

Table A: Addressing gaps identified in the Competent Authority’s Record of Refusal dated 23 June 2021 (P.1)

Table B: Addressing gaps identified in the Appeal Authority’s Appeal Decision dated 1 August 2022 (P.27)

Table A: Addressing gaps identified in the Competent Authority’s Record of Refusal dated 23 June 2021

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
<p>Page 14: 3(a): Numerous concerns and complaints were raised by various Interested and Affected Parties relating to inadequacies of the public participation process conducted as part of the EIA process. These concerns were raised specifically with regards to failures to involve small-scale fishing communities, tribal authorities and communities as well as informal settlers and land users in and around the port.</p>	<p>Failure to consult:</p> <ul style="list-style-type: none"> - SSFs - Tribal authorities and communities - Informal settlers - Land users in and around the port. 	<p>The following parties were thoroughly consulted in the PPP of the 2022 EIA process:</p> <ul style="list-style-type: none"> - Informal SSFs - Tribal authorities and communities - Informal settlers - Land users in and around the port. 	<p>Chapter 5: Public Participation Process</p> <p>Appendix 3: Public Participation</p> <p>Appendix 9 - D1: Socio-Economic Impact Assessment</p> <p>Appendix 9 – D1.1: Small Scale Fishers Engagement</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
<p>Page 14: 3(b): The Environmental Impact Assessment Process was compromised as the applicant failed to comply with the requirements prescribed in terms of Section 24(1A)(c) of the NEMA in relation to any procedure relating to public consultation and information gathering. The draft EIAR was subjected to public review for a period less than the legislated 30 days as indicated by I&AP's. The documents were removed from the website, and were only returned after queries were raised by various I&AP's.</p>	<p>Failure to comply with Section 24(1A)(c), which relates to required compliance of any procedure relating to public consultation.</p> <p>Draft EIAR of 2021 was not available for full 30 days.</p>	<p>Section 24(1A)(c) of NEMA has been complied with.</p> <p>The availability of the DEIAR for 2022 was communicated to registered I&APs on 28 October 2022, in which they were informed that the DEIAR would be available from 10 November 2022 – 13 December 2022 and would thus be available for a period of 33 days. However, the DEIAR was made available for comment on 09 November 2022 and therefore the DEIAR was available for comment for 34 days.</p>	<p>Chapter 5: Public Participation Process</p> <p>Appendix 3: Public Participation</p>
<p>Page 14: Reason 3(c) The EAP failed to enlist the provision of Regulation 23(1)(b) of the EIA Regulations, 2014 as amended, as the EIAR dated April 2021 contains significant changes and/or significant</p>	<p>Significant changes were not available for a further 30 days of public comment in 2021.</p>	<p>No significant changes have been made to the EIAR following receipt of I&AP comments and therefore there is no need for a</p>	<p>Final EIA Report and Final EMPr.</p> <p>Any changes are marked in blue text.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
<p>new information which was not contained in the reports consulted on during the public participation process before it was submitted to the Competent Authority for decision making. This then compromises the decision-making powers of the Competent Authority as information was not presented to I&AP's for their consideration, prior to decision making.</p>		<p>further 30 days of public comments.</p>	
<p>Page 15: Reason 3(d) The Public Participation Process was not conducted in terms of Regulation 39, 40, 41, 42, 43 & 44 of the EIA Regulations, 2014, as amended as well as per the principles of NEMA as outlined in Chapter 2 of the Act.</p>	<p>No direct issue is identified.</p>	<p>Despite no direct issue of non-compliance with any specific requirements of Regulations 39 – 44 of the EIA Regulations, 2014 being identified, the PPP was conducted in full compliance with the contents of the applicable Regulations.</p>	<p>No direct identifiable issue to be addressed.</p>
<p>Page 15: Reason 3(e) The Competent Authority advised the EAP on a number of occasions, i.e. comments on the draft Scoping Report, acceptance of the Scoping Report and comments issued on the draft Environmental Impact Assessment Report that the EAP must ensure that all relevant listed and specified activities are applied for, are</p>	<p>EAP was not certain of the Listed Activities being applied for.</p>	<p>The EAP applied a conservative approach regarding the interpretation of which Listed Activities would be applied for.</p>	<p>Section 2.2: Listed and Specified Activities Triggered in terms of NEMA and NEM: AQA</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
<p>specific and can be linked to the development activity or infrastructure as described in the project description, and that a final list of all applicable listed activities must be clearly identified and provided. However, the final EIAr and amended application form both contain listed activities where the EAP indicated uncertainty in terms of their applicability and requirement for environmental authorisation. As such, the objectives of the Environmental Impact Assessment Process as outlined in Appendix 3 of the EIA Regulations, 2014 as amended were not fulfilled and the Competent Authority was unable to make an informed decision on the on the potential impacts of the listed or specified activities on the receiving environment.</p>		<p>EAP confirms all potentially applicable Listed Activities have been applied for.</p>	
<p>Page 15: Reason 3(f) While the Noise Specialist Report (dated October 2020) notes, the close proximity of the Richards Bay Nature Reserve to this noise source, it only quantifies above-ground noise and only determines the impact of noise on human sensitive receptors. It does not detail what impact noise of between 50 and 70 dBA would have on non-human receptors within the nature reserve. The Richards Bay Nature Reserve should have been identified as a sensitive receptor for non-humans. The potential</p>	<p>Underwater Noise Impact Assessment not conducted.</p> <p>Terrestrial Noise Impact Assessment did not note the Richards Bay Nature Reserve as a sensitive receptor.</p> <p>Terrestrial Noise Impact Assessment did not</p>	<p>Underwater Baseline Assessments and Underwater Noise Impact Assessments were conducted.</p> <p>Terrestrial Noise Impact Assessment and Underwater Noise Impact Assessment all provide mitigation measures, which are incorporated into the EMPr.</p> <p>The Richards Bay Nature Reserve as a sensitive receptor is considered in both</p>	<p>Appendix 9 - B1 - Baseline Underwater Noise Assessment</p> <p>Appendix 9 - B2 - Underwater Noise Assessment</p> <p>Appendix 9 - C2 - Terrestrial Noise Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
for disturbance to birdlife and reclusive species in the fringes of the reserve's swamp and mangrove forest components is a critical omission in terms of the impact assessment. Noise of 50dBA would most certainly result in displacement of species from their core habitat; however, this is not mentioned or assessed and mitigation measures are not provided.	provide mitigation measures.	the Terrestrial Noise Impact Assessment and Underwater Noise Impact Assessment.	
<p>Page 15: Reason 3(g)</p> <p>The "Marine Ecology Specialist Study G2P Development Port of Ngqura" dated April 2021 recommends that a noise modelling study should be undertaken to gain a more quantitative understanding of the noise produced from power ship operations in the Port of Saldanha and the cumulative impacts on the surrounding marine ecology. This is also echoed by the estuarine specialist. This study should have been conducted as part of the EIA process to fully understand the impacts of the proposed development.</p>	Underwater Baseline Noise Modelling required.	Underwater Baseline Noise Modelling study conducted by Subacoustech. Information from report was provided to all specialists.	<p>Appendix 9 - B1 - Baseline Underwater Noise Assessment</p> <p>Appendix 9 - B2 - Underwater Noise Assessment</p>
<p>Page 15: Reason 3(h)</p> <p>The conclusion of the SACNASP Peer Review of the Estuarine Impact Report dated 23 April 2021 as included as Appendix I of the EIAR dated April 2021 for the Gas to Power Powership Project at the Port of Richards Bay within the uMhlathuze Local Municipality in the KwaZulu-Natal Province project DFFE</p>	SACNASP Peer Review of the Estuarine Impact report stated that not all impacts assessed, specifically regional and global scale impacts.	Estuarine Impact Assessment assesses local, regional and global impacts from project.	Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
<p>Reference: 14/12/1613/31212007 states "MER was requested by GroundTruth to review three draft specialist reports (dated February 2021) which focused on assessments of the environmental impacts of the Gas to Power developments proposed for the harbours of Richards Bay (Version 1 Draft Report), Coega (Version 1 Draft Report) and Saldanha Bay (Version 1 Draft Report) and states that impacts identified is not a true reflection of the scale of the project in terms of influence. There are impacts that trigger regional and global scale impacts and the specialists recommends that these be reassessed. In addition the peer review states that there is also no clear recommendation from the estuarine specialist. It must be noted that this peer review report has been omitted from the abovementioned application. This should have been reassessed and finalised by the EAP prior to submission of the report for decision making.</p>	<p>No clear recommendation from the Estuarine Specialist.</p> <p>The peer review of the Estuarine Impact Assessment was not included in the submission of the DEIAr.</p>	<p>Estuarine Specialist specifically recommends the project go ahead.</p> <p>No additional 'peer reviews' of any specialist reports have been conducted.</p>	
<p>Page 16: Reason 3(i) Richards Bay is an important area on the KZN Coast for Indian Ocean Humpback Dolphin (<i>Sousa plumbea</i>), a recently recognised species distinct from its original taxon, <i>S. chinensis</i> and classified as Endangered in the IUCN Red List of Threatened Species. As the Underwater Noise Impact Assessment was not</p>	<p>Underwater Noise Impact Assessment not conducted and therefore impacts on the Indian Ocean Humpback Dolphin were not considered.</p>	<p>Underwater Noise Impact Assessment was conducted and impacts on the Indian Ocean Humpback Dolphin were considered and assessed in the Marine Ecology assessment.</p>	<p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
undertaken, underwater noise impacts on an endemic population of dolphins have not been considered, and therefore the impact is unknown, although suggested to be relatively high given that dolphins and whales are particularly impacted upon by underwater noise.			
<p>Page 16: Reason 3(j)</p> <p>The Underwater Noise Impact would have also assessed the impacts the proposed development would have on dolphins, sharks, fish, turtles and macrobenthos, as well as specifically address whether the noise would impact on the migration of prawns out of the estuary into the marine environment.</p>	<p>Underwater Noise Impact Assessment not conducted and therefore impacts on:</p> <ul style="list-style-type: none"> - Dolphins - sharks, - fish, - turtles - macrobenthos and - migration of prawns out of the estuary <p>were not considered.</p>	<p>Underwater Noise Impact Assessment considered the impacts on:</p> <ul style="list-style-type: none"> - Dolphins - sharks, - fish, - turtles - macrobenthos and - migration of prawns out of the estuary 	<p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p> <p>Appendix 9 - B2 - Underwater Noise Assessment</p>
<p>Page 16: Reason 3(l)</p> <p>There were countless concerns raised by Ezemvelo KZN Wildlife, Department of Forestry, Fisheries and the Environment: Biodiversity and Conservation, KZN Department of Economic Development, Tourism and Environmental Affairs and I&AP's</p>	<p>The following concerns were raised by various I&APs:</p> <ul style="list-style-type: none"> - No consideration of the fact that South Africa is a signatory 	<p>Consideration was given to the fact that South Africa is a signatory to the Bonn Convention.</p> <p>Consideration was given to the fact that South Africa is a</p>	<p>Section 6.1: Biophysical Environment</p> <p>Chapter 7: Environmental Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
<p>regarding the Avifauna Impact Assessment, an independent peer reviewer was contracted to peer review the said study. The results of the peer review indicate that:</p> <ul style="list-style-type: none"> - Not bringing in the fact that South Africa is Co-signatory to a convention and to a treaty for migratory birds: (1) the Convention of Migratory Species (CMS), also known as the Bonn Convention, which is a convention on the conservation of migratory species of wild animals, and (2) African Eurasian Waterbird Agreement (AEWA), an intergovernmental treaty dedicated to the conservation of migratory waterbirds & their habitats across Africa & Europe is an oversight or gap, - According to De Wet the Important Bird Area (IBA) status for Richard's Bay Game Reserve (RBGR) - (IBA trigger species still there albeit in lower numbers) has been taken down a notch from Global to a sub-regional IBA, which in no way detracts from the importance of the area to meet the requirements of the convention and the treaty. - It is unclear whether all the wader counts mentioned included going into the RBGR, as one of De Wets' brief surveys of the 	<p>to the Bonn Convention</p> <ul style="list-style-type: none"> - No consideration of the fact that South Africa is a signatory African Eurasian Waterbird Agreement. <p>There is uncertainty regarding the wader counts provided by the Avifaunal Specialist.</p> <p>There was no mention in the original desk top assessment that the avifaunal specialist made use of the Natal Parks Board/EKZNW bird list for RBGR and surrounds</p> <p>There was insufficient emphasis on the importance of the Sandspit and the Kabeljou flats.</p>	<p>signatory African Eurasian Waterbird Agreement.</p> <p>Wader counts are verified in the EIAR and the methodology is spelled out for the reader.</p> <p>The avifaunal specialist referred to the Natal Parks Board/EKZNW bird list for RBGR and surrounds.</p> <p>All specialists and the FEIAR all recognize and place an emphasis on the importance of the Sandspit and Kabeljou flats.</p> <p>Connectivity between the various sites is also highlighted where relevant.</p>	<p>Appendix 9 - A10 - Avifauna Assessment</p> <p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
<p>RBGR was from a distant vantage point, which even if a telescope was used (not mentioned) is totally inadequate as you are looking at 1200ha of grey mud flats at low tide and most waders are small, and the experience of the peer reviewer is that most of the waders are at the far end of the reserve. When the tide goes out the birds spread out very thinly across the freshly exposed mud flats and are difficult enough to see even if the observer(s) is out there on the mud flats with a telescope. So, the counts overall may not reflect the true numbers of birds.</p> <ul style="list-style-type: none"> - Furthermore, in the original desk top assessment there is no reference to the Natal Parks Board/EKZNW bird list for RBGR and surrounds - a list of birds seen there over a long period of time, which may have proved useful. - While the original study mentions a number of times that the sandspit and Kabeljous flats areas in the harbour area have been identified as very sensitive habitat for water-associated birds, and waders in particular, and are irreplaceable, the peer reviewer does not believe that there has been enough emphasis on these two areas, especially the Kabeljou flats which 	<p>There is a failure to highlight the importance of the connectivity between the various sites.</p>		

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
<p>are basically an extension of the RBGR and act as a buffer zone to the Protected Area. Any downsizing, or loss, of the Kabeljou flats could have a devastating effect on RBGR. Especially as many years ago a large area of wader habitat was lost with the extension of the coal terminal, and any further loss could be the final straw.</p> <ul style="list-style-type: none"> - The mudflats provide all the habitat and food the waders require, especially the migratory waders that arrive undernourished in spring, and need to 'fatten up' for the return journey. The estuarine habitats in South Africa, including mud flats, have been severely depleted over the years. Any further loss will be devastating for migrant birds and will have a global impact - as signatory to the Bonn Convention and the AEWA Treaty mentioned above, South Africa would be remiss to allow this to happen. South Africa should regard any further loss as non-negotiable - a point the reviewer feels was not highlighted. - Not considering the thermal heating of water as a potential threat to food resources and the risk of pollution from the ships e.g. oil, ruptured undersea pipes, etc. Any one of these events is likely to have 			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
<p>large negative effects on the above food sources and thus on the birds.</p> <ul style="list-style-type: none"> - The importance of the connectivity between the various sites was not really covered. This connectivity is important as all the sites are relatively small and the loss of one could result in a domino effect on the other sites. - The peer reviewer, for reasons given throughout the review does not agree that the development should go ahead. 			
<p>Page 17: Reason 3(l) The "Independent Review of the Avifaunal Assessment of the Proposed Gas to Power Project Karpower Project, Richards Bay, KwaZulu-Natal" dated 23-25 April 2021 disagrees with the statement of the original Avifaunal Assessment which states that "It is the opinion of the specialist that the proposed development go ahead'. The peer review states that "I cannot agree with this for all the reasons given throughout my review, and I regard it to be a premature statement." As such, the peer review conducted contradicts the findings of the original assessment and no new assessment was done in this regard, to provide a firm position on the proposed development.</p>	<p>The peer review of the Avifaunal Assessment contradicts the findings of the Avifaunal Report.</p>	<p>No additional 'peer reviews' of any specialist reports have been conducted.</p> <p>All specialists' recommendations and conclusions have been cross-checked with other relevant specialists, there are no contradictions between conclusions reached and recommendations given.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – Specialists Studies</p> <p>Appendix 9 - 8.4 - Sustainability Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)				
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:							
<p>Page 17: Reason 3(m) Most of the specialists indicated limitations to their respective studies; amongst, others that they either had very limited time to apply their minds, or it does not apply to the standards of undertaking the assessments and that these studies were undertaken in the wrong season. These limitations were highlighted in the comments raised by various I&AP's as well as in the comments issued by the Chief Directorate: Integrated Environmental Authorisations. The gaps and limitations identified in the respective assessments; raises concerns with regard to the adequacy of the assessment and the validity of the findings. The studies should have been updated and amended prior to submission for decision making.</p>	<p>Limitations noted by specialists:</p> <p>Limited time to conduct study Studies undertaken in wrong season The study undertaken did not apply to the standards necessary for the study.</p> <p>Studies should have been updated and amended prior to submission of the 2021 FEIAr.</p>	<p>All studies were conducted in the correct season.</p> <p>All studies submitted to inform the 2022 FEIAr are final, no amendments or updates have been added, no new information has been introduced</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – Specialists Studies</p>				
			REPORT	SPECIALIST	SEASONALITY	ASSUMPTIONS INDICATIONS	
			Hydrology Assessment	GCS (Pty) Ltd	The time of this study is not seasonally bound	5.4	
			Aquatic Assessment	GCS (Pty) Ltd	4 site visits were undertaken during Spring 2020 and Spring 2022.	2.1	
Hydrology	GCS (Pty) Ltd	The time of this study is not	1.4				

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)			
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
			Assessment		seasonally bound	
			Geohydrological Assessment	GCS (Pty) Ltd	The time of this study is not seasonally bound	1.5
			Water Balance Assessment	GCS (Pty) Ltd	Not applicable	1.5 & 2.3
			Wetland Delineation and Functional Assessment	ENVA SS / Triplo 4	First site visit was conducted two (2) weeks away from the rainfall season (18/09/2020) and the second site visit was conducted within rainfall season (4/10/2020)	6

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Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
					<p>).</p> <p>Additional y, a third site visit was conducted on the 16/09/2022 . Thus, no issues with season of study in which it was conducted was envisioned. Furthermor e, at the time of the first and second survey, KZN was experienci ng moderate to high</p>	

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)			
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
					volumes of rainfall	
			Archaeological Impact Assessment,	Umlando	Not applicable	N/A
			Terrestrial Ecological Assessment	The Biodiversity Comp any	The field work was conducted over two days in the wet season: the 23rd of September 2020 (Spring) and the 4th of February 2021 (Summer). An additional site visit to investigate ancillary	1.4

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)			
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
					infrastructure was conducted on the 23rd of September 2022. A drone survey was done on the 29th of September 2022.	
			Terrestrial Avifauna Impact Assessment	The Biodiversity Comp any and Anch or Environ mental	The following site visits were conducted: Incidental notes during the terrestrial ecological field survey on the 30th of September 2020 (Spring) in	1.6

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Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
					<p>the area outside of the Transnet port and on the 4th of February 2021 (Summer) inside of the Transnet port; An avifaunal survey was carried out on the 10th and 11th of February 2021 (Summer); Boat-based counts of the Richards Bay estuary at low tide in</p>	

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Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
					April 2022, July 2022 and August 2022; Boat-based count of the Richards Bay estuary at low tide in September 2022.	
			Baseline Underwater Noise Assessment	Subacoustic Environmental Ltd	November 2021	1
			Underwater Noise Assessment	Subacoustic Environmental Ltd	November 2021	6.1

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)			
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
			Under water Heritage Compliance Letter	Contract Maritime Archaeologist	Not applicable	N/A
			Coastal, Estuarine and Marine Ecology Impact Assessment	Coastwise Consulting, Ground Truth and Anchor Environmental	The following site visits were undertaken : February 2021, during the peak summer (wet) rainfall period, and October 2022 (for the construction facilities). Two additional site investigations	Disclaimer

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					ns were conducted in September 2022. The timing at which the site investigations were undertaken was considered adequate to verify the sensitivity of the site	
			Atmospheric Impact Assessment	uMoya-NILU Consulting (Pty) Ltd	Not applicable	2.9 & 6.2.3
			SA Terrestrial Noise	Safetech	Field study October 2020.	1.5 & 4.1

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Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
			Assessment			
			Ghana Ambient Noise Assessment	Suba coust ech Envir onmental Ltd	3rd to 6th September 2022	2.2 & 3.4
			Climate Change Impact Assessment	Prom ethiu m Carbo n	Not applicable	3.1.6 & 3.2.5
			Socio-Economic Impact Assessment	Social Risk Rese arch	Not applicable	2
			Small Scale Fisheries Engag ement	Afro Devel opme nt Planni ng	Not applicable Meeting held on 07 October 2022	N/A

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)			
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
				Pty Ltd		
			Tourism Impact Research	3T Business Fusion	Not applicable	5.1.2 & 7.3
			Traffic and Transportation Evaluation	Fulcrum Development Consultants	Not applicable	2.2.1
			Landscape and Visual Impact Assessment	Environmental Planning and Design	September 2022	5
			Major Hazard Risk Installation	Major Hazard Risk Consultants	Not applicable	2.4.5 & 11.8

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)			
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:						
			Assessment			
<p>Page 18: Reason 3(n) As a result of the significant gaps and limitations with the assessments conducted, the Competent Authority cannot fully understand the potential impacts of the proposed development and thus not able to make an informed decision. As such, the objectives of the Environmental Impact Assessment Process as outlined in Appendix 3 of the EEA Regulations, 2014 as amended cannot be met.</p>	<p>No direct issue identified to be addressed.</p>	<p>No direct issue identified to be addressed.</p>		PRD W	Not applicable	3.2
<p>Page 18: Reason 3(o) In this light, the inconsistencies between the original Avifaunal Study, peer review, comments from Ezemvelo KZN Wildlife, Department of Forestry, Fisheries and the Environment: Biodiversity and Conservation, KZN EDTEA and I&AP's, the Department does not have enough information or certainty on the potential impacts of the proposed development to make an informed decision.</p>	<p>No direct issue identified to be addressed.</p>	<p>No direct issue identified to be addressed.</p>				

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<p>Page 18: Reason 3(p) The EIAr in its current form is not adequate to make an informed decision on the abovementioned application.</p>	No direct issue identified to be addressed.	No direct issue identified to be addressed.	No direct issue identified to be addressed.
<p>In view of the above, the Competent Authority is of the following opinion:</p> <p>i) The minimum requirements, specifically with regard to public participation, were not met. The purpose of public participation is not only to promote informed decision making, but also to promote the legitimacy and acceptance of an outcome or decision and to promote participatory democracy.</p>	The minimum requirements for PPP were not met.	<p>PPP was conducted in terms of the minimum requirements prescribed by Regulations 39 – 44 of the EIA Regulations, 2014 and the recommendations set out in the PP Guidelines 2017.</p> <p>All minimum requirements have been met.</p>	Chapter 5: Public Participation Process
<p>ii) The actual and potential impacts on the environment as well as socio-economic conditions could not be properly evaluated (particularly insofar as small-scale fisheries are concerned), especially because of the lack of a proper underwater noise impact study and the contradictory information that was made available.</p>	<p>Actual and potential environmental impacts not assessed because underwater noise impact assessment not conducted.</p> <p>Actual and potential socio-economic impacts not assessed because underwater</p>	<p>Underwater Noise Impact Assessment conducted. Information incorporated into Socio-Economic Impact Report.</p> <p>Specific case study and consultation conducted to assess potential impacts of project on SSFs, both</p>	<p>Appendix 9 - B2 - Underwater Noise Assessment</p> <p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p> <p>Appendix 9 - D1 - Socio-economic Impact Assessment</p>

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Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
	noise impact assessment not conducted.	environmentally and socio-economically.	Appendix 9 - D1.1 - Small Scale Fishers Engagement
iii) The effects of activities on the environment could not receive adequate consideration because one of the major impacts, underwater noise generation, was not fully investigated nor were discrepancies and contradictions between specialist studies clarified by the Environmental Assessment Practitioner.	<p>Actual and potential environmental impacts not assessed because underwater noise impact assessment not conducted.</p> <p>Potential discrepancies between specialist studies were not clarified by the EAP.</p>	<p>Underwater Noise Impact Assessment conducted. Information incorporated into all other specialist reports.</p> <p>All specialists' recommendations and conclusions have been cross-checked with other relevant specialists, there are no contradictions between conclusions reached and recommendations given.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 - B2 - Underwater Noise Assessment</p> <p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p> <p>Appendix 9 - D1 - Socio-economic Impact Assessment</p> <p>Appendix 8.4 - Sustainability Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Record of Refusal dated 23 June 2021: Annexure 1: Reasons for Refusal:			
iv) Under these circumstances it is not possible to make a determination with regard to the significance of potential impacts or consequences for the environment, the effectiveness of potential mitigation measures or whether the project under consideration will constitute a sustainable development.	No direct issue identified to be addressed.	No direct issue identified to be addressed.	No direct issue identified to be addressed.
v) Consequently there is no sufficient, adequate and reliable basis upon which the statutory discretion of the Competent Authority can be exercised in favour of the applicant and therefore the application for Environmental Authorisation is refused.	No direct issue identified to be addressed.	No direct issue identified to be addressed.	No direct issue identified to be addressed.

