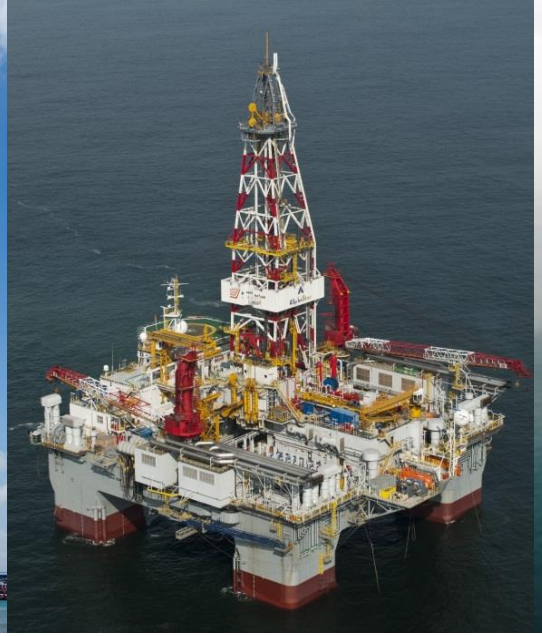





Keppel

Gas Technology Development

Investor Presentation

September 2016

Keppel Offshore & Marine

Keppel Corporation

Meeting the needs of sustainable urbanisation

Offshore & Marine



- Offshore rig design, construction, repair and upgrading
- Ship conversion and repair
- Specialised shipbuilding

- **LNG Solutions**

Property



- Property development

Infrastructure



- Energy & related infrastructure
- Logistics & data centres

Investments



- Asset management
  - Property & infrastructure trusts
  - Private funds
- Investments

Keppel Offshore & Marine

World leader in designing and constructing offshore rigs, ship conversions and repairs, and specialised shipbuilding.

Offshore



Leading designer, builder and repairer of high-performance mobile offshore drilling rigs.

Ship Repair & Conversion



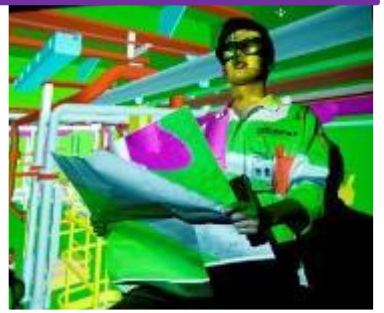
Trusted industry name for repair, conversion and upgrade for a diverse range of ships

Specialised Shipbuilding



Designer and builder of a wide spectrum of highly specialised ships for global customers

Technology



Design and engineer market-relevant and commercially viable solutions for all frontiers

Keppel Yards Globally

- Harnessing the synergy of 20 yards worldwide keeps us *Near Market, Near Customer.*



