincided with the onset of the snoek season is not noted and the impact that this would have had on the availability of the fishers for interviews is not noted.</p> <p>4.4 Key gaps in the report</p> <p>4.4.1 The role of the ocean in constituting cultural identities of fisher peoples: The ocean and marine resources are inextricably woven into the cultural identity of fisher people and fisher communities. This central role that the ocean and access to and use of marine resources plays in the cultural identities of fisher and coastal communities around the world has been recognized by the United Nations. In 2010 the UN Economic and Social Council noted that</p> <p>“For indigenous peoples living along coastlines, fishing and other uses of the ocean have been their main livelihood and the material basis for their culture” and “The use of the ocean through centuries, especially the near coastal waters with adjoining bodies such as bays, estuaries and fiords, has had an instrumental effect in creating various coastal indigenous peoples’ cultures” (United Nations E/C.19/2010/2).</p> <p>This recognition has found effect in both international law instruments such as the UN Declaration on the Rights of Indigenous Peoples. Extensive anthropological scholarship, coupled with the advocacy statements and writings of traditional and indigenous fisher groups has documented the ways in which access to and use of natural resources, in this instance, marine and</p>	<p>This is noted and can be added to the CHIA report.</p>

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			<p>coastal resources, forms the material basis of the culture of fisher groups around the world. This interdependency has also been recognized by the Convention on Biological Diversity in a series of decisions of the Conference of Parties, the Special Rapporteur on Human Rights and the Environment amongst others. The significance of continuity in access to the resources that forms the basis of their culture and the health and wellbeing of these natural resources and ecosystems as part of this culture, their knowledge system, their customary practices and for some, customary systems of law, has been acknowledged through the more recent work of the Convention on Biological Diversity Conference of Parties in several instruments. For example, the CBD Tkarihwaie:ri Code of Ethical Conduct to Ensure Respect for the Cultural and Intellectual Heritage of Indigenous and Local Communities Relevant to the Conservation and Sustainable Use of Biological Diversity ("Code of Conduct") highlights the importance of indigenous and local custodianship, and recognizes the holistic interconnectedness of humanity with ecosystems that is embedded in their customary rules as well as cultures, spiritual beliefs and customary practices (including linguistic diversity), and recognises these as key to the conservation and sustainable use of biodiversity.</p> <p>Perhaps the strongest evidence for this issue comes from the affidavit of a fisherman, the first Applicant in the SEARCHER case heard in the High Court in February 2022 concerning an application for oil and gas exploration.</p> <p>"The cultural history of the West Coast carries the memories of the earliest occupation of our country, of the French occupation of the islands off the West Coast and their taking of our fish, our sea birds, our guano. Of the Cape's dependence on our forefathers to</p>	

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			<p>provide fish to feed the workers growing wheat and livestock, of the multitude of snoek sent to Mauritius as ‘rantsoenvis’ for the slaves working the sugar cane fields of that country. So important and so rich is this link between the provision of snoek to the people of Mauritius, that to this day, the Mauritian’s celebrate a fish festival to remember this tradition and their historical dependence on the local fishers of the Cape.</p> <p>This is the cultural heritage of the West Coast. This is my cultural heritage. I was born in 1978 into a family of proud fishermen and women. I am a fourth generation fisher of this West Coast. My maternal grandfather’s family originated in Mamre. My maternal grandmother’s family lived near the sea in Green Point, near Roggebaai where the fishing boats come in but then they were forcibly removed by the Group Area’s Act away from the sea to the Cape Flats. My grandmother’s family are descendants of this mix of Khoisan and Malay early inhabitants and workers of this coastline.</p> <p>My great grandfather and great uncles used to travel by ox-wagon and later by donkey along the gravel road from Mamre to the coast at Ganzekraal to catch fish. My uncles and cousins settled along this coastline. The catching of fish is a part of my cultural heritage. It is how my forefathers and mothers survived. It is in our blood, in our genes.</p> <p>My grandfather and uncles taught me to fish and to harvest a wide range of marine resources along this coast including lobster, abalone, limpets, black and white mussels. They taught me to jive for mussels in the sand along these shores, a tradition that many young children from the West Coast fishing villages learnt, as they learnt to dive for lobster and to throw in a line for a fish.</p>	

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			<p>I remember catching my first lobster on my own when I was 5 or 6 years old. I recall my Grandfather making me put it back and telling me that the shell was too soft, that it was a female lobster carrying eggs and that we could not eat this particular lobster as we needed it to give birth to many more lobsters. This was how I was taught from a young age to care for the marine resources of the West Coast. The descendants of these early fishers have been and continue to be the real guardians of our marine resources, despite being forcibly removed from the sea during the apartheid years and often prevented from fishing in areas that were designated as 'for whites only' during apartheid.</p> <p>I grew up in a family of fishermen who caught snoek and fisher women who harvested a range of inter-tidal resources, cleaned fish and 'vlekked snoek. My mother and grandmother made 'ingelaaide' snoek for us at Easter, a very special West Coast tradition that is still practiced today. Easter is a time for eating fish, and the West Coast is famous for the many traditional fish recipes. In our family we ate a lot of these traditional fish dishes. Curried fish is still sought after and sold by leading supermarkets throughout South Africa at Easter, as this cultural tradition continues.</p> <p>I grew up believing that the sea must be respected and that it was part of us. At the start of the fishing season a church service would be held in each of the fishing villages along the coastline, blessing the village boats and asking that God would watch over the fishermen. I grew up knowing that the communities of the West Coast depended on the sea for their lives and livelihoods and that the sea and fishing was what made us who we are, as people of the West Coast" (Christian Adams in Christian Adams and Others versus the Minister and Others 2022).</p>	

