

THE NATIONAL ENERGY REGULATOR OF SOUTH AFRICA

HOD: Electricity Licensing and Compliance
Kulawula House
526 Vermeulen Street
Arcadia
0083

Per email: tamai.hore@nersa.org.za
elvis.matikwane@nersa.org.za

2 August 2021

Re: THE GREEN CONNECTION - REPRESENTATIONS ON AND OBJECTIONS TO KARPOWERSHIP SA COEGA (RF) PROPRIETARY LIMITED APPLICATION FOR AN ELECTRICITY GENERATION LICENCE

CONTENTS

A. INTRODUCTION	2
B. LEGISLATIVE CONTEXT	2
a) National Energy Regulator Act (NERA).....	2
b) Electricity Regulation Act (ERA)	3
c) Electricity Regulations on New Generation Capacity	8
C. APPLICATION DOES NOT COMPLY WITH THE IRP2019.....	10
D. REDACTION OF INFORMATION RENDERS THE DECISION-MAKING PROCESS PROCEDURALLY UNFAIR.....	14
a) PPA	16
b) Contractual arrangement with KP SA Fuel Services Company (Pty) Ltd	18
c) Financial Information	19
E. 20 YEAR (LONG TERM) POWER PURCHASE CONTRACT PERIOD.....	19
F. ENVIRONMENTAL AUTHORISATION REFUSED.....	25
G. CLIMATE CHANGE LOCK-IN	26
H. CONCLUSION.....	29

1.

A. INTRODUCTION

These representations objecting to the Karpowership SA Coega (RF) Proprietary Limited (Karpowership) electricity generation license application are made on behalf the Green Connection in accordance with section 10(d) of the National Energy Regulator Act and in response to the application for a licence for new generation capacity under the Electricity Generation Act for the Proposed Gas to Power Powership Project at the Port of Ngqura. The Green Connection will substantiate these representations by way of a solemn declaration at the NERSA public hearing.

2.

The Green Connection is a registered non-governmental organisation, that believes economic growth and development, improvement of socio-economic status and conservation of natural resources can only take place within a commonly understood framework of sustainable development. It aims to provide practical support to both the government and non-governmental/civil society sectors, which are an integral part of sustainable development.

3.

B. LEGISLATIVE CONTEXT

Relevant portions of the statutory and regulatory framework governing electricity generation license applications, and which will inform NERSA's decision on Karpowership's electricity generation license application, are set out below.

4.

a) National Energy Regulator Act¹ (NERA)

NERA was enacted to establish a single regulator to regulate,² among other things, the electricity and piped-gas petroleum sector, and the object of NERA is to establish the National Energy Regulator (NERSA) for this purpose.³

5.

NERSA is required to undertake the functions of the Gas Regulator as set out in s4 of the Gas Act and the functions set out in s4 of NERA.⁴

¹ 40 of 2004.

² Preamble.

³ Section 1.

⁴ S4(1)(a) and (c).

6.

The duties of the members of the NERSA are set out in section 9(1), in terms of which the members must:

- (a) act in a justifiable and transparent manner whenever the exercise of their discretion is required;
- (b) at all times act in the interests of the Energy Regulator and not in their own or sectoral interests;
- (c) act independently of any undue influence or instruction;
- (d) recuse themselves from and refrain from voting on or discussing any matter, pending before the Energy Regulator in which they have a direct or indirect pecuniary interest;
- (e) act in a manner that is required and expected from the holder of a public office; and
- (f) act in the public interest.

7.

Section 10 stipulates that every decision of NERSA must be in writing and must be:

- (a) consistent with the Constitution and all applicable laws;
- (b) in the public interest;
- (c) within the powers of the Energy Regulator, as set out in this Act, the Electricity Act, the Gas Act and the Petroleum Pipelines Act;
- (d) taken within a procedurally fair process in which affected persons have the opportunity to submit their views and present relevant facts and evidence to the Energy Regulator;
- (e) based on reasons, facts and evidence that must be summarised and recorded; and
- (f) explained clearly as to its factual and legal basis and the reasons therefor.⁵

8.

Any decision of NERSA and the reasons therefor must be available to the public, except information that is protected in terms of the Promotion of Access to Information Act⁶ (PAIA).⁷ Any person may institute proceedings in the High Court for the judicial review of an administrative action by NERSA in accordance with the Promotion of Administrative Justice Act⁸ (PAJA).⁹

9.

b) Electricity Regulation Act¹⁰ (ERA)

The ERA was enacted to (among other things) establish a national regulatory framework for the electricity supply industry; to make the National Energy Regulator of South Africa (NERSA) the custodian and enforcer of the national electricity regulatory framework; and to provide for licences

⁵ Section 10(1).

⁶ 2 of 2000.

⁷ Section 10(2).

⁸ 3 of 2000.

⁹ Section 10(3).

¹⁰ 4 of 2006.

and registration as the manner in which generation, transmission, distribution, reticulation, trading and the import and export of electricity are regulated.

10.

The objects of the ERA are to:

- (a) achieve the efficient, effective, sustainable and orderly development and operation of electricity supply infrastructure in South Africa;
- (b) ensure that the interests and needs of present and future electricity customers and end users are safeguarded and met, having regard to the governance, efficiency, effectiveness and long-term sustainability of the electricity supply industry within the broader context of economic energy regulation in the Republic;
- (c) facilitate investment in the electricity supply industry;
- (d) facilitate universal access to electricity;
- (e) promote the use of diverse energy sources and energy efficiency;
- (f) promote competitiveness and customer and end user choice; and
- (g) facilitate a fair balance between the interests of customers and end users, licensees, investors in the electricity supply industry and the public.¹¹

11.

NERSA is the custodian and enforcer of the regulatory framework provided for in ERA.¹²

12.

The powers and duties of NERSA under the ERA include mandatory and discretionary powers and duties.

13.

In terms of s4(a), the Regulator must:

- (i) consider applications for licenses and may issue licences for:
 - (aa) the operation of generation, transmission or distribution facilities;
 - (bb) the import and export of electricity;
 - (cc) trading;
- (ii) regulate prices and tariffs;
- (iii) register persons who are required to register with the Regulator where they are not required to hold a licence;
- (iv) issue rules designed to implement the national government's electricity policy framework, the integrated resource plan and this Act;
- (v) establish and manage monitoring and information systems and a national information system, and co-ordinate the integration thereof with other relevant information systems;
- (vii) enforce performance and compliance, and take appropriate steps in the case of non-performance;

¹¹ Section 2.

¹² Section 3.

Various rules have been issued by NERSA, including Regulatory Rules for Power Purchase Cost Recovery,¹³ and the Multi-year Price Determination (MYTD) Methodology¹⁴ (which includes rules for Eskom to purchase electricity from IPPs).

14.

In terms of section 4(b), the Regulator may:

- (i) mediate disputes between generators, transmitters, distributors, customers or end users;
- (ii) undertake investigations and inquiries into the activities of licensees;
- (iii) perform any other act incidental to its functions.

15.

