

# KARPOWERSHIP

## Building The Future, Now!

Fast. Reliable. Sustainable. Affordable.



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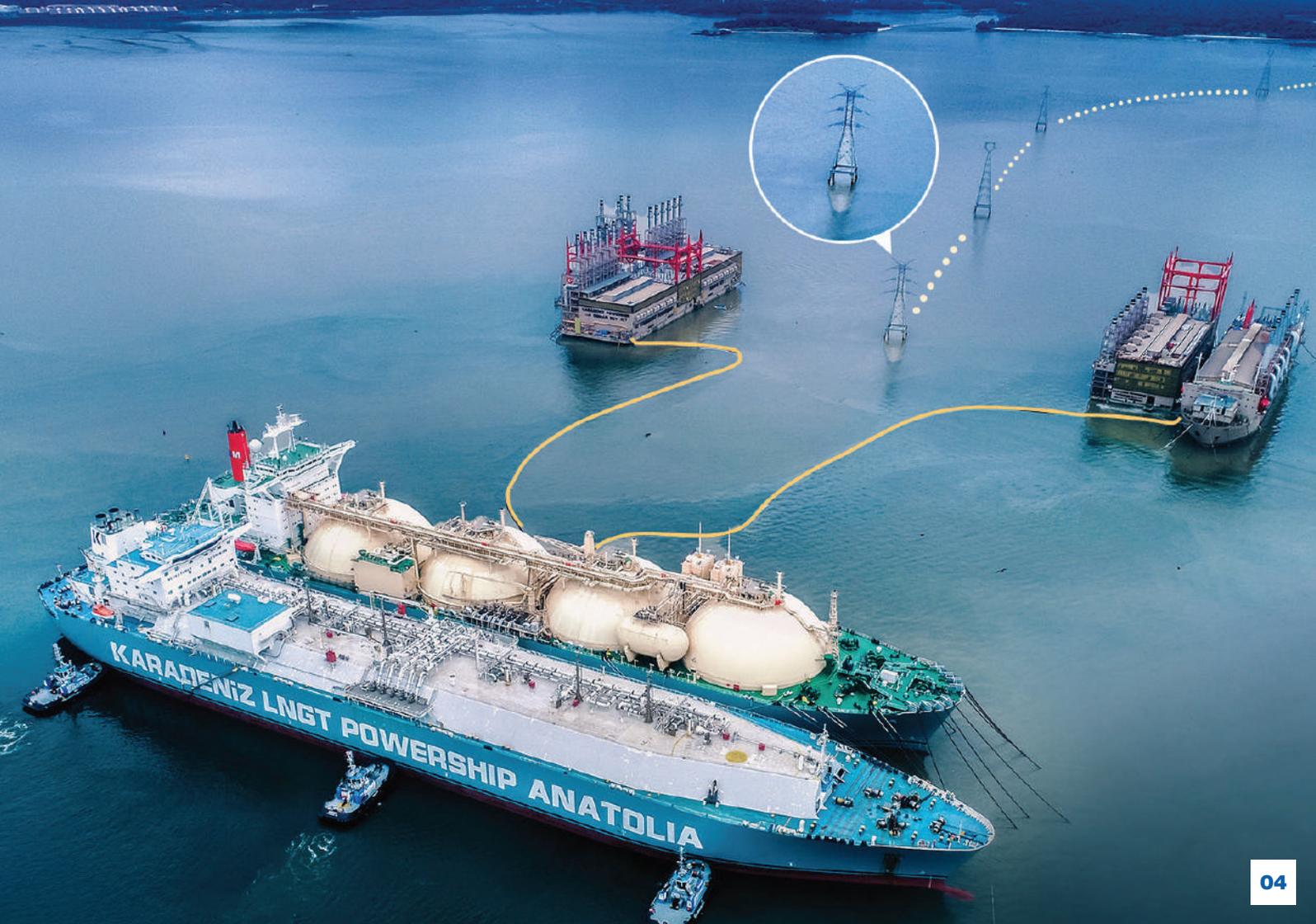
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## - **Karmarine Shipyard**

