

KARPOWER IN MOZAMBIQUE



Figure 1: Picture of a Floating Thermoelectric Power Plant.

FLOATING THERMOELECTRIC POWER STATION PROJECT MAPUTO

Developed in July 2024



WHO IS KARPOWER AND WHAT DOES IT WANT?

Karpower, a Turkish subsidiary of the Karadeniz Holding Companies group, is preparing a project for the installation and operation of a Floating Thermoelectric Power Plant, called the "Maputo Floating Thermoelectric Power Plant Project." The Floating Power Plant will be anchored near the Port of Matola, in Maputo Province.

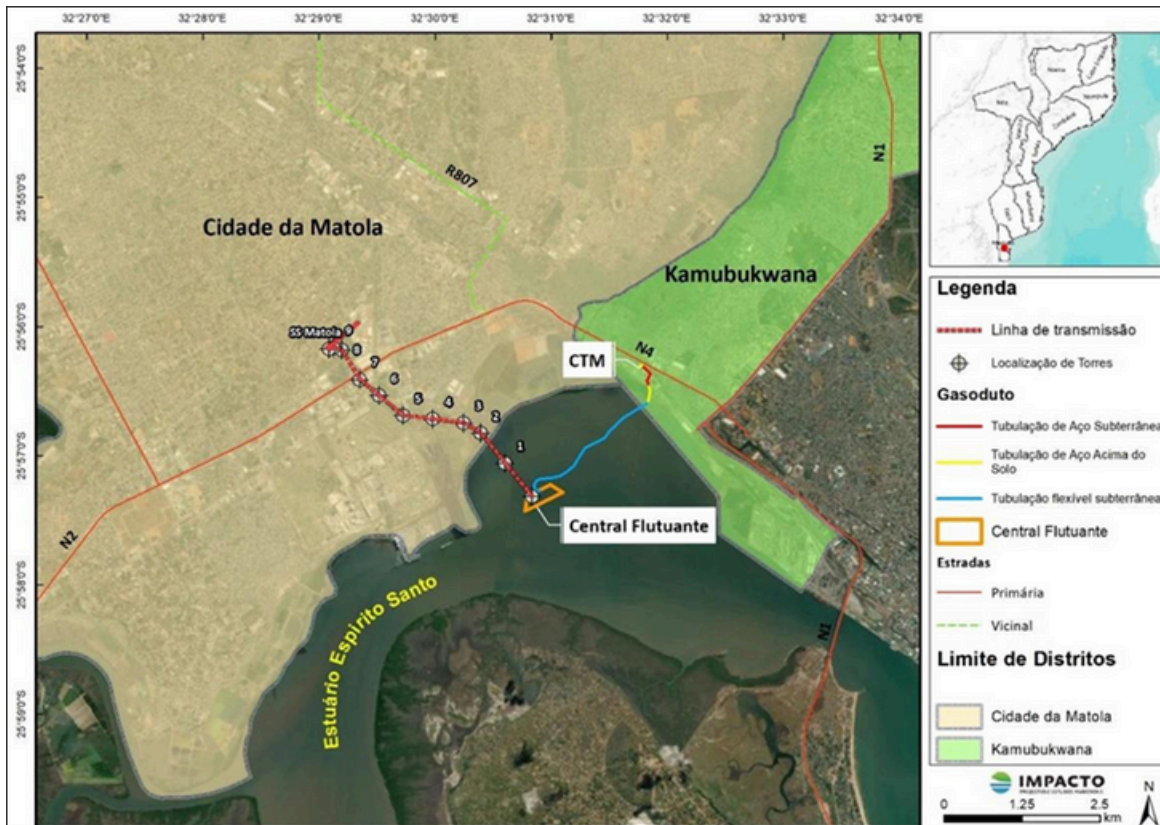
It is expected that the infrastructure will have the capacity to produce 415MW* of natural gas-produced energy and will be operational for at least 3 years, but may be extended if mutually agreed by contract between Karpower and Electricidade de Moçambique (EDM).

Karpower and EDM have established a partnership, in which EDM will be the main customer. EDM will act as a transporter of the energy produced by Karpower to its end customers.