Section 7 addresses activities requiring licensing, and stipulates that:

- (1) No person may, without a licence issued by the Regulator in accordance with this Act:
 - (a) operate any generation, transmission or distribution facility;
 - (b) import or export any electricity; or
 - (c) be involved in trading.

16.

Any person required to hold a license in terms of section 7 is required to apply to the Regulator for a license as prescribed, and in terms of s10 such an application must include:

- (a) a description of the applicant, including vertical and horizontal relationships with other persons engaged in the operation of generation, transmission and distribution facilities, the import or export of electricity, trading or any other prescribed activity relating thereto;
- (b) such documentary evidence of the administrative, financial and technical abilities of the applicant as may be required by the Regulator;
- (c) a description of the proposed generation, transmission or distribution facility to be constructed or operated or the proposed service in relation to electricity to be provided, including maps and diagrams where appropriate;
- (d) a general description of the type of customer to be served and the tariff and price policies to be applied;
- (e) the plans and the ability of the applicant to comply with applicable labour, health, safety and environmental legislation, subordinate legislation and such other requirements as may be applicable;
- (f) a detailed specification of the services that will be rendered under the licence;
- (g) evidence of compliance with any integrated resource plan applicable at that point in time or provide reasons for any deviation for the approval of the Minister; and
- (h) such other particulars as the Minister may prescribe.

¹³ GNR.119 of 24 February 2010.

¹⁴ <https://www.nersa.org.za/wp-content/uploads/bsk-pdf-manager/2020/09/MYPD-regulatory-methodology-20-Nov-2020.pdf>

It is relevant to note that the Regulator is required to issue separate licenses for (a) the operation of generation, transmission and distribution facilities; (b) the import and export of electricity; or (c) trading.¹⁵ The Regulator is not obliged to issue a license, and may only issue one licence per applicant for each of the activities that require licensing¹⁶

17.

The Regulator has wide powers under section 14 to make any licence subject to conditions relating to (among other things):

- (a) the establishment of and compliance with directives to govern relations between a licensee and its or end users, including the establishment of or end user forums;
- (b) the furnishing of information, documents and details that the Regulator may require for the purposes of this Act;
- (c) the period of validity of the licence in accordance with section 20;
- (d) the setting and approval of prices, charges, rates and tariffs charged by licensees;
- (e) the methodology to be used in the determination of rates and tariffs which must be imposed by licensees;
- (f) the format of and contents of agreements entered into by licensees;
- (g) the regulation of the revenues of licensees;
- (i) the setting, approving and meeting of performance improvement targets, including the monitoring thereof through certificates of performance;
- (j) the quality of electricity supply and service;
- (k) the cession, transfer or encumbrance of licences, including the compulsory transfer of a licence to another person under certain conditions, and terms and conditions relating thereto;
- (l) the right to operate generation, transmission or distribution facilities, to import or export electricity, to trade or to perform prescribed activities relating thereto, including exclusive rights to do so, and conditions attached to or limiting such rights;
- (m) the duty or obligation to trade, or to generate, transmit or distribute, electricity, and conditions attached to such duties or obligations;
- (n) the termination of electricity supply to customers and end users under certain circumstances, the duty to reconnect without undue discrimination, and conditions relating thereto;
- (o) the area of electricity supply to which a licensee is entitled or bound;
- (p) the classes of customers and end users to whom electricity may or must be supplied;
- (q) the persons from whom and to whom electricity must or may be bought or sold;
- (r) the types of energy sources from which electricity must or may be generated, bought or sold;
- (s) compliance with health, safety and environmental standards and requirements;
- (t) compliance with any regulation, rule or code made under this Act;
- (u) compliance with energy efficiency standards and requirements, including demand-side management;
- (w) the undertaking of customer or end user education programmes;
- (x) the need to maintain facilities in a fully operational condition;
- (y) the period within which licensed facilities must become operational; and
- (z) any other condition prescribed by the Regulator.

¹⁵ Section 13(3).

¹⁶ Section 13(4).

18.

With regard to tariff¹⁷ principles, section 15 stipulates that a licence condition determined under section 14 relating to the setting or approval of prices, charges and tariffs and the regulation of revenues:

- (a) must enable an efficient licensee to recover the full cost of its licensed activities, including a reasonable margin or return;
- (b) must provide for or prescribe incentives for continued improvement of the technical and economic efficiency with which services are to be provided;
- (c) must give end users proper information regarding the costs that their consumption imposes on the licensee's business;
- (d) must avoid undue discrimination between customer categories; and
- (e) may permit the cross-subsidy of tariffs to certain classes of customers.¹⁸

19.

A licensee may not charge a customer any other tariff and make use of provisions in agreements other than that determined or approved by the Regulator as part of its licensing conditions.¹⁹ The Regulator may, in prescribed circumstances, approve a deviation from set or approved tariffs.²⁰

20.

Any generation (or transmission) license issued in terms of the ERA is valid for a period of 15 years or such longer period as the Regulator may determine.²¹ No minimum duration is prescribed for distribution or trading licenses (which are valid for the period determined by the Regulator).²² Licensees are entitled to apply for renewal of their licenses, an application for renewal must be granted (although the Regulator may set different licensing conditions).²³

21.

It is relevant to note that the State may, in order to facilitate the achievement of the objectives of this Act, expropriate land, or any right in, over or in respect of land, on behalf of a licensee in accordance with section 25 of the Constitution and section 2 of the Expropriation Act.²⁴ The State may exercise these powers only if:

¹⁷ Tariff is defined in section 1 as meaning 'a charge for electricity'.

¹⁸ Section 15(1).

¹⁹ Section 15(2).

²⁰ Section 15(3).

²¹ Section 20(1).

²² Section 20(2).

²³ Section 20(3) and (4).

²⁴ 63 of 1975.

- (a) a licensee is unable to acquire land or a right in, over or in respect of such land by agreement with the owner; and
- (b) the land or any right in, over or in respect of such land is reasonably required by a licensee for facilities which will enhance the electricity infrastructure in the national interest.

22.

In terms of section 34(3), the Regulator, in issuing a generation license, is bound by any determination made by the Minister in terms of s34(1), and may facilitate the conclusion of an agreement to buy and sell power between a generator and a purchaser of that electricity.²⁵

23.

c) Electricity Regulations on New Generation Capacity²⁶

The Electricity Regulations on New Generation Capacity apply to the procurement of new generation capacity, by organs of state active in the energy sector, including: new generation capacity derived from renewable energy sources and co-generation; base load, mid-merit load, peak load new generation capacity, and energy storage; and cross border projects.²⁷

24.

The objectives of the Regulations include to:

- (a) to facilitate planning for the establishment of new generation capacity;
- (b) the regulation of entry by a buyer and a seller into a power purchase agreement;
- (c) to set minimum standards or requirements for power purchase agreements;
- (d) the facilitation of the full recovery by the buyer of all costs efficiently incurred by it under or in connection with a power purchase agreement including a reasonable return based on the risks assumed by the buyer thereunder and to ensure transparency and cost reflectivity in the determination of electricity tariffs; and
- (e) the provision of a framework for implementation of an IPP procurement programme and the relevant agreements to be concluded.²⁸

25.