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			<p>It is hard to imagine that the Cultural Heritage Impact Assessment for TOTAL Energies failed to read or reference these court papers that were in the public domain and available to the consultants yet the TOTAL CHIA report fails in its entirety to engage with this specific aspect of the importance of the ocean for fishers' cultural identity. The importance of the ocean as the material basis of their culture is expressed by several of the applicants in this case. It is also closely linked to their access to the species, snoek or Thyrites atun, specifically.</p> <p>This issue of the mutual constitution of the fisher identity and the ocean is skillfully expressed by Marieke Norton (2013). "The Cape Snoek, or Thyrsites atun, is a species of fish that has a significant presence in the history of the Western Cape and the development of Cape Town. The snoek is a lively creature that is historically, culturally, economically, and ecologically active in the Western Cape. I argue that in the case of the Cape snoek, the fish and the Cape are performed together; through acts of differentiation, they mutually constitute one another" (Norton 2013:31).</p> <p>Norton's very insightful interpretation of the many ways in which snoek is enacted is particularly pertinent for this assessment of living culture because it highlights how fishers' knowledge is embedded in their cultural practices and ways of knowing snoek (marine resources). It is in this intertwining of the social and ecological that snoek and fisher identity and culture are mutually constituted.</p> <p>This relationship between ocean resources (here the example is snoek) and fisher identity is a living cultural process. To risk what constitutes this process, risks undermining the cultural identity of</p>	<p>It would have been enormously helpful if the commentator had offered this information when the CHIA researchers engaged with her and others instead of not responding and not offering the assistance/information genuinely requested at the start of the work.</p> <p>See response above - there is no instance in the report where there is omission or denial of the fact that there is a relationship between ocean</p>

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			<p>West Coast fishers. It is this risk that the cultural heritage assessment fails to recognize or assess.</p> <p>Norton argues that the act of constitution “is mutual and it transgresses the boundary of the nature–culture or subject–object divide. By investigating the history of the snoek, and paying attention to how we construct the idea of it, we are also paying attention to how what we say about snoek says something about us” (Norton 2013: 32). This speaks to the world view and ontology of the fishers who recognise that causing harm to the snoek will cause them harm. This was the insight that Judge Thulare recognised in the fishers’ affidavits – that harm to living marine resources is harm to the fishers. This case found in favour of the fishers. This understanding is not addressed in the Cultural Heritage Assessment Report.</p> <p>4.4.2 The systems of local knowledge that are part of cultural systems: The systems of fisher local ecological knowledge of the ocean and marine environment that constitute part of their culture and are key for biodiversity management and protection, particularly in times of environmental and climate change, are not addressed in the report (See for example Duggan et al 2014, Thinking like a fish). If the fishers’ access to fish and to the marine environment is at risk, threatened or impacted by a planned or unplanned event this will impact their knowledge system which is part of their culture. The CHIA fails to describe these knowledge systems or at least provide some examples and does not assess this risk. The knowledge systems of different fisher groups differ however there are certain commonalities that can be seen across systems and have been well documented in the international literature (Berkes et al 2015).</p> <p>4.4.3 Cultural and customary practices specific to fisher people:</p>	<p>resources and fisher identity as a living cultural process. Therefore, it is incorrect to state that the CHIA fails to recognize this or to assess it.</p>

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			<p>The cultural and customary practices of specific fisher communities that have become expressions of their culture see for example Dennis (2010) on Arniston, Hauk (2010), Williams (2013) on Olifantsriver and de Greef (2015) in relation to Hout Bay or Sunde (2014) with respect to the fishers of Langebaan Lagoon are not identified as cultural heritage.</p> <p>There are numerous other studies comprising peer reviewed literature and student Phd theses that cover the cultural histories and customary practices of the fisheries of the Western Cape however none of these are referenced.</p> <p>4.4.4 Fishers' sense of place which straddles both coastal land and sea:</p> <p>The 11 fisher affidavits in the litigation against Searcher in the High Court as well as extensive national and international literature provides extensive evidence of this sense of place and what it means from a fisher perspective but save a reference towards the end of the report, not in the baseline environment section, the CHIA does not explore this or cite this scholarship or try and engage with the challenges of assessing the cultural ecosystem values attached to this from a fisher perspective, only from an indigenous person's perspective. This issue has distinctive importance for fishers, and their culture and livelihoods and needs to be engaged as an issue on its own.</p> <p>4.4.5 Fisher-centred cultural ecosystem values:</p> <p>Some of the distinctive fisheries related cultural ecosystem values are used by other sectors such as tourism and the real estate sector to articulate the value of their unique Cape brand. The report touches on the ocean's value from a tourism and recreational perspective but does not address the fisheries-related</p>	See response above regarding the research process.



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			<p>cultural ecosystem values that are relied upon by other sectors. Should these fisheries be at risk or impacted this would have a knock on effect on these other sectors.</p> <p>4.4.5 Important fisher cultural sites that have been recognized by SA Heritage Association as Heritage sites because of their value as sites of fisheries heritage such as Kassies Baai etc specifically are not mentioned at all in the report. It is necessary to document these as part of the baseline report so that should there be impacts these can be properly assessed.</p> <p>4.5 Impact assessment</p> <p>This section of the CHIA report identifies numerous impacts. For example: it states</p> <p>7.1.1 Northern Belt Coast (NBC) (Alexander Bay to Hondeklipbaai).</p> <p>“It is assessed that there will be impacts of operations for these areas”. However it does not relate this statement specifically to cultural impacts on fishers. However, the author believes that ‘there will be impacts’ and appears to suggest that these will impact small-scale fishers.</p> <p>“for example, normal operations may affect marine life on which the small-scale fishers depend for their livelihood and normal operations may affect tourism receipts in the area since normal operations may pollute beaches and sea. Furthermore, since the coastal towns in this area have existing impacts in commercial port activity and offshore operations in the form of diamond mining and commercial fishing. In this regard, communities are already experiencing potentially adverse effects on the ocean and sea. However, awareness and experience of the potential impacts of</p>	

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			<p>pollution in the sea (i.e., via observation of dwindling fish stocks and poorer quality of fish stocks) and awareness of its impacts on spiritual relations with nature, now mean that communities are less accepting of these impacts on the ocean”(Boswell CHIA 2022:45). Given that this Northern Belt is furthest away from the identified application area, it can be assumed then that ‘there will be impacts’ such as those mentioned by the CHIA in all the other areas.</p> <p>7.12 Western Cape Coast (i.e., Doringbay to Langebaan and including False Bay). It would appear that the author does not realise that this section of the coast is closest to the impact site? In addition, she does not realise that from a fisher perspective, these towns are historical fishing villages and towns and are of critical importance to the fishers’ cultural history? For example, Kalk Bay is recognised as a historical fishing village. The author shows little understanding of the importance of these towns for both the commercial and the small-scale fisheries sector as she describes them in the following way:</p> <p>“These coastal towns are used for leisure, tourism, subsistence fishing and spiritual/ancestral rituals”.</p> <p>“The residents encountered expressed a rich intangible cultural heritage, including ancestral veneration rites that include the sea, as well as deep beliefs regarding the ocean as a living thing, with whom humans must develop a symbiotic and sustainable relationship” (page 46).</p> <p>It remains unclear as to whether or not she has assessed the cultural heritage and living cultural value of these heritage sites and considered the impact on them from a fisheries cultural perspective. There is no indication of this.</p>	<p>The CHIA specialist rejects this statement and considers it an unfair and inaccurate assessment of the work and the way in which human coastal relations are written about and discussed in the CHIA report.</p>