In addition to the Floating Thermoelectric Power Station, the project includes the construction of a 4km Power Transmission Line linking the Power Station to the 275KV substation in Matola and a 3km gas pipeline connected from the CTM (Maputo Thermal Power Station) to transfer natural gas to the Floating Power Station located in the Espírito Santo Estuary, in the Maputo Harbour. The Transmission Line would cross through the neighbourhoods of Fomento and Matola A, and may have potential impacts in the Luís Cabral neighbourhood as well.

*MW is short for Megawatt. 415MW is equal to 415 million watts of energy or 415 thousand kilowatts.





Above: Project Location Map

BIOPHYSICAL ENVIRONMENT



The Floating Power Station would be located in the Espírito Santo Estuary and is 1,000 metres southeast of the Matola Port Coal Terminal. The transmission line will be constructed in an intertidal zone with mangroves, marshland, and seasonally flooded grassland, as well as in industrial and residential areas.

The Espírito Santo Estuary is an arm of the sea on the western shore of Maputo Bay where four rivers flow: the Tembe, the Umbeluzi, the Matola and the Infulene. Its maximum depth is 11 metres, with the channels dredged.

In Mozambique, the coastline is characterised by a diversity of habitats including estuaries. Estuaries are a transition between river and sea and depend on the fragile balance between freshwater and saltwater. The health of estuaries is highly influenced by a combination of natural events and human activities, making it necessary to ensure their sustainable use in order to reduce the loss of their high productivity. Estuaries are of ecological and socio-economic importance. Ecologically, they are important because they serve as a source of nutrients, habitat for various species, feeding, spawning and protection habitat, and also because they act as a nursery area for juveniles of many species of fish and crustaceans. In this way, they play an important role in the life cycle of these species.

POTENTIAL SOCIAL IMPACTS



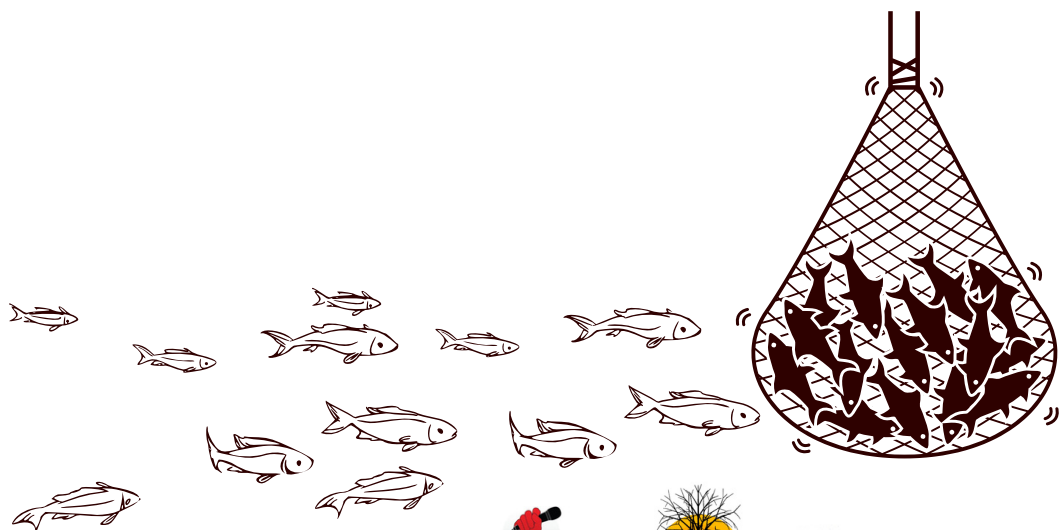
There are fishing areas along the coast of the Espírito Santo Estuary, where artisanal fishing is practised. The area adjacent to the transmission line is currently occupied by industries, salt pans, human settlements, cultivated fields and commercial and artisanal fishing practices.

Fishers in the area are already experiencing restrictions on their access to fishing areas and the reduction in the quantity of marine fauna for fishing. The Powership will put further pressure on fishers by limiting access and could lead to a reduction in catch therefore, negatively impacting their main source of income and livelihood for fishing communities in Matola, Katembe and parts of Maputo city.