With regard to concluding power purchase agreements (PPA), the Regulations provide that:

- (1) A power purchase agreement between the buyer and an IPP must meet the following requirements:
 - (a) value for money;²⁹

²⁵ Section 34(3)(a) and (b).

²⁶ GNR.399 of 4 May 2011.

²⁷ Regulation 2.

²⁸ Regulation 3.

²⁹ The term “value for money” is defined in the Act as meaning ‘that the new generation capacity project results in a net benefit to the prospective buyer or to Government having regard to cost, price, quality, quantity, risk

- (b) appropriate technical, operational and financial risk transfer to the seller;
 - (c) effective mechanisms for implementation, management, enforcement and monitoring of the power purchase agreement; and
 - (d) satisfactory due diligence in respect of the buyer's representative and the proposed seller in relation to matters of their respective competence and capacity to enter into the power purchase agreement.
- (2) Before the buyer concludes a power purchase agreement, the buyer or the procurer must, subject to any approvals required in terms of the Public Finance Management Act, the Municipal Finance Management Act or the Municipal Systems Act, as the case may be—
- (a) ensure that the power purchase agreement meets the requirements set out in sub-regulation (1);
 - (b) ensure that the buyer has a contract management plan that explains the capacity of the buyer, and its proposed mechanisms and procedures, to effectively implement, manage, enforce, monitor and report on the power purchase agreement and any other agreements relating to a new generation capacity project to which the buyer is a party, to National Treasury and the Minister on a regular basis; and
 - (c) put in place arrangements to ensure that any portion of the buyer's allowable revenue approved or allocated by the Regulator for purposes of implementation of new generation capacity projects will be used solely for the purpose of ensuring that the buyer's financial obligations in respect of new generation capacity projects will be met.
- (3) Should the Minister determine, as contemplated in regulation 6 (3), that Eskom should establish new generation capacity as part of its services as the national electricity producer, Eskom will be required to enter into a power purchase agreement with the buyer, unless Eskom itself is the buyer.³⁰

26.

With regard to cost recovery, the Regulations provide that:

10. **Cost recovery**

The Regulator shall, when determining licence conditions relating to prices, charges and tariffs, ensure that the buyer is able to recover, at least, the full amount of the costs incurred by the buyer in the following categories—

- (a) all payments made for the purchase of new generation capacity, in terms of a power purchase agreement entered into in terms of or as contemplated in these Regulations;
- (b) all amounts paid by the buyer in terms of the power purchase agreement (other than those referred to in paragraphs (a) and (e)), provided that the buyer shall have acted efficiently in the exercise of those rights and the fulfilment of those obligations in terms of the power purchase agreement which gave rise to such payments;
- (c) the efficiently incurred costs of the buyer in performing any function contemplated in these Regulations;
- (d) the efficiently incurred costs of the buyer in administering power purchase agreements;
- (e) costs of, and amounts paid by the buyer arising from the termination of a power purchase agreement; and
- (f) all other costs efficiently incurred by the buyer in participating in an IPP procurement programme and in purchasing new generation capacity through new generation capacity projects, including, without limitation, operating expenditure, professional

transfer or a combination thereof, but also where applicable to the Government's policies in support of renewable energy'.

³⁰ Regulation 9.

fees and hedging costs.

27.

C. APPLICATION DOES NOT COMPLY WITH THE IRP2019

Section 7(g) of the ERA stipulates that a license application must include evidence of compliance with any integrated resource plan applicable at that point in time (or provide reasons for any deviation for the approval of the Minister).

28.

The Integrated Resource Plan gazetted in 2019 (IRP2019)³¹ does not allocate new additional capacity in respect of gas until 2024.³²

29.

An allocation 'to the extent of the short term capacity and energy gap' is made under in the last column of Table 5 of the IRP2019 to 'Other (Distributed Generation, CoGen, Biomass, Landfill)'. The third bullet-point below Table 5 indicates that 'Other / Distributed generation' includes all generation facilities in circumstances in which the facility is operated solely to supply electricity to an end-use customer within the same property which the facility'.

30.

The Green Connection submits that the Karpowership installations clearly do not fall within the categories of 'Other (Distributed Generation, Co-Generation, Biomass or Landfill)', and the third bullet-point referred to above also does not apply to the Karpowership installations which are intended to supply electricity to Eskom.

31.

With regard to immediate / short term electricity supply and demand-side management, the IRP2019 provides as follows:

While the purpose of the IRP is to balance supply and demand on a least-cost basis, implementation lead times for various generation technologies limit the options available for deployment immediately and in the short term.³³

...

5.3.1 Immediate Term Security Supply

In the short-term supply and demand side interventions will have to be deployed to minimise the

³¹ GN1360 of 18 October 2019.

³² IRP2019, Table 5.

³³ IRP2019, p41.

risk of load shedding and/or extensive usage of diesel peaking plant due to Eskom's plant low EAF. The short-term gap is estimated to be between 2 000 – 3 000 MW. It generally takes about 36 months minimum for... green field utility scale projects to produce first power. A medium-term power purchase programme (MTPPP) similar to that adopted following the IRP 2010 must be considered. Under the MTPPP power was purchased from already existing facilities such as co-generation and small hydro which are generally not run as it is cheaper to buy power from Eskom. The development of generation for own use must also be encouraged through the enactment of policies and regulations that eliminate red tape without compromising security of supply.

Decision 1: *Undertake a power purchase programme to assist with the acquisition of capacity needed to supplement Eskom's declining plant performance and to reduce the extensive utilisation of diesel peaking generators in the immediate to medium term. Lead-time is therefore key.*³⁴

32.

With regard to the risk associated with low energy availability factor (EAF) of Eskom's generating units, the IRP2019 indicates that:

This can be mitigated by implementing a threshold and monitoring plant performance trends for decisions. **In the short term, emergency power will have to be procured, as was the case in the past. In the long run this will imply accelerating or bringing forward capacity proposed in the plan.**³⁵

33.

With regard to natural gas, the IRP2019 indicates that:

Gas to power technologies in the form of CCGT, CCGE or ICE provide the flexibility required to complement renewable energy. **While in the short term the opportunity is to pursue gas import options**, local and regional gas resources will allow for scaling up within manageable risk levels. Exploration to assess the magnitude of local recoverable shale and coastal gas are being pursued and must be accelerated.

There is enormous potential and opportunity in this respect and the Brulpadda gas resource discovery in the Outeniqua Basin of South Africa, piped natural gas from Mozambique (Rovuma Basin), indigenous gas like coal-bed methane and ultimately shale gas, could form a central part of our strategy for regional economic integration within SADC.

Co-operation with neighbouring countries is being pursued and partnerships are being developed for joint exploitation and beneficiation of natural gas within the SADC region.

SADC is developing a Gas Master Plan, to identify the short- and long-term infrastructure requirements to enable the uptake of a natural gas market.

