



**MINISTER
FORESTRY, FISHERIES AND THE ENVIRONMENT
REPUBLIC OF SOUTH AFRICA**

Project Ref: 14/12/16/3/3/2/2005

Appeal Ref: LSA 207024

APPEAL DECISION

APPEALS AGAINST THE DECISION OF THE COMPETENT AUTHORITY TO REFUSE THE APPLICATION FOR AN ENVIRONMENTAL AUTHORISATION SUBMITTED BY KARPOWERSHIP SA (PTY) LTD IN RESPECT OF THE GAS TO POWER VIA POWERSHIP PROJECT AT THE PORT OF NGQURA, SITUATED WITHIN THE COEGA SEZ IN THE NELSON MANDELA BAY METROPOLITAN MUNICIPALITY IN EASTERN CAPE PROVINCE

Karpowership SA (Pty) Ltd	1 st Appellant
Eastern Cape Maritime Business Chamber (ECMBC)	2 nd Appellant
Mjoli Connect	3 rd Appellant
Integrated Coastal Energy Alliance	4 th Appellant
National African Federated Chamber of Commerce and Industry (NAFCOC) Nelson Mandela Bay Region	5 th Appellant

Nondumiso Mfenyana	6 th Appellant
Servilinx Projects	7 th Appellant
BEST Forum (Black Entrepreneurs Stand Together)	8 th Appellant
Al Ansaar NPO	9 th Appellant
Karpowership SA (Pty) Ltd	Applicant
Department of Forestry Fisheries and the Environment	Competent Authority
GroundWork	1 st Commenting I&AP
BirdLife South Africa	2 nd Commenting I&AP
Green Connection	3 rd Commenting I&AP
Ed Richardson	4 th Commenting I&AP

Appeals: These nine (9) appeals were lodged by the 1st to 9th appellants against the decision of the Chief Director: Integrated Environmental Authorisations (the CD: IEA / Competent Authority), of the Department of Forestry, Fisheries and the Environment (the Department), taken on 23 June 2021, to refuse Karpowership SA (Pty) Ltd's (the 1st appellant / Karpowership) application for environmental authorisation (EA) for their proposed Gas-to-Power via Powership Project at the Port of Ngqura, situated within the Coega Special Economic Zone (Coega SEZ) in the Nelson Mandela Bay Metropolitan Municipality, in Eastern Cape Province.

1. BACKGROUND AND APPEAL

- 1.1 On 05 October 2020, Karpowership submitted, to the Competent Authority (CA), their application for EA in terms of the Environmental Impact Assessment Regulations, 2014, as amended (2014 EIA Regulations), published under the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), for their proposed Gas-to-Power via Powership Project at the Port of Ngqura, situated within the Coega SEZ in the Nelson Mandela Bay Metropolitan Municipality, in Eastern Cape Province (the proposed Ngqura Project).
- 1.2 Karpowership commissioned Triplo4 Sustainable Solutions (Pty) Ltd (Triplo4) as an independent Environmental Assessment Practitioner (EAP), to undertake a full Scoping and Environmental Impact Reporting (S&EIR) process in respect of the EA application.
- 1.3 The proposed Project is in response to the Request for Proposals (RFP) for New Generation Capacity under the Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP/ RMI4P) that was issued by the Department of Mineral Resources and Energy (DMRE) on 23 August 2020, to alleviate the immediate and future power generation capacity deficit of South Africa. The *“Emergency/Risk Mitigation Power Purchase Procurement Programme (2000MW): National”* was designated the status of a Strategic Integrated Project (SIP) under the Infrastructure Development Act, 2014 (Act 23 of 2014) (the Infrastructure Development Act) by the Presidential Infrastructure Coordinating Commission. The proposed Project was awarded preferred bidder status in the RMIPPPP as announced by the DMRE on 18 March 2021.
- 1.4 The proposed Project entails, among others, the following activities:
 - 1.4.1 The generation of electricity from two (2) floating mobile powerships, berthed and moored in the Port of Ngqura, both of which will be operational for 24 hours per day for the duration of the proposed project's 20-year lifespan (as per the RMIPPPP requirements), of which the combined design capacity for each of the powerships is 540MW, comprising of 27 gas reciprocating engines and 3 steam turbines each;

- 1.4.2 A Floating Storage Regasification Unit (FSRU), berthed and moored in the Port of Ngqura, to act as the storage and regasification facility;
- 1.4.3 Approximately every 20 to 30 days, a Liquefied Natural Gas (LNG) Carrier will supply the Liquefied Natural Gas to the FSRU, over a one-to-two-day period;
- 1.4.4 The laying of subsea gas pipelines, routed along small portions of the seabed but predominantly on the eastern side of the breakwater, to pump the natural gas, once degasified, from the FSRU to the powerships;
- 1.4.5 The power that is generated is converted by the on-board High Voltage substation and the electricity evacuated via a 132kV transmission line over a distance of approximately 7.5 km to the Eskom Dedisa Substation, which feeds into the national grid;
- 1.4.6 The powership uses seawater and potable water for cooling the reciprocating engines, condensers and other auxiliaries. The powership will for 24 hours per day for the duration of the proposed project's 20-year lifespan, abstract seawater directly for cooling and then discharges it into the sea. The total intake/outlet flow rates range from 2.4 m³/s to 11.4 m³/s and the increase in temperature (ΔT) range from 4°C to 15°C;
- 1.4.7 Handling and storage of hazardous goods; and
- 1.4.8 Waste management.
- 1.5 Chapter 2 of the Final Environmental Impact Assessment Report (FEIAR) dated 26 April 2021, at pages 12 to 52 thereof, provides a detailed description of the proposed activities.
- 1.6 The potential identified environmental impacts of the proposed activities which had to be assessed as part of the environmental impact assessment (EIA) process, were included on page iii of the FEIAR as follows:
 - 1.6.1 In respect of the LNG Carrier, Powership and FSRU:
 - 1.6.1.1 Disturbance to marine habitat;
 - 1.6.1.2 Disturbance to the sediment from mooring infrastructure;
 - 1.6.1.3 Reduction in ambient air quality from increased atmospheric emissions;
 - 1.6.1.4 Safety risk from potential leakage of LNG;
 - 1.6.1.5 Safety risk of storage of NG within the Port;
 - 1.6.1.6 Increase in noise pollution;

- 1.6.1.7 Increase in sea water temperature;
- 1.6.1.8 Provision of additional electricity;
- 1.6.1.9 Contributions to GHG emissions and climate change;
- 1.6.1.10 Socio-economic impacts;
- 1.6.1.11 Marine traffic congestion and accidents; and
- 1.6.1.12 Visual Impacts.

1.6.2 In respect of the Gas Pipeline:

- 1.6.2.1 Disturbance to marine and estuarine habitat;
- 1.6.2.2 Impact on coastal environment; and
- 1.6.2.3 Potential leakage of LNG.

1.6.3 In respect of the Transmission Line, Switching Station and Temporary laydown area for the gas pipeline installation:

- 1.6.3.1 Impacts on indigenous vegetation and species of conservation concern;
- 1.6.3.2 Disturbance to the terrestrial ecosystem;
- 1.6.3.3 Impacts on fauna and avifauna;
- 1.6.3.4 Altered hydrology and geohydrology;
- 1.6.3.5 Impact on aquatic system;
- 1.6.3.6 Increase in noise pollution;
- 1.6.3.7 Change in hydrogeological processes;
- 1.6.3.8 Destruction of wetlands, watercourses, estuarine areas;
- 1.6.3.9 Destruction of cultural heritage and palaeontological resources;
- 1.6.3.10 Disturbance to properties and existing services;
- 1.6.3.11 Provision of additional electricity; and
- 1.6.3.12 Visual Impact.

- 1.7 The 1st appellant's powership projects are proposed at two other locations, namely (i) the Port of Saldanha in the Western Cape Province (Saldanha), and (ii) the Ports of Richards Bay in the KwaZulu-Natal Province (Richards Bay). This led to the simultaneous submission of three separate applications for EA, inclusive of this proposed Project in the Port of Ngqura.

- 1.8 On 26 April 2021, the EAP submitted the FEIAR and an Environmental Management Programme (EMPr), prepared in support of the EA application, to the CA for their consideration and decision-making purposes.
- 1.9 On 30 May 2021, Green Connection, the 3rd Commenting Interested and Affected Party (I&AP) lodged a complaint to the CA, as contemplated in regulation 14(2) of the 2014 EIA Regulations, against the Saldanha Bay EIA process (Karpowership's other proposed powership project). The 3rd Commenting I&AP's complaint pertained to allegations that the EAP was suspected of non-compliance with regulation 13 of the 2014 EIA Regulations. The 3rd Commenting I&AP alleged that there was, among other, insufficient information and public participation on the noise levels associated with the proposed Project, and on the impact thereof on small-scale fishing communities. On 08 June 2021, the CA suspended Karpowership's application for EA in respect of the proposed Saldanha Bay project (Saldanha Bay suspension).
- 1.10 On 17 June 2021, the CA received a further complaint from the Centre for Environmental Rights (CER), representing Groundwork (the 1st Commenting I&AP herein) calling for the suspension of the EA application processes for Karpowership's other two powership projects (the Richards Bay Project and this proposed Project at the Port of Ngqura).
- 1.11 The CA did not officially suspend the EIA processes related to Karpowership's proposed Projects at Ngqura and Richards Bay.
- 1.12 On 18 June 2021, Karpowership's legal representative at that time, Gunn Attorneys, submitted representations, in accordance with regulation 14(1)(b) of the 2014 EIA Regulations, in response to the 3rd Commenting I&AP's (in this matter) complaint alleging that the EAP was non-compliant with regulation 13 of these Regulations. This complaint was brought in respect of the Saldanha Bay EIA process (Karpowership's other proposed powership project) and led to the suspension of the EIA process for that project. Karpowership's representation took the form of a memorandum (the Memorandum), wherein the following submissions were made:

- 1.12.1 The protocols for reporting on noise impacts, as contemplated in the Procedures for the Assessment and Minimum Criteria for Identified Environmental Themes in terms of sections 24(5)(a) and (h) and 44 of the NEMA, specific to noise levels, were followed, bearing in mind that there is no existing powership project in South Africa, and no such technology currently exists within the Republic. It is grossly unreasonable to expect Karpowership and the appointed EAP to provide assessments of a situation that currently does not even exist.
- 1.12.2 The EAP went beyond the protocol's requirements and obtained a second report (a technical verification report) from a similar operational powership project in Ghana, specific to noise. On the information obtained, the noise levels of the Project are anticipated to be of Medium Low significance, after mitigation, during operations; and of Very Low significance during construction phase.
- 1.12.3 The details that were provided of the public participation process (PPP) are inclusive of meetings held with small-scale fishers. It is worth noting that there is no direct displacement or impact on the small-scale fishers as, according to the information provided at the meeting, they are not allowed to fish in Big Bay area where the powership is proposed to be moored.
- 1.12.4 Since the activity is predominantly a marine based activity, the South African Marine Safety Authority (SAMSA) is an important regulator in terms of the Marine Pollution Control Act 1981 (Act 6 of 1981) and a risk assessment is being developed for the purposes of SAMSA risk mitigation and oversight. Residual risks are also addressed through the Major Hazard Installation legal requirements.
- 1.12.5 The nature, significance, consequences, extent, duration and probability of the impacts, inclusive of specialist studies into all potential consequences and impacts on the environment and marine resources of Saldanha Bay, are set out in the EIAr and were discussed with I&APs through Scoping and EIA phases. Peer reviews of some of the specialist reports were undertaken to address the concerns raised by I&APs.
- 1.12.6 It is confirmed that a quantitative measurement of the underwater noise produced in the Port of Saldanha Bay will be conducted once the powership is moored and operational, and additional mitigation measures will be implemented should the need arise (although this is unlikely).
- 1.12.7 The Marine Ecological Assessment (Appendix I to the FEIAr) sets out on Page 5, Section 2 thereof, the "Environmental Baseline Description", which includes plankton, fish, megafauna,

benthic communities, macroalgae, intertidal and shallow subtidal habitats, local sediment characteristics, port water quality, local oceanography and hydrodynamics. Additionally, on page 34 of the Marine Ecological Assessment, the ratings of impact were outlined which includes entrainment as a potential impact due to the uptake of cooling water on marine organisms. This was rated as Low.

- 1.12.8 The complaint should be considered against the need and desirability of the Project. The Project will provide critical energy needed in a country currently grappling with a power crisis. The provision of power will have significant economic benefit to businesses and households hampered by ongoing load shedding.
- 1.13 In a separate letter, also on 18 June 2021, the EAP responded to the complaint from the 3rd Commenting I&AP, largely repeating the representations in the Memorandum in relation to the suspension of the Saldanha project, by setting out the PPP that was conducted, and pointing out the following:
- 1.13.1 On a proper reading, the Marine Ecology Specialist Study found that Saldanha Bay is an important fish habitat, and that underwater noise can have adverse effects on individual aquatic organisms. The Ghana report that was commissioned, confirmed the predicted impacts. The report referenced a short-term study on underwater noise at a powership operation within a port in Ghana. The nature of the operation was described, as were the measured underwater noise levels. Those levels were compared against known noise thresholds for various marine mammals and fish. The report found, on the basis of that study, that the effects of a similar operation on the surrounding marine ecology in Saldanha Bay would be unlikely. However, the report stated that there was a need for a better understanding of the “noise climate” of Saldanha Bay and therefore specifically recommended that firstly, in order to determine baseline noise measurements, a baseline study of the underwater noise climate be initiated prior to construction; and secondly, that post-construction noise levels then be monitored for a period of at least 12 months.
- 1.13.2 The Safetech Specialist Study, which concentrated mainly on above-water noise, also emphasised that there is a need for the underwater “soundscape” of Saldanha Bay to be determined. The study recommends that pre and post-construction underwater noise

measurements be measured by means of hydrophones, as had been the case in the Ghana study, and that these must be monitored on an ongoing basis.

1.13.3 The environmental impacts, mitigation and outcomes were addressed in section 8 of the FEIAr. These impacts, mitigation and outcomes were also addressed in the Final EMPr. The closure outcomes were not assessed in detail as the proposed Project has a 20-year lifespan and will be assessed in line with the EMPr commitments (section 8.10) and in the FEIAr (section 8.4.18) prior to closure. The CA endorsed this approach during the pre-application meeting that was held on 17 September 2020.

1.13.4 The EAP concluded by stating that: *"I consequently do not believe that it was a flaw in the process that actual noise monitoring would only take place after operations started. In my view, the fishers would not be excluded: they could be part of the monitoring process, and the determination of mitigation steps if they were was (sic) found necessary. As I have explained, there seemed no other way to do it, and the way recommended was not exclusionary of the fishers' interests or their ongoing involvement"*.

1.14 On 23 June 2021, the EAP addressed a letter to the CA in response to the request from the CER, representing the 1st Commenting I&AP, to suspend the EA application processes for Karpowership's other two powership projects (Richards Bay and Ngqura). In this letter, the CA was referred to the EAP's response in their (the EAP's) letter of 18 June 2021, which responded to the 3rd Commenting I&AP's complaint regarding the Saldanha Bay EIA process, as summarised herein above.