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# People, Planet, Power

- ◆ We aim to serve nations and individuals who lack access to energy, making them part of this transformative journey, as we uphold our duty to the planet in everything we do.
- ◆ Our vision is to build a sustainable world by minimizing our carbon footprint and leveraging our resources into clean and rapid energy solutions.
- ◆ Our aim goes beyond merely producing energy; we strive to reshape the future by making sustainability and accessibility a reality for everyone starting from now.



# Karpowership **Powering Life**

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We are committed to enhancing global energy security and decarbonizing grids through fast-track, sustainable, and integrated energy solutions.



**Karpowership** is a global energy group with over 25 years of experience in pioneering diverse solutions to the energy transition. With our investments and expertise in floating infrastructures, renewables, as well as onshore power plants, we provide integrated energy solutions which offer fast-track, reliable, and affordable energy.

With more than 8 GW capacity, Karpowership holds nearly 1/1000 of the total global capacity, and supplies electricity every 7 out of 1,000 people worldwide, leveraging on our fleet of Powerships, floating LNG infrastructure and renewable power plants.

❖ **Direct pathway to energy transition**

❖ **Fast-track, mobile, integrated energy solutions**

❖ **45 Powerships with more than 8 GW installed capacity, 11 LNG vessels**

❖ **Operating 1/1,000 of global installed capacity**  
envisioning to reach 2/1,000 over the next decade

❖ **Electricity generation across 4 continents**  
with diverse operations in over 20 countries

❖ **Supplying electricity to 7/1,000 of global population**  
envisioning to reach 20/1,000 over the next decade

# Leading Energy Transition, Globally

We are proud to have supported and continue to serve as an energy transition partner for over 20 countries in their race to net-zero.

◆ Diverse operations across **4 continents**

◆ **3,000 employees** from 30 nationalities



# Flexible, Diversified



## Powerships

- The one and only Powership fleet
- 45 Powerships with more than 8 GW capacity
- NexGen Powerships with onboard CCUS, Gas Storage & Regasification, and Multifrequency



## Floating LNG Infrastructure

- 11 vessels including LNG Terminal Ship
- One of the world's longest LNGTS fleet
- FLNGTS

# Innovative Solutions



## New Technologies

- Intelliships for integrated data centers
- Desalination by Waterships
- CCUS
- Battery Storage
- Downstream LNGTS
- Small Modular Reactor (SMR) technology



## Renewables

- 5 locations across 3 continents
- Growing portfolio, expansion into new regions

# One Stop Solution Partner

- Engineering, Design & Construction
- Financing
- Site Preparation & Commissioning
- Local Infrastructure: Transmission / Grid Support
- Fuel Supply Chain
- Operations & Maintenance
- Insurance & Risk Management
- Commercial Contract Management
- Corporate Responsibility, Environment & Sustainability



**POWERSHIP®: Mobile. Scalable. Turnkey**

# Owner of the World's Largest Powership Fleet

Karpowership is the owner, operator, builder of the world's one and only fleet of floating power plants, Powership®.



Introducing an innovative approach to power generation, our patented Powership technology offers a unique plug-and-play solution to global energy demand. Powerships are ship or barge-mounted, fully integrated floating power plants.

Powerships are equipped with cutting-edge multi-fuel powered engines and ancillary equipment to ensure smooth operation and maximum efficiency. Whether for base load, mid-merit, or peak shaving power, they guarantee optimal performance, even at partial loads.

- ◆ **45** Powerships, more than **8 GW** total capacity
- ◆ Diverse capacity range from **30 MW** to **600 MW**
- ◆ Plug-and-play **power generation in <30 days**

With flexible capacities ranging from 30 MW to 600 MW, they can be fully customized in line with the partner countries' requirements and can be commissioned in less than 30 days.