Availability of gas provides an opportunity to convert to CCGT and run open-cycle gas turbine plants at Ankerlig (Saldanha Bay), Gourikwa (Mossel Bay), Avon (Outside Durban) and Dedisa (Coega IDZ) on gas.³⁶

³⁴ IRP2019, p43-44.

³⁵ IRP2019, p50.

³⁶ IRP2019, p13.

34.

The short term capacity allocation in the IRP2019 clearly does not extend to the Karpowership installations which utilise liquified natural gas (LNG), and are intended to supply electricity to Eskom. The IRP2019 allocation of 3000MW of new electricity generation capacity to 'gas and diesel' for the years 2024-2027 is included in the s34 Determination published on 25 September 2020.³⁷

35.

In the Green Connection's view, the IRP2019 provided an allocation to the extent of the short term capacity and energy gap to 'Other (Distributed Generation, CoGen, Biomass, Landfill)'. This included (but is not necessarily restricted to) generation facilities operated solely to supply electricity to an end-use customer within the same property which the facility. According to available information,³⁸ there is a large market interest in investing in the distributed energy sector in South Africa, with conservative estimates indicating that at least approximately 5000 MW of additional capacity could be unlocked over a period of 5 years from residential, commercial, industrial and agricultural sectors. The CSIR has estimated that:

There is roughly a total of 3400MW of capacity that could be deployed by the end of 2022, in the form of roughly 500MW solar PV in the residential sector, 1650MW commercial and agricultural sectors and 1300MW in the industrial sector. By 2024, the CSIR estimates that a cumulative total of 4900MW could be deployed on condition that an enabling regulatory regime is established.³⁹

36.

A significant step has already been taken to creating this enabling regulatory regime, with President Ramaphosa on 10 June 2021 announcing:

...a significant new step in further reforming our electricity sector towards achieving a stable and secure supply of energy.

Following an extensive public consultation process and a significant amount of technical work undertaken by the Department of Mineral Resources and Energy, we will be amending Schedule 2 of the Electricity Regulation Act to increase the NERSA licensing threshold for embedded generation projects from 1 MW to 100 MW.

This intervention reflects our determination to take the necessary action to achieve energy security and reduce the impact of load shedding on businesses and households across the country...

³⁷ GN1015 of 25 September 2020.

³⁸ See for example Meridian Briefing Note January (No. 2021/01) *Survey Results: Scoping Interest in the South African Distributed Energy Sector*.

³⁹ Referred to in Meridian Briefing Note January (No. 2021/01) *Survey Results: Scoping Interest in the South African Distributed Energy Sector*, p2.

The amended regulations will exempt generation projects up to 100 MW in size from the NERSA licensing requirement, whether or not they are connected to the grid. This will remove a significant obstacle to investment in embedded generation projects.

Generators will also be allowed to wheel electricity through the transmission grid, subject to wheeling charges and connection agreements with Eskom and relevant municipalities...

This reform is expected to unlock significant investment in new generation capacity in the short and medium term, enabling companies to build their own generation facilities to supply their energy needs.

This in turn will increase the available supply of energy and reduce the burden on Eskom, allowing Eskom to proceed with its intensive maintenance programme and reduce its reliance on expensive gas and diesel turbines.

The final version of the amendment to Schedule 2 will be published by the Department of Mineral Resources and Energy within the next 60 days or sooner.⁴⁰

37.

The section 34 determination relating to short-term risk mitigation⁴¹ also references the allocation under the heading 'Others' in the IRP2019. While reference is made to procuring 'from a range of energy sources', this is qualified by the reference to the category 'Others'. No reference is made to gas in the s34 determination:

2000 megawatts (MW) should be procured from a range of energy source technologies **in accordance with the short term risk mitigation capacity allocated under the heading 'Others', for the years 2019 to 2022, in Table 5 of the Integrated Resource Plan for Electricity 2019-2030...** ('IRP2019')....⁴²

38.

However, instead of targeting new generation capacity from 'Other (Distributed Generation, CoGen, Biomass, Landfill)' when implementing the IRP2019 through the s34 determination relating to short term risk mitigation, the DMRE conducted an IPP procurement programme (RMI4P) which culminated in the Karpowership gas power generation facilities (among others) being granted preferred bidder status. In the Green Connection's view, the RMI4P displaces the intended new generation capacity allocation given to the category 'Others (Distributed Generation, CoGen, Biomass, Landfill)' in the IRP2019, and on the face of it is an irregular and unlawful misstep in the implementation of short term risk mitigation measures intended to fill the energy gap.

⁴⁰ <https://www.gov.za/speeches/president-cyril-ramaphosa-amendment-schedule-two-electricity-regulation-act-10-jun-2021-0>

⁴¹ GN753 of 7 July 2020.

⁴² IRP2019, paragraph 1.1.

39.

It is also relevant to note that the s34 determination relating to short term risk mitigation stipulates that '[t]he procurement programme shall target connection to the Grid for the new generation capacity as soon as reasonably possible but by no later than December 2021'.⁴³ In its Coega (Ngqura) generation license application, Karpowership indicates that expected commissioning date is 31 August 2022. Clearly the application does not meet this target, and on the face of it does not meet the IRP2019's goal of addressing 'the immediate risk of energy shortage in the immediate term'.⁴⁴ Furthermore, according to the Karpowership generation license application, the DMRE Letter of Appointment informing Karpowership that it had been granted preferred bidder status stipulates that it is required to submit a copy of the issued generation license to the DMRE by no later than 30 June 2021 (a month prior to the scheduled Commercial Close). It has since come to the Green Connection's attention that the Commercial Closure date has been shifted to September 2021. This could result in further delays to Karpowership's expected commissioning date.

40.

In its generation licence application, Karpowership relies on it having been granted 'Preferred Bidder Status' under the RMI4P to demonstrate compliance with the IRP2019. The Green Connection disputes this for the reasons explained above.

41.

In light of the above, the Green Connection submits that NERSA should not issue a generation license to Karpowership.

42.

D. REDACTION OF INFORMATION RENDERS THE DECISION-MAKING PROCESS PROCEDURALLY UNFAIR

Section 10 of the NERA stipulates that every decision of the Energy Regulator must be taken within a procedurally fair process in which affected persons have the opportunity to submit their views and present relevant facts and evidence to the Energy Regulator.⁴⁵

43.

It has long been recognised that a fair decision-making process requires (among other things) that a

⁴³ GN753 of 7 July 2020, para 1.1.

⁴⁴ IRP2019, p40.

⁴⁵ Section 10(d).

person 'must be put in possession of such information as will render his [or her] right to make representations a real, and not an illusory one'.⁴⁶ Hoexter points out that there is 'a crucial link between the amount and type of information disclosed to an affected person and the quality of his or her opportunity to make representations'.⁴⁷

44.

