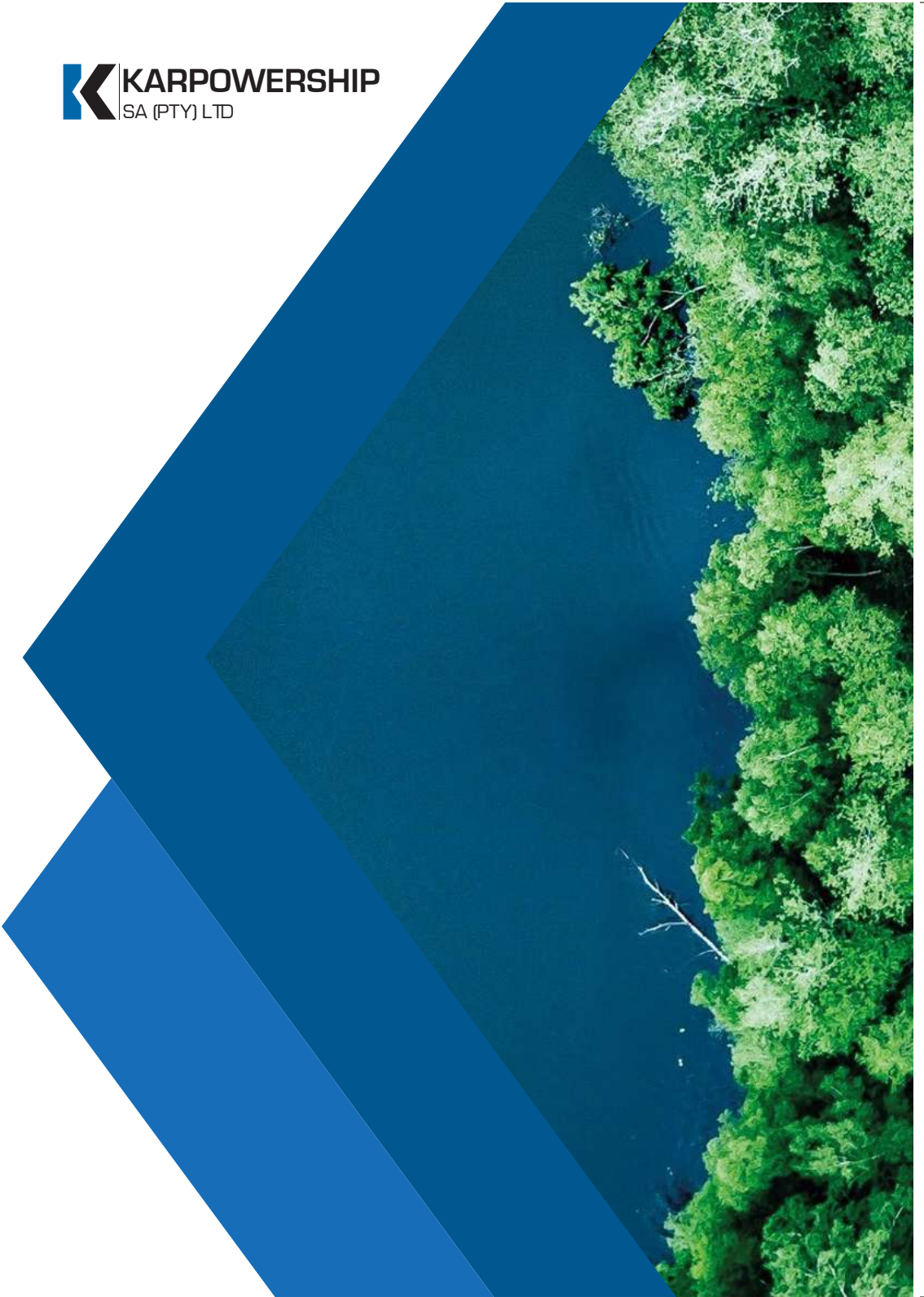


APPENDIX 3.6: KSA CAPACITY BUILDING BOOKLET



POWERSHIPS AND THE NATURAL ENVIRONMENT



Powerships are much more sustainable than a land-based alternative and reduce greenhouse emissions where they replace coal or diesel. Environmental safeguards are designed into every Powership we build and meet local and international environmental standards.