Table B: Addressing gaps identified in the Appeal Authority’s Appeal Decision dated 1 August 2022

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<i>Appeal Authority Appeal Decision dated 1 August 2022</i> Background and Appeal at paragraphs 1 to 1.29.8			
<i>Grounds of Appeal, Responses, Comments and Evaluation at paragraphs 2.1 to 2.3.8 (Summary) – issues identified to be addressed below</i>			
First ground of appeal: The strategic nature of the Project from a need and desirability perspective			
<p>Para 2.4 The grounds of appeal on this topic are concerned with the strategic nature of the proposed Project from a need and desirability perspective, especially considering that the Project was launched in response to an RFP for New Generation Capacity under the RMIPPPP issued by the DMRE, to alleviate the immediate and future power generation capacity deficit of South Africa, and that the Project was designated a SIP status by the Presidential Infrastructure Coordinating Commission.</p>	No issue to be addressed.	No issue to be addressed.	No issue to be addressed.
Summary of Comments from I&APs			
<p>Page 15 Para 2.5.1 Short-term energy procurement with an appropriate energy mix that does not</p> <ul style="list-style-type: none"> (i) have significant greenhouse gas (GHG) emissions, (ii) have more local content, and (iii) does not harm the fragile marine environment, can be fulfilled by technologies other than powerships. <p>It is therefore disputed that the proposed Project is strategic from a need and desirability perspective. Most of the additional impacts associated with powerships are</p>	Report on the Role of Gas-to-Power Projects in the Just Energy Transition from Fossil Fuels in South Africa and SADC.	Issue of need and desirability of project contained in Need and Desirability Report.	<p>Issues of climate change and how it impacts need & desirability – see paragraphs 3.1.1 and 6 of the CCIA relating the quantification of GHG emissions.</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 9 - C3 - Climate Change Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
described in detail under the "no go option" in the FEIAr.			
<p>Page 15 Para 2.5.2 Regarding Karpowership's contention that the project going ahead is justified because</p> <ul style="list-style-type: none"> (i) they were a successful bidder through a procurement process; (ii) there may be positive implications for energy security; and (iii) there is a need for this project to address the country's energy crisis; <p>These submissions do not negate that the CA is legally bound by the provisions contained in section 24 of the Constitution, 1996 (the Constitution) and NEMA as the overarching legislation regulating environmental laws.</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
<p>Page 15 Para 2.5.3 The energy procurement process in which the DMRE was the lead authority, cannot override the prescribed environmental law considerations, nor can this serve as a foregone conclusion or incontrovertible evidence of the need and desirability of the proposed Project from the perspective of environmental law. Ultimately, a weighing exercise is required of</p> <ul style="list-style-type: none"> (i) the allegedly positive impacts of the proposed project including its ability to address energy shortages and allegedly positive socio-economic impacts through the energy supply, and (ii) the negative impacts on the environment, climate, ecology and socio-economic impacts on communities. 	Weighing exercise of positive impacts (such as addressing energy shortages) and negative impacts (such as climate change, environmental harm etc) must be balanced.	Need and desirability of project addressed in various reports, all of which are integrated in terms of the assessments and impacts for the EIA.	Chapter 8: Motivation, Need and Desirability Appendix 8 - Independent Contributions to the Need and Desirability

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 15 Para 2.5.4 Considerations around energy risk mitigation cannot be the only factor to consider in determining the need and desirability of the proposed Project, and this certainly cannot render the EIA outcome a foregone conclusion. The success of the EA application cannot solely rely on an energy risk mitigation process by the DMRE. It is still a relevant factor that there are alternative cheaper, cleaner and less harmful ways to generate the electricity needed to develop and grow the country's economy.</p>	<p>No direct issue to be answered.</p>	<p>No direct issue to be answered.</p>	<p>No direct issue to be answered.</p>
<p>Page 16 Para 2.5.5 Short-term energy procurement with an appropriate energy mix can be fulfilled by technologies other than powerships, that do not have significant greenhouse gas emissions, have more local content, and do not harm the fragile marine environment. The most recent studies indicate that gas is not required, and the experts quoted concluded that the Karpowership projects are neither timely nor economically optimal in the next decade. In other words, it cannot be said that the Project is necessary in circumstances where the electricity it would produce could be supplied by less harmful sources. Expert analyses demonstrate that the Project would have negative impacts for the economy as well, by locking South Africa into a power purchase agreement for expensive energy for the next 20 years.</p>	<p>Energy benefits and procurement considerations do not override environmental considerations.</p>	<p>Need and Desirability, in terms of balancing the benefits of the projects versus negative consequences of the project (spanning a range of environmental impacts, socio-economic impacts, climate change impacts, Etc) are addressed in the FEIAr.</p>	<p>Chapter 8: Motivation, Need and Desirability Appendix 8 - Independent Contributions to the Need and Desirability</p>
<p>Page 16 Para 2.5.6 A need and desirability assessment as required in regulation 18 of the 2014 EIA Regulations and the Guideline on Need and</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Desirability, 2017 (Need and Desirability Guideline), requires consideration of various factors, including the preferred location of the project, how members of the surrounding communities and people of South Africa will be affected by the project, the cost and binding implications that the proposed project will have on the country, and whether there are other alternatives that will be more beneficial, as well as the impacts/disturbance of the natural environment. Whilst the list is not exhaustive, the following must also be considered in making an assessment on need and desirability: whether the project will secure sustainable development and use of natural resources, the ecological integrity of threatened ecosystems, Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs), conservation targets, ecological drivers of the ecosystem, and global international responsibilities relating to the environment, such as climate change obligations.</p>			
<p>Page 16 Para 2.5.7 Socio-economic considerations, and procurement considerations under the RMIPPPP do not, and cannot override the considerations on need and desirability as prescribed under the 2014 EIA Regulations. Karpowership's reliance on any such strategic value, or the fact that a project has been identified as a SIP, as a basis for overlooking shortcomings in the EIA process, will result in the CA being presented with inadequate information to fully understand the proposed project's potential impacts.</p> <p>Page 18 Para 2.5.8</p>	<p>Weighing exercise of positive impacts (such as addressing energy shortages) and negative impacts (such as climate change, environmental harm etc) must be balanced.</p>	<p>Need and desirability of project addressed in various reports, all of which are integrated in terms of the assessments and impacts for the EIA.</p>	<p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
The proposed Project will have significant impact on various ecologically sensitive areas, some of which are protected. The proposed Project will also have high GHG emissions, and will have negative climate change impacts, negatively interfering with mangroves, seagrass, and estuaries which play an important role in both climate change mitigation and adaptation.			
Page 17 Para 2.5.9 The anticipated harms of the proposed Project, for climate, biodiversity, and socio-economic considerations, far outweigh any alleged benefits, particularly in light of the feasibility of less harmful alternatives to meet the country's electricity needs.	No issue to be addressed.	No issue to be addressed.	No issue to be addressed.
Summary of Responses from the Competent Authority			
Page 19 Para 2.7 In their responses, the CA submit as follows:	No issue to be addressed.	No issue to be addressed.	No issue to be addressed.
Page 19 Para 2.7.1 They (the CA) did consider the need and desirability of the proposed Project and the recommendations contained in the Socio-Economic Assessment, which recommended that the Project should proceed. It is incorrect that the CA dismissed the positive socio-economic benefits of the proposed Project or the fact that the project was awarded preferred bidder status in the RMIPPPP. The proposed Project was refused because the environmental impacts could not be properly evaluated due to lack of information and/or due to contradictory information in the FEIAR. On 11 March 2021, the CA provided guidance to the EAP as part of their comments on the Draft EIAr, particularly in respect of the	The CA provided guidance on several issues in its letter of 11 March 2021.	The letter of 11 March 2021 has been reviewed and the CA comments are addressed in the EIA.	Please see table A above, regarding how the CA's comments of 11 March 2021 were addressed.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
information that must be included in the FEIAr. The EAP failed to pay heed thereto.			
<p>Page 19I Para 2.7.2</p> <p>The SIP status of the project does not negate the need to comply with all relevant environmental legislation. It was made very clear to the EAP that even though the project was a SIP, it is still mandatory to meet all regulatory requirements pertaining to environmental issues.</p>	<p>The SIP status of the Project does not negate the CA's obligation to promote and authorise sustainable development with due consideration for environmental factors.</p> <p>Weighing exercise of positive impacts (such as addressing energy shortages) and negative impacts (such as climate change, environmental harm etc) must be balanced.</p>	<p>The SIP status of the Project is not promoted to override environmental considerations. Need and desirability of project addressed in various reports, all of which are integrated in terms of the assessments and impacts for the EIA.</p>	<p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p> <p>Appendix 7.1 – SIP Confirmation Letter</p>
<p>Page 19 Para 2.7.3</p> <p>The proposed project was refused as the FEIAr has not met the need and desirability requirement of NEMA. Importantly, energy procurement considerations (RMIPPP, IRP, SIP) do not override environmental considerations</p>	<p>Energy benefits and procurement considerations do not override environmental considerations.</p>	<p>Need and Desirability, in terms of balancing the benefits of the projects versus negative consequences of the project (spanning a range of environmental impacts, socio-economic impacts, climate change impacts, Etc) are addressed in the FEIAr.</p>	<p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p>
Ministerial Evaluation (Reasons for Decision)			
<p>Page 20 Para 2.8</p> <p>In evaluating this ground of appeal, I considered the motivation for the need and desirability of the proposed activities as addressed in chapter 6 of the FEIAr (pages 134 to 153) and at chapter 9.2 thereof (pages 324 to 326). The primary motivation for the</p>	<p>Energy benefits and procurement considerations do not override environmental considerations.</p>	<p>Need and Desirability, in terms of balancing benefits of projects versus negative consequences of project (spanning a range of environmental impacts, socio-economic impacts, climate</p>	<p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>need and desirability of the proposed Project is premised on the need for the provision of reliable energy in terms of the National Development Plan (NDP) 2030, the Integrated Resource Plan, 2019 (IRP 2019) and the SIP status of the Project.</p>		<p>change impacts, Etc) are addressed in the FEIAr.</p>	
<p>Page 20 Para 2.9 Karpowership correctly indicates that South African legislation, including the Constitution and NEMA, entrench the principle of sustainable development, as do the various National strategies, policies, programmes and plans, including the NDP. The motivation for the need and desirability of the proposed Project thus needs to be assessed and balanced within the context of these strategies, policies, programmes and plans by specifically looking at whether the proposed Project is ecologically sustainable and socially and economically justifiable.</p>	<p>Need and desirability need to be contextualised to various governmental policies (such as RMI4P, NDP etc). These considerations need to be balanced against ecological sustainability and social & economic justifiability.</p>	<p>Need and Desirability needs to be contextualised in relation to various governmental policies (such as RMI4P, NDP etc). These considerations need to be balanced against ecological sustainability and social & economic justifiability. These are discussed in the report on the Role of Gas-to-Power Projects in the Just Energy Transition from Fossil Fuels in South Africa and SADC. Other specialists also comment on N & D in accordance with the polycentric approach.</p> <p>Need and Desirability, in terms of balancing benefits of projects versus negative consequences of project (spanning a range of environmental impacts, socio-economic impacts, climate change impacts, Etc) are addressed in the FEIAr.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p> <p>Appendix 9: Specialists Studies</p>
<p>Page 20 Para 2.10 In terms of section 7(2) of the Constitution, the state must respect, protect, promote and fulfil the rights in the Bill of Rights, inclusive of the fundamental right to the environment contemplated in section 24 of the Constitution.</p>	<p>Project must therefore prove it is:</p> <ul style="list-style-type: none"> - ecologically sustainable 	<p>Need and Desirability, in terms of balancing benefits of projects versus negative consequences of project (spanning a range of environmental impacts, socio-</p>	<p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>I therefore have the constitutional imperative to protect the environment, for the benefit of present and future generations, through reasonable legislative and other measures that prevent pollution and ecological degradation, promote conservation, and secure ecologically sustainable development and sustainable use of natural resources while promoting justifiable economic and social development. Therefore, all development in South Africa must, in terms of section 24 of the Constitution and NEMA, in the first place be ecologically sustainable, while economic and social development must be justifiable.</p>	<ul style="list-style-type: none"> - justifiable in terms of economic impacts - justifiable in terms of social development 	<p>economic impacts, climate change impacts, Etc) are addressed in the FEIAr.</p>	
<p>Page 20 Para 2.11 The fundamental rights to the environment in section 24 of the Constitution are distinctly anthropocentric in nature, in that the ultimate aim of these fundamental rights is not the conservation or protection of the environment for the sake of the environment itself, but the aim thereof is the responsible and sustainable utilisation of natural resources for the sake of satisfying the needs of humans. In this context, I also have the constitutional and legal obligation not to allow a preventable state of affairs in an environment that may potentially or actually harm the health or well-being, in a wide sense, of another person or persons. The 'need and desirability' of a proposed project should also be considered in this context.</p>	<p>Need and desirability of project must be viewed in the context of the Minister's obligation to not allow a preventable state of affairs in an environment that may potentially or actually cause harm or well-being.</p>	<p>Need and Desirability, in terms of balancing benefits of projects versus negative consequences of project (spanning a range of environmental impacts, socio-economic impacts, climate change impacts, Etc) are addressed in the FEIAr.</p>	<p>Chapter 8: Motivation, Need and Desirability Appendix 8 - Independent Contributions to the Need and Desirability</p>
<p>Page 21 Para 2.12 The NEMA, the 2014 EIA Regulations, together with the various national strategies, policies, programmes and plans constitute the reasonable legislative and other measures</p>	<p>No issue to be addressed.</p>	<p>No issue to be addressed.</p>	<p>No issue to be addressed.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
that prevent pollution and ecological degradation, promote conservation, and secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.			
<p>Page 21 Para 2.13 The preamble to NEMA and the definition of 'sustainable development' in section 1 of NEMA confirm that sustainable development requires the integration of social, economic and environmental factors in the planning, implementation and evaluation of decisions to ensure that development serves present and future generations.</p>	<p>The SIP status and socio-economic considerations of the Project do not take preference over environmental factors.</p>	<p>The SIP status and socio-economic impacts of the Project is not promoted to override environmental considerations.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9: Specialists Studies</p>
<p>Page 21 Para 2.14 The National Environmental Management Principles are found in section 2 of NEMA, and the parts thereof that are for present purposes relevant (with emphasis added), are as follows: <i>"(3) Development must be socially, environmentally and economically sustainable.</i> <i>(4) (a) Sustainable development requires the consideration of all relevant factors including the following.</i> <i>(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;</i> <i>(ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimized and remedied;</i> <i>(iii) that the disturbance of landscapes and sites that constitute the nation's cultural heritage is avoided, or where it cannot be</i></p>	<p>No issue to be addressed.</p>	<p>No issue to be addressed.</p>	<p>No issue to be addressed.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p><i>altogether avoided, is minimised and remedied;</i></p> <p><i>(iv) that waste is avoided, or where it cannot be altogether avoided, minimised and reuse or recycled where possible and otherwise disposed of in a responsible manner; (v) ; (vi) (vii) that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions; and</i></p> <p><i>(viii) that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimized and remedied.</i></p> <p><i>(b) Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must take into account the effects of decisions on all aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option.</i></p> <p><i>(i) The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.</i></p> <p><i>(o) 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></p> <p><i>(r) Sensitive vulnerable highly dynamic or stressed ecosystems such as coastal shores estuaries wetlands, and similar systems</i></p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<i>require specific attention in management and planning procedures, especially where they are subject to significant human resource usage and development pressure."</i>			
<p>Page 22 Para 2.15 The NEMA provides the tools and procedures required to implement the principles of sustainable development, and the 2014 EIA Regulations define the procedures and criteria for the preparation, evaluation, submission, processing and consideration of, and decision on, applications for environmental authorisations. With the 2014 EIA Regulations specifically calling for the consideration of how the "geographical, physical, biological, social, economic and cultural aspects of the environment may be affected by the proposed activity", the "need and desirability" of a project relates to all of these considerations and not only to socioeconomic considerations.</p>	<p>Aim of an EIAR:</p> <ul style="list-style-type: none"> - identify, predict and evaluate the actual and potential risks for, and the impacts on the geographical, physical, biological, social, economic and cultural aspects of the environment - to find alternatives and options that best avoid negative impacts altogether, - where negative impacts cannot be avoided, to minimise and manage negative impacts to acceptable levels, - optimise positive impacts - to ensure that ecological sustainable development and 	<p>The aims of the EIAR are achieved in this instance.</p> <p>All specialist reports identify potential impacts (environmental, social, economic).</p> <p>Where negative environmental impacts are identified by specialists where harm cannot be mitigated or is unacceptable, this is highlighted by the EIAR and is deemed a 'no-go' option.</p> <p>Where negative environmental impacts are identified and can be mitigated, such mitigation measures are highlighted in the EIAR and are noted in the EMPr.</p> <p>A review of balancing potential negative environmental impacts and positive socio-economic impacts are fully discussed in the Need and Desirability section of the EIAR.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p> <p>Appendix 9: Specialists Studies</p> <p>Appendix 6: EMPr</p>
<p>Page 22 Para 2.16 Ultimately, the aim of an EIAR is to identify, predict and evaluate the actual and potential risks for, and the impacts on the geographical, physical, biological, social, economic and cultural aspects of the environment, to find the alternatives and options that best avoid negative impacts altogether, or where negative impacts cannot be avoided, to minimise and manage negative impacts to acceptable levels, while optimising positive impacts, to ensure that ecological sustainable development and justifiable social and economic development outcomes are achieved. The consideration of an EA application is thus a polycentric decision of issues that cannot be resolved independently</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
and sequentially; they are, rather, interdependent and a choice from one set of alternatives has implications for preferences within other sets of alternatives. The decision-maker must take into account the whole network before a single decision can be made, and it involves interacting points of influence,	justifiable social and economic development outcomes		
<p>Page 23 Para 2.17</p> <p>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, to ensure the simultaneous achievement of the triple bottom-line. In 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 2014 EIA Regulations, are that option which 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. In this regard, the Needs and Desirability Guideline (DEA: 2017 at page 18 thereof) states (with emphasis added) that:</p> <p><i>"environmental integrity may never be compromised and the social and economic development must take a certain form and meet certain specific objectives in order for it to be considered justifiable. EIAs are about the search for the best practicable option that will best ensure the maintenance of ecological integrity while promoting justifiable social and economic development".</i></p>	Short-term versus long-term impacts and benefits must be considered when viewing the need and desirability of the project.	Short term and long term impacts are fully discussed in the EIAr. Such impacts span different areas of environmental, social and economic impacts, both negative and positive impacts.	Chapter 7: Environmental Impact Assessment Appendix 9: Specialists Studies

