



The Director General
Department of Environment, Forestry and Fisheries
Attention: Dr. D Fischer
Private Bag X447
PRETORIA
0001

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Commentary on Karpowership SA (Pty Ltd) and triplo4 sustainable solutions:

“Proposed Gas to Power Powership Project at the Port of Ngqura and Coega SEZ, Nelson Mandela Bay Metropolitan Municipality, Eastern Cape”

The South Durban Community Environmental Alliance is opposed to the approval of a Scoping Report filed by Kapowership and triplo4 sustainable solutions.

The concerns are that there should be no further privatisation of an essential service – electricity generation – especially in the case of a company Karpowership that is notorious for unethical socio-environmental-economic behavior in relation to its supply of electricity, and especially in a time of climate catastrophe where Karpowership’s claims to be a lower-emissions source of power stand in contrast to the need for full decarbonisation and demethanisation of energy generation.

The privatisation of electricity generation is bad public policy, given that the price paid to international operators – especially as the South African currency declines – is unreasonably high, and the potential to address other public policy objectives is reduced.



In the case of Karpowership, the firm’s recent behaviour gives us pause, including its climate denialism in the Scoping Report, as discussed below.

The main comparison Karpowership vessel to ones being proposed in South Africa is one [operating in Mozambique](#), which is [a joint venture with ship-builder Mitsui](#) – the company responsible for a massively destructive oil spill by its ship *Wakashio* in Mauritius on 25 July 2020, for which it continues to evade full responsibility. According to [Forbes magazine’s reporter](#),

Both Nagashiki and Mitsui OSK Lines issued apologies when the *Wakashio* first hit Mauritius’ reefs and kept referring to a response bound by ‘[applicable law](#).’ This appears to [characterize](#) their approach, which they see as a legal one. Rather than acting [ethically and transparently](#), their actions do not match their words. By withholding such information from the public domain that are crucial to the legal hearings of the Captain, this has further added to the [atmosphere of mistrust](#) in the country against these Japanese entities. (<https://www.forbes.com/sites/nishandegnarain/2020/10/19/latest-satellite-analysis-reveals-new-theory-for-deadly-wakashio-oil-spill-in-mauritius/?sh=67a1ed204ab1> 19 October 2020)

The mistrust for Mitsui is also appropriate for Karpowership and its owner, Karadeniz Holdings, which in recent days, [cut off power to the Sudanese government](#), due to the country’s inability to pay its high prices. The Karpowership SA handling of the climate crisis and of public participation are exemplars of what should be avoided when new energy generation is considered.

Karpowership climate denialism must be rejected

The Karpowership proposal is exceptional for its climate denialism, at a time the greenhouse gas threat to the African continent is acute – with Nelson Mandela Bay itself suffering periodic Day Zero conditions as drought causes water shortages. Moreover, the carbon-intensity of the South African economy must be urgently reversed. This is also an imperative recognised by the President Ramaphosa’s Economic Advisory Council, whose October 2020 statement specifically condemned the “more expensive power ships” that in 2020 appeared on the horizon:

South African Presidential Economic Advisory Council, “Briefing Notes on Key Policy Questions for South Africa’s Economic Recovery” (October 2020, pp.34-41):

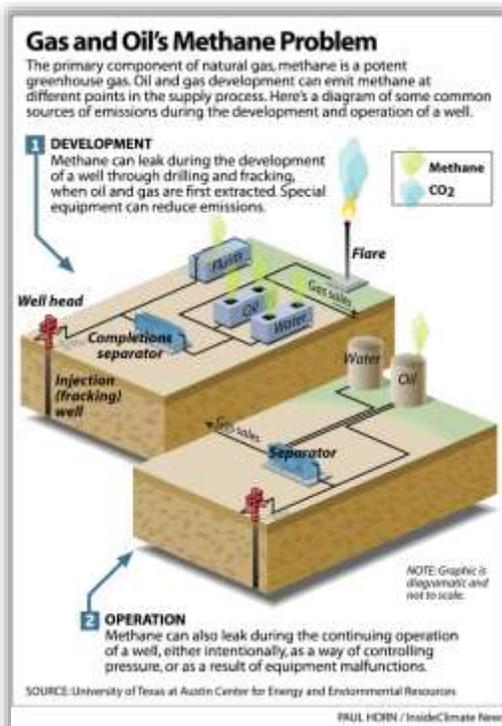
Instead of aiming to bring online the low hanging fruit of short-lead-time, already developed and permitted renewable projects, the widely held view in the industry is that the “emergency” RMIPPP RFP is “extremely complicated” and appears to be specially written for more expensive power ships and gas-to-power projects and to exclude competition from renewables projects. None of these projects have environmental permits and will involve complex consultative and approval processes through our ports. This will delay their development and create significant risk that they will not be online by December 2021 and

therefore not compliant with the legal requirements of the risk mitigation determination. They will also by their nature be more expensive. For these reasons it is expected that, if this procurement succeeds, it will result in expensive power and not meet the needs of our power emergency...

The electricity sector faces an almost perfect storm that has fundamentally disrupted its legacy technologies, strategies and business model. These forces include:

- the technical and financial failure of the centralised megaproject business model;
- a fundamental revolution in the sector’s technological paradigm driven by: (a) the emergence of lowcost renewable energy and storage technologies; and (b) the fourth industrial revolution including digital information and artificial intelligence technologies;
- the extreme economic risk and vulnerability created by our excessive dependence on coal in the context of the climate crisis and growing global pressures for rapid decarbonisation...