From design and construction to commissioning and operation, Karpowership performs all processes in-house, delivering turnkey solutions to ensure fast-track implementation.

- ◆ **Minimum** environmental footprint, **no** land-based infrastructure
- ◆ **Seamless** integration, **maximum** efficiency

# Maximum Efficiency, Seamless Integration

**Powerships facilitate a seamless energy transition by replacing traditional land-based power plants with a highly efficient and eco-friendly power generation technology.**

Our solution is a fully integrated Powership, delivered ready-to-operate, featuring cutting-edge power generation technology renowned for its maximum efficiency. They have complete onboard integration,

requiring minimal site preparation and no land-based infrastructure, eliminating the environmental footprint of land-based infrastructure, such as deforestation or damage to agricultural land.

Suitable for short, medium, and long-term contracts, Powership can be connected to the national grid with ease, eliminating engineering, procurement and construction costs.

- ◆ Multi-fuel, state-of-the art engines
- ◆ Optimal efficiency at any load
- ◆ Significant savings per kWh
- ◆ No EPC or O&M risk



**We offer Powerships in various capacities tailored to our client's needs.**



## **Whale Class**

**500 - 600 MW**  
**Engines: 3**  
**Gas Turbines: 6**  
**Onboard Accommodation: 46**  
**Fuel Storage: N/A**  
**Self-propelled**



## **Khan Class**

**415 - 500 MW**  
**Engines: 21 - 24**  
**Steam Turbines: 2**  
**Onboard Accommodation: 80**  
**Fuel Storage: 38,000 MT**  
**Self-propelled**



## Orca Class

200 - 260 MW

Engines: 11 - 12

Steam Turbines: 1

Onboard Accommodation: 60

Fuel Storage: 8,500 - 10,700 MT



## Shark Class

100 - 240 MW

Engines: 6

Steam Turbines: 1

Onboard Accommodation: 50

Fuel Storage: 830 - 5,500 MT

Self-propelled



## Mermaid Class

60 - 140 MW

Engines: 4

Steam Turbines: 1

Onboard Accommodation: 20

Fuel Storage: 2,800 MT



## Seal Class

34-40 MW

Engines: 2

Steam Turbines: -

Onboard Accommodation: 20

Fuel Storage: 2,045 MT

Self-propelled

# Industry leader in floating LNG infrastructure

**We manage the entire LNG supply chain with our integrated and convertible fleet designed for LNG-to-Power projects.**

Karpowership's LNG-to-Power solutions enable fast-track and reliable supply of fuel and power, supporting a sustainable and secure energy future. We actively trade in the LNG market, offering services such as liquification, storage, and transfer of LNG at sea using our growing fleet of LNG assets, which currently includes 11 LNG vessels.

As an integrated solutions provider, we manage the procurement and supply of LNG, its storage and regasification, and its transmission to our Powerships or designated customer to power the national grid or facility. The modular and flexible design of our LNG assets enables our adaptability to diverse geographies and capacity demands, catering to both onshore and offshore energy requirements.

## Applications

**Powerships:** Converting existing Powerships to gas and developing new LNG-to-Powership projects. We utilise our LNGTSs to receive, store, and regasify the LNG used by our Powerships, ensuring transition to cleaner energy sources.

**Land-Based Plants:** Converting existing third-party power plants to LNG and supplying them via our LNGTSs. We manage the entire LNG supply chain, providing reliable and continuous fuel supply for land-based power plants.

**Downstream Distribution:** Converting inland power plants to use LNG and supplying them with LNG transported via 'virtual pipelines' from our LNGTSs. This ensures a stable and flexible energy supply for remote or inland facilities.