1.15 On the same date, 23 June 2021, the CA addressed correspondences to the EAP, the 3rd Commenting I&AP and Karpowership, advising each of them that the CA had withdrawn their decision to suspend the Saldanha Bay EIA process in terms of regulation 14 of the 2014 EIA Regulations. In this regard, the CA stated that *"as the EIAr had already been submitted on 26 April 2021 and the Competent Authority believes there is very little reason why the decision-making process should be suspended pending the outcome of an investigative process against the EAP, the Competent Authority reconsidered the matter and they concluded that there is no need for the suspension to remain in place"*.

1.16 Further correspondences were addressed to the 1st Commenting I&AP and to

Karpowership/ the EAP, advising each of them that having considered that the allegations leading to the request to suspend the EA application processes in respect of Richards Bay and Ngqura are similar to those raised in respect of the Saldanha EA application, it was justifiable to expand the Saldanha investigative process to include Richards Bay and Ngqura. The CA, however, concluded that it was unnecessary for the suspension to remain in place pending the outcome of an investigative process against the EAP.

1.17 After evaluating the FEIAr and EMPr dated 26 April 2021 and all relevant annexures, the CA, on 23 June 2021, refused the EA application and provided Karpowership with the Record of Refusal (RoR).

1.18 The CA provides in pages 14 to 17 of the RoR the detailed reasons for the refusal as follows, among others:

- 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.*
- 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.*
- 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.*
- 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".*

1.19 In accordance with the provisions of regulation 4 of the National Appeal Regulations, 2014, as amended (2014 Appeal Regulations), the due date for Karpowership (as the applicant for

the EA) to launch an appeal against the refusal decision was 13 July 2021.

- 1.20 On 29 June 2021, the registered I&APs were notified of the RoR, and they were informed of the provisions regarding the submission of appeals and that the due date to launch their appeals (if any) against the RoR was 19 July 2021.
- 1.21 Between the period of 13 July 2021 and 19 July 2021, Karpowership, who is also the 1st appellant in this matter, and the eight (8) additional appellants, submitted appeals to the Directorate: Appeals and Legal Review (Appeals Directorate) within the Department in response to the RoR. These appeals were timeously lodged in terms of section 43(1) of NEMA, read together with regulation 4(1) of the 2014 Appeal Regulations, which require the appellants to bring their appeal to the attention of any I&AP. For the sake of uniformity I will henceforth refer to the 1st appellant in this matter only as "Karpowership".
- 1.22 Soon thereafter, the Appeals Directorate received comments in terms of regulation 5 of the 2014 Appeal Regulation, against the appeal lodged by Karpowership on 13 July 2021, from (i) GroundWork (1st Commenting I&AP); (ii) BirdLife South Africa (2nd Commenting I&AP); (iii) Green Connection (3rd Commenting I&AP); and (iv) Ed Richardson (4th Commenting I&AP) (collectively referred to as "*the Commenting I&APs*").
- 1.23 On 27 August 2021, the Appeals Directorate forwarded all the comments and submissions that had been received in relation to this matter, in a consolidated Appeal Response Report (ARR), to Karpowership and the CA, for their responses and/or comments.
- 1.24 Approximately twelve (12) days outside of the prescribed timeframe, on 31 August 2021, the CA filed their responding statement on the appeals, followed by a condonation request for the late filing thereof. On 07 October 2021, the Director of the Appeals Directorate granted the CA condonation for the late filing of their responding statement.
- 1.25 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 on the comments filed by the Commenting I&APs, against Karpowership's appeal. In this regard, Karpowership provided

an executive summary tabling the issues/comments/responses raised by I&APs and their responses thereto. On 27 October 2021, Karpowership submitted their answering statement to the responding statement submitted by the CA.

- 1.26 On 05 April 2022, subsequent to receiving the responding statement from the CA, the comments of the commenting I&APs to the appeals, and Karpowership's answering statements thereto, an independent expert, namely Environmental Impact Management Services (Pty) Ltd (EIMS), was appointed in terms of regulation 6 of the 2014 Appeal Regulations, to provide the Appeal Administrator, within 10 days of receipt of the instruction, with advice on the various appeals lodged against the RoR.
- 1.27 On 06 April 2022, EIMS submitted a request to the Appeal Administrator for an extension of the timeframe to submit their advice, recommendations and report on the above appeals to the Appeal Administrator, as contemplated in regulation 6(3) of the 2014 Appeal Regulations, until the end of May 2022. On 19 April 2022, the Director of the Appeals Directorate, granted EIMS's request and extended the due date for EIMS's submission of their advice, recommendations and report on the above appeals to the Appeal Administrator, to 31 May 2022.
- 1.28 In addition to the appeals and associated correspondences submitted in the appeal process, EIMS reviewed the relevant sections of the Draft EIAr, the FEIAr, the EMPr, the Comments and Responses Report (CRR), and the relevant Specialist Studies. On 17 May 2022, EIMS undertook a site visit, accompanied by the Environmental and Project Managers of Karpowership. On 31 May 2022, EIMS submitted an independent expert report to the Appeals Directorate, which report was by 06 June 2022 vetted by an independent expert, Mr Francois Joubert of Fasken Bell Dewar Inc.
- 1.29 In summary, the following preliminary grounds of appeal are identified:
- 1.29.1 The strategic nature of the Project from a need and desirability perspective;
 - 1.29.2 Holistic assessment of the EA application;
 - 1.29.3 The *audi alterem partem* rule;
 - 1.29.4 Failure to assess the Project in accordance with the provisions of section 2(4)(l) of NEMA;

- 1.29.5 Failure to consider that Karpowership has met the threshold for public participation;
- 1.29.6 Failure to consider that the additional information provided in the FEIAr is the same information provided in response to comments and complaints received from I&APs;
- 1.29.7 Failure to comprehensively consider the socio-economic benefits of the Project; and
- 1.29.8 Failure to appreciate the Strategic Integrated Project (SIP) status of the Project.

2. GROUNDS OF APPEAL, RESPONSES, COMMENTS AND EVALUATION

- 2.1 Karpowership (the 1st appellant), together with the eight (8) other appellants, raised 8 grounds of appeal. Karpowership seeks that their grounds of appeal be upheld and that (i) an EA be granted and the RoR be set aside; or (ii) that the RoR be set aside, the proposed project be authorised and that the concerns raised by I&APs are incorporated as part of the EA specific conditions.
- 2.2 The 2nd to 9th appellants made common cause with Karpowership by more or less repeating the issues raised in Karpowership's grounds of appeal. Considering the overlapping nature of the appeals, it is appropriate that I consider all 9 appeals in a consolidated decision, as I hereby do. The 9 appeals will therefore be grouped together by topic, summarised and considered jointly under the relevant headings herein below.
- 2.3 In summation, the various grounds of appeal by the 9 appellants, which significantly overlap, are identified and summarised as follows:
 - 2.3.1 The CA failed to consider the strategic nature of the proposed Project from a needs and desirability perspective, given that the proposed Project was launched in response to the Request for Proposals (RFP) for New Generation Capacity under the Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP) issued by the DMRE, to alleviate the immediate and future power generation capacity deficit of South Africa, and that the Project was designated as a Strategic Integrated Project (SIP) by the Presidential Infrastructure Coordinating Commission. The grounds of appeal on this topic are considered under the heading "***The strategic nature of the Project from a need and desirability perspective***" herein below.

- 2.3.2 The CA relied heavily on particular components of the EA application, and in doing so, did not holistically assess such EA application. More specifically, the CA failed to consider the Socio-Economic Assessment of the proposed Project, which recommended that the proposed Project should proceed. The grounds of appeal on this topic are considered under the heading “**Holistic assessment of the EA application**” herein below.
- 2.3.3 The CA considered comments and objections that had been submitted by environmental groups outside of the PPP timelines and Karpowership, through their EAP, were not afforded any right of response or reply thereto, in contravention of the *audi alterem partem* rule. The CA specifically ignored the comprehensive Memorandum submitted by the EAP on 18 June 2021, and Karpowership’s further inputs that were sent on 23 June 2021 in response to the objections by the Commenting I&APs against the proposed Saidanha project. The grounds of appeal on this topic are considered under the heading “**The audi alterem partem rule**” herein below.
- 2.3.4 Considering (i) the SIP status of the Project; (ii) that the proposed Project was awarded preferred bidder status in the RMIPPPP; and (iii) that the proposed Project is important to supply electricity to the National grid, the CA failed to assess the proposed Project in accordance with the provisions of section 2(4)(l) of NEMA, in that there was no inter-governmental engagement with regard to the decision taken. The grounds of appeal on this topic are considered under the heading “**Section 2(4)(l) of NEMA**” herein below.
- 2.3.5 The 5th and 6th grounds of appeal raised by Karpowership are both concerned with the ‘threshold’ for public participation and are consolidated as follows: (i) the CA failed to consider that Karpowership has met the threshold for public participation, as set out in the Memorandum of 18 June 2021; and (ii) that the additional information provided in the FEIAr is the information that was provided in response to the comments and complaints received from I&APs. These two grounds of appeal are considered under the heading “**Public Participation**” herein below.
- 2.3.6 The CA failed to comprehensively consider the broader socio-economic context and benefits of the proposed Project as contemplated in the principles and objectives alluded

to in section 2 of NEMA. The grounds of appeal on this topic are considered under the heading “**Socio-economic benefits of the Project**” herein below.

2.3.7 The CA failed to appreciate that the proposed Project is, in terms of section 8(1)(a) read with section 7(1) of the Infrastructure Development Act, a declared and Gazetted Strategic Integrated Project (SIP) with ramifications for the Independent Power Producer (IPP) projects list on a national level. The grounds of appeal on this topic are considered under the heading “**The SIP status of the Project**” herein below.

2.3.8 I now deal with each ground of appeal in turn below.

First ground of appeal: The strategic nature of the Project from a need and desirability perspective

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 a 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.

Summary of comments from I&APs

2.5 The Commenting I&APs submit as follows:

2.5.1 Short-term energy procurement with an appropriate energy mix that does not (i) have significant greenhouse gas (GHG) emissions, (ii) have more local content, and (iii) harm the fragile marine environment, can be fulfilled by technologies other than powerships. 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 described in detail under the “no go option” in the FEIAr.

2.5.2 Regarding Karpowership's contention that the project going ahead is justified because (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; these submission 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.

- 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. Ultimately, a weighing exercise is required of (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.
- 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.
- 2.5.5 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.

Summary of comments from Karpowership

- 2.6 In their comments, Karpowership submits as follows:
- 2.6.1 The Project compliments the other technologies (wind, solar and battery storage) involved in RMI4P. Other technologies also have significant GHG emissions, lack more local content, and harm the fragile marine environment. All technologies have some environmental impact. However, the powerships will not harm the fragile marine

environment, as the proposed project will be positioned within a heavily impacted brownfields port.

- 2.6.2 The proposed Project needs to be properly contextualised, instead of concentrating on micro impacts within the brownfields ports when the whole point of RMI4P is to alleviate load shedding which is one of South Africa's most pressing socio-economic ills. The RMI4P constitutes 2000MW of dispatchable energy required as soon as possible by the grid to alleviate up to 2 phases of load shedding. Karpowership's three proposed Projects alone (constituting 1220MW) would alleviate more than one full phase of load shedding, of which the Nqgura Project would contribute 540MW. The ascribed SIP status and the development and execution of the Renewable Energy Independent Power Producer Procurement Programme (REI4P) by another organ of state, must therefore be a heavily weighted considerations in this application. Karpowership only requests that these considerations are ascribed their proper importance in the weighing of all factors for this EA application.
- 2.6.3 The environmental impacts of the proposed Project were studied in depth by qualified experts in the EIA field. The results of the undertaken studies show that there are no fatal environmental flaws and that Karpowership's ability to bring immediate relief to the grid is an ideal balance and consequently justifiable between economic and social needs and environmental concerns. There were thus no material gaps in the EIA reports. Due to the fact that the proposed Project is a new concept for South Africa), the South African specific information available is not as specific as with other more well-known South African technologies. In the absence of any fatal flaws, the CA must consider the importance of the proposed Project when deciding whether to authorise it.
- 2.6.4 It is incorrect to state that the RMI4P does not serve as 'incontrovertible' evidence of the need and desirability of the proposed project. The RMI4P is the government's response to the dire need for more power to be supplied to the national grid. It is fully agreed that all considerations need to be given proper weight when the CA makes a decision. Karpowership requests that the issue of economic needs is not merely side-lined for environmental concerns.

Summary of responses from the Competent Authority

2.7 In their responses, the CA submit as follows:

- 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 information that must be included in the FEIAR. The EAP failed to pay heed thereto.
- 2.7.2 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.
- 2.7.3 The proposed project was refused as the FEIAR has not met the need and desirability requirement of NEMA. Importantly, energy procurement considerations (RMIPPPP, IRP, SIP) do not override environmental considerations

Evaluation (Reasons for decision)

- 2.8 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 124 to 144) and at chapter 9.2 thereof (pages 337 to 340). The primary motivation for the 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.
- 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.

- 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. 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, be ecologically sustainable, while economic and social development must be justifiable.
- 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.
- 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 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.
- 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.

- 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:

“(3) Development must be socially, environmentally and economically sustainable.

(4) (a) Sustainable development requires the consideration of all relevant factors including the following:

(i) That the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

(ii) that pollution and degradation of the environment are avoided, or, where they cannot be altogether avoided, are minimised and remedied;

(iii) that the disturbance of landscapes and sites that constitute the nation’s cultural heritage is avoided, or where it cannot be altogether avoided, is minimised and remedied;

(iv) that waste is avoided, or where it cannot be altogether avoided, minimised and reused 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

(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.

(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) 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.

(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.

*(r) Sensitive, vulnerable, highly dynamic or stressed ecosystems, such as coastal shores, estuaries, wetlands, and similar systems require **specific attention** in management and planning procedures, especially where they are subject to significant human resource usage and development pressure."*

- 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 socio-economic considerations.
- 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 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.
- 2.17 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:

“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”.

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.