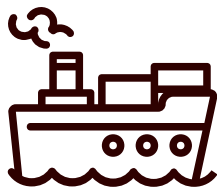
With projects of this nature, there is potential for the creation of temporary jobs and small local businesses during the construction and operation phases of the project. The pre-feasibility study and scope determination reports that construction of transmission lines and access roads on land could create 140 jobs for Mozambicans and 30 jobs for non-nationals. During the operation phase of the project, approximately 120 workers will be employed of which 35 will be Mozambican.

The outbreak of social conflicts is a possibility. This will come as a result of the presence of workers from other areas, the temporary or permanent loss of agricultural land as a result of the opening of access roads for the construction of the pipeline, possible disruption to economic activities carried out by business and commercial entities operating near construction areas, and impairment of salt production activities.

Due to the reduction in air quality, communities in the area may experience more respiratory diseases during the construction and operation phases of the project.



POTENTIAL ENVIRONMENTAL IMPACTS



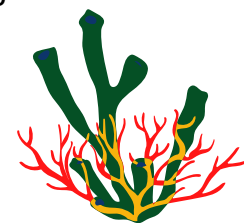
Natural gas emits methane, which is 80 times more polluting, in the near term, than CO₂, which is why it is considered a fossil fuel that contributes to climate change. The Karpower project is expected to spread polluting gases that will reduce air quality, and emit dust, gases and fuels from the vehicles and machinery working on the project.

Water and soil will also be affected, as water and soil pollution in the project area is expected due to inappropriate discharges of liquid and solid waste during the construction and operation phases. During the operation phase, it is also expected that sea waters will be altered as a result of the installation of the natural gas pipeline and the discharge of warmer water into the sea.

The movement of people and vehicles along the pipeline route may also lead to the loss of vegetation, notably of the mangrove. The mangrove, as a keystone species, is an important regulatory feature of the ecosystem and plays a key role in erosion control, coastal stabilisation, sediment filtration, carbon reservoirs, and provision of nurseries for various species.

There is an additional possibility of scaring away animals due to noise and ground vibrations and the changing of habitats that could result in reduced forage, shelter, and nesting sites. Animals that could be impacted by this project include two species of globally near threatened flamingos; a variety of terrestrial, marine, and coastal birds; two species of dolphins; multiple species of sea turtles; and many species of invertebrates that are of importance to local populations, including crabs, shrimp, oysters, and snails.

In the event of fire, explosion, or collision with other ships, there is potential for severe and widespread negative impacts on the surrounding waters and coastal habitats. It is important to emphasise that, as this is an area already affected by the implementation of other projects, it is necessary to consider the cumulative impacts on water, soil and air, as well as continued impacts on climate change due to greenhouse gas emissions.



KARPOWER IN OTHER COUNTRIES

Based on information in the public domain, Karpowership and Karadeniz Holdings have an alarming track record of allegations regarding their legal compliance and harmful conduct, including allegations of human rights violations and criminal conduct in other countries where they operate.



South Africa

In South Africa, Karpowership's three projects have faced much public opposition and legal hurdles. The Department of Fisheries, Forestry and Environment had initially refused Karpowership's environmental authorisation for three projects in July 2021 due to a lack of information in the environmental impact assessment reports available for decision-making, as the company had not fully considered all operational impacts. At that point, Karpowership's appeal against the decision failed, but they were provided with an opportunity to supplement their documents, and to submit them again for a new decision.

By the end of 2023, Karpowership managed to obtain environmental authorisation for two of their projects, and a third was denied authorisation. With all three decisions held up in administrative appeal processes, the company failed to reach financial close, leading Eskom, the public utility, to withdraw access to the electricity grid. The future for Karpowership in South Africa remains uncertain, but as at July 2024, all three projects are unable to proceed.



Guinea-Bissau

In Guinea-Bissau, Karpower is the main energy supplier in the city of Bissau and at the end of last year, the city was left without power due to non-payment by the government. The government claimed that Karpower cut off the supply to the country's capital while it was still in the discussion phase. The representative of the energy provider in that country said that commercial relations with Karpower operate under an excessive, unbalanced and overly demanding contract.



Brazil

In Brazil, Karpower's licence was interrupted by a court decision due to the environmental impacts that are already occurring, in addition to the noise and lighting at night. In Brazil, Karpower was considered to be a project of environmental and energy racism, as it was contracted for 7 times the usual amount and with a high local impact, aggravating the economic and social crises.