## Comprehensive Services

**LNG Supply:** LNG sourcing, transportation and supply

**Shipping:** LNGC vessel charter solutions

**Storage and Regasification:** LNG storage and regasification via LNGTSs for power generation



# Rio de Janeiro LNG-to-Power Facility

Karpowership's Brazilian project showcases our comprehensive LNG-to-Power solution, featuring four Powerships with a total installed capacity of 560 MW, connected to the grid to transmit electricity generated via LNG. The LNG supply chain is facilitated by a permanently moored Liquefied Natural Gas Terminal Ship (LNCTS) with a storage capacity of 125,000 m<sup>3</sup>, capable of supporting 560 MW of dispatchable power.

Flexible hoses and Ship-to-Ship (STS) transfer methods ensure the efficient and reliable delivery of LNG to our Powerships. This streamlined setup demonstrates Karpowership's ability to provide rapid, flexible, and integrated energy solutions for both onshore and offshore applications.



# Innovation for the future

We actively invest in carbon capture and storage technology, desalination infrastructures and innovative technologies to transform the future of our planet.



### CCUS:

- Core of our **net zero** commitment.
- **Sequester carbon** as generated, stored into depleted gas wells.
- One of the key specifications of **state of art next generation Powerships**.



### Intelliship:

- Integrated data center with self-sustaining power generation capabilities.
- Grid independent and **self-sufficient**.



## Battery Storage:

- ◆ **Integration with Powerships** to improve grid stability and flexibility.
- ◆ **Supporting renewable** energy adoption by managing fluctuations and providing backup power solutions.
- ◆ **Modular** and scalable solutions.



## Desalination by Waterships:

- ◆ **Reverse osmosis technology** with minimum production capacity of 25,000 m/day.
- ◆ The **solution to** the upcoming global **water shortage**.

# Expanding Our Renewable Horizons

Our unwavering goal at Karpowership is to achieve net zero in power generation. Aligned with this vision, we are committed to significantly growing our renewables portfolio, reinforcing our dedication to global decarbonization efforts.

Currently, we operate geothermal and solar power plants across Ukraine, Türkiye, and Brazil. Over the next decade, we aim to expand our renewable portfolio more than tenfold, while entering new markets across Europe and the United States.

To further accelerate the transition to a sustainable energy future, we are actively exploring innovative fuel solutions such as renewable natural gas (RNG), hydrogen, and ammonia.

- **Solar power plants spanning three continents.**
- **Strategic focus on renewable energy investments in developed markets.**
- **Ambitious target: over 10x growth in renewable capacity.**



# Energy Transition, Now.

Karpowership is one of the best positioned companies to facilitate the global energy transition. We play a catalytic role in the energy transition of our partner countries, empowering them to embark on their energy transition journey, today.

Our partners don't need to make a choice between accessible and sustainable. We give them a head-start in their energy transition path towards net zero. Thanks to our highly efficient, mobile infrastructures equipped with CCUS technology, we promise an immediate positive environmental impact through tangible, practical and realistic goals.

For seamless energy transition, we employ a phased approach to power generation in our partner countries, specifically tailored to their available resources, needs and national sustainability goals.

# PHASED APPROACH TO ENERGY TRANSITION

## 1-Boosting Efficiency

Powerships utilize our best-in-class technology for maximum efficiency, enabling to phase out aging power plants running on highly polluting fossil fuels such as coal and immediately improving the environmental baseline from day one.

## 2-Smooth Transition to LNG

We guarantee a smooth transition to natural gas on our Powerships by deploying our LNCTSs and building virtual pipelines for our partners to aid the reduction of their carbon footprint and GHG emissions.

## 3-Converting Existing Power Plants for Lower Emissions

We facilitate the conversion of existing land-based power plants and industrial facilities to natural gas, further reducing their carbon footprint.

## 4-Harnessing Native Resources

We empower our partners to utilize their local natural gas resources more effectively, enabling them to meet internal energy demands and create export opportunities, all while minimizing environmental impact.

## 5- Renewables for Real Net Zero

Our commitment to achieving net-zero emissions includes investing in and integrating renewable energy sources, carbon capture technologies and alternative fuels like renewable natural gas.