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 23 Para 2.18 While another government department may decide the "need and desirability" of a project from their planning perspective, the CA in an application for an EA for that project must still decide whether the proposed activities are to be considered needed and desired from an EIA perspective, in particular, whether that option 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. It might therefore happen that another government department decides, from their own planning perspective, that a certain project should be approved considering its "need and desirability", whereas the CA may refuse the application for an EA for that project, considering the "need and desirability" thereof from an EIA perspective. The strategic nature of the proposed Project is therefore one of the considerations to be balanced with all other relevant considerations, inclusive of all of the National Environmental Management Principles set out in section 2 of NEMA.</p>	<p>Another governmental department's ascribed need and desirability of a project does dictate the need and desirability of the Competent Authority's view of how a project's need and desirability must be determined from an environmental perspective.</p>	<p>Socio-economic impacts of the project are not viewed as 'overriding' environmental considerations. The EIAR addresses need and desirability of the project from an EIA perspective.</p>	<p>Chapter 7: Environmental Impact Assessment Chapter 8: Motivation, Need and Desirability Appendix 8 - Independent Contributions to the Need and Desirability</p>
<p>Page 24 Para 2.19 Most of the identified potential negative environmental impacts associated with powerships, and specifically with the proposed Project, are summarised under the "no go" alternative, in paragraph 8.4.18 at pages 288to 289 of the FEIAR. These negative environmental impacts include impacts on:</p>	<p>No item to address.</p>	<p>No item to address.</p>	<p>No item to address.</p>
<p>Page 24 Para 2.19.1 loss of vegetation communities, Species of Special Concern (mangrove trees and the</p>	<p>The 2021 EIAR did not adequately address the loss of species of</p>	<p>The 2022 EIAR comprehensively addresses the species of conservation</p>	<p>Chapter 7: Environmental Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
orchid <i>Eulophia speciosa</i>), biodiversity, ecosystem function and process;	conservation concern and sensitive marine and estuarine habitats.	concern and sensitive marine and estuarine habitats.	Appendix 9 - A9- Terrestrial Biodiversity Assessment Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment
Page 24 Para 2.19.2 potential contamination and sedimentation, or destruction of vegetation on the wetlands identified along the transmission line route;	The 2021 EIAr did not adequately address the impact of the project on wetlands	The 2022 EIAr comprehensively addresses the impact of the project on wetlands	Chapter 7: Environmental Impact Assessment Appendix 9 - A6 - Wetland Delineation and Functional Assessment Appendix 9 - A7 - Wetland Rehabilitation Plan Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment
Page 24 Para 2.19.3 hydropedological flow drivers, soil quality or potential to compromise surface water quality in the nearby watercourse;	The 2021 EIAr did not adequately address the impact of the project on hydropedological flow drivers, soil quality or potential to compromise surface water quality in the nearby watercourse	The 2022 EIAr comprehensively addresses the impact of the project on hydropedological flow drivers, soil quality or potential to compromise surface water quality in the nearby watercourse	Chapter 7: Environmental Impact Assessment Appendix 9 - A6 - Wetland Delineation and Functional Assessment Appendix 9 - A7 - Wetland Rehabilitation Plan Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment Appendix 9 - A1 – Hydrology Assessment Appendix 9 - A2 - Aquatic Assessment Appendix 9 - A3 - Hydropedology Assessment
Page 24 Para 2.19.4 hydrological regime of the river and riparian areas caused by the clearing of vegetation	The 2021 EIAr did not adequately address the impact of the project on	The 2022 EIAr comprehensively addresses the impact of the project on	Chapter 7: Environmental Impact Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
and increased sediment input, and the hardened surface resulting in increased runoff patterns into the drainage lines;	hydrological regimes of the river and riparian areas, caused by the clearing of vegetation and increased sediment input	hydrological regimes of the river and riparian areas, caused by the clearing of vegetation and increased sediment input	Appendix 9 - A1 – Hydrology Assessment Appendix 9 - A2 - Aquatic Assessment Appendix 9 - A3 - Hydropedology Assessment Appendix 9 - A6 - Wetland Delineation and Functional Assessment
Page 24 Para 2.19.5 the associated aquatic biota due to changes in water quality and flow regimes;	The 2021 EIAR did not adequately address the impact of the project on associated aquatic biota due to changes in water quality and flow regimes	The 2022 EIAR comprehensively addresses the impact of the project on associated aquatic biota due to changes in water quality and flow regimes	Chapter 7: Environmental Impact Assessment Appendix 9 - A1 – Hydrology Assessment Appendix 9 - A2 - Aquatic Assessment Appendix 9 - A3 - Hydropedology Assessment Appendix 9 - A6 - Wetland Delineation and Functional Assessment
Page 24 Para 2.19.6 potential sedimentation or contamination of surface water from construction or operation activities;	The 2021 EIAR did not adequately address potential sedimentation or contamination of surface water from construction or operation activities	The 2022 EIAR comprehensively addresses potential sedimentation or contamination of surface water from construction or operation activities.	Chapter 7: Environmental Impact Assessment Appendix 9 - A1 – Hydrology Assessment Appendix 9 - A2 - Aquatic Assessment Appendix 9 - A3 - Hydropedology Assessment Appendix 9 - A6 - Wetland Delineation and Functional Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
			Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment
<p>Page 24 Para 2.19.7 Impacts to the vadose zone or quality of the groundwater resources</p>	<p>Negative impacts on the vadose zone or quality of the groundwater resources are viewed under the 'no-go' option of the EIAr.</p>	<p>Negative impacts on the vadose zone or quality of the groundwater resources are addressed in the EIAr and mitigation measures to reduce impacts are in the EMPr. The main discussion of these impacts are not found under the 'no-go' discussion of the EIAr.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 - A1 – Hydrology Assessment</p> <p>Appendix 9 - A3 - Hydrogeology Assessment</p> <p>Appendix 9 - A4 – Geohydrology Assessment</p> <p>Appendix 6: EMPr</p>
<p>Page 24 Para 2.19.8 the estuarine habitats and organisms: i. within a critical biodiversity area (CBA) - listed as irreplaceable; ii. adjacent to the uMhlathuze Estuary - a Estuarine Functional Zone (see FEIAr page 151) which forms part of the Richards Bay Nature Reserve — a proclaimed Protected Area and an internationally recognized Important Bird Area (IBA), and the Enseleni Nature Reserve (see FEIAr page 89) with Species of Conservation Concern (SCC) including at least 6 that are listed as Endangered (EN), at least 3 that are listed as Vulnerable (VU) and at least 5 that are listed as Near Threatened (NT) (see FEIAr page 91);</p>	<p>The 2021 EIAr did not adequately address the loss of critical biodiversity areas such as,</p> <ul style="list-style-type: none"> - the Estuarine Functional Zone which forms part of the Richards Bay Nature Reserve - Enseleni Nature Reserve 	<p>The 2022 EIAr comprehensively addresses the loss of critical biodiversity areas such as,</p> <ul style="list-style-type: none"> - the Estuarine Functional Zone which forms part of the Richards Bay Nature Reserve - Enseleni Nature Reserve 	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p> <p>Appendix 9 - A9 – Terrestrial Biodiversity Assessment</p> <p>Appendix 9 - A10 – Avifauna Assessment</p>
<p>Page 24 Para 2.19.9 the benthic community, the marine ecology, marine organisms:</p>	<p>The 2021 EIAr did not adequately address the impacts of the project</p>	<p>The 2022 EIAr comprehensively addresses the impacts of the project on benthic communities' habitats:</p>	<p>Chapter 7: Environmental Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>I. comprising of a range of habitats each supporting a characteristic biological community, including the important habitats of the mangroves, intertidal and shallow subtidal mud and sand flats, the subtidal benthic zone, and the water body itself (see FEIAr pages 102 to 103),</p> <p>II. by means of the physical disturbance of the littoral zone (see FEIAr page 135), increased seawater temperatures (see FEIAr pages 19, 200 to 202, 206 to 209, 220, and 262), increase in noise (see FEIAr pages 209 to 211, and 263 to 264) and modifications to the hosted biological communities (see FEIAr pages 135, 284, and 295),</p> <p>III. in close proximity to the eChwebeni Natural Heritage Site - a Transnet designated site of conservation significance within the Port of Richards Bay, preserving part of an original mangrove site that existed prior to the development of the Port (see FEIAr page 96);</p>	<p>on benthic communities' habitats:</p> <ul style="list-style-type: none"> - intertidal and shallow subtidal mud and sand flats - through increases in noise - through changes in water temperatures 	<ul style="list-style-type: none"> - intertidal and shallow subtidal mud and sand flats - through increases in noise - through changes in water temperatures 	<p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p>
<p>Page 25 Para 2.19.10 Increase in ambient concentration of SO₂, NO₂ and PM₁₀, resulting in health risks through inhalation of air pollutants.</p>	<p>The 2021 EIAr did not properly consider the increase in Greenhouse Gases and risks of inhalation of air pollutants.</p>	<p>The 2022 EIAr comprehensively assesses the impacts of increased Greenhouse Gases and risks of inhalation of air pollutants.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 - C1 - Atmospheric Impact Report</p> <p>Appendix 9 - C3 - Climate Change Impact Assessment</p>
<p>Page 25 Para 2.19.11 the increase of greenhouse gas (GHG) emissions with varying degrees of global warming potential that contribute to</p>	<p>Negative impacts as a result of increased GHG emissions are</p>	<p>Negative impacts as a result of increased GHG emissions are addressed in the CCIAR and EIAr and mitigation measures</p>	<p>Appendix 9 – C3 –Climate Change Impact Assessment</p> <p>Appendix 6: EMPr</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
anthropogenic climate change and its resultant impacts (see FEIAR pages 211 to 212);	viewed under the 'no-go' option of the EIAr.	to reduce impacts are in the EMPr. The main discussion of these impacts are not found under the 'no-go' discussion of the EIAr.	
Page 24 Para 2.19.12 major hazards such as flash and pool fires;	Major risks as a result of hazards such as flash and pool fires are viewed under the 'no-go' option of the EIAr.	Negative impacts and potential risks of major hazards are addressed in the MHI Risk Assessment and the EIAr and mitigation measures to reduce such risks and/or how to deal with such risks are in the EMPr. The main discussion of these impacts are not found under the 'no-go' discussion of the EIAr.	Appendix 9 – D3 – Major Hazard Installation Risk Assessment Appendix 6: EMPr
Page 25 Para 2.19.13 visual and noise disturbances that could be created by the construction activities as the footprint of the facility grows;	Actual and potential environmental impacts not assessed because underwater noise impact assessment not conducted.	Underwater Noise Impact Assessment conducted.	Appendix 9 - B2 - Underwater Noise Assessment Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment
Page 24 Para 2.19.14 potential changes in the sense of place; and	The FEIAR in 2021 did not consider the potential changes in a sense of place.	The FEIAR assesses the potential changes in a sense of place.	Appendix 9 - D1 - Socio-economic Impact Assessment Appendix 9 - D2 - Visual Impact Assessment
Page 24 Para 2.19.14 the increase in ambient noise levels both above ground and underwater and therefore nuisance or adverse impacts on sensitive receptors.	Negative impacts from increased noise (terrestrial and underwater) may have potential impacts on sensitive receptors are viewed under the 'no-go' option of the EIAr.	Negative impacts on from increased noise (terrestrial and underwater) may have potential impacts on sensitive receptors are addressed in the EIAr and mitigation measures to reduce impacts are in the EMPr. The main discussion of these	Chapter 7: Environmental Impact Assessment Appendix 9 - B2 - Underwater Noise Assessment Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
		impacts are not found under the 'no-go' discussion of the EIAR.	Appendix 9 - C2 - Terrestrial Noise Assessment Appendix 9 - A10 - Avifauna Assessment Appendix 6: EMPr
<p>Page 25 Para 2.20 These environmental impacts cannot be ignored in the balancing of all relevant considerations, simply because the proposed Project was designated by another government department as a SIP.</p>	The project's 'SIP' status does not grant a license to override environmental considerations.	The SIP status of the project is viewed as only <i>one</i> of the considerations in the discussion of the need and desirability of the project. This consideration is discussed contextually in the EIAR. The SIP status is 'weighed up' against necessary environmental considerations.	Chapter 8: Motivation, Need and Desirability Appendix 8 - Independent Contributions to the Need and Desirability
<p>Page 25 Para 2.21 Karpowership's emphasis that the SIP status of the proposed Project serves as 'incontrovertible" evidence of the need and desirability thereof, is in the context of the EA application for the proposed Project, misconceived. The fact that the proposed Project has been designated as a SIP by another government department, does not automatically accord it the right to an EA for that project. The strategic nature of the Project is not a license to override all other relevant environmental considerations.</p>			
<p>Page 26 Para 2.22 The alleviation of the current energy crisis may be vital, but this does not mean that it must be achieved by this specific project, nor does it follow that there is now a license to ignore all relevant environmental considerations.</p>			
<p>Page 26 Para 2.23 In reaching my decision on this ground of appeal, I considered EIMS's (independent expert commissioned by the Department) advice on the matter, including that:</p>	No item to be addressed.	No item to be addressed.	No item to be addressed.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<i>"Considering the procedural deficiencies; the uncertainties raised by the specialists; the extent of public interest; as well as recent court judgements regarding public consultation, it would be unjustifiable for the CA to consider the merits of the application further"</i>			
Page 26 Para 2.24 I therefore proceed to dismiss the grounds of appeal on this topic.	No item to be addressed.	No item to be addressed.	No item to be addressed.
Second Ground of Appeal: Holistic Assessment of the EA Application			
Page 26 Para 2.25 The grounds of appeal pertaining to this topic are concerned with all the appellants' assertion that the CA relied heavily on particular components of the EA application, and in doing so, did not holistically assess the EA application, and more specifically that the CA failed to consider the Socio-Economic Assessment of the Project, which recommended that the Project should proceed.	No item to be addressed.	No item to be addressed.	No item to be addressed.
Summary of comments from I&APs:			
Page 26 Para 2.26.1 There is no evidence that the CA did not consider the recommendations pertaining to the Socio-Economic Assessment of the Project, and that the CA did not holistically assess the EA application. Furthermore, the CA is not bound to follow the recommendations in the Socio-Economic Impact Assessment.	No item to be addressed.	No item to be addressed.	No item to be addressed.
Page 26 Para 2.26.2 One of the reasons for the RoR, stems from the fact that "the actual and potential impacts on the environment as well as <u>socio-economic conditions</u> could not be properly evaluated	The lack of the underwater noise report or impact assessment along with the contradictory	Underwater Noise Baseline Study as well as Underwater Noise Impact Assessment were conducted. The results of these reports were used in the Socio-	Chapter 7: Environmental Impact Assessment Appendix 9 - B2 - Underwater Noise Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>(particularly insofar as small-scale fisheries are concerned)," especially "<i>because of the lack of a proper underwater noise impact study and the contradictory information that was made available.</i>" This indicates that the CA did consider the socio-economic impacts that this Project will have.</p>	<p>information, meant that the Competent Authority was not able to reach an informed decision.</p>	<p>Economic reports to ensure a polycentric and integrated approach.</p>	<p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p> <p>Appendix 9 - C2 - Terrestrial Noise Assessment</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>
<p>Page 27 Para 2.26.3 It is necessary to weigh up all of the impacts of the proposed project by applying section 24 of the Constitution and NEMA, and both the positive and negative impacts of the proposed project must be considered. This is entrenched in section 23(2)(b) of NEMA which states that the objective of integrated environmental management is to 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 as set out in section 2 of NEMA. The balancing of all of the relevant considerations is therefore not limited to the recommendation in the Socio-Economic Impact Assessment.</p>	<p>All considerations of an EIA must be couched in the understanding of the purpose of Section 24 of the Constitution and Section 23(2)(b) of NEMA.</p>	<p>The contents of Section 24 of the Constitution and Section 23(2)(b) of NEMA are considered in the discussion of the need and desirability of the project.</p>	<p>Chapter 8: Motivation, Need and Desirability</p>
<p>Page 27 Para 2.26.4 The impact that the proposed Project could have on the much broader community of Richards Bay, including on small-scale fishing, tourism, and those that may be impacted by climate change, also needs to be</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>considered. It is clear from the RoR that the CA does not necessarily dispute some of the socio-economic impacts of the proposed Project, but the CA correctly seeks to ascertain a holistic picture, considering the impacts that the proposed Project could have on the much broader community, surrounding the Port of Richards Bay. Another reason for the RoR is the lack of material information that Karpowership failed to provide in their FEIAR. These gaps directly impact on the adequacy of the socio-economic assessment.</p>			
<p>Page 27 Para 2.26.5 The Socio-Economic Impact Assessment did not present a complete picture of how the proposed Project might impact on small-scale fishers who are dependent on fishing in Richards Bay, including information on the potential loss of livelihoods due to damage to fishing resources as a result of continuous and significant underwater noise for 20 years near to the breeding grounds of threatened fish species. This is partly due to the fact that the public was not given an opportunity to comment on the further reports on underwater noise obtained by Karpowership after consultation on the Draft EIAR, and the fact that the extent of the impact on fisheries due to underwater noise was not determined.</p>	<p>A skewed view of positive local impacts was provided in the report.</p> <p>Negative socio-economic impacts are not sufficiently addressed.</p> <p>Significant changes and new information were not available for a further 30 days of public comment in 2021.</p>	<p>The Socio-Economic Impact Assessment reviews and discusses the impact of negative socio-economic impacts in the local Richards Bay area as well as the wider scope of the South African Republic.</p> <p>No significant changes have been made to the EIAR following receipt of I&AP comments and therefore there is no need for a further 30 days of public comments.</p>	<p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p> <p>Final EIA Report and Final EMPr.</p> <p>Any changes are marked in blue text.</p>
<p>Page 28 Para 2.26.6 Apart from the lack of information as identified in the RoR, further gaps in the Socio-Economic Impact Assessment include the following:</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 28 Para 2.26.6.1 Lack of a qualitative Noise Impact Assessment on megafauna, including the</p>	<p>Because there was no Underwater Noise</p>	<p>Underwater Noise Impact Assessment and Underwater</p>	<p>Chapter 7: Environmental Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Humpback Dolphin: This may have further impacts on socioeconomics for tourism in the region;	<p>Impact Assessment, the 2021 EIAR did not consider the socio-economic impacts as a result of negative impacts on:</p> <ul style="list-style-type: none"> - humpback dolphin - mangroves - swamps - local fisheries and nurseries 	Noise Baseline Assessments conducted.	Appendix 9 – B1 – Baseline Underwater Noise Assessment
<p>Page 28 Para 2.26.6.2 Lack of a qualitative Noise Impact Assessment on swamps and mangrove habitats: this may also have socio-economic implications for tourism, fisheries, and local fishermen, since mangroves and swamps are nurseries for fish and crustaceans;</p>		Impacts from underwater noise was fed into various other specialist reports, including the Marine Ecology and Socio-Economic Impact Assessment.	Appendix 9 - B2 - Underwater Noise Assessment
<p>Page 28 Para 2.26.6.3 Inadequate Avifauna Impact Assessment to identify all the important birds, and conservation areas such as Richards Bay Nature Reserve, mangroves, and their habitats: this may also impact on tourism and related socio-economic activities; and</p>		Therefore the socio-economic impacts as a result of negative impacts on:	Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment
<p>Page 28 Para 2.26.6.4 Inadequate assessment of impacts of thermal water released into the environment: this may impact upon the food sources for birds, biodiversity related tourism, fishing, and fishing communities.</p>	The 2021 Socio-Economic Report did not consider how noise and heated water discharge will impact on marine life and species, which will therefore impact the local dependent mariculture and	The FEIAR and Socio-Economic Report used the information and results from the Underwater Noise Impact Assessment and considered how noise and heated water discharge (results from the Thermal Plume Modelling Report) will impact marine life and species and therefore impact the local dependent	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 - B2 - Underwater Noise Assessment</p> <p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
	aquaculture economies.	mariculture and aquaculture economies.	
<p>Page 28 Para 2.26.7 Whilst Karpowership indicates that the Socio-Economic Impact Assessment indicates no fatal flaws, and has an overall net positive impact, the study itself was deficient, in that it does not include the socio-economic impacts related to loss of biodiversity on tourism and tourism related jobs; negative impacts on juvenile fish and crustaceans and in turn on local fishermen in the KwaZulu-Natal (KZN) region; the socio-economic impact of climate change, such as loss of property, life, and food security; or alternatives.</p>	<p>No assessment was done in the Socio-Economic report of:</p> <ul style="list-style-type: none"> - impacts of climate change and loss of food security; - impacts of climate change on tourism economy in Richards Bay - impacts of climate change on agriculture - impacts of climate change on water stress 	<p>The Socio-Economic report takes into consideration and discusses the following:</p> <ul style="list-style-type: none"> - impacts of climate change and loss of food security; - impacts of climate change on tourism economy in Richards Bay - impacts of climate change on agriculture - impacts of climate change on water stress 	<p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p> <p>Appendix 9 – C3 – Climate Change Impact Assessment</p> <p>Appendix 8.4 – Sustainability Assessment</p>
<p>Page 28 Para 2.26.8 The Socio-Economic Impact Assessment stated that there are no fishermen in the harbour area, and thus there is minimal impact. This misses the point, since it is the loss of juvenile fish and crustaceans (due to loss of mangroves, seagrass, or due to underwater noise, or temperature increase either due to climate change and/or discharge of heated water by Karpowership), may ultimately impact the spawning of fish and the crustacean populations; and in turn, the economics, and livelihoods for all local fishermen in the region, not just fishermen within the harbour location.</p>	<ul style="list-style-type: none"> - impacts of climate change on water stress 		
<p>Page 29 Para 2.26.9 The other gaps which would have a bearing on the socio-economic consideration, which have not been addressed by Karpowership, include:</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 29 Para 2.26.9.1</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>The socio-economic value of the service that certain natural resources provide to mitigate climate change mitigation impacts, through carbon capture, and the implication of the loss of such resources. These include blue carbon services, such as mangroves, swamps, estuaries, corals, and seagrass, This was not included in the climate change impact assessment (CCIA) nor in the Socio-economic impact assessment.</p>	<p>The 2021 FEIAR did not include information on the socio economic value of</p> <ul style="list-style-type: none"> - estuaries mitigating severe storm impacts and flooding - impacts of climate change on the project itself 	<p>The 2022 Socio-Economic Report assess the socio-economic value of</p> <ul style="list-style-type: none"> - estuaries mitigating severe storm impacts and flooding - impacts of climate change on the project itself - impacts of climate change on surrounding communities; - assessment of biodiversity related services; - impact of loss of tourism as a result of megafauna and protected areas 	<p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p> <p>Appendix 9 – C3 – Climate Change Impact Assessment</p> <p>Appendix 8.4 – Sustainability Assessment</p>
<p>Page 29 Para 2.26.9.2 The socio-economic value of mangroves and wetlands which can mitigate severe storms and flooding and other extreme weather events and prevent damage to surrounding properties — impacts which are expected to intensify as the climate crisis progresses.</p>	<ul style="list-style-type: none"> - impacts of climate change on surrounding communities - assessment of biodiversity related services; - impact of loss of tourism as a result of megafauna and protected areas 		
<p>Page 29 Para 2.26.9.3 socio-economic assessment of the impacts of climate change on the proposed Project itself, the surrounding communities, and the impact that the proposed Project will have by emitting over 17million tCO₂e are absent. The Climate Change Impact Assessment (CCIA) only superficially provided for these impacts, and for, among others, loss of property, loss of working hours from temperature increase, droughts, and food insecurity.</p>			
<p>Page 29 Para 2.26.9.4 A socio-economic impact assessment of biodiversity related services is absent.</p>			
<p>Page 29 Para 2.26.9.5 The socio-economic Impact on the tourism economy as a result of loss of megafauna and negative impacts to the CPA, FSA, and other protected nature reserves and estuaries in the area has not been assessed.</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 29 Para 2.26.9.6 Fatal Flaws are not identified and assessed. The assessment matrix (appendix C of Karpowership EIA) does not contain an option for fatal flaws, and thus the socio-economic impact assessment could not have identified fatal flaws.</p>	<p>Separate column for fatal flaws was not included.</p>	<p>Separate column for fatal flaws is included in the Socio-Economic Report.</p>	<p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>
<p>Page 29 Para 2.26.10 The assessment of alternatives:</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 29 Para 2.26.10.1 No wide assessment was done in terms of the negative impacts. The Socio-Economic Impact Assessment assesses the jobs that would be produced by Karpowership, and the benefits to the economy and jobs as a result of electricity production in the country as a whole, casting a very wide net in terms of positive impacts. However, such a wide assessment has not been done in terms of the negative impacts. These include: the impacts on the country as a whole as a result of the climate change impacts (including mitigation and adaptation implication) that the Project would contribute to and exacerbate, the economic implications of commitments to unnecessarily expensive capacity from the Project over the 20-year period of the power purchase agreement, as a whole.</p>	<p>A skewed view of positive local impacts was provided in the report.</p> <p>Negative socio-economic impacts are not sufficiently addressed.</p>	<p>The Socio-Economic Impact Assessment reviews and discusses the impact of negative socio-economic impacts in the local Richards Bay area as well as the wider scope of the South African Republic.</p>	<p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>
<p>Page 30 Para 2.26.10.2 The negative impacts assessed are scaled down to a local level only, and not all the impacts were assessed, This kind of assessment is defective as it does not compare like for like. If benefits of entire electricity systems to South Africa are to be included in the assessment, other alternative systems such as one based on renewables</p>	<p>A skewed view of positive local impacts was provided in the report.</p> <p>Negative socio-economic impacts are not sufficiently addressed.</p>	<p>The Socio-Economic Impact Assessment reviews and discusses the impact of negative socio-economic impacts in the local Richards Bay area as well as the wider scope of the South African Republic.</p>	<p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>which are less harmful and more cost effective, with job benefits, should also be considered. Importantly, the negative impacts of the proposed project on tourism, fisheries, climate change on the country as a whole should have been assessed and reported.</p>			
<p>Page 30 Para 2.26.11 The Marine Ecology Specialist Report (Appendix 110) also concludes that <i>"there is not enough information pertaining to underwater noise and vibration levels from floating power plant ships in the context of the Port of Richards Bay to conduct an assessment. Therefore, general sound levels from commercial vessels and from a powership moored in another location are presented, as are the biological thresholds of sensitive receptors. A quantitative underwater noise assessment is recommended to comprehensively assess the impact on the marine ecology."</i></p>	<p>Underwater Noise Impact Assessment not conducted.</p>	<p>Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted.</p>	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment</p>
<p>Page 30 Para 2.26.12 In respect of the Noise Impact Assessment (Appendix 116), the following:</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 30 Para 2.26.12.1 It records after Table 9, titled "Noise Level at receivers during operational phase", that: "Figure 6 Below illustrates the noise contours predicted during the operational phase. The Richard's Bay Nature Reserve will not be impacted as the noise is predicted to dissipate once reaching its boundary'. However, Figure 6 does not support this statement. There is no indication of where the noise sources are, or where the Richards Bay Nature Reserve is in relation to the noise.</p>	<p>The Noise Impact Assessment map (Figure 6) did not identify on the maps where noise sources were located in relation to sensitive receptors nor identify the sensitive receptors on the map.</p>	<p>Both the Terrestrial and Underwater Noise Impact Assessments' respective maps identify on the maps where noise sources were located in relation to sensitive receptors and identifies where all of the sensitive receptors are on the respective maps.</p>	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment Appendix 9 – C2 – Terrestrial Noise Assessment</p>
<p>Page 30 Para 2.26.12.2</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>The Noise Impact Assessment does not (in map or figure or text form or otherwise) indicate the coordinates or exact location of the noise sources of both the construction and operation of the proposed Project. This is bearing in mind that there will be thirteen (13) towers erected for the transmission lines, which are likely to transverse mangroves and other sensitive birds and protected areas. There is no indication of where all the biological and ecological sensitive habitats will be located on the map or in the text and how far these will be in relation to the source of the noise.</p>			
<p>Page 31 Para 2.26.12.3 There are only 6 noise sensitive areas identified. None of these includes the nearby Kabeljou Flats, various Mangroves, Important Bird Area (IBA) or Critical Biodiversity Areas (CBA), estuaries and wetlands. Figure 2 also does not indicate where these are. For instance, in between Noise Sensitive area 6 and the location of the ships are some of the mangrove forests, etc. Some of the transmission lines will also fall within that area. It is unclear why these are not depicted on the map. Therefore, whilst a list of construction noise is depicted, where these are in relation to various biologically sensitive areas, is not depicted.</p>			
<p>Page 31 Para 2.26.12.4 The map in Figure 2 also only indicates the mooring of the ship, but it does not indicate the various construction sites of the associated activities including the transmission lines and piling activities that will take place. The map also does not indicate where the mangroves,</p>	<p>The Noise Impact Assessment map (Figure 6) did not identify on the maps where noise sources were located in respect of</p>	<p>Both the Terrestrial and Underwater Noise Impact Assessments' respective maps identify on the maps where noise sources were located in relation to sensitive receptors and identifies where all of the</p>	<p>Appendix 9 - B2 - Underwater Noise Assessment Appendix 9 – C2 – Terrestrial Noise Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>seagrass and ecologically sensitive areas are in relation to the various construction sites.</p> <p>Page 31 Para 2.26.12.5 The map provided in Figure 5 of thereto, only models and maps out the impact of Karpowership mooring on the immediate surrounds during the operation phase. There is no similar figure or map provided in respect of the construction phase. Figure 5 also does not indicate the location of the noise sensitive areas that are of biological importance. For example, the location of the various mangroves, estuaries, protected areas, CBA, the Richards Bay Nature Reserve, kabeljou flats, in relation to the noise modelled.</p> <p>Page 31 Para 2.26.12.6 The map in Figure 5 also does not indicate all the sources of the noise. There seems to be a single point source, which is the mooring site of the Karpowership. It does not seem to include the transmission lines overhead.</p>	<p>construction and pipeline-laying activities in relation to sensitive receptors nor identify the sensitive receptors on the map.</p>	<p>sensitive receptors are on the respective maps in respect of construction and pipeline-laying activities.</p>	
<p>Page 31 Para 2.26.12.7 When assessing the cumulative impacts, it indicates that the proposed noise impact of Nseleni Floating Independent Power Plant (NFIPP) (which would be in a similar vicinity to the Karpowership project), indicated noise impacts to be of low significance. This is misleading since the environmental impact and estuarine assessments as well as the avifauna! assessments for the NFIPP indicated that the construction and operation of the NFIPP would have significant impacts and would result in a fatal flaw. "It is the noise of the NFIPP that indicated that the noise impact on birds and other sensitive habitats in</p>	<p>The impacts of similar projects, such as the Nseleni project, was not considered for cumulative impacts in the 2021 EIAR.</p>	<p>The impacts of similar projects, such as the Nseleni project, are considered for cumulative impacts in the 2022 EIAR.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – Specialists Studies</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
the area will pose a fatal flaw to the operation. No mitigation has been identified.			
<p>Page 32 Para 2.26.13 Based on the deficiencies outlined above, there is no reason to support the conclusion that Richards Bay Nature Reserve or other ecologically sensitive areas will not be impacted by noise from the proposed Project. This is particularly so in the construction phase.</p>	Underwater Noise Impact Assessment not conducted.	Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted.	Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment
<p>Page 32 Para 2.26.13.1 In addition to Karpowership's own Marine and Estuary Impact Assessments indicating a need for a site-specific sound assessment, an expert report by Michelle Fournet also indicates that site-specific sound modelling is necessary, and is possible under the circumstances. Having looked at the FEIAR, the Specialist Reports (Appendix I) as well as the Technical reports (Appendix J) for all three Karpowership projects at Ngqura, Richards Bay and Saldanha, the expert finds the following:</p>			
<p>Page 32 Para 2.26.13.1.1 Local sound propagation modelling is possible and essential to determine the underwater noise impacts, and that propagation modeling from Ghana is not applicable to another area, due to differences in water depth, temperature, seasonality, bottom substrate, bottom densities and other variables which impact the modelling. Ghana figures are best served as input variables to be included in noise modeling efforts.</p>			
<p>Page 32 Para 2.26.13.1.2 Karpowership (i) failed to complete the necessary research (desk or field) to conduct</p>	Underwater Noise Impact Assessment not conducted.	Underwater Baseline Assessment and Underwater	Chapter 7: Environmental Impact Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
a reasonable environmental assessment of noise impacts in the marine environment; and (ii) failed to propose adequate long term marine noise mitigation.	Long term mitigation measures not proposed.	Noise Impact Assessments were conducted. Long term mitigation measures are provided in the FEIAR and the EMPr.	Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment
Page 32 Para 2.26.13.1.3 The FEIAR failed to address the impact of anthropogenic noise on important prey species. This is significant because the proposed sites are in the near proximity or directly adjacent to Marine Protected Areas (MPAs), National Parks and Critical Biodiversity Areas. Noise may endanger prey species in or enroute to these areas. This could disrupt the base of the food web and may be ecologically significant throughout trophic levels.	Impacts of noise on prey species not considered.	Impacts of noise on prey species are discussed in the Marine Ecology Report and FEIAR.	Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment Appendix 9 – A10 – Avifauna Assessment
Page 32 Para 2.26.13.1.4 The FEIAR failed to adequately describe likely potential sound sources and amplitudes (e.g. vessels, pile driving noise, suction noise, etc.). This is significant because, without this information, the studies were unable to understand noise impacts on important species or ecosystems, including how far sound will travel.	Underwater Noise Impacts Assessment not conducted.	Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted.	Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment
Page 33 Para 2.26.13.1.5 The FEIAR failed to adequately quantify baseline ambient sound levels at any of the three proposed sites. This is significant because marine organisms use sound for navigation, prey detection, and foraging, so alterations made to the baseline natural soundscape will have ecological consequences that may be severe.	Underwater Noise Baseline Assessment not conducted.	Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted.	Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 33 Para 2.26.13.1.6 The FEIAR failed to adequately quantify naturally occurring contributions to the marine soundscape. This is significant because in the absence of known natural ambient noise levels, it is not possible to assess how much the proposed activities will increase ambient noise levels in the soundscape. The naturally occurring baseline is therefore necessary for assessing impacts of proposed noise.</p>	<p>FEIAR did not quantify naturally occurring contributions of noise.</p>	<p>Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted. These assessments included 'naturally occurring contributions'.</p>	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment</p>
<p>Page 33 Para 2.26.13.1.7 The FEIAR failed to adequately model/measure sound propagation in these regions. This is significant because sound propagation may impact protected areas. Quiet biological sounds are used as a cue for foraging megafauna such as odontocetes. Anthropogenic noise at even low levels in these regions may mask biologically relevant sounds associated with predator foraging or larval settlement.</p>	<p>Underwater Noise Baseline Assessment not conducted (and therefore sound propagation modelling not conducted).</p>	<p>Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted. Sound propagation modelling was conducted.</p>	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment</p>
<p>Page 33 Para 2.26.13.1.8 The FEIAR failed to assess the risk associated with permanent soundscape alterations due to permanent changes on the seafloor due to construction activities. This is significant because animals use the soundscape as a cue to inform migration, habitat suitability and settlement (i.e., where juvenile animals select to grow and populate).</p>	<p>Underwater Noise Baseline Assessment does not assess the risk of permanent soundscape alterations.</p>	<p>Underwater Noise Baseline Assessment concludes that this risk is very low.</p>	<p>Appendix 9 - B2 - Underwater Noise Assessment</p>
<p>Page 33 Para 2.26.13.1.9 The FEIAR failed to consider the impact of noise on marine areas outside of the immediate construction range including coastal areas and along vessel routes. This is significant because vessel noise outside of, and adjacent to, the proposed powerhip may</p>	<p>Underwater Noise Baseline Assessment not conducted (and therefore sound propagation and its impacts along the</p>	<p>Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted. Sound propagation modelling was conducted and therefore impacts on marine areas</p>	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
permeate and potentially overwhelm protected areas. Vessel noise has a wide range of negative impacts on marine fauna throughout the food web. These impacts may be ecologically substantial.	wider marine area not considered).	outside the immediate construction area were considered.	Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment
<p>Page 34 Para 2.26.13.1.10 The FEIAR failed to consider the physiological effects of anthropogenic noise on sound sensitive species including marine mammals, invertebrates, and fish. This is significant because the studies failed to consider how biologically critical behaviours that are important both for the fitness of the individual and overall population may be impacted.</p>	Physiological impacts of sound not assessed on marine life.	Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted. These results were used in the Marine Ecology report which analysed the physiological impacts of noise on marine life.	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment</p> <p>Appendix 9 - B2 - Underwater Noise Assessment</p> <p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p>
<p>Page 34 Para 2.26.13.1.11 The FEIAR failed to adequately consider the impact of noise on the behaviour protected or sound sensitive species - including marine mammals. Noise can have significant impacts such as separating cetacean calves from mothers. This is particularly relevant given the recent decline in Southern right whale abundance (including cows and calves) and given that humpback cow-calf pairs utilize this area and may be disturbed by noise.</p>		Impacts on mammals, such as Southern Right Whales and Humpback Wales were included.	
<p>Page 34 Para 2.26.13.1.12 The FEIAR failed to incorporate international Whaling Commission's (IWC) Resolution 2018-4. Resolution on Anthropogenic and Underwater Noise, which requires effective remediation of noise impacts when cost effective solutions are available and states a lack of information is not grounds for ignoring the potential threats of anthropogenic noise.</p>	FEIAR failed to incorporate International Whaling Commission's (IWC) Resolution 2018-4.	FEIAR incorporates International Whaling Commission's (IWC) Resolution 2018-4.	<p>Chapter 4: Policies and Legislative Framework</p> <p>Appendix 9 - B2 - Underwater Noise Assessment</p> <p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p>
<p>Page 34 Para 2.26.13.1.13 The FEIAR failed to consider impact of noise on the ecosystem holistically, including a</p>	Impacts of noise on the marine ecosystem was	Underwater Baseline Assessment and Underwater Noise Impact Assessments	Appendix 9 - B2 - Underwater Noise Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
failure to consider the links between trophic levels (e.g., predator and prey), and links between ecosystems and economics (e.g., commercial fish and fisheries). This is significant because it omits some of the largest, though not immediately obvious, potential and cumulative impacts of noise on this ecosystem and the users who rely on it.	not holistically considered.	were conducted. These results were used in the Marine Ecology report which analysed the physiological impacts of noise on marine life. Impacts between trophic levels were considered.	Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment
Page 34 Para 2.26.13.1.14 The FEIAR failed to incorporate best science into assessment of underwater noise impacts. This is significant because the results of the EIA mitigation efforts are not based on reliable scientific information, and therefore may not adequately protect sensitive ecosystems.	FEIAR failed to incorporate best science.	Best practice standards were used to conduct the Underwater Baseline Assessment and Underwater Noise Impact Assessments. These results were used in the Marine Ecology Report, which was also conducted according to best practice.	Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment
Page 34 Para 2.26.13.1.15 Where the FEIAR indicates that there is minimal impact to noise on sensitive species, or that there are adequate mitigation measures which exist to mitigate the impacts, these findings in fact cannot be supported or relied upon due to the lack of a proper study to substantiate these claims.	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
Page 34 Para 2.26.13.1.16 The lack of research resulting from this exact region on these specific faunal communities is not grounds for ignoring potential noise impacts, rather it is a greater indication of the need for baseline research in this region prior to development, and a need for careful mitigation measures.	Underwater Noise Baseline Assessment not conducted. Mitigation measures proposed therefore unsubstantiated.	Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted. Sound propagation modelling was conducted. Mitigation measures found in the FEIAR and EMP are therefore based on sound research of the area.	Chapter 7: Environmental Impact Assessment Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
			Appendix 6: EMPr
<p>Page 34 Para 2.26.14 Given that there are significant gaps identified in the sound assessment conducted by Karpowership, which may have impacts on the sensitive areas, and mortality rates of various fish and crustaceans, specific to each region, the EA should be refused, as the assessment is not sufficient for decision-making.</p>	Underwater Noise Baseline Assessment and Underwater Noise Impact Assessment not conducted.	Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted. Sound propagation modelling was conducted. Impacts from underwater noise was fed into various other specialist reports and therefore the impacts, both individually, as well the impacts between different levels in the food chains are considered and discussed.	Chapter 7: Environmental Impact Assessment Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 - B2 - Underwater Noise Assessment Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment
<p>Page 34 Para 2.26.15 The rejection of the application for environmental authorisation of a power plant that will contribute significantly to climate change and has potentially significant adverse impacts on the marine environment that have not been fully understood, is entirely justifiable.</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
Summary of comments from Competent Authority			
<p>Page 44 Para 2.28.1 The EA application was assessed holistically. However the following considerations could not be overlooked:</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
<p>Page 44 Para 2.28.1.1 the lack of a qualitative Noise Impact Assessment on megafauna including the Humpback Dolphin: This may have further impacts on socioeconomics for tourism in the region</p>	No qualitative study was conducted on the impacts on the Humpback Dolphin and how this may impact socio-economic activities.	The 2022 EA/r comprehensively assesses the potential impacts of the project on the Humpback Dolphin and how this may impact socio-economic activities.	Chapter 7: Environmental Impact Assessment Appendix 9 - B2 - Underwater Noise Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
			<p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>
<p>Page 44 Para 2.28.1.2 the lack of a qualitative Noise Impact Assessment on swamps and mangrove habitats: this may also have socio- economic implications for tourism, fisheries, and local fishermen, since mangroves and swamps are nurseries for fish and crustaceans</p>	<p>No Underwater Noise Impact Assessment conducted.</p>	<p>Underwater Noise Impact Assessment conducted.</p>	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment</p> <p>Appendix 9 - B2 - Underwater Noise Assessment</p>
<p>Page 44 Para 2.28.1.3 an inadequate Avifauna Impact Assessment to identify all the important birds, and conservation areas such as Richards Bay Nature Reserve, mangroves, and their habitats: this may also impact on tourism and related socio-economic activities;</p>	<p>Avifaunal Report failed to identify all important birds and conservation areas.</p>	<p>Avifaunal Report identifies and considers the impacts of the project on all important birds and conservation areas.</p>	<p>Appendix 9 – A10 – Fauna Assessment</p>
<p>Page 44 Para 2.28.1.4 an inadequate assessment of impacts of thermal water released into the environment: this may impact the food sources for birds, biodiversity related tourism, fishing, and fishing communities;</p>	<p>The 2021 EIAR did not consider how noise and heated water discharge will impact on marine life and species, which will therefore impact the local dependent mariculture and</p>	<p>The 2022 FEIAR and Socio-Economic Report used the information and results from the Underwater Noise Impact Assessment and considered how noise and heated water discharge (results from the Thermal Plume Modelling Report) will impact marine life and species and therefore impact the local dependent</p>	<p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
	aquaculture economies.	mariculture and aquaculture economies.	
Page 44 Para 2.28.1.5 the public participation process conducted by the EAP; and	The PPP was flawed.	The Project has met PPP minimum requirements.	Chapter 5: Public Participation Process Appendix 3: Public Participation
Page 44 Para 2.28.1.6 the EIA process as a whole,	No direct issue identified to be addressed.	No direct issue identified to be addressed. EIA process complied with and exceeded the minimum requirements.	No direct issue identified to be addressed.
Page 38 Para 2.28.2 In light thereof, the EIAR dated April 2021 was not a sufficient, adequate and a reliable report upon which to make a decision. Thus, the EA application was refused as the minimum requirements were not met, and the impacts could not be properly evaluated due to lack of information or contradictory information.	No direct issue to address.	No direct issue to address.	No direct issue to address.
Ministerial Evaluation (Reasons for Decision)			
Page 44 Para 2.29 In an application for EA for the proposed activities, a holistic assessment of the FEIAR requires the identification, prediction and evaluation of the actual and potential risks for, and impacts on the geographical, physical, biological, social, economic and cultural aspects of the environment, in order to find the alternatives and options that best avoid negative impacts altogether, or where negative impacts cannot be avoided, to	Holistic assessment must be used as the approach for the EIA process.	A holistic assessment was used as the guiding approach for the EIA process. This was particularly noted in various sections of the EIAR.	Chapter 7: Environmental Impact Assessment Chapter 8: Motivation, Need and Desirability Appendix 8.4 – Sustainability Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>minimise and manage negative impacts to acceptable levels, while optimising positive impacts, to ensure that ecological sustainable development and justifiable social and economic development outcomes are achieved.</p>			
<p>Page 45 Para 2.30 As I have stated under the heading "The strategic nature of the Project from a need and desirability perspective" herein above, the ultimate aim of the fundamental rights in the Constitution is not the conservation or protection of the environment for the sake of the environment itself, but the aim thereof is the responsible and sustainable utilisation of natural resources for the sake of satisfying the needs of humans. I have the constitutional and legal obligation not to allow a preventable state of affairs in an environment that may potentially or actually harm the health or well-being, in a wide sense, of another person or persons. The holistic consideration of the proposed Project requires the polycentric consideration of all relevant factors, inclusive of the impact that the proposed Project could have on the much broader community of Ngqura, some of whom are reliant on small-scale fishing, and of the impact upon their livelihoods due to damage to fishing resources as a result of continuous and significant underwater noise and thermal plume for 24 hours per day for 20 years, near to the breeding grounds of threatened fish species.</p>	<p>Need and desirability of project must be viewed in context of Minister's obligation to not allow a preventable state of affairs in an environment that may potentially or actually cause harm or well-being.</p>	<p>No direct issue raised to be answered. Need and desirability was holistically assessed with environmental issues considered.</p>	<p>No direct issue raised to be answered.</p>
<p>Page 45 Para 2.31 The proposed actions of individuals must be measured against the short-term and long-term public interest, to promote justifiable</p>	<p>Short-term versus long-term impacts and benefits must be considered when</p>	<p>Short term and long term impacts are fully discussed in the EIAr. Such impacts span different areas of</p>	<p>Chapter 7: Environmental Impact Assessment Appendix 9 – Specialists Studies</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
social and economic development and to ensure the simultaneous achievement of the triple bottom-line. Also, the socio-economic merits of a specific application must be decided based on which alternatives represent the "most practicable environmental option", which in terms of the definition in NEMA and the purpose of the 2014 EIA Regulations, is the option that provides the most benefits 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.	viewing the need and desirability of the project.	environmental, social and economic impacts, both negative and positive impacts.	
<p>Page 45 Para 2.32</p> <p>Considering that the two (2) Powerships and related infrastructure will be operational for 16 hours per day (as anticipated in the FEIAR at page 173, while the FEIAR states at page 218 and 327 that noise modelling was conducted on the assumption that the proposed Project will be operating 24 hours per day and 7 days per week) for the 20-year duration of the proposed Project, even the so-called "micro-environmental issues" that Karpowership refers to, may impact upon the socio-economic status of the area of the proposed activities. For this very reason, "the voices of the local communities" must be heard, and the concerns raised by such communities or individuals need to be addressed in the identification, prediction and evaluation of the actual and potential risks for, and impacts on all of the geographical, physical, biological, social, economic and cultural aspects of the environment.</p>	Voices of the local communities must be heard. Implication that this was not done.	<p>Public participation held in the wider Richards Bay region was designed to ensure as many people were alerted to the processes and that they had the opportunity to raise their concerns about environmental and economic issues.</p> <p>A focus group was held with SSFs in October 2022, with the purpose of ensuring a vital stakeholder group was properly consulted.</p>	<p>Chapter 5: Public Participation Process</p> <p>Appendix 3: Public Participation</p> <p>Appendix 9 – D1.1 – Small Scale Fishers Engagements</p>
Page 46 Para 2.33	No direct issue to address.	No direct issue to address.	No direct issue to address.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>In evaluating this ground of appeal, I considered that the CA, on 11 March 2021, in their comments on the Draft EIAR, advised Karpowership of the information that must be included in the FEIAR, inclusive of the following:</p>			
<p>Page 46 Para 2.33.1 All specialist studies must be final and provide detailed/practical mitigation measures for the preferred alternative and recommendations and must not recommend further studies to be completed post EA (at page 2 paragraph (a)(viii) and at page 3 paragraph (e)(i)(e) thereof).</p>	<p>All specialist studies must be final and provide detailed/practical mitigation measures for the preferred alternative and recommendations and must not recommend further studies.</p>	<p>All specialist studies are final and have not be substantially amended.</p> <p>No specialist studies recommend further studies (this does not include the recommendation for ongoing <i>monitoring</i>).</p>	<p>Appendix 9 – Specialists Studies</p>
<p>Page 46 Para 2.33.2 Ensure that all issues raised, and comments received during the circulation of the Draft EIAR from registered I&APs and organs of state that have jurisdiction in respect of the proposed activity are adequately addressed in the FEIAR (at page 2 paragraph (c)(v) thereof).</p>	<p>All issues raised by all IA&Ps and other organs of state must be adequately addressed.</p>	<p>All issues raised by all IA&Ps and other organs of state are comprehensively addressed.</p>	<p>Appendix 3.12: Comments and Responses Report</p>
<p>Page 46 Para 2.33.3 The PPP must be conducted in terms of regulations 39, 40, 41, 42, 43 and 44 of the 2014 E FA Regulations (at page 3 paragraph (c)(ix) thereof).</p>	<p>Inference that PPP was not conducted in accordance with the minimum requirements.</p>	<p>The PPP was conducted in terms of regulations 39, 40, 41, 42, 43 and 44 of the 2014 EIA Regulations</p>	<p>Chapter 5: Public Participation Process</p> <p>Appendix 3: Public Participation</p>
<p>Page 46 Para 2.33.4 Should the appointed specialists specify contradicting recommendations, the EAP must clearly indicate the most reasonable recommendation and substantiate this with defensible reasons; and where necessary, include further expert advice (at page 3 paragraph (e)(ii) thereof).</p>	<p>In the instance that contradictory recommendations are given by specialists, the EAP must clearly indicate the most reasonable course of action to be followed.</p>	<p>To ensure a polycentric approach was followed and ensure that no one factor dominated the results or literature of the EIAR, all of the specialist reports were created and/or updated with access to all other specialist reports and results.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8.4 – Sustainability Assessment</p> <p>Appendix 9 – Specialists Studies</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
		Therefore, there are no contradictory recommendations from any of the specialists.	
<p>Page 46 Para 2.33.5 Should there be any other similar projects within a 30 km radius of the proposed development site, the cumulative impact assessment for all identified and assessed impacts must be refined to indicate the following (at page 4 paragraph (f) (i) (a) to (d) thereof):</p>	<p>Similar projects (of gas-to-power) projects within a 30 km radius, must be considered when evaluating cumulative impacts.</p>	<p>Where possible, cumulative impacts of other gas-to-power projects (current and potential projects) were included in all specialist reports.</p> <p>In the instance where information was not available (for example, where the EIA for a proposed project was not complete), specialists noted this.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – Specialists Studies</p>
<p>Page 46 Para 2.33.5.1 identified cumulative impacts must be clearly defined and, where possible, the size of the identified impact must be quantified and indicated, i.e. hectares of cumulatively transformed land.</p>			
<p>Page 46 Para 2.33.5.2 Detailed process flow and proof must be provided, to indicate how the specialists recommendations, mitigation measures and conclusions from the various similar developments in the area were taken into consideration in the assessment of cumulative impacts and when the conclusion and mitigation measures were drafted for the project.</p>	<p>Creation of process flow how specialist mitigation measures and recommendations and cumulative impacts must be included in EIAR.</p>	<p>Process flow how specialist mitigation measures and recommendations and cumulative impacts are included in EIAR.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – Specialists Studies</p>
<p>Page 47 Para 2.33.5.3 The cumulative impacts significance rating must also inform the need and desirability of the proposed development.</p>	<p>A cumulative impact assessment rating and cumulative impact environmental statement must be included in the EIAR.</p>	<p>A cumulative impact assessment rating and cumulative impact environmental statement are included in the EIAR.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – Specialists Studies</p>
<p>Page 47 Para 2.33.5.4 A cumulative impact environmental statement on whether the proposed development must proceed.</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 47 Para 2.33.5.5 Should there be significant changes or new information that were added to the EIAr or EMPr, or information that was not contained in the reports or plans consulted on during the initial PPP, regulation 23(1)(b) of the 2014 EIA Regulations must be complied with (at page 5 thereof).</p>	<p>If there is significant new information in the FEIAr from the DEIAr, this must be subject to a further 30 days of PPP.</p>	<p>There is no new significant information in the FEIAr from the DEIAr of 2022 and therefore no additional 30 days of PPP is required.</p>	<p>Final EIA Report and Final EMPr. Any changes are marked in blue text.</p>
<p>Page 47 Para 2.34 Although I do not address each of these requirements under this specific heading, my evaluation under each of the headings herein, indicates that the FEIAr did not include all of these requirements.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>
<p>Page 47 Para 2.35 In considering this ground of appeal, I also took heed of the following:</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>
<p>Page 47 Para 2.35.1 The Socio-Economic Impact Assessment of the Project is addressed in Appendix I15 to the FEIAr.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>
<p>Page 47 Para 2.35.2 Consultation regarding the small-scale fishing community is addressed in Annexure 3 to the Socio-Economic Impact Assessment (Appendix 115, page 80).</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>
<p>Page 47 Para 2.35.3 Paragraph 7.5.6 (Table 7-2, on pages 164 to 167 of the FEIAr), amongst others, seem to be inserted after the public participation process on the Draft EIAr was completed. This paragraph contains the concerns raised by I&APs during the draft EIA phase, inclusive of the EAP's responses thereto. In this regard, the FEIAr still indicates that future engagements in respect of job opportunities are anticipated for inclusion in Karpowership's</p>	<p>The FEIAr of 2021 indicated that certain PPP information of engagements was included in the FEIAr, but was not included in the DEIAr for public comment. Further, the FEIAr mentions future</p>	<p>The DEIAr and FEIAr include information pertaining to the focus group meeting with SSFs held in October 2022. Ongoing engagements, which were noted in the DEIAr ensure ongoing relationships with all <i>local community groups and councils</i>, to ensure that all economic-development</p>	<p>Chapter 5: Public Participation Process Appendix 9 – D1 – Socio-Economic Impact Assessment Appendix 9 – D1.1 – Small Scale Fishers Engagements</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
comprehensive economic development plan, which plan is still contemplated for the future.	engagements only after commencement of the project.	plans and results from ongoing environmental monitoring can be provided to all stakeholders on a regular basis.	
<p>Page 47 Para 2.36 Neither the socio-economic needs nor procurement considerations can elevate the recommendation in a Socio-Economic Impact Assessment report above the holistic consideration of the actual and potential risks for, and impacts on the geographical, physical, biological, social, economic, and cultural aspects of the environment.</p>	Energy benefits and procurement considerations do not override environmental considerations.	Need and Desirability, in terms of balancing the benefits of the projects versus negative consequences of the project (spanning a range of environmental impacts, socio-economic impacts, climate change impacts, Etc) are addressed in the FEIAr.	<p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p>
<p>Page 48 Para 2.37 My holistic consideration of the grounds of appeal pertaining to this topic, as well as my de novo holistic consideration of the application for EA, requires reference to some of the reports submitted with the FEIAr. I turn now to deal with these reports.</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
<i>The Socio-Economic Impact Assessment Report</i>			
<p>Page 48 Para 2.37.1 The Socio-Economic Impact Assessment report (Appendix 115) noted in paragraph 3.5.2 on page 37 thereof, that there are two groups of potentially affected communities: the recreational and livelihood fishing and small crafts community, and the tourism node surrounding Alkanstrand and Naval Island</p>	<p>A skewed view of positive local impacts is provided in the report.</p> <p>Negative socio-economic impacts are not sufficiently addressed, such as impacts of influx of job-seekers, added strain on surrounding infrastructure to accommodate the influx.</p>	<p>The Socio-Economic Impact Assessment reviews and discusses the impact of negative socio-economic impacts in the local Coega area.</p> <p>Full employment opportunities are provided in the EIAr, both temporary and permanent jobs.</p> <p>Further, Karpowership will be investing in extensive social-upliftment and skills-</p>	<p>Section 2.3.10 – Socio Economic Commitments</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 48 Para 2.37.2 The recreational and livelihood fishers, referred to as "small fishermen", fish out of the Richards Bay Port and due to the size of their fishing boats, stay close to shore (within 5 miles of the coastline) to secure their catches. Similarly, there is a small crafts harbour mostly used for smaller fishing vessels and the yachting community. It is recorded that engagements with the small-scale community established that there is no fishing taking place within the harbour itself, but recreational fishing does take place at the harbour mouth some 4 km away from where the FSRU will be moored. All stakeholders who were consulted indicated that it is highly unlikely that the operations will have any impact on the fishing community (see pages 37 to 38 thereof).</p>	<p>Employment opportunities from the construction of the project are only temporary and therefore most jobs created are not permanent.</p> <p>Only a minority of the jobs created are reserved for people from the local communities.</p> <p>Socio-impact assessment report does not speak to the fact that most of the labour for the project will initially be brought in and how this interplays with reduced fish yields for SSFs.</p>	<p>development programmes to upskill not only its own employees, but also those not in its supply chain.</p> <p>The Socio-Economic report addresses labour and skills development programmes, as well as investment programmes from Karpowership which therefore will assist with <i>potential</i> job losses from lower fish stocks as a result of the powership project (if this does in fact happen).</p>	
<p>Page 48 Para 2.37.3 In respect of the tourism industry, it is noted that the powerships and FSRU are to be semi-permanently moored for 20 years in the same location in the protected waters deep within the Port of Richards Bay, which is some 3 kilometres from the Tourism Precinct area. The recreational activities are all positioned towards the Port entrance and will be unaffected by the powerships. Furthermore, all current recreational and tourist activities are already in an area utilised by operating ships and as such it is unlikely that the powerships will have a significant lasting impact on these activities (Appendix 115 on page 38 to 39).</p>	<p>The Socio-Economic Impact Assessment does not address the balancing of other negative impacts, such as loss of sense of place and that temporary job creation is not sustainable.</p>		