Keppel
Gas Technology Development

Keppel LNG Solutions

Keppel

Gas Technology Development

Keppel Shipyard

Ship Repair & Conversion



- LNG Carriers
- FSRU
- FLNG
- FSU
- Engine Conversions

Keppel Singmarine

Newbuilding

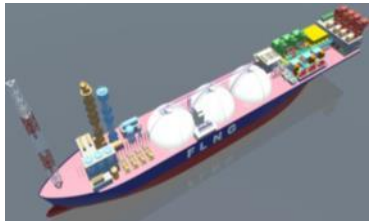


- Small scale solutions
- Power Barge
- LNG Fuelled Tugs

Keppel in the LNG Value Chain

Keppel has a suite of innovative solutions across the whole LNG value chain

Upstream **Midstream** **Downstream**







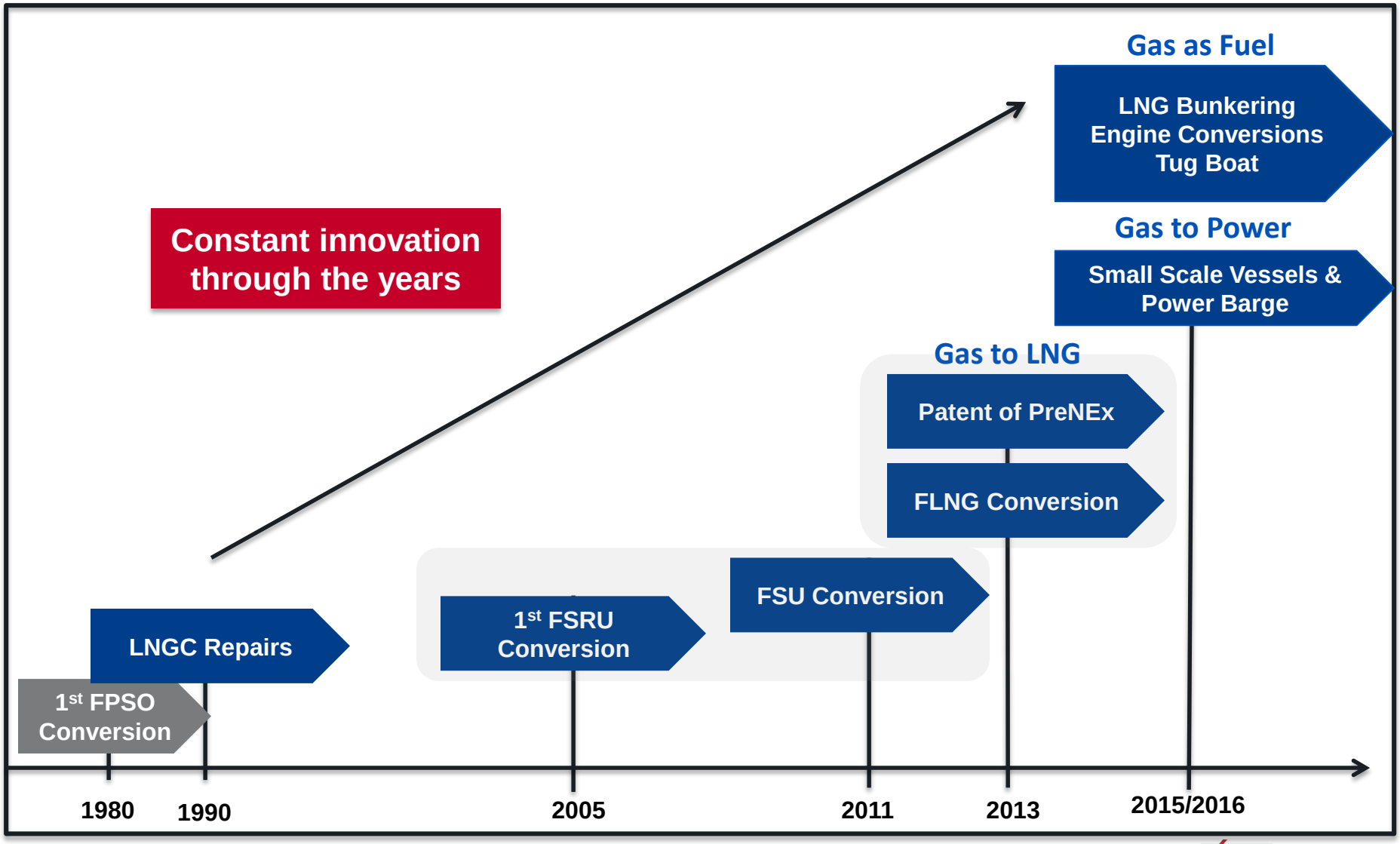




Gas to LNG → LNG to Users → LNG to Gas → Gas to Power → Gas as Fuel

Keppel Gas Technology Development

Keppel's LNG Portfolio Development



Keppel
Gas Technology Development

LNGC Repairs

- First LNGC repair in 1990
- Docked 199 LNGC's for Repairs and Class



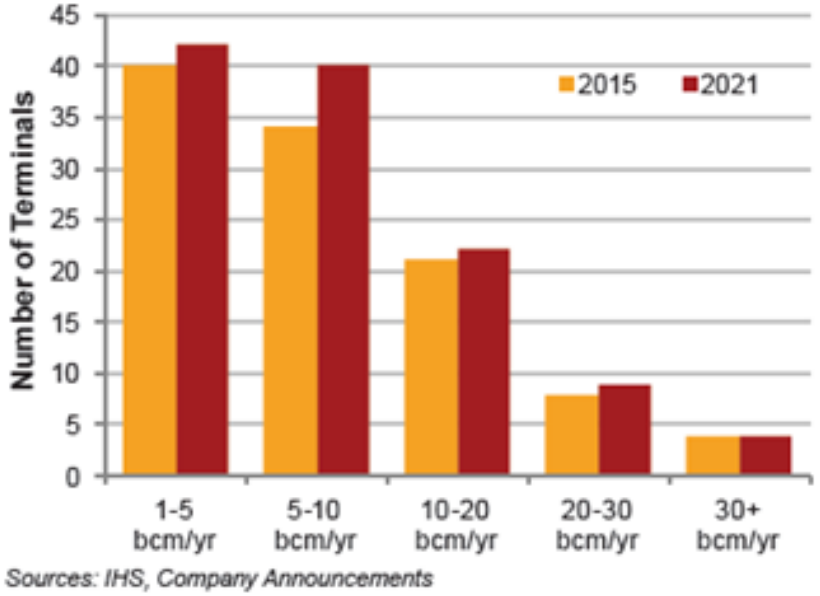
N-KOM Shipyard (Qatar)