SUPPORT FOR RENEWABLE ENERGY

Powerships are a reliable partner for renewable energy sources because they can quickly compensate for dips in solar or wind power supply and rapidly respond to sudden increases in electricity demand.



POWERSHIPS

FAST & TURN KEY DELIVERY



LNG 50% CLEANER
THAN COAL

LNG TO POWER



REDUCES LOADSHEDDING

COMPLIANCE



SUPPORTS



JUST ENERGY TRANSITION



LOCAL
INVESTMENT



COMMUNITY
DEVELOPMENT



JOB
CREATION



FAST TRACK



- 1 220 MW delivered within months
- No major site preparation required
- No completion or construction risk
- Delivered ready for power production

HIGH EFFICIENCY



- Delivering highest efficiency and availability
- Suitable for base load, mid-merit and peak shaving
- Significant savings per kWh

INTEGRATED



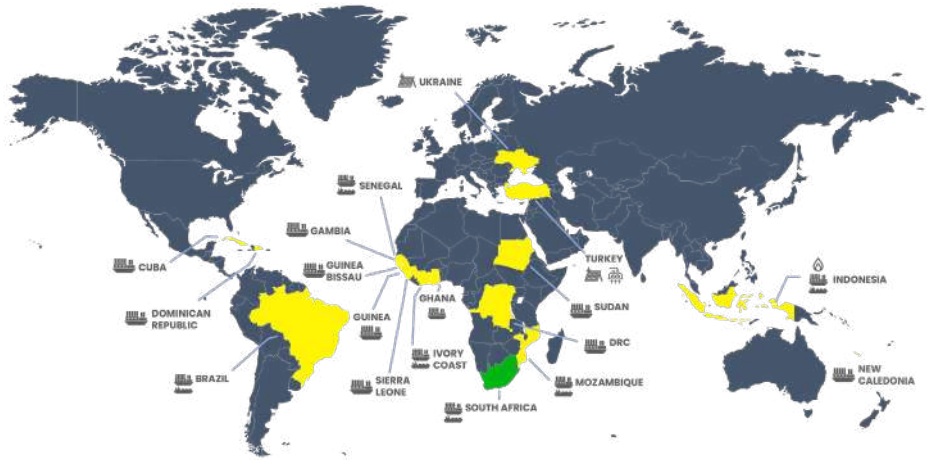
- Delivered ready to operate –Plug & Play
- Direct grid connection
- Lowest cost of delivered fast track power
- No completion or construction risk

ECONOMICAL



- Immediate impact for sustainable economic growth and development
- No capital investment required from the South African Government

A PIONEER IN GLOBAL ENERGY SOLUTIONS



Karpowership is the owner, operator and builder of the only Powership™ fleet in the world providing access to fast-track, affordable and reliable electricity. Currently, **Karpowership** owns and operates **36 Powerships**, with an installed capacity of **6,000 MW** and more than 2,600 employees globally.

The Powership solution has brought innovation to power generation by utilizing proven technology in fully integrated, ready to deliver, “**Plug and Play**” mobile floating power plants. Powerships provide highest efficiency, reliable and economical power supply with fast-track delivery.

Karpowership South Africa is a fully empowered, local entity that has been established to deliver **Gas-to-power** energy solutions to South Africa.

HOW IS POWER GENERATED USING NATURAL GAS?



Natural Gas is used as a fuel source to run the engines on board a Powership to generate electricity which can be used to provide power to homes and businesses. The **South African** project is capable of providing up to 1.2 million homes with electricity each year.

CLEANER, GREENER

Natural Gas is a cleaner, sustainable way of providing reliable power and emits **50% lower greenhouse gas emissions** than coal when used to generate electricity.





“
As Karpowership, we believe this mix of LNG and renewables provides the ideal bridging solution to the long-term transition to renewables.

”

JUST ENERGY TRANSITION

SA must meet the rising demand for energy whilst avoiding the impacts of climate change.

This will involve a phased and gradual progression towards lower carbon fuel sources without negatively affecting society, jobs and livelihoods, and ensuring a responsible just transition from a high carbon economy to a low carbon economy.