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 48 Para 2.38 The Socio-Economic Impact Assessment report also states the following:</p>	<p>In essence, the Socio-Economic Impact Assessment provides an imbalanced view of negative and positive impacts from the project at a local scale.</p>		
<p>Page 48 Para 2.38.1 Under the heading (e) 'Temporary increase in employment in the national and local economy', the following <i>"The proposed Powerships and their related infrastructure are anticipated to directly create approximately 180 Full Time Equivalent (FTE) employment positions over the course of the construction phase"</i> (on page 49). It is then recommended that the developer encourage the contractor to fill as many positions as possible using labour within uMhlathuze Local Municipality.</p>			
<p>Page 49 Para 2.38.2 Contrary thereto, it is stated under the heading <i>"Temporary increase in household earnings"</i>, that: <i>"The proposed Powerships and their associated infrastructure development will create a <u>total of 1 001 FTE employment positions during construction</u>"</i> (page 51).</p>			
<p>Page 49 Para 2.38.3 <i>"The positive effects generated by the project will not entirely offset all the negative impacts. These include impacts on the sense of place, and economic infrastructure that could occur during both construction and operational phases. These impacts though will affect local communities either temporarily or over the long term. These impacts are not highly significant and can be traded off for the net positive impact created by the project in</i></p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p><i>terms of production, employment, government revenue, community benefits and households' earnings." (Paragraph 6.2.4 on page 68 and 73)</i></p>			
<p>Page 49 Para 2.38.4 <i>Contrary thereto, paragraph 6.3 on page 67 states: "Based on the information presented in this report, it is evident that the net positive impacts associated with the development and operation of the proposed Powerships and their associated infrastructure are expected to outweigh the net negative effects. The project is envisaged to have a positive stimulus on the local economy and employment creation, leading to the economy's diversification and a small reduction in the unemployment rate. The project should therefore be considered for development"</i></p>			
<p>Page 49 Para 2.38.5 <i>During the construction phase: "Aside from the positive impacts though, the project will be creating negative direct, secondary, and cumulative impacts on the local communities, specifically areas surrounding the site where the proposed facility is to be built. The main factors that will cause this negative impact are (1) the influx of workers and job seekers from outside of the local community, (2) the impact on the surrounding economic and social infrastructure and (3) the limited visual and noise disturbances that could be created by the construction activities as the footprint of the facility grows.: (page 70) and "Potential negative impacts can largely be mitigated, and their significance reduced. The minimal visual impacts anticipated, however, cannot be fully</i></p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p><i>eliminated although it is also possible to reduce their significance."</i></p>			
<p>Page 50 Para 2.38.6 <i>During the operational phase: "Negative impacts include the potential changes in the sense of place, These potential losses, if they do occur, are likely to be small, given the industrial nature of the proposed development area. " and "... negative effects can be mitigated (although not entirely eradicated), and positive impacts enhanced." (page 71).</i></p>			
<p>Page 50 Para 2.38.7 In the conclusion (with emphasis added): "it should, however, be acknowledged some negative impacts may arise and that these will largely be borne by households in proximity to the development. The industrial nature of the surrounding area and limited number of such households within close proximity to the development will help to notably reduce this impact. Equally it needs to be noted that many of the positive impacts will be concentrated in the local and national economies. creating a potential imbalance with the potential negative impacts that would exclusive! be concentrated at a local level." (paragraph 6.3 on pages 73 to 74)</p>			
<p>Page 50 Para 2.39 I am therefore of the view that the Socio-Economic Impact Assessment did not include an analysis of the actual and potential risks and impacts, based on the following:.</p>			
<p>Page 50 Para 2.39.1 Local fishermen expressed their concerns about the impact of the Project on the fish, and</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
fishermen, given that fishing is their only form of livelihood.			
<p>Page 50 Para 2.39.2 Moreover, they expressed a sense of loss of place due to the visual impact that the powerships will bring as well as possible impacts on fishing and livelihoods.</p>			
<p>Page 50 Para 2.39.3 The socio-economic assessment did not assess all the sensitivities on fish and marine life in the area.</p>			
The Marine Ecological Study			
<p>Page 50 Para 2.40 The Marine Ecological Assessment (Appendix 110) records on page 7 thereof, that the greater Richards Bay area provides many ecosystem services to society, most of which fall under socio-economic topics, and some are directly dependent on ecosystem health and functionality. These ecosystem services to society include the following:</p>	<p>The Marine Ecology Report did not sufficiently consider socio-economic impacts of the project on</p> <ul style="list-style-type: none"> - fisheries - the provision of firewood and building materials - the carbon sequestration capabilities of the phytoplankton within the Bay - protection capabilities of the bay from severe weather patterns - ecotourism - nursery functions of the area which are commercially important 	<p>The FEIAR comprehensively discusses socio-economic impacts of the project on</p> <ul style="list-style-type: none"> - fisheries - the provision of firewood and building materials - the carbon sequestration capabilities of the phytoplankton within the Bay - protection capabilities of the bay from severe weather patterns - ecotourism - nursery functions of the area which are commercially important - commercial and recreational water transportation services 	<p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>
<p>Page 51 Para 2.40.1 Fisheries, mainly recreational and subsistence, but commercial fishing occurs on the adjacent continental shelf.</p>			
<p>Page 51 Para 2.40.2 Raw materials for firewood and building from plant resources.</p>			
<p>Page 51 Para 2.40.3 Carbon sequestration by, for example, phytoplankton and mangroves within the estuary and Port area.</p>			
<p>Page 51 Para 2.40.4 Protection from extreme sea conditions and large swells provided mainly by the mangrove stands, and regulation of water flows from, for example, Stormwater runoff.</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 51 Para 2.40.5 Ecotourism and recreation provided by the Richards Bay Nature Reserve and the surrounding beaches and water body. The sea and estuary areas are also used for various ceremonies by residents in the area.</p>	<p>- commercial and recreational water transportation services</p>		
<p>Page 51 Para 2.40.6 Nutrient cycling, in which mangroves play an important role and which allows for primary production.</p>			
<p>Page 51 Para 2.40.7 Nursery areas, refuge areas and food sources for numerous marine biota, some of which are commercially important.</p>			
<p>Page 51 Para 2.40.8 River flow, which supports some species through, inter alia, the transmittal of olfactory cues to the offshore region.</p>			
<p>Page 51 Para 2.40.9 Effluent disposal and intake waters used for various industrial applications such as cooling, desalination, and processing.</p>			
<p>Page 51 Para 2.40.10 Commercial transport, which is significant as Richards Bay hosts several large commercial terminals.</p>			
<p>Page 51 Para 2.41 Even though these ecosystem services to society admittedly fall under socio-economic topics, the potential impact thereon was not assessed as part of the Socio-Economic Assessment.</p>			
<p>Page 51 Para 2.42 The study area and scale of the Marine Ecological Assessment records that disturbance to the seabed during pipeline installation and burial, the discharge of heated</p>	<p>Actual and potential environmental impacts not assessed because underwater noise</p>	<p>Underwater Noise Impact Assessment conducted. Information incorporated into all other specialist reports.</p>	<p>Appendix 9 – B2 – Underwater Noise Assessment Appendix 9 – Specialists Studies</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
cooling water and the generation of underwater noise, are considered to be the most important sources of disturbance to the marine environment (paragraph 1.2.1 on page 5).	impact assessment not conducted.		
<p>Page 52 Para 2.43 According to the Marine Ecological Assessment, the Port of Richards Bay's important habitats include the mangroves, intertidal and shallow subtidal mud and sand flats, the subtidal benthic zone, and the water body itself.</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
<p>Page 52 Para 2.44 The Intertidal and Shallow Subtidal Habitats include the mangroves, characterised by high productivity, supporting large numbers of invertebrate and fish species, multiple salt marshes that add to the region's ecological integrity, well established seagrass beds (<i>Zostera capensis</i>) which are extensively used by fauna and play an important role in estuarine ecosystem functioning, mudflats that support a high diversity and abundance of macrobenthos and serve as an important nursery ground for fish, and sandflats that are considered an important nursery ground for juvenile fish and serve as a habitat for birds (paragraph 2.5.1 on page 16 to 17).</p>	<p>The Marine Ecology Study did not consider the importance of:</p> <ul style="list-style-type: none"> - Intertidal and Shallow Subtidal Habitats include the mangroves - multiple salt marshes - seagrass beds - mudflats - sandflats - the benthic macrofauna assemblage - commercial fishing impacts 	<p>The Marine Ecology Study extensively assesses the importance and impacts on:</p> <ul style="list-style-type: none"> - Intertidal and Shallow Subtidal Habitats include the mangroves - multiple salt marshes - seagrass beds - mudflats - sandflats - the benthic macrofauna assemblage - commercial fishing impacts 	Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment
<p>Page 52 Para 2.45 The benthic macrofauna assemblage within the Port of Richards Bay include macrofaunal densities in the mudflats to the south-west of the proposed powership and FSRU site, polychaete worms primarily dominate the community in the proposed development area, several larger crustacean species and penaeid prawns - an essential component of</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
the bait, and commercial fishery and the Port and Umhlathuze Estuary acts as an important nursery ground for these species (paragraph 2.5.2 on page 17 to 19).			
<p>Page 52 Para 2.46 Being an estuarine system, the undeveloped, shallower sections of the Richards Bay Port function as an important nursery ground for many fish species. In most studies conducted, most fish sampled were juveniles occurring within the intertidal and shallow subtidal zones, demonstrating the importance of this habitat. Several shark and ray species have also been recorded to occur in the Port, including bull shark, blacktip shark, dusky shark, milkshark, giant guitarfish, sharpnose stingray and honeycomb stingray (paragraph 2.5.4 on page 21 to 23).</p>	<p>The Marine Ecology Report did not consider the impact on:</p> <ul style="list-style-type: none"> - bull shark, - blacktip shark, - dusky shark, - milkshark, - giant guitarfish, - sharpnose - stingray and - honeycomb stingray 	<p>The Marine Ecology Report assesses the impacts on:</p> <ul style="list-style-type: none"> - bull shark, - blacktip shark, - dusky shark, - milkshark, - giant guitarfish, - sharpnose - stingray and - honeycomb stingray 	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 52 Para 2.47 The Richards Bay area is a preferred habitat of the Indo-Pacific humpback dolphin, the species occurs within the Port and feeds in the entrance channel. Based on species distributions, several other dolphin species may occur in the Port's vicinity as well, while whales, including humpback whales and southern right whales, generally occur further offshore. Five turtle species occur on the east coast of South Africa. Important loggerhead and leatherback nesting sites occur along the sandy beaches north of the Port of Richards Bay.</p>	<p>The Marine Ecology Report did not consider the impact on:</p> <ul style="list-style-type: none"> - humpback whales - southern right whales - various turtle species 	<p>The Marine Ecology Report assesses the impacts on:</p> <ul style="list-style-type: none"> - humpback whales - southern right whales - various turtle species 	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 53 Para 2.48 Several fish and megafauna that are known to occur within or near the Port are also listed as being threatened by the IUCN Red List (IUCN, 2020). The dusky kob and dusky shark are</p>	<p>The Marine Ecology Report did not consider the impact on endangered species such as:</p>	<p>The Marine Ecology Report assesses the impacts on endangered species such as:</p> <ul style="list-style-type: none"> - Dusky kob - Dusky shark 	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Endangered, as is the Indian Ocean humpback dolphin. Several species are Vulnerable, and bonefish, catface rockcod, bronze bream, bull shark and blacktip shark are listed as being Near Threatened. Several seabirds in the area are also threatened. (paragraph 2.6 on page 23)	<ul style="list-style-type: none"> - Dusky cob - Dusky shark - Bonefish - Catface - Rock cod - Bronze bream - Bull shark - Blacktip shark. 	<ul style="list-style-type: none"> - Bonefish - Catface - Rock cod - Bronze bream - Bull shark - Blacktip shark. 	
Page 53 Para 2.49 The impacts identified in the Marine Ecological Assessment include the following:	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
Page 53 Para 2.49.1 Gas pipeline construction and installation will disturb approximately 17 000 m2 of benthic habitat within the site-specific area of about 78.5 ha. This will result in the modification of approximately 2.1% of the benthic community structure on site. Following installation, sessile organisms should colonise hard surfaces causing a minor increase in benthos biodiversity in the project area and resulting in restored ecological function. No mitigation measures are proposed but contractors laying the pipeline and anchors should minimise the area of seabed disturbed (paragraph 3.4.1 on page 27 to 29).	The impacts of the construction of the pipeline on the benthic habitats. The EIAr did not propose mitigation measures.	The 2022 EIAr comprehensively considers and assesses the construction of the pipeline on the benthic habitats. The EIAr and EMPr propose mitigation measures.	Chapter 7: Environmental Impact Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment Appendix 6 - EMPr
Page 53 Para 2.49.2 Seawater abstracted simultaneously by the two (2) powerships will entrain small marine organisms such as holoplankton, meroplankton and ichthyoplankton from the surrounding water body condenser cooling systems. This will be coupled with the impingement or trapping of larger organisms against the screens used to prevent debris	The FEIAr did not indicate what mitigation measures are included to prevent the abstraction of a variety of species, ranging from micro-organisms to larger level predators.	The FEIAr provides what mitigation measures are in place to prevent abstraction to marine life. FEIAr further addresses how marine life may be impacted by the discharge of heated water including on surrounding	Chapter 7: Environmental Impact Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>from being drawn into the cooling water intake. As entrained organisms pass through the pumps, they are exposed to collective changes in hydrostatic pressure, shear forces, accelerative forces from changes in velocity and direction, and mechanical buffeting and collision against the pump mechanisms' hard surfaces. These can cause physical damage to marine organisms, especially larger, more fragile species, resulting in death or incapacitation, the latter reducing their ability to escape predators post-discharge. Furthermore, the abstracted seawater receives excess heat and increases in temperature through the cooling process, inducing thermal stress on entrained organisms. Temperatures of the cooling water can be expected to increase by 15°C (AT) whilst in the system. Rapid temperature increases above ambient conditions can affect marine organisms' survival, growth, metabolism, morphology, reproduction, and behaviour (paragraph 3.4.2 on page 30).</p>	<p>FEIAr does not adequately address issues associated with heated water, including on surrounding biota, sensitive receptors and larger species.</p>	<p>biota, sensitive receptors and larger species.</p> <p>FEIAr identifies the range of which a change in water temperature will be experienced through the thermal plume and therefore, if (and how) the change in water impacts sensitive areas further away.</p>	
<p>Page 54 Para 2.49.3 The seawater abstraction process also affects other, generally larger, marine organisms such as juvenile fish through impingement on the intake pipes' screens. Notable organisms that can be impinged include juvenile fish, several shark species and several species of cetaceans.</p>			
<p>Page 54 Para 2.49.4 The discharge of warmed cooling water into the surrounding water body causes temperature changes which in turn generates chronic level effects on biota. These include alterations in the growth, metabolism,</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>respiration patterns and reproduction of marine organisms/ life, and/or influence ecosystem-level processes such as alterations in the amount of oxygen dissolved in seawater, which can be detrimental to marine life. The sensitive receptors comprise the 'resident biota', including mangrove communities, seagrass beds, benthos on the sand and mudflats, fish larvae, and juvenile fish in the water column, Mudflats and sandflats support a high biological diversity level and are considered an important nursery ground for juvenile fish. Each year millions of larval and juvenile marine fish migrate into the Port of Richards Bay to use it as a sheltered, food-rich nursery area (paragraph 3.4.3 on page 33).</p>			
<p>Page 54 Para 2.49.5 The proposed FPP facility in the Port of Richards Bay is surrounded by essential habitats such as the mangroves, seagrass beds, intertidal and shallow subtidal mud and sand flats, the subtidal benthic zone and the water body itself. These areas could be impacted by the surface noise and the underwater noise from the vessel operations. Underwater noise from human activities is known to have a number of adverse effects on individual aquatic organisms. Effects may arise from exposure to brief high-level sounds and may include death, injury, permanent or temporary hearing impairment or those behavioural responses that may disrupt important life functions. With longer exposures, chronic effects may occur, including developmental deficiencies and physiological stress which may affect life functions including individual health and</p>	<p>Underwater Noise Baseline Assessment and Underwater Noise Impact Assessment not conducted.</p>	<p>Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted. Sound propagation modelling was conducted.</p> <p>Impacts from underwater noise was fed into various other specialist reports and therefore the impacts, both individually, as well the impacts between different levels in the food chains are considered and discussed.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>fitness foraging efficiency, avoidance of predation, swimming energetics and reproductive behaviour (see paragraph 3.4.4 on page 41 to 42).</p>			
<p>Page 54 Para 2.49.6 The sensitive receptors to underwater noise within the Port of Richards Bay are fish and marine mammals. To a certain extent, benthic invertebrates may also be impacted by underwater noise and vibration, however evidence is limited. Richards Bay functions as an essential nursery area for many fish species due to its sheltered and food-rich waters. Aggregations of juveniles are present in the area during key recruitment periods (August to November). Juveniles are considered more sensitive to noise disturbances as they are less mobile, while adult fish can move out of affected areas.</p>			
<p>Page 54 Para 2.49.6 Other important receptors in the area are the various seabird species. Penguins show avoidance responses at approximately 110 dB, cormorants have an underwater hearing threshold of 71 dB at 2 kHz and the underwater hearing threshold of northern gannets is 101 dB at 1 kHz and 90 dB at 2 kHz (paragraph 3.4.4 on page 42).</p>			
<p>Page 55 Para 2.49.6 A better understanding of the underwater noise climate in the Port of Richards Bay is required to place the noise generated by the powership in context (paragraph 3.4.4 on page 43).</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 55 Para 2.49.6 The Marine Ecological Assessment concludes that there is not enough information about underwater noise and vibration levels from the FPP ships in the context of the Port of Richards Bay to conduct an assessment. Therefore, general sound levels from commercial vessels and from a powership moored in another location are presented, as are the biological thresholds of sensitive receptors. A quantitative underwater noise assessment is recommended to comprehensively assess the impact on the marine ecology (paragraph 4 on page 43).</p>	<p>Underwater Noise Baseline Assessment and Underwater Noise Impact Assessment not conducted.</p>	<p>Underwater Baseline Assessment and Underwater Noise Impact Assessments were conducted. Sound propagation modelling was conducted.</p> <p>Impacts from underwater noise was fed into various other specialist reports and therefore the impacts, both individually, as well the impacts between different levels in the food chains are considered and discussed.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
Avifaunal Impact Assessment			
<p>Page 55 Para 2.51 The "Independent Review of the Avifauna! Assessment of the Proposed Gas to Power Project Karpower Project, Richards Bay, KwaZulu-Nataf" dated 23-25 April 2021 could not agree that the Project should go ahead. The peer review that was conducted therefore contradicts the findings of the original assessment, and no new assessment was done in this regard, to provide a firm position on the proposed development.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 55 Para 2.52 The said peer review indicated, amongst other findings, that:</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 56 Para 2.52.1 while the original study mentions a number of times that the sandpit and Kabeljous flats areas in the harbour area have been identified as very sensitive habitat for water-associated birds, and waders in particular, and are</p>	<p>The Avifaunal Report did not sufficient address the importance of:</p> <ul style="list-style-type: none"> - The Sandspit 	<p>The Avifaunal Report comprehensively addresses the importance of:</p> <ul style="list-style-type: none"> - The Sandspit - The Kabeljoul flats 	<p>Appendix 9 – A10 – Avifauna Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>irreplaceable, there has not been enough emphasis on these two areas, especially the Kabeljou flats, which are basically an extension of the Richards Bay Game Reserve and act as a buffer zone to the Protected Area. Any downsizing, or loss, of the Kabeljou flats could have a devastating effect on the Richards Bay Game Reserve, South Africa, as signatory to the Bonn Convention and the African Eurasian Waterbird Treaty, would be remiss to allow this to happen; and</p>	<ul style="list-style-type: none"> - The Kabeljou flats - The Richards Bay Game Reserve 	<ul style="list-style-type: none"> - The Richards Bay Game Reserve 	
<p>Page 56 Para 2.52.1 not considering the thermal heating of water as a potential threat to food resources and the risk of pollution from the ships, e.g. oil, ruptured undersea pipes, etc, is likely to have large negative effects on the food sources and thus on the birds.</p>	<p>The Avifaunal Report did not sufficient address the impact of the thermal plume on birdlife.</p>	<p>The Avifaunal Report and the Marine Ecology Assessment comprehensively addresses the impact of the thermal plume on birdlife.</p>	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p> <p>Appendix 9 – A10 – Avifauna Assessment</p>
Noise Impact Assessment			
<p>Page 56 Para 2.53 The Noise Impact Assessment (Appendix 116) was conducted by Safetech and it only deals with terrestrial noise (paragraph 5 on page 18). However, with regards to the underwater noise impacts (paragraph 7.7 on page 26), this assessment acknowledges the following:</p>	<p>Underwater sound impacts on marine environment were not assessed in the FEIAR.</p>	<p>Underwater sound impacts on the marine environment are assessed in the Underwater Baseline Assessment are conducted and the results of these reports are incorporated and therefore inform the Marine Ecology Report</p>	<p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 56 Para 2.53.1 In marine environments sound is important to animals as it is used for a variety of purposes such as communication, navigation, orientation, feeding and the detection of predators. The limitation of vision, touch, taste, and smell in water means that sound is critical due to its physical properties for example, speed of transmission and this an</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
important sensory medium for marine animals.			
<p>Page 56 Para 2.53.2 Marine mammals use sound as a primary means for underwater communication and sensing. They emit sound to communicate regarding the presence of danger, food, a conspecific or other animal, and also about their own position, identity, and reproductive or territorial status. Underwater sound is especially important for odontocete cetaceans that have developed sophisticated echolocation systems to detect, localise and characterise underwater objects, for example, in relation to coordinated movement between conspecifics and feeding behaviour.</p>			
<p>Page 56 Para 2.53.3 Anthropogenic changes to the acoustic environment include increases in the number of high intensity noise events and chronically elevated and homogenised background sound levels. Any increase in anthropogenic noise could thus have significant effects on the environment in an ecologically sensitive area.</p>	Anthropogenic changes to the acoustic environment were not fully assessed in the EIAr.	Underwater sound impacts on Anthropogenic changes to the acoustic environment are assessed in the Underwater Baseline Assessment and the results of these reports are incorporated and therefore inform the Marine Ecology Report.	Appendix 9 – B2 – Underwater Noise Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment
<p>Page 57 Para 2.54 The underwater noise that could be generated by the proposed Project includes, but is not limited to, the following:</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
<p>Page 57 Para 2.54.1 An increase in marine traffic during LNG deliveries. The main noise sources will be propeller noise, sonar ranging devices and engine noise transmitted through the hull;</p>	There is no Underwater Noise Impact Assessment and therefore impacts from increased marine traffic, construction noises, sonar ranging devices and other	The Underwater Noise Impact Assessment read in conjunction with the Underwater Noise Baseline Assessment and the Marine Traffic Report holistically address how increased marine traffic, construction and other	Appendix 9 – B2 – Underwater Noise Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment Appendix 10.1 - Marine Traffic Assessment
<p>Page 57 Para 2.54.2 Pile driving when constructing and installing the LNG offloading infrastructure</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 57 Para 2.54.3 Noise that is radiated through the ship's hull during power generation; and</p>	<p>engine noises are not assessed. Noise impacts from suction and discharge activities also not therefore assessed.</p>	<p>engine noises may impact the underwater seascape. Noise impacts from suction and discharge activities are therefore assessed.</p>	
<p>Page 57 Para 2.54.4 Noise from the suction and discharge of cooling water used on the powership into the harbour environment.</p>			
<p>Page 57 Para 2.55 The Noise Impact Assessment (Appendix 116) then records that:-</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>
<p>Page 57 Para 2.55.1 The results of a study conducted in April 2021, in Ghana, of a similar Powership by GDS R&D and AB MECHENG, shows that in the immediate vicinity of the hull of the vessel, the underwater noise does not appear to exceed 110dB at frequencies in the 1/3 octave band scale (the Ghana Study). The Ghana study however only applies to a berthed powership and not to the vessel traffic associated with the operation thereof, such as LNG deliveries etc, (paragraph 7.7 on page 27).</p>	<p>There is no Underwater Noise Impact Assessment and therefore impacts from increased marine traffic, construction noises, sonar ranging devices and other engine noises are not assessed. Noise impacts from suction and discharge activities also not therefore assessed.</p>	<p>The Underwater Noise Impact Assessment address how increased marine traffic, construction and other engine noises may impact the underwater seascape. Noise impacts from suction and discharge activities are therefore assessed.</p>	<p>Appendix 9 – B2 – Underwater Noise Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment Appendix 10.1 - Marine Traffic Assessment</p>
<p>Page 57 Para 2.56 The Noise Impact Assessment concludes (paragraph 8 on page 27) by highly recommending the following: <i>"(a) install acoustic enclosures around all major noise emitting components to suppress the noise emissions from equipment such as engines, exhaust stacks etc. (b) install silencers on equipment such as exhaust stacks outlets and all air outlets and inlets.</i></p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>(c) Periodic terrestrial noise measurements are taken during the construction and operational phases.</p> <p>(d) A hydrophone system is used to determine the underwater soundscape in the vicinity of the Powership berth, FSRU, LNGC berth, harbour entrance and other sensitive areas in Richards Bay to determine the current underwater noise environment. This should commence prior to construction and continue periodically once the operational phase commences."</p>			
<p>Page 58 Para 2.57 However, the Noise Impact Assessment does not indicate whether any of the above recommendations are practically possible; and if so, whether the specific vessels to be used in the proposed Project, are so equipped.</p>	<p>The Noise Impact Assessment did not state if the proposed mitigation measures were practical.</p>	<p>The Terrestrial Noise Impact Assessment and the Underwater Noise Impact Assessment both propose mitigation measures which have been incorporated into the EMPr. Karpowership has confirmed the proposed mitigation measures are both practical and feasible and can therefore be implemented.</p>	<p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – C2 – Terrestrial Noise Assessment</p> <p>Appendix 6 - EMPr</p>
<p>Page 58 Para 2.58 Considering that the Ghana study only applies to one berthed powership, I am of the view that the Noise Impact Assessment did not assess all of the potential impacts of the proposed activities of the proposed Project, especially since i) the cumulative underwater noise impact to be propagated simultaneously by three (3) vessels to be used in the proposed Project and (ii) the cumulative underwater noise contribution of the LNG carrier from time to time, were not assessed.</p>	<p>Underwater noise not properly assessed.</p>	<p>Underwater noise is comprehensively assessed in the EIA, including in the Underwater Noise Baseline Assessment and the Marine Ecology Report.</p>	<p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 58 Para 2.59</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
The Technical Report of Terrestrial and Underwater Radiated Noise (URN) Evaluation (Appendix J) acknowledges the following:			
<p>Page 58 Para 2.59.1 Noise travels much more in water, covering greater distances than it would do on land while travelling through air.</p>	Noise impact – noise travels further in water – this was not properly addressed in the FEIAr.	The impacts of travelling noise were comprehensively assessed in the Noise Impact Assessment.	<p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – C2 – Terrestrial Noise Assessment</p>
<p>Page 58 Para 2.59.2 The effect of underwater noise pollution is more painful than anything else for marine animals. Most animals are alarmed by the alien sounds. Deaths can occur due to hemorrhages, changed diving patterns, migration to newer places, and damage to internal organs and an overall panic response to the foreign sounds. There is also a disruption in normal communication between marine animals as a result of underwater noise pollution. This means that animals prone to noise pollution are unable to call their mates, look for food or even make a cry for help under such circumstances (page 12 paragraph 1.1).</p>	Impacts of underwater noise pollution were not fully considered in the FEIAr.	The impacts of noise pollution were comprehensively assessed in the Underwater Noise Impact Assessment read with the Marine Ecology Report.	<p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 58 Para 2.59.3 Many marine animals like fish (rockfish, herring, san eel, cod, blue whiting etc.) show signs of extensive damage to their ears upon exposure to seismic air guns, even up to several kilometers. Exposure to noise during the embryonic stage increases the sensitivity of fish to noise impact, increasing their mortality rates at time of birth and the development of genetic anomalies.</p>	Potential damage to marine animals by noise pollution not fully considered in the FEIAr.	Impacts were comprehensively assessed in the Underwater Noise Impact Assessment read with the Marine Ecology Report. No seismic activities are taking place	<p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 59 Para 2.59.4</p>	Potential migration of marine animals to new	Impacts were comprehensively assessed in the Underwater	Appendix 9 – B2 – Underwater Noise Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>The migration of marine animals to new areas affects the marine diversity balance, it indirectly affects humans too. A decreased catch in many fish species like herring, cod and blue whiting, especially in areas susceptible to noise pollution from ships, has been noticed. Dislocation or movement of marine animals to newer locations is also one of the many ocean noise pollution effects. While this may seem like a survival mechanism, studies conducted for a follow up on these animals are not that promising as most animals fail to acclimatize in the new environment, not to mention the loss of diversity in many regions.</p>	<p>areas affects the marine was not fully considered in the FEIAR.</p>	<p>Noise Impact Assessment read with the Marine Ecology Report.</p>	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 59 Para 2.59.5 The sensitivity of various marine animals to ocean noise pollution, is varying. While cetaceans like whales and dolphins may show a greater resistance, soft shelled species like mollusks, prawns, fish, and so forth, are much more sensitive. However, it is important to note that as many as 24 cetacean species have shown negative effects of noise pollution in the ocean, In all, about 55 marine species have been noted to have suffered due to exposure to sound of varying frequencies. These include, among others, the sperm whale, grey whale, mink whale, pygmy sperm whale, killer whale, sea bass, pink snapper, goldfish, cod, haddock, bluefin tuna, squid, lobster, and brown shrimp</p>	<p>The sensitivity of various marine animals to ocean noise pollution was not fully considered in the FEIAR.</p>	<p>Impacts were comprehensively assessed in the Underwater Noise Impact Assessment read with the Marine Ecology Report.</p>	<p>Appendix 9 – B2 – Underwater Noise Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 59 Para 2.60 The Technical Report of the Terrestrial and Underwater Radiated Noise (URN) Evaluation states that:</p>	<p>The noise emitted from the docking and the movement (or travel) of the ships was not</p>	<p>The noise from the activity of the ships docking and the movement (or travel) was</p>	<p>Appendix 9 – B2 – Underwater Noise Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 59 Para 2.60.1 The powerships examined in this study are not in navigation; therefore, they do not radiate the noise through underwater caused by the ship's speed. Considering the higher level of noises that are generated at speeds of over 15 knots or higher, caused both by the interaction of the ship structure with the wave and the cavitation in the propellers, powerships are of no concern for those noise sources as the ships are docked during their normal operations (paragraph 3.2 on page 31). This study therefore did not consider all of the proposed activities in the Project.</p> <p>Page 59 Para 2.60.2 The study nevertheless indicated that there is no standardisation yet on the awareness of sensitivities of marine life against the harmful URN caused by the Powerships (paragraph 5 on page 45).</p>	considered in the URN Evaluation.	<p>considered by the Underwater Noise Impact Assessment.</p> <p>The results of this was then considered and assessed in the Marine Ecology Impact Assessment.</p>	Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment
<p>Page 59 Para 2.61 These specialist studies are indicative thereof that the concerns raised by I&APs are valid. The Socio-Economic Impact Assessment Report, and Karpowership itself, brushed aside these environmental concerns as "micro impacts in the brownfields ports", or "micro-environmental issues", and offer limited job opportunities as a trade-off.</p>	Lack of proper holistic assessment conducted by Karpowership.	All impacts, both environmental and socio-economic, at local and macro scales were completed.	Chapter 7 – Environmental Impact Assessment
<p>Page 60 Para 2.62 The FEIAr furthermore includes a significant change from the Draft EIAR, both in the "Impact assessment findings (with and without mitigation): Powership and Gas Pipeline Alternative 1: Construction Phase" (paragraph 8.4.8.4 on pages 256 to 259 of the FEIAr), and in the "Impact assessment findings (with and</p>	If there is significant new information in the FEIAr from the DEIAr, this must be subject to a further 30 days of PPP.	There is no new significant information in the FEIAr from the DEIAr of 2022 and therefore no additional 30 days of PPP is required.	Final EIA Report and Final EMPr. Any changes are marked in blue text.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>without mitigation): Powership and Gas Pipeline Alternative 2: Construction Phase" (paragraph 8.4.8.5 on pages 259 to 261 of the FEIAR) relating to the laying of the mooring facilities (i.e. heavy chain, anchor system) and the proposed subsea pipeline, which will result in localised disturbance of the intertidal and subtidal soft-sediment environment, with knock on effects for benthic and pelagic organisms, which may result in smothering and/or injury of estuarine/marine organisms.</p>			
<p>Page 60 Para 2.63 Despite the finding that this proposed activity "will result in localised disturbance of the intertidal and subtidal soft-sediment environment, with knock on effects for benthic and pelagic organisms, which may result in smothering and/or injury of estuarine/marine organisms", this impact is justified by the statement that the area of disturbance is small, and then, inexplicably, and contrary to the finding, unlikely to compromise the benthic communities.</p>			
<p>Page 60 Para 2.64 It was also added in the Coastal and Estuarine Impact Assessment Report (Appendix 19), that "mooring of the FSRU will take place 200 m away from the sensitive sandspit where higher densities and diversity were found. Physical disturbance of the intertidal zone is expected during the assembly of the gas pipeline and undertaking of other construction related activities for the project." With the FSRU only 200 m away from such a sensitive area, the impact of the "knock on effects for benthic and pelagic organisms, which may result in smothering and/or injury of</p>	<p>If there is significant new information in the FEIAR from the DEIAR, this must be subject to a further 30 days of PPP.</p>	<p>There is no new significant information in the FEIAR from the DEIAR of 2022 and therefore no additional 30 days of PPP is required.</p>	<p>Final EIA Report and Final EMPr. Any changes are marked in blue text.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
estuarine/marine organisms" seems inevitable.			
<p>Page 60 Para 2.65 Under the impact "Disturbance or loss of terrestrial fauna", at the mitigation of impacts, the changes include "No vessels may access the Kabeljous Flats. The sandspit and Kabeljous Flat must be designated no-go areas, i.e. these areas may not be utilised in any way to support or facilitate construction/mooring activities, storing of materials, etc." (pages 258 and 260 of the FEIAR), and yet, the mooring of the FSRU will take place only 200 m away from the sensitive sandspit.</p>	If there is significant new information in the FEIAR from the DEIAR, this must be subject to a further 30 days of PPP.	There is no new significant information in the FEIAR from the DEIAR of 2022 and therefore no additional 30 days of PPP is required.	Final EIA Report and Final EMPr. Any changes are marked in blue text.
<p>Page 61 Para 2.66 These proposed activities will also generate underwater noise, but the impact thereof upon the marine ecology was not assessed in the Marine Ecology Specialist study or in the specialist study on Noise Impacts.</p>			
<p>Page 61 Para 2.67 In my assessment of this ground of appeal I am satisfied that the CA correctly found that:</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
<p>Page 61 Para 2.67.1 <i>While the Noise Specialist Report (dated October 2020) notes, the close proximity of the Richards Bay Nature Reserve to this noise source, it only quantifies above-ground noise, and only determines the impact of noise on human sensitive receptors. It does not detail what impact noise of between 50 and 70dBA would have on non-human receptors within the nature reserve. The Richards Bay Nature Reserve should have been identified as a sensitive receptor for non-humans. The potential for disturbance to birdlife and</i></p>	<p>The Noise Impact Assessment did not consider sensitive receptors such as:</p> <ul style="list-style-type: none"> - Richards Bay Nature Reserve - Birdlife - Mangroves - Swamps <p>No mitigation measures to protect these sensitive</p>	<p>The Terrestrial Noise Impact Assessment and Underwater Noise Impact Assessment assess the impacts of noise sensitive receptors such as:</p> <ul style="list-style-type: none"> - Richards Bay Nature Reserve - Birdlife - Mangroves - Swamps 	<p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – C2 – Terrestrial Noise Assessment</p> <p>Appendix 6 - EMPr</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p><i>reclusive species in the fringes of the reserve's swamp and mangrove forest components is a critical omission in terms of the impact assessment. Noise of 50dBA would most certainly result in displacement of species from their core habitat; however, this is not mentioned or assessed, and mitigation measures are not provided.</i>"; and</p>	<p>receptors is proposed in the report.</p>	<p>Mitigation measures are proposed in the EIAr and incorporated into the EMPr.</p>	
<p>Page 61 Para 2.67.2 <i>"The "Marine Ecology Specialist Study G2P Development, Port of Saldanha" dated April 2021 recommends that a noise modelling study should be undertaken to gain a more quantitative understanding of the noise produced from power ship operations in the Port of Richards Bay and the cumulative impacts on the surrounding marine ecology. This is also echoed by the Estuarine Specialist. This study should have been conducted as part of the EIA process to fully understand the impacts of the proposed development."</i></p>	<p>No noise modelling was done on an operating powership that was modelled against the current Richards Bay sea soundscape.</p>	<p>The results from the currently operating Powerships in Ghana were fed into the both the Underwater Noise Impact Assessment and Underwater Baseline Noise Assessment.</p>	<p>Appendix 9 – B2 – Underwater Noise Assessment Appendix 9 – C2 – Terrestrial Noise Assessment</p>
The Climate Change Impact Assessment			
<p>Page 61 Para 2.68 The 2017 judgment in the case of Earthlife Africa Johannesburg v the Minister of Environmental Affairs [201] 2 All SA 519 (GP) (Earthlife judgement) confirmed that a Climate Change Impact Assessment (CCIA) is a necessary component of an EIA process for projects with climate impacts. The Court confirmed the need for a CCIA that is much broader than a mere assessment of anticipated emissions; and it confirmed the need for a comprehensive assessment, which assesses, inter alia, the impacts of climate change on the proposed project itself, and the</p>	<p>The CCIAr did not address the impacts of climate change on the project itself. The CCIAr did not assess the way in which the project might aggravate climate change impacts in the area.</p>	<p>The CCIAr assesses the impacts of climate change on the project itself and complies in all respects with the minimum requirements as established by the <u>Thabametsi case</u> and recognised standards. The CCIAr also assesses the way in which the project might aggravate climate change impacts in the area.</p>	<p>Appendix 9 – C3 – Climate Change Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
ways in which the project might aggravate the impacts of climate change in the area. The Court concluded that "[w]ithout a full assessment of the climate change impact of the project, there was no rational basis for the Chief Director to endorse these baseless assertions"			
<p>Page 62 Para 2.69</p> <p>The CCIA in the FEIAr does not comply with this requirement as it is mainly concerned with the contribution of the proposed Project's GHG emissions towards climate change (FEIAr paragraph 8.3.8 on pages 211 to 214). Nevertheless, the impact assessment finding in respect of the GHG emissions contribution to climate change is that: "Because of greenhouse gas emissions associated with the proposed projects and the abovementioned international consensus on the anthropogenic causes of climate change, the likelihood of the impact occurring is definite. The impact is therefore rated as High negative significance and cannot be mitigated below a High negative rating." (FEIAr paragraph 8.4.15.1 on page 272).</p>			
<p>Page 62 Para 2.70</p> <p>The following is of particular concern in the CCIA:</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
<p>Page 62 Para 2.70.1</p> <p>Emissions from gas production, gathering, processing, initial transport, and LNG liquefaction are not considered in the emissions assessment</p>	The CCIAr did not assess emissions from gas production, gathering, processing, initial transport, and LNG liquefaction.	The CCIAr assesses emissions from gas production, gathering, processing, initial transport, and LNG liquefaction in line with the requirements of the law, the <i>Thabametsi Case</i> and	Appendix 9 – C3 – Climate Change Impact Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
		other recent cases and using recognised industry standards.	
<p>Page 62 Para 2.70.2 The mitigation measures proposed for the significant GHG impacts of the powerships are entirely undeveloped and inadequate. There is no plan for capturing the carbon from the ships, despite carbon capture and storage being suggested as a plausible mitigation measure.</p>	The CCIAR did not include a carbon capture plan (and therefore not pulled through to the EMPPr), despite being suggested as a mitigation plan.	The CCIA concluded that a carbon capture plan as a mitigation measure was not necessary as the impact is low and carbon capture is not a proven technology.	Appendix 9 – C3 – Climate Change Impact Assessment
<p>Page 62 Para 2.71 A holistic consideration of the EA application for the proposed Project, and of the appeals, require that I point out the further concerns that arise in the FEIAR as follows:</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
<p>Page 62 Para 2.71.1 While the powership and related infrastructure will be operational for 24 hours per day (see FEIAR at page 313) for the duration of the 20-year lifespan of the proposed Project, the impact assessments do not adequately assess the potential environmental impacts over the duration of the proposed Project and thereafter, some of which may be irreversible.</p>	The FEIAR did not consider environmental impacts for the entire duration of the 20 year lifespan of the project.	The FEIAR considers and assesses the cumulative environmental impacts for the entire duration of the 20 year lifespan of the project.	Chapter 7 – Environmental Impact Assessment
<p>Page 63 Para 2.71.2 The statement that "The potential for pollution from shipping (including spent oil and lubricants, paint, solvents and waste detergents, waste from ship maintenance activities, sewage, galley waste, sweepings from hatches and engine rooms, slops from holds and tanks, ballast water, general domestic waste, medicinal/medical waste, spent batteries, discharge of heated water etc.) as a result of the proposed gas to power process is considered to be high" (FEIAR page 203). The risk for chemical pollution is</p>	Negative impacts from pollution from shipping activities are not adequately addressed in the EIAr.	Negative impacts on pollution from shipping activities are addressed in the EIAr and mitigation measures to reduce impacts are in the EMPPr.	Chapter 7 – Environmental Impact Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment Appendix 6 - EMPPr

