

16<sup>th</sup> September 2020

Attention: **Gideon Raath**

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## **RICHARDS BAY GAS TO POWER PLANT EIA, RBIDZ ZONE 1F, KZN** **EIA Amendment Application: Letter from Ecologist (Eco-Pulse)**

Dear Gideon

In response to the 'Part 2 amendment application' for the Richards Bay Gas to Power Plant EIA, the following letter from the ecologist from Eco-Pulse Consulting has been compiled in support of the amendment to the EIA.

*Eco-Pulse Consulting undertook the Specialist Terrestrial Ecological Assessment to inform the EIA (Environmental Impact Assessment) for the proposed 'Richards Bay Gas to Power Plant' located within Zone 1F of the Richards Bay Industrial Development Zone (RBIDZ). The assessment was undertaken and completed in 2016 and Environmental Authorisation for the development was received dated 2016.*

Based on my understanding of the EIA amendment, the Client now wishes to apply for the following amendments:

- A validity extension of the EA by five (5) years;
- An update to the capacity and configuration of the power plant in the EA project description from: '300MW (fuelled) and 100MW (steam) in a combined cycle' to: 'a 400MW (fuelled) simple cycle process';
- The removal of various infrastructure which would become redundant with the use of a simple cycle process mentioned in the project description of the EA, which relate to a combine cycle (no longer applicable if amendment 2 is approved);
- To include in the project description of the EA the use of Liquefied Natural Gas (LNG), Liquefied Petroleum Gas (LPG), Regasified Liquefied Natural Gas (RLNG) or pipeline gas as the fuel source (as assessed for the approved EA) for the project in addition to the specification of LNG (in various forms) in future (also as approved in the EA);
- The removal of diesel as a fuel source from the project description of the EA;
- The specification of up to 10000m<sup>3</sup> of fuel storage which will be required for the power station (i.e. an increase from the approved 6000m<sup>3</sup>, up to a maximum storage capacity of 10000m<sup>3</sup>), with the size of the tanks to be confirmed in the final design of the facility;
- A replacement of the one reference of the work 'peaking' in the EA to correctly reflect 'Mid-Merit/Peaking', to ensure that both peaking and mid-merit options/scenarios have been considered for the development consistently throughout the EA;
- A correction on the EA to specify Activity 2 of Listing Notice 2 in the EA; and
- Amendment to conditions 14,15,16 and 17 of the approved EA to specify that the layout submitted and EMP<sub>r</sub> submitted have been approved.

Having reviewed the amendments being applied for (as mentioned above), in conjunction with the findings and recommendations of the Terrestrial Ecological Assessment Report which I compiled in 2016 as a consultant working for Eco-Pulse, it is clear that the amendments will not change the key findings and recommendations of my report. This is based on the following rationale:

1. The principle amendment involves the correct specification of fuel sources, fuel storage at the site and the configuration of the power station (combined cycle to simple cycle process) and this has no measurable influence on the development footprint originally assessed in 2016, with no deviations from the development property boundary initially assessed. The findings of the field survey and terrestrial ecological baseline assessment therefore remain unchanged. *Reference is made specifically to Chapter 3 of the 2016 report by Eco-Pulse.*
2. Since the development footprint will remain largely unchanged (within the same area assessed during the ecological survey), direct and indirect construction impacts described in terms of: loss of indigenous vegetation, habitat fragmentation, soil erosion/sedimentation, pollution of soils/habitat, faunal impacts, and noise/light disturbance impacts will not change as the impact assessment conservatively considered the 'worst-case' possible scenario - being that the entire property will be transformed in some way, shape or form. Construction phase impact significance therefore remains unchanged for the amended power generation and fuel source changes as this is primarily an operational process/design change. *Reference is made specifically to Chapter 4 of the 2016 report by Eco-Pulse.*
3. Despite the minor change to operational process/design, this will not affect the operational phase impact descriptions and significance assessment, given that the change in fuel source from diesel and LPG to only LPG (and possibly LNG / RLNG or pipeline gas as fuel source in future) will not have a bearing on the operational impacts assessed, which include spread of alien plants (which is linked to site disturbance post-construction), soil erosion/sedimentation (linked to storm water runoff management), impacts to fauna (linked to human presence), and artificial noise and light disturbance (linked to site operations and activities). Also, pollution impacts during operation considered a range of potential pollutants, including general waste and flammable/hazardous substances, hence the significance of this impact will remain unchanged as this cumulatively assessed a number of potential contaminants under a worst-case scenario that includes LPG and diesel. *Reference is made specifically to Chapter 4 of the 2016 report by Eco-Pulse.*
4. Impacts assessed for the decommissioning phase of the power plant will also remain unchanged by the change in fuel source/process design as this deals with the physical footprint of the development infrastructure and not the finer details of operational activities and power generation process design. *Reference is made specifically to Chapter 4 of the 2016 report by Eco-Pulse.*
5. With construction, operational and decommissioning impacts remaining unchanged under the amended design scenario, cumulative impacts will also remain unchanged as these are mainly associated with the direct loss of vegetation and habitat and the impact on conservation targets, ecosystem services and species of conservation importance, all which can be attributed to the physical footprint of the development. *Reference is made specifically to Chapter 4 of the 2016 report by Eco-Pulse.*
6. Finally, given that the baseline and impact assessment chapters of the ecological report will remain unchanged, impact mitigation and management recommendations (and inputs into the EMPr from an ecological perspective) still apply and remain unchanged under the amended process design scenario, as the recommendations address mainly the mitigation of impacts to flora and fauna associated with

the physical footprint of the development and site transformation/disturbance. In the 2016 Eco-Pulse report, the mitigation of potential pollution impacts during operation has already dealt with a range of 'worst-case' potential contaminants including flammable and hazardous substances such as petrol, diesel and LPG/LNG, among others. Site rehabilitation recommendations also still apply as these have little to do with the fuel source and power generation process design and are associated primarily with site transformation and the development footprint which will not change.

In conclusion, the findings of the Specialist Terrestrial Ecological Assessment and Report (Eco-Pulse, 2016) remain valid and will not change for the EIA amendments described.

Should you have any queries or require further clarity on any aspect of this letter, please contact Eco-Pulse Consulting directly.

Yours faithfully



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