# Beyond the Grid: One World Karadeniz Foundation

With a primary focus on education and women empowerment, we have carried out hundreds of CSR projects in over 20 countries, touching the lives of more than 300,000 people.

The One World Karadeniz Foundation was established in 2023 to consolidate our CSR projects under one roof, aiming to amplify our social impact by directly engaging with local communities as an active contributor to their social development and well-being. “One World” signifies a commitment to making a positive social impact in every community we operate, regardless of geographical distances, national boundaries, beliefs or cultures.

To date, we have carried out hundreds of CSR

initiatives, spanning diverse fields such as education, reforestation, renovation projects and charitable donations, directly and indirectly supporting various communities around the world from students in Mozambique to fishermen in Brazil or villagers in Ghana.

# ONE WORLD KARADENIZ FOUNDATION

## ◆ Lifeships

Emergency aid vessels designed to provide both immediate relief and long-term support to communities affected by natural disasters.

## ◆ Social Impact

Sustainable and systematic social responsibility initiatives aimed at empowering local communities and fostering a lasting positive impact.

## ◆ Kara/Deniz Tekland Museum

A unique collection of historically and technically significant vehicles, showcasing our passion for transportation, art, and innovation.



# Lifeships: The Floating Villages

Lifeships are emergency aid vessels fully equipped with onboard infrastructure for catering, medical assistance, childcare, and education. The vessels can be deployed immediately, are fully self-sufficient, and do not need to connect to any onshore infrastructure to operate.

◆ **Lifeship Sühelya Sultan** provided shelter for more than **13,000 people**

Following the Türkiye-Syria earthquake of February 6th 2023, two Lifeships, with a capacity of hosting more than 1,500 people each were sent to the region to provide sustainable and decent living conditions for earthquake survivors.

◆ **Lifeship Rauf Bey** was transformed into a boarding school for **3,000 students**

## Our CSR Footprint

At Karpowership, we develop and carry out our CSR activities within the framework of the **United Nations Sustainable Development Goals (UNSDGs)** to foster sustainable development across the local communities we partner with.

- ◆ **100,000+** jobs created in local communities
- ◆ **300,000** people were reached out via CSR projects
- ◆ **Women empowerment** programs: Girl Power
- ◆ Educational grant to **58,000** students
- ◆ **Forestation projects** in two continents
- ◆ **Renovation projects** for orphanages and hospitals



# A Pinnacle of Shipbuilding Excellence

Our Powerships are meticulously designed and constructed in Karpowership's very own shipyard, KARMARINE.

Established in 2015 at the Yalova Shipyard Zone, KARMARINE stands as a pinnacle of shipbuilding excellence, boasting modern infrastructure, cutting-edge technology, and a highly skilled technical staff.

Spanning an impressive 105,000 m, KARMARINE offers a comprehensive suite of services including design, construction, outfitting, refitting, conversion, maintenance, and repair and overhaul (MRO) operations. The facility can accommodate and serve up to 10 projects simultaneously.

## Key features of KARMARINE include:

- ◆ An expansive indoor area spanning 12,000 m, housing modern workshops and storage facilities.
- ◆ A substantial construction and maintenance area covering 9,000 m.
- ◆ Shipbuilding capacity of 59,400 DWT/year.
- ◆ 180 m x 50 m skid capacity; capable of handling vessels with lengths of up to 200 meters
- ◆ Two piers available for maritime operations: Pier 1 of 300 m x 17 m, and Pier 2 of 200 m x 18 m.







An aerial photograph of a city coastline. The foreground is dominated by deep blue ocean water with gentle ripples. A sandy beach runs along the right side of the frame, bordering a dense urban area with numerous high-rise buildings and skyscrapers. The sky is a clear, light blue. The text 'KARPOWERSHIP' is overlaid in the center of the image.

**KARPOWERSHIP**

[www.karpowership.com](http://www.karpowership.com)