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			<p>7.12. South Cape Coast and Eastern Cape (from Struisbay to Algoa Bay). It is unclear as to why the CHIA report divides the coast in this manner given the locality of the application site and the potential impacts and it raises concern that the author has not fully appraised the cultural IMPACTS of this project according to the actual likelihood of impacts on these fisheries communities. The report does not make any attempt to link the impact assessment to the ecosystemic interactions with culture for each of the identified communities. However, it is noted that it is the CHIA author's opinion that</p> <p>"It is assessed that potential impacts may be high to very high (my emphasis) for these sites because there are multiple uses and users of the coastline and there are many sites of archaeological and cultural significance, sites of value not only to South Africa but the world."</p> <p>If these are the criteria that she is using to assign her ratings as high to very high – namely 'because there are multiple uses and users of the coastline and there are many sites of archaeological and cultural significance', then it would be appropriate for her to have assessed the 'uses and users of the coastline' in each of the above mentioned areas. This is a fatal flaw in this heritage assessment. It is clear that this rating of high to very high is arbitrary and not based on a systematic, real assessment of uses and users and sites of significance. Had the Expert assessed the cultural heritage sites and "many sites of archaeological and cultural significance" of the West coast she would have surely mentioned the following amongst others:</p>	<p>The uses and users of the coastline are noted in the CHIA report and an effort is made to assess impacts on both. The assessment methodology used is as per the approved assessment methodology presented in the final Scoping Report.</p>

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			<p>The extensive archaeological evidence that the coastal groups of Khoikhoi entered the West Coast region over 2000 years ago and relied on marine resources such as seals, whale meat and shellfish in the Saldanha Bay region of Kasteelberg ( Smith, 1987, Sealy and Yates 1994; Henshilwood, 1996; Avery, 1975; Schweitzer, 1979; Deacon et al., 1978) and in the St Helena Bay region important sites for the local fisher community include the fish traps at Wilde Varkvlei and the sacred site at Slipper Bay which is regarded as a special site for the indigenous peoples of the region. It is known as a place “ where whales often strand themselves along the shore are known as 'cetacean traps'. These are areas where minima in the earth's magnetic field cross the shoreline, and where there are offshore reefs.” (<a href="http://www.sawestcoast.com/history.html">http://www.sawestcoast.com/history.html</a>).</p> <p>Kasteelberg, is an open-air archaeological site located 4km from the coast. It provides evidence of occupation by herders between 1800 and 1600 years ago (Klein, 1986). The occupants of the site focused on harvesting seals and the presence of sheep bones also indicated that the inhabitants were most likely herding domestic stock (Klein, 1986; Smith, 2006 in Wouter 2022). Wouter (2022) also notes that St Helena Bay is also significant for the written records that reveal that in 1497, the GuriQua and the San (SonQua) witnessed the arrival and departure of Vasco da Gama in St Helena Bay (Raven-Hart, 1967; Axelson,1998). Would these important heritage sites not also merit the author awarding them “ high to very high” impact?</p> <p>The coast and area around Langebaan Lagoon is famous for the finding of Eve’s footprint but this is not mentioned in the report, nor are the many other important sites up the west coast between Langebaan and Doringbaai, such as the particularly important archeological site at Elands Bay.</p>	

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			<p>Historian van Sittert has documented in detail the history of the establishment of many of the fishing villages up the West Coast and near the Berg River in particular. He notes that “After the emancipation of slaves, new laws were introduced to control both the freedom of movement and independent livelihoods of people who did not own land. This forced fishermen on the West Coast “to either develop artisanal skills, become wage labourers or squat on coastal government land to eke out a living from small scale production and seasonal work” (Van Sittert 1992: 12-14). His has written a detailed historical account of the establishment of the fishing industry in St Helena Bay and the cultural value of snoek in the exchange between Mauritius and South Africa. There is extensive historical material in Kalk Bay that has been recognised for its heritage value that relates to the cultural heritage of the fisher community (Kwaai 2021) as there is in Kassies Baai which was recognised by the SAHRA as a fisher village.</p> <p>It is not clear why the author of the CHIA has only indicated sensitive receptor sites in a few of the fishing villages where there is both archeological and living cultural heritage evident. In Section 7.1.4 she states</p> <p>“there are multiple, sensitive receptors (i.e., sites) in these areas, as well as regular use of the sea and coast for cultural heritage use – ancestral veneration, spiritual uses of the sea, leisured use of the sea and gendered cultural use of the sea. The higher the cultural value of the receptors, the higher the sensitivity of the receptor. Thus, there are highly valuable archaeological sites in St Helena Bay, Langebaan, Plettenberg Bay, Knysna and in Tsitsikamma” (Boswell 2022: 46). It is noticeable that she does not include fisheries or specific fisheries cultural heritage sites. Further in the report she makes fleeting reference to Kalk Bay but again this is</p>	