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 8.4.19 at pages 302 to 303 of the FEIAr. The negative environmental impacts include the following, among others:

- 2.19.1 Loss of Intact Bontveld, Species of Conservation Concern and biodiversity, approximately 5 km from the Addo Elephant National Park Marine Protected Area and the sensitive marine and estuarine habitats therein.
- 2.19.2 Disturbance to avifauna that are part of an Important Bird and Biodiversity Area, in close proximity to the St Croix Island group and Jahleel Island, that provide the largest breeding ground for the Endangered African Penguins in the world (approximately 32% of the Global and 42% of the South African population) (see page 171 of the FEAIr), due to atmospheric noise and lights. The breeding population of African Penguins, who are the most sensitive receptor for underwater noise will be negatively impacted on.
- 2.19.3 Disturbance/mortality of estuarine/beach fauna during construction, or injury/mortality of coastal/estuarine associated birds caused by the overhead transmission lines during operations.
- 2.19.4 Increase in ambient concentration of SO₂, NO₂ and PM₁₀, resulting in health risks through inhalation of air pollutants.
- 2.19.5 Buried archaeological remains such as stone tools, shell midden deposits or unmarked Khoisan human remains may be uncovered, exposed or destroyed.
- 2.19.6 Risks of major hazards such as flash and pool fires
- 2.19.7 Negative impacts (such as contamination and sedimentation, or destruction of vegetation) on the wetland identified along the transmission line route.
- 2.19.8 Negative impacts on hydrogeological flow drivers, soil quality or potential to compromise surface water quality in the nearby watercourse.
- 2.19.9 Sedimentation or contamination of surface water from construction or operation activities.
- 2.19.10 High 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.) (see paragraph 2.1.7 of the FEAIr at page 35; Impact 9: Generation of coastal pollution at page 197; paragraph 7.2.5 on page 34 of Appendix I9);
- 2.19.11 Impacts to the vadose zone or quality of the groundwater resources.
- 2.19.12 Impacts to the benthic community, the marine ecology, marine organisms, marine mammals and birds by means of the physical disturbance of the littoral zone, increased

seawater temperatures (see page iii of the FEIAr, as well as page 20 - Water Temperature; page 114; page 125; page 174 - Disturbance to Avifauna Habitat due to Change in Water Temperature; page 196 - Impact 3: Change in water quality at the estuary mouth; page 203-204 - Impact 2: The effects of the uptake of cooling water on marine organisms in the surrounding water body; page 204-205 - Impact 3: The effects of the discharge of cooling water on the marine ecology in the receiving water body; paragraph 8.3.10 at page 207; pages 235, 237, 275, 293, 299, 300, and 338), and modifications to the hosted biological communities (see page 174 of the FEIAr - Disturbance to Avifauna Habitat due to Change in Water Temperature).

- 2.19.13 Obstruction of views when viewing from the coastal settlements of St George's Strand and Bluewater Bay, from conservation areas including the Addo Elephant Park and the Swartkops Valley Local Nature Reserve, from routes through the area particularly the N2, and viewing from beaches particularly to the southeast on the seaward side of the coastal dune close to St George's Strand and Bluewater Bay.
- 2.19.14 Increase in ambient noise levels both above ground and underwater and nuisance or adverse impacts on sensitive receptors.
- 2.19.15 **High negative** potential for GHG emissions with varying degrees of global warming that contribute to anthropogenic climate change and its resultant impacts (see the FEIAr at pages iii; 21-24, 126-127, 146, 191, 287, paragraph 8.4.17.9 on page 290, and Table 8-8 on page 299).
- 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.
- 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.

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.

2.23 In reaching my decision on this ground of appeal, I considered EIMS's (the independent expert commission by the Department) advice on the matter, including that: *"The proposed Port of Ngqura development is located such that it has a potential to impact certain critical ecological areas (specifically the Jahleel Island and Addo Elephant Park Marine Protected Area). The Precautionary Principle of NEMA requires that a risk averse and cautionary approach be applied. Considering the uncertainties and gaps listed in the findings of the RoR it would be unjustifiable for the CA to make a decision on the merits of this application until such time as these have been remedied"*.

2.24 I therefore proceed to dismiss the grounds of appeal on this topic.

Second ground of appeal: Holistic assessment of the EA application

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.

Summary of comments from I&APs

2.26 The Commenting I&APs indicate that:

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.

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 socio-economic conditions could not be properly evaluated,"* especially *"because of the lack of a proper underwater noise impact study*

and the contradictory information that was made available." This indicates that the CA did consider the socio-economic impacts that this Project will have.

- 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.
- 2.26.4 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 Ngqura. Another reason for the RoR is that the study itself was deficient, in that it does not include the socio-economic impacts related to many aspects, inclusive of the following:
- 2.26.4.1 Socio-economic impacts due to loss of biodiversity, and implication on tourism and tourism related jobs;
 - 2.26.4.2 Negative impacts (such as underwater noise, heated water discharge, pollution, climate change impacts) on juvenile fish, and in turn on the socio-economic implication on local fishermen and mariculture in the Ngqura region;
 - 2.26.4.3 socio-economic impact of climate change, such as loss of property, life, and food security; and
 - 2.26.4.4 negative impact on health, water stress, negative impact on housing market, heat waves affecting work productivity, negative impact on service delivery, reduced yields with in climate sensitive sectors such as subsistence and commercial agriculture as well as nature-based tourism.

2.26.5 Some of the impacts related to socioeconomics that are identified in the Marine Ecological assessment are the following:

2.26.5.1 The possible impact on fisheries (commercial / recreational / subsistence) and aquaculture / mariculture.

2.26.5.2 Tourism provided by Addo Elephant park and surrounding beaches.

2.26.5.3 Nursery areas for marine biota which are commercially important.

2.26.5.4 The Ngqura Port also serves as nursery for fish, which means that release of heated water may have additional impact on plankton and fish viability, and in turn on fishermen in the local area.

2.26.5.5 Underwater noise impacts are not well understood, and baseline noise with likely noise of powership on the marine ecology should be assessed. Despite this, none of these are assessed in the Socio-Economic Impact Assessment

2.26.6 The lack of material information that Karpowership failed to provide in their FEIAr directly impact on the adequacy of the socio-economic assessment. These gaps in information include:

2.26.6.1 The socio-economic value of estuaries 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;

2.26.6.2 A socio-economic assessment of the impacts of climate change on the Project itself, the surrounding communities, and the impact that the 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.

2.26.6.3 The socio-economic impact assessment of biodiversity related services.

2.26.6.4 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.

2.26.6.5 The Socio-economic impact on fishing and mariculture in the area (which includes the negative impact on juvenile spawning ground for fish).

- 2.26.6.6 Fatal Flaws are not identified and assessed. The assessment matrix (appendix C of the FEIAR) does not contain an option for fatal flaws, and thus the socio-economic impact assessment could not have identified fatal flaws.
- 2.26.6.7 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 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.
- 2.26.7 The Marine Ecology Specialist Report also concluded that *"there is not enough information pertaining to underwater noise and vibration levels from floating power plant ships in the context of the Port of Saldanha 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."*
- 2.26.8 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 Nquca, Richards Bay and Saldanha, the expert finds the following:
- 2.26.8.1 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.

- 2.26.8.2 Karpowership (i) failed to complete the necessary research (desk or field) to conduct a reasonable environmental assessment of noise impacts in the marine environment; and (ii) failed to propose adequate long term marine noise mitigation.
- 2.26.8.3 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.
- 2.26.8.4 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.
- 2.26.8.5 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.
- 2.26.8.6 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.
- 2.26.8.7 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.
- 2.26.8.8 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).

- 2.26.8.9 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 powership may 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.
- 2.26.8.10 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.
- 2.26.8.11 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.
- 2.26.8.12 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.
- 2.26.8.13 The FEIAR failed to consider impact of noise on the ecosystem holistically, including a 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.
- 2.26.8.14 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.

- 2.26.9 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.
- 2.26.10 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.
- 2.26.11 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.
- 2.26.12 The EAP's letter of 23 June 2021 also indicates that there are no small-scale fishers. However, Karpowership's own Marine Impact Assessment as well as Coastal and Estuarine Impact assessment make mention of local fishers and mariculture operations. The Coastal and Estuarine Assessment indicates that pollution from the Project could affect the mariculture facilities by introducing pathogens. Moreover, the Marine Ecology Assessment indicates the existence of commercial/recreational/subsistence fishing as well as aqua/mariculture established in 2020, which is within 2.5 km of the Port of Ngqura. It is not certain why these I&AP's were not contacted for public participation.
- 2.26.13 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.

Summary of comments from Karpowership

- 2.27 In their comments, Karpowership submits as follows:

- 2.27.1 The *"existence of any other legislation, policies and decisions including procurement under the RMIPPPP, or in this instance, the project being considered as a SIP"* cannot be cast aside as being irrelevant.
- 2.27.2 The aims and principles of the RMI4P, and the allocation of SIP status are vital to the orderly execution of government's plans to obtain power and to diversify their sources of power for the country (see the IRP 2019). The RMI4P is the government's response to the dire need for more power to be supplied to the national grid. It is incorrect that no bearing can be ascribed to the SIP status of the Karpowership Projects. The ascribed SIP status and the development and execution of the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP/ REI4P) by another organ of state, must therefore be a heavily weighted considerations in this application. Karpowership only requests that these considerations are ascribed their proper importance in the weighing of all factors for this EA application.
- 2.27.3 However, they fully agreed that all considerations need to be given proper weight when the CA makes a decision. Karpowership only requested that the economic needs are not merely side-lined for environmental concerns.
- 2.27.4 The CA is obliged to consider the greater socio-economic aspects and weigh them up against the environmental impacts of the proposed Project. There is however no evidence in the RoR that the EIAr was holistically assessed or that the proposed Project would have a long-term negative environmental impact. The CA seems instead to have focussed on the micro-environmental issues raised by the Non-Governmental Organizations (NGO's) (and supported by an emotive media); and seems to have then given these issues an undue weighting in reaching their decision, whilst the voices of the local communities seem to have been largely unheeded by the CA.
- 2.27.5 No fatal environmental flaws were identified. Properly and objectively considered, it is clear that the proposed Project should have been authorised.
- 2.27.6 The decision maker is not bound to follow any recommendations in the EIAr, but they are bound to at least consider them and where they disagree, to state as much. There is no

evidence that the Socio-Economic Impact Assessment was adequately considered nor were any questions addressed to Karpowership, prior to the decision, to gather more information, engage on concerns or settle any queries. This would have been standard in the process for any other applicant, in a transparent and balanced engagement.

- 2.27.7 Karpowership has proven that they are one of the lowest cost and best value for money bidders in the RFP. The Karpowership Projects alone (constituting 1220MW) would alleviate more than one full phase of load shedding, of which the Ngqura Project would contribute 540MW. Notably, Karpowership Ngqura is the second (2nd) cheapest of the Preferred Bidders. LNG is a vital part of the RMI4P and a crucial transitional fuel for South Africa, both in terms of moving away from coal (with very high GHG emissions) and meeting the immediate goal of reducing load shedding. In addition, Karpowership meets the requirements of the RFP to be on stream by December 2022 and is a technology new to South Africa. The Powerships shall operate for approximately 16 hours a day, depending on the needs of the national grid, as per the Peaking Power Requirements. Projects selected for the 20-year power purchase agreement under the RMI4P must be able to operate between 05h00 and 21h30 daily and must have full load-following ability.
- 2.27.8 It is not argued that the socio-economic needs and procurement considerations should be considered superior to environmental concerns, but it is requested that these considerations be given the weight that they deserve in comparison to the environmental considerations. The crux of the argument is that this EA application should be seen in light of the purpose for which the EA was sought, namely *"to comply with a bid submission for the Risk Mitigation Power Procurement Programme"*.
- 2.27.9 The CA has not produced any evidence to substantiate the allegation that there were *"environmental concerns that were overlooked"* nor that the public participation process was defective. On the contrary, both the substance of the FEIAR and the process were robust and in accordance with the law. Well qualified, experienced specialists were used for all components of the EIAR and no deficiencies in the particular components of the EIAR have been noted by the CA.

- 2.27.10 The Socio-Economic Impact Assessment did not address sensitivities regarding marine ecology, as this is not a mandated study. A detailed site-specific assessment was undertaken on marine ecology by Lwandle. These factors have been considered in section 5 of the Socio-Economic Impact Assessment, on pages 35-36 thereof.
- 2.27.11 In respect of the Noise Impact Assessment:
- 2.27.11.1 At the time of the initial round of studies for the EIA process, the underwater noise was considered to have been sufficiently addressed through the noise impact assessment report, which was part of the Draft EIAR, the Marine Impact Assessment Report and the Ghanian study, which were included in the FEIAR.
- 2.27.11.2 It is recommended that the Baseline Study be undertaken over time, once the Powership is operational. There are no operating Powerships in South Africa which can currently be modelled. The lack of a select study does not negate all other studies conducted, particularly when it is the respective appellant making the suggestion that the additional study be conducted.
- 2.27.11.3 Additional noise impacts of traffic within the Port are outside of the scope of the EIA. However, general traffic within the report was included in the EIA and is modelled (refer to annexure J1 of the FEIAR). There are a total of 24 deliveries to the LNG, which accounts for less than 3% of the total traffic in the Port of Ngqura (see page 298 of the FIEAR).
- 2.27.11.4 The issue of noise is apparently misunderstood by the 1st Commenting I&AP, who paints the picture that there is a massive impact on pristine oceans when in fact the powerships will be located in a heavily impacted brownfields port. All potential impacts have been carefully studied by specialists in the EIA process and no fatal flaws have been identified.
- 2.27.11.5 The risk-averse and cautionary principle has been misquoted. An assessment was undertaken, based on similar vessels, and on a powership *in situ* elsewhere. The results of those assessments provide a level of assurance that satisfies the precautionary principle. However, to provide complete assurance and guide possible mitigation

measures, it was suggested in Karpowership SA's own Marine Ecological Impact Study that a noise modelling study should be undertaken.

- 2.27.11.6 Despite there being no underwater noise thresholds to work with, noise has been well studied as part of this EIA process, there have been sufficient studies of underwater noise and its impacts on the surrounding marine life, include mammals.
- 2.27.12 There is no obligation (legal or otherwise) to conduct a socio-economic impact on biodiversity related services, and the omission of such a report does not in any manner renege on the completeness of the EIA process. The impact on biodiversity is predicted as low (see page 305 of the FEIAR). There is no negative impact on juvenile or spawning fish. Thus, no socio-economic impact assessment is required.
- 2.27.13 The closest African Penguin colony is on Jahleel Island, one kilometre away from the site of the moored powership. The avifaunal assessment confirmed there was low impact on seabirds (Appendix I8 of the FEIAR at page 50 to 51). The Project is to be located in an industrial port, not on the Penguin's breeding ground.
- 2.27.14 A detailed CCIA is included in the FEIAR, that was peer-reviewed. In fact its scope goes much further than many of the other IPP projects.
- 2.27.14.1 The impacts of the proposed project on climate change are by nature cumulative since the receiving environment is the global atmosphere. It is for this reason, following quantification of the GHG emissions associated with project activities, that the relative contribution/expenditure of the Project can be compared to global and national carbon budgets (Section 5.5 and 5.6). Because accumulated GHG emissions from all global sources contribute to climate change, the impacts of climate change cannot be geographically or politically contained, nor can any impact be attributed to a single source or project. The cumulative impacts of gas-to-energy projects at national level can only be meaningfully assessed using approaches such as a Strategic Environmental Assessment (SEA) framework. An exercise of this nature will allow for a national overview of the cumulative impact of gas-to-power projects, and thus a comparison against South Africa's international commitments under the Paris Agreement. In other

words, the impact of the current project is already measured against a cumulative baseline.