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
indicated as High and can be mitigated only to Medium-Low (FEIAR paragraph 8.4.8 on page 262).			
<p>Page 63 Para 2.71.3 The direct Medium impact caused by the uptake of cooling water (by two (2) powerships for 24 hours per day for the duration of the 20-year lifespan of the proposed Project) of "Ecological damage caused by entrainment", that changes to Low significance without any mitigation proposed (paragraph 8.4.9.1 on page 263).</p>	<p>Negative impacts from pollution from water abstraction are not adequately addressed in the EIAr.</p> <p>No mitigation measures were proposed.</p>	<p>Negative impacts on pollution from water abstraction activities are addressed in the EIAr and mitigation measures to reduce impacts are in the EMPr.</p>	<p>Chapter 7 – Environmental Impact Assessment</p> <p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p> <p>Appendix 6 - EMPr</p>
<p>Page 63 Para 2.71.4 The direct impact caused by the discharge of cooling water (by two (2) powerships for 24 hours per day for the duration of the 20-year lifespan of the proposed Project) into the sea, of "Raised water temperatures could affect benthic crustacean families, and fish larvae and juveniles that could not move away from the affected area" (FEIAR paragraph 8.4.9.1 on page 263), for which impact NO MITIGATION is proposed.</p>			
<p>Page 63 Para 2.72 The conclusion of the South African Council for Natural Scientific Professions (SACNASP) Peer Review dated 23 April 2021 states that the impacts identified is not a true reflection of the scale of the Project in terms of influence. There are impacts that trigger regional and global scale impacts and the specialist recommends that these be reassessed and in addition, the peer review states that there is no clear recommendation from the estuarine specialist. This should have been reassessed and finalised by the EAP prior to submission of the FEIAR for decision-making purposes.</p>	<p>SACNASP Peer Review of the Estuarine Impact report stated that not all impacts assessed, specifically regional and global scale impacts.</p> <p>No clear recommendation</p>	<p>Estuarine Impact Assessment assesses local, regional and global impacts from project.</p> <p>Estuarine Specialist specifically recommends the project go ahead.</p>	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
	<p>from the Estuarine Specialist.</p> <p>The peer review of the Estuarine Impact Assessment was not included in the submission of the DEIAr.</p>	No additional 'peer reviews' of any specialist reports have been conducted.	
<p>Page 63 Para 2.73 I also considered and concur with the comments from the Oceans & Coast (O&C) Branch of the Department on the proposed Project, which comments are as follows:</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
<p>Page 64 Para 2.73.1 There remains considerable uncertainty about the potential impacts of noise from the powerships, because of the following:</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
<p>Page 64 Para 2.73.1.1 the potential impacts of noise from the powerships have not yet been evaluated, considering there are no powerships yet in South Africa and so no comparable noise assessment exists;</p>	No Underwater Baseline Assessment or Underwater Noise Impact Assessment were conducted.	Both a Baseline Assessment and Underwater Noise Impact Assessment were conducted.	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment</p> <p>Appendix 9 – B2 – Underwater Noise Assessment</p>
<p>Page 64 Para 2.73.1.2 knowledge of the current underwater soundscape is lacking, to be able to properly assess the potential impacts of the underwater noise</p>			
<p>Page 64 Para 2.73.1.3 potential impacts of underwater noise on some marine taxa such as invertebrates are not well known.</p>	No Underwater Baseline Assessment or Underwater Noise Impact Assessment were conducted, therefore the impacts on marine life could not be properly assessed.	Both a Baseline Assessment and Underwater Noise Impact Assessment were conducted. These results were then considered and used in the Marine Ecology Impact Assessment.	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment</p> <p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 64 Para 2.73.2 Other ecological concerns received little or no mention, although considerable uncertainties also surround such operational impacts as heating of the seawater and entrainment of organisms, and the specialist reports and the FEIAr were not always entirely convincing regarding the low significance of these potential impacts.</p>	<p>Various ecologically sensitive receptors, such as endangered species, breeding grounds etc are not sufficiently addressed in the Marine Ecology Report.</p> <p>Other concerns, such as impacts from heated water discharge are also not addressed in the Marine Ecology Report.</p>	<p>All ecologically sensitive receptors, such as endangered species, breeding grounds etc are addressed in the Marine Ecology Report. Impacts from heated water discharge are also addressed in the Marine Ecology Report.</p> <p>Other ecological concerns received were studied in detail to remove any uncertainties regarding operational impacts as heating of the seawater and entrainment of organisms, and the specialist reports and the FEIAr concluded that the significance of these potential impacts is very low.</p>	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 64 Para 2.73.2.1 No mitigation measures are put forward for impacts on marine ecology by activities of the proposed operation that are in essence unavoidable. This includes not only noise, but effects of the thermal plume caused by the simultaneous discharge of cooling water by two (2) Powerships, both operational for 16 to 24 hours per day for the duration of the 20-year lifespan of the proposed Project, that may raise water temperatures and damage marine organisms, and entrainment. The only recommendations are for monitoring.</p>	<p>No mitigation measures were proposed to alleviate impacts from the project.</p>	<p>Mitigation measures to address impacts from noise are addressed.</p> <p>Mitigation measures to address impacts from heated water discharge are addressed.</p> <p>Mitigation measures to address entrainment of all species are addressed.</p>	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p> <p>Appendix 9 – B2 – Underwater Noise Assessment</p>
<p>Page 64 Para 2.73.2.2</p>	<p>Additional mitigation measures proposed in</p>	<p>Additional mitigation measures required based on Baseline</p>	<p>Appendix 6 - EMPr</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
It is furthermore unclear what the 'additional mitigation measures' (to the components and technologies that have already been built into the powership) might be, that will be implemented 'should the need arise'.	the 2021 FEIAR were unclear.	Assessment and Underwater Noise Impact Assessment are recorded in the EMPr.	
<p>Page 64 Para 2.74</p> <p>In my holistic assessment and consideration of the activities of the proposed Project, I found that the actual and potential impacts on the environment, as well as the socio-economic conditions - particularly in relation to small-scale fisheries, could not be determined due to gaps and inconsistencies in the various reports submitted. In particular, due to the lack of information in respect of the Underwater Noise Impact, the Marine and Ecology Study, as well as the Estuarine Impact Report, the actual and potential risks, and impacts on the geographical, physical, biological, social, economic and cultural aspects of the environment could not be predicted and evaluated in order to find the alternatives and options that best avoid negative impacts altogether, or where negative impacts cannot be avoided, to minimise and manage negative impacts to acceptable levels, while optimising positive impacts, to ensure that ecological sustainable development and justifiable social and economic development outcomes are achieved.</p>	The 2021 FEIAR contained gaps due to the non-holistic assessment.	<p>All gaps addressed by polycentric and integrated assessment</p> <p>Where any impacts remain, mitigation measures have been recommended.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 8.4 - Sustainability Assessment</p>
<p>Page 65 Para 2.75</p> <p>My findings on this ground of appeal are also confirmed by the independent expert appointed by the Department, in their recommendations, where they state as follows:</p>	Experts found that there were gaps due to non-holistic assessment, underwater noise assessment in particular.	All gaps addressed by Polycentric and integrated assessment and additional required based on Baseline Assessment and Underwater Noise Impact Assessment as the predicted impacts are very	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p> <p>Appendix 9 – B2 – Underwater Noise Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p><i>"we are in agreement that due to certain aspects, specifically the lack of an underwater noise assessment, there was insufficient and inadequate information available on which to make an informed and responsible decision".</i></p> <p><i>"it is EIMS's view that the impact of underwater noise on the behaviour of marine fauna is very dependent on numerous factors (such as existing baseline noise, bathymetry, species specific noise sensitivity, duration and frequency of the noise) and can vary significantly. Whilst the source noise for the application ships may be comparable with the Karpowership in Ghana, the impact thresholds are not in our view directly comparable with the development of a Karpowership in Saldanha Bay. The current Marine impact Assessment does not consider the pre-existing impacted noise climate in the study area (which is affected by noise from ships and other sources) and does not model the likely cumulative impact on sensitive environments (such as spawning grounds) and more specifically determine the impact thresholds for the specific species of concern (e.g. Wit Stompneus fish which form part of the small-scale fishers catch)".</i></p> <p><i>"it can be argued that the predicted source noise from the Karpowership is low enough not to reasonably justify a detailed hydroacoustic impact assessment and that in the event that noise is exceeded that this can be retrospectively mitigated. It is our view that the potential sensitivity of the fish species and specifically the spawning grounds adjacent to or near to the site proposed for the Karpowership in Saldanha Bay, drives the need for further certainty on this aspect".</i></p>		<p>low, impacts on particular species considered in the Marine Ecology Report.</p>	