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			<p>not in relation to a discussion on fishers’ cultural heritage. In the discussion on indirect impacts the report makes fleeting reference to fishing but not in terms of the impact of the drilling activities on fisheries as a livelihood or cultural practice. This statement says</p> <p>“Certain stakeholder groups are directly reliant on the ocean and coast for their livelihood and have cultivated a range of culturally significant practices with the sea and coast (e.g. use of the sea-based activities of fishing and shellfish harvesting for the positive socialization of impoverished boys and men in Paternoster and Steenberg Cove in the Western Cape)”. The report then does acknowledge in this latter section that “Interviews with SSF communities also revealed that fishing is not just a livelihoods issue, fishing and crayfish harvesting for example advance sociality and a particular ‘way’ of life, meaning, it is key to cultural life and practice. The activities of fishing involve working in a socially meaningful site (having access to specific sites at sea), being part of a social group of fishers, having social boundaries and cultural processes of adaptation within this group (i.e., going from collecting bait to eventually being trusted with a boat), bringing fish home for culturally and socially meaningful meals Thus for SSF, fishing is also ICH.” (page50).</p> <p>It is not clear why these practices were not detailed in the section of the report identifying and describing the baseline environment and receptors. Nor does the report go on and assess the impact of the activities on this intangible heritage. This is a fatal flaw of the report as the report is not clear where this intangible cultural heritage was identified and assessed.</p>	<p>This comment is not accurate, as the CHIA report does assess impact on this intangible heritage when considering ICH impacts.</p>

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			<p>The significance of this failure is noted when considering the UNESCO Convention for the Safeguarding of Cultural Heritage.</p> <p>Wouter (2022) highlights this effort to safeguard Intangible heritage by UNESCO and its member states through the Convention for the Safeguarding of the Intangible Cultural Heritage (ICHC).</p> <p>He presents the following section extracted from a UNESCO webpage that explains the importance of Intangible Heritage:</p> <p>“While fragile, intangible cultural heritage is an important factor in maintaining cultural diversity in the face of growing globalization. An understanding of the intangible cultural heritage of different communities helps with intercultural dialogue and encourages mutual respect for other ways of life. The importance of intangible cultural heritage is not the cultural manifestation itself but rather the wealth of knowledge and skills that is transmitted through it from one generation to the next.</p> <p>The social and economic value of this transmission of knowledge is relevant for minority groups and for mainstream social groups within a State, and is as important for developing States as for developed ones. Intangible heritage is: ▪</p> <p>Traditional, contemporary, and living at the same time: intangible cultural heritage does not only represent inherited traditions from the past but also contemporary rural and urban practices in which diverse cultural groups take part. ▪</p>	<p>This is exactly why a diversity of communities were engaged and interviewed and not just fisher communities as recommended by the commentator.</p>

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			<p>Inclusive: we may share expressions of intangible cultural heritage that are similar to those practised by others. Whether they are from the neighbouring village, from a city on the opposite side of the world, or have been adapted by peoples who have migrated and settled in a different region, they all are intangible cultural heritage: they have been passed from one generation to another, have evolved in response to their environments and they contribute to giving us a sense of identity and continuity, providing a link from our past, through the present, and into our future.</p> <p>Intangible cultural heritage does not give rise to questions of whether or not certain practices are specific to a culture. It contributes to social cohesion, encouraging a sense of identity and responsibility which helps individuals to feel part of one or different communities and to feel part of society at large. ■</p> <p>Representative: intangible cultural heritage is not merely valued as a cultural good, on a comparative basis, for its exclusivity or its exceptional value. It thrives on its basis in communities and depends on those whose knowledge of traditions, skills and customs are passed on to the rest of the community, from generation to generation, or to other communities.</p> <p>Community-based: intangible cultural heritage can only be heritage when it is recognized as such by the communities, groups or individuals that create, maintain, and transmit it – without their recognition, nobody else can decide for them that a given expression or practice is their heritage (Report from meeting to define Intangible Cultural Heritage, Piedmont (Italy), March 2001 (<a href="https://ich.unesco.org/doc/src/00077-EN.pdf">https://ich.unesco.org/doc/src/00077-EN.pdf</a>, accessed 22 July 2022) drawn from Wouter 2022:27)."</p>	<p>Although publishing in 2022, Wouter offers a very old (or at best, uneven) conceptualisation of cultural heritage and its management and/or protection and can, therefore, not be relied on to provide any meaningful comment about the CHIA. Wouter's analysis of heritage is politically old – promoting a concept of culture as bounded and almost primordial, misrecognising the form, substance, politics and dynamics of cultural heritage in Africa and the world. Heritage protection and management is a massively dynamic and political process, influenced by regimes of culture emanating from the global north, as well as concepts of identity that seek to divide Africans into recognisable categories for political and academic expedience. Heritage is not the seamless gifting process or the "warm cuddly blanket" (as the now deceased global academic and heritage specialist par excellence Greg Ashworth put it) that Wouter makes it out to be. It is a highly contested concept and discourse which locals, in Africa and beyond are reformulating and redeploying to address the oppressive, limiting and primordial connotations attached to it by those in power. Furthermore, culture, another concept deployed by Wouter, is far more dynamic, shared, multiply situated and experienced than Wouter and Dr Sunde claim.</p> <p>Culture is dynamic and challenged in the social sciences (and anthropological literature). Using Wouter to underpin an analysis of heritage in a context as dynamic as South Africa, leads to narrow, misguided and rigid understandings of heritage and under-considered comments about the nature of identity and coastal cultural values.</p> <p>The rest of the comments on NHRA and the CBD are noted and considered in the CHIA report. Asserting them in the comment is superfluous and indicates that the commentator has not carefully read or considered the CHIA report, as these points are already made and discussed.</p>



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			<p>Wouter using this framework notes that “marine-related intangible cultural heritage and people’s connection to the ocean is relevant. This type of heritage incorporates the unique ethos and identity of specific places linked with fishing villages; oral history; popular memory; cultural traditions; indigenous knowledge systems, rituals, beliefs, and practices (e.g., fishing techniques) associated with the ocean” and concludes the following in relation to the West Coast fisher cultural heritage:</p> <p>“Community identity and culture are thus strongly linked to the ocean and what it can provide, physically and spiritually. Communities have coexisted with the ocean for generations. This existence has created a culture and heritage that defines their way of living, community, and kinship unique to the West Coast of South Africa. Cook (2001) describes this as maritimity, a process whereby the sum of cultural adaptations made by coastal populations becomes imbued with meaning and culture. This is evident in community structures, cultural events, and seasonal activities. Their culture and heritage historically had a physical manifestation in village layouts, boat building and the unique west coast architectural vernacular. This vernacular was appropriated by the rich to develop quasi-cultural village expressions in the modern expansions of West Coast towns such as Paternoster” (Wouter 2022).</p> <p>He further states “Considering the Article 8(j) and 10(c) Convention on Biological Diversity (29 December 1993), of which South Africa has been a signatory since 1995, the need to “...respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and</p>	