- 2.27.14.2 It is undeniable that the Project will be associated with GHG emissions. Any energy project, including renewables would be. This needs to be weighed against other risks, such as the risks of not proceeding which means loadshedding, economic stagnation and poverty. The CCIAR concludes that the Project should proceed and is in line with SA GHG emissions obligations.
- 2.27.14.3 The CCIAR is fully compliant with legislation and in fact goes beyond what is required by South African legislation.
- 2.27.14.4 Karpowership SA does not dispute the importance of factoring in climate change. However, they fail to understand the link drawn between climate change and the Karpowership Projects as a whole: 'greener' renewable forms of energy are not as 'footprint free' as one would believe. As such, it is necessary for the CA to contextualise the outputs of the powerships and further contextualise this in the setting of the RMI4P.
- 2.27.14.5 It's worth noting that the abovementioned stance on cumulative impacts is based on Promethium's approach and peer review. The Karpowership Project was not perceived as a fatal flaw by Themis Consulting and Promethium Carbon. Should the CA regard this Project has a fatal flaw, all projects generating electricity via LPG or LNG with an output of more than 450MW and similar emissions intensity, would be considered as fatally flawed and this will in turn rule out substantive operations that are crucial to sustainable energy supply. In the same light, gas-to-power projects that have been recently authorised, should be revoked.
- 2.27.15 The provided socio-economic impact assessment has to cast a 'wide net', as the creation of jobs cannot be only localised to the Port of Ngqura. By the same logic, the economic suffering as a result of load shedding in the country would be 'localised' to the place where power is generated or where the substations are located. This therefore necessitates that the impact of readily available and on-demand produced power will benefit the entire country and consequently, there will be job creation across the entire country. The socio-

economic impact assessment therefore looked at both the local and wider impacts of the project. If only local impacts were relevant, then only the localised economic benefits and the local suffering caused by load shedding would be considered. 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.

- 2.27.16 As per Section 5 (page 38 to 56) of the Socio-Economic Impact Assessment undertaken by Urban-Econ, there will be no negative impact on tourism. The powership is docked in the harbour, well away from tourist attractions and accommodation. The indirect impact on tourism of alleviating load shedding is positive, as tourism requires reliable energy and tourists with money to spend.
- 2.27.17 No fatal flaws were identified, therefore there was no need to include the option of fatal flaws. Had any fatal flaws been identified, such an option would have been included.
- 2.27.18 It is maintained that there are no small-scale fishers that will be heavily impacted by the proposed Project. Fishing is not allowed in the Port of Ngqura, in which the two (2) powerships will be docked. The local fishers and mariculture operations are outside of the zone of influence of the proposed Project and may therefore experience minimal (if any) impact. It has been reiterated numerous times that impacts from the powerships are localised impacts. The 1st Commenting I&AP places an overemphasis on small-scale fishers and attempt to create an argument that the small-scale fishers are the backbone of the local economy. It is expected that there will be low impact on surrounding local marine environments.
- 2.27.19 The impacts are well assessed in the socio-economic assessment. Further, the drawing of direct links of job creation to sustained and reliable power sources, which enable the economy to function and operate properly, is direct. This is because there are select few suppliers of power to the entire national grid. However, to directly link the loss of jobs as a result of climate change or taxpayers' money being used for the construction of 'unnecessarily expensive' infrastructure does not make sense. If there are any negative impacts as a result of the two (2) powerships being moored in the Port of Ngqura, negative

impacts would inherently be localised. But the fact that the power produced feeds into a national grid, the benefits felt would be subject to being under a wider net.

- 2.27.20 The full impact is known with enough certainty for the specialists to recommend that the Project may proceed subject to certain conditions. No environmental fatal flaws have been identified, and an end to load shedding is entirely absolutely in the public interest. Full compliance with other legislation has been achieved such as with the National Water Act, NEMAQA and so on.

Summary of responses from the Competent Authority

- 2.28 In their responses, the CA advises that:

- 2.28.1 The EA application was assessed holistically. However the following considerations could not be overlooked:

2.28.1.1 the lack of a qualitative Noise Impact Assessment on threatened African Penguin Species and megafauna living, foraging, feeding or transiting nearby;

2.28.1.2 the lack of underwater noise impact study to assess the impacts fish and in turn the implication for small scale fisheries;

2.28.1.3 the Socio-Economic impact assessment contains various gaps and deficiencies;

2.28.1.4 the limitation of various studies, including those that were undertaken in the wrong season, that raised concerns regarding the validity of their findings;

2.28.1.5 the public participation process conducted by the EAP; and

2.28.1.6 the EIA process as a whole.

- 2.28.2 In light thereof, the FEIAR 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.

Evaluation (Reasons for decision)

- 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 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.

- 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 Nqgura, 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.
- 2.31 The proposed actions of individuals must be measured against the short-term and long-term public interest, to promote justifiable 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.
- 2.32 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.

- 2.33 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.
- 2.34 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:
- 2.34.1 The proposed site is located approximately 5km from the Algoa Bay Islands: Addo Elephant National Park Important Bird Area (IBA). The Terms of Reference of the Avifauna Study must be expanded to include the impacts the proposed development will have on the IBA (at page 2 paragraph (a)(viii)).
- 2.34.2 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)(xii)).
- 2.34.3 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 3 paragraph (c)(v) thereof).
- 2.34.4 The PPP must be conducted in terms of regulations 39, 40, 41, 42, 43 and 44 of the 2014 EIA Regulations (at page 3 paragraph (c)(ix) thereof).

- 2.34.5 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).
- 2.34.6 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):
- 2.34.6.1 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.
- 2.34.6.2 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.
- 2.34.6.3 The cumulative impacts significance rating must also inform the need and desirability of the proposed development.
- 2.34.6.4 A cumulative impact environmental statement on whether the proposed development must proceed.
- 2.34.7 Should there be significant changes or new information that were added to the EIAr or EMP, 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).
- 2.35 Although I do not address each of the above requirements under this specific heading, my evaluation under each of the headings herein, indicates that the FEIAr did not meet and/or comply with all of the requirements prescribed by the CA.
- 2.36 In considering this ground of appeal, I also took heed of the following:

- 2.36.1 The Socio-Economic Impact Assessment of the Project is addressed in Appendix I15 to the FEIAr.
- 2.36.2 Paragraph 7.5.6 (Table 7-2, on pages 156 to 159 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 comprehensive economic development plan, which plan is still contemplated for the future.
- 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:

The Socio-Economic Impact Assessment report

- 2.38 The Socio-Economic Impact Assessment report (Appendix I15) specifies in paragraph 3.5.2 on page 30 to 35 thereof, that key social and economic priorities in the surrounding affected area of the Nelson Mandela Bay Municipality (NMBM) are addressing skills development; housing provision, including rectification; the high crime rate; and initiating economic and social development projects in the area. Other potential socio-economic issues identified, include:
- 2.38.1 Danger in the case of explosions or fires on the ships, however, outside of the existing harbour keys which are within a 1600 metre radius from the powerships, no other commercial or residential structures are within this radius; and
- 2.38.2 LNG as a renewable resource, but natural gas-fired power plants provide a competitive and flexible back-up to variable renewable technologies.
- 2.38.3 The economic cost of using LNG, while gas-fired power plants contribute to optimised energy systems when they are designed to operate flexibly, responding to demand patterns and the variable supply of renewable energy.
- 2.39 The Socio-Economic Impact Assessment report also states the following:

- 2.39.1 *"To have a significant and sustainable impact on the socio-economic characteristics of NMBM, industries which are labour intensive, and that require unskilled workers should be prioritised. Additionally, skilled labour from outside the area would initially have to be brought into the area due to the existing low skills levels" (Appendix I15, paragraph 3.5.2 on page 35).*
- 2.39.2 Under the heading (e) "Temporary increase in employment in the national and local economy" - *"The proposed Powerships and their related infrastructure are anticipated to directly create approximately 90 Full Time Equivalent (FTE) employment positions over the course of the construction phase" (Appendix I15 on page 40). It is not indicated whether these temporary job opportunities will be available to South African citizens from the local area.*
- 2.39.3 *"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 terms of production, employment, government revenue, community benefits and households' earnings." (Paragraph 6.2.5 on page 66)*
- 2.39.4 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", while "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 exclusively be concentrated at a NMBM level".*
- 2.39.5 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. Potential negative impacts can largely be mitigated, and their significance reduced. The minimal visual impacts anticipated, however, cannot be fully eliminated although it is also possible to reduce their significance." (Page 63 to 64)

- 2.39.6 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. As in the case with the impacts observed during construction, negative effects can be mitigated, and positive impacts enhanced. Mitigation of the negative impacts though will not result in their complete elimination as visual disturbance of the nature inherent to the project are difficult to eradicate entirely. Nevertheless, the significance ratings of the negative impacts are expected to be reduced." (Page 64 to 65).

- 2.40 I am therefore of the view that the Socio-Economic Impact Assessment report indicated very little positive impacts on the local area of the proposed Project, while ignoring the negative impacts such as an assessment of all the sensitivities in the area.

The Marine Ecological Assessment

- 2.41 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 cooling water and the generation of underwater noise, are considered to be the most important sources of disturbance to the marine environment (Appendix I10, Paragraph 1.2.1 on page 4). I have also noted the following sentence: "*Disruption to the seabed will occur on the port's western side, extending from the powerships shoreward (in the second proposed layout only). Data on underwater noise was not supplied, and so the spatial extent of the impact is unknown.*" (Paragraph 1.2.1 on page 5)
- 2.42 According to the Marine Ecological Assessment, Algoa Bay's marine environment is characterised by many South Africans as an endemic marine species, with Algoa Bay being

home to the highest percentage of endemic marine invertebrates and seaweeds. The Bay hosts many diverse habitat types with their associated fauna, including rocky shores, sandy shores, estuaries, subtidal reefs and offshore soft sediments. Several islands also occur in Algoa Bay which provides vital breeding habitat for seabirds and seals. Bird Island supports the largest breeding colony of Cape gannets (*Morus capensis*) in the world, while African penguins (*Spheniscus demersus*) and roseate terns (*Sterna dougallii*) also use the island for breeding. Seal Island is home to a breeding colony of cape fur seals (*Arctocephalus pusillus*), and the St Croix Island Group (comprising St Croix, Jahleel and Brenton Islands) supports a large (9000 pairs) breeding colony of African penguins.

- 2.43 In 2005, the Bird Island group and the St Croix Island group were proclaimed as part of the Greater Addo Elephant National Park; and in 2013, the Bird Island Marine Protected Area (MPA) was established. In 2019, the Addo Elephant National Park MPA was gazetted to expand on the original Bird Island MPA. The Addo Elephant National Park MPA incorporates the 1200 km² area extending from the port's eastern breakwater to Cannon Rocks in the west and includes the Sundays River Estuary. Most of the islands do not occur within the proposed floating power plant's (FPP) immediate development area, but Jahleel Island occurs much closer, 1 km from the proposed FSRU location. The proposed development also occurs within the Algoa to Amathole Ecologically or Biologically Significant Marine Area (EBSA).
- 2.44 The Algoa Bay area provides a large number of ecosystem services to society. Most of these fall under socio-economic topics and are only briefly mentioned, but some are directly dependent on ecosystem health and functionality. These ecosystem services to society (Page 6 to 7 of the Marine Ecology Report) and include the following:
- 2.44.1 Fisheries (commercial/ recreational/ subsistence).
 - 2.44.2 Aquaculture/mariculture (bivalves and finfish) - in 2020, authorisation was granted to establish a sea-based Aquaculture Development Zone (ADZ) in Algoa Bay, comprising of three precincts, one of which, Algoa, is located approximately 3 km offshore, 2.5 km from the entrance to the Port of Ngqura.
 - 2.44.3 Carbon sequestration by, for example, phytoplankton within the Bay.

- 2.44.4 Protection from extreme sea conditions and large swells provided mainly by the rocky headland at Cape Recife.
 - 2.44.5 Regulation of water flows from, for example, stormwater runoff.
 - 2.44.6 Ecotourism and recreation provided by the Addo Elephant National Park and the surrounding beaches and water body within the Bay.
 - 2.44.7 Amenity value, such as real estate value, for residents.
 - 2.44.8 Nutrient cycling, which allows for primary production.
 - 2.44.9 Nursery areas for numerous marine biota, some of which are commercially important.
 - 2.44.10 Effluent disposal and intake waters used for various industrial applications such as cooling, desalination and processing; and
 - 2.44.11 Commercial and recreational water transport, which is significant as Algoa Bay hosts the Port of Ngqura and the Port of Port Elizabeth, both large commercial ports.
- 2.45 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.
- 2.46 The impacts identified in the Marine Ecological Assessment include the following:
- 2.46.1 Gas pipeline construction and installation will result in the disturbance of approximately 5 200 m² (approx. 500 m pipeline in total on seabed multiplied by approx. 10 m servitude + the mooring blocks) of benthic habitat within the site-specific area of about 78.5 hectares. This will result in the modification of approximately 0.6% of the benthic and intertidal 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. Furthermore, the development will occur within an already compromised port area due to the admin craft basin's construction. CSIR (2018) reported macrofaunal abundance near the admin craft basin and the proposed FSRU location, mainly comprising of small subsurface deposit-feeding polychaetes that are generally more opportunistic in nature and can proliferate in disturbed environments. The sandy beaches where the pipeline will cross into the sea offer a soft sediment habitat supporting benthic macrofauna typical of sandy beaches in the region i.e., suspension

feeders such as molluscs and mysid shrimps. Ecological damage is however predicted to be negligible. The Coega River mouth and the sandy beach between the mouth and base of the eastern breakwater are essential for marine bird species. (see paragraph 3.4.1 of Appendix I10 on page 23 thereof).

- 2.46.2 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 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. 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.
- 2.46.3 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 (ΔT)** whilst in the system. Rapid temperature increases above ambient conditions can affect marine organisms' survival, growth, metabolism, morphology, reproduction, and behaviour (see paragraph 3.4.2 on page 25 thereof).
- 2.46.4 The simultaneous discharge of warmed cooling water by two (2) powerships, operational for between 16 and 24 hours per day for the 20-year duration of the proposed Project, to the surrounding water body causes temperature changes which generate chronic level effects on biota. These include alterations in growth, metabolism, respiration patterns and reproduction, and/or influence ecosystem-level processes such as alterations of the amount of oxygen dissolved in seawater, which can be detrimental to marine life. The

sensitive receptors comprise the 'resident biota', including plankton communities, sandy shore communities, the invertebrate species on the port structures, fish larvae, juvenile fish and sharks in the water column (that are unable to swim away). The Port functions as an important nursery area for many fish species and is a critical habitat and activity zone for juvenile and neonate dusky shark. Larger animals that are more mobile are not considered sensitive to these water temperature changes, as they can move away from the thermal plume if they feel discomfort (see paragraph 3.4.3 on page 28 thereof).

2.46.5 The proposed FPP facility in the Port of Ngqura is surrounded by essential habitats such as the sandy beaches and surf zones, rocky shores on the adjacent Jahleel Island and in the vicinity of the abalone farm site east of the Port, the subtidal zone, the islands, artificial surfaces 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 fitness, foraging efficiency, avoidance of predation, swimming energetics and reproductive behaviour (see paragraph 3.4.4 on page 35 thereof).