Powerships will support economic development by providing stable electricity to the grid, create jobs and support the National Development Plan.

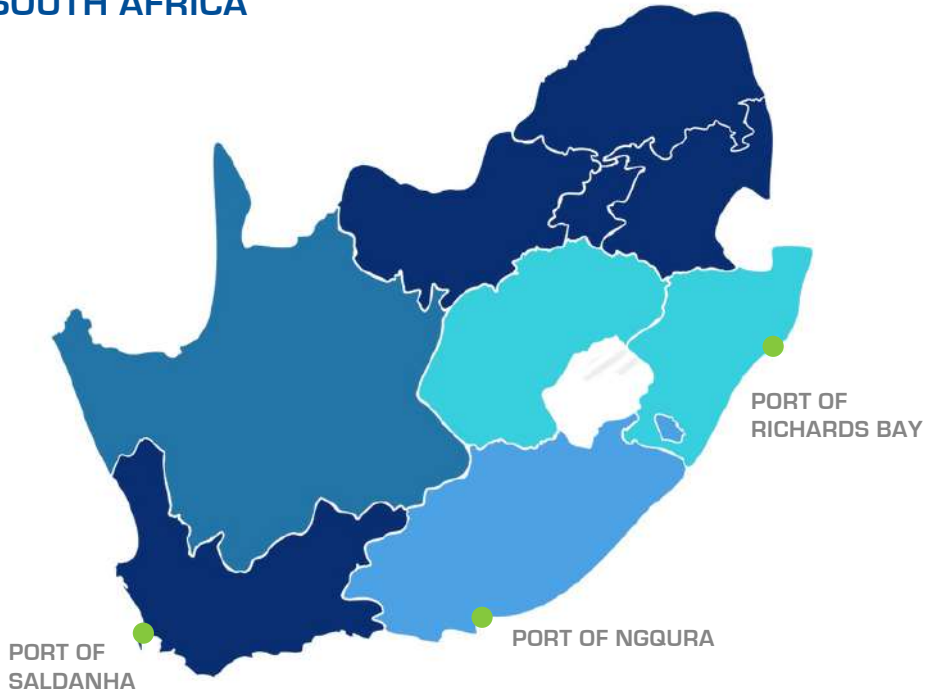


**NATURAL GAS IS
A TRANSITION FUEL**

Powerships and the use of natural gas will be a key component in a Just Transition from fossil fuels to renewables in South Africa.

WHERE WILL THE POWERSHIPS BE LOCATED?

SOUTH AFRICA



The Powerships will be moored in three operational ports in South Africa, namely, the Ports of Saldanha Bay, Richards Bay and Ngqura. These ports are located within or adjacent to areas earmarked as industrial development zones and are operated by Transnet National Port Authority. Berthing and mooring will be conducted as per the respective ports approved operational plans and procedures for a period of 20 years.

The electricity generated will be evacuate via 132kv overhead powerlines to substations located within the industrial development zones.

HEALTH AND SAFETY



Health and safety matters are mitigated by design, automated safeguards, engineering controls, safety systems, operating procedures and audits, inspection and monitoring activities, **Occupational Health and Safety Specifications and OHS Personnel and Management Systems.**

INTEGRATED MANAGEMENT SYSTEM

Karpowership applies the globally known “Integrated Management System”, consisting of ISO 9001:2015 Quality Management System, ISO 14001:2015 Environment Management System, and ISO 45001:2018 Occupational Health and Safety Management System. Integrated Management System covers all requirements of these standards to achieve a good, reliable, traceable, and manageable quality, health, safety, environmental management system.



COMMUNITY INVESTMENT AND JOB CREATION

NUMBERS OF JOBS DURING CONSTRUCTION PERIOD

NGQURA	SALDANHA	RICHARDS BAY
171	312	190

NUMBER OF JOBS DURING OPERATION PERIOD

NGQURA	SALDANHA	RICHARDS BAY
200	175	200

SOCIO ECONOMIC DEVELOPMENT CONTRIBUTIONS DURING OPERATIONS OVER 20 YEARS

NGQURA	SALDANHA	RICHARDS BAY
R788 Mil	R692 Mil	R814 Mil

ENTERPRISE & SUPPLIER DEVELOPMENT CONTRIBUTIONS DURING OPERATIONS OVER 20 YEARS

NGQURA	SALDANHA	RICHARDS BAY
R315 Mil	R277 Mil	R325 Mil

Our comprehensive Economic Development Plan is focused towards long-term jobs, skills development, and economic investment in local communities at each of the three ports where Powerships will be stationed. Karpowership's learning academy will generate skills to South Africans for employment in the fast-growing Gas to Power sector.