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			<p>involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge, innovations and practices” must be considered within the available South African legislation. As such, the NHRA (section 3) (2)) considers heritage resources that are part of the national estate to include: ▪ “places to which oral traditions are attached or which are associated with living heritage: ▪ Or as per subsection 3, has cultural significance or other special values because of – a) its importance in the community or pattern of South Africa’s history; b) its possession of uncommon, rare or endangered aspects of South Africa’s natural or cultural heritage; c) its potential to yield information that will contribute to an understanding of South Africa’s natural or cultural heritage; d) its importance in demonstrating the principal characteristics of a particular class of South Africa’s natural or cultural places or objects; e) its importance in exhibiting particular aesthetic characteristics valued by a community or cultural group; f) its importance in demonstrating a high degree of creative or technical achievement at a particular period; g) its strong or special association with a particular community or cultural group for social, cultural or spiritual reasons; h) its strong or special association with the life or work of a person, group or organisation of importance in the history of South Africa.</p> <p>As with Smith (2015), Loulanksi (2006), and Ndoro (2105) emphasised that culture is more than just the tangible but is also shared beliefs, values, language, traditions, functionality, meaning and community connections. Considering the various values and heritage significance as listed in section 3(3) of the NHRA, the cultural and living heritage associated with the communities and indigenous people along the southwestern and west coast of South Africa holds heritage significance. It is part of the national estate</p>	

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			<p>and holds importance as a way of life for small-scale fishers and Khoisan descendants alike” (Wouter 2022).</p> <p>4.6 Sensitivity of Receptors</p> <p>In section 7.2.5 the report outlines the methodology used for assessing sensitivity of receptors</p> <p>The report states that</p> <p>“The sensitivity of a receptor is defined on a scale of Very Low, Low, Medium, High or Very High guided by the definitions in the Scoping Report. These are derived from the baseline information (my emphasis). Of concern is the fact that the baseline information did not identify the living cultural heritage and intangible heritage of fisheries and fisher communities.</p> <p>The report states that “Receptors are also differentially affected by seasonal factors” but this is not explained at all.</p> <p>Under normal operations the:</p> <ul style="list-style-type: none"> <li>• Ancestry / spirituality receptor sensitivity is medium to high (as it can be mitigated with timely, sustained and relevant healer-diviner and First Peoples’ Chief interventions). This receptor is not affected by seasonal factors, as ritual processes take place all year round. Rituals are performed according to community or individual needs.</li> <li>• Archaeology/Tangible heritage receptor sensitivity is medium to low (as many sites are onshore and can be mitigated via avoidance of these areas where there are vulnerable archaeological sites). This receptor is not affected by seasons.</li> <li>• Sense of Place receptor sensitivity is medium because normal operations, well managed activities will not affect the sense of place. This receptor is not affected by seasons.</li> </ul>	

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			<ul style="list-style-type: none"> <li>• Livelihoods receptor sensitivity is high because coastal communities in all the sites potentially affected by normal operations in Block 5/6/7 directly depend on fish and crayfish for subsistence. This receptor is also affected by seasons, as winter brings particular weather conditions which affect SSF use of the sea. Relatedly, socioeconomic uses of the sea (i.e., seaside restaurants, sporting use of the sea, swimming) may be reduced during winter.</li> <li>• Natural heritage receptor sensitivity is high, since natural and cultural heritages are interdependent. Any pollution or other form of negative impact on the sea, arising during normal operations may impact on natural phenomena (i.e., fish, shellfish, fynbos, mangroves, penguins, beach), these in turn may form part of cultural heritage practices. This receptor is not affected by seasons”.</li> <li>• Health receptor sensitivity is medium under normal operations, as operations take place far from shore. However, it is not low sensitivity because the project vessels might affect health uses of the sea. i.e., the water is no longer perceived as pristine enough for bathing etcetera. This receptor is not affected by seasons. •</li> </ul> <p>“To summarize: combined and prior to pre-mitigation efforts, the overall sensitivity of receptors to normal exploration drilling operations is assessed to be medium” (CHIA 2022).</p> <p>It is not clear if the Report is suggesting that all fisher intangible cultural heritage would fall under ‘natural heritage receptor’ and then sensitivity to all would be high? It is not clear why the category of natural receptor would not be impacted by seasons as fishers’ cultural practices and customs are also linked to certain species that are seasonal. The report lacks clarity and consistency.</p>	

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			<p>It is also factually incorrect. It states that “Livelihoods receptor sensitivity is high because coastal communities in all the sites potentially affected by normal operations in Block 5/6/7 directly depend on fish and crayfish for subsistence.” This is not correct. The term ‘subsistence’ was removed from the Marine Living Resources Act of 1998 in 2014. They depend on marine resources for their livelihoods, food security and cultural identities, not for ‘subsistence’. Does the level of dependence on a resource change the rating of the impact? This is not clear from the report at all. Would the impact on the cultural heritage of a tuna-pole fisher who is likely to be very directly impacted by the actual activity as per the EIR be more than other fishers? How has the report assessed the indirect impact of fishers who depend on a species such as snoek whose spawning maybe impacted by the activity as the spawning route lies in and adjacent to the area where the activity will take place?</p> <p>This section of the report states “This receptor is also affected by seasons, as winter brings particular weather conditions which affect SSF use of the sea”. This statement shows a lack of information on the part of the researchers and a general statement like this undermines the value of an assessment of a cultural identity and activity such as fishing. Any line fisher from the West Coast will tell you that the autumn and winter is the season for snoek fishing and fishers migrate up and down the coast chasing the snoek. The affidavits presented in the SEARCHER case provided evidence of this. During this season small-scale fishers will travel extensive distances off-shore to catch snoek and also migrate to Cape Town to fish for snoek off Cape Point from Millars, thereby potentially increasing their risk as they fish closer to the area where the activity will take place.</p>	