N/KOM

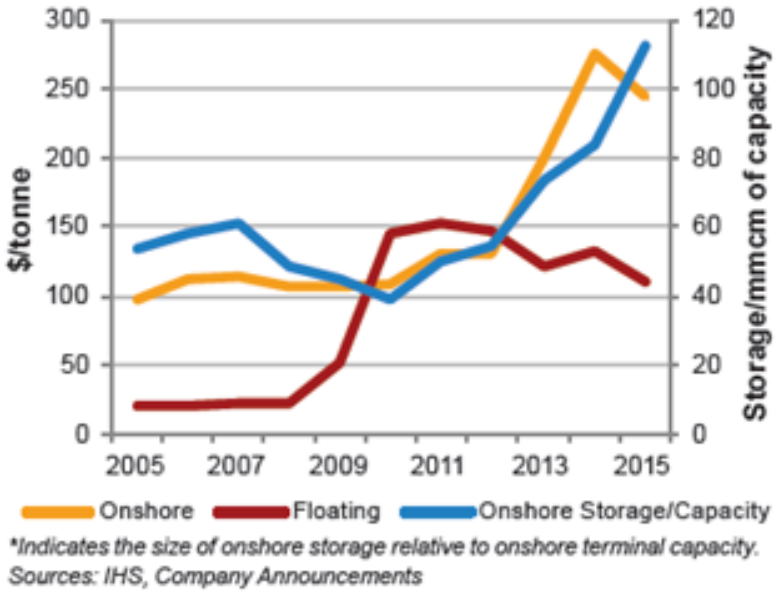
- Established in 2007
- JV between Qatar Gas Transport Company (Nakilat), and Keppel
- Performed 112 LNGC repairs as of June 2015

High Demand for FSRU



Sources: IHS, Company Announcements

Annual gas send-out capacity of increases until 2021



*Indicates the size of onshore storage relative to onshore terminal capacity.

Sources: IHS, Company Announcements

Regasification costs by FSRU remains low in 2015



FSRU Golar Spirit



FSRU Golar Winter



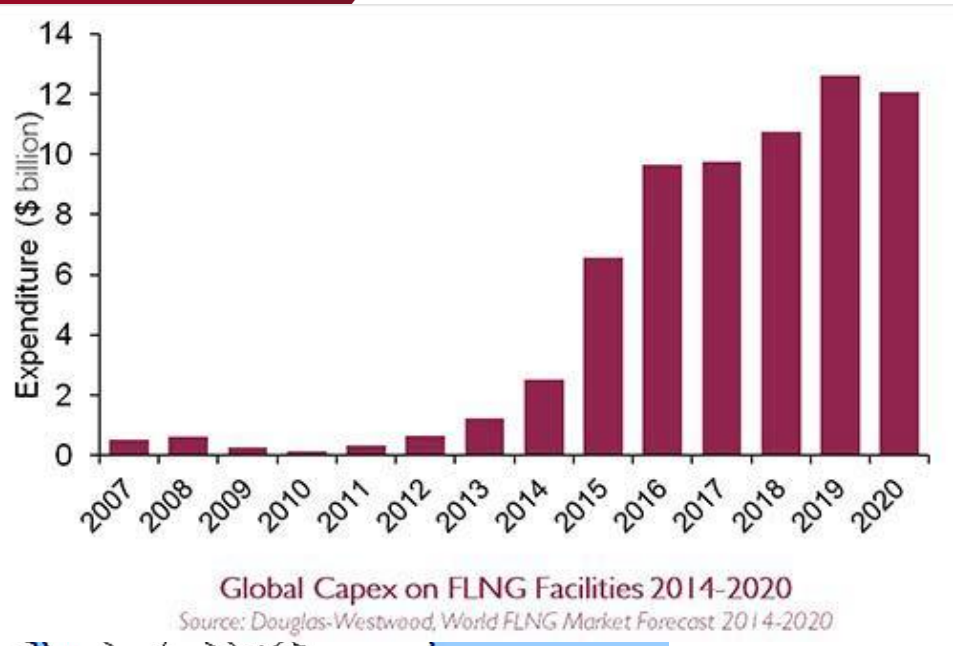
FSRU Golar Freeze

To Date, KSL has converted: 5 FSRU/FSU

LNG Portfolio

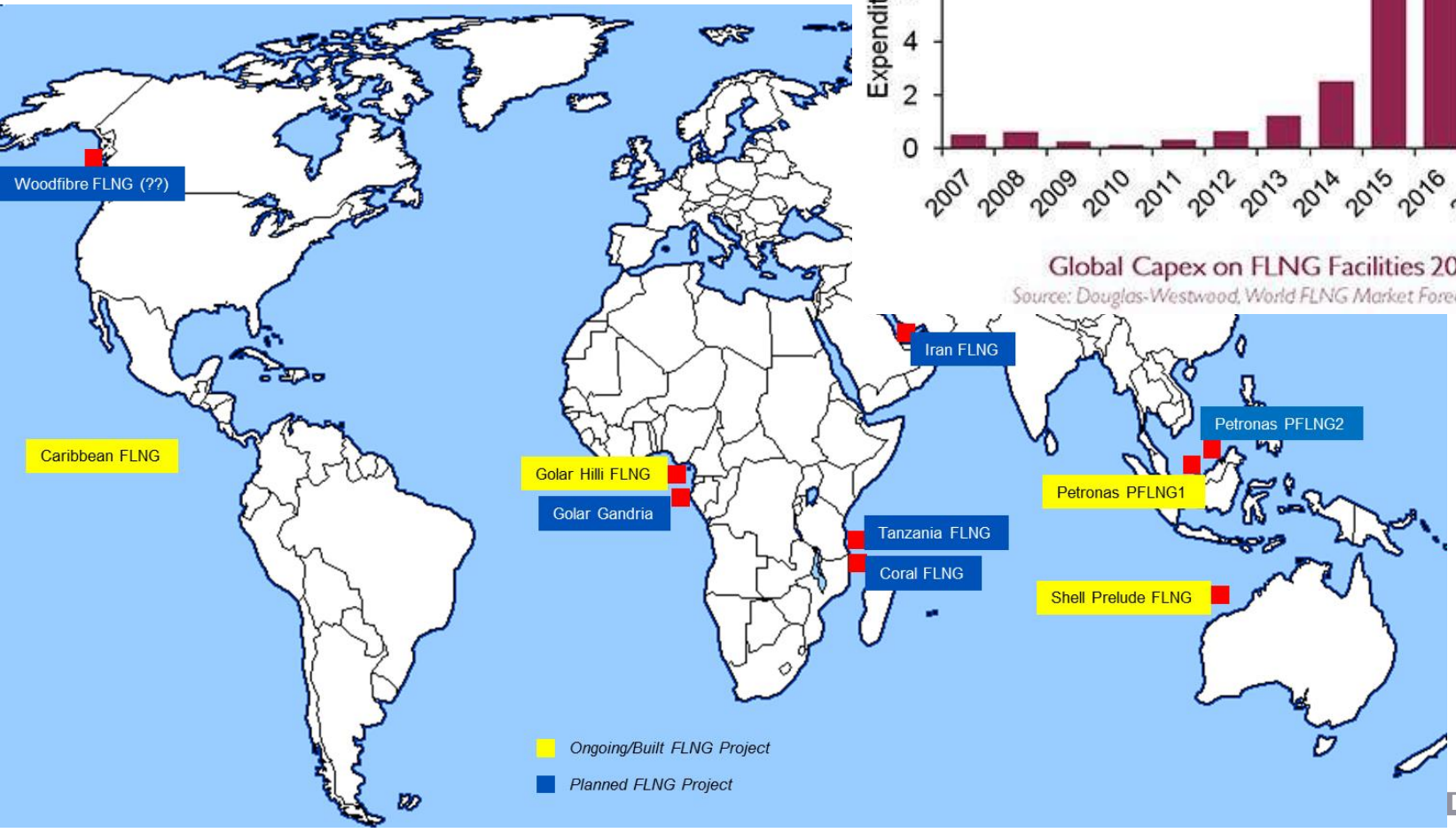
Keppel Gas Technology Development

FLNG Global Demand



Global Capex on FLNG Facilities 2014-2020

Source: Douglas-Westwood, World FLNG Market Forecast 2014-2020



LNG Portfolio

Keppel Gas Technology Development

Land-based PreNEx project in Batam, Indonesia

What is PreNEx?
Keppel's proprietary natural gas liquefaction technology that offers safe, simple and reliable alternative to other LNG processes, and can be used for offshore and onshore applications.

- In collaboration with PT NAT Gas, a subsidiary of Leedon NOX, PreNEx LNG plant is currently under construction.





- LNG Plant Location : Tanjung Uncang, Batam Island
- Liquefaction Plant Capacity : 50 ton/day
- Regas Site : Karimun Island
- Purpose : 10MW power generation at Karimun
- Project Developer & Owner : PT NAT Gas, Indonesia

FLNG Conversion

Gas to LNG

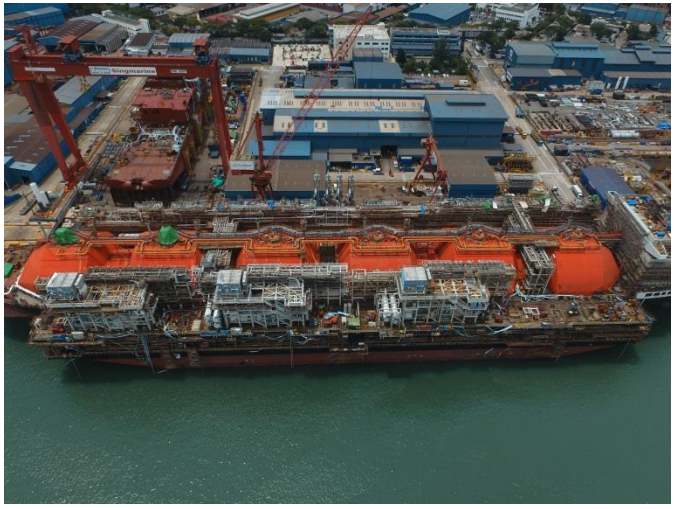
World's 1st Converted LNG solution with faster delivery timelines and more competitive pricing

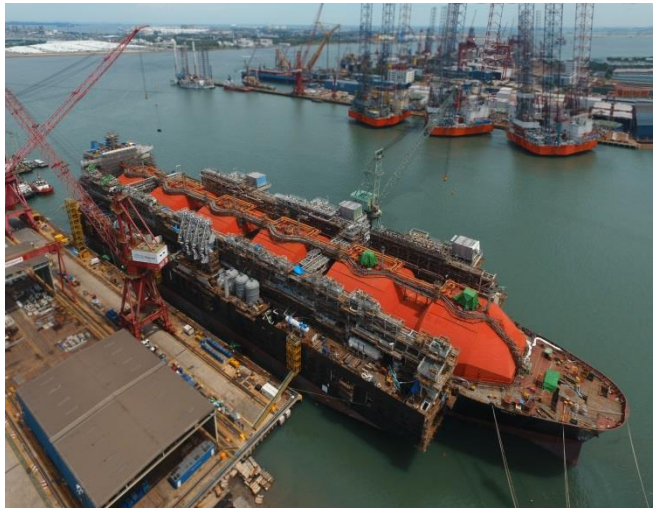


Golar FLNG Concept



Conversion progress in Keppel Shipyard





Keppel Gas Technology Development

LNG as a Marine Fuel

Engine Retrofitting

- Conversion from HFO to LNG-fueled engine
- EPC by Keppel Shipyard for ships ranging from LNG carrier to large container ships



65T BP LNG Fueled ASD Tug

- Innovative solution that won MPA International Design Award in 2014
- Creates early demand for LNG Bunkering in Singapore



LNG Bunkering License (SG)

- Leverage Shell's position as exclusive gas aggregator for Singapore
- Platform for Keppel to create pull through for our yards

LNG as Power Fuel

LNG to Users

Gas to Power

Transportation Solutions



3,000 cbm Non-Propelled Barge
Max. Draft: 3.8m



8,000/10,000 cbm Bunker Vessel
Max. Draft: 4.8 - 6m



12,000 cbm Shuttle Barge
Max. Draft: 3.5m



FSRU Barge

Storage Capacity up to 50,000cbm
Near shore/Jetty Solution



Power Barge

Scalable from 50MW

LNG Portfolio

Keppel Gas Technology Development

END