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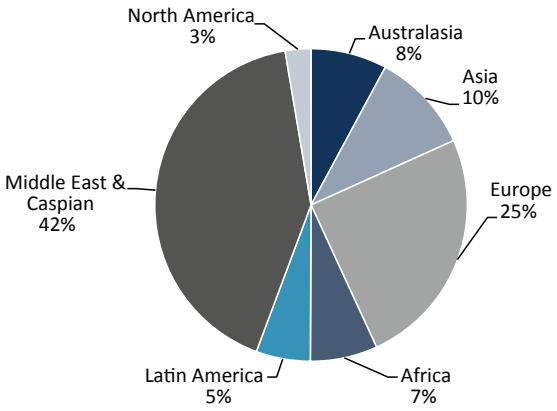
THE ENERGY ANALYSTS

Offshore LNG Market Report To 2018

Infield Systems is pleased to announce the launch of its latest ground-breaking publication - the second edition of its Offshore LNG Market Report To 2018. The launch of this report coincides with a particularly exciting time for this sector of the offshore oil and gas industry, with FLNG technology poised on the brink of remarkable growth. It is widely expected that the period to 2018 will mark the beginning of a more widespread use of this potentially market changing technology. Infield Systems' latest Offshore LNG report analyses the value of the LNG sector and the drivers for floating liquefaction and offshore regasification; as well as providing a regional assessment of the market outlook and an analysis of the number of stranded gas assets worldwide that could be suitable for development using FLNG technology.

Following the sanctioning of the world's first offshore LNG project, Shell's Prelude off North Western Australia in 2011, the much touted FLNG concept took its first steps to becoming reality. FLNG technology is expected to bring formerly stranded gas fields to the development table and align the global increase in natural gas demand with what is considered a more environmentally sustainable concept to onshore alternatives. As a result, a number of floating liquefaction and regasification projects are now in the planning stages across the globe. Indeed, the drivers for natural gas demand come from a variety of sources: Europe remains motivated by carbon emission reduction targets and an effort to diversify energy supplies; whilst China and India, expected to continue to lead global increases in energy demand, have also been subject to mounting pressure to implement emissions reduction policies and diversify their energy-mix. Indeed, Infield Systems expects natural gas to become more and more important in the global energy mix, given its lower carbon intensity compared with oil or coal, and reduced cost of production thanks to technological advances.

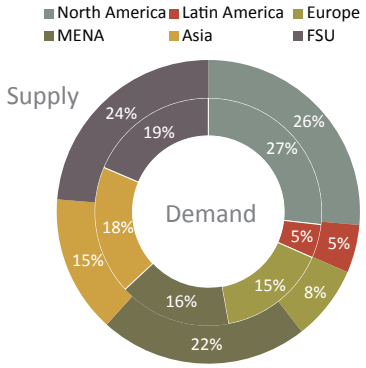


Undeveloped Offshore Gas Reserves by Region

Source: Offshore LNG Market Report 2018

As a result of this activity, Infield Systems expects capital expenditure (Capex) on the Floating Liquefied Natural Gas (FLNG) and offshore regasification markets to increase significantly over the period to 2018, with the majority of this spend being attributed to the more capital intensive FLNG projects. In the short to medium term, the majority of planned FLNG projects are concentrated in Australia and South East Asia. However, further potential projects are likely to be announced in North and South America, Africa and the Middle East.

Estimates suggest that there are over 2,000 trillion cubic feet (Tcf) of proven undeveloped offshore gas reserves in the world today. Infield Systems has sought to identify those reserves that hold the greatest potential to be developed using FLNG technology and, in doing so, has identified and grouped fields into prospective development clusters. In the short term, there are 257 development groups considered to hold the greatest potential, which are made up of over 1,000 fields, equating to over 340 Tcf of gas reserves. The majority of short term potential lies in Australasia, followed by South East Asia, West Africa and Latin America.



Global Gas Supply and Demand Pattern 2013-2018

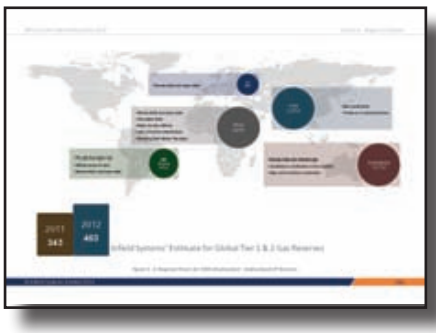
Source: Offshore LNG Market Report 2018

In contrast to the as yet undeveloped FLNG market, there are a number of existing operational platforms in the offshore regasification market. Infield Systems expects this market to show substantial increases in forecast Capex as a result of the large number of proposed global offshore LNG regasification projects. The number has increased significantly in recent years, driven by the surge in demand for natural gas from Asian markets where the majority of new terminals are forecast to be installed. The cost advantage and flexibility of floating regasification vessels in comparison to onshore terminals makes this an attractive option for operators. Whilst short term bearish market dynamics may delay the implementation of some of these projects, the positive longer term outlook for gas demand is likely to be a key driver in the development of regasification projects.

FLNG has the potential to make a significant impact on the global LNG market over the coming decade. Whilst the history of floating oil production facilities may also shed light on the prospects for FLNG; Since 1977 when the first FPSO was built, there are now some 150 in operation around the world, with 30-50 redeployments to date. At the moment, the FLNG market is on the cusp of remarkable growth as floating liquefaction projects under review are reaching FID, and new floating regasification projects continue to emerge.

Report Contents

- **Executive Summary** - provides a concise, comprehensive overview of the offshore LNG market sector. Here, the main drivers of the offshore LNG demand are discussed, whilst the expected major supply markets over the period to 2018 are highlighted. The executive summary provides the key figures, findings and conclusions of the report.
- **Macro Overview** reviews the drivers behind the gas industry. Examining global gas demand expectations over the forthcoming decade and the supply markets from which Infield Systems expects to see this increasing demand satisfied. In addition to an assessment of supply and demand dynamics, the Macro overview section also provides a forecast of global gas prices to 2020 and gives an overview of the key issues affecting the major regional gas markets. In addition, with the emerging markets of coalbed methane and in particular shale gas expected to play a significant role in the future prospects and competitiveness of floating LNG developments, this section provides an overview of these unconventional gas reserves and the potential impact of FLNG and offshore regasification.
- **Floating Liquefaction** provides an in-depth review of the FLNG market and an analysis of forecast Capex spend to 2018. This section provides a summary of the drivers for its development as well as the basics of FLNG design and fabrication. This section also includes an assessment of technological issues and a discussion of working relationships and varying business models being pursued, as well as details of prominent contractors and fabrication specialists and a full listing of prospective and potential FLNG projects worldwide. The forecast capital expenditure contains breakdowns by likelihood of development, region and project phase. This section also incorporates an overview of a number of key projects that look likely to see development activity in the next few years
- **Future Prospects** includes a full assessment of the number of potential FLNG developments that have been discovered to date. This has been achieved by analysis of Infield Systems' proprietary database of offshore gas fields. Suitable field clusters and related prospectivity have been determined by assessment of a number of factors, such as, size, location and environmental conditions.
- **Offshore Regasification** provides an overview of the key drivers for development, including energy security, seasonal gas demand and cost incentives. This section also highlights the key design concepts within the FSRU market and gives a description of proposed offshore concepts, an analysis of global forecast Capex spend to 2018 and a discussion of some key projects
- **Regional Outlook** provides FLNG Capex forecasts for each region (Africa, Asia, Australasia, Europe, Latin America, Middle East & Caspian and North America). This includes information on prospective FLNG developments by country, reserves and operator



Why You Should Buy This Report

- It provides an independent and up-to-date analysis of the offshore LNG sector, including a capital expenditure forecast to 2018 split by region and segment
- It contains the latest list of proposed FLNG projects according to their proposed field and operator. A list of proposed offshore regasification projects is also included, detailing proposed location and operator
- Infield Systems' unique offshore fields database and independent modelling process has been used to identify those potential gas reserves where FLNG technology could be the most suitable development solution
- It provides a breakdown region by region, country by country of FLNG prospects, by considering those gas reserves deemed more prospective in the short to mid-term.

Global & Regional Perspectives Market Reports

Infield Systems publishes a range of market reports covering various aspects and regions of the oil, gas, renewable energy and associated marine industries. Utilising comprehensive in-house project databases, industry models and research capacity, these reports are widely used by industry analysts and professionals:

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- FPSO
- Accommodation
- Subsea Well Intervention
- Remotely Operated Vehicles
- Offshore LNG
- Africa
- Arctic
- Asia
- Australasia
- Europe
- Latin America
- Middle East & Caspian
- North America

Report Contents List

About This Report

Number of Pages:	179
Number of Figures:	120
Number of Tables:	27

Online Database

Searchable Online Projects Database

Purchasers will receive 12 months' free access to an unique data set through InfieldLive. The data set will identify prospect gas reserves for offshore liquefaction development. This data set forms the basis of the model used in the report and groups fields into possible development groups. Groups included are those containing fields within a defined geographic proximity, having the same field operator and having total group gas reserves in excess of 0.5Tcf. The following items are listed for each of the 950 fields within the defined development group:

- Project Group Name
- Operator
- Field Name
- Date / Year On Stream
- Date / Year Discovered
- Depletion Date /Year
- Reserves
- Production Rates
- Location
- Water Depths
- Project Status
- High Temperature / High Pressure

Access is provided through InfieldLive which gives the user access to the latest published data from Infield's research team.

About Infield Systems

Infield Systems is an independent energy research and analysis company that is dedicated to the provision of accurate and up-to-date data, market reports, mapping, analysis and forecasts for the offshore oil and gas and associated marine industries. Infield Systems also prepares market due diligence on mergers, acquisitions and transactions for clients in the energy industry. Infield Systems services clients in over 40 countries, including: E&P companies, contractors, manufacturers, government agencies and financial institutions, and is widely acknowledged as the definitive independent source for information, research and analysis on the offshore energy sector.

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- Energy Sector Market Reports
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