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			<p>The final assessment of the CHIA Report is that</p> <p>“The potential impact of normal operations on receptors noted above and prior to mitigation is considered to be of high intensity, short-term duration (3-4 months per well) and regional extent. Thus, the magnitude (or consequence) is considered to be medium. Appropriate and substantive public participation efforts in the pre-mitigation phase can reduce the intensity of impact” and goes on to state that “Consistent and substantive effort to include indigenous people and their input in the processes associated with normal operations will lessen the magnitude of impact”.</p> <p>This CHIA Reports final assessment and findings are non-sensical from the perspective of its assessment that “public participation efforts can reduce the intensity of impact”. What is it that public participation can do to reduce the intensity of the impact? The report fails to demonstrate the link between the content of public participation and impact.</p> <p>It raises grave concern that the report has not understood the ontology of the living cultural heritage of the communities on the west coast and that the report misunderstands the epistemology and ontology of the world view of many of the indigenous coastal dwellers.</p> <p>The Constitution protects the right to culture. If fishing and fisheries is the material basis of fishers’ right to culture how will more public participation protect their right to culture?</p>	<p>This comment also indicates that the commenter has failed to consider the entire report or that they have failed to understand what is being recommended. It is also full of troubling generalisations that indicate poor understanding (or worse, dismissal) of the complexity of diverse indigenous peoples’ relations with the ocean and coast. This comment is, therefore, rejected. The ontology of the living cultural heritage of communities, indigenous and endogenous are described and discussed in great detail in the report, as well as the ontology of the world view of many indigenous coastal dwellers. The commentator fails to understand the complexity of the latter of stakeholder group, its internal diversity and dynamism, shared cultural beliefs and spiritualities and how such identities overlap and are emerging in fisher communities.</p>

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			<p>4.7 CHIA Mitigation approach and measures</p> <p>Section 7.2.7 outlines the CHIA Identification of Mitigation Measures. This section includes</p> <p>Classification 1 Implement a comprehensive, consistent and regular consultation with indigenous groupings and leadership, as well as those who fall outside this category. The aim of such engagement should ensure open communication, direct communication and consistent communication with stakeholders that may be affected by operations. Also refer to Section 7.8.1 to 7.8.6 for further detail on the recommended consultation.</p> <p>2 Based on the outcome of the consultation process, implement where necessary, a ritual event/s that permits engagement with ancestral spirits and nature to alleviate potential and future negative impacts of non-consultation and poor cultural/nature respect.</p> <p>3 Implement a gender sensitive ritual event in each region that recognizes gendered coastal cultural heritage to permit all genders to articulate their cultural relation with the sea and coast</p> <p>3. Establish a functional grievance mechanism that allows stakeholders to register specific grievances related to operations, by ensuring they are informed about the process and that resources are mobilised to manage the resolution of all grievances, in accordance with the Grievance Management procedure. Abate on site</p> <p>4. Adjust the well location to avoid any shipwrecks identified in predrilling ROV surveys Abat</p>	<p>The precautionary principles in the CHIA, as well as the recommendations indicate various measures, technical, social and cultural. Ongoing public participation and engagement is critical in a democratic society and where there are differing views on what should take place regarding an asset or a treasure such as the ocean. The CHIA research revealed divergent perspectives on the proposed offshore operations. The link between public participation and impact is that there are stakeholder groups in coastal communities that believe their ancestors to be in the ocean/on the seabed. This worldview and belief must be engaged with, as well as ways forward, regarding what is to be undertaken after the ESIA has taken place.</p>

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			<p>This section fails to include a mitigation measure to address fishers’ cultural identity and the impacts on their customary practices and systems. Most concerning is the fact that the Report appears to misunderstand the embedded, relational ontology underpinning fishers and indigenous coastal peoples’ relationship with the ocean.</p> <p>It erroneously assumes that a ritual will pacify them and their ancestors – failing to understand the role that the ancestors play in the living customary law of many indigenous peoples and also failing to understand fishers’ belief in the interconnectedness of the ocean ecosystem and their place in it. It is apparent that the author did not read the Expert Statements from Thando May and Helen Bernard in the SHELL case or hear the pleas in the affidavits of the fishers in the Searcher case. The suggested mitigation measure no. 2 is shocking to a person who has worked with indigenous and local coastal fishers for two decades and who has heard them repeatedly state their belief in their ancestors, the values of their systems of living customary law and the need to care for nature as a living being and the next generation as the principles that run through these systems. These communities are not saying no to oil and gas on a whim. They are not doing it out of ignorance. They are doing it based on centuries old wisdom and connectedness to the ways of their ancestors and the ways of the ocean.</p> <p>The report itself states on page 46 that “The residents encountered expressed a rich intangible cultural heritage, including ancestral veneration rites that include the sea, as well as deep beliefs regarding the ocean as a living thing, with whom humans must develop a symbiotic and sustainable relationship” (page 46). It is not clear on what basis the report proposes a ritual</p>	<p>The CHIA specialist considers this to be a misrepresentation and misreading of the CHIA report.</p>



No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>as a mitigation measure when residents regard the ocean as a living being.</p> <p>Irrespective of what the author of the report actually meant by this sentence “Based on the outcome of the consultation process, implement where necessary, a ritual event/s that permits engagement with ancestral spirits and nature to alleviate potential and future negative impacts of non-consultation and poor cultural/nature respect, “ this sentence lacks clarity of intent and does provide the reader with information enabling the reader to understand the link between the proposed mitigation measure, a specific potential ‘harm’ and the intended avoidance or minimisation of that harm. Why is the responsibility for alleviating potential and future negative impacts placed on the ancestors? The sentence reads that the purpose of engaging with the ancestors is to ‘alleviate potential and future negative impacts’. If there are potential and future negative impacts’ the nature of these need to be identified and addressed by the applicants surely? It is not the responsibility of the ancestors to alleviate these impacts, particularly in a context where they have made their concerns clear prior to these negative impacts and harms being done.</p> <p>The CHIA fails to adequately understand the nature of fisheries in South Africa and the cultural heritage both tangible and intangible applicable to fishers. It fails to adequately describe the baseline environment, identify receptors, assess potential impacts and rate these impacts.</p> <p>5 Public participation process was not adequate</p> <p>Small-scale, traditional, artisanal fishers as well as fishers involved in the commercial fisheries sector, such as commercial line fishers,</p>	<p>The CHIA specialist considers this to be a misrepresentation and misreading of the CHIA report.</p> <p>5. A comprehensive public participation process has been undertaken as part of the ESIA - refer to Chapter 4 of the ESIA Report.</p>