The following critical information has been redacted from the generation license application:

- Summary of the Power Purchase Agreement (PPA)⁴⁸ and any version of the PPA (including draft or generic versions arising from the RMI4P) that may have been put up as an annexure;
- Particulars of the contractual arrangements with the primary energy (LNG) supplier⁴⁹;
- Financial information, including: projections in respect of the proposed undertaking; annual forecasts for the next five years of costs, sales and revenues generated by the project (including any assumptions underlying the figures); estimates of net annual cash flows for subsequent periods (5, 10 and 15 years) sufficient to demonstrate financial security of operating the generating station; and project financing (including who will finance the project, how funding is split between debt and equity, and the terms and conditions of funding arrangements).⁵⁰

45.

The redaction of this information frustrates the ability of the Green Connection and other Interested and Affected Parties (I&APs) to analyse these aspects of the application and obtain expert input where appropriate, and thus unlawfully restricts the opportunity for the Green Connection and I&APs to submit their views and present relevant facts and information to NERSA on aspects of the generation license application that are relevant to (among other things):

- achieving the efficient, effective, sustainable and orderly development and operation of electricity supply infrastructure in South Africa;

⁴⁶ *Heatherdale Farms v Deputy Minister of Agriculture* 1980 (3) SA 476 (T) (486F-G)

⁴⁷ Hoexter (2nd edition, 2018), *Administrative Law in South Africa*, at p371, referring to by the Constitutional Court in *Bengwenyama Minerals v Genorah Resources* 2011 (4) SA 113 (CC) paras 69-74.

⁴⁸ Karpowership NERSA Application, section D2.

⁴⁹ Karpowership NERSA Application, section F1.

⁵⁰ Karpowership NERSA Application, sections G1 to G4.

- ensuring that the interests and needs of present and future electricity customers and end users are safeguarded and met, having regard to the governance, efficiency, effectiveness and long-term sustainability of the electricity supply industry within the broader context of economic energy regulation in the Republic; and
- facilitating a fair balance between the interests of customers and end users, licensees, investors in the electricity supply industry and the public.

46.

In particular, the Green Connection's ability to provide meaningful comment is constrained in the following ways:

47.

a) PPA

- It is not known whether a PPA has been entered into, whether a draft or generic PPA has been presented to NERSA for its consideration, and if so what the terms of the PPA or draft/generic PPA are;

48.

- It is not known whether or how any such PPA addresses the issue of stranded assets (i.e. should the contracted energy purchases over time become more expensive than comparable sources of supply);⁵¹

49.

- It is not known whether any such PPA includes 'take-or pay' provisions or a minimum offtake provision, and if so what the extent of such provisions are or what implications this has, for Eskom and in turn for electricity users and taxpayers. It has been reported in the media that:

Another feature of the RMI4P amplifies this risk [of consumers bearing the risk of price increases] enormously. The power purchase agreement will guarantee a minimum offtake by Eskom of 70% of all the power the bidder could provide – whether or not Eskom needs it or not. For a programme meant to provide power on demand to prevent load shedding,

⁵¹ The term 'Stranded contracts' is defined in the Regulatory Rules for Power Purchase Cost Recovery (GNR.119 of 24 February 2010) as meaning 'contracted energy purchases that over time become more expensive than comparable sources of supply (at that future point in time)'. Clause 11.7 of the Rules indicate that these may be due to change in market structure, change in electricity demand, or change in the relative cost of power supply.

this is, arguably, illogically generous.⁵²

50.

- It is not known whether any such PPA includes termination payments (in the event that in the future Eskom may need to terminate a PPA and 'buy out' the PPA), and if so what the cost implications, conditions and consequences of same would be. In terms of the Electricity Regulations on New Generation Capacity, NERSA is required (when determining licence conditions relating to prices, charges and tariffs) to ensure that the buyer (Eskom) is able to recover the full amount of the costs incurred by it in relation to (among other things) the costs of and amounts paid by it arising from the termination of a PPA.⁵³ Accordingly, it is submitted that the Green Connection and other I&APs should be afforded the opportunity to comment on the termination provisions and cost implications given that these costs would be passed through to South African electricity users.

51.

- It is not known whether any such PPA makes provision for, or includes requirements relating to, hedging against variable energy (gas) costs (i.e. the requirement to take out insurance or otherwise indemnify Eskom – and the South African electricity user and public in turn – against commodity and foreign exchange risks linked to the price of fuel and the repayment of debt). In terms of the Electricity Regulations on New Generation Capacity, the Regulator is required (when determining licence conditions relating to prices, charges and tariffs) to ensure that the buyer is able to recover all other costs efficiently incurred by the buyer in participating in an IPP procurement programme and in purchasing new generation capacity through new generation capacity projects, including (among other things) hedging costs.⁵⁴ Accordingly, it is submitted that the Green Connection and other I&APs should be afforded the opportunity to comment on the hedging cost provisions and cost implications given that these costs will be passed through to South African electricity users.

52.

- It is not known what arrangement are included in any PPA regarding Carbon Tax obligations, and whether Karpowership will be entitled to recover any Carbon Tax that it is required to pay from Eskom. Should the PPA include such a clause, Karpowership will effectively be given a 'free

⁵² <https://amabhungane.org/stories/210514-powerships-how-the-tender-kneecapped-renewables-and-favoured-gas/>

⁵³ Regulation 10(e).

⁵⁴ Regulations 10(f).

ride' from a Carbon Tax perspective. In such circumstances, it is also likely that these Carbon Tax costs will be passed through by Eskom to the South African electricity user.

53.

b) Contractual arrangement with KP SA Fuel Services Company (Pty) Ltd

- The fuel supplier is indicated as a subsidiary Karpowership company, and is a newly formed company with no trading history in fuel supply. Shell has confirmed that it is the exclusive supplier of LNG to the three Karpowership projects.⁵⁵ Given that the contractual arrangement information has been redacted, the Green Connection and other I&APs are precluded from commenting on the terms of this fuel supply arrangement.

54.

- It is also not known what the implications are of a subsidiary company having been formed for the purpose of supplying the three Karpowership projects, whether this will increase the cost of fuel supply (and if so to what extent), and whether any such increased cost will be passed on to the South African electricity user / public. According to a media report citing anonymous sources, Eskom does not want to buy electricity from Karpowerships because it is concerned about (among other things) the cost of the contract. According to the report Eskom has indicated that it will look at options 'including the possibility of recovering the cost of Karpowerships' charges over the course of the contract through tariffs before signing'.⁵⁶ In the absence of adequate information being provided regarding the implications of a Karpowership subsidiary sourcing gas from an exclusive international energy supplier, the Green Connection and other I&APs are precluded from making further meaningful comment on this issue.

55.