Mozambique

In Mozambique, Karpower's initial proposal was to generate energy from burning Heavy Fuel Oil (HFO). After criticism from Mozambican civil society, in December 2023, it presented the alternative of natural gas, an equally polluting fossil fuel, contrary to the narratives of a clean energy transition that have been publicised.

Karpower already has a project similar to the one proposed for Maputo in Nampula Province, and the increase in the cost of energy in Nacala has been proven since the project began in that part of the country.

If this project is intended to supply power to Mozambique for an indeterminate period of time, there is a risk that locking-in to a power purchase agreement with Karpower will mean costly electricity for the people of Mozambique. Further, it could crowd out the potential for cleaner and cheaper renewable electricity alternatives from wind and solar, that could provide electricity with fewer harmful impacts to the people of Mozambique.



LEGAL IMPLICATIONS

In March 2023, civil society organisations in Mozambique requested that the project be reclassified, as they considered that the activities described in the EPDA Report indicated the storage of fuel oil. In the public consultation held in December 2023, it was announced that the use of fuel oil would be changed to natural gas. Despite the change in the project's energy source from fuel oil to natural gas, civil society continues to demand that the project be upgraded.

The Regulation on the Environmental Impact Assessment Process, Decree 54/2015, states that activities whose implementation directly affects mangroves and wetlands are categorised as A+ activities, as is the case with the project proposed by EDM and Karpower. The decree does not distinguish between temporary and permanent effects on directly and indirectly affected areas, describing only direct effects on mangroves and wetlands.

It is crucial that, in addition to a full assessment of environmental impacts, the public must be provided with information on, inter alia: where the power from this project will be consumed (i.e. will it provide power to the people of Mozambique); how long will the project be operational; and how much will the electricity from this project cost, who will pay these costs and who carries the risks in the event of non-payment for the power to Karpower. Members of the public must be given access to any agreements entered into with Karpower as a matter of public interest and importance.

WHAT NEXT?

After conducting the Environmental Pre-Feasibility Study and Scope Definition (EPDA), Karpower received authorisation to proceed with an Environmental Impact Assessment (EIA). The draft EIA report, which will include numerous expert reports, will provide an assessment of the impacts of the project.



The draft EIA report will additionally provide recommendations to mitigate the potential negative impacts and enhance potential positive impacts.

Additionally, an Environmental Management Plan (EMP) will be produced, containing clear and practical management measures to implement during the construction, operation and decommissioning phases of the project.

HOW TO GET INVOLVED:



Access information

Gather as much information about the project.

The EPDA is available on the Environmental Practitioner's website, <http://www.impacto.co.mz/impacto-en>, DINAB, Provincial Environmental Services and any relevant public institution. Once completed, the draft EIA report and Environmental Management Plan (EMP) must be made available to stakeholders for comment prior to its submission to the Ministry of Land and Environment for decision.



Participate at public meetings

A public meeting will be held to present the results of the EIA and collect comments on the Draft EIA and EMP.



Submit written comments

Submit written comments on the draft EIA and EMP, highlighting how the project will impact the environment and communities, directly and indirectly.

All comments received will be placed into a Q&A Report that will be attached to the final EIA which is submitted to the Ministry of Land and Environment.



Advocate

Communicate with others about the project and encourage them to also get involved.

USEFUL RESOURCES

- [Karpowership prepara “polémico” projecto flutuante de produção de energia na Matola](#)
- [EDM vai viabilizar fornecimento de energia da Karpowership para a África do Sul](#)
- [http://www.impacto.co.mz/wp-content/uploads/CP/EPDA%20Karpower Maputo Volume-1%20Gas%20Natural%202023%20 FINAL.pdf](http://www.impacto.co.mz/wp-content/uploads/CP/EPDA%20Karpower%20Maputo%20Volume-1%20Gas%20Natural%202023%20FINAL.pdf)
- [Scope for growth and condition index in the clam Meretrix meretrix \(L.\) as biomarkers of pollution in Espírito Santo Estuary, Mozambique](#)
- [Bissau sem eletricidade por falta de pagamento](#)
- [Karpowership estará operacional em Richards Bay em menos de um ano](#)