2.46.6 The sensitive receptors to underwater noise within the Port of Ngqura are fish and marine mammals. To a certain extent, benthic invertebrates may also be impacted by underwater noise and vibration, however evidence is limited. The Port of Ngqura functions as an essential nursery area for many fish species and is an important habitat and activity zone for juvenile and neonate dusky shark. Juveniles are considered more sensitive to noise disturbances as they are less mobile, while adult fish can move out of affected areas. Other important receptors in the area are the various seabird species including penguins, gannets and cormorants.

2.47 The Marine Ecological Assessment then concludes that there is not enough information about underwater noise and vibration levels from the FPP ships in the context of the Port of Ngqura 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. It is recommended in paragraph 3.4.4 on page 36, that:

- 2.47.1 A baseline study of the underwater noise climates in the Port of Ngqura is initiated.
- 2.47.2 This information should be combined with the likely powership noise estimates presented above and the impacts of the total noise on the marine ecology should be reassessed.
- 2.47.3 Long-term monitoring (at least 12 months) of underwater noise should be developed and this information should be made available to the wider scientific community.

The Noise Impact Assessment

2.48 The Noise Impact Assessment that was conducted by Safetech, only deals with terrestrial noise (paragraph 7 to 7.6 of Appendix I16 on page 21-28), but acknowledges in respect of underwater noise impacts (paragraph 7.7 on page 28) the following:

- 2.48.1 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 is this an important sensory medium for marine animals.
- 2.48.2 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.
- 2.48.3 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.

2.48.4 The underwater noise that could be generated in this Project includes, but is not limited to, the following:

2.48.4.1 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.

2.48.4.2 Pile driving when constructing and installing the LNG offloading infrastructure.

2.48.4.3 Noise that is radiated through the hull of two (2) powerships during power generation.

2.48.4.4 Noise from the simultaneous suction and discharge of cooling water used on the two (2) powerships into the harbour environment.

2.49 The Noise Impact Assessment (Appendix I16) records that:

2.49.1 The proposed project is situated within Algoa Bay and adjacent to a Marine Protected Area. The marine environment in Algoa Bay is of critical conservation value. There are numerous islands in Algoa Bay that provide critical breeding habitats for seabirds and other species. Of these, 41% of the African Penguin (*Spheniscus demersus*) and more than 70% of the Cape Gannet (*Morus capensis*) populations currently breed on these islands, and on Jahleel Island, the closest of the islands where breeding pairs can be found. The African Penguin has been listed as Endangered on the International Union for the Conservation of Nature (IUCN) Red List. Furthermore, it has been reported that anthropogenic noise disrupts the feeding patterns of the African Penguin. A further increase in the marine traffic and other anthropogenic noise in Algoa Bay could potentially lead to the abandonment of their current breeding habitats. This could have dire consequences not only for this species, but also for other taxa that rely on the penguins as they facilitate shallow feeding for other volant seabirds. Algoa Bay also hosts several species of cetaceans at different times of the year. The use of sound is critical to the survival of the marine mammals.

2.49.2 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 however only applies to a berthed powership and not to the vessel traffic associated with the operation thereof, such as LNG deliveries and so forth (paragraph 7.7 on page 28 to 29).

- 2.49.3 The FEIAr concludes on page 199 to 201 thereof, by highly recommending the following mitigation measures:

Mitigations- Construction Phase

- 2.49.3.1 *All construction operations should only occur during daylight hours if possible.*
- 2.49.3.2 *No construction piling should occur at night where possible. Piling should only occur during the day to take advantage of unstable atmospheric conditions.*
- 2.49.3.3 *Construction staff should receive "noise sensitivity" training such as switching off vehicles when not in use, location of NSA's etc.*
- 2.49.3.4 *An ambient noise survey should be conducted at the noise sensitive receptors during the construction phase.*
- 2.49.3.5 *Periodic terrestrial noise measurements are taken during the construction phase".*

Mitigations- Operational Phase

- 2.49.3.6 *"The noise impact from the proposed project should be measured during the operational phase, to ensure that the impact is within the required legal limit.*
- 2.49.3.7 *An avifauna specialist should be consulted to determine the effects that an increase in noise levels will have on the Damara Tern Colony.*
- 2.49.3.8 *Install acoustic enclosures around all major noise emitting components to suppress the noise emissions from equipment such as engines.*
- 2.49.3.9 *Install Silencers on equipment such as exhaust stacks and turbo chargers.*
- 2.49.3.10 *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 Algoa Bay to determine the current underwater noise environment. This should commence prior to construction and continue periodically once the operational phase commences. Periodic terrestrial noise measurements are taken during the operational phase."*

- 2.50 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.
- 2.51 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 the cumulative underwater noise impact to be propagated simultaneously by two (2) powerships that will be operational between 16 to 24 hours per day for the duration of the 20-year lifespan of the proposed Project, and the cumulative underwater noise contribution of the LNG carrier from time to time, were not assessed.
- 2.52 The Technical Report of Terrestrial and Underwater Radiated Noise (URN) Evaluation (Appendix J) acknowledges the following:
- 2.52.1 Noise travels much more in water, covering greater distances than it would do on land while travelling through air.
- 2.52.2 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).
- 2.52.3 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.
- 2.52.4 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.

2.52.5 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, minke whale, pygmy sperm whale, killer whale, sea bass, pink snapper, goldfish, cod, haddock, bluefin tuna, squid, lobster, and brown shrimp.

2.53 The Technical Report of Terrestrial and Underwater Radiated Noise (URN) Evaluation states that 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 speed 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 ship is docked in its normal operations (paragraph 3.2 on page 31 of Appendix J). This study therefore did not take into consideration all of the proposed activities in this Project. 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).

2.54 These specialist studies are indicative thereof that the concerns raised by I&APs are valid. The Socio-Economic Impact Assessment report, and Karpowership itself, brush aside these environmental concerns as "*micro impacts in the brownfields ports*", or "*micro-environmental issues*", and offer limited job opportunities as a trade-off.

2.55 In my assessment of this ground of appeal, I am satisfied that the CA correctly found that:

- 2.55.1 *"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 Ngqura and the cumulative impacts on the surrounding marine ecology. The same recommendation is made by the Estuarine Specialist. The recommended study should have been conducted as part of the EIA process to fully understand the impacts of the proposed development."*

The Climate Change Impact Assessment

- 2.56 The 2017 judgment in the case of *Earthlife Africa Johannesburg v the Minister of Environmental Affairs* [201] 2 All SA 519 (GP) confirmed that a Climate Change Impact Assessment (CCIA) is a necessary component of an EIA for projects with climate impacts. In that case, the court acknowledged the need for a CCIA that is much broader than a mere assessment of anticipated emissions. The court confirmed the need for a comprehensive assessment, which assesses, *inter alia*, the impacts of climate change on the project itself, and the 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"*.
- 2.57 The CCIA in the FEIAr does not comply with this requirement as it is mainly concerned with contribution of the proposed Project's GHG emissions towards climate change (FEIAr paragraph 8.3.8 on pages 188 to 192). 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 8.4.8.1 on page 257).
- 2.58 The following is of particular concern in the CCIA:

- 2.58.1 Emissions from gas production, gathering, processing, initial transport, and LNG liquefaction are not considered in the emissions assessment.
- 2.58.2 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 emissions from the ships, despite carbon capture and storage being suggested as a plausible mitigation measure.
- 2.58.3 While Karpowership confirms that there are no small-scale fishers who will be impacted upon, Table 8-2: Vulnerability Assessment Outcomes (FEIAR on page 190) indicates that sea-surface temperature increase will have from a socio-economic perspective, negative effects on livelihoods within climate-sensitive sectors such as subsistence and commercial fishing, as well as nature-based tourism; and as an impact on the natural environment, negative effects on marine organisms' survival, growth, metabolism, morphology, reproduction, and behaviour, as well as habitat loss.
- 2.59 The peer review of the Climate Change Impact Assessment (CCIA) (Appendix I11 on page 10 to 16) pointed out the following key findings:
- 2.59.1 The assessment does not distinguish between the impact of the proposed Project on climate change and the vulnerability of the proposed Project to climate change: This has been achieved, to some extent. However, the report does not provide the necessary context in the various sections pertaining to these two different aspects under discussion. Whilst we believe the impact of climate change on the project has sufficiently been discussed, we are still concerned that the impact of the project on climate change has not been discussed fully when considering life cycle emissions.
- 2.59.2 The greenhouse gas emission assessment did not take into consideration the emissions associated with the storage and regasification activities of the FSRU's. These form part of the projects' Scope 1 emissions, as they are within the project boundary, and should be included: This has been addressed. However, the GHG assessment does not consider the worst-case scenario in terms of emissions nor does the CCIA explain the methane slip context.
- 2.59.3 The greenhouse gas emissions assessment should consider the lifecycle emissions of the projects respectively, and include a consideration of other prominent greenhouse

gases, such as methane (CH₄) and nitrous oxide (N₂O): CH₄ and N₂O have not been considered in the emissions assessment. However, the assessment does not cover the full lifecycle of the project. The Scope 3 emissions in terms of the extraction, liquification and transportation of the LNG has not been included in the GHG assessment. The avoided emissions should be recalculated.

2.59.4 The assessment of climate impacts on the project are done in isolation of the surrounding environment: This has been addressed. Although the reports do include an update on the social and environmental context of each of the projects, we do not believe that the adaptive capacity of the social and environmental contexts have been addressed.

2.60 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:

2.60.1 While the two (2) powerships and related infrastructure will both be operational for 16 to 24 hours per day 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.

2.60.2 The impact assessment finding 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, lops 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 project is considered to be*, which results in a **High negative** impact (paragraph 8.4.9.5 on page 268 of the FEIAR; paragraph 8.4.9.7 to 8.4.9.9 on page 270-272) and the specific controls will need to be incorporated into the EA (see FEIAR on page 197 – Impact 9: Generation of coastal pollution).

2.60.3 The direct impact caused by the discharge of cooling water 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 8.4.10.1 on page 275), for which impact NO MITIGATION is proposed.

- 2.60.4 The statement that “*due to the uncertainty of the impacts of underwater noise a precautionary approach has been taken and the assessed impact on African Penguins for Underwater Noise increases from Medium-Low for the powership project alone to Medium-High if all existing and potential sources are included. Confidence Levels of the assessment are Low as no underwater soundscape is available for Algoa Bay and some of the recommended mitigation measures aim to address this knowledge gap.*” (FEIAR, on page 299)
- 2.60.5 The statement that: “*The results of the noise impact assessment of the proposed Gas to Power - Powership Project within the Coega SEZ shows that at all but one of the terrestrial receptors (NPA offices at NSA 2) of the SANS 10103:2008 rating limits will not be exceeded. However, when considering the cumulative impacts of other projects in the area, the limits may be exceeded at the Damara Tern Colony at NSA 10 as a result of the CDC Gas to Power Project. The noise impact associated with the operational activities of the proposed project is predicted to be of Medium-Low significance after mitigation. The construction related noise impacts will be of Very- Low significance*” (FEIAR, paragraph 8.3.17 on page 217). The exception being “*the noise levels predicted at the NPA offices (NSA 2), where the levels are expected to be 71.4 dB(A). This value exceeds the limit; however, the receptors are indoors and hence will not experience these noise levels fully as the building structure will act as a barrier between the source and receptors.*” (FEIAR on page 219). There is however no assessment of the underwater impact of such noise for sensitive receptors that are not indoors.
- 2.61 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:
- 2.61.1 There remains considerable uncertainty about the potential impacts of noise from the powerships, because of the following:
- 2.61.1.1 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;

- 2.61.1.2 knowledge of the current underwater soundscape is lacking, to be able to properly assess the potential impacts of the underwater noise; and
- 2.61.1.3 potential impacts of underwater noise on some marine taxa such as invertebrates are not well known.
- 2.61.2 The specialist report acknowledges that additional pressures associated with the proposed Project, if exceeding acceptable ecological thresholds and not adequately mitigated for over the 20-year duration of the operation, could be disastrous for the ecology of the area.
- 2.61.3 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 FEIAR were not always entirely convincing regarding the low significance of these potential impacts.
- 2.61.4 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.
- 2.61.5 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'.
- 2.62 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, 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.

- 2.63 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:

“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”.

“The proximity of the proposed project to a regionally important ecological area drives the need to have a clear understanding of the potential impacts on these areas to inform the decision making”.

- 2.64 I therefore proceed to dismiss the grounds of appeal pertaining to the holistic assessment of the proposed Project.

Third ground of appeal: The audi alterem partem rule

- 2.65 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 alterem partem* rule.

- 2.66 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 Saldanha project, and (ii) the further inputs submitted by Karpowership on 23 June 2021 in response to CER’s request for suspension of the EIA process for the proposed Project.

Summary of comments from I&APs

- 2.67 The Commenting I&APs submit as follows:

- 2.67.1 The CA received written notice from the 3rd Commenting I&APs, 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. This complaint was associated with the Saldanha EIA process as it was 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 constitutes a failure to carry out the duties and legal requirements for EAPs as prescribed by NEMA.
- 2.67.2 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.
- 2.67.3 The objection filed by the 3rd Commenting I&AP 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 3rd Commenting I&AP in terms of regulation 13 of the 2014 EIA Regulations, dated 30 May 2021.
- 2.67.4 The further inputs submitted by Karpowership on 23 June 2021 was in response to the request from CER, representing the 1st Commenting I&AP, to suspend the EIA application processes for this proposed Project and the Richards Bay Project. In this letter, the CA was referred to the EAP's response of 18 June 2021, which responded to the 3rd Commenting I&AP's complaint regarding the Saldanha Bay EIA process, as summarised in paragraph 1 herein above.
- 2.67.5 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 ability to participate effectively in the process as per the requirements of NEMA and the 2014 EIA Regulations.

- 2.67.6 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.
- 2.67.7 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.
- 2.67.8 It has already been demonstrated that the Socio-Economic impact assessment contains various gaps and deficiencies. Moreover, it is Karpowership's own specialists who indicate that site specific modelling in relation to underwater noise should have been undertaken. In this regard, the following:
- 2.67.8.1 The FEIAr at page 276, recommends that: *"A baseline study of the underwater noise climates in the Port of Ngqura is initiated. This information should be combined with the likely powership noise estimates presented above and the impacts of the total noise on the marine ecology should be reassessed. Long-term monitoring (at least 12 months) of underwater noise should be developed and this information should be made available to the wider scientific community"*.
- 2.67.8.2 The FEIAr at page 284, indicates that: the Ghana study only applies to the berthed powership and not the vessel traffic associated with the operation thereof, i.e. LNG

deliveries etc. Further, that the marine ecological specialist studies can use the Ghana study data to evaluate the underwater noise impacts.