- The DMRE IPP office has been reported as stating that the price of gas for the Karpowership projects is indexed to the US dollar commodity price of the LNG fuel, the US dollar/rand exchange rate, the carbon price or carbon tax rate, and other indices.⁵⁷ It has been reported in the media that:

"Any exposure to commodity and exchange rate fluctuations does result in risk and

⁵⁵ <https://www.engineeringnews.co.za/article/shell-expresses-concern-over-rmipppp-delays-as-it-confirms-karpowership-sa-partnership-2021-07-13>

⁵⁶ <https://www.news24.com/fin24/Companies/Industrial/eskom-doesnt-want-to-buy-electricity-from-turkish-powerships-insiders-say-20210506>

⁵⁷ <https://www.egsa.org.za/policy-planning/energy-efficiency-demand-side-management/on-the-selection-of-powerships-over-renewables-and-battery-storage-for-two-thirds-of-the-rmipppp/>

opportunity. Eskom will employ mechanisms such as hedging, if available, to mitigate against the risk,” Eskom said.

It added: “Eskom ... acknowledges that there is risk in these programs that ultimately are borne by consumers... We are concerned that consumers are having to bear all these risks through price increases.⁵⁸

56.

Given that the contractual arrangement information has been redacted, the Green Connection and other I&APs are precluded from assessing the potential negative implications of this arrangement (including the risk of additional costs being passed through to South African electricity consumers should there be any significant increases in US dollar commodity price of LNG, or should the devalue significantly against the US dollar).

57.

c) Financial Information

- The entire financial case for project financing is redacted. In the absence of sufficient information on the financial case and funding arrangement terms and conditions, the Green Connection and other I&APs are prevented from submitting their views and presenting relevant facts and evidence to NERSA on issues such as (but not limited to) implications for current and future electricity users and long-term sustainability.

58.

The Green Connection submits that the redaction of the critical information set out above unreasonable constrains its ability to make meaningful, informed representations on various issues that go to the heart of the generation license application. Should NERSA issue a generation license in these circumstances, the Green Connection is of the view that its decision will amount to procedurally unfair administrative action, and will be vulnerable to being set aside on review.

59.

E. 20 YEAR (LONG TERM) POWER PURCHASE CONTRACT PERIOD

While no mention is made in the NERSA generation license application of the duration of the generation license sought by Karpowership Coega, the DMRE has announced that the PPA Eskom will

⁵⁸ <https://amabhungane.org/stories/210514-powerships-how-the-tender-kneecapped-renewables-and-favoured-gas/>

be required to sign is for a term of 20 years.⁵⁹

60.

It is assumed for the purposes of this objection that the applicant is seeking, and that NERSA is considering granting, at least a 20-year generation license (although the 'expected future life of the generation station' is indicated in the NERSA application document as being '25 years').

61.

It has been reported in the press that:

Longer contracts are riskier for Eskom, especially when electricity is generated by burning fossil fuel. While renewables offer largely predictable tariffs, fuel-based projects shift the risk to Eskom.

This is because fuel is treated as a "pass through" cost meaning that Eskom is potentially exposed to both fluctuating fuel prices and the rand-dollar exchange rate: if the price of fuel goes up, Eskom (and the consumer) pays more.

"Any exposure to commodity and exchange rate fluctuations does result in risk and opportunity. Eskom will employ mechanisms such as hedging, if available, to mitigate against the risk," Eskom said.

It added: "Eskom ... acknowledges that there is risk in these programs that ultimately are borne by consumers... We are concerned that consumers are having to bear all these risks through price increases."⁶⁰

62.

In its *Regulatory Rules for Power Purchase Cost Recovery*,⁶¹ NERSA deals with short-term power purchases which it refers to as power purchases contracted for less than three (3) years. In contrast, long-term power purchases are referred to as being defined as three (3) or more.⁶²

63.

It is clear from the above that the 20-year contract period results in the Karpowerships falling into the long-term power purchase category.

⁵⁹ <https://www.dmr.gov.za/news-room/post/1894/media-statement-to-announce-preferred-bidders-for-the-risk-mitigation-ipp-procurement-programme-rmipp>

⁶⁰ <https://amabhungane.org/stories/210514-powerships-how-the-tender-kneecapped-renewables-and-favoured-gas/>

⁶¹ GNR.119 of 24 February 2010. It is relevant to note that these Rules pre-date the 2011 Electricity Regulations on New Generation Capacity.

⁶² Ibid, para 7.2.1.

64.

In the context of the Karpowerships, the Green Connection is deeply concerned about implications of Eskom being required to sign a long-term (20 year) PPA and of NERSA granting a similar long-term generation license, for the following reasons (among others):

65.

- The tariff at which electricity will be purchased from Karpowership (1.69 R/kWh) is almost three times the tariff at which the most recent solar and wind projects were contracted by Eskom during the last renewable energy bid window (0.62 R/kWh),⁶³ which represents the benchmark for least-cost new electricity generation capacity. According to media reports, the rationale given by the DMRE's deputy director general Mr Jacob Mbele for awarding 20-year contracts under the RMI4P is to allow Karpowerships (and other successful bidders) to defray costs over 20 years and keep prices low:

“The [20-year agreements] enable projects to recover deployed capital as well as operating costs at a rate and pace that does not make it unaffordable to (the) buyer and therefore the end user”, said Mbele.⁶⁴

He likened the project to paying off a bond on a house over 20 years, rather than five years.

Mbele added that he could ‘confidently say’ that the prices would be four to five times higher if the contracts only lasted five years.

The comparison with a house bond is based on faulty reasoning (a person paying off a house bond over 20 years takes ownership of the house, while based on available information the Karpowerships will be leased and ownership does not transfer to South Africa during or upon completion of the 20-year period).

The justification is not rational as it has not been demonstrated that the granting of the 20-year period results in the power becoming available significantly quicker than it would in circumstances where (for example) additional generating capacity from least-cost renewable energy could be procured (it is relevant to note that 21 months have already passed since the IRP2019 was gazetted). It has also not been demonstrated that it would have been significantly more expensive to contract powerships for the period of time that it would take for long-term least cost generation capacity to be constructed and connect to the grid.

⁶³ <https://amabhungane.org/stories/210514-powerships-how-the-tender-kneecapped-renewables-and-favoured-gas/>

⁶⁴ <https://www.news24.com/fin24/Economy/energy-department-says-20-year-contracts-for-floating-powerships-will-keep-prices-down-20210420>

In the Green Connection's view, insufficient information has been provided by the generation license applicant to demonstrate that the Karpowerships are prudent choices that are economically sustainable over the 20-year long term duration of the proposed PPAs. The electricity generation landscape is likely to change significantly over the next 20 years, and a 20-year lock-in represents a significant risk to Eskom and the South African economy. Recent developments also bring into question the justification for the RMI4P and contracting at tariffs three times above the 'least-cost' benchmark tariffs (namely to achieve the quick connection of new electricity generation capacity to the grid to fill the short term energy gap). These include the President's 10 June 2021 announcement that the NERSA licensing threshold for embedded generation projects will be increased from 1 MW to 100 MW (potentially unlocking about 3400MW of capacity that could be deployed by the end of 2022),⁶⁵ as well as an extension understood to have recently been granted to RMI4P preferred bidders to reach commercial close by September 2021 (which makes it even less likely that the RMI4P will achieve the s34 determination target date of 'by no later than December 2021'⁶⁶ for connection to the grid).

66.

