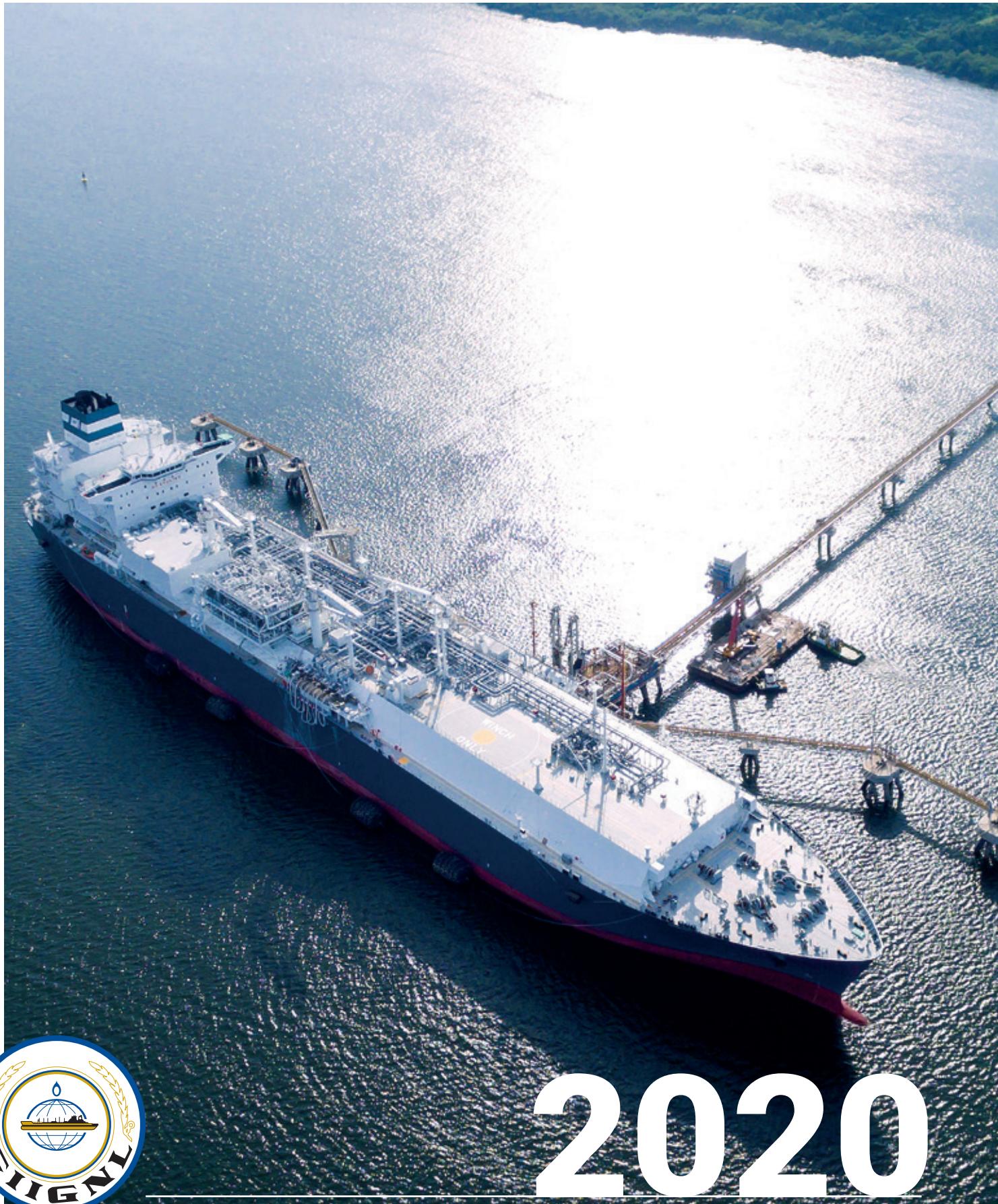


The LNG industry

GIIGNL Annual Report



2020



Profile

GIIGNL is a non-profit organisation whose objective is to promote the development of activities related to LNG: purchasing, importing, processing, transportation, handling, regasification and its various uses.

The Group constitutes a forum for exchange of information and experience among its 88 members in order to enhance the safety, reliability, efficiency and sustainability of LNG import activities and in particular the operation of LNG import terminals.

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- Yohei Hukins – Tokyo Gas
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- Emmanuelle Viton – Total
- Xinyi Zhang – Total



The LNG industry in 2019

"LNG will continue to be a flexible, safe, reliable and cleaner energy source"

Jean-Marie Dauger
President

Dear Colleagues,

In 2019, the LNG market grew at a vigorous 13.0% rate, reaching 354.7 MT, an expansion followed by mounting uncertainties since the start of 2020.

In the near term, the disruptive impact of the Covid-19 outbreak on the economies of importing countries will exert downward pressure on LNG demand in an already oversupplied market.

2019 marked an all-time record increase in annual LNG production, driven by new liquefaction trains and ramp-ups in the United States, Russia and Australia. Over the last three years, the industry has added more than 80 MTPA of new capacity and significant volumes are due to come online by 2025. Besides, 2019 was a record year for new investment decisions, which reached 71 MTPA worldwide by the end of the year.

Global LNG flows experienced a shift in patterns: Northeast Asian demand growth moderated due to economic slowdown, milder weather and competition from nuclear and coal-fired power generation, while most of additional LNG volumes were absorbed into Europe which played a balancing role thanks to its abundant infrastructure and well-connected gas market.

On the demand side, no new country joined the ranks of importers in 2019 but several countries made sound progress on infrastructure development and are set to begin importing in the coming years. In Asia, demand was characterized by two diverging trends: on the

one hand, it continued to be boosted by China despite the US-China trade frictions and the slowdown of the coal-to-gas switch in the industrial sector. On the other hand LNG demand declined in Japan and South Korea, where increasing levels of nuclear power generation and the pace of renewables deployment influenced the role of LNG in the power mix. In Europe, the absorption of surplus volumes was enabled by a combination of lower pipeline imports, declining domestic production, increased storage use and additional gas-fired power generation. Imports dwindled in the Middle East as Egypt increased its exports. The same dynamic occurred in South America as Argentina started LNG production and exports.

For LNG sellers and buyers, business models and contractual arrangements are becoming increasingly diversified. Traders continue to take advantage of seasonal and local supply tensions and integrated portfolio players are displaying impressive growth, aiming to bridge the disconnect between LNG seller and buyer interests. We see competing interests, a world in which sellers require long-term commitments to support their investments, whereas buyers need shorter contract durations, diversified pricing structures, increased destination flexibility and greater volume flexibility in order to manage demand uncertainty.

Looking further ahead, LNG will continue to be a flexible, safe, reliable and cleaner energy source to meet ever more flexible and climate-conscious demand. To allow natural gas to penetrate new markets, prices

need to remain at levels that make gas competitive with alternative fuels in downstream power and gas markets but, at the same time, support the significant investments needed in production, liquefaction, transportation, transmission and downstream infrastructure. A balance will have to be found, and in the end, the scale of new developments will depend on the industry's competitiveness, as well as on its ability to demonstrate its environmental benefits, in particular by increasing efforts to detect, measure and reduce methane emissions. Natural gas's effective contribution in quickly improving air quality and curbing carbon emissions should be key in positioning LNG as an enduring part of the energy mix and as a pragmatic and lower-carbon solution for the future, while new gases will begin to take advantage of the versatility of LNG infrastructure.

In 2019, LNG commercial operations passed the mark of 100,000 delivered cargoes without major incident, showing an incredible track-record of safety. As we enter a new decade and as GIIGNL is approaching its 50th anniversary, our association remains committed to promoting cooperation between LNG players and to supporting the development of safe, efficient and sustainable LNG imports for a responsible energy transition.

Yours sincerely,

Jean-Marie Dauger
President



Key figures 2019

354.7 MT

imported vs. 313.8 MT in 2018

+13%

growth vs. 2018

21
exporting
countries

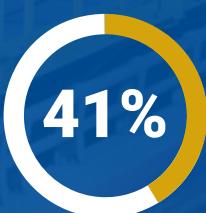
42
importing
countries

7 new LNG
regasification
terminals



of global LNG
demand in Asia

920 MTPA
total regasification capacity



of global LNG volumes
supplied from the
Pacific Basin

427 MTPA
total liquefaction capacity

119 MT

imported on a spot or
short-term basis or
34% of total trade



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LNG trade in 2019

In 2019, global LNG imports reached **354.7 million tons (MT)**, increasing by 40.9 MT or **13.0%** compared to the previous year, the strongest growth rate since 2010.

Argentina exported its first LNG cargo from the Tango FLNG small-scale facility in June 2019, increasing the number of exporting countries to 21*.

The number of importing countries remained unchanged, at 42**.

Strongest LNG supply growth since 2010 thanks to the Atlantic Basin

As in 2018, new LNG supply volumes were mostly driven by new production from the United States (+13.1 MT), Russia (+11 MT) and Australia (+8.7 MT). Most exporting countries experienced an increase in their supply exports, except for three countries: Indonesia (-2.7 MT), Equatorial Guinea (-0.7 MT) due to feed gas issues and Norway (-0.5 MT) due to maintenance requirements.

5 new large-scale liquefaction projects started commercial operations in 2019: 4 onshore in the United States (Cameron LNG Train 1, Corpus Christi LNG, Freeport LNG Train 1 and Elba Island) and 1 FLNG in Australia (Prelude FLNG). In addition, 2 small-scale liquefaction plants started-up exports: 1 onshore in Russia (Vysotsk LNG) and 1 floating unit in Argentina (Tango FLNG).

The Pacific Basin remains the largest source of LNG supplies to the global market with 146.7 MT or 41.3% of the total global market, followed by the Atlantic Basin (32.2%) and the Middle East (26.5%). Due to the increase in production from Australia, the gap between supply from the Pacific Basin and the Middle East has widened, from 45 MT in 2018 to almost 53 MT in 2019.

The Atlantic Basin was the region contributing the most to incremental volumes (+30 MT or almost three quarters of new volumes). With 114.2 MT, the Atlantic Basin is now the second largest source of LNG supply ahead of the Middle East (93.9 MT).

Europe absorbs most of the LNG oversupply

In 2019, Asia continued to be the leading importing region with a 69% share of global LNG imports, down from 76% in 2018. Asian LNG imports grew

by 3.2% in 2019 to 246.2 MT, rising in all countries except in the established importing countries of Japan, South Korea and Taiwan. Even though Japanese LNG imports declined by 6.8% in 2019 compared to 2018, Japan remains the leading importing country with 76.9 MT or a 21.7% market share. The main reasons for declining LNG imports in Japan were a slowdown of economic growth, the restart of several nuclear power units and mild temperatures. Like Japan, South Korea also experienced a decline in LNG imports, from 44 MT in 2019 to 40.1 MT, remaining the third largest LNG importer in the world and accounting for 11.3% of global market share. The main reasons for the decline were better nuclear generation performance, mild weather and high inventories at the beginning of the year.

In 2019, China experienced continued growth of LNG imports, although at a slower pace (+14% compared with +38% in 2018) but the country remains the second largest LNG importer globally, with 61.7 MT or a 17.4% market share (similar to the market share of 2018). In China, the main reasons for the slowdown of year-on-year growth of LNG imports were the moderating economic growth rate, general easing of coal-to-gas switching efforts, acceleration of domestic production, as well as the rising share of renewables.

In other Asian countries, LNG consumption continued to grow strongly: in Bangladesh, imports grew by more than 500% thanks to the start-up of a second FSRU, from 0.7 MT in 2018 to 4.1 MT in 2019. Imports also increased by 1.3 MT in Malaysia (+93.8%), +1.2 MT in Pakistan (+18.1%), + 0.7 MT in Singapore (+28.7%). In India, where the lack of downstream infrastructure remained a constraint, a 7% year-on-year growth of LNG imports was nevertheless recorded.

2019 was a record year for Europe, which experienced a growth in net LNG imports of 75.6% com-



of US volumes delivered to Europe,
37% to Asia, 21% to Americas.

+ 14%

increase in Chinese LNG imports,
compared with + 38% in 2018.

34%

of volumes imported on
a spot or short-term basis.

* including Yemen whose exports have been halted since 2015 due to the political unrest.