- 2.67.8.3 The Marine Ecological Impact Study at pages 37, indicates that: *"It is concluded that there is not enough information about underwater noise and vibration levels from floating power plant ships in the context of the Port of Ngqura 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.... A noise modelling study should be undertaken to gain a more quantitative understanding of the noise produced from powership operations in the Port of Ngqura and the cumulative impacts on the surrounding marine ecology."* (Marine Ecological Impact Assessment, Ngqura, on page 37 and 49).

Summary of comments from Karpowership

- 2.68 In their comments, Karpowership submits as follows:

2.68.1 The Saldanha Bay EIA process relates to one of Karpowership's proposed powership projects. The EA application in respect thereof was suspended on 08 June 2021, following a complaint by the 3rd Commenting I&AP (in this matter) and NGO's. Karpowership responded to this suspension in their Memorandum of 18 June 2021. However, the Coega EIA process was not officially suspended by the CA, although in a correspondence addressed from the CA to Karpowership on 23 June 2021, this being the same date that the RoR was received, they (Karpowership) were informed that the Saldanha suspension was lifted. Considering the timing of these decisions, the logical inference is that the suspension was lifted merely so that the RoR could be issued.

2.68.2 The Memorandum of 18 June 2021 contained important information for the CA to consider regarding the purported suspension of the EIA process and regarding the decision whether to authorise the proposed Saldanha Bay Project. The Memorandum of 18 June 2021 and further information submitted on 23 June 2021 in respect of the purported suspension of the Saldanha Bay EIA process do not appear to have been considered by the CA in their decision-making process. Although, at that stage, this information related specifically to the

Saldanha suspension, many of the issues therein were common to all three of the Karpowership EA applications.

- 2.68.3 There is clear evidence that the I&APs comments and objections were considered by the CA outside of the PPP in respect of the proposed Richards Bay project, and that this influenced the assessment of this proposed Project at Ngqura. The disproportionate and distorted media reporting was intended to and did influence public opinion negatively.
- 2.68.4 There are no small-scale fishers that will be heavily impacted by the proposed Project. There is no fishing allowed in the Port of Ngqura, in which the powership will be docked. The local fishers and mariculture operations are outside of the zone of influence of the proposed Project and therefore may experience minimal (if any) impact. It has been reiterated numerous times that impacts from the powership are localised impacts.
- 2.68.5 Again, the EIA process went beyond what was required of the PPP, not only did the EAP contact Ward 60 Councillor, but flyers were distributed to Ward Councillors of Ward 53 and 60 as well as Eyethu Fishing. Flyers were given to Eyethu Fishing as a proactive measure to provide local fisherman with information. Furthermore, Fisherman' contact numbers were provided by Eyethu Fishing and these fishermen were sent details of the proposed project via SMS. In addition, hard copies of the draft EIAr were given to the Ward 53 and 60 Councillors to afford the local communities the opportunity to easily access the information (see FEIAr on page 156).
- 2.68.6 Numerous I&APs were engaged during the PPP. However, no responses were received from some. The PPP was conducted in line with the CA's approved public participation plan and accepted Plan of Study, and conformed to the 2014 EIA Regulations and proof thereof has been submitted to the CA.
- 2.68.7 Due to the fact that this Project is the first of its kind in South Africa, baseline information needs to be built up in order to create sufficient contextualising information. The Marine Ecology Report stated that the indicated injury sound levels did not breach threshold levels and the FEIAr further discussed underwater noise on pages 173 to 174, 205 to 207, 220,

228, 234 to 237, 275 to 289, 303 to 312, 321, 338 and its own recommendations on pages 34 to 39 of the Marine Ecological Assessment.

- 2.68.8 It is recommended that the Baseline Study be undertaken over time, once the Powership is *operational*. There are no operating Powerships in South Africa which can currently be modelled. Again, it must be borne in mind that the impacts are centralised in a Port, in a brown-fields environment.
- 2.68.9 If the CA had assessed the EIAR holistically, considering all environmental and socio-economic factors, they would have granted the EA. It is therefore clear that the CA erred in their decision to refuse the EA.

Summary of responses from the Competent Authority

- 2.69 In their responses, the CA states that:
- 2.69.1 They did consider the content of the I&APs' complaint, brought in terms of regulation 14 of the 2014 EIA Regulations, against the EAP, in respect of the Saldanha Bay EA application. The EAP/ Karpowership was equally 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 1st Commenting I&AP, to suspend the EIA application processes for the proposed Project and Richards Bay.
- 2.69.2 The memorandum issued by the EAP/Karpowership on 18 June 2021 and their further correspondence of 23 June 2021 were considered by the CA as part of 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.
- 2.69.3 In any case, the CA was under no obligation to consider the 23 June 2021 letter as it concerns an investigative process against the EAP and falls outside of the scope of the EIA process. The Memorandum was a response to the complaint filed by the 3rd Commenting I&AP in terms of regulation 13 of the 2014 EIA Regulations, dated 30 May 2021.

- 2.69.4 It is disputed that the comments and objections raised outside of the PPP, including media reporting, influenced the CA's decision to refuse the EA application.

Evaluation (Reasons for decision)

- 2.70 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.
- 2.71 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 1st Commenting I&AP, to also suspend the EIA application processes in respect of the proposed Project and Richards Bay.
- 2.72 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, Karpowership, through their legal representative at the time (Gunn Attorneys), submitted an answering statement to the responding statements filed by I&APs (1st to 4th Commenting I&APs) against Karpowership's appeal. In this regard, Karpowership provided an executive summary tabling the issues/comments/responses raised by I&APs and their responses thereto.
- 2.73 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 FEIAr.
- 2.74 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 that Karpowership submitted on 23

June 2021 regarding the objections by I&APs. In this regard, I found that the majority of the concerns raised by the I&APs in the suspension request and the subsequent responding Memorandum from the EAP/Karpowership were not materially new information as these aspects had in some form or another been raised in the FEIAr and required consideration by the CA under the decision-making process.

- 2.75 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 FEIAr 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"

- 2.76 Considering all of the above, I proceed to dismiss the grounds of appeal on this topic.

Fourth ground of appeal: Section 2(4)(l) of NEMA

- 2.77 This ground of appeal alleges that the CA failed to assess the proposed Project in accordance with the provisions of section 2(4)(l) of NEMA, as there was no inter-governmental 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.

Summary of comments from I&APs

- 2.78 The Commenting I&APs submit as follows:

- 2.78.1 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.

- 2.78.2 This ground of appeal has no bearing on why the CA refused to grant the EA, and is therefore irrelevant for purposes of the present appeal. Whether or not there was co-ordination 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 co-operative 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.

Summary of comments from Karpowership

- 2.79 In their comments, Karpowership submits as follows:
- 2.79.1 The Commenting I&APs misinterpreted the policy and legislative context and Karpowership's arguments. It is false that no bearing can be ascribed to the SIP status of the Karpowership projects. Section 24(a)(i) of NEMA prescribes that the CA "*...must ensure, with respect to every application for an environmental authorisation - coordination and cooperation between organs of state in the consideration of assessments where an activity falls under the jurisdiction of more than one organ of state*". The ascribed SIP status and the development and execution of the RMI4P by another organ of state is therefore an important consideration in this application.
- 2.79.2 Karpowership has never alleged that the CA neglected their responsibilities under other informing pieces of legislation.
- 2.79.3 The SIP status and the objectives of the REI4P were not considered by the CA or if they were, they were not given adequate weighting. These considerations should have carried more weight, as a national governmental initiative and the importance thereof should have been given proper consideration.

Summary of responses from the Competent Authority

- 2.80 In their responses, the CA advises that:

- 2.80.1 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 considered by the CA in reaching a decision to refuse the EA application.
- 2.80.2 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.
- 2.80.3 In refusing the EA application, they (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).
- 2.80.4 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.

Evaluation (Reasons for decision)

- 2.81 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 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)(l) of NEMA.
- 2.82 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.

2.83 The National Environmental Management Principles serve in terms of section 2(1)(e) of 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.

2.84 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).

2.85 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:

2.85.1 The Nelson Mandela Bay Metropolitan Municipality (NMBM),

2.85.2 Eskom,

2.85.3 Birdlife SA,

2.85.4 SANParks,

2.85.5 The Department of Water and Sanitation,

- 2.85.6 The Department of Forestry, Fisheries and the Environment: Biodiversity and Conservation, Oceans and Coast, and Air Quality,
- 2.85.7 the Eastern Cape Department of Economic Development and Environmental Affairs and Tourism,
- 2.85.8 SAHRA,
- 2.85.9 The South African Civil Aviation Authority, and
- 2.85.10 Transnet.

2.86 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.

2.87 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.

2.88 I therefore proceed to dismiss the grounds of appeal on this topic

Fifth and sixth grounds of appeal: Public Participation

2.89 In the grounds of appeal under this topic, it is alleged that the CA failed to consider that 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

2.90 The Commenting I&APs submit as follows:

2.90.1 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.

- 2.90.2 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 Regulation caused procedural unfairness that cannot be rectified through the appeal process.
- 2.90.3 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.
- 2.90.4 The changes made in the FEIAR include, among others, the following:
- 2.90.4.1 A peer review report by Prometheus Carbon dated April 2021, which critiqued the previous CCIA indicating that the impacts were not assessed adequately, and that scope 3 emissions should be added.
- 2.90.4.2 A revised CCIA, of April 2021, which included the scope 3 indirect emissions. Indirect Scope 3 emissions were previously not included in the CCIA. The stipulated scope 3 emissions 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. 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, 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.

2.90.4.3 Moreover, the CCIA did not assess the climate change impacts in relation to all three Karpowership projects, nor did it assess the cumulative impact resulting from other proposed gas operation in the pipeline. These include the 8400MW Nseleni Project in Richards Bay, Eskom 3000MW project in Richards Bay, 3000MW Coega Development Corporation gas project in Ngqura, etc.

2.90.4.4 Marine Ecology Assessment referenced the Ghana noise data and included this in the report.

2.90.4.5 Updates to the noise impact assessment which contained new data pertaining to a powership project in Ghana; and

2.90.4.6 Changes in impact ratings for most activities. For example, the climate change impact rating in the Draft EIAr was not considered, whereas the FEIAr states these risks are high before and after mitigation.

2.90.5 The position taken by Karpowership is disputed. For example, Annexure CA9 of the Karpowership appeal includes the letter by the peer reviewer, MER, dated 06 April 2021. It states that *"MER was requested by the consulting companies Coastwise Consulting and GroundTruth to review three reports focused on assessments of the environmental impacts of the Gas to Power developments proposed for the harbours of Richards Bay, Coega and Saldanha Bay"*. This was in fact a review, not merely a confirmation of the South African Council for Natural Scientific Professions (SACNASP) accreditation. In any event, to the extent that recommendations are made by an expert institution for an EIA process, these should not be ignored. They also serve to corroborate the allegations around significant gaps in the reports and the need for a more thorough assessment.

- 2.90.6 The changes made are material and, as a result, regulation 23(1)(b) of the 2014 EIA Regulations applies. These inclusions into the FEIAR prejudiced I&APs. 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 RoR should be confirmed, as the assessment is not sufficient for decision-making.
- 2.90.7 Substantial new information was added that was material and of interest to I&AP's, and which should all have been subject to public consultation. As a result, the FEIAR contains significant new edits of the text, and contents of specialist reports, which the public had not had sight of before. These include many pages of all the blue text in the FEIAR, that Karpowership submitted in its appeal. Some of the new text includes the following:
- 2.90.7.1 The importance of underwater noise study (page 284-285);
- 2.90.7.2 Potential cumulative impact on terrestrial ecology, and Avifauna, and wetlands (page 288-290); and
- 2.90.7.3 Cumulative impacts on climate change, estuaries (page 291-292).
- 2.90.8 These edits took place, as a vast number of expert reports were peer reviewed and/or revised subsequent to the Draft EIAR. The list of the changes that occurred are contained in Annexure CA5 and summarised in paragraphs 83.9 to 83.9.9 of the Appeal. Karpowership's attempts to state that these changes were "*minor*", or the reports were "*refined*" are incorrect and at worst, misleading.
- 2.90.9 The 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.

- 2.90.10 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.
- 2.90.11 The failure to adhere to all the relevant laws and regulations governing public participation means that Karpowership failed to meet the public participation requirements. The partial compliance with the relevant laws does not suggest that all the relevant public participation requirements have been met.
- 2.90.12 Karpowership argues that there is no fishing taking place within the harbour itself. However, an assessment of, and engagement with local fishermen in the harbour 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 region, and not just the fishermen at the harbour. In other words, the scope of impact of the Project on I&AP's is far broader than the immediate harbour vicinity. The public participation and EIA process conducted by Karpowership has failed to address or consider these impacts.
- 2.90.13 Karpowership argues that most of the issues provided by the CA in relation to the RoR could have been dealt with through a response from Karpowership, and that those issues that could not be resolved (such as the noise impact assessment) should have been provided as a condition in the EA. This submission is incorrect in law. All impacts have to be assessed prior to any activity being authorised and taking place. It is vital that an EIA provide the decision-maker with all the necessary information to determine whether or not to grant an EA. If information cannot be ascertained prior to a project being authorised then a precautionary and risk averse approach must be taken in terms of section 2 of NEMA.

Summary of comments from Karpowership

- 2.91 In their comments, Karpowership submits as follows:

- 2.91.1 The PPP was conducted in line with the CA's approved public participation plan and accepted Plan of Study, and conformed to the 2014 EIA Regulations and proof thereof has been submitted to the CA.
- 2.91.2 Changes made between the Draft EIAR and FEIAR were as a result of public participation and input, which shows that the public participation was meaningful and effective, and this is part of the iterative EIA process. There were no changes made in the FEIAR that necessitated a further round of public participation. No new material information was submitted to the CA as the finalisation of the Draft EIAR to the FEIAR is a normal process within the EIA process. The information submitted in the FEIAR did not trigger regulation 23(1)(b) of the 2014 EIA Regulations. The new information obtained and subsequently placed into the FEIAR, was not material or significant and/or to the prejudice of I&APs and therefore did not trigger regulation 23(1)(b) of the 2014 EIA Regulations.
- 2.91.3 There were no "new" studies submitted in the FEIAR. The core studies obtained were originally made available to all I&APs, and pursuant to specific objection thereto, further studies were obtained in direct answer to objections raised. This is in compliance with the iterative process. There is no obligation to run an open-ended PPP during the EIA process. Any concerns or deficiencies with the PPP (such as the 30-day comment period for the Draft EIAR), which was false and a misrepresentation by the 1st Commenting I&AP were answered in the appeal.
- 2.91.4 In light thereof, the information provided to I&APs between the Draft and Final EIAR stage is not new information. It is information provided in response to comments already received from I&APs. An analysis has been made between the Draft EIAR and the FEIAR as to the variations thereof, and these do not evidence "new facts" that are "prejudicial" to I&APs. On the contrary, the additional information received in response to the comments raised indicates that the impacts of the Project are not excessively harmful. It is reiterated that providing clarifying information to answer to the queries raised by I&APs does not inherently constitute substantial new information worthy of an additional round of public participation.