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			<p>net fishers and many others have not been adequately targeted through the public participation process. There are 56 interim relief (small-scale) fisher communities in the Western Cape alone (Annexure 1 DFFE 2022), that fall within the range of impact of this project. The public meetings were held in various centres but given the high cost of fuel fishers do not have the means to travel to these centres. Attendance at these meetings was very poor. In addition, the meetings coincided with the snoek season and meant that many fishers were not available to attend these meetings. Several of the communities in and around the metro in Cape Town are isiXhosa speaking communities and these communities were not targeted by the public participation process. See Annexure 1 attached. For this reason the application for environmental authorization based on this report should be denied.</p> <p>6 Failure to adopt an ecosystems-based approach to the assessment and identify the potential impact on the small-scale fisheries</p> <p>The EIR fails to adopt an ecosystems-based approach to the assessment of impact of the proposed activity. Instead it restricts itself to a narrow focus on 'fisheries' and 'species', rather than understanding the linkages and inter-dependencies between the two. This is most apparent in the way in which the Fisheries Expert Report and the Marine Ecology Report identify which sectors of the fisheries will be impacted. The demersal sector, longline sector and tuna-pole sector are identified on a spatial basis. However the ocean ecosystem and fishers cultural, social and economic identities in relation to this ecosystem are not limited to the fishers' spatial location in the actual area of impact. Equally important is the possibility that the species that they depend upon</p>	<p>6. Section 7.6 of the ESIA Report (and Section 3.5 of the Marine Ecology Impact Assessment) presents an ecological network conceptual model and deals in some detail with potential ecosystem-wide effects of the proposed exploration drilling. Figure 7-50 of the ESIA Report presents a simplified network diagram indicating the interaction between the key nearshore and offshore ecosystem components off the South-west and West Coasts, and their links to fisheries. The Marine Ecology Impact Assessment, being a report on marine biodiversity in the broader project area, it to some extent identifies potential impacts on fisheries due to obvious linkages. Downstream effects on the cultural, social and economic identities of the various fishing sectors are assessed in the other specialist studies (including fisheries, socio-economic and cultural heritage).</p>

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			<p>will be impacted by the drilling activity in the area of impact. Hence the fact that the report indicates that</p> <p>“The eggs and larvae are also carried around Cape Point and up the coast in northward flowing surface waters. At the start of winter every year, the juveniles recruit in large numbers into coastal waters across broad stretches of the shelf between the Orange River and Cape Columbine to utilise the shallow shelf region as nursery grounds before gradually moving southwards in the inshore southerly flowing surface current, towards the major spawning grounds east of Cape Point. Following spawning, the eggs and larvae of snoek are transported to inshore (&lt;150m) nursery grounds north of north of Cape Columbine and east of Danger Point, where the juveniles remain until maturity. There is, therefore, some overlap of Block 5/6/7 with the northward egg and larval drift of commercially important species, and the return migration of recruits. The map included in the EIR clearly indicates the potential overlap with snoek spawning routes.</p> <p>Given the significance of snoek to the small-scale fishers and traditional line fishers (DFFE 2017, DFFE 2022), this impact requires much closer assessment both by the Fisheries Expert and in the socio-economic impact assessment. The reliance on snoek needs further detailed research before this can be accepted as an adequate understanding of the receiving environment. For this and all the above-stated reasons it is requested that this EIR be withdrawn and the decision-maker should not permit this environmental authorization due to the gaps in this report.</p>	<p>It must also be kept in mind that a species such as snoek (which is perpetually used as an example) has extensive offshore spawning grounds extending from the western edge of the Agulhas Bank along most of the South African West Coast. Snoek's nomadic nature and generally random longshore movements result in the species (and the fishery) being less vulnerable to potential impacts of the proposed highly localised exploration drilling, than resident, long lived species (e.g. rock lobsters). Furthermore, snoek are serial batch spawners with females releasing batches of eggs at 10-40 day intervals on offshore spawning grounds (150 m-400 m depth) throughout the spawning season, which extends from June to October. Females are reported to move inshore to feed on anchovy and sardines between spawning events and as such there is, therefore, no single inshore or offshore migration of the snoek stock, but rather numerous inshore-offshore movements during the spawning season. An extremely localised and short-term drilling campaign is, therefore, highly unlikely to have measurable effects on the spawning and recruitment success of a species that displays substantial spatial and temporal variability in its spawning behaviour.</p>
78.	Johan Heckroodt - AFASA	11 December – Email attachment	<p>[Note: This comment was received after the comment period deadline of 7 December 2022.]</p> <p>AFASA comments</p>	

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
			<p>1- Regarding the Ecological Impact Assessment, the terms of reference did not address the requested specifications of the Aquaculture stakeholders and the AFASA members in specific, with the author often citing insufficient data. This indicates that there is not sufficient information to allow for adequate decision making.</p> <p>2- The Fisheries Impact Assessment did not adequately address risk to abalone and mariculture facilities and presented a document fraught with inaccuracies. I reference a request made during scoping to reference “that abalone farmers are reliant on healthy ocean waters for production.” This is an inadequate study, indicative of a poor comprehension of the subject of aquaculture and mariculture in the area. Additionally, the figures in many instances are cut and paste (and not referenced) from other documents and the quality too poor to read. Importantly, and should the report have been conducted sufficiently it would be noted that, abalone mariculture is dependent on high quality ocean seawater input and the proposed drilling poses a threat to this – neither the fisheries nor ecological report addressed this threat, allocated appropriate significance or provided sufficient clarification on scale of effect as was requested both for clarification of impact and for insurance purposes.</p> <p>3- Impact to this industry stands to undermine significantly more jobs than are being created, with the industry directly supporting some thousand individuals. Additionally, the industry provides a significant revenue stream for the Overberg in particular, as well as FOREX generation for South Africa – this was not recognised or accounted for in</p>	<p>1. - 2. The fisheries assessment indicates that there will be no impact on the aquaculture industry during normal operations, as these are coastal operations which fall outside the estimated zones of impact from drilling (e.g., noise, sediment plume, etc.).</p> <p>Given the offshore location of the area of interest and that the dominant wind and current direction, which will ensure that any discharges move mainly in a north-westerly away from coast (as confirmed by the modelling studies), discharges from normal operations are expected to disperse rapidly and is unlikely to have an impact on sensitive coastal receptors.</p> <p>A large oil spill, although unlikely, could however have a significant impact on aquaculture activities (refer to Sections 10.4.3.2 and 10.4.3.3).</p> <p>SLR is of the opinion that the ESIA Report is sufficiently robust and provides sufficient information for DMRE to make an informed decision on the proposed project taking into consideration the significance of potential impacts including those related to an unlikely oil spill and National strategic policy issues relating to energy and climate change, as well as public opposition to oil and gas development and other legislation (e.g., ICMA).</p> <p>3. As noted above, no impact is anticipated on the aquaculture industry during normal operations. The socio-economic and fisheries assessments do, however, note that an unlikely oil spill could have a significant impact on coastal activities, including aquaculture. Any future extraction would be subject to a separate Production Right application and ESIA process.</p>