** Gibraltar started receiving LNG in 2019 but the territory was not added to the number of importing countries due to its specific status. Russia inaugurated a FSRU in Kaliningrad but it had not been importing yet at the time of this writing.

pared to 2018, reaching 85.9 MT or an increase of 37.0 MT. All LNG importing countries in Europe increased their LNG imports, the three largest importers being Spain (15.7 MT), followed by France (15.6 MT) and the United Kingdom (13.6 MT). The increase of volumes imported into Europe represented over 90% (37 MT) of the global increase in LNG imports, with the region acting as a balancing market for the oversupplied global market. Europe was able to absorb these new additional volumes thanks to its ability to inject gas in underground gas storages and as a result of continued coal-to-gas switch in power generation.

Imports into the American region decreased by 8.6% (1.5 MT), the total of LNG imports in 2019 reaching 15.7 MT, down from 17.2 MT in 2018. With 4.9 MT imported, Mexico remained the largest LNG importer in the American region, accounting for a total market share of 31%, followed by Chile (2.5 MT or 15.6%). Argentina experienced the largest decline in the region (-1.4 MT) because of the increase in domestic gas production.

LNG imports into the Middle East decreased again in 2019, with deliveries falling by 23.9% (-2.2 MT). Jordan experienced a decline by almost half (-1.1 MT). In Egypt, the ramp-up of new production has allowed for a complete reduction of LNG imports.

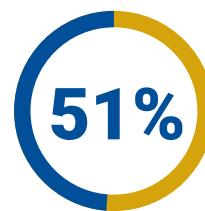
Spot and Short-term share stable in a fast growing market

In 2019, LNG continued to commoditize but the share of spot and short-term volumes increased at a slower rate than in 2018 due to the start of several long-term contracts from the United States and Australia. Spot and short-term volumes increased by 19.7 MT (+19.8%), reaching 119 MT or 34% of total trade compared with 32% (99.3 MT) in 2018. Similarly to 2018, this expansion was mainly supported by the ramp-up of flexible volumes from the United States and from Australia and by the rise of LNG volumes handled by traders and portfolio players, who are seeking to optimize their portfolios and to manage volume risk by purchasing and selling LNG under more flexible conditions.

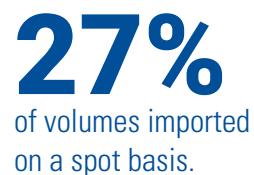
The United States has become the number one exporter of flexible LNG, accounting for 20% of the spot and short-term volumes, followed by Australia with a 16.7% market share. Despite supplying 77.8 MT to the global market, Qatar's share of the spot and short-term market has declined to 5% from 11.7% in 2018 and 19.7% in 2017.

"True" spot volumes (i.e. volumes delivered within three months from the transaction date) reached 27% of total imports in 2019 or 95 MT, compared with 25% of total imports in 2018.

Due to the convergence of European and Asian prices, arbitrage opportunities were more scarce in 2019. As a result re-exports have sharply decreased to 1.6 MT in 2019 compared to 3.8 MT in 2018. In 2019, 12 countries re-exported LNG and 20 countries received re-exported volumes. Europe accounted for 58% of the re-exported volumes (0.91 MT). As in 2017 and 2018, France retained the largest market share (39% or 0.61 MT) followed by Singapore (26% or 0.41 MT).



of Russian volumes delivered to Europe, 46% to Asia, 2% to the Middle East.



27%
of volumes imported on a spot basis.

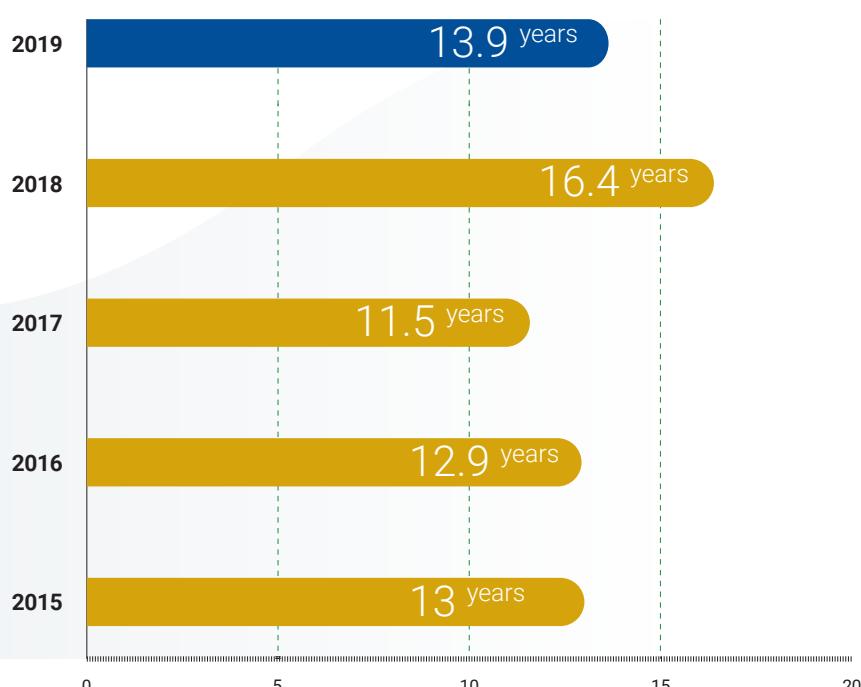


Contracts concluded in 2019

Type	Buyer	Import country	Seller	Source	ACQ. (MTPA)	Duration (years)	Start	Delivery Format
Long & Medium Term Contracts (> 4 years)	Bharat Petroleum Corporation	India	Mozambique LNG1 Co.	Mozambique / Mozambique LNG	1.0	15	Expected in 2024/2025	
	BP Gas Marketing	Multiple	Pacific Oil & Gas	Canada / Woodfibre LNG	0.75	15	Expected in 2023	FOB
	CAPCO and HK Electric	Hong Kong	Shell Eastern Trading	Portfolio			2022	DES
	Centrica / Tokyo Gas	Multiple	Mozambique LNG1 Co.	Mozambique / Mozambique LNG	2.6	15+	Expected in 2024/2025	DES
	CMA CGM	Marine fuel	Total	Portfolio	0.27	10	2021	
	CNOOC Gas and Power Singapore Trading & Marketing	China	Mozambique LNG1 Co.	Mozambique / Mozambique LNG	1.5	13	Expected in 2024/2025	
	ExxonMobil, Eni, CNPC, ENH, Galp and KOGAS	Multiple	Mozambique Rovuma Venture	Mozambique / Rovuma LNG	15.2			
	GS Caltex	South Korea	Chevron	Portfolio			Oct. 2019	
	Guanghui Energy	China	Total	Portfolio	0.7	10	Jun. 2020	DES
	JERA / CPC	Japan / Taiwan	Mozambique LNG1 Co.	Mozambique / Mozambique LNG	1.6	17	Expected in 2024/2025	DES
	KOGAS	South Korea	BP	US / Freeport LNG or Calcasieu Pass	1.58	15(+3)	2025	
	KOMIPO	South Korea	Petronas	Portfolio	0.24	5	2020	DES
	Ørsted	NWE + Iberia	BP	Portfolio	0.39	5	Late 2020	DES
	PGNiG	Poland	Venture Global	US / Plaquemines LNG	1.5	20	Expected in 2023	
	Posco	Multiple	PT. Pertamina (Persero)	Portfolio		5	Dec. 2019	FOB/DES
	PT. Pertamina (Persero)	Multiple	Mozambique LNG1 Co.	Mozambique / Mozambique LNG	1	20	Feb. 2019	DES
	Republic of Benin	Benin	Total	Portfolio	0.5	15	Jan. 2021	DES
	Shell International Trading Middle East	Multiple	Mozambique LNG1 Co.	Mozambique / Mozambique LNG	2.0	13	2024	
	Shell NA LNG	Multiple	NextDecade	US / Rio Grande LNG	2.0	20	2024	FOB
	Tohoku Electric	Japan	Diamond Gas International, a subsidiary of Mitsubishi Corporation	US / Cameron LNG	0.2	18	Jan. 2022	DES
	Tokyo Gas	Japan	Shell Eastern Trading	Portfolio	Approx. 0.5	10	Apr. 2020	DES
	Total	Multiple	Driftwood LNG	US / Driftwood LNG	1	30	Jan. 2025	FOB
	Total	Multiple	Tellurian Marketing	US / Driftwood LNG	1.5	15	Jan. 2025	FOB
	Uniper Global Commodities	Multiple	Woodside Energy Trading Singapore	Portfolio	0.5 (2021-2024) 1 (2025-2034)	13	2021	
	Vitol	Multiple	Nigeria LNG	Nigeria	0.5	10	2021	DES
	Zhejiang Provincial Energy Group	China	ExxonMobil	Portfolio	1.0	20		
Short Term Contracts (< 4 yrs)	BP	Multiple	ADNOC LNG	UAE	0.5	2	2020	FOB
	Clean Energy	China	Shizuoka Gas	Japan / Shimizu LNG Terminal in the form of ISO tank containers	1,600 tonnes	3		
	Top Speed Energy Corp.	China	FortisBC	Canada / Tilbury LNG facility	53,000 tonnes	2	2020	
	Total	Multiple	ADNOC LNG	UAE	0.5	2	Apr. 2020	DES
	Unipec Singapore (Sinopec)		PNG LNG Project co-venturers		0.45	4	2019	

Type	Buyer	Import country	Seller	Source	ACQ. (MTPA)	Duration (years)	Start	Delivery Format
Contract Modification	DEPA SA	Greece	Sonatrach	Algeria	0.44	1	Jan. 2019	CIF
	PPT ET Singapore Pte. Ltd.	Multiple	PT. Pertamina (Persero)	United States	0.38-0.76	3	Aug. 2019	FOB
	Aramco Services Company	Multiple	Port Arthur LNG	USA	5.0	20	TBD	FOB
	Delta Offshore Energy	Vietnam	Magnolia LNG	US / Magnolia LNG	2.0	20		FOB
	ENN Group	China	Woodside	Portfolio	1.0	10	Jan. 2025	FOB/DES
	Gunvor	Multiple	Commonwealth LNG	US / Commonwealth LNG	1.5	15		
Heads of Agreement	JERA	Multiple	Diamond Gas International, a subsidiary of Mitsubishi Corporation	Canada / LNG Canada	1.2	15	2024	DES
	Korea East-West Power	South Korea	Petronas	Portfolio	0.6	10	2024	DES
	Repsol	Spain	Novatek Gas & Power Asia	Russia / Arctic LNG 2 & Portfolio	1.0	15		DES
	Sumitomo Joint Electric Power	Japan	Tokyo Gas	Portfolio	Approx. 0.17	5	Apr. 2021	DES
	Total	Multiple	Arctic LNG-2	Russia	1.98	20	Jul. 2023	FOB
	Vitol	Multiple	Novatek Gas & Power Asia	Russia / Arctic LNG 2 & Portfolio	1.0	15		FOB
	Petronet LNG	India	Tellurian	US / Driftwood	5.0			
Memorandums of Understanding								
Terminal Capacity	Total		Freeport LNG	US / Freeport LNG train 3	2.2	20	Expected in 2020	