- 2.91.5 Insofar as “site studies” are concerned, it is impossible to undertake “site studies” at this stage of the proposed Project, given that the proposed Project entails new technology introduced into the Republic. There are no existing “Karpowership” sites. There are also no competitor’ sites available, nation-wide. The information provided to the I&APs was thus adequate, reasonable and the best available information.
- 2.91.6 It was inevitable that the experts would use general expertise based on experience and other studies to make a recommendation. The study was not reworked, it was merely updated. The Safetech report and the Lwandle report were not changed. The Ghanaian report was added as the most applicable case study due to interaction with I&AP’s and requests received. The noise specialist and marine ecologist accordingly examined the Ghana study and considered it to be sufficiently similar to provide an adequate indicator of likely noise impacts. However, recognizing the shortcomings of that approach but lacking a practical alternative, they made the assessment and monitoring recommendations such as:
- 2.91.6.1 Lwandle: a baseline study of the underwater noise climate be initiated prior to construction, and secondly that post-construction noise levels then be monitored for a period of at least 12 months; and
- 2.91.6.2 Safetech: the need for the underwater “soundscape” to be determined. It recommended that pre- and post-construction underwater noise measurements be measured by means of hydrophones, as had been the case in the Ghana study, and be monitored on an ongoing basis.
- 2.91.7 The 1st Commenting I&AP’s complaint is clearly vexatious and misleading as the environmental impacts are taken out of context, exaggerated and the small-scale fishers are used as pawns to win over the CA and public support. The 1st Commenting I&AP has failed to explain how they are acting in the public interest, since the environmental impacts they claim are exaggerated and taken out of context. In addition, the 1st Commenting I&AP’s comments are a fabrication and misrepresentation of the truth.

- 2.91.8 While it is true that the Project in totality is new to South Africa, the individual impacts are not. Therefore, all of the issues associated with the Project could be adequately studied by the specialists and this was in fact done.
- 2.91.9 If, however, there were any minor gaps in knowledge which remained, these could be incorporated as conditions of the environmental authorisation for the Project. In this regard, it is important to bear in mind that the Coega Project would take place in an industrial port, a working harbour, which is already an impacted or brownfields site. Therefore, the projected impacts on the marine environment are low and in the case of underwater noise are medium to low after mitigation. For example, if there is a requirement to better understand the underwater soundscapes in these industrial ports, Karpowership could be instructed through conditions in the EA to further study such issues, so that the underwater noise impacts in the industrial port environment are better understood and where relevant to the Karpowership operations, impacts are constantly monitored and required management measures are timeously considered.
- 2.91.10 The monitoring can improve understanding and thus going forward aid not only in biodiversity enhancements, but also guide future decisions by Transnet National Ports Authority (TNPA) and the CA. Monitoring during operation will add to the baseline. Best available expertise and science was used in the EIA process. The baseline can be improved during operation, and this is recommended by Lwandle. This would be done (and is recommended) for the operational phase as predicted impacts are low and can be adhered to as part of the EMPr and ongoing environmental auditing.
- 2.91.11 Conditions could also be enforced, where necessary for monitoring, reporting and stakeholder overview through a stakeholder committee, to which the DFFE Coastal Marine and Biodiversity involvement will be key from the onset to ensure environmental accountability by the Karpowership.
- 2.91.12 The Karpowership Coega EIA met and exceeded the 'thresholds' for EIA's in terms of the NEMA and the 2014 EIA Regulations. Proof thereof is provided in the public consultation log (which is part of the FEIAr that was attached to the appeal as Annexure CA7). Any concerns or deficiencies with the public participation procedure were answered in the

appeal. There is no obligation to run an open-ended public participation process during the EIA process. Karpowership has done everything reasonably necessary to meet the minimum legislated thresholds for fair public participation both in terms of the NEMA and the PAJA, which should have been considered by the Competent Authority prior to a negative decision being made.

- 2.91.13 The PPP period for access to the documents closed on 31 March 2021. The link to the said documents was only taken down on 01 April 2021. This accounted for 31 days of unlimited access to all information. The EAP was extremely accommodating in re-opening the link on 16 April 2021 for an I&AP to access the documentation, as the EAP was under no obligation to do so. No documents were password protected (although this is not an unusual practice) and all documents were fully available via Google Drive and the link was sent out to all I&APs. Additionally, the link could be accessed via the EAP's website page.
- 2.91.14 The purpose of the CCIA is to assess this and provide a recommendation whether the project should proceed. The CCIA states as follows: *"This climate change impact assessment study concludes that the proposed activities at Ngqura should be authorised contingent on the recommended mitigation measures and abovementioned conditions of approval."* (CCIA, page 48).
- 2.91.15 Additionally, the conclusion of the peer review by Promethium Carbon (page 18) supported the CCIA by Themis, as follows: *"Based on the above, we believe that Themis has addressed and contextualised, the impacts of climate change on the three proposed powership projects. Themis presented a well-structured and thoroughly researched document. Based on the above, we believe that the CCIA does sufficiently consider climate change as part of the EIA for the proposed Karpowership Gas to Power Projects located within three South African ports namely: Port of Ngqura (Eastern Cape), Richards Bay (Kwazulu-Natal) and Saldanha Bay (Western Cape)."*
- 2.91.16 All potential impacts have been carefully studied by specialists in the EIA process and no fatal flaws have been identified. As is apparent from the noise reports and studies, despite there being no underwater noise thresholds to work with, noise has been very well studied

as part of this EIA process, arguable the most comprehensive noise assessment ever done in a South African EIA process.

- 2.91.17 As per the conclusion of the Coastal and Estuarine Impact Assessment (page 40): *"The proposed Gas to Power project is located within the modern-day, industrial Port of Ngqura adjacent to the mouth of the highly modified Coega Estuary. The port and the immediate surrounding areas constitute a Strategic Economic Zone, and much of the area has been earmarked for port and industrial/economic development, within the Coega IDZ. Consequently, the nature of the landscape is highly modified as a result of the historical development of the Coega Saltworks, the more recent port development, and active development projects taking place within the Coega IDZ. Furthermore, the long-term development plans for the port entail the entire excavation of the Coega Estuary and extension of the port basin to increase berth capacity.*

While the physical habitat of the Coega EFZ will remain largely unaffected, the biotic attributes, specifically the bird community, is likely to be affected (as indicated) thus reducing the current primary functional value of the Coega Estuary. However, this is expected given the current level of development taking place and future planned (and authorised) developments yet to take place that will result in critical modification of both the estuary mouth and the beach environment (Martin, 2021)".

- 2.91.18 The public participation provisions of NEMA provide that a decision-maker cannot simply rely on the information provided by objectors, without any scientific basis for such objection or without an interrogation of such objection by the CAs themselves to establish any scientific basis for same. It is incumbent upon a decision-maker to consider the other side of the application. In this instance, it was incumbent upon the decision-maker to also consider the inputs of Karpowership objectively, fairly, and impartially, in reaching their decision.

Summary of responses from the Competent Authority

- 2.92 In their responses, the CA advises that:

- 2.92.1 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 significant new information that was not part of the 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.
- 2.92.2 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.

Evaluation (Reasons for decision)

- 2.93 This ground of appeal is essentially a critique of the procedure that was followed and 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.
- 2.94 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 process against the EAP. I have nevertheless considered the contents of this Memorandum, amongst other information, placed before me.
- 2.95 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. NEMA, the 2014

EIA Regulations and the public participation guidelines provide the relevant legislative framework for public participation.

- 2.96 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'.
- 2.97 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 2014 EIA Regulations. The significant changes or new information in the FEIAr should have been subjected to a further public participation.
- 2.98 The above view is confirmed by the appointed independent expert, in their recommendations, wherein they state as follows:
- 2.98.1 *"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.*
- 2.98.2 *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.*
- 2.98.3 *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."

- 2.99 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 prevention measures. 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.
- 2.100 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 an 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.
- 2.101 Furthermore, considering the CA's conclusion that there was an inadequate public participation, this procedural unfairness cannot be cured after the fact. The gaps outlined in the RoR remain and without addressing such, the negative or positive impacts of the proposed Project, including the socio-economic considerations thereof, cannot be adequately considered.

2.102 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 the NEMA.

2.103 In my view, it is evident that 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.

2.104 I therefore proceed to dismiss the grounds of appeal on this topic.

Seventh ground of appeal: Socio-economic benefits of the Project

2.105 The grounds of appeal pertaining to this topic are concerned with the alleged failure of the CA to comprehensively consider the overall socio-economic benefits of the proposed Project to the broader Republic, as enumerated in the FEIAr. In this regard, Karpowership contends that the RoR fails to consider the IRP 2019 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 directive of an energy mix 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.

Summary of comments from I&APs

2.106 The Commenting I&APs state that:

2.106.1 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 this problem can be dealt with in a cleaner manner as to thousands of fishermen jobs being at risk, who will not be able to feed their families going into more poverty. The local fishermen have been here for decades with fishing as their only income and they have no education or knowledge to

turn to another job 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, 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 impacts on the marine environment (that have not been fully understood), is entirely justifiable.

2.106.2 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 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.

2.107 The potential Socio-Economic impacts of the Project, which were not adequately addressed, include the following:

2.107.1 Higher temperatures (on land and sea) and reduction in rainfall is expected because of climate change, resulting in the reduction of already depleted rainfall will contribute to increasing number of droughts.

2.107.2 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.

2.107.3 There is no specific assessment that was done to assess the impacts not only of noise on marine species, but also the anticipated increase in sea temperature on the juvenile fish nursery areas, that would be caused by the Appellant's discharge of heated water, and the impact on the local economy as a result thereof.

2.107.4 Noise impacts of the proposed Project would threaten the marine ecology. More specific responses from commenting I&AP's on the noise impacts of the Project, are summarised under the heading "**Holistic assessment of EA application**" herein above.

2.108 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. DFFE 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 also seeks to marginalize an economy of fishers in Saldanha Bay based on its own notions of development and improvement of the South African economy.

2.109 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.

2.110 Considering that significant gaps were identified in the EIA process 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.

2.111 Irrespective of the existence of any other legislation, policies and decisions including procurement under the RMIPPP, or in this instance, the project being considered as a SIP, the CA has to fulfil its obligations in terms of the section 24 of the Constitution, NEMA, and the 2014 EIA Regulations. The CA is responsible for protecting, conserving, and improving the South African environment and natural resources, and it is bound by its duties to fully assess the impacts of proposed activities under NEMA and the 2014 EIA Regulations.

Summary of comments from Karpowership

2.112 In their comments to these grounds of appeal, Karpowership submits as follows:

2.112.1 As a Preferred Bidder in the REI4P, it is clear that Karpowership is certainly one of the better ways to produce electricity for the national grid. Socio-Economic Impacts further deal with the cost of obtaining electricity from the power provider. The Karpowership Ngqura Project is the 2nd cheapest bidder in terms of cost per MW produced.

- 2.112.2 Karpowership has an extensive training programme which they will be implementing for the continuous upskilling of their employees.
- 2.112.3 It is not apparent from the RoR that all pillars of sustainability were holistically considered. Instead, the RoR seems to have concentrated on and been guided by the focus of the NGO's, the media, and micro-environmental issues. There is no mention in the RoR of the positive socio-economic aspects of the proposed Project, the contribution of the proposed Project to alleviate load shedding, or the role that LNG could play as a transitional fuel for South Africa to diversify away from coal. There does not appear to be an appreciation in the RoR of the fact that the Project would be complementary to renewable energy projects in the RMI4P.
- 2.112.4 Furthermore, natural gas is not seen, *per se*, at page 13 of the IRP 2019, as being overtly negative. It should be noted that the input into the Project is LNG, which is natural gas that has been cooled for purposes of transportation. It is then re-gassified on the FSRU and natural gas is then used to power the turbines on the Powership.
- 2.112.5 While NEMA's section 2 principles must, and have been given full consideration, one must not 'conveniently' forget additional important sections of NEMA. In NEMA's preamble, the State is called upon to "*respect, protect, promote and fulfil the social, economic and environmental rights of everyone ...*" and while implementing these rights, it explicitly states 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*".
- 2.112.6 Section 2(1) of NEMA explicitly states that the principles espoused in section 2(1)(a) of NEMA "*shall apply alongside all other appropriate and relevant considerations, including the State's responsibility to respect, promote and fulfil the social and economic rights in Chapter 2 of the Constitution ...*".
- 2.112.7 Section 2(4)(a)(i) of NEMA states that "*the disturbance of ecosystems and loss of biological diversity are avoided, or, where they cannot be altogether avoided, are minimised and remedied*". In a similar vein, section 4(a)(viii) of NEMA states "*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".

- 2.112.8 Karpowership fully appreciates that environmental damage must be avoided where possible. However, in the face of sustainable and secure economic development through the securing of a consistent and reliable source of power for the economy, and where environmental damage can in fact be minimised through responsible economic development, the need for economic development with minimised environmental damage should be viewed as the main point of concern.
- 2.112.9 The EIA process was not inadequate, on the contrary it was done to a very high standard. The point is that the decision maker did not consider the socio-economic benefits and other factors. The decision maker's focus was too narrow and only alleged that the impacts on the marine ecosystem were not considered or given a weighting which was disproportionate to the alleged impact.

Summary of responses from the Competent Authority

- 2.113 In their responses to this ground of appeal, the CA submits that:
- 2.113.1 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.
- 2.113.2 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.
- 2.113.3 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: "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”.

- 2.113.4 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.
- 2.113.5 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 the RoR which would have a bearing on the socio-economic consideration include:
- 2.113.5.1 Lack of a qualitative Noise Impact Assessment on threatened African Penguin Species and megafauna living, foraging, feeding or transiting nearby: This may have further impacts on socioeconomics for tourism in the region;
 - 2.113.5.2 Lack of underwater noise impact study to assess the impacts fish and in turn the implication for small scale fisheries; and
 - 2.113.5.3 Limitation of various studies including those that were undertaken in the wrong season, and raises concern regarding the validity of the findings.

Evaluation (Reasons for decision)

- 2.114 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 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.

- 2.115 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.
- 2.116 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.
- 2.117 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 significance of potential impacts or consequences for the environment, the effectiveness of potential mitigation measures, or whether the Project will constitute a sustainable development.
- 2.118 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:
- 2.118.1 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.
- 2.118.2 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.
- 2.118.3 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 the selection of the best practicable environmental option.

2.118.4 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.

2.118.5 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.

2.118.6 NEMA section 2(4)(k) – that decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law.

2.119 In my evaluation of this ground of appeal, I considered the impacts of the proposed activities, both positive and negative, also in the context of the Socio-Economic Impact Assessment. In this regard, I took note of the following:

2.119.1 Karpowership stated that the Socio-Economic Impact Assessment indicates no fatal flaws and has an overall net positive impact. The socio-economic impact itself not only assesses the jobs that would be produced by Karpowership, but benefits to the economy and jobs as a result of electricity production on the country as a whole, casting a very wide net in terms of positive impacts. However, the gaps, limitations and inconsistencies in the information provided in the Socio-Economic Assessment report had the effect of excluding critical environmental concerns from the EIA, that Karpowership attempts to rationalise based on its own notions of development and improvement of the South African economy.