Appropriate responses to the immediate challenge in the electricity sector will also support the achievements of the broader transition imperatives for South Africa’s carbon intensive energy economy. Electrification will increasingly replace fossil fuels in transport and other industrial sectors, and over time renewable energy will displace coal as our main source of primary energy... To avoid being locked-in to a high-carbon path, and to actively turn our backs on stagnant innovation landscapes, policy must ensure that investments into low-carbon innovation are rewarded.



The CO₂-equivalent output of LNG depends upon the degree of systemic gas leakage – and again, the origins of Karpowership (and hence extraction and flaring emissions) are not specified in the Scoping Report – as well as the methane combustion process in the electricity generation itself. There is rising scientific concern regarding the climate-related damage done from methane (CH₄), whose global warming potential is more than 100 times that of the same mass of CO₂ on a 20-year time frame with aerosol impacts included. The CH₄ leakage and other greenhouse gas emissions associated with Karpowership generation are of crucial importance for South Africa, which has an extremely constrained carbon budget it must stay within to avert global climate catastrophe. It is unacceptable that the Karpowership trivialises these concerns, when they are urgent to address to avert our and other species’ extinction.

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4.9.3 Climate Change Aspects

Regarding the climate change aspect, the Port of Ngqura site is considered to have a low sensitivity and associated risk with regard to climate change adaptation (Thermis Environmental- Coastal Impact Assessment, 2020). The only notable concerns is the increased incidence of extreme storms. These risks are minor because of the nature of the floating infrastructure and its location within the port. Again, the potential for the project to exacerbate existing climate change concerns is low, but cognisance must be taken of the increased fire risk associated with the 8.5km 132KV transmission line as well as the current and projected water stress during the operational phase of the project.

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- The additive effect of the contribution from the Karpowership Project is predicted to be very small and the potential increase in ambient concentrations is highly unlikely to result in exceedances of the National Ambient Air Quality Standards (NAAQS). The severity of the additive impact associated with SO₂ and PM is predicted to be insignificant, and small for NO₂.
- **Spatial Scale** - In all cases the predicted ambient concentrations are low relative to the NAAQS and the highest predicted concentrations occur over the Coega SEZ.
- **Consequences** - the consequence of increased ambient concentrations of SO₂, NO₂ and PM₁₀ from emissions from the Karpowership Project is predicted to be low.
- **Frequency** - impacts are unlikely to occur and the frequency is therefore predicted to be very low.
- **Probability** - the probability of impacts occurring is unlikely and is therefore predicted to be almost never.
- **Likelihood** - likelihood of air quality impacts occurring is also low.
- **Significance** - the significance of any impacts is predicted to be very low.

8.2.4 Climate Change

These potential impacts are, however, mitigatable with appropriate management measures. The likelihood and significance of the above risks is rated as low and the project is likely to result in an overall increase in adaptive capacity rather than a decrease. Any climate change risks associated with the Port of Ngqura site are thus considered to be low and fully mitigatable with the implementation of appropriate measures (Thermis Environmental- Coastal Impact Assessment, 2020).

Our concerns are widely acknowledged by experts, e.g. those asked by the *Mail&Guardian* in October 2020 about the merits of gas as a 'bridge' from coal to renewable:

Leading energy experts comment on risks of Karpowership and natural gas bias

Mail&Guardian, 21 October 2020

Richard Worthington, the project manager of climate and energy at the South African office of the [Friedrich-Ebert-Stiftung](#), agrees with the advisory council's assessment. "I would say that people who pay attention are extremely worried about a big push to natural gas in South Africa," he said.

"There's long been concern about underestimation of the full carbon footprint of gas developments, particularly from methane leakage. Recently concerns are focusing more on transition risk and potential for stranded assets," he says.

“I believe the aggressive (though low-key) push for the [Karpowerships](#) [floating power plants], despite costs, is premised on an anachronistic enthusiasm for ‘gas industrialisation’ (as former energy minister Tina Joemat-Pettersson used to call it) that is in deep denial of current reality and risks.”

Gas is a fossil fuel with significant global warming potential, say experts.

Alex Lenferna, a climate justice campaigner at [350.org](#), envisages gas as the “next battleground” in South Africa. “Gas is the new coal, so to speak. It’s the new big source of pollution and is also the new source of centralised fossil fuel projects, which are centres for patronage and corruption in ways renewable energy is not ... The president’s economic recovery plan was all about shortening environmental regulations and tapping into South Africa’s vast oil and gas reserves.”

There’s clearly a determination within the department of mineral resources and energy to drive a gas agenda, alongside “clean coal”, says David Hallowes of environmental justice action group [groundWork](#).

“This is, of course, in the absence of any public debate. A decision was clearly made but when, where and by who is obscure. So we get invited to participate in the strategic environmental assessment for gas pipeline corridors — but ‘no go’ is not seriously entertained. And we now have a whole slate of environmental impact assessments for individual gas power projects.”

<https://mg.co.za/environment/2020-10-21-gas-sas-next-battleground/>

Karpowership SA’s public participation has been farcical