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			<p>the Socio-Economic Impact assessment. An economic and reputation risk assessment on the effect of AFASA members and the South African Abalone brand, which is synonymous with, and reliant on, the surrounding ocean environment and the assured ecological health and resilience of the system was not conducted and is notably lacking.</p> <p>4- We request upon insurance in the event of blow out or seepage from caps, accounting for potential long- and short-term effect to abalone farms, and request details in this regard. We need to understand the process that will follow should a spillage occur and result in financial loss to abalone farms and the members of AFASA as well as other aquaculture stakeholders. We do not want to be subjected to lengthy drawn-out court cases.</p>	<p>4. In the event of an unplanned event (i.e. such as a well blow-out) occurring, a process of determining the economic effects and related compensation would be initiated. Such a process would typically involve government, insurers, the organisation responsible for the incident, industry organisations and the applicable legal system. TEEPSA will plan for and would implement responses in terms of the International Petroleum Industry Environmental Conservation Association - International Association of Oil and Gas Producers (IPIECA-IOGP) guideline document for the economic assessment and compensation for marine oil releases. TEEPSA would also ensure that damages and compensation to Third-Parties are included in insurance cover to financially manage the consequences of any unplanned event.</p> <p>The ESIA And ESMP recommends that TEEPSA submits all forms of financial insurance and assurances to PASA prior to drilling to manage all damages and compensation requirements in the event of an unplanned pollution event.</p>

## 1.2 Draft Impact Assessment Phase Comments and Responses Report - WhatsApp

No.	Organisation and Contact Person	Method and Date of communication	Comment	Response
1.	Davids Marvin - Hangberg youth	WhatsApp 28 October 2022	Noted.	-
2.	Jan Geldeblom	WhatsApp 04 November 2022	Great Project	Comment is noted.
3.	Heather Morkel - Pringle Bay Ratepayers Association	WhatsApp 09 November 2022	Please could you assist with late registration to attend the public meeting in Kleinmond this afternoon via Zoom?	The public meeting in Kleinmond was a face-to-face meeting, not a virtual meeting. Ms Morkel was not in attendance at the Kleinmond public meeting.
4.	Riana Steenkamp - Overstrand Municipality	WhatsApp 10 November 2022	Public Meetings: Oil drilling Walker Bay, No meeting in Gansbaai?  Also when and to whom in the municipality did you send out reminders for last night's meeting in Kleinmond? Public is going crazy on our side  I can only see emails of public meeting in June 2022. <i>(images of the SLR website attached)</i> .	Public meetings were held in St Helena Bay, Saldanha Bay, Mitchells Plain, Hout Bay, Kleinmond, Hermanus, Struisbaai and Hawston. A virtual public meeting was also held for those people that could not attend the face-to-face meetings.  A notification letter was sent to all registered I&AP, including the Overstrand Municipality and Ward Councillors, on 24 October 2022.
5.	Phakama Magwiji	WhatsApp 14 November 2022	My name is Phakama magwiji in pearly beach eluxolweni when did your come my community?	
6.	Khaya	WhatsApp 17 November 2022	I am residing at Sedgefield. I read one of your pamphlet that was displayed at Sedgefield Library regarding the Scoping Report of oil wel that has been discussed in the area of Southwest Coast. I would like to join in order to be able to get more information regarding this huge	SLR requested additional details (surname, organisation and email address if available) for inclusion in the project database and the link to the SLR and data free websites were sent to Khaya..

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			project. And I'm interested to know the EIA does it cover Southern Cape as well?	
7.	Amand Filocha	WhatsApp 30 November 2022	I am not in agreement with Total's proposed exploration in the Overstrand area around Hermanus. It is going to detrimentally affect the sealife.	This comment is noted. Impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10, respectively.
8.	Felicia Gwaza - Luncumo Holdings	Comment Form 02 November 2022	I would or wish that TotalEnergies gets approval from Department of Mineral Resources and Energy. As per engagement today I see a lot of business, Job and skill opportunities. As for the community of Saldanha I stand for our youth and local business. I would like to propose that that your company when appointing Community Coordinators to do more research to how is the person impacted by how they impact the community. So that when the project kickstart there would be good communication between company and community. I also suggest when the company gets approved to call a gathering or meeting with the community to inform them more on what is going to be done by you.	This comment is noted.  One of the key recommendations of the ESIA is that TEEPSA continue to communicate with coastal communities outside the ESIA process. As part of this strategy, TEEPSA appointed site liaison officers in the West Coast District, City of Cape Town and Overberg District as part of its long-term strategy for corporate community engagement outside the ESIA process.
9.	Headman Fatuse - Elukhuselweni Trading	Comment Form 02 November 2022	Support the proposed project, it will support our local economy and create a lot of job opportunities and local sub-contractors	This comment is noted.
10.	Linda Pretorius	Comment Form 10 November 2022	No no no drilling please!! Our marine life will be at Great Rise our community will be affected by the pollution in sea which will come to shore.	This comment is noted. Impacts related to both normal operations and unplanned events (e.g. oil spills) are assessed in Chapter 9 and 10, respectively.
11.	Tanya Brodie Rudolph	WhatsApp 09 December 2022	Hello please can you register me as an I-&AP Total Energied block 5/6/7 off SW coast	SLR added Ms Rudolph details in the project database.