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 65 Para 2.76 I therefore proceed to dismiss the grounds of appeal pertaining to the holistic assessment of the proposed Project.</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
Third Ground of Appeal: The Audi Alterum Partem Rule – No items to be addressed or included in the Final EIAR.			
<p>2.67 The crux of this ground of appeal is that the CA considered comments and objections by environmental groups outside of the PPP timelines, and that Karpowership, through their EAP, was not afforded any right of response or reply in contravention of the audi alterum partem rule.</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
<p>2.68 Karpowership is further of the view that the CA specifically ignored (i) the comprehensive Memorandum submitted by the EAP on 18 June 2021 in response to the purported suspension of the EIA process for the proposed project, and (ii) the further inputs submitted by Karpowership on 23 June 2021 in response to the objections by I&APs.</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
<p>2.69.1 The CA received written notice, as contemplated in regulation 14(2) of the 2014 EIA Regulations, complaining that the appointed EAP was suspected of non-compliance with regulation 13 thereof. The complaint alleged that the EAP held a meeting with small-scale fishers on 19 April 2021, during which time the EAP failed to disclose the recommendations of the Marine Specialist study (dated February 2021) to the fishers, even though the EAP was aware thereof. The EAP's failure to disclose this crucial information during this meeting</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
constitutes a failure to carry out the duties and legal requirements for EAPs as prescribed by NEMA.			
2.69.2 Regulation 14(3) of the 2014 EIA Regulations requires the CA to investigate the allegation promptly. However, the CA wrote to the EAP and to Karpowership notifying them that, as the FEIAr was already submitted for consideration, the CA believes there is very little reason as to why the decision-making process should be suspended pending the outcome of an investigative process against the EAP. As such, the CA reconsidered the matter and they concluded that there is no need for the suspension to stay in place.	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
2.69.3 The objection filed by the 15th Commenting MAP was not an objection under the PPP for the EIA process, but rather a complaint of procedural unfairness in terms of a separate provision of NEMA to report a failure to disclose crucial information to I&APs by the EAP. This investigative process against the EAP was outside of the scope of the EIA process. The Memorandum was a response to the complaint filed by the 1st Commenting I&AP in terms of regulation 13 of the 2014 EIA Regulations, dated 30 May 2021.	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
2.69.4 The Marine Specialist study of February 2021 already recommended that further noise modelling be undertaken to "gain more qualitative understanding of the noise produced from vessel operations". This information should have been made clear to the fishers, as not doing so prejudiced their	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
ability to participate effectively in the process as per the requirements of NEMA and the 2014 EIA Regulations,			
2.69.5 To the extent that the impacts are not, or cannot be adequately assessed, the application for an EA should be refused. This is in line with the NEMA principle that requires a risk averse and cautionary approach. Nevertheless, experts advised that sound modelling is possible, and should have been conducted in this instance, to ensure a better understanding of the potential sound impacts	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
2.69.6 The CA identified gaps in the various reports, including the noise impact assessment, which if addressed, may still change the socio-economic findings in relation to the fishermen in the region. Focusing on fishermen located within the harbour to identify the socio-economic impacts misses the point, in that, if the underwater noise impacts negatively impacted on the nursing habitat for fish and crustaceans, it means that there may be fewer fish and populations in the entire region, not only in the vicinity of the harbour. In any event, it has already been demonstrated that the Socio-Economic impact assessment contains various gaps and deficiencies.	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
2.71 In their responses, the CA states that they did consider the content of the I&APs' complaint, brought in terms of regulation 14 of the 2014 EIA Regulations, against the EAP. The EAP/ Karpowership was equally	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>afforded a right of response, and they submitted a comprehensive memorandum on 18 June 2021 wherein they made submissions regarding the Saldanha Bay suspension. On 23 June 2021, the EAP addressed a letter to the CA in response to the request from the CER, representing the 2nd Commenting I&AP, to suspend the EA application processes for Karpowership's other two powership projects (Richards Bay and Ngqura).</p>			
<p>2.72 The memorandum issued by the EAP/Karpowership on 18 June 2021 and their further correspondence of 23 June 2021 were considered by the CA in the decision-making process. This led to the withdrawal of the suspension of the EIA process for the proposed project, and the subsequent decision on the EA application.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>2.73 An administrative appeal, such as the appeals at hand, require a de novo consideration of all the available documents and information pertaining to the application for EA for the proposed Project.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>2.74 As is evidenced by the background information herein above (paragraph 1), I have considered Karpowership's Memorandum of 18 June 2021, the EAP's separate submission of 18 June 2021, and the EAP's further submission of 23 June 2021 in response to the request from the CER, representing the 2nd Commenting I&AP, to suspend the EA application process in respect of Karpowership's other two</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Powership Projects (Richards Bay and Ngqura).			
<p>2.75 With reference to the background herein above (paragraph 1), the Appeals Directorate on 27 August 2021 provided Karpowership and the CA with a consolidated ARR and requested that they submit a responding statement and comments. Karpowership timeously filed their consolidated comments/responses to the appeals, and on 16 September 2021, they (Karpowership), through their legal representative at the time (Gunn Attorneys), submitted an answering statement to the responding statements filed by the I&APs (1st to 7th Commenting I&APs) against the Karpowership appeal. In this regard, Karpowership provided an executive summary tabling the issues/comments/responses raised by I &APs and their responses thereto.</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
<p>2.76 Under the heading “Holistic assessment of the EA application” herein above, I pointed out that on 11 March 2021 the CA guided Karpowership, stretching over several pages, regarding specifically what to include in the FelAr.</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
<p>2.77 Karpowership was therefore afforded the right of response or reply in terms of the audi alterem partem rule, and, apart from my consideration of all of the other available documents and information pertaining to the application for EA for this Project, I also considered the Memorandum of 18 June 2021 and the further inputs Karpowership</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
submitted on 23 June 2021 regarding the objections by I&APs.			
<p>2.78 EIMS, in their recommendations on the grounds of appeal relating to this topic, state as follows: "It is however our view that the majority of the concerns raised by the I&AP's in the Suspension Request and the responding Memorandum from the Appellant were not materially new information as these aspects had in some form or another been raised in the FEIR and would have required consideration by the CA under the EIA decision making process. It is our view that this ground of appeal should be dismissed"</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
<p>2.79 Considering all of the above, I proceed to dismiss the grounds of appeal on this topic.</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
Fourth Ground of Appeal: Section 2(4)(I) of NEMA			
<p>Page 71 Para 2.89 This ground of appeal alleges that the CA failed to assess the proposed Project in accordance with the provisions of section 2(4)(I) of NEMA, as there was no intergovernmental engagement with regard to the decision taken, particularly because no consideration was given to (I) the SIP status of the Project, (ii) the preferred bidder status that was awarded to the Project in the RMIPPPP, and (iii) the Project's importance for purposes of supplying electricity to the grid.</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
Summary of comments from I&APs			
Page 71 Para 2.90.1	No direct issue to address.	No direct issue to address.	No direct issue to address.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>The existence of other policies, and the need for co-ordination with other departments, do not absolve the CA from discharging their obligations in terms of section 24 of the Constitution, NEMA, the 2014 EIA Regulations and associated guidelines.</p>			
<p>Page 72 Para 2.90.2 This ground of appeal has no bearing on why the CA refused to grant the EA, and it is therefore irrelevant for purposes of the present appeal. Whether or not there was coordination between government departments on the EIA process, this would not remedy the procedural and content flaws in the FEIAr, which formed the basis for the CA's refusal. In saying this, they (the Commenting I&APs) do not dispute the need for co-operative governance in the EIA process, but merely argue that the existence or absence of cooperative governance would not affect the outcome arrived at by the CA, as this would not address the reasons on which the CA based their refusal.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>
<p>Summary of Responses from the Competent Authority</p>			
<p>Page 73 Para 2.92.1 Regulation 7(2) of the 2014 EIA Regulations states that "the competent authority or EAP must consult with every organ of state that administers a law relating to a matter affecting the environment relevant to that application for an environmental authorisation when such competent authority considers the application and unless agreement to the contrary has been reached the EAP will be responsible for such consultation". In compliance therewith, the EAP consulted various organs of state and the comments and input received were</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
considered by the CA in reaching a decision to refuse the EA application.			
<p>Page 73 Para 2.92.2 However, it is the environmental CA's mandate to consider developments in terms of sustainability requirements, taking into account the provisions of section 24 of the Constitution which enshrines that every citizen in the Republic has a right to an environment that is not harmful to their health and wellbeing and to have the environment protected through reasonable legislative measures, i.e. NEMA and the 2014 EIA Regulations, etc.</p>	<p>The SIP status of the Project does not negate the CA's obligation to promote and authorise sustainable development with due consideration for environmental factors.</p> <p>Weighing exercise of positive impacts (such as addressing energy shortages) and negative impacts (such as climate change, environmental harm etc) must be balanced.</p>	<p>The SIP status of the Project is not promoted to override environmental considerations. Need and desirability of project addressed in various reports, all of which are integrated in terms of the assessments and impacts for the EIA.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p>
<p>Page 73 Para 2.92.3 In refusing the EA application, the CA considered all pillars of sustainability i.e. social, economic and environmental. The CA further considered the 2014 EIA Regulations, the PPP undertaken and the potential impacts of the development (positive and negative).</p>			
<p>Page 73 Para 2.92.2 The SIP status of the Project is not in dispute, but irrespective thereof, the proposed development still needs to meet the requirements of the 2014 EIA Regulations and NEMA for a favourable outcome. The FEIAr was found to be deficient.</p>	<p>The Project must meet the needs of the requirements of the 2014 EIA Regulations</p>	<p>The Project has met the needs of the requirements of the 2014 EIA Regulations by conducting a thorough EIA which complies with the legal requirements.</p>	<p>No direct issue to address.</p>
Ministerial Evaluation (Reasons for Decision)			
<p>Page 73 Para 2.92.3 In my assessment of this ground of appeal it is evident to me that Karpowership seems to labour under the misconception that the designation of the Project as a SIP by the DMRE, who (in respect of this Project) do not</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>have the legislative mandate for the protection or management of the environment, makes the DMRE a role player with whom there must be intergovernmental coordination and harmonisation of policies, legislation and actions relating to the environment, as contemplated in section 2(4)(1) of NEMA.</p>			
<p>Page 73 Para 2.94 In terms of section 2(1) of NEMA, the National Environmental Management Principles are as follows: "(a) shall apply alongside all other appropriate and relevant considerations including the State's responsibility to respect, protect, promote and fulfil the social and economic rights in Chapter 2 of the Constitution and in particular the basic needs of categories of persons disadvantaged by unfair discrimination; (b) serve as the general framework within which environmental management and implementation plans must be formulated; (c) serve as guidelines by reference to which any organ of state must exercise any function when taking any decision in terms of this Act or any statutory provision concerning the protection of the environment; (d) serve as principles by reference to which a conciliator appointed under this Act must make recommendations; and (e) guide the interpretation, administration and implementation of this Act and any other law concerned with the protection or management of the environment.</p>	<p>The SIP status of the Project does not negate the CA's obligation to promote and authorise sustainable development with due consideration for environmental factors.</p> <p>Weighing exercise of positive impacts (such as addressing energy shortages) and negative impacts (such as climate change, environmental harm etc) must be balanced.</p> <p>Project must comply with principles of NEMA.</p>	<p>The SIP status of the Project is not promoted to override environmental considerations. Need and desirability of project addressed in various reports, all of which are integrated in terms of the assessments and impacts for the EIA.</p> <p>The Project complies with the principles of NEMA.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p>
<p>Page 74 Para 2.95 The National Environmental Management Principles serve in terms of section 2(1)(e) of</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
NEMA as a guide to the interpretation, administration and implementation of NEMA, and any other law concerned with the protection or management of the environment. The legislation in terms of which the Project was designated as a SIP, and awarded preferred bidder status in the RMIPPPP, is not concerned with the protection or management of the environment.			
Page 74 Para 2.96 Section 2(4)(l) of NEMA can in any event not be elevated above the other relevant factors to be considered in the context of sustainable development, as to mean that the relevant factors listed in section 2(4)(a) to (k) and (m) to (r) should rank lower than section 2(4)(l).	Project must indicate sustainable development.	Project indicates sustainable development through a comprehensive and integrated EIA.	No direct issue to address.
Page 74 Para 2.97 While no input was received from the DMRE, the RoR nevertheless indicates that the CA, in making their decision, took into consideration all the inputs from the following organs of state:	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 74 Para 2.97.1 The Nelson Mandela Bay Metropolitan Municipality (NMBM); (this typo is in the ministerial decision)	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 74 Para 2.97.2 Ezemvelo KZN Wildlife	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 74 Para 2.97.3 KwaZulu-Natal Economic Development, Tourism and Environmental Affairs	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 74 Para 2.97.5 Eskom	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 75 Para 2.97.6 SAHRA	No direct issue to address.	No direct issue to address.	No direct issue to address.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Page 74 Para 2.97.7 The Department of Forestry, Fisheries & the Environment: Biodiversity and Conservation, Oceans and Coast and Air Quality;	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 75 Para 2.97.8 the uMhlathuze Local Municipality	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 75 Para 2.97.9 Birdlife SA	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 75 Para 2.97.10 Transnet.	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 75 Para 2.98 I note that EIMS, in their recommendations on these grounds of appeal state that "it is however suggested that the CA expand on the current mechanisms and forums being utilised at the moment to further respond to this ground of appeal." Nevertheless, I am satisfied with the CA's responses, as per my assessment herein above.	No direct issue to address.	No direct issue to address.	No direct issue to address.
Page 75 Para 2.99 I also note that regular engagements were held between the Department and the office of the Independent Power Producer (IPP), as well as the SIP coordinators, wherein it was made very clear that even though the Project was designated as a SIP, it still needs to meet all regulatory requirements in respect of the protection and management of the environment	Project to comply with NEMA..	Project complies with NEMA.	No direct issue to address.
Page 75 Para 2.100 I therefore proceed to dismiss the grounds of appeal on this topic.	No direct issue to address.	No direct issue to address.	No direct issue to address.
Fifth and Sixth Grounds of Appeal: Public Participation			
Page 75 Para 2.101 In the grounds of appeal under this topic, it is alleged that the CA failed to consider that	No direct issue to address.	No direct issue to address.	No direct issue to address.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Karpowership met the threshold for public participation, as set out in the Memorandum of 18 June 2021, and that the additional information provided in the FEIAr is the same information provided in response to the comments received from I&APs.			
Summary of Comments from I&APs			
<p>Page 75 Para 2.102.1 Meeting the threshold of public participation does not create an entitlement to the granting of an EA. Each application is considered on the merits thereof by taking into account all the relevant but polycentric factors and considerations, which are weighed up against each other in the process. This consideration process is not a mechanical ticking off on a checklist.</p>	The Project must meet PPP minimum requirements.	The Project has met PPP minimum requirements..	No direct issue to address.
<p>Page 76 Para 2.102.2 Karpowership has not met the 'threshold' for public participation, as they did not afford the public an opportunity to comment on significant new information and/or significant changes in the FEIAr after the public comment period, as required by regulation 23(1)(b) of the 2014 EIA Regulations. Regulation 23(1)(b) of the 2014 EIA Regulations is clear that when new and material information is added to the FEIAr, such report must be subjected to a further 30-day PPP, and any additional comments thereto should be considered and included in the revised FEIAr before submitting same to the CA for consideration and decision-making purposes. Karpowership was specifically cautioned by the CA to adhere to regulation 23(1)(b) of the 2014 EIA Regulations. The failure to comply with regulation 23(1)(b) of the 2014 EIA</p>	No public comment period was provided for the public to comment on new and significant information in the 2021 FEIAr.	<p>No new significant information is included in the 2022 FEIAr and therefore no additional public comment period is required.</p> <p>All information for the EIA report was included in the 2022 DEIAr and therefore was available for all I&APs to comment.</p>	Final EIA Report and Final EMPr. Any changes are marked in blue text.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Regulation caused procedural unfairness that cannot be rectified through the appeal process.			
<p>Page 76 Para 2.102.3</p> <p>The significant new information in the FEIAr that was not subjected to public participation, took the form of a supplementary assessment, and data on underwater noise undertaken at an existing operational powership in Ghana that was included in the FEIAr. This study presents data that was previously unavailable to the experts in the Draft EIAr on the underwater noise generated by a powership, and it contains significant information on the underwater sound generated by powerships, the impacts of underwater sound on marine living organisms, and it mentions the lack of consensus as to the sensitivities of marine life against the harmful URN (underwater noise) caused by the powerships.</p>			
<p>Page 76 Para 2.102.4</p> <p>This assessment in turn led to significant changes in the Specialist Study on Noise Impacts (the Safetech Report), the Marine Ecology Specialist study (the Lwandle Report), and recommendations of the FEIAr, including that an assessment of underwater sound impacts be undertaken after the EA was granted for the project. The extensive changes made to the FEIAr, and to the various reports resulted in the impact ratings for the proposed Project being changed. These changes are material and, as a result, regulation 23(1)(b) of the 2014 EIA Regulations applies.</p>			
<p>Page 77 Para 2.102.5</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>The inclusion of these changes into the FEIAR prejudiced I& APs. These changes were not merely further revisions as argued by Karpowership, or changes in the Marine Ecological Specialist report by the addition of a short-term study on underwater noise at a Powership Operation in a port in Ghana, constituting a peer review or update of this report.</p>			
<p>Page 77 Para 2.102.6 A peer review report by Prometheus Carbon dated April 2021, which critiqued the previous CCIA indicated that the impacts were not assessed adequately, and that scope 3 emissions should be added. The content and adequacy of the peer reviewed report could therefore not be considered or evaluated as this was not made available for comment subsequent to the Draft EIAR and before the FEIAR submission</p>			
<p>Page 77 Para 2.102.7 According to the FEIAR and the revised April 2021 CCIA, a total of 17 million tCO₂e (based on a 20-year operational lifetime of the Project), greenhouse gas emissions (GHG) is expected to be released. A further additional 670 000 tCO₂e direct emissions will be released from FSRU operations, and indirect scope 3 emissions of 126 000 tCO₂e will also be released. This would amount to 0.82% of South Africa's carbon budget, and the EIA rating is "Very High" with impact being definite and mitigation not being possible. This is the highest possible negative rating. Ordinarily, a highest possible rating, which cannot be mitigated, should result in a fatal flaw, with the Project not being able to go ahead.</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 77 Para 2.102.8 Looking at the Richards Bay Project alone, due to the fatal flaw of a very high rating in terms of GHG emissions, the proposed Project should not go ahead. Cumulatively with all three (3) vessels, the GHG emissions essentially treble. All three (3) vessels would emit approximately 46 million tCO2e over the Project's 20-year lifespan, additional 2 million tCO2e for direct FSRU operation, and a further additional 370 000 tCO2e for Scope 3 emissions. In other words, the three Karpowership Projects alone, would amount to almost 50 million tCO2e GHG emissions, taking up over 1.18% of SA's national carbon budget over the lifetime of 20 years.</p>			
<p>Page 78 Para 2.102.9 Even in the most recent revision of the CCIA, the Scope 3 indirect emission were not adequately assessed since full cycle emissions were only calculated from when the ship enters South African waters. Full cycle emissions are not limited to vessels entering the port but should include the entire emissions from extraction of gas to the end point when the gas is used. The public did not have an opportunity to assess this, as the revised information was not made available. The fact that full cycle emissions were not adequately assessed means that the CCIA is fatally flawed.</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 78 Para 2.102.10 The public and small-scale fishers were prejudiced as they were not given an opportunity to challenge the methodology and conclusions of the Specialist Study on Noise Impacts and the Marine Ecology Specialist study. According to the expert report by T.E. Mackenzie Hoy obtained by Green Connection, these two reports are of no value in the decision-making process and should be completely disregarded.</p>	<p>No public comment period was provided for the public to comment on new and significant information in the 2021 FEIAR.</p>	<p>No new significant information is included in the 2022 FEIAR and therefore no additional public comment period is required.</p> <p>All information for the EIA report was included in the 2022 DEIAR and therefore was available for all I&APs to comment.</p>	<p>Final EIA Report and Final EMPr. Any changes are marked in blue text.</p>
<p>Page 78 Para 2.102.11The recommendation in the FEIAR that underwater impacts be studied after authorisation, is inconsistent with the regulatory regime for impact assessments and flies in the face of the precautionary principle. Such a recommendation prejudices small-scale fishers who should have been afforded an opportunity to comment on it. Section 23 of NEMA read with the NEMA principles, makes it clear that environmental impacts of listed activities must be assessed and mitigated before authorisation, and a risk averse approach must be considered, in the absence of scientific information.</p>			
<p>Page 78 Para 2.102.12 It is irregular and unlawful to address the gaps in the information by way of inserting the concerns raised by the CA in the RoR, as conditions in the EA. This would not be consistent with the NEMA requirements or the precautionary and risk averse approach in section 2 of NEMA.</p>			
<p>Page 78 Para 2.102.13The failure to adhere to all the relevant laws and regulations governing public participation means that Karpowership failed to meet the public</p>	<p>The Project did not meet PPP minimum requirements.</p>	<p>The Project has met PPP minimum requirements.</p>	<p>Chapter 5: Public Participation Process Appendix 3 – Public Participation</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>participation requirements. The partial compliance with the relevant laws does not suggest that all the relevant public participation requirements have been met.</p>			
<p>Page 78 Para 2.102.14 Furthermore, there were gaps of material information in many of the reports, with the implication that not all of the impacts of the Project could be fully assessed. Even with the inclusion of significant new information in the FEIAR, there are still material gaps that exist in the FEIAR, of which the Climate Change and Noise Impact assessments, as well as the impact of the increase in seawater temperature upon the marine ecology, may be crucial because these impacts also influence the Marine, Ecological, as well as the Socio-Economic Impact assessments, amongst others.</p>	<p>The lack of the underwater noise report or impact assessment along with the contradictory information, meant that the Competent Authority was not able to reach an informed decision.</p>	<p>Underwater Noise Baseline Study as well as Underwater Noise Impact Assessment were conducted. The results of these reports were used in the Socio-Economic reports to ensure a polycentric and integrated approach.</p>	<p>Chapter 7: Environmental Impact Assessment Appendix 9 - B2 - Underwater Noise Assessment Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment Appendix 9 – D1 – Socio-Economic Impact Assessment</p>
<p>Page 79 Para 2.102.15 Karpowership argues that the Socio-Economic Impact Assessment concluded that engagement with the recreational and small-scale fishing community established that there is no fishing taking place within the harbour itself. However, an assessment of, and engagement with local fishermen in the harbour mouth alone misses the point. The potential impacts of the Project on juvenile fish and crustaceans are likely to have wider impacts on the marine species populations, and consequently, are likely to impact on fishermen scattered across the KZN region, and not just the fishermen at the harbour mouth. In other words, the scope of impact of the proposed Project on I&APs is far broader than the immediate harbour vicinity. The</p>	<p>The public participation period of the 2021 EIA process was deficient and all information should have been available to all I&APs.</p>	<p>All information for the EIA report was included in the 2022 DEIAR and therefore was available for all I&APs to comment, specifically informal fishers.</p>	<p>Chapter 5: Public Participation Process Appendix 3 – Public Participation</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
public participation and EIA process conducted by Karpowership has failed to address or consider these impacts.			
<p>Page 79 Para 2.102.16 In the interests of fair administrative process guaranteed by the Constitution, and the public participation provisions, all public participation documents (the scoping reports, Draft EIAR, etc) should be made available and be easily accessible at the very least, throughout the public participation process. There is no reason for withholding these records, and I&AP's should at any time be able to access and refer back to the scoping reports and other records during the comment on the Draft EIAR stage, all the way up until the decision and the appeal stage. Failure to make these records accessible is highly prejudicial to the I&APs' rights to participate and comment on the EIA, and more generally breaches the rights of access to information.</p>	<p>The public participation period of the 2021 EIA process was deficient and all information should have been available to all I&APs for public comment.</p>	<p>All information for the EIA report was included in the 2022 DEIAR and therefore was available for all I&APs to comment, specifically informal fishers.</p>	<p>Chapter 5: Public Participation Process Appendix 3 – Public Participation</p>
<p>Page 79 Para 2.102.17 On 16 April 2021, after the draft EIAR commenting stage, the CER, representing the 1st commenting MAP, requested that the EAP make the EIA documents available, since these documents were password protected and inaccessible. These documents should be freely available to ensure an open PPP. The EAP provided no answer for why these documents were password protected. Nonetheless, on 19 April 2021, the EAP enabled access to a google drive on request. This is unduly onerous and a burdensome process, and therefore unacceptable, as I&APs and members of the public should have momentary access to these crucial public</p>	<p>The EIAR was taken down for public downloading after closing of the public comment period.</p>	<p>The 2022 EIAR remains available for public viewing and downloading, even after closing of the public comment period.</p>	<p>Chapter 5: Public Participation Process Appendix 3 – Public Participation</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>records without having to undertake prior requests (at their own time and expense). There is no reason that any documents should be taken down until a decision on the application is taken and even thereafter. Nor should they be password protected. These are public documents and should be made publicly available.</p>			
<p>Page 80 Para 2.102.18 On 19 August 2021, at the National Energy Regulator South Africa (NERSA) public hearing in relation to Karpowership's electricity generation licence application, Dr Eloise Marais from the University College of London, submitted the findings of her research. She indicated under oath that the cumulative GHG emissions from the Karpowership Projects could be as high as 70-105million tCO₂e.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 80 Para 2.102.19 The impact rating of climate change impacts after mitigation is rated as "high", and in the CCIA itself, the rating is "very high". Despite this rating, Karpowership indicates in various paragraphs that none of the impacts were identified as a fatal flaw. This is because its impact rating schedule in Appendix C of the FEIAR does not provide for fatal flaws. Normally however, the highest possible rating (in terms of climate change, or otherwise) which cannot be mitigated, usually results in a fatal flaw being identified. Yet again, I&APs did not have an opportunity to interrogate this.</p> <p>Page 80 Para 2.102.20 There were changes in impact ratings for most activities, which I&APs did not have an opportunity to interrogate.</p>	<p>The public participation period of the 2021 EIA process was deficient and all information should have been available to all I&APs for public comment.</p>	<p>All information for the EIA report was included in the 2022 DEIAR and therefore was available for all I&APs to comment, specifically informal fishers.</p>	<p>Chapter 5: Public Participation Process Appendix 3 – Public Participation</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 80 Para 2.102.21 Although Karpowership submits, in their appeal, that the changes to the Draft EIAR were minor, not less than 12 pages of information was identified that specifies the changes from the Draft EIAR to the FEIAR. These changes in the information in the various reports are material and significant, since the changes in the expert reports resulted in changes to many pages of the FEIAR, and also of the significance ratings. The failure to subject these changes to further public participation for a further 30 days, in fulfilment of regulation 23(1)(b) of the 2014 EIA Regulations, is a violation of the public participation provisions of NEMA and the 2014 EIA Regulations.</p>	<p>The public participation period of the 2021 EIA process was deficient and all information should have been available to all I&APs for public comment.</p>	<p>All information for the EIA report was included in the 2022 DEIAR and therefore was available for all I&APs to comment.</p>	<p>Chapter 5: Public Participation Process Appendix 3 – Public Participation</p>
<p>Page 80 Para 2.102.22 The gaps in the information provided to the CA on climate change prevents the CA from reaching an informed decision, in light of the material nature of the missing information. This is highly problematic considering the significance of the climate crisis for South Africa and the increasing amount of evidence that there is a need to take adequate and urgent steps to mitigate the harms of the climate crisis. The Intergovernmental Panel on Climate Change (IPCC) Report (IPCC 1.5 Report) indicates on pages 244 and 227, that "... Some of the worst impacts on sustainable development are expected to be felt among agricultural and coastal dependent livelihoods indigenous people, children and the elderly, poor labourers, poor urban dwellers in African Cities...".</p>	<p>Gaps in the CCIAR meant that the Competent Authority was not able to reach an informed decision.</p>	<p>All identified gaps in the CCIAR have been closed out.</p>	<p>Appendix 9 – C3 Climate Change Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 81 Para 2.102.23 South Africa is already lagging behind in the global effort to address climate change. The Climate Action Tracker (CAT), which takes the current government action and policies into account, rates South Africa's proposed actions and policies under the Paris Agreement as "highly insufficient". The CAT states that South Africa's climate commitment in 2030 is not consistent with holding warming to below 2°C, let alone limiting it to 1.5°C as required under the Paris Agreement, and that instead it is consistent with warming between 3°C and 4°C. If all countries were to follow South Africa's approach, warming could reach over 3°C and up to 4°C. This means South Africa's climate commitment is not in line with any interpretation of a "fair" approach to the former 2°C goal, let alone the Paris Agreement's 1.5°C limit. New and unnecessary sources of GHG emissions would be counterproductive in this endeavour, including the Karpowership Projects, which is anticipated to emit almost 50million tCO2e GHG emissions.</p>	<p>The CCIA did not fully consider South Africa's international obligations in terms of climate change.</p>	<p>The CCIA fully addresses and considers South Africa's international obligations in terms of climate change.</p>	<p>Appendix 9 – C3 Climate Change Impact Assessment</p>
<p>Page 81 Para 2.102.24 In addition to the actual emissions, the CCIA has also not addressed the proposed Project's impact on natural resources which have an ability to mitigate climate change such as seagrass and mangroves, and the proposed Project will negatively impact on a number of critical biodiversity and protected areas, as well as mangroves and estuaries, Richard's Bay is home to a number of ecologically sensitive surrounds including estuaries, critically endangered mangroves (which support various birds, fish and other marine</p>	<p>The CCIA did not consider the project's impacts on climate change mitigating resources, such as seagrass and mangroves, specifically:</p> <ul style="list-style-type: none"> - Kwambonambi Dune Forest; - Kwambonambi Hygrophilous Grassland; 	<p>The CCIA assesses the project's impacts on climate change mitigating resources, such as seagrass and mangroves specifically:</p> <ul style="list-style-type: none"> - Kwambonambi Dune Forest; - Kwambonambi Hygrophilous Grassland; - KZN Coastal Forest; Protected Mangrove Forest; - Swamp Forest; 	<p>Appendix 9 – C3 Climate Change Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>ecology, including those that are critically endangered). These include the Kwambonambi Dune Forest; Kwambonambi Hygrophilous Grassland; KZN Coastal Forest; Protected Mangrove Forest; Swamp Forest; Richards Bay Nature Reserve, a protected area in terms of National Environmental Management: Protected Areas Act, 2003 (Act No. 57 of 2003), uMhlathuze Estuary; an Important Bird Area (IBA); Greater Umhlathuze Wetland System; and a CBA. Mangroves, corals, seagrass, and estuaries are particularly important as they have the exceptionally high ability to absorb carbon from the atmosphere, thereby acting as carbon sinks. Mangroves and wetlands also have the ability to act as a buffer against extreme weather events such as storms, rough seas, and/or flooding. Despite this, these were not addressed in the CCIA of the three Karpowership Projects, and the full impact therefore is unknown.</p>	<ul style="list-style-type: none"> - KZN Coastal Forest; Protected Mangrove Forest; - Swamp Forest; - Richards Bay Nature Reserve - uMhlathuze Estuary - Greater Umhlathuze Wetland System. 	<ul style="list-style-type: none"> - Richards Bay Nature Reserve - uMhlathuze Estuary - Greater Umhlathuze Wetland System 	
<p>Page 81 Para 2.102.25 Mangroves and estuaries are also spawning grounds for juvenile fish and prawns. However, in this regard, the Marine Ecological Impact Study for the Richards Bay Project indicates that there is not enough information about underwater noise and vibration levels from floating mobile powerships in the context of the Port of Richards Bay to conduct an assessment. "Therefore, general sound levels from commercial vessels and from a powership moored in another location are presented, as are the biological thresholds of sensitive receptors. A quantitative underwater noise assessment is recommended to comprehensively assess the impact on the</p>	<p>Actual and potential environmental impacts not assessed because underwater noise impact assessment not conducted.</p> <p>Actual and potential socio-economic impacts not assessed because underwater</p>	<p>Underwater Noise Impact Assessment conducted. Information incorporated into Socio-Economic Impact Report.</p> <p>Specific case study and consultation conducted to assess potential impacts of project on SSFs, both environmentally and socio-economically.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 - B2 - Underwater Noise Assessment</p> <p>Appendix 9 - B4 - Coastal, Estuarine and Marine Impact Assessment</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p> <p>Appendix 9 - D1.1 – Small Scale Fishers Engagement</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>marine ecology.... A noise modelling study should be undertaken to gain a more quantitative understanding of the noise produced from powership operations in the Port of Richards Bay and the cumulative impacts on the surrounding marine ecology." Whilst the full extent of the impact is unknown, the powerships will impact negatively on the surrounding wetlands, mangroves, protected areas, and other natural resources which have the ability to mitigate climate change.</p>	<p>noise impact assessment not conducted.</p>		
<p>Page 81 Para 2.102.26 As such, the proposed Project is not in the public interest, and is not in line with the NEMA principles including the protection of sensitive, vulnerable, highly dynamic, or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems. It also is not in line with the provisions aimed to protect the water resources for future generations in line with the National Water Act 36 of 1998 and cannot be said to meet the section 24 Constitutional requirements.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>	<p>No direct issue to address.</p>
Summary of responses from the Competent Authority			
<p>Page 86 Para 2.104.1 The EAP failed to comply with the peremptory provisions of regulation 23(1)(b) of the 2014 EIA Regulations as the FEIAr dated April 2021 contains significant changes and/or contains significant new information that was not part of the initial reports that had been subjected to PPP. The EAP, however, failed to subject the revised EIAr to another round of public participation prior to submitting it for decision-making purposes.</p>	<p>No public comment period was provided for the public to comment on new and significant information in the 2021 FEIAr.</p>	<p>No new significant information is included in the 2022 FEIAr and therefore no additional public comment period is required.</p> <p>All information for the EIA report was included in the 2022 DEIAr and therefore was available for all I&APs to comment, specifically SSFs.</p>	<p>Final EIA Report and Final EMPr. Any changes are marked in blue text.</p>
<p>Page 87 Para 2.104.2</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>In addition, Karpowership failed to comply with the requirements prescribed in terms of section 24(1A)(c) of NEMA in relation to any procedure relating to public consultation and information gathering. The EAP subjected the draft EIAr to public review for a period less than the legislated 30 days as the relevant documents were removed from their (the EAP's) website and were only returned upon receiving queries from various I&APs. Therefore, it is the CA's view that the PPP undertaken in respect of the proposed project was not in line with the requirement of regulation 39 to 44 of the 2014 EIA Regulations, and the PPP also failed to comply with the principles of NEMA as outlined in Chapter 2 thereto, hence the decision to reject the EA application.</p>			
Ministerial Evaluation (Reasons for Decision)			
<p>Page 87 Para 2.105 This ground of appeal is essentially a critique of the procedure that was followed, and it does not deal with the merits of the decision. Even though a defective public participation is a procedural defect that will result in a refusal of the application for an EA, I must emphasise that meeting a minimum 'threshold' for public participation does not establish an entitlement to the granting of an EA.</p>	<p>The Project did not meet PPP minimum requirements.</p>	<p>The Project has met PPP minimum requirements.</p>	<p>Chapter 5: Public Participation Process Appendix 3 – Public Participation</p>
<p>Page 87 Para 2.106 The aspects in the Memorandum that sets out the purported minimum legislated 'threshold' for fair public participation, was in response to the written complaint lodged to the CA in terms of regulation 14(2) of the 2014 EIA Regulations, and those aspects, are in my view, to be considered in the investigative</p>	<p>The Project did not meet PPP minimum requirements.</p>	<p>The Project has met PPP minimum requirements.</p>	<p>Chapter 5: Public Participation Process Appendix 3 – Public Participation</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
process against the EAR I have nevertheless considered the contents of this Memorandum, amongst other information, placed before me.			
<p>Page 87 Para 2.107</p> <p>There is no 'minimum threshold' for public participation as suggested by Karpowership. There are legal requirements and policies specifically relating to public consultation in the environmental sphere, which must be adhered to for any application for EA. The NEMA, the 2014 EIA Regulations and the public participation guidelines provide the legislative framework for meaningful public participation.</p>	The Project did not meet PPP minimum requirements.	The Project has met PPP minimum requirements.	Chapter 5: Public Participation Process Appendix 3 – Public Participation
<p>Page 87 Para 2.108</p> <p>As I have stated under the heading "Holistic assessment of the EA application" herein above, the CA already, on 11 March 2021, in their comments on the Draft EIAR, listed the information that must have been included in the FEIAR, The CA further drew Karpowership's attention to the provisions of regulation 23(1)(b) of the 2014 EIA regulations in so far as it applies to significant changes or new information. Despite this alert from the CA, a comparison between the Draft EIAR and the FEIAR shows that there are many notable changes and additions between these two documents, which in my view constitute 'significant' changes or 'new information'.</p>	No public comment period was provided for the public to comment on new and significant information in the 2021 FEIAR.	<p>No new significant information is included in the 2022 FEIAR and therefore no additional public comment period is required.</p> <p>All information for the EIA report was included in the 2022 DEIAR and therefore was available for all I&APs to comment.</p>	Final EIA Report and Final EMPr. Any changes are marked in blue text.
<p>Page 88 Para 2.109</p> <p>Any significant changes or new information requires a risk averse and participatory approach in which I&APs are allowed to comment thereon, which may be followed by the available mechanisms for revision, as contemplated in regulation 23(1)(b) of the</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
2014 EIA Regulations. The significant changes or new information in the FEIAR should have been subjected to a further public participation.			
<p>Page 88 Para 2.110</p> <p>The above view is confirmed by the appointed independent expert, in their recommendations, wherein they state as follows:</p> <p><i>" EIMS has considered at a high level the changes between the DEIAR which was subjected for public participation and the FEIAR which was not subjected to additional public participation. There are many notable changes and additions between these two documents which in our view constitute 'significant' changes or new information, and which would have been important for potential and registered I&APs to be able to comment on.</i></p> <p><i>As such it is our view that a risk averse and participatory approach should have been taken and that the available mechanisms for revision (i.e. Regulation 23 (1)(b)) should have been followed.</i></p> <p><i>However, regarding the applicability of the requirement for the provisions of Regulation 23 (1)(b) to be followed, we are of the view that there were potentially significant changes to the report and potential new information and as such should have been submitted for public review. In this regard we feel that the ground of appeal in so far as it relates to this specific aspect should be dismissed.</i></p> <p><i>Regarding the consultation with small scale fishers, the EAP (Appendix D of the FEIAR) states that consultation with the small-scale</i></p>	<p>No public comment period was provided for the public to comment on new and significant information in the 2021 FEIAR.</p>	<p>No new significant information is included in the 2022 FEIAR and therefore no additional public comment period is required.</p> <p>All information for the EIA report was included in the 2022 DEIAR and therefore was available for all I&APs to comment.</p>	<p>Final EIA Report and Final EMPr.</p> <p>Any changes are marked in blue text.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p><i>fishing community indicated that it is highly unlikely that the operations will have any impact on the fishing community. The consultation referred to references the engagements that the socio-economic specialist had with small scale fishers to determine whether there was fishing taking place in the Harbour. The response from the EAP further states that there is no fishing taking place in the harbour. It appears from the response and the statements from the socio-economic report that the basis for determining that there will not be an impact on the small-scale fishers relies on the fact that fishing doesn't take place in the harbour.</i></p> <p><i>It is in our view necessary for the socio-economic assessment to have considered the potential impacts on the source of the small-scale fishers fish stocks which are expected to include the fish nursery functionality of the Harbour itself.</i></p> <p><i>The EAP argues that consultation with the small-scale fishers was fulfilled through the interviewing process of the Socio-economic assessment. These small-scale fishers were not included in the projects database of registered I&APs nor is there evidence of direct notification of these stakeholders to participate in the EIA process:.</i></p>			
<p>Page 89 Para 2.111 Further to the above, I do not agree with Karpowership's submission that, because the Project introduces new technology in South Africa, this is a further reason why the issues in the reasons for the CA's decision could have been more appropriately incorporated into the conditions of a positive EA for the proposed Project in terms of mitigation and</p>	<p>The fact that the technology being introduced by the project is new does not constitute a ground for the CA to grant a positive EA.</p>	<p>The EIA process conducted in 2022 was exceptionally thorough and provided all information necessary to not only all I&APs for comment, but also for the CA to make an informed decision.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Chapter 9: Concluding Statement and Recommendations</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>prevention. The fact that the proposed Project introduces new technology justifies a more cautious approach in which a more rigorous, detailed and comprehensive assessment on the potential and actual impact upon the environment is required, especially since there is no reference to similar projects which could have been used as the baseline.</p>	<p>New technology warrants a more thorough and detailed EIA process.</p>	<p>The 2022 EIA process also does not rely on 'mitigation measures' to be attached to a conditional EA, as all potential impacts have been assessed in minute detail, remaining mitigation measures, but are addressed in the EMPr.</p>	<p>Appendix 6 - EMPr</p>
<p>Page 89 Para 2.112 The suggestion that the potential impacts of the proposed Project may be identified, predicted, evaluated and monitored by means of a condition in an EA, defeats the purpose of the EIA process. The very purpose of an EIA process is to identify, predict and evaluate the actual and potential risks for, and impacts on the geographical, physical, biological, social, economic and cultural aspects of the environment, before commencement of any of the proposed activities, to find alternatives and options that best avoid negative impacts altogether, or where negative impacts cannot be avoided, to minimise and manage negative impacts to acceptable levels, while optimising positive impacts, to ensure that ecological sustainable development and justifiable social and economic development outcomes are achieved. The FEIAr informs the decision on whether or not an EA for a specific project should be granted, before any of the potential impacts of that proposed activity actually happens.</p>	<p>It is not correct to state monitoring will occur after the awarding of the EA if the impacts are not known.</p>		
<p>Page 90 Para 2.113 Furthermore, considering the CA's conclusion that there was inadequate public participation, this procedural unfairness cannot be cured after the fact. The gaps outlined in the RoR</p>	<p>No public comment period was provided for the public to comment on new and significant</p>	<p>No new significant information is included in the 2022 FEIAr and therefore no additional public comment period is required.</p>	<p>Final EIA Report and Final EMPr. Any changes are marked in blue text.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>remain and without addressing these gaps, the negative or positive impacts of the proposed Project, including the socio-economic considerations thereof, cannot be adequately considered.</p>	<p>information in the 2021 FEIAR.</p>	<p>All information for the EIA report was included in the 2022 DEIAR and therefore was available for all I&APs to comment.</p>	
<p>Page 90 Para 2.114 Where there are gaps in the information contained in the FEIAR, the risk averse approach should be followed in line with the National Environmental Management Principles in section 2 of NEMA.</p>			
<p>Page 90 Para 2.115 In my view, the EAP failed to enlist the provision of regulation 23(1)(b) of the 2014 EIA Regulations, as the FEIAR dated April 2021 contains significant changes and/or significant new information that was not contained in the reports consulted on during the PPP. Nonetheless, the FEIAR was submitted to the CA for decision-making purposes in the absence of a second round of public consultation. This compromised the decision-making powers of the CA, as it does mine.</p>			
<p>Page 90 Para 2.116 I therefore proceed to dismiss the grounds of appeal on this topic.</p>			
Seventh Ground of Appeal: Socio-Economic benefits of the Project			
<p>Page 90 Para 2.117 The grounds of appeal pertaining to this topic are concerned with the alleged failure of the CA to comprehensively consider the socio-economic benefits of the Project to the broader Republic as enumerated in the FEIAR. In this regard, Karpowership contends that the refusal decision fails to consider the IRP 2019</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>and the substantiation of the proposed Project from a socio-economic perspective. The IRP 2019 indicates that South Africa is policy driven towards an expansive energy mix, which should include an energy mix directive as well as the introduction of new technologies to prevent installed inflexible capacity. Karpowership concludes that these components should have been considered by the decision-maker against sections 2(3), 2(4)(a), 2(4)(b), 2(4)(i), 2(4)(l) and 2(4)(m) of NEMA.</p>			
Summary of Comments from I&APs			
<p>Page 91 Para 2.118.1 South Africa's need for electricity is devastating and the whole country is facing load shedding, but Karpowership is not the answer. There are more ways in which this problem can be dealt with, in a cleaner manner and as opposed to thousands of fishermen's jobs being placed at risk. The proposed Project would lead to the fishermen not being able to feed their families and going into more poverty. The local fishermen have been in the area for decades, with fishing as their only income as they have no education and/or knowledge to turn to other jobs as a source of income. The powerships are not climate neutral. They will add to the climate change issues we already have in the country. As a result, it is not only fishers' livelihoods that are at risk but many residents/citizens throughout South Africa would be negatively affected. The rejection of the EA application in respect of a power plant that would contribute significantly to climate change and has potential for significant adverse environmental</p>	<p>There are cleaner forms of energy, fishermen's jobs are at risk, the project will drive the fishermen into poverty, the powerships are not climate neutral, many residents would be negatively affected; negatively affects marine environment. These impacts were not sufficiently addressed in the 2021 FEIAr.</p>	<p>The potential negative impacts of the project and its impacts on SSFs are thoroughly assessed in the FEIAr, with a focus in the Socio-Economic Impact Assessment and the Marine Ecology Report.</p>	<p>Chapter 7: Environmental Impact Assessment Appendix 9 – D1 – Socio-Economic Impact Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment Appendix 8.4 – Sustainability Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
impacts on the marine environment (that have not been fully understood), is entirely justifiable.			
<p>Page 91 Para 2.118.1 Karpowership seeks to rely heavily on the so-called positive aspects of the socio-economic impacts of the Project, ignoring the balancing act that is required in terms of the law, which includes consideration of all the NEMA principles in decision-making. Karpowership highlights only the positive impacts, but it does not explicitly outline any of the negative impacts, in circumstances where a comprehensive assessment of all impacts is required in order for the CA to reach a decision.</p>	The 2021 EIAR overly relied on positive socio-economic impacts of the project and did not adequately balance these impacts with potential environmental impacts.	To ensure a polycentric approach was followed and ensure that no one factor dominated the results or literature of the EIAR, all of the specialist reports were created with access to all other specialist reports and results. All negative impacts are stated.	Chapter 7: Environmental Impact Assessment Appendix 9 – Specialists Studies
<p>Page 91 Para 2.118.3 The potential Socio-Economic impacts of the Project, which were not adequately addressed, include the following:</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
<p>Page 91 Para 2.118.3.1 Higher temperatures (on land and sea) and reduction in rainfall is expected because of climate change, resulting in the reduction of already depleted rainfall, which will contribute to increasing number of droughts.</p>	The 2021 FEIAR did not consider the impacts of climate change on rainfall patterns and therefore increased risks associated with droughts, which will impact forestry, agriculture and eco-tourism.	The FEIAR and CCIAR address the impacts of climate change on rainfall patterns and therefore increased risks associated with droughts. The FEIAR also consider how changing rainfall patterns and increased risks of drought will impact forestry, agriculture and eco-tourism.	Chapter 7: Environmental Impact Assessment Appendix 9 – C3 – Climate Change Impact Assessment
<p>Page 91 Para 2.118.3.2 South Africa's economy is highly dependent on climate-sensitive sectors such as agriculture and forestry, that may impact on tourism, which is another key driver of economic growth.</p>			
<p>Page 92 Para 2.118.3.3 No specific assessment was done on the impacts of the noise to be generated by the proposed Project on marine species; and of the anticipated increase in sea temperature</p>	The 2021 FEIAR did not consider how noise and heated water discharge will impact on marine life and	The FEIAR and Socio-Economic Report used the information and results from the Underwater Noise Impact Assessment and considered	Chapter 7: Environmental Impact Assessment Appendix 9 – D1 – Socio-Economic Impact Assessment