- Over the course of 20 years, it is probable that an increased amount of least-cost electricity will become available to Eskom and that the short-term 'capacity gap' that the DMRE seeks to fill will have been met by this other least-cost electricity generation capacity. There is a significant risk that Eskom will in the future find itself locked-in to a long-term PPA (that was intended to address a short term capacity gap) requiring it to pay for electricity at inflated prices that it may in the future not need (especially if it is correct that the PPA guarantees a minimum offtake), and at prices that are unlikely to be competitive with other forms of electricity generation.

67.

- According to the DMRE's IPP office:

...the tariffs bid for the three Karpowership projects incorporate all costs, including the fuel costs, the powership and FSRU lease costs, the operation and maintenance costs, and the environmental levies and carbon taxes.

These costs making up the tariff are not fixed in rands per kWh over the 20-year contract period, but are indexed to the US dollar commodity price of the LNG fuel, the US dollar/rand exchange rate, the carbon price or carbon tax rate, and other indices.

⁶⁵ Referred to in Meridian Briefing Note January (No. 2021/01) *Survey Results: Scoping Interest in the South African Distributed Energy Sector*, p2.

⁶⁶ GN753 of 7 July 2020, para 1.1.

The carbon tax component of the tariffs bid is based on the level of emissions stated by the bidder at the time of tender. As with changes in the commodity price of the LNG fuel and the US dollar/rand exchange rate, any variations in the applicable carbon price, carbon tax rate or environmental levies associated with these nominated emissions are passed through to the customer via adjustments in the tariff bid.

However, any carbon price, carbon tax or environmental levies resulting from emissions above that nominated by the bidder may not be passed through to customers in the tariff, but must be borne by the IPP bidder itself. So that is how we manage these risks.

...

Now, if we are to compare gas with renewables plus energy storage, and guess which gives us best value for money – obviously it depends on where the prices of gas, renewables and battery energy storage are at a particular point in time.

So, from a tariff point of view, if we were to compare a gas-to-power plant with another renewable energy plus battery energy storage plant now, I think gas generally comes in cheaper, as we speak. Obviously, in future, things might differ, depending on where the rand price of LNG goes.⁶⁷

The indexing of the costs making up the tariff (over the 20-year contract period) to the US dollar commodity price of the LNG fuel, the US dollar/rand exchange rate, the carbon price or carbon tax rate, and other indices results in further significant risk that Eskom will be locked into an unaffordable and unsustainable long-term PPA should the US dollar commodity price of LNG significantly increase, and/or should the rand significantly devalue against the US dollar over the twenty-year contract period.

68.

- It is submitted that it is not in the public interest to provide a 20-year generation license in circumstances where not only are the Karpowerships not the least-cost new generation capacity option, but in circumstances where the risk of any significant increases is carried by Eskom (in the first instance). In such circumstances, it is likely that Eskom would seek to pass through such costs to its customers (South African electricity users) through the mechanisms provided for in the Regulatory Clearing Account. If Eskom was unable to do so, this in turn could unreasonably burden Eskom and impact on its financial viability. It could also result in contestation and possibly litigation, given that in terms of NERSA's rules for Eskom to purchase electricity from IPPs, NERSA will allow only efficient (and prudent) purchases from IPP's as a full pass-through.⁶⁸ In the event that Eskom was unable to pass through these costs and defaulted on

⁶⁷ <https://www.egsa.org.za/policy-planning/energy-efficiency-demand-side-management/on-the-selection-of-powerships-over-renewables-and-battery-storage-for-two-thirds-of-the-rmipppp/>

⁶⁸ NERSA's rules for Eskom to purchase electricity from IPPs makes provision for efficient purchases.

payments to the Karpowerships, it is conceivable that guarantees provided by the South African government could be called upon (a cost that would ultimately be carried by South African taxpayers).

69.

- While the RMI4P is intended in part to replace expensive diesel Peaker Plants, the Green Connection submits that it does not make sense to replace diesel Peaker Plants that run intermittently when required, with powerships that will operate 16 ½ hours a day for a period of 20 years. Reliance on these diesel Peaker Plants are likely to be reduced as Eskom's existing plant maintenance programme bears fruit over a period of 2-3 years, while the conversion of the Diesel OCGTs to run on gas is also an option that the Green Connections understands is being considered.

70.

- The Green Connection is also of the view that it also does not make sense to fill a short term capacity gap with powerships contracted for twenty years when alternatives that are more cost effective, provide better value for money, and are equally capable of filling the short term gap are available. Such options include alternative short term procurement that can address chronic shortages by taking a 'systems approach', which energy expert Clyde Mallison suggests could fill the energy gap with sufficient dispatchable power at an estimated tariff for a mix of PV, wind and storage of R0.61 /kWh.⁶⁹ Other options include (among others) demand-side management and amending the power supply contracts of existing IPPs in order to allow them to provide additional capacity. The President's 10 June 2021 decision to increase the NERSA licensing threshold for embedded generation projects to 100 MW is also estimated to unlock about 3400MW of capacity that could be deployed by the end of 2022, and a total of about 5000 MW within 5 years.

71.

NERSA's MYPD regulatory rules require it – in order to mitigate the risk of inefficient procurement – to review PPAs between Eskom and any IPP before the agreements maybe signed.⁷⁰ However, in the absence of adequate information being made available on the terms of the Karpowership PPA (or draft of generic RMI4P PPA), the Green Connection and other I&APs are precluded from making informed representations on this critical issue.

⁶⁹ <https://www.egsa.org.za/wp-content/uploads/2021/06/V2-Briefing-note-a-systems-approach-2.pdf>

⁷⁰ Rule 6.1.2.

72.

The Green Connection submits that NERSA should refuse to grant a generation license to Karpowership for the reasons set out above, including (but not limited to) if these PPAs are found to lock-in Eskom without including appropriate mechanisms to allow Eskom to terminate or exit these agreements should the contracted prices prove not to be cost-effective or reasonable over the course of the 20-year contract period. It is submitted further that a failure by NERSA to do so will result in it being in breach of its statutory duty to act in the public interest, and will also be contrary to the objectives of the ERA, and in particular the objectives of:

- achieving the efficient, effective, sustainable and orderly development and operation of electricity supply infrastructure in South Africa;
- ensuring that the interests and needs of present and future electricity customers and end users are safeguarded and met having regard to the governance, efficiency, effectiveness and long-term sustainability of the electricity supply industry within the broader context of economic energy regulation in the Republic); and
- facilitating a fair balance between the interests of customers and end users, licensees, investors in the electricity supply industry and the public).

73.

F. ENVIRONMENTAL AUTHORISATION REFUSED

Karpowership indicates in its application for a generation license that environmental approval applications were submitted on 26 April 2021.⁷¹

74.

On 23 June 2021, the Department of Forestry, Fisheries and the Environment (DFFE) notified the applicant that it had decided to refuse the application for environmental authorisation, and issued a Record of Refusal.

75.

Among other things, the DFFE made a finding that a noise modelling study - recommended by the

⁷¹ NERSA Application, section I.