2.119.2 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.

- 2.119.3 However, this study does not include the socio-economic impacts related to many aspects, such as socio-economic impacts due to loss of biodiversity, and implication on tourism and tourism related jobs; negative impacts (such as underwater noise, heated water discharge, pollution, climate change impacts) on juvenile fish, and in turn the socioeconomic implication on local fishermen and mariculture in the Ngqura region; socio-economic impact of climate change, such as loss of property, life, and food security.
- 2.119.4 Further impacts which have bearing on the socio-economics as a result of climate change outlined in the CCIA are: negative impact on health, water stress, negative impact on housing market, heat waves affecting work productivity, negative impact on service delivery, reduced yields in climate sensitive sectors such as subsistence and commercial agriculture as well as nature based tourism.
- 2.119.5 Some of the impacts related to socio-economics identified in the Marine Ecological assessment are: the possible impact on fisheries (commercial/recreational/subsistence) and aquaculture/mariculture; tourism provided by Addo Elephant park and surrounding beaches, nursery areas for marine biota which are commercially important. The Ngqura port also serves as nursery for fish, which means that the release of heated water may have additional impact on plankton and fish viability, and in turn on fishermen in the local area.
- 2.119.6 Underwater noise impacts are not well understood, and baseline noise with likely noise of powership on the marine ecology should have been assessed.
- 2.119.7 Other gaps which may have additional socio-economic implications, which have not been addressed includes:
- 2.119.7.1 The socio-economic value of estuaries 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.
- 2.119.7.2 A socio-economic assessment of the impacts of climate change on the project itself, the surrounding communities, as well as the impact that the proposed project will have through emissions of over 17million tCO₂e is absent. The CCIA only provided impacts

such as loss of property, loss of working hours from temperature increase, droughts and food insecurity etc.

2.119.7.3 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.

2.119.7.4 Socio-economic impact on fishing and mariculture in the area (which includes the negative impact on juvenile spawning ground for fish), is also absent.

2.119.7.5 Fatal flaws: the assessment matrix (appendix C of the FEIAR) does not contain an option for fatal flaws, and thus the socio-economic impact assessment could not have identified fatal flaws.

2.120 I repeat 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 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.

2.121 Having considered all the information before me, I am satisfied with the CA's explanation that, owing to the gaps in the various reports including the socio-economic impact assessment, they (the CA) could not adequately make an assessment on the net positive or negative impacts.

2.122 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 socio-economic benefits of the project or the fact that the project falls squarely with the planned energy mix in terms of the IRP 2019.

2.123 I therefore proceed to dismiss the grounds of appeal pertaining to this topic.

Eighth ground of appeal: The SIP status of the Project

2.124 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.

Summary of comments from I&APs

2.125 According to the commenting I&APs:

2.125.1 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.

2.125.2 Some of the following vulnerabilities exist within the vicinity of the preferred location and/or as a result of the proposed operation:

2.125.2.1 The National Freshwater Ecosystem Priority areas (NFEPA) which is a system of strategic importance of the hydrological functioning of South Africa.

2.125.2.2 Species of Conservation Concern (SCC) with over 35 species of succulent, many which are protected. These will be lost .

2.125.2.3 Critical Biodiversity Areas (CBAs), classified as “near Natural Landscapes” which should be managed to maintain biodiversity in near natural state, with minimal loss of ecosystem integrity. No transformation of natural habitat are permitted.

- 2.125.2.4 Addo Elephant National Marine Protected Area, including St Croix Island located within 5km, and Jaheel Island located within 530m.
- 2.125.2.5 Addo Elephant Important Bird Area (IBA) within 5km.
- 2.125.2.6 Port of Ngqura with artificial reefs which are important habitats for juvenile and marine phish.
- 2.125.2.7 Bird species including 20 species which are on IUCN Red List, as well 34 endemic species of which 16 occur in Thicket vegetation, 10 in Bonteveld and 6 in marine coastal as well as 2 in wetland habitats.
- 2.125.2.8 Globally and Regionally Endangered African Penguin, are located in Jaheel Island, located 530m of breakwater of Port of Ngqura, (supporting 1.3-1.7% of global and SA population) and St Croix island, located within 5km. "Jaheel Island is the greatest avifauna risk receptor" from Powership associated projects.
- 2.125.2.9 Estuaries: the Port is located on the estuary mouth of Coega River, 8.10. Ngqura Port is an important nursery area for many fish species, and important activity zone for dusky shark, and feeding ground for fish.
- 2.125.2.10 Megafauna such as bottlenose dolphin, humpback dolphin, common dolphin, Bryde's whale, Southern right Whale, humpback whale are all observed near or within the Port area.
- 2.125.2.11 Several megafauna and fish species within the Ngqura Port area are threatened according to the IUCN red list.

- 2.125.3 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. The proposed Project is not needed or desired both from energy security and 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 less harmful alternatives to meet the country's electricity needs. Due to the unknown noise impacts on marine ecosystems, the precautionary and risk averse approach should be taken to uphold the decision to refuse the EA application.

- 2.125.4 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.

- 2.125.5 The CA should not condone inadequate EIAs on the basis of a project having been identified as a SIP.

Summary of comments from Karpowership

- 2.126 In their comments, Karpowership submits as follows:

- 2.126.1 Karpowership SA Projects are in response to the RMI4P RFP. Thus, the RMI4P does meet the requirements of a systems approach as LNG plays a role as a transitional energy source together with renewables. Although these are issues that are beyond the scope of the CA, they are considered by other regulators such as DMRE, the National Energy Regulator of South Africa (NERSA) and the SIP office. The aim of RMI4P is to replace the polluting, inefficient and expensive Diesel peakers with new technology.
- 2.126.2 The "*existence of any other legislation, policies and decisions including procurement under the RMIPPPP, or in this instance, the project being considered as a SIP*" cannot be cast aside as being irrelevant. The aims and principles espoused by the RMI4P, and the allocation of SIP status are in fact vital to the orderly execution of government's plans to obtain power and diversify the country's sources of power. These are vitally important considerations in the application for EA for the Project.
- 2.126.3 It is clear that these factors were not considered in the RoR, there is no evidence other than the very narrow issues presented by the 1st and 3rd Commenting I&APs which were considered. The CA is obliged to consider the greater socio-economic aspects and weigh them up against the environmental impacts of the project. No fatal environmental flaws were identified; thus, the proposed Project should have been authorised.
- 2.126.4 All technologies have some environmental impact. The CA seems to have focussed on the micro-environmental issues raised by the NGO's (and supported by an emotive media) and then seems to have given these issues an undue weighting in reaching their decision whilst the voices of the local communities seem to have been largely unheeded

in the EIA process. Properly and objectively considered, it is clear that the project should have been authorised.

- 2.126.5 Karpowership does not harm the fragile marine environment as their projects are based in existing brownfields ports. There is no recognition in the RoR that the site is proposed in an active Port, an existing brownfield site and that no fishing is allowed in the Port of Ngqura, in which the powerships will be docked. The local fishers and mariculture operations are outside of the zone of influence of the proposed Project and may therefore experience minimal (if any) impact. It has been reiterated numerous times that impacts from the powership are localised impacts.
- 2.126.6 Karpowership is invested in the communities in which they establish a site. This is evident through Karpowership's upskilling and training programmes.

Summary of responses from the Competent Authority

- 2.127 In their responses, the CA advises that:
- 2.127.1 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.
- 2.127.2 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.

Evaluation (Reasons for decision)

- 2.128 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.

- 2.129 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, i.e. from section 24 of the Constitution down to NEMA and the 2014 EIA Regulations.
- 2.130 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.
- 2.131 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. 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 potential risks, and impacts on the geographical, physical, biological, social, economic, and cultural aspects of the environment.
- 2.132 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.
- 2.133 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.

3. DECISION

3.1 In reaching my decision on the appeals lodged against the decision taken by CA, to refuse Karpowership's application for EA, I have taken the following into consideration:

3.1.1 The information contained in project file 14/12/16/3/3/2/2005, and in particular:

3.1.1.1 The listed activities applied for in the application form received by the CA on 05 October 2020;

3.1.1.2 The information contained in the SR received on 18 November 2020, the comments of the CA on the draft SR of 02 November 2020, and the acceptance of the SR on 06 January 2021;

3.1.1.3 The Draft EIAr received during February 2021;

3.1.1.4 Comments of the CA on the draft EIAr, dated 11 March 2021;

3.1.1.5 The FEIAr dated April 2021;

3.1.1.6 The comments and inputs received from I&APs, including various Organs of State, *inter alia*: the Nelson Mandela Bay Metropolitan Municipality, Eskom, Birdlife SA, SANParks, the Department of Water and Sanitation, the Department of Forestry, Fisheries and the Environment: Biodiversity and Conservation, Oceans and Coast, and Air Quality, the Eastern Cape Department of Economic Development and Environmental Affairs and Tourism, SAHRA, the South African Civil Aviation Authority, and Transnet, as well as Karpowership's responses thereto (Appendix D to the FEIAr) / the public participation report;

3.1.1.7 The information contained in the specialist studies contained in Appendix I to the FEIAr dated April 2021, and specifically the following:

- i. Wetland Delineation and Functionality: Triplo4, April 2021;
- ii. Terrestrial Ecological Assessment: Ms Leigh Anne De Wet, April 2021;
- iii. Archaeological Impact Assessment: ACRM, October 2020;
- iv. Estuarine and Coastal Assessment: GroundTruth & Coastwise Consulting, April 2021;
- v. Climate Change Impact Assessment: Themis Environmental, April 2021, Peer Reviewed by: Luke Richard Moore;
- vi. Geohydrological, Hydrology and Hydropedology Assessments: GCS Water &

- Environmental Consultants, April 2021;
- vii. Aquatic Impact Assessment: GCS Water & Environmental Consultants, April 2021;
 - viii. Major Hazardous Installations (Risk Assessment): Major Hazard Risk Consultants, February 2021;
 - ix. Marine Ecology Assessment: Lwandle Marine Environmental Services, April 2021;
 - x. Air Quality Impact Assessment: uMoya-Nilu Consulting, April 2021;
 - xi. Socio Economic Impact Assessment: Urban-Econ Development Economists, April 2021;
 - xii. Noise Impact Assessment: Safetech, October 2020; and
 - xiii. Avifauna Impact Assessment: Dr AP (Paul) Martin, April 2021.
- 3.1.1.8 The information contained in the technical reports contained in Appendix J to the FEIAR dated April 2021.
- 3.1.1.9 The complaint from the 1st Commenting I&AP dated 30 May 2021;
- 3.1.1.10 The Memorandum of 18 June 2021 received from Karpowership's legal representative at the time (Gunn Attorneys);
- 3.1.1.11 The EAP's letter of 18 June 2021 in response to the complaint from the 3rd Commenting I&AP;
- 3.1.1.12 The EAP's letter of 23 June 2021 in response to the request from the CER, representing the 1st Commenting I&AP, to suspend the EA application process for Karpowership's other two Powership Projects (Richards Bay and Ngqura);
- 3.1.1.13 The CA's Record of Refusal (RoR) of 23 June 2021;
- 3.1.1.14 The grounds of appeal received from the first to ninth appellants between the period of 13 July 2021 and 19 July 2021;
- 3.1.1.15 The consolidated Appeal Response Report (ARR) with the grounds of appeal, responding statement and comments;
- 3.1.1.16 Karpowership's answering statement on the comments filed by I&APs against their appeal, dated 16 September 2021;
- 3.1.1.17 The CA's responding statement on the appeals relating to the refusal decision, dated 31 August 2021;
- 3.1.1.18 Karpowership's answering statement on the responding statement filed by the CA, dated 27 October 2021;

- 3.1.1.19 The appointment of an independent expert, Environmental Impact Management Services (Pty) Ltd (EIMS) on 05 April 2022;
- 3.1.1.20 EIMS's application of 06 April 2022 for extension of the timeframe to submit their advice, recommendations and report to the Appeal Administrator by 31 May 2022;
- 3.1.1.21 The extension of 19 April 2022 granted to EIMS by the Director of the Appeals Directorate;
- 3.1.1.22 EIMS's Independent Appeal Review Report dated 31 May 2022, vetted by an independent legal practitioner, Mr Francois Joubert of Fasken Bell Dewar Inc.; and
- 3.1.1.23 The objectives and requirements of the relevant legislation, policies and guidelines, including section 2 of NEMA.
- 3.2 In terms of section 43(6) of NEMA, I have the authority, after considering appeals, to confirm, set aside or vary the decision, provision, condition or directive or to make any other appropriate decision.
- 3.3 I appreciate that the proposed project is in response to the Request for Proposals (RFP) for New Generation Capacity under the Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP/ RMI4P) that was issued by the DMRE, to alleviate the immediate and future power generation capacity deficit of South Africa. However, I have the constitutional and legal obligation firstly, 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, and secondly, to ensure ecologically sustainable development and the use of natural resources for the benefit of present and future generations.
- 3.4 In my consideration of all the relevant information before me, I find that there are various gaps in information and procedural defects in relation to the PPP that led to the rejection of the EA application. These gaps in information and the procedural defects are material and fatal and cannot be cured during the current appeal process. Section 43(6) of NEMA allows me to make any other appropriate decision on appeal and to fashion a just and equitable remedy aimed at the proven shortfalls and/or irregularities. To grant appropriate relief, I must determine what is fair and just in the circumstances of a particular case. The various interests that might be affected by the remedy should be weighed. This should at least be guided by the objective to address the wrong occasioned by the infringement; deter future violations;

make an order which can be complied with; and which is fair to all those who might be affected by the relief. Manifestly, the nature of the infringement will provide guidance as to the appropriate relief. This approach was followed by the Constitutional Court in the case of *Minister of Defence and Military Veterans v Motau and Others* [2014] ZACC 18.

3.5 Therefore, having duly considered all the information pertaining to the various appeals, I deem that an appropriate order in terms of section 43(6) of NEMA is to remit the matter to the CA, as I hereby do, so that the various gaps in information and procedural defects in relation to the PPP that led to the rejection of the EA application may be addressed during the reconsideration and re-adjudication of the EA application, provided that the timeframes prescribed by the 2014 EIA Regulations in respect of the EIA process are adhered to by the appellant and the CA.

3.6 In arriving at my decision on the appeals, I have not responded to every statement set out in the appeals, the comments and responses thereto and the answering statements thereto, and where a particular statement is not directly addressed, the absence of any response thereto should not be interpreted to mean that I have not considered that statement, or that I agree with, or abide by the statement made. I have also not listed each and every annexure, document or report considered, and the absence of any such annexure, document or report should not be interpreted to mean that I have not considered same, or that I agree with, or abide by the findings made therein.

3.7 In addition, should any party be dissatisfied with any aspect of my decision, they may apply to a competent court to have this decision judicially reviewed. Judicial review proceedings must be instituted within 180 days of notification hereof, in accordance with the provisions of section 7 of the Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000) (PAJA).



MS B D CREECY, MP

MINISTER OF FORESTRY, FISHERIES AND THE ENVIRONMENT

DATE: 1/8/2022