SOCIAL INVESTMENT

Our corporate social investment programme supports sustainable initiatives that aim to achieve maximum social impact over the long term. In addition to financial support, we are committed to investing our time and expertise in local communities we serve.





SUPPORTING LOCAL FISHING COMMUNITIES



Small-scale fisheries play a significant role in food security, poverty reduction and income generation. We partner with fishing communities around the world to facilitate growth, development, and to ensure healthy fishing industries in the areas we operate.



CASTING A LINE TO FISHING COMMUNITIES

We are proud of contributing to the **United Nations' 17 Sustainable Development Goals**. We support these goals through our ongoing commitment to fields of education and community development, inclusive of small-scale subsistence fishing communities.

FREQUENTLY ASKED QUESTIONS

DO POWERSHIPS CREATE JOB OPPORTUNITIES FOR LOCAL COMMUNITIES?

Yes. We are committed to employing as many people from local communities as possible, at every level in our business.

ARE THERE ANY ENVIRONMENTAL POLLUTANTS ADDED TO THE SEAWATER BY OPERATIONAL POWERSHIPS?

No. The Powerships use seawater to cool the engines, but nothing is added to that water when it returns to the sea. Unlike land based power plants, no water is required from water-courses and so water availability for drinking and agriculture, for example, is not reduced at all.”

WHY NOT BUILD SOLAR OR WIND ENERGY POWER PLANTS INSTEAD OF POWERSHIPS?

Wind and solar should absolutely be included in the energy mix, and Powerships complement these technologies when they fall short. Every technology has advantages, and to provide clean, reliable and low cost electricity there needs to be a balance of generation mix. Powerships are already built and ready to provide much needed power immediately whilst further renewable projects are being constructed.

WILL AN ENVIRONMENTAL IMPACT ASSESSMENT BE UNDERTAKING TO STUDY POTENTIAL ENVIRONMENTAL IMPACTS?

Yes. This process is underway and the independent environmental practitioner is undertaking a thorough assessment of all aspects of the project for submission to the government for decision making.

WHEN CAN POWERSHIPS HELP SOLVE LOAD-SHEDDING?

The Powerships are fully constructed and ready to deliver power to the grid.

FREQUENTLY ASKED QUESTIONS

ARE POWERSHIPS DANGEROUS?

No. Powerships and the gas-related technologies have proven to be extremely safe through decades of operations around the world. Karpowership is the leading global company in this industry and takes safety as top priority. As part of EIA process, risks have been assessed as being far lower than many of the industries already present in the local area.

DO POWERSHIPS HAVE A NEGATIVE IMPACT ON THE SMALL SCALE FISHING INDUSTRY?

No. We work together with industry specialists and scientists to ensure that we understand and do not negatively impact fish stocks or the livelihoods of small-scale fisher folk. The availability of reliable power and the wide-ranging economic development activities will positively benefit this community for many years to come.

DO POWERSHIPS ASSIST SMME AND ENTREPRENEURS?

Karpowership will provide both financial and non-financial support to entrepreneurs and small business in the Ports of Nqgura, Saldanha Bay and Richards Bay. This support will not only be for those looking to sell services and supplies to the Powerships but will be open to a wide range of businesses in all fields.

WILL BURSARIES BE PROVIDED BY KARPOWERSHIP?


Yes. In many of the developing markets we operate, we see first-hand the barriers girls face in accessing education. **Girl Power** grew through a profound belief that we have a responsibility to invest in communities, not only through providing energy to light homes and businesses, but to invest in the people and their futures. Since 2010, our commitment to supporting girls and their communities has grown, and we're now able to make a positive impact for around 1,400 girls across the world each year.

POWERING *life*

FOR ANY QUESTION AND ENQUIRIES
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