AVERAGE DURATION OF LONG & MEDIUM TERM CONTRACTS IN YEARS



Medium-term and long-term contracts in force in 2019*

Export Country	Loading Point	Seller	Buyer	ACQ (MTPA)	Duration	Delivery Format	Comments
ATLANTIC BASIN							
Algeria	Skikda-Bethioua	Sonatrach	Botas	4	1994/2024	DES	ACQ 1994 - 2014: 3.2 MTPA; 2015 - 2024: 4 MTPA
	Skikda-Bethioua	Sonatrach	Cepsa Gas	0.77	2002/2022	DES	
	Skikda-Bethioua	Sonatrach	DEPA	0.72	2000/2021	CIF	ACQ reduced to 0.44 only for 2019
	Skikda-Bethioua	Sonatrach	Enel	0.15	1999/2022	DES	Delivery under the «GDF SUEZ / Enel» swap agreement
	Skikda-Bethioua	Sonatrach	Endesa	0.3	2000/2019	DES	
	Skikda-Bethioua	Sonatrach	Total	1.5	1972/2020	DES	
Cameroon	Kribi	SNH	Gazprom	1.2	2018/2026	FOB	
	Damietta	SEGAS	BP	1	2005/2025	FOB	
Egypt	Damietta	SEGAS	Union Fenosa Gas	3	2005/2030	FOB	
	Idku	ELNG T1	Total	3.6	2005/2025	FOB	
	Idku	ELNG T2	Shell	3.6	2006/2026	FOB	
Equatorial Guinea	Punta Europa	EGLNG	Shell	3.4	2007/2024	FOB	
Nigeria	Bonny Island	Nigeria LNG T1 & 2	Botas	0.91	1999/2021	DES	
	Bonny Island	Nigeria LNG T1 & 2	Enel	2.65	1999/2021	DES	
	Bonny Island	Nigeria LNG T1 & 2	Galp Energia	0.26	2000/2020	DES	
	Bonny Island	Nigeria LNG T1 & 2	Naturgy Energy Group	1.17	1999/2021	DES	
	Bonny Island	Nigeria LNG T1 & 2	Total	0.33	1999/2021	DES	
	Bonny Island	Nigeria LNG T3	Galp Energia	0.73	2003/2023	DES	
	Bonny Island	Nigeria LNG T3	Naturgy Energy Group	1.99	2002/2024	DES	
	Bonny Island	Nigeria LNG T4 & 5	Endesa	0.75	2006/2026	DES	
	Bonny Island	Nigeria LNG T4 & 5	ENI	1.15	2006/2026	DES	
	Bonny Island	Nigeria LNG T4 & 5	Galp Energia	1.42	2006/2026	DES	
	Bonny Island	Nigeria LNG T4 & 5	Pavilion Energy	0.38	2006/2026	DES	
	Bonny Island	Nigeria LNG T4 & 5	Shell	2.3	2006/2026	DES	
	Bonny Island	Nigeria LNG T4 & 5	Shell	1.13	2006/2026	DES	
	Bonny Island	Nigeria LNG T4 & 5	Total	0.23	2006/2029	DES	
Norway	Bonny Island	Nigeria LNG T6	Shell	3.1	2008/2027	DES	
	Bonny Island	Nigeria LNG T6	Total	0.9	2008/2029	DES	
	Hammerfest	Equinor	Equinor	1.75	2007/2021	DES	
	Hammerfest	Equinor	Iberdrola	1.13	2006/2025	DES	From 2020 under Pavilion Energy Portfolio
	Hammerfest	Neptune Energy	Total	0.5	2007/depletion	FOB	
	Hammerfest	Total	Total	0.7	2007/depletion	FOB	
Russia	Hammerfest	-	RWE Supply & Trading	0.06-0.12	2010 depletion	FOB	
	Sabetta	Yamal LNG	CNPC	3	2018/2038	DES	
	Sabetta	Yamal LNG	Gazprom Marketing & Trading	2.9	2018/2038	FOB	
	Sabetta	Yamal LNG	Naturgy Energy Group	2.5	2018/2038	DES	
	Sabetta	Yamal LNG	Novatek	2.5	2018/2038	FOB	

(*) Duration above 4 years

Export Country	Loading Point	Seller	Buyer	ACQ (MTPA)	Duration	Delivery Format	Comments
Trinidad & Tobago	Point Fortin	Atlantic LNG T2 & 3	BP	0.85	2002/2021	FOB	
	Point Fortin	Atlantic LNG T2 & 3	ENGIE	0.35	2002/2023	FOB	
	Point Fortin	Atlantic LNG T2 & 3	Naturgy Energia	0.74	2003/2023	FOB	Naturgy/Naturgas swap Naturgy buys 0.74 MTPA on a FOB basis until 2023
	Point Fortin	Atlantic LNG T2 & 3	Naturgy Energy Group	0.65	2003/2023	FOB	
	Point Fortin	Atlantic LNG T2 & 3	Shell	1.7	2003/2023	FOB	
	Point Fortin	Atlantic LNG T2 & 3	Shell	2	2006/2023	FOB	
	Point Fortin	Atlantic LNG T4	BP	2.5	2006/2026	FOB	
	Point Fortin	Atlantic LNG T4	Shell	1.5	2006/2026	FOB	
	Point Fortin	Atlantic LNG T4	Shell	1.15	2014/2026	FOB	
	Point Fortin	BP	AES	0.75	2003/2023	DES	Related to BP/ALNG T2 & 3 contract
United States	Point Fortin	ENGIE	Ecolectrica	0.6	2000/2020	DES	Related to ENGIE/ALNG T1 contract
	Cameron	Cameron LNG	Mitsubishi	4	2019/2039	Tolling	
	Cameron	Cameron LNG	Mitsui	4	2019/2039	Tolling	
	Cameron	Cameron LNG	Total	4	2019/2039	Tolling	
	Cameron	Mitsui	Toho Gas	0.3	2019/2039	DES	
	Cameron	Mitsui	Total	0.5	2019/2029	FOB	
	Cameron	Total	CPC	0.8	2019/2039	DES	
	Cameron	Total	Marubeni	0.5	2019/2039	FOB	
	Cameron	Total	Tohoku Electric	0.27	2019/2039	DES	
	Corpus Christi	Cheniere	Cheniere Marketing	Excess from Corpus Christi	2019+	FOB	
	Corpus Christi	Cheniere	Endesa	2.25	2019/2039	FOB	Volume referred to the aggregate quantity of two SPAs. Start of deliveries in June 2019
	Corpus Christi	Cheniere	Iberdrola	0.8	2019/2040	FOB	Bridging volumes under SPA began in 2019 for ~0.4 MTPA. Full volumes begin in 2020.
	Corpus Christi	Cheniere	Pertamina	0.76	2019/2039	FOB	
	Cove Point	GAIL GLOBAL (USA) LNG	GAIL	2.3	2018/2038	FOB	
	Cove Point	Pacific Summit Energy	Kansai Electric Group	0.8	2018/2037	FOB	
	Cove Point	ST Cove Point	Tokyo Gas Group	1.4	2018/2037	FOB	
	Cove Point	ST Cove Point	Pacific Summit Energy	0.9	2018/2037	FOB	
	Freeport	Freeport LNG	Osaka Gas	2.3	2019/2039	Tolling	
	Freeport	Freeport LNG	JERA	2.3	2019/2039	Tolling	
	Freeport	Osaka Gas	Uniper	1.0	2019/2039	FOB	
	Sabine Pass	Cheniere	Centrica	1.75	2019/2039	FOB	
	Sabine Pass	Cheniere	Cheniere Marketing	Excess from Sabine Pass	2016+	FOB	
	Sabine Pass	Cheniere	GAIL	3.5	2018/2038	FOB	
	Sabine Pass	Cheniere	KOGAS	3.5	2017/2037	FOB	KOGAS resells part (0.7 MTPA) to Total
	Sabine Pass	Cheniere	Naturgy Energy Group	3.5	2017/2037	FOB	
	Sabine Pass	Cheniere	Shell	5.5	2016/2036	FOB	
	Sabine Pass	Cheniere	Total	2.0	2019/2039	FOB	

(*) Duration above 4 years

Medium-term and long-term contracts in force in 2019*

Export Country	Loading Point	Seller	Buyer	ACQ. (MTPA)	Duration	Delivery Format	Comments
MIDDLE EAST							
Oman	Qalhat	Oman LNG	BP	1.13	2018/2024	FOB	
	Qalhat	Oman LNG	Itochu	0.7	2006/2025	FOB	
	Qalhat	Oman LNG	KOGAS	4.06	2000/2024	FOB	
	Qalhat	Oman LNG	Osaka Gas	0.66	2000/2024	FOB	
	Qalhat	Qalhat LNG	Mitsubishi	0.8	2006/2020	FOB	
	Qalhat	Qalhat LNG	Osaka Gas	0.8	2009/2026	FOB	
	Qalhat	Qalhat LNG	Union Fenosa Gas	1.65	2006/2025	DES	
Qatar	Ras Laffan	Qatargas I	Chugoku Electric, JERA, Kansai Electric, Osaka Gas, Toho Gas, Tohoku Electric, Tokyo Gas	2	1998/2021	DES	
	Ras Laffan	Qatargas I	JERA	4	1997/2021	DES	
	Ras Laffan	Qatargas I	JERA	1	2012/2021	DES	
	Ras Laffan	Qatargas I	Naturgy Energy Group	0.75	2005/2024	DES	
	Ras Laffan	Qatargas I	Naturgy Energy Group	0.75	2006/2025	FOB	
	Ras Laffan	Qatargas I	Shizuoka Gas	0.2	2016/2021	DES	Tripartite SPA (Qatar Liquefied Gas, JERA and Shizuoka Gas)
	Ras Laffan	Qatargas II T1	Pakistan State Oil	3.75	2016/2031	DES	
	Ras Laffan	Qatargas II T1/T2	Petrochina	3.4	2018/2040	DES	
	Ras Laffan	Qatargas II T2	Total	1.85	2009/2034	DES	
	Ras Laffan	Qatargas II T2	Total	1.5	2009/2034	DES	
	Ras Laffan	Qatargas III	CNOOC	2	2011/2035	DES	
	Ras Laffan	Qatargas III	JERA	0.7	2013/2028	DES	
	Ras Laffan	Qatargas III	Kansai Electric	0.5	2013/2027	DES	
	Ras Laffan	Qatargas III	PGNiG	1.1	2015/2034	DES	
	Ras Laffan	Qatargas III	PGNiG	0.9	2018/2034	DES	
	Ras Laffan	Qatargas III	PTT	2	2015/2029	DES	
	Ras Laffan	Qatargas III	RWE Supply & Trading	1.1	2016/2023	DES	
	Ras Laffan	Qatargas III	Tohoku Electric	0.06-0.09	2016/2030	DES	
	Ras Laffan	Qatargas IV	Centrica	3	2014/2023	DES	Extension of the previous 4 and a half years contract Nominal quantity (ACQ) 2014/2018: 3 MTPA; 2019/2023: 2 MTPA
	Ras Laffan	Qatargas IV	Marubeni	1	2011/2031	DES	
	Ras Laffan	Qatargas IV	Petrochina	3	2011/2036	DES	
	Ras Laffan	Qatargas IV	Petronas	1.14	2014/2023	DES	Extension of the previous 5 years contract Nominal quantity (ACQ) 2014/2018: 1.14 MTPA; 2019/2023: 1.1 MTPA
	Ras Laffan	Qatargas IV	Shell	Up to 1.1	2019/2023	DES	
	Ras Laffan	RasGas I	Endesa	0.75	2005/2025	DES	
	Ras Laffan	RasGas I	KOGAS	4.92	1999/2024	FOB	
	Ras Laffan	RasGas II T1	Petronet LNG	5	2004/2028	FOB	
	Ras Laffan	RasGas II T2	Edison	4.6	2009/2034	DES	
	Ras Laffan	RasGas II T3	CPC	3	2008/2032	FOB	
	Ras Laffan	RasGas II T3	EDF Trading	3.4	2007/2027	DES	Extended to 2027
	Ras Laffan	RasGas II T3	ENI	2.05	2007/2027	DES/FOB	Former Distrigas contract
	Ras Laffan	RasGas III T1	EDF Trading	Up to 2	2017/2021	DES	
	Ras Laffan	RasGas III T1	KOGAS	2.1	2007/2026	DES	
	Ras Laffan	RasGas III T1	Petronet LNG	2.5	2009/2028	FOB	