Marine Ecology Specialist Study (and echoed by the estuarine specialist) 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 - had not been conducted. An additional finding was that most of the specialists had indicated limitations in their studies (such as having very limited time to apply their minds, that it did not apply to the standards of undertaking the assessments and that the studies were taken in the wrong season), which raised the DFFE's concerns with regard to the adequacy of the assessment and the validity of the findings made.

76.

At the time of finalising these representations, the Record of Refusal was under appeal.

77.

The Green Connection respectfully submits that it would be irregular for NERSA to grant a generation license to an applicant in the absence of a lawful environmental authorisation.

78.

G. CLIMATE CHANGE LOCK-IN

According to the environmental impact report (EIR) submitted by Karpowership in the National Environmental Management Act⁷² (NEMA) environmental authorisation process, the Karpowership Ngqura project is estimated to have cumulative generation emissions of 19.56 million tons of CO₂e (calculated over the 20 year contract period at constant 100% capacity), while the Karpowership Saldanha and Richards Bay projects are estimated to have cumulative generation emissions of 15.21 and 19.56 million tons of CO₂e each respectively (calculated over the 20 year contract periods at constant 100% capacity). Cumulatively, the Karpowership project will therefore generate emissions of 54.33 million tons of CO₂e.

79.

These emissions are also likely to be an underestimation, as recent studies have revealed that methane emissions from the U.S. oil and gas supply chain found leakage rates 60 percent higher than reported by the Environmental Protection Agency (EPA) and concluded that natural gas is just as damaging as coal for the climate over a 20-year time frame. Recent studies also disprove the claim that natural gas is a transitional "bridge" fuel that can lower greenhouse gas emissions while

⁷² 107 of 1998.

renewable energy solutions are developed, and that expanded use of natural gas impedes rather than encourages investments in, and deployment of, renewable energy infrastructure.⁷³

80.

Having regard to the global Climate Emergency⁷⁴ and South Africa's international commitment to 'working with others to ensure temperature increases are kept well below 2°C above pre-industrial levels, which could include a further revision of the temperature goal to below 1.5°C in light of emerging science'⁷⁵ by reducing greenhouse gas (GHG) emissions, the Karpowership projects will inevitably add to the South Africa's overall GHG emissions (South Africa's energy sector currently contributes an estimated 84% percent to the country's overall GHG emissions).⁷⁶

81.

As indicated earlier in these representations, Shell has confirmed that it is the exclusive supplier of LNG to the three Karpowership projects.⁷⁷ It has recently been reported that a court in the Hague has ordered Royal Dutch Shell (Shell) to cut its global carbon emissions by 45% by the end of 2030 compared with 2019 levels.⁷⁸ The Green Connection is concerned that by entering into a long-term agreement to supply Karpowership SA with LNG, the Shell Group is failing to act to reduce its global carbon emissions. Over the next twenty years, it is likely that multinational companies like Shell will come under increasing regulatory and public pressure to cut carbon emissions. The Green Connection also anticipates that carbon taxes (nationally and internationally) are likely to increase, while internationally measures aimed at curbing trade in carbon-intensive goods and imports from carbon-intensive jurisdictions are also likely to become more common.⁷⁹ This increases the risk that the Karpowership projects using fossil gas will become increasingly expensive and unsustainable over a 20-year contract period.

⁷³ These studies are discussed and referenced in study done on behalf of the Green Connection, *Grasping for Gas* (Jan Arkert), at p12, available online at: <https://thegreenconnection.org.za/doaction/wp-content/uploads/2021/04/Grasping-For-Gas-Report-22042021.pdf>

⁷⁴ <https://www.unenvironment.org/explore-topics/climate-change/facts-about-climate-emergency>

⁷⁵ See for example South Africa's *Intended Nationally Determined Contribution (INDC)*, available online at: <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/South%20Africa%20First/South%20Africa.pdf>

⁷⁶ <https://www.climatelinks.org/resources/greenhouse-gas-emissions-factsheet-south-africa>

⁷⁷ <https://www.engineeringnews.co.za/article/shell-expresses-concern-over-rmipp-p-p-delays-as-it-confirms-karpowership-sa-partnership-2021-07-13>

⁷⁸ For example: Boffey, D., '[Court orders Royal Dutch Shell to cut carbon emissions by 45% by 2030](https://www.theguardian.com/environment/2021/jun/23/court-orders-royal-dutch-shell-to-cut-carbon-emissions-by-45-by-2030)', *The Guardian*, 23 June 2021.

⁷⁹ <https://www.egsa.org.za/general-news/sa-at-risk-from-export-carbon-levies-the-real-economy-bulletin-trends-developments-and-data-third-quarter-2020/>

82.

Should NERSA grant the Karpowership projects generation licenses, South Africa will be locked-in to projects that will generate cumulative emissions of 54.33 million tons of CO₂e. South Africa's National Climate Change Response White Paper cautions that policy decisions on new infrastructure investments must consider climate change impacts to avoid the lock-in of emissions-intensive technologies into the future.⁸⁰

83.

Given the risks highlighted above, it is submitted that issuing a generation license to Karpowership will lock-in South Africa to 20-years of greenhouse gas (primarily methane) emissions, and will be in tension with the objective of ensuring that the interests and needs of present and future generations of electricity customers are safeguarded and met, having regard to (among other things) the long term sustainability of the electrical supply industry within the broader context of economic energy regulation.

84.

The Green Connection submits that NERSA needs to consider the climate change implications of granting 20-year generation licenses to Karpowership in order to discharge its duty to act in the public interest, to ensure that its decision is consistent with the Constitution and all applicable laws, and to ensure that its decision is in the interests of current and future generations of electricity users and the public in general. The Green Connection submits further that NERSA also needs to ensure it has regard to and is guided by the NEMA section 2 environmental management principles when considering its decision on the Karpowership generation license application, including (but not limited to) the following:

- Sustainable development requires 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;⁸¹
- Sustainable development requires that negative impacts on the environment and on people's environmental rights be anticipated and prevented, and where they cannot be altogether

⁸⁰

https://www.environment.gov.za/sites/default/files/legislations/national_climatechange_response_whitepaper.pdf

⁸¹ NEMA, s2(4)(a)(vii).

prevented, are minimised and remedied;⁸²

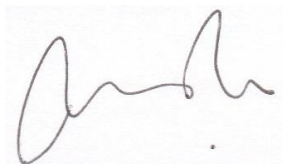
- Responsibility for the environmental health and safety consequences of a policy, programme, project, product, process, service or activity exists throughout its life cycle;⁸³ and
- Global and international responsibilities relating to the environment must be discharged in the national interest.⁸⁴

85.

H. CONCLUSION

For the reasons set out above, the Green Connection submits that NERSA should refuse the Karpowership generation license application.

Signed at Durban this 2nd day of August 2021



Adrian Leonard Pole

⁸² NEMA, s2(4)(a)(viii).

⁸³ NEMA, s2(4)(e).

⁸⁴ NEMA, s2(4)(n).