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>that would be caused by the discharge of heated water on the juvenile fish nursery areas; and of the impact of the proposed Project on the local economy.</p> <p>Page 92 Para 2.118.3.4 The Noise impacts of the proposed Project would threaten the fishing economy in Saldanha which contributes directly to the local economy. Commenting I&APs submitted extensive representations on the noise impacts of the proposed Project.</p>	<p>species, which will therefore impact the local dependent mariculture and aquaculture economies.</p>	<p>how noise and heated water discharge (results from the Thermal Plume Modelling Report) will impact marine life and species and therefore impact the local dependent mariculture and aquaculture economies.</p>	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>
<p>Page 92 Para 2.118.4 Section 2 of NEMA seeks to encourage public participation, to protect sensitive ecosystems such as coastal shores and estuaries that are significant for human resources usage and development pressure, to promote a sustainable development and to guide decision making, amongst other things. The CA concluded that the information provided by Karpowership was not sufficient to enable them to make an informed decision. Karpowership fails to take that into account and based on their own notions of development and improvement of the South African economy, they may very likely marginalise an economy of fishers in Saldanha Bay.</p>	<p>Development must still be inclusive of previously disadvantaged and marginalised communities.</p> <p>The 2021 FEIAR did not consider how this development may further marginalise the economy of SSFs.</p>	<p>The FEIAR and Socio-Economic Report specifically address how the previously disadvantaged and marginalised communities such as the local economy of the SSFs may be impacted by the project. The PPP specifically catered for inclusion of previously disadvantaged and marginalised communities</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 5: Public Participation Process</p> <p>Appendix 3 – Public Participation</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p> <p>Appendix 9 – D1.1 – Small Scale Fishers Engagement</p>
<p>Page 92 Para 2.118.5 The conclusion of the South African Council for Natural Scientific Professions' (SACNASP) Peer Review of the Estuarine impact Report dated 23 April 2021, states that the impacts identified are not a true reflection of the scale of the Project in terms of influence. There are impacts that trigger regional and global scale impacts and the specialist recommends that</p>	<p>SACNASP Peer Review of the Estuarine Impact report stated that not all impacts assessed, specifically regional</p>	<p>Estuarine Impact Assessment assesses local, regional and global impacts from project.</p>	<p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>these be reassessed and, in addition, the peer review states that there is no clear recommendation from the estuarine specialist. The letter by the peer reviewer, MER, dated 23 April 2021 states that "on the 22 April 2021 MER was requested to review the amended Richards Bay report". This serves to corroborate the allegations around significant gaps in the reports and the need for a more thorough assessment.</p>	<p>and global scale impacts.</p> <p>No clear recommendation from the Estuarine Specialist.</p>	<p>Estuarine Specialist specifically recommends the project go ahead.</p> <p>No additional 'peer reviews' of any specialist reports have been conducted.</p>	
<p>Page 92 Para 2.118.6 In terms of conclusions and recommendations, impacts are localised and are not a true reflection of the scale of the proposed Project in terms of influence. There are impacts that should trigger regional scale and even global scale impacts. This needs to be reassessed.</p>	<p>The peer review of the Estuarine Impact Assessment was not included in the submission of the DEIAr.</p>		
<p>Page 92 Para 2.118.7 There is no clear recommendation of the proposed Project from an estuary specialist. As it stands the approval included in the report does so by deflecting the responsibility for the assessment of the impacts to certain components which form part of the whole estuary. An estuary specialist must integrate the assessment of all components that combine to form the estuary.</p>			
<p>Page 93 Para 2.118.8 It is unclear whether all of these impacts were assessed, in 2 days, from the review recommendations, as a new report was submitted on 24 April 2021. It does not appear that all of these recommendations were addressed.</p>	<p>Not all proposed mitigation measures from the specialists were addressed.</p>	<p>All proposed mitigation measures proposed by all specialists were considered and incorporated into the EMPr.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 6 - EMPr</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 93 Para 2.118.9 Considering that significant gaps conducted by Karpowership, which gaps may have impacts on the sensitive areas, and mortality rates of various fish and crustaceans specific to each region, the EA was correctly refused, as the assessment undertaken is not sufficient for decision-making.</p>	<p>Gaps in information in 2021 FEIAR may have impacts on the sensitive areas, and mortality rates of various fish and crustaceans.</p>	<p>Holistic and polycentric EIA addresses all gaps – in respect of fish and crustaceans specifically the Marine Ecology Report</p>	<p>Appendix 9 – D1 – Socio-Economic Impact Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment Appendix 8.4 – Sustainability Assessment</p>
<p>Page 93 Para 2.118.10 Due to the foreseen harms of the proposed Project and the lack of material information, an application of NEMA principles in any other way would not have remedied the outcome reached, nor could it have resulted in the CA granting the EA.</p>	<p>The 2021 EIAR failed to address all of the NEMA principles.</p>	<p>All NEMA principles have been addressed in the 2022 FEIAR.</p>	<p>FEIAR and associated Appendices</p>
Summary of Responses from the Competent Authority			
<p>Page 96 Para 2.120 In their responses to this ground of appeal, the CA submits that :</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 96 Para 2.120.1 The project's status as a SIP cannot have any particular bearing on the decision of the CA in discharging its mandate and on the CA's discretion to refuse or grant an EA. As already outlined in the RoR, all of the negative and positive socio-economic impacts have to be identified in order to make a decision, and these weighed against the environmental impacts.</p>	<p>The project's 'SIP' status does not grant a license to override environmental considerations.</p>	<p>The SIP status of the project is viewed as only <i>one</i> of the considerations in the discussion of the need and desirability of the project. This consideration is discussed contextually in the EIAR. The SIP status is 'weighed up' against necessary environmental considerations.</p>	<p>Chapter 7: Environmental Impact Assessment Chapter 8: Motivation, Need and Desirability Appendix 8 - Independent Contributions to the Need and Desirability Appendix 9: Specialists Studies</p>
<p>Page 96 Para 2.120.2 While the socio-economic assessment of the proposed Project highlighted positive aspects of the development and recommended that the project should proceed, other aspects of the development could not be overlooked.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 96 Para 2.120.3</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Many of the specialist reports contained various gaps which made it impossible for the CA to comprehensively weigh up all considerations. It is necessary to weigh up impacts and apply section 24 of the Constitution, NEMA and its principles, as well as the 2014 EIA Regulations and both the positive and negative impacts of the proposed project must be considered. This is entrenched in section 23(2)(b) of NEMA, which states as follows: <i>"The general objective of integrated environmental management is to 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".</i></p>	<p>Weighing exercise of positive impacts (such as addressing energy shortages) and negative impacts (such as climate change, environmental harm etc) must be balanced.</p>	<p>Need and desirability of project addressed in various reports, all of which are integrated in terms of the assessments and impacts for the EIA.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p> <p>Appendix 9: Specialists Studies</p>
<p>Page 96 Para 2.120.4 The CA does not necessarily dispute some of the socio-economic impacts of the proposed Project. Instead, the CA correctly seeks to ascertain a holistic picture, considering the impact the project could have on the much broader community, surrounding the Port of Ngqura.</p>			
<p>Page 96 Para 2.120.5 Furthermore, it is clear that the refusal decision is due to the lack of material information, which Karpowership failed to provide in its FEIAR. These gaps directly impact on the adequacy of the socio-economic assessment. The gaps identified in</p>	<p>The 2021 EIAR failed to consider the socio-economic impacts on the following:</p> <ul style="list-style-type: none"> - noise on megafauna and 	<p>The 2022 EIAR assesses the socio-economic impacts on the following:</p> <ul style="list-style-type: none"> - noise on megafauna and impacts on tourism - eco-tourism in respect of 	<p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
the RoR which would have a bearing on the socio-economic consideration include:	impacts on tourism	- impacts on swamps and mangrove habitats and associated tourism;	
Page 97 Para 2.120.5.1 Lack of a qualitative Noise Impact Assessment on megafauna, including the Humpback Dolphin: This may have further impacts on socioeconomics for tourism in the region;	- eco-tourism in respect of swamps and mangrove habitats and associated tourism;	- impacts on avifauna and associated tourism;	
Page 97 Para 2.120.5.2 Lack of a qualitative Noise Impact Assessment on swamps and mangrove habitats: this may also have socio-economic implications for tourism, fisheries, and local fishermen, since mangroves and swamps are nurseries for fish and crustaceans;	- impacts on avifauna and associated tourism;	- impacts of the thermal plume on biodiversity and associated tourism	
Page 97 Para 2.120.5.3 Inadequate Avifauna Impact Assessment to identify all the important birds, and conservation areas such as Richards Bay Nature Reserve, mangroves, and their habitats: this may also impact on tourism and related socio-economic activities; and	- impacts of the thermal plume on biodiversity and associated tourism		
Page 97 Para 2.120.5.4 Inadequate assessment of impacts of thermal water released into the environment: this may impact upon the food sources for birds, biodiversity related tourism, fishing, and fishing communities.			
Ministerial Evaluation (Reasons for Decision)			
Page 97 Para 2.121 An application for EA must, in the first instance, comply with the fact-specific requirements for environmental governance, irrespective of whether the Project itself complies with any other legislative dispensation. I repeat that neither socio-economic needs nor procurement	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>considerations can elevate the recommendation in a Socio-Economic Impact Assessment report above the holistic consideration of the actual and potential risks, and impacts on the geographical, physical, biological, social, economic and cultural aspects of the environment.</p>			
<p>Page 97 Para 2.122 In an application for EA, the effect of a decision needs to be considered in respect of all aspects of the environment and all people in the environment, by pursuing the best practical environment option. In simplified terms, this means that Karpowership had to give sufficient proof that the proposed Project will not cause more harm than it will do good</p>	<p>The 2021 FEIAr did not prove that the proposed Project will not cause more harm than it will do good.</p>	<p>The 2022 EIAr carefully weighs up these factors through independent specialist who conclude that there are no fatal flaws and that the project will do more good than harm.</p>	<p>Appendix 8.4 – Sustainability Assessment Appendix 8 - Independent Contributions to the Need and Desirability Appendix 9: Specialists Studies</p>
<p>Page 97 Para 2.123 While the IRP 2019 indicates that South Africa is policy driven towards an expansive energy mix, which should include new technologies such as that of Karpowership, proposed developments still need to meet the requirements of the EIA process. Karpowership is not the only entity that can deliver this result, and refusing their application for EA simply means that, from the perspective of environmental governance, the proposed activities cannot be supported. Therefore, I do not agree with the argument that, because this specific application for EA was refused, therefore a general national policy was contradicted.</p>	<p>There must not an over-reliance on positive socio-economic impacts of the project. There must be a tempered approach in the EIA which adequately balances these socio-economic impacts with potential environmental impacts.</p> <p>This is in addition to the fact that there must not be an over-reliance on the fact that Karpowership responded to a governmental</p>	<p>To ensure a polycentric approach was followed and ensure that no one factor dominated the results or literature of the EIAr, all of the specialist reports were created and/or updated with access to all other specialist reports and results.</p> <p>The proposed project meets the requirements of the EIA process, NEMA and all SEMA's</p>	<p>Chapter 7: Environmental Impact Assessment Appendix 8 - Independent Contributions to the Need and Desirability Appendix 9: Specialists Studies</p>
<p>Page 98 Para 2.124 Natural gas as a concept is indeed not seen as being overtly negative. It is however not possible with the EIA process for this Project, to make a determination with regard to the</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
significance of potential impacts or consequences for the environment, the effectiveness of potential mitigation measures, or whether the Project will constitute a sustainable development.	procurement programme.		
<p>Page 98 Para 2.125 While it is acknowledged that (i) the Project is included in the RMIPPPP, (ii) it aligns with the IRP2019, and (iii) may provide certain positive socio-economic benefits, the principles of environmental management as specified in section 2 of NEMA and specifically the following would also need to be considered in decision making:</p>			
<p>Page 98 Para 2.125.1 NEMA section 2(4)(a)(vii) —that a risk-averse and cautious approach is applied, which takes into account the limits of current knowledge about the consequences of decisions and actions.</p>	The 2021 FEIAR did not follow a risk-averse or cautious approach as per S2(4)(a)(vii) of NEMA.	All specialists and the EAP adopted a NEMA section 2(4)(a)(vii) a risk-averse and cautious approach in the 2022 EIAR.	Chapter 7: Environmental Impact Assessment Appendix 9: Specialists Studies
<p>Page 98 Para 2.125.2 NEMA section 2(4)(a)(viii) - that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether prevented, are minimised and remedied.</p>	There must be a tempered approach in the EIA which adequately balances socio-economic impacts with potential environmental impacts.	To ensure a polycentric approach was followed and ensure that no one factor dominated the results or literature of the EIAR, all of the specialist reports were created with access to all other specialist reports and results and all negative impacts are reported and where they cannot be avoided are minimised and remedied and mitigation measures are proposed for the EMPr.	Chapter 7: Environmental Impact Assessment Appendix 8 - Independent Contributions to the Need and Desirability Appendix 9: Specialists Studies
<p>Page 98 Para 2.125.3 NEMA section 2(4)(b) - environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and must take into account the effects of the decisions on all aspects of the environment and all people in the environment by pursuing</p>			Appendix 6 - EMPr

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
the selection of the best practicable environmental option.			
<p>Page 98 Para 2.125.4 NEMA section 2(4)(c) - that environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons.</p>	Adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons	<p>To prevent unfair environmental harm being sustained by any vulnerable group in society, the FEIAR and Socio-Economic Report specifically address how the previously disadvantaged and marginalised communities such as the local economy of the SSFs may be impacted by the project.</p> <p>The PPP specifically catered for inclusion of previously disadvantaged and marginalised communities</p>	<p>Chapter 5 – Public Participation Process</p> <p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>
<p>Page 98 Para 2.125.5 NEMA section 2(4)(i) — that social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in the light of such consideration and assessment.</p>	There must be a tempered approach in the EIA which adequately balances socio-economic impacts with potential environmental impacts.	To ensure a polycentric approach was followed and ensure that no one factor dominated the results or literature of the EIA, all of the specialist reports were created with access to all other specialist reports and results with the result that environmental impacts of activities, including disadvantages and benefits, are fully considered, assessed and evaluated both in the specialist reports and the EIA	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p> <p>Appendix 9: Specialists Studies</p>
<p>Page 98 Para 2.125.6 NEMA section 2(4)(k) — that decisions must be taken in an open and transparent manner,</p>	The EIA process must be run fairly and transparently.	The EIA process was run fairly, transparently and in accordance with the	FEIAR and associated Appendices

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
and access to information must be provided in accordance with the law.		requirements of NEMA and the EIA Regulations, 2014.	
<p>Page 99 Para 2.126 In my evaluation of this ground of appeal, I considered the impacts of the proposed activities, both positive and negative in the context of the Socio-Economic Impact Assessment. In this regard, the following:</p>	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
<p>Page 99 Para 2.126.1 The Socio-Economic Impact Assessment correctly looked at both the local and wider impacts of the Project since the creation of jobs and other positive and negative impacts cannot only be localised to the Port of Richards Bay. If only local impacts were relevant, then only the localised economic benefits and the local suffering caused by load shedding, would be considered. The argument by Karpowership, which is entirely correct, is that since the impact of readily available and on-demand produced power will benefit the entire country, the fact that there will be job creation across the entire country, is a relevant consideration..</p>	No direct issue to address.	No direct issue to address. .	No direct issue to address.
<p>Page 99 Para 2.126.2 Under the heading "Holistic assessment of the EA application" herein above, I have considered and dealt extensively with the Socio-Economic Impact Assessment report, and with the fatal gaps, limitations, and inconsistencies therein. For the sake of brevity, I do not repeat my consideration thereof here, but the contents thereof are also applicable in respect of this ground of appeal.</p>	No direct issue to address.	No direct issue to address.	No direct issue to address.
<p>Page 99 Para 2.126.3 The gaps, limitations and inconsistencies in the information provided in the Socio-</p>	Gaps and limitations and inconsistencies in the information	The FEIAr and Socio-Economic Report specifically address how the previously	Chapter 5 – Public Participation Process

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
Economic Assessment report has the effect of marginalizing an economy of fishers in Richards Bay.	provided in the Socio-Economic Assessment report had the effect of marginalizing an economy of fishers in Richards Bay.	<p>disadvantaged and marginalised communities such as the local economy of the SSFs may be impacted by the project. The PPP specifically catered for inclusion of previously disadvantaged and marginalised communities.</p> <p>To ensure a polycentric approach was followed and ensure that no one factor dominated the results or literature of the EIAR, all of the specialist reports were created with access to all other specialist reports and results with the result that environmental impacts of activities, including disadvantages and benefits, are fully considered, assessed and evaluated both in the specialist reports and the EIA.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p> <p>Appendix 9 – D1.1 – Small Scale Fishers Engagement</p>
<p>Page 99 Para 2.127 As I have stated under the heading "Holistic assessment of the EA application" herein above, the specialist studies are indicative thereof that the concerns raised by commenting I&APs are valid. The Socio-Economic Impact Assessment report, and Karpowership itself, brush aside the environmental concerns as 'micro impacts in the brownfields ports', or 'micro-environmental issues', and offer limited job opportunities as a trade off.</p>	Lack of proper holistic assessment conducted by Karpowership.	All impacts, both environmental and socio-economic, at local and macro scales were completed.	<p>Chapter 7: Environmental Impact Assessment</p> <p>Appendix 9: Specialists Studies</p> <p>Appendix 8.4 – Sustainability Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 99 Para 2.128 I repeat that the actual and potential impacts on the environment, as well as the socioeconomic conditions - particularly in relation to small-scale fisheries, could not be determined due to gaps and inconsistencies in the various reports submitted. In particular, due to the lack of information in respect of the Underwater Noise Impact; the Marine and Ecology Study as well as the Estuarine Impact Report; and the actual and potential risks for and impacts on the geographical, physical, biological, social, economic and cultural aspects of the environment could not be predicted and evaluated in order to find the alternatives and options that best avoid negative impacts altogether, or where negative impacts cannot be avoided, to minimise and manage negative impacts to acceptable levels, while optimising positive impacts, to ensure that ecological sustainable development and justifiable social and economic development outcomes are achieved.</p>	<p>Various gaps and inconsistencies prevent the proper assessment of the impact of the Project on SSFs. These gaps are the lack of an Underwater Noise Impact Assessment, which feeds into the results of the socio-economic, marine biology and other reports.</p>	<p>An Underwater Noise Impact Assessment and Underwater Noise Baseline Assessment were conducted.</p> <p>The results of the reports fed into the various other specialist reports.</p>	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment</p> <p>Appendix 9 – B2 – Underwater Noise Assessment</p> <p>Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>
<p>Page 100 Para 2.129 Furthermore, I have taken note of the independent expert's advice that, based on their review of the RoR findings, there is no evidence to suggest that the CA dismissed the positive socioeconomic benefits of the project or the fact that the project falls squarely with the planned energy mix in terms of the IRP 2019.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Page 100 Para 2.130 I therefore proceed to dismiss the grounds of appeal pertaining to this topic.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>	<p>No direct issue to be addressed.</p>
<p>Eighth Ground of Appeal: The SIP Status of the Project</p>			

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>Page 100 Para 2.131 The grounds of appeal on this topic are concerned with the SIP status of the proposed Project in terms of section 8(1)(a) read with section 7(1) of the Infrastructure Development Act, and the ramifications of the refusal of the EA application for the IPP project on a national level. Karpowership is of the view that the CA failed to consider the considerable economic benefits of the proposed Project in the context of the dire need for electricity in the country, which economic benefits would provide scope for various industries to participate in the economic sector.</p>	<p>Environmental issues to be properly investigated in the EIA regardless of SIP Status.</p>	<p>All Environmental issues have been investigated in minute detail in the EIA by independent specialists – impacts are low and if not, appropriate mitigation measures are proposed in the EMPr.</p>	<p>Chapter 7: Environmental Impact Assessment Appendix 9: Specialists Studies Appendix 6 - EMPr</p>
Summary of Comments from I&APs			
<p>Page 100 Para 2.132.1 None of the reasons provided in the RoR disputes the impact that the proposed Project may have on the energy sector in South Africa. The fact remains that if the proposed Project were to proceed, it would also have considerable negative impacts for climate change, marine ecosystems and on the livelihoods of fishermen. In any event, it is clear that due to the identified material deficiencies and inadequacies, the EIA processes could not result in the Project being authorised.</p>	<p>Various gaps and inconsistencies prevent the proper assessment of the impact of the Project on SSFs. These gaps are the lack of an Underwater Noise Impact Assessment, which feeds into the results of the socio-economic, marine biology and other reports.</p>	<p>An Underwater Noise Impact Assessment and Underwater Noise Baseline Assessment were conducted. The results of the reports fed into the various other specialist reports.</p>	<p>Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 – B2 – Underwater Noise Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment Appendix 9 – D1 – Socio-Economic Impact Assessment</p>
<p>Page 101 Para 132.2 The proposed Project is not needed or desired both from energy security - or socio-economic perspective. The anticipated harms of the proposed Project, for climate, biodiversity, and socio-economic considerations, far outweigh any alleged benefits, particularly in light of the feasibility of</p>	<p>Various gaps and inconsistencies prevent the proper assessment of the impact of the Project</p>	<p>All gaps have been addressed and closed.</p>	<p>FEIAR and associated Appendices</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
less harmful alternatives to meet the country's electricity needs. Due to the unknown noise impacts on fish and local fishermen, the precautionary and risk averse approach should be taken to uphold the decision to refuse the EA application.			
<p>Page 101 Para 2.132.3 The fact that Karpowership's projects have been declared a SIP does not fetter the discretion of the CA or any other relevant authority to refuse authorisation or licenses on environmental sustainability grounds. Karpowership is not the only feasible solution to the country's energy crisis.</p>	The project's 'SIP' status does not override environmental considerations.	The SIP status of the project is viewed as only <i>one</i> of the considerations in the discussion of the need and desirability of the project. This consideration is discussed contextually in the EIAr. The SIP status is 'weighed up' against necessary environmental considerations.	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p> <p>Appendix 9: Specialists Studies</p>
<p>Page 101 Para 2.132.4 The fact remains that if this Project were to proceed, it would also have considerable negative impacts for climate, marine ecosystems, and livelihoods of fisherman. In any event, it is clear that, due to the material deficiencies and inadequacies in the EIA records and processes, would and could not result in the Project being authorised.</p>	Various gaps and inconsistencies prevent the proper assessment of the impact of the Project	All gaps have been addressed and closed.	FEIAR and associated Appendices
<p>Page 101 Para 2.132.5 The small-scale fishers have always been excluded. If the powerships are to come to South Africa, the livelihoods of fishermen will be put at risk to better other sectors of the economy. The fishers should benefit, otherwise no one is going to put food on their table or send their children to school or even college or university. The fishers survive on a below average income and that can be taken away from them.</p>	The project's 'SIP' status does not override considerations of SSF's livelihoods.	The SIP status of the project is viewed as only <i>one</i> of the considerations in the discussion of the need and desirability of the project. The potential impacts of the project on SSFs are another vital consideration in the weighing up of positive and negative impacts of the project.	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p> <p>Appendix 9 – D1 – Socio-Economic Impact Assessment</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
		Due to very comprehensive Underwater Noise Impact Assessment and Underwater Noise Baseline Assessment and Marine Ecology Report there are no unknown noise impacts on fish and local fishermen.	Appendix 9 – D1.1 – Small Scale Fishers Engagement Appendix 9 – B1 – Baseline Underwater Noise Assessment Appendix 9 – B2 – Underwater Noise Assessment Appendix 9 – B4 – Coastal, Estuarine and Marine Ecology Assessment
Page 101 Para 2.132.6 The CA should not condone inadequate EIAs on the basis of a project having been identified as a SIP.	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.
Summary of Responses from the Competent Authority			
Page 103 Para 2.134.1 Section 18 of the Infrastructure Development Act specifically states that "Whenever an environmental assessment is required in respect of a strategic integrated project, such assessment must be done in terms of NEMA, with specific reference to Chapter 5". Therefore, the project being declared a SIP in terms of the said Act does not circumvent the requirements of the CA to consider the project in light of Chapter 5 of NEMA.	The project's 'SIP' status does not override environmental considerations.	The SIP status of the project is viewed as only <i>one</i> of the considerations in the discussion of the need and desirability of the project. This consideration is discussed contextually in the EIAR. The SIP status is 'weighed up' against necessary environmental considerations.	Chapter 7: Environmental Impact Assessment Chapter 8: Motivation, Need and Desirability Appendix 8 - Independent Contributions to the Need and Desirability Appendix 9: Specialists Studies
Page 103 Para 2.134.2 Although the SIP status of the Project is not in dispute, the proposed development still needs to meet the requirements of the 2014 EIA Regulations and NEMA for a desired outcome. The FEIAR was found to be deficient.		The EIA meets all legislative requirements.	
Ministerial Evaluation (Reasons for decision)			
Page 103 Para 2.135	No direct issue to be addressed.	No direct issue to be addressed.	No direct issue to be addressed.

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
<p>This ground of appeal to a large extent overlaps with the first topic under the heading "The strategic nature of the Project from a need and desirability perspective", and to a certain extent with the topic "Socio-Economic benefits of the Project' that I dealt with herein above. My evaluation therein, which I do not repeat here for the sake of brevity, is thus equally applicable to this topic.</p>			
<p>Page 103 Para 2.136 While the economic benefit of the proposed Project is appreciated in the context of the dire need for electricity in the country, which economic benefits would provide scope for various industries to participate in the economic sector, developments still need to comply with all the legislative requirements for sustainable development, from section 24 of the Constitution down to NEMA and the 2014 EIA Regulations.</p>	<p>Energy benefits and procurement considerations do not override environmental considerations.</p>	<p>Need and Desirability, in terms of balancing benefits of projects versus negative consequences of project (spanning a range of environmental impacts, socio-economic impacts, climate change impacts, Etc) are addressed in the FEIAr.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p> <p>Appendix 9: Specialists Studies</p>
<p>Page 104 Para 2.137 The SIP status of the proposed Project, and the ramifications of the refusal of the EA application for the IPP project on a national level are not the only considerations to be taken into account. The decision in question is polycentric in nature and must take all relevant factors into account, including those that are specifically listed in section 2 of NEMA.</p>		<p>The polycentric EIA meets all legislative requirements, specifically Section 2 of NEMA.</p>	
<p>Page 104 Para 2.138 As I have stated herein above, neither the socio-economic needs or benefit of the Project, nor procurement considerations, and also not the SIP status of the Project, can elevate the recommendation in the Socio-Economic Impact Assessment report above the holistic consideration of the actual and</p>	<p>Need and desirability of project must be viewed in context of Minister's obligation to not allow a preventable state of affairs in an environment that may potentially or actually</p>	<p>Need and desirability was holistically assessed with environmental issues considered.</p>	<p>Chapter 7: Environmental Impact Assessment</p> <p>Chapter 8: Motivation, Need and Desirability</p> <p>Appendix 8 - Independent Contributions to the Need and Desirability</p>

Source (of gap)	Issue (identified by source)	Response	Reference (of where gap/issue is addressed in Revised draft EIA report May 2023)
potential risks, and impacts on the geographical, physical, biological, social, economic, and cultural aspects of the environment.	cause harm or well-being.		Appendix 9: Specialists Studies
<p>Page 104 Para 2.139 I concur with the findings of the appointed independent expert that the project being declared a SIP in terms of the Infrastructure Development Act does not circumvent the requirements of the CA to consider the project in light of Chapter 5 of NEMA as highlighted by the CA in the RoR.</p>	The project's 'SIP' status does not override environmental considerations.	The SIP status of the project is viewed as only <i>one</i> of the considerations in the discussion of the need and desirability of the project. This consideration is discussed contextually in the EIAr. The SIP status is 'weighed up' against necessary environmental considerations.	Chapter 7: Environmental Impact Assessment Chapter 8: Motivation, Need and Desirability Appendix 8 - Independent Contributions to the Need and Desirability
<p>Page 104 Para 2.140 In my view, the gaps in information that led to the rejection of the EA application, on their own, are material and fatal and cannot be cured during the current appeal process. I therefore dismiss the submissions on this ground of appeal.</p>		The EIA meets all legislative requirements, including Chapter 5 of the NEMA.	Appendix 9: Specialists Studies