(*) Duration above 4 years

Export Country	Loading Point	Seller	Buyer	ACQ. (MTPA)	Duration	Delivery Format	Comments
Qatar	Ras Laffan	RasGas III T2	CPC	1.5	2013/2032	DES	
	Ras Laffan	RasGas III T2	KOGAS	2	2012/2032	DES	
	Ras Laffan	RasGas III T2	Petrobangla	2.5	2018/2033	DES	
	Ras Laffan	RasGas III T2	Petronet LNG	1	2016/2028	FOB	Assigned in favour of GAIL, IOCL, BPCL and GSPC
Yemen	Balhaf	Yemen LNG T1 & 2	Total	2	2009/2029	DES	
	Balhaf	Yemen LNG T2	Total	2.55	2009/2029	FOB	
PACIFIC BASIN							
Australia	Withnell Bay		Chugoku Electric	1.43	2009/2021	DES	
	Withnell Bay		GDLNG	3.3	2006/2031	FOB	
	Withnell Bay		JERA	0.5	2009/2019	DES	
	Withnell Bay		JERA	0.3	2009/2024	DES	
	Withnell Bay		JERA	0.6	2009/2029	DES	
	Withnell Bay	Woodside, Shell, BHP, BP Australia, Chevron, Japan Australia LNG (Mitsubishi & Mitsui)	Kansai Electric	0.5-0.93	2009/2024	DES	
	Withnell Bay		Kansai Electric	0.2-0.44	2009/2024	DES	
	Withnell Bay		Kyushu Electric	0.7	2009/2023	FOB	
	Withnell Bay		Kyushu Electric	0.5	2006/2021	DES	
	Withnell Bay		Osaka Gas	1	2004/2033	FOB	
	Withnell Bay		Shizuoka Gas	0.13	2004/2029	FOB	
	Withnell Bay		Toho Gas, Tokyo Gas	1.37	2004/2029	FOB	
	Withnell Bay		Toho Gas	0.76	2009/2019	DES	
	Withnell Bay		Tohoku Electric	1	2010/2019	DES	
	Withnell Bay		Tokyo Gas	0.53	2017/2024	DES	
	Darwin	ConocoPhillips, Santos, ENI, INPEX, JERA, Tokyo Gas	JERA, Tokyo Gas	3	2006/2022	FOB	
	Darwin	Ichthys LNG	CPC	1.75	2018/2032	DES	
	Darwin	Ichthys LNG	INPEX	0.9	2018/2032	FOB	
	Darwin	Ichthys LNG	JERA	0.5	2018/2032	FOB	
	Darwin	Ichthys LNG	Tokyo Gas, JERA, Kansai Electric, Osaka Gas, Kyushu Electric	4	2018/2032	FOB	
	Darwin	Ichthys LNG	Total	0.9	2018/2033	FOB	
	Darwin	Ichthys LNG	JERA, Toho Gas	0.77	2019/2034	FOB	
	Pluto	Pluto LNG	Kansai Electric	1.75~2	2011/2025	FOB/DES	
	Pluto	Pluto LNG	Tokyo Gas	1.5	2011/2025	FOB/DES	
	Prelude	CPC	CPC	0.18	2019+	FOB	
	Prelude	KOGAS	KOGAS	0.36	2019+	FOB	
	Prelude	INPEX	INPEX	0.63	2019+	FOB	
	Prelude	Shell	Shell	2.43	2019+	FOB	
	Curtis Island	OCLNG	CNOOC	3.6	2014/2034	DES	
	Curtis Island	OCLNG	Shell	3.8	2014/2034	FOB	
	Curtis Island	OCLNG	Tokyo Gas	1.2	2015/2035	DES	
	Curtis Island	GLNG	KOGAS	3.5	2016/2036	FOB	
	Curtis Island	GLNG	PETRONAS	3.5	2015/2035	FOB	
	Curtis Island	APLNG	Kansai Electric	1	2016/2035	FOB	
	Curtis Island	APLNG	Sinopec	7.6	2016/2036	FOB	
	Barrow Island	Chevron	GS Caltex	0.5	2016/2036	DES	
	Barrow Island	Chevron	JERA	1.44	2015/2039	FOB/DES	
	Barrow Island	Chevron	JX Nippon Oil & Energy Corporation	0.3	2015/2030	DES	

(*) Duration above 4 years

Medium-term and long-term contracts in force in 2019*

Export Country	Loading Point	Seller	Buyer	ACQ. (MTPA)	Duration	Delivery Format	Comments
Australia	Barrow Island	Chevron	Kyushu Electric	0.3	2015/2029	DES	
	Barrow Island	Chevron	Osaka Gas	1.375 + 0.1875	2014/2039	FOB	
	Barrow Island	Chevron	SK Group	0.83	2017/2021	FOB	SK will receive 4.15 MTPA of LNG over a five-year period starting in 2017
	Barrow Island	Chevron	Tokyo Gas	1.1 + 0.15	2014/2039	FOB	
	Barrow Island	ExxonMobil	Petrochina	2.25	2016/2036	DES	
	Barrow Island	ExxonMobil	Petronet LNG	1.4	2016/2036	DES	
	Barrow Island	Shell	BP	0.5	2016/2036	FOB	
	Ashburton North	Chevron, Kufpec, Woodside	JERA	2.2	2017/2036	DES	Total ACQ (DES) 2017~2018: 1.7 MTPA 2018~2027: 3.3 MTPA
	Ashburton North	Chevron, Kufpec, Woodside	JERA	0.9	2017/2036	FOB	
	Ashburton North	Chevron, Kufpec, Woodside	JERA	0.4	2017/2036	DES (Equity+Inc.)	
Brunei	Ashburton North	Chevron, Kufpec, Woodside	JERA	0.7	2017/2036	FOB	Nominal quantity (ACQ) 2018: 0.4 MTPA; 2019: 0.7 MTPA; 2020: 0.8 MTPA; 2021~: 1 MTPA
	Ashburton North	Chevron, Kufpec, Woodside	Kyushu Electric	0.70 + 0.13	2017/2036	FOB	
	Ashburton North	Chevron, Kufpec, Woodside	Tohoku Electric	0.92	2017/2036	DES	
	Ashburton North	PE Wheatstone	JERA	0.7	2017/2036	DES	Nominal quantity (ACQ) 2017~2018: 0.5 MTPA 2018~2027: 0.7 MTPA
	Lumut	Brunei LNG	JERA, Osaka Gas, Tokyo Gas	3.4	2013/2023	DES	
	Lumut	Brunei LNG	Petronas	0.9	2013/2023	DES	
	Lumut	Brunei LNG	Shell	0.8	2013/2023	FOB	
Indonesia	Bontang	Pertamina, ENI Muara bakau	ENI	1	2017/2027	FOB	Nominal quantity (ACQ) 2011-2015: 3 MTPA; 2016-2020: 2 MTPA
	Bontang	Pertamina, ENI Muara bakau	Pertamina	1.4	2017/2024	FOB	
	Bontang	Pertamina, IDB Bangka	Pertamina	Various	2016/2021	FOB	2019: 0.29 MTPA; 2020: 0.06 MTPA; 2021: 0.06 MTPA
	Bontang	Pertamina	JERA, Kansai Electric, Kyushu Electric, Nippon Steel Corporation, Osaka Gas, Toho Gas	2	2011/2020	DES/FOB	
	Bontang	Pertamina	Nusantara Regas	Various	2012/2022	FOB	2016-2020: 1 MTPA; 2021-2022: 0.8 MTPA
	Bontang	Pertamina	PPT ETS	0.8	2019/2025	FOB	
	Donggi-Senoro	PT Donggi-Senoro LNG	JERA	1	2015/2027	DES	
	Donggi-Senoro	PT Donggi-Senoro LNG	KOGAS	0.7	2015/2027	FOB	
	Donggi-Senoro	PT Donggi-Senoro LNG	Kyushu Electric	0.3	2015/2028	DES	
	Tangguh	Tangguh PSC Contractor Parties	CNOOC	2.6	2009/2033	FOB	
	Tangguh	Tangguh PSC Contractor Parties	Kansai Electric	1	2014/2035	DES	
	Tangguh	Tangguh PSC Contractor Parties	PLN	1.5	2015/2033	DES	
	Tangguh	Tangguh PSC Contractor Parties	Posco	0.55	2005/2024	DES	
	Tangguh	Tangguh PSC Contractor Parties	Sempra LNG	3.7	2008/2029	DES	3.4 MTPA divertible
	Tangguh	Tangguh PSC Contractor Parties	SK E&S	0.6	2006/2026	DES	
	Tangguh	Tangguh PSC Contractor Parties	Tohoku Electric	0.12	2010/2024	DES	

(*) Duration above 4 years

Export Country	Loading Point	Seller	Buyer	ACQ. (MTPA)	Duration	Delivery Format	Comments
Malaysia	Bintulu	Malaysia LNG Satu	Hiroshima Gas	0.1	2016/2026	FOB	
	Bintulu	Malaysia LNG Satu	Saibu Gas	0.45	2014/2028	DES/FOB	
	Bintulu	Malaysia LNG Satu	Shikoku Electric	0.36	2010/2025	DES	
	Bintulu	Malaysia LNG Dua	CPC	2	2015/2020	DES	
	Bintulu	Malaysia LNG Dua	Gas Bureau, City of Sendai	0.16	2018/2027	DES	
	Bintulu	Malaysia LNG Dua	JERA	0.4	2011/2031	DES	
	Bintulu	Malaysia LNG Dua	JX Nippon Oil & Energy Corporation	0.38	2015/2025	DES	
	Bintulu	Malaysia LNG Dua	Shizuoka Gas	0.33	2016/2025	DES	
	Bintulu	Malaysia LNG Dua	Tohoku Electric	0.37	2016/2026	DES	
	Bintulu	Malaysia LNG Dua	Tokyo Gas	0.9	2015/2025	DES	
	Bintulu	Malaysia LNG Tiga	CNOOC	3	2009/2029	DES	
	Bintulu	Malaysia LNG Tiga	Japan Petroleum Exploration Co.	0.48	2002/2021	DES	
	Bintulu	Malaysia LNG Tiga	KOGAS	2	2008/2028	DES	
	Bintulu	Malaysia LNG Tiga	Osaka Gas, Toho Gas, Tokyo Gas	0.8	2004/2024	DES/FOB	Up to 1.6 MTPA
	Bintulu	Malaysia LNG Tiga	Toho Gas	0.52	2007/2027	DES	
	Bintulu	Malaysia LNG Tiga	Tohoku Electric	0.5	2005/2025	DES	
	Bintulu	Malaysia LNG	Osaka Gas	0.8	2009/2023	DES	
	Bintulu	Malaysia LNG	Tokyo Gas	0.5	2018/2031	FOB/DES	Nominal quantity (ACQ) 2018-2023: up to 0.5 MTPA; 2024-2031: up to 0.9 MTPA
	Bintulu	Malaysia LNG	Hokuriku Electric	0.4	2018/2028	DES	
Papua New Guinea	Port Moresby	PNG LNG	CPC	1.2	2014/2033	DES	
	Port Moresby	PNG LNG	JERA	1.8	2014/2034	DES/FOB	
	Port Moresby	PNG LNG	Osaka Gas	1.5	2014/2034	DES/FOB	
	Port Moresby	PNG LNG	Sinopec	2	2014/2034	DES	
Peru	Pamba Melchorita	Peru LNG	Shell	4.2	2014/2028	FOB	
	Prigorodnoye	Sakhalin Energy Investment	CPC	0.75	2017/2022	DES	
	Prigorodnoye	Sakhalin Energy Investment	Gazprom Global LNG	1	2009/2028	DES	
	Prigorodnoye	Sakhalin Energy Investment	Hiroshima Gas	0.21	2008/2028	FOB	
	Prigorodnoye	Sakhalin Energy Investment	JERA	1.5	2009/2029	FOB	
	Prigorodnoye	Sakhalin Energy Investment	JERA	0.5	2011/2026	DES	
	Prigorodnoye	Sakhalin Energy Investment	KOGAS	1.5	2008/2028	FOB	
	Prigorodnoye	Sakhalin Energy Investment	Kyushu Electric	0.5	2009/2031	DES	
Russia	Prigorodnoye	Sakhalin Energy Investment	Osaka Gas	0.2	2008/2031	FOB	
	Prigorodnoye	Sakhalin Energy Investment	Saibu Gas	0.065	2014/2027	DES	
	Prigorodnoye	Sakhalin Energy Investment	Shell	1	2009/2028	DES	
	Prigorodnoye	Sakhalin Energy Investment	Toho Gas	0.5	2009/2033	DES	
	Prigorodnoye	Sakhalin Energy Investment	Tohoku Electric	0.42	2010/2030	FOB	
	Prigorodnoye	Sakhalin Energy Investment	Tokyo Gas	1.1	2007/2031	FOB	

(*) Duration above 4 years

Portfolio contracts

Export Country	Seller	Buyer	ACQ (MTPA)	Duration	Delivery Format	Comments
BP Portfolio	BP	CPC	0.7	2017/2021	DES	
	BP	JERA	8	2014/2028	DES	
	BP	Kansai Electric	0.5	2017/2031	DES	
	BP	Kansai Electric	*	2015/2038	DES	*Total maximum quantity of LNG during contract duration: approx 13 MT
	BP	Kuwait Petroleum Corporation	0.5	2014/2020	DES	
	BP	PTT	1	2017/2037	DES	
	BP	Pavilion Energy	0.4	2020-2040	DES/FOB	
Centrica Portfolio	Centrica	PGNiG	Up to 9 cargoes	2018/2023	DES	
Cheniere Portfolio	Cheniere	PetroChina	1.2	2018/2043	N/A	Two SPAs with an aggregate volume of ~1.2 MTPA. A portion began in 2018. The balance will begin in 2023. Both continue through to 2043.
	Cheniere	PGNiG	1.45	2019/2043	DES	
	Cheniere	Trafigura	1	2019/2034	FOB	
	Cheniere	Vitol	0.7	2018/2033	FOB	
Chevron Portfolio	Chevron	CPC	1.12	2017/2022	DES	
	Chevron	JOVO	0.5	2018/2023	DES	
	Chevron	Pertamina	0.2	2016/2022	FOB	
ENI Portfolio	ENI	Pavilion Energy	0.5	2012/2025	DES	Pavilion Energy novation of Iberdrola contract
	ENI	Pakistan LNG Limited	0.75	2017/2032	DES	
	ENI	Uniper	0.58	2007/2022	DES	
Equinor Portfolio	Equinor	Litgas	0.256	2015/2025	DES	
GAIL Portfolio	GAIL	Shell	0.5	2018/2022	FOB	LNG is sourced from Sabine Pass
Gazprom Portfolio	Gazprom	EGAS	35 cargoes during 5 years	2015/2020		
	Gazprom	GAIL	2.5	2018/2041		
Gunvor Portfolio	Gunvor	Pakistan LNG Limited	12 cargoes per year	2017/2022	DES	60 cargoes in total - New MT contract
Iberdrola Portfolio	Iberdrola	BP	0.38	2012/2021		From 2020 under Pavilion Energy
	Iberdrola	Ørsted	0.72	2011/2021	DES	From 2020 under Pavilion Energy
JERA Portfolio	JERA	INPEX	*	2013/2024	DES	*Total quantity of LNG during contract duration: 17 cargoes
	JERA	Shizuoka Gas	0.26	2014/2032	DES	
Kansai Electric Portfolio	Kansai Electric	Total	0.4	2018/2023	FOB	LNG is sourced from Cove Point
Kyushu Electric Portfolio	Kyushu Electric	Nippon Gas	0.05	2016/2031	DES	
Mitsui Portfolio	Mitsui	Hokkaido Gas	3 cargoes per year	2019/2028	DES	
Naturgy Portfolio	Naturgy Energy Group	BHP Billiton	0.5	2016/2021	DES	
	Naturgy Energy Group	Endesa	0.75	2016/2036	DES	
	Naturgy Energy Group	Repsol	0.7	2016/2036	FOB	
Novatek Portfolio	Novatek	Gunvor		2018/2038	FOB	
	Novatek	Shell	0.9	2018/2038	FOB	
	Novatek	Total	1	2018/2040	DES	
Osaka Gas Portfolio	Osaka Gas	Hiroshima Gas	0.05-0.13	2016/2031	DES	
	Osaka Gas	Nippon Gas	0.08	2006/2026	DES	
	Osaka Gas	Shizuoka Gas	0.3	2015/2034	DES	
Petronas Portfolio	Petronas LNG	JOVO	0.5	2016/2023	DES	
	Petronas LNG	PTT	1.2	2017/2031	DES	
	Petronas LNG	Toho Gas	0.42-0.54	2017/2027	DES	

(*) Duration above 4 years

Export Country	Seller	Buyer	ACQ (MTPA)	Duration	Delivery Format	Comments
Shell Portfolio	Shell	BBE	~0.8	2003/2023		
	Shell	CFE	~3.08	2011/2027	DES	
	Shell	CNOOC	5	2015/2035	DES	LNG is sourced from Australia and the USA
	Shell	CPC	2	2017/2036	DES	
	Shell	DUSUP	1	2010/2025	DES	
	Shell	Total	0.4	2014/2034	DES	
	Shell	GNL Chile	3	2009/2030	DES	Includes the contract with Enel Chile (subsidiary of Enel Group)
	Shell	GSPC	Up to 2.5	2015/2035	DES	
	Shell	JERA	*	2014/2034	DES	*Maximum 12 cargoes per year
	Shell	JERA	0.4	2014/2034	DES	
	Shell	JX Nippon Oil & Energy Corporation	0.2	2012/2029	DES	LNG is sourced from Nigeria, Russia and Australia
	Shell	KOGAS	3.64	2013/2038	DES	
	Shell	Kuwait Petroleum Corporation		2014/2019	DES	
	Shell	Naturgy Energy Group	1.16	2006/2023	DES	
	Shell	NEPCO	1.1	2015/2020	DES	
Tokyo Gas Portfolio	Shell	Osaka Gas	~0.8	2012/2038	DES	
	Shell	Petrochina	2	2016/2036	DES	
	Shell	PTT	1	2017/2032	DES	
	Shell	Singapore LNG	3	2013/2033	DES	
	Shell	SOCAR	0.3	2016/2026	DES	
	Tokyo Gas	Hokkaido Gas	0.3~0.4	2012/2023	DES	
	Tokyo Gas	Saibu Gas	0.3	2014/2029	DES	
	Total	AES (Dominican Republic)	0.7	2018/2030	DES	
	Total	AES (Panama)	0.4	2018/2028	DES	
	Total	CNOOC	1-1.5	2010/2029	DES	Extension to 1.5 MTPA as from 2020
Total Portfolio	Total	Engie Energia Chile	0.27	2012/2026	DES	
	Total	Engie Energia Chile	0.2	2018/2032	DES	
	Total	INPEX	0.2	2018/2032	DES	
	Total	Kansai Electric	0.4	2018/2032	DES	
	Total	KOGAS	2	2014/2031	DES	
	Total	Pavilion Energy	0.14	2018/2028	FOB	
	Total	Chugoku Electric	0.4	2019/2036	DES	
	Total	Shell	0.5	2019/2023	DES	
	Total	Shell	0.5	2019/2024	DES	
	Total	ENN	0.5	2019/2028	DES	
Vitol Portfolio	Vitol	KOMIPO	0.4	2015/2024		
Woodside Portfolio	Woodside	RWE Supply & Trading	0.3-0.6	2017/2022	DES	
	Woodside Trading Singapore	Pertamina	0.5-1	2019/2038	DES	

(*) Duration above 4 years

LNG shipping

601
vessels at the
end of 2019

The total LNG tanker fleet consisted of **601 vessels** at the end of 2019. It included **37 FSRUs**. **46 vessels** had a capacity of less than 50,000 cubic meters. Total cargo capacity at the end of 2019 stood at 89.7 million cubic meters. Total operational capacity (vessels known to be in service) amounted to 86.1 million cubic meters.

In 2019, the average spot charter rate for a 160,000 cubic meters LNG carrier stood at \$69,337/day, compared to an average \$88,692/day in 2018.

A total of **44 vessels were delivered** into the fleet in 2019 while 62 units were ordered, including 10 vessels of less than 50,000 cubic meters, compared with 77 new orders placed in 2018. The orderbook consisted of 152 units of 22.6 million cubic meters including 7 FSRUs at the end of 2019. The orderbook represented 25% of the existing LNG carrier fleet. 53 of the vessels on order were scheduled for delivery in 2020.

LNG CARRIERS SCRAPPED IN 2019

2 ships were demolished during the year:

Built	Vessel Name	IMO Number	Type	Capacity (m³)	CCS*	Owner	Builder	Manager
1977	Sunrise	7359670	LNG Carrier	129,299	Membrane	Dian Kemala	Ch. de France	Dian Kemala
1980	Mourato	7400704	LNG Carrier	126,130	Membrane	Unknown	Ch. de l'Atlantique	Hyproc Shipping Co.

LNG CARRIERS LAID-UP, IDLE OR OTHERWISE OUT OF SERVICE AT THE END OF 2019

29 vessels were laid-up, idle or otherwise out of service at the end of the year. In addition, 2 vessels were idle, awaiting conversion:

Built	Vessel Name	IMO Number	Type	Capacity (m³)	CCS*	Owner	Builder	Manager
1981	Lucky FSU (ex Tenaga Dua)	7428469	LNG Carrier	130,000	Membrane	Dalian Inteh Group	Ch. de France	Dalian Inteh Group
1981	Fortune FSU (ex Tenaga Tiga)	7428471	LNG Carrier	130,000	Membrane	Dalian Inteh Group	Ch. de France	Dalian Inteh Group

LNG CARRIERS DELIVERED IN 2019

44 ships were delivered during the year, including 4 FSRUs and 2 ships of less than 50,000 cubic meters. The average capacity of vessels delivered (excluding FSRUs and ships of less than 50,000 cubic meters) amounted to 173,827 cubic meters.

Built	Vessel Name	IMO Number	Type	Capacity (m³)	CCS*	Owner	Builder	Manager
2019	GasLog Gladstone	9744025	LNG Carrier	174,000	Membrane	GasLog	Samsung HI	GasLog
2019	Pan Africa	9750256	LNG Carrier	174,000	Membrane	Teekay LNG Partners	Hudong Zhonghua	Teekay Shpg. (Gia)
2019	Nikolay Urvantsev	9750660	LNG Carrier	172,597	Membrane	Arctic Purple LNG	Daewoo (DSME)	MOL LNG Europe
2019	Yakov Gakkel	9750672	LNG Carrier	172,658	Membrane	Teekay Corp CLNG JV	Daewoo (DSME)	Teekay Corp CLNG JV
2019	Nikolay Yevgenov	9750725	LNG Carrier	172,625	Membrane	Teekay Corp CLNG JV	Daewoo (DSME)	Teekay Corp CLNG JV
2019	Vladimir Voronin	9750737	LNG Carrier	172,608	Membrane	Teekay Corp CLNG JV	Daewoo (DSME)	Teekay Shpg. (Gia)
2019	Georgiy Ushakov	9750749	LNG Carrier	172,652	Membrane	Teekay Corp CLNG JV	Daewoo (DSME)	Teekay Corp CLNG JV
2019	Energy Glory	9752565	LNG Carrier	166,686	Other	Nippon Yusen Kaisha	JMU Tsu Shipyard	NYK LNG Shipmngt.

Built	Vessel Name	IMO Number	Type	Capacity (m³)	CCS*	Owner	Builder	Manager
2019	Maran Gas Chios	9753014	LNG Carrier	173,548	Membrane	Maran Gas Maritime	Daewoo (DSME)	Maran Gas Maritime
2019	Woodside Chaney	9753026	LNG Carrier	173,579	Membrane	Maran Gas Maritime	Daewoo (DSME)	Maran Gas Maritime
2019	Energy Innovator	9758832	LNG Carrier	166,571	Other	Mitsui OSK Lines	JMU Tsu Shipyard	MOL LNG Transport
2019	Energy Universe	9758844	LNG Carrier	166,637	Other	Mitsui OSK Lines	JMU Tsu Shipyard	MOL LNG Transport
2019	Marvel Pelican	9759252	LNG Carrier	156,265	Moss	Mitsui OSK Lines	Kawasaki HI Sakaide	Mitsui OSK Lines
2019	Marvel Kite	9760782	LNG Carrier	174,000	Membrane	Nippon Yusen Kaisha	Samsung HI	MMS Co Ltd
2019	British Listener	9766566	LNG Carrier	173,644	Membrane	BP Shipping	Daewoo (DSME)	BP Shipping
2019	British Mentor	9766578	LNG Carrier	173,644	Membrane	BP Shipping	Daewoo (DSME)	BP Shipping
2019	British Sponsor	9766580	LNG Carrier	173,644	Membrane	BP Shipping	Daewoo (DSME)	BP Shipping
2019	Maran Gas Hydra	9767962	LNG Carrier	173,617	Membrane	Maran Gas Maritime	Daewoo (DSME)	Maran Gas Maritime
2019	Nikolay Zubov	9768526	LNG Carrier	172,636	Membrane	Dynagas LNG	Daewoo (DSME)	Dynagas LNG
2019	Saga Dawn	9769855	LNG Carrier	45,000	Membrane	Saga LNG Shpg Pte.	CMHI (Jiangsu)	Saga LNG Shpg Pte.
2019	Marvel Crane	9770438	LNG Carrier	177,627	Moss	Nippon Yusen Kaisha	MHI Nagasaki	NYK Shipmngt. Pte.
2019	Marvel Heron	9770440	LNG Carrier	177,000	Moss	Mitsui OSK Lines	MHI Nagasaki	Mitsui OSK Lines
2019	Yamal Spirit	9781920	LNG Carrier	174,174	Membrane	Teekay LNG Partners	Hyundai Samho HI	Teekay Bermuda
2019	Shinshu Maru	9791200	LNG Carrier	177,481	Moss	Nippon Yusen Kaisha	Kawasaki HI Sakaide	NYK LNG Shipmngt.
2019	Sohshu Maru	9791212	LNG Carrier	177,474	Moss	Mitsui OSK Lines	Kawasaki HI Sakaide	MOL LNG Transport
2019	BW Pavilion Aranda	9792606	LNG Carrier	173,400	Membrane	BW Gas	Daewoo (DSME)	BW Fleet Mngt
2019	Nohshu Maru	9796781	LNG Carrier	180,000	Moss	Mitsui OSK Lines	MHI Nagasaki	Mitsui OSK Lines
2019	Bushu Maru	9796793	LNG Carrier	180,000	Moss	Nippon Yusen Kaisha	MHI Nagasaki	NYK LNG Shipmngt.
2019	Diamond Gas Sakura	9810020	LNG Carrier	165,000	Moss	Nippon Yusen Kaisha	MHI Nagasaki	NYK LNG Shipmngt.
2019	Woodside Rees Withers	9810367	LNG Carrier	173,400	Membrane	Maran Gas Maritime	Daewoo (DSME)	Maran Gas Maritime
2019	Maran Gas Andros	9810379	LNG Carrier	173,400	Membrane	Maran Gas Maritime	Daewoo (DSME)	Maran Gas Maritime
2019	Prism Agility	9810549	LNG Carrier	180,024	Membrane	SK Shipping	Hyundai HI (Ulsan)	SK Shipping
2019	Prism Brilliance	9810551	LNG Carrier	180,016	Membrane	SK Shipping	Hyundai HI (Ulsan)	SK Shipping
2019	GasLog Warsaw	9816763	LNG Carrier	180,000	Membrane	GasLog	Samsung HI	GasLog
2019	Flex Constellation	9825427	LNG Carrier	173,400	Membrane	FLEX LNG	Daewoo (DSME)	FLEX Fleet Mngt.
2019	Flex Courageous	9825439	LNG Carrier	173,400	Membrane	FLEX LNG	Daewoo (DSME)	FLEX Fleet Mngt.
2019	Rias Baixas Knutsen	9825568	LNG Carrier	180,041	Membrane	Knutsen OAS Shipping	Hyundai HI (Ulsan)	Knutsen OAS Shipping
2019	SM Jeju LNG1	9830745	LNG Carrier	7,654	Membrane	Korea Line	Samsung HI	KLC SM
2019	Adriano Knutsen	9831220	LNG Carrier	179,981	Membrane	Knutsen OAS Shipping	Hyundai HI (Ulsan)	Knutsen OAS Shipping
2019	LNG Dubhe	9834296	LNG Carrier	174,000	Membrane	Mitsui OSK Lines	SCS Shipbuilding	Mitsui OSK Lines
2019	BW Paris	9368302	FSRU	171,793	Membrane	BW Gas	Keppel Shipyard	BW Fleet Mngt
2019	BW Magna	9792591	FSRU	173,400	Membrane	BW Gas	Daewoo (DSME)	BW Fleet Mngt
2019	Hoegh Galleon	9820013	FSRU	170,000	Membrane	Hoegh LNG	Samsung HI	Hoegh LNG Fleet M.
2019	Turquoise	9823883	FSRU	170,000	Membrane	Pardus Energy	Hyundai HI (Ulsan)	WSM Malaysia

FSRU fleet

The total FSRU fleet consisted of **37 units** at the end of 2019. Total FSRU cargo capacity at the end of 2019 stood at around 5.7 million cubic meters. The orderbook comprised 7 FSRUs and 4 of these vessels were scheduled for 2020 delivery.

FSRU FLEET AT THE END OF 2019

Built	Vessel Name	Storage Capacity (m³)	CCS*	Nominal Send-out Capacity (MTPA)	Owner	Builder	Location
1977/2010	Golar Freeze	125,000	Moss	3.6	Golar LNG	Keppel Shipyard	Old Harbour, Jamaica
1977/2012	Nusantara Regas Satu (ex Khannur)	125,000	Moss	3.0	Golar LNG	Jurong Shipyard	Nusantara, Indonesia
1981/2008	Golar Spirit	129,000	Moss	1.8	Golar LNG	Keppel Shipyard	Laid up
2003/2013	FSRU Toscana (ex Golar Frost)	137,500	Moss	2.8	OLT Offshore	Drydocks World Dubai	Toscana, Italy
2004/2009	Golar Winter	137,000	Membrane	3.8	Golar LNG	Keppel Shipyard	Bahia, Brazil
2005	Excellence	138,000	Membrane	3.8	Excelerate Energy	DSME	Moheshkhali, Bangladesh
2005	Excelsior	138,000	Membrane	3.5	Excelerate Energy	DSME	Hadera, Israel
2006	Summit LNG (ex Excelerate)	138,000	Membrane	3.8	Excelerate Energy	DSME	Summit LNG, Bangladesh
2008	Explorer	150,900	Membrane	6.0	Excelerate Energy	DSME	Jebel Ali, Dubai, UAE
2009	Express	151,000	Membrane	3.8	Excelerate Energy	DSME	Ruwais, Abu Dhabi, UAE
2009	Exquisite	150,900	Membrane	4.8	Nakilat-Excelerate Energy	DSME	Port Qasim Karachi, Pakistan
2009	Neptune (ex GDF Suez Neptune)	145,130	Membrane	3.7	Höegh LNG	SHI	LNGC
2010	Cape Ann (ex GDF Suez Cape Ann)	145,130	Membrane	3.7	Höegh LNG	SHI	LNGC
2010	Exemplar	150,900	Membrane	4.8	Excelerate Energy	DSME	LNGC
2010	Expedient	150,900	Membrane	5.2	Excelerate Energy	DSME	GNL Escobar, Argentina
2014	Experience	173,400	Membrane	6.0	Excelerate Energy	DSME	Pecem, Brazil
2014	Golar Eskimo	160,000	Membrane	3.8	Golar LNG	SHI	Aqaba, Jordan
2014	Golar Igloo	170,000	Membrane	5.8	Golar LNG	SHI	Mina Al Ahmadi, Kuwait
2014	Höegh Gallant	170,000	Membrane	2.8	Höegh LNG	HHI	LNGC
2014	Independence	170,000	Membrane	4.0	Höegh LNG	HHI	Klaipeda, Lithuania
2014	PGN FSRU Lampung	170,000	Membrane	2.9	Höegh LNG	HHI	Lampung LNG, Indonesia
2015	BW Singapore	170,000	Membrane	5.7	BW Gas	SHI	Sumed, Egypt
2015	Golar Tundra	170,000	Membrane	5.5	Golar LNG	SHI	LNGC
2016	Höegh Grace	170,000	Membrane	4.0	Höegh LNG	HHI	Cartagena, Colombia
2017	BW Integrity	170,000	Membrane	5.0	BW Gas	SHI	Port Qasim GasPort, Pakistan
2017	Höegh Giant	170,000	Membrane	3.7	Höegh LNG	HHI	LNGC
2017	MOL FSRU Challenger	263,000	Membrane	4.1	MOL	DSME	Dörtyol, Turkey
2017	S188 (ex Exmar FSRU)	25,000	Other	4.6	Exmar Offshore	Wilson Zhoushan	Laid up
2018	Golar Nanook	170,000	Membrane	5.5	Golar LNG	SHI	Sergipe, Brazil
2018	Höegh Esperanza	170,000	Membrane	6.0	Höegh LNG	HHI	Tianjin, China
2018	Höegh Gannet	170,000	Membrane	5.5	Höegh LNG	HHI	LNGC
2018	Karunia Dewata	26,000	Other	0.3	JSK Group	PaxOcean Zhoushan	Benoa, Indonesia
2018	Marshal Vasilevskiy	174,000	Membrane	2.0	Gazprom	HHI	LNGC
2009/2019	BW Paris (ex BW GDF Suez Paris)	171,793	Membrane	4.2	BW Gas	Keppel Shipyard	LNGC
2019	BW Magna	173,400	Membrane	5.7	BW Gas	DSME	Port Açu, Brazil
2019	Höegh Galleon	170,000	Membrane	3.7	Höegh LNG	SHI	LNGC
2019	Turquoise (ex Turkey FSRU)	170,000	Membrane	5.7	Kolin Construction	HHI	Etki, Turkey

Clarksons Research, 2020.

* Cargo Containment System

FSRU ORDERBOOK AT THE END OF 2019

Built	Vessel Name	Storage Capacity (m³)	CCS*	Nominal Send-out Capacity (MTPA)	Owner	Builder	Location
2020	Torman	28,000	Other		Gasfin Development	Jiangnan SY Group	Tema LNG, Ghana
2020	Vasant 1	180,000	Membrane	5.0	Swan Energy	HHI	Jafrabad, India
2020	N/B Daewoo (DSME) Geoje 2477	173,400	Membrane		Maran Gas Maritime	DSME	
2020	N/B Hyundai H.I. Ulsan	170,000	Membrane		BOTAS	HHI	Dörtyol, Turkey
2021	N/B Hudong Zhonghua	174,000	Membrane		Dynagas LNG	Hudong Zhonghua	
2021	N/B Hudong Zhonghua	174,000	Membrane		Dynagas LNG	Hudong Zhonghua	
2021	N/B Samsung HI Koje	170,000	Membrane		PT Jawa Satu Regas	SHI	Java, Indonesia

Clarksons Research, 2020.

* Cargo Containment System

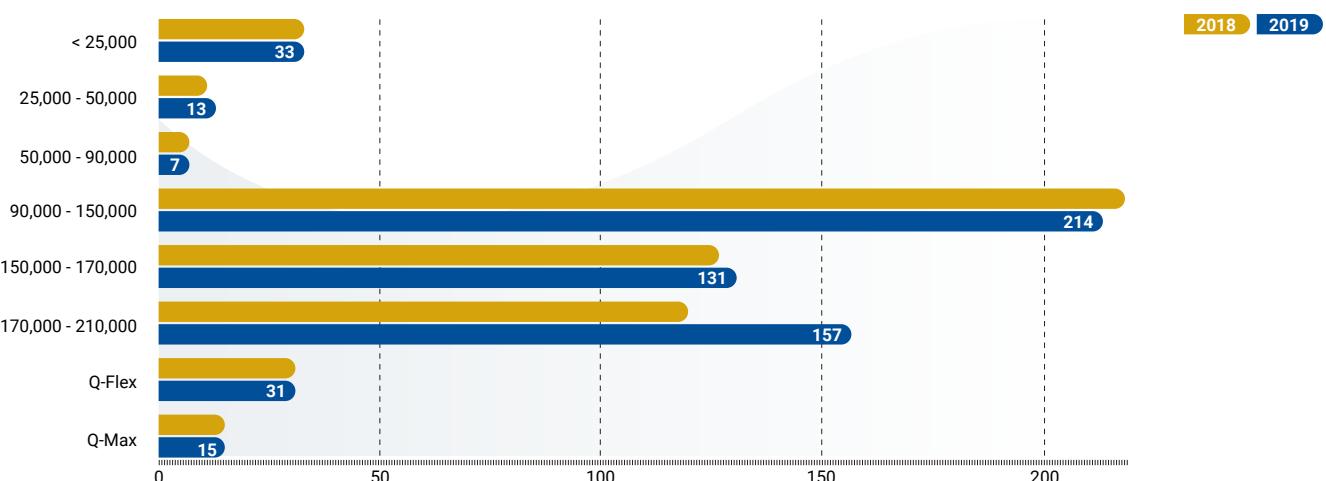
LNG fleet statistics

At the end of 2019, the fleet could be classified as follows :

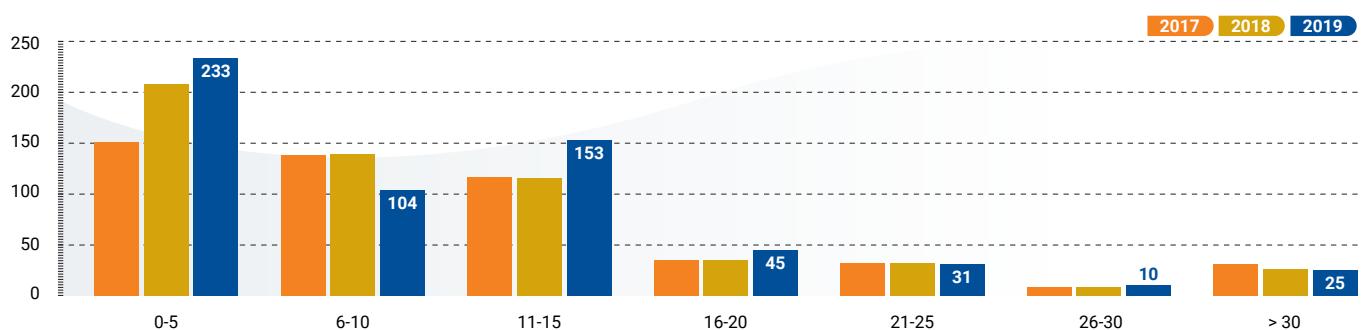
CONTAINMENT SYSTEM



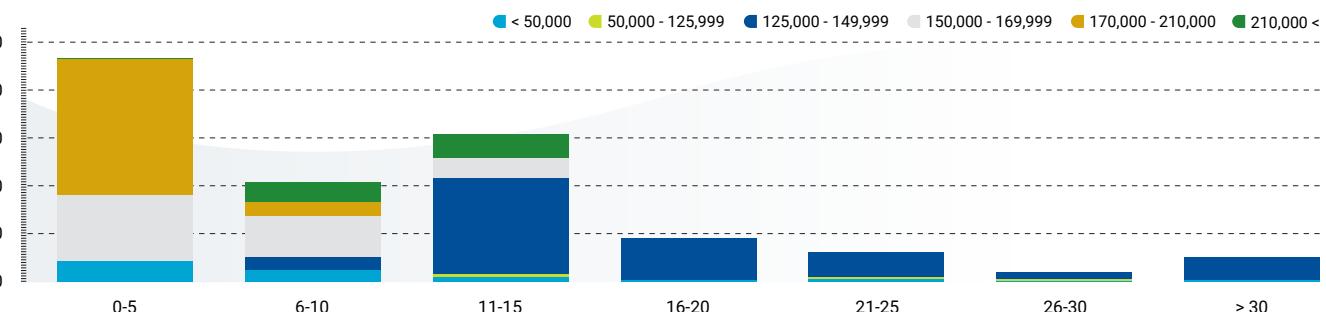
CARGO CAPACITY (m³)



AGE OF THE EXISTING LNG FLEET (years)



CARGO CAPACITY (in m³) AND AGE (years)



LNG carrier fleet

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
1974	Seagas	167	Other	Aga Gas AB	Loland Verft	Sirius Shipping
1977	LNG Aquarius	126,300	Moss	Hanochem Shpg.	General Dynamics	MOL LNG Europe
1978	Bering Energy	126,400	Moss	Sinokor Merchant	General Dynamics	Sinokor Merchant
1978	Gulf Energy	126,300	Moss	Sinokor Merchant	General Dynamics	Sinokor Merchant
1978	LNG Capricorn	126,300	Moss	Nova Shpg & Log	General Dynamics	Nova Shpg & Log
1979	Coral Energy	126,400	Moss	Sinokor Merchant	General Dynamics	Sinokor Merchant
1979	GCL	126,400	Moss	Golden Concord Hldg.	General Dynamics	Thome Ship Mngt
1979	LNG Taurus	126,300	Moss	Nova Shpg & Log	General Dynamics	Nova Shpg & Log
1979	Ocean Quest	126,540	Membrane	Hong Kong LNG	Newport News SB	OSM Maritime
1980	Caribbean Energy	126,530	Moss	Sinokor Merchant	General Dynamics	Sinokor Merchant
1980	South Energy	126,530	Moss	Sinokor Merchant	General Dynamics	Sinokor Ship Mngt
1981	Fortune FSU	130,000	Membrane	Dalian Inteh Group	Ch. de France	Dalian Inteh Group
1981	Lucky FSU	130,000	Membrane	Dalian Inteh Group	Ch. de France	Dalian Inteh Group
1981	Pacific Energy	135,293	Membrane	Sinokor Merchant	Kockums M/V AB	Sinokor Merchant
1981	Ramdane Abane	126,130	Membrane	Hyproc Shipping Co.	Ch. de l'Atlantique	Hyproc Shipping Co.
1983	Adriatic Energy	125,568	Moss	Sinokor Merchant	MHI	Sinokor Merchant
1983	Baltic Energy	125,660	Moss	Sinokor Merchant	KHI	Sinokor Merchant
1983	North Energy	125,542	Moss	Sinokor Merchant	MHI	Sinokor Ship Mngt
1984	Atlantic Energy	133,000	Membrane	Sinokor Merchant	Kockums M/V AB	Sinokor Ship Mngt
1984	Mediterranean Energy	125,631	Moss	Sinokor Merchant	MHI	Sinokor Ship Mngt
1984	Senshu Maru	125,835	Moss	Mitsui OSK Lines	Mitsui SB (Chiba)	MOL LNG Transport
1988	Kayoh Maru	1,517	Other	Daiichi Tanker	Imamura Zosen.	Daiichi Tanker
1989	Grace Energy	127,590	Moss	Sinokor Merchant	MHI	WSM Malaysia
1989	LNG Maleo	127,708	Moss	Mitsui OSK Lines	Mitsui SB (Chiba)	MOL LNG Transport
1989	Northwest Sanderling	127,525	Moss	Aust LNG Ship Op	MHI	STASCO (Shell)
1990	Ekaputra 1	137,012	Moss	Humpuss Intermoda	MHI	Humpuss Transportasi
1990	Northwest Snipe	127,747	Moss	Aust LNG Ship Op	Mitsui SB (Chiba)	STASCO (Shell)
1992	Northwest Seaeagle	127,452	Moss	Aust LNG Ship Op	Mitsui SB (Chiba)	STASCO (Shell)
1993	Arctic Spirit	89,880	Other	Teekay LNG Partners	I.H.I.	Teekay Shpg. (Gla)
1993	Lucia Ambition	18,928	Membrane	MISC	NKK (Tsu)	MISC
1993	Northwest Sandpiper	127,500	Moss	Aust LNG Ship Op	Mitsui SB (Chiba)	STASCO (Shell)
1993	Polar Spirit	89,880	Other	Teekay LNG Partners	I.H.I.	Teekay Shpg. (Gla)
1994	Al Khaznah	135,496	Moss	National Gas Shpg.	Mitsui SB (Chiba)	ADNOC Log & Serv

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
1994	Hyundai Utopia	125,182	Moss	Hyundai LNG Shipping	HHI	Hyundai LNG Shipping
1994	LNG Vesta	127,547	Moss	Mitsui OSK Lines	MHI	MOL LNG Transport
1994	Northwest Stormpetrel	127,606	Moss	Aust LNG Ship Op	MHI	STASCO (Shell)
1994	Puteri Intan	130,405	Membrane	MISC	Ch. de l'Atlantique	EagleStar Shipmgmt
1994	Shahamah	135,496	Moss	National Gas Shpg.	KHI	ADNOC Log & Serv
1994	YK Sovereign	127,125	Moss	SK Shipping	HHI	SK Shipping
1995	Ghasha	137,514	Moss	National Gas Shpg.	Mitsui SB (Chiba)	ADNOC Log & Serv
1995	HL Pyeong Taek	130,600	Membrane	H-Line Shipping	HHIC	H-Line Shipping
1995	Ish	137,540	Moss	National Gas Shpg.	MHI	ADNOC Log & Serv
1995	Puteri Delima	130,405	Membrane	MISC	Ch. de l'Atlantique	EagleStar Shipmgmt
1995	Puteri Nilam	130,405	Membrane	MISC	Ch. de l'Atlantique	EagleStar Shipmgmt
1996	Al Khor	137,354	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmgmt.
1996	Al Zubarah	137,573	Moss	Mitsui OSK Lines	Mitsui SB (Chiba)	MOL LNG Transport
1996	Hyundai Greenpia	125,000	Moss	Hyundai LNG Shipping	HHI	Hyundai LNG Shipping
1996	Mrawah	137,000	Moss	National Gas Shpg.	Kvaerner Masa	ADNOC
1996	Mubaraz	137,000	Moss	National Gas Shpg.	Kvaerner Masa	ADNOC
1996	Puteri Zamrud	130,405	Membrane	MISC	Ch. de l'Atlantique	EagleStar Shipmgmt
1996	Surya Aki	19,474	Moss	Humpuss Intermoda	KHI	Mitsui OSK Lines
1997	Al Hamra	137,000	Moss	National Gas Shpg.	Kvaerner Masa	ADNOC
1997	Al Rayyan	135,358	Moss	K-Line	KHI	K-Line Energ Mgmt
1997	Al Wajbah	137,354	Moss	Mitsui OSK Lines	MHI	MOL LNG Transport
1997	Aman Sendai	18,928	Membrane	MISC	NKK (Tsu)	MISC
1997	Portovenere	65,000	Membrane	MISC	Fincantieri Sestri	EagleStar Shipmgmt
1997	Puteri Firus	130,405	Membrane	MISC	Ch. de l'Atlantique	EagleStar Shipmgmt
1997	Umm Al Ashtan	137,000	Moss	National Gas Shpg.	Kvaerner Masa	ADNOC
1998	Al Wakrah	135,358	Moss	Mitsui OSK Lines	KHI	MOL LNG Transport
1998	Broog	135,466	Moss	Nippon Yusen Kaisha	Mitsui SB (Chiba)	NYK LNG Shipmgmt.
1998	Lerici	65,000	Membrane	MISC	Fincantieri Sestri	EagleStar Shipmgmt
1998	Pelita Energy	18,944	Membrane	Jaya Samudra	NKK (Tsu)	Jaya Samudra
1998	Zekreet	135,420	Moss	K-Line	Mitsui SB (Chiba)	K-Line Energ Mgmt
1999	Al Bidda	135,279	Moss	Mitsui OSK Lines	KHI	MOL LNG Transport
1999	Doha	137,354	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmgmt.
1999	HL Muscat	138,200	Membrane	H-Line Shipping	HHIC	H-Line Shipping

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
1999	Hyundai Technopia	135,000	Moss	Hyundai LNG Shipping	HHI	Hyundai LNG Shipping
1999	SK Summit	138,000	Membrane	SK Shipping	DSME	SK Shipping
2000	Al Jasra	137,100	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmngt.
2000	Golar Mazo	136,867	Moss	Golar LNG Partners	MHI	Golar Management
2000	HL Ras Laffan	138,214	Membrane	H-Line Shipping	HHIC	H-Line Shipping
2000	HL Sur	138,333	Membrane	H-Line Shipping	HHIC	H-Line Shipping
2000	Hyundai Aquapia	135,000	Moss	Hyundai LNG Shipping	HHI	Hyundai LNG Shipping
2000	Hyundai Cosmopia	135,000	Moss	Hyundai LNG Shipping	HHI	Hyundai LNG Shipping
2000	Hyundai Oceania	135,000	Moss	Hyundai LNG Shipping	HHI	Hyundai LNG Shipping
2000	K. Acacia	138,017	Membrane	Korea Line	DSME	KLC SM
2000	K. Freesia	135,256	Membrane	Korea Line	DSME	KLC SM
2000	LNG Jamal	135,333	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmngt.
2000	SK Splendor	138,375	Membrane	SK Shipping	SHI	SK Shipping
2000	SK Stellar	138,375	Membrane	SK Shipping	SHI	SK Shipping
2000	SK Supreme	138,200	Membrane	SK Shipping	SHI	SK Shipping
2000	Triputra	23,096	Membrane	Humpuss Intermoda	NKK (Tsu)	Humolco Trans Inc.
2001	Sohar LNG	137,248	Moss	Oman Shipping Co	MHI	Oman Ship Mngt
2002	Abadi	136,912	Moss	Brunei Gas Carriers	MHI	Brunei Gas Carriers
2002	Excalibur	138,034	Membrane	Exmar	DSME	Exmar Shipmngt
2002	Galea	136,967	Moss	Shell Tank Singapore	MHI	STASCO (Shell)
2002	Gallina	137,001	Moss	Shell Tank Singapore	MHI	STASCO (Shell)
2002	Hispania Spirit	140,500	Membrane	Teekay LNG Partners	DSME	Teekay Shpg. (Gla)
2002	LNG Rivers	137,231	Moss	Bonny Gas Transport	HHI	Nigeria LNG Ltd.
2002	LNG Sokoto	137,231	Moss	Bonny Gas Transport	HHI	Nigeria LNG Ltd.
2002	Puteri Delima Satu	137,100	Membrane	MISC	Mitsui SB (Chiba)	EagleStar Shipmngt
2002	Puteri Intan Satu	137,489	Membrane	MISC	MHI	EagleStar Shipmngt
2002	Trader	138,000	Membrane	Lloyds Ind. Leasing	SHI	K Line LNG Shpg.
2003	BW Boston	138,059	Membrane	BW Gas	DSME	BW Fleet Mngt
2003	BW Everett	138,028	Membrane	BW Gas	DSME	BW Fleet Mngt
2003	Castillo de Villalba	138,183	Membrane	Elcano	IZAR (Puerto Real)	Elcano
2003	Catalunya Spirit	138,000	Membrane	Teekay LNG Partners	IZAR (Sestao)	Teekay Shpg. (Gla)
2003	Energy Frontier	147,599	Moss	Tokyo LNG Tanker Co.	KHI	Mitsui OSK Lines
2003	Golar Arctic	140,648	Membrane	Golar LNG	DSME	Golar Management
2003	LNG Bayelsa	137,500	Moss	Bonny Gas Transport	HHI	Nigeria LNG Ltd.
2003	Merchant	138,283	Membrane	Sinokor Merchant	SHI	WSM Malaysia
2003	Methane Princess	138,000	Membrane	Golar LNG Partners	DSME	Golar Management
2003	Pacific Notus	137,006	Moss	TEPCO	MHI	NYK LNG Shipmngt.

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Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2003	Puteri Nilam Satu	137,585	Membrane	MISC	MHI	EagleStar Shipmngt
2003	Shinju Maru No. 1	2,513	Other	NS United Tanker	Higaki Zosen	NS United Tanker
2003	Singapore Energy	138,287	Membrane	Sinokor Merchant	SHI	WSM Malaysia
2003	SK Sunrise	138,306	Membrane	I.S. Carriers SA	SHI	Iino Marine Service
2004	Berge Arzew	138,088	Membrane	BW Gas	DSME	BW Fleet Mngt
2004	Bilbao Knutsen	138,000	Membrane	Knutsen OAS Shipping	IZAR (Sestao)	Knutsen OAS Shipping
2004	Cadiz Knutsen	138,826	Membrane	Knutsen OAS Shipping	IZAR (Puerto Real)	Knutsen OAS Shipping
2004	Disha	136,026	Membrane	India LNG Transport	DSME	Shpg Corp of India
2004	Dukhan	137,661	Moss	Mitsui OSK Lines	Mitsui SB (Chiba)	MOL LNG Europe
2004	Fuji LNG	149,172	Moss	TMS Cardiff Gas	KHI	TMS Cardiff Gas
2004	Fuwairit	138,000	Membrane	Mitsui OSK Lines	SHI	MOL LNG Europe
2004	Galicia Spirit	140,624	Membrane	Teekay LNG Partners	DSME	Teekay Shpg. (Gla)
2004	Gemmata	136,985	Moss	STASCO (Shell)	MHI	STASCO (Shell)
2004	Hongkong Energy	138,000	Membrane	Sinokor Merchant	DSME	WSM Malaysia
2004	Lalla Fatma N'Soumer	147,845	Moss	Algeria Nippon Gas	KHI	Hyproc Shipping Co.
2004	LNG Akwa Ibom	141,038	Moss	Bonny Gas Transport	HHI	Nigeria LNG Ltd.
2004	LNG River Orashi	145,914	Membrane	BW Gas	DSME	BW Fleet Mngt
2004	Madrid Spirit	138,000	Membrane	Teekay LNG Partners	IZAR (Puerto Real)	Teekay Shpg. (Gla)
2004	Methane Kari Ein	138,209	Membrane	STASCO (Shell)	SHI	STASCO (Shell)
2004	Milaha Ras Laffan	138,270	Membrane	Qatar Shipping	SHI	Pronav Ship Mngt
2004	Pioneer Knutsen	1,100	Other	Knutsen OAS Shipping	Veka SY Lemmer	Knutsen OAS Shipping
2004	Puteri Firus Satu	137,617	Membrane	MISC	MHI	EagleStar Shipmngt
2004	Puteri Zamrud Satu	137,100	Membrane	MISC	Mitsui SB (Chiba)	EagleStar Shipmngt
2004	Raahi	136,026	Membrane	India LNG Transport	DSME	Shpg Corp of India
2005	AI Deebel	145,130	Membrane	Mitsui OSK Lines	SHI	MOL LNG Europe
2005	AI Thakhira	145,130	Membrane	K-Line	SHI	K Line LNG Shpg.
2005	Energy Advance	147,624	Moss	Tokyo LNG Tanker Co.	KHI	Mitsui OSK Lines
2005	Golar Viking	140,208	Membrane	Golar LNG	HHI	Golar Management
2005	LNG Adamawa	142,656	Moss	Bonny Gas Transport	HHI	Nigeria LNG Ltd.
2005	LNG Cross River	141,000	Moss	Bonny Gas Transport	HHI	Nigeria LNG Ltd.
2005	LNG Enugu	145,914	Membrane	BW Gas	DSME	BW Fleet Mngt
2005	LNG Oyo	145,842	Membrane	BW Gas	DSME	BW Fleet Mngt
2005	LNG Pioneer	138,000	Membrane	Mitsui OSK Lines	DSME	MOL LNG Europe
2005	Lusail	145,000	Membrane	Nippon Yusen Kaisha	SHI	NYK LNG Shipmngt.
2005	Maran Gas Asclepius	145,822	Membrane	Maran Nakilat	DSME	Maran Gas Maritime

* Cargo Containment System

LNG carrier fleet

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2005	Nizwa LNG	147,684	Moss	Oman Shipping Co	KHI	Oman Ship Mngt
2005	North Pioneer	2,512	Other	Japan Liquid Gas	Shin Kurushima	Iino Kaiun Kaisha
2005	Puteri Mutiara Satu	137,100	Membrane	MISC	Mitsui SB (Chiba)	EagleStar Shipmgmt
2005	Salalah LNG	145,951	Membrane	Oman Shipping Co	SHI	Oman Ship Mngt
2005	Seri Alam	145,572	Membrane	MISC	SHI	MISC
2005	Umm Bab	145,000	Membrane	Maran Nakilat	DSME	Maran Gas Maritime
2006	Al Marrouna	149,539	Membrane	Teekay LNG Partners	DSME	Teekay Shpg. (Gla)
2006	Arctic Discoverer	142,612	Moss	K-Line	Mitsui SB (Chiba)	K Line LNG Shpg.
2006	Arctic Lady	147,208	Moss	Hoegh LNG	MHI	Hoegh LNG Fleet M.
2006	Arctic Princess	147,835	Moss	Hoegh LNG	MHI	Hoegh LNG Fleet M.
2006	Arctic Voyager	142,929	Moss	K-Line	KHI	K Line LNG Shpg.
2006	Energy Progress	147,558	Moss	Mitsui OSK Lines	KHI	MOL LNG Transport
2006	Global Energy	74,130	Membrane	Total	Aker Yards	Gazoecean S.A.
2006	Golar Grand	145,879	Membrane	Golar LNG Partners	DSME	Golar Management
2006	Golar Maria	145,700	Membrane	Golar LNG Partners	DSME	Golar Management
2006	Iberica Knutsen	138,120	Membrane	Knutsen OAS Shipping	DSME	Knutsen OAS Shipping
2006	Ibra LNG	147,100	Membrane	Oman Shipping Co	SHI	Oman Ship Mngt
2006	Ibri LNG	147,384	Moss	Oman Shipping Co	MHI	Oman Ship Mngt
2006	LNG Benue	145,842	Membrane	BW Gas	DSME	BW Fleet Mngt
2006	LNG Dream	145,000	Moss	Osaka Gas	KHI	NYK LNG Shipmngt.
2006	LNG Lokoja	149,600	Membrane	BW Gas	DSME	BW Fleet Mngt
2006	LNG River Niger	141,000	Moss	Bonny Gas Transport	HHI	Nigeria LNG Ltd.
2006	LNG Unity	154,472	Membrane	Total	Aker Yards	Gazoecean S.A.
2006	Methane Jane Elizabeth	145,000	Membrane	GasLog Partners	SHI	GasLog LNG Services
2006	Methane Lydon Volney	145,000	Membrane	GasLog	SHI	GasLog LNG Services
2006	Methane Rita Andrea	145,000	Membrane	GasLog Partners	SHI	GasLog LNG Services
2006	Milaha Qatar	145,130	Membrane	Qatar Shipping	SHI	Pronav Ship Mngt
2006	Pacific Eurus	136,942	Moss	TEPCO	MHI	NYK LNG Shipmngt.
2006	Seri Amanah	145,000	Membrane	MISC	SHI	EagleStar Shipmgmt
2006	Seri Anggun	145,731	Membrane	MISC	SHI	MISC
2006	Seri Angkasa	145,000	Membrane	MISC	SHI	MISC
2006	Simaisma	145,700	Membrane	Maran Nakilat	DSME	Maran Gas Maritime
2006	Stena Blue Sky	145,819	Membrane	Stena Bulk	DSME	Northern Marine Mngt
2007	Al Areesh	148,786	Membrane	Teekay LNG Partners	DSME	Teekay Shpg. (Gla)
2007	Al Daayen	148,853	Membrane	Teekay LNG Partners	DSME	Teekay Shpg. (Gla)
2007	Al Gattara	216,224	Membrane	Qatar Gas (Nakilat)	HHI	Nakilat Shipping

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Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2007	Al Jassasiya	145,700	Membrane	Maran Nakilat	DSME	Maran Gas Maritime
2007	Al Ruwais	210,100	Membrane	Schulte Group	DSME	Pronav Ship Mngt
2007	Al Saifiya	210,134	Membrane	Schulte Group	DSME	Pronav Ship Mngt
2007	British Emerald	154,983	Membrane	BP Shipping	HHI	BP Shipping
2007	Cheikh El Mokrani	74,365	Membrane	Hyproc Shipping Co.	Universal SB (Tsu)	Hyproc Shipping Co.
2007	Clean Energy	149,700	Membrane	Dynagas LNG	HHI	Dynagas LNG
2007	Ejnan	145,000	Membrane	Nippon Yusen Kaisha	SHI	NYK LNG Shipmngt.
2007	Grace Acacia	149,786	Membrane	Nippon Yusen Kaisha	HHI	Gazoecean S.A.
2007	Grace Barleria	149,700	Membrane	Nippon Yusen Kaisha	HHI	NYK LNG Shipmngt.
2007	Grand Elena	145,580	Moss	Sovcomflot JSC	MHI	NYK LNG Shipmngt.
2007	LNG Alliance	154,472	Membrane	Total	Aker Yards	Gazoecean S.A.
2007	LNG Borno	149,600	Membrane	Nippon Yusen Kaisha	SHI	NYK LNG Shipmngt.
2007	LNG Kano	149,600	Membrane	BW Gas	DSME	BW Fleet Mngt
2007	LNG Ogun	149,600	Membrane	Nippon Yusen Kaisha	SHI	NYK LNG Shipmngt.
2007	LNG Ondo	148,300	Membrane	BW Gas	DSME	BW Fleet Mngt
2007	Maran Gas Coronis	145,700	Membrane	Maran Nakilat	DSME	Maran Gas Maritime
2007	Methane Alison Victoria	145,127	Membrane	GasLog Partners	SHI	GasLog LNG Services
2007	Methane Heather Sally	145,127	Membrane	GasLog Partners	SHI	GasLog LNG Services
2007	Methane Nile Eagle	145,144	Membrane	STASCO (Shell)	SHI	GasLog LNG Services
2007	Methane Shirley Elisabeth	145,127	Membrane	GasLog Partners	SHI	GasLog LNG Services
2007	Neo Energy	149,700	Membrane	Tsakos Energy Nav	HHI	Hyundai Ocean
2007	Ob River	149,700	Membrane	Dynagas LNG	HHI	Dynagas LNG
2007	Seri Ayu	145,894	Membrane	MISC	SHI	MISC
2007	Seri Bakti	152,300	Membrane	MISC	MHI	EagleStar Shipmgmt
2007	Seri Begawan	152,300	Membrane	MISC	MHI	EagleStar Shipmgmt
2007	Sestao Knutsen	138,114	Membrane	Knutsen OAS Shipping	CNN - La Naval	Knutsen OAS Shipping
2007	Sun Arrows	19,100	Moss	Maple LNG Transport	KHI	Mitsui OSK Lines
2007	Symphonic Breeze	147,608	Moss	K-Line	KHI	K Line LNG Shpg.
2007	Tembek	216,000	Membrane	Qatar Gas (Nakilat)	SHI	Nakilat Shipping
2008	Al Aamriya	210,168	Membrane	Nakilat, JC	DSME	MOL LNG Europe
2008	Al Ghariya	210,100	Membrane	Schulte Group	DSME	Pronav Ship Mngt
2008	Al Gharrafa	216,224	Membrane	Qatar Gas (Nakilat)	HHI	Nakilat Shipping
2008	Al Ghuwairiya	263,249	Membrane	Qatar Gas (Nakilat)	DSME	Nakilat Shipping
2008	Al Hamla	216,000	Membrane	Qatar Gas (Nakilat)	SHI	Nakilat Shipping
2008	Al Huwaila	217,000	Membrane	Teekay LNG Partners	SHI	Teekay Shpg. (Gla)
2008	Al Kharsaah	217,000	Membrane	Teekay LNG Partners	SHI	Teekay Shpg. (Gla)

* Cargo Containment System

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2008	Al Khuwair	217,000	Membrane	Teekay LNG Partners	SHI	Teekay Shpg. (Gla)
2008	Al Oraiq	210,100	Membrane	Nakilat, JC	DSME	K Line LNG Shpg.
2008	Al Sahla	216,200	Membrane	Nakilat, JC	HHI	NYK LNG Shipmngt.
2008	Al Shamal	217,000	Membrane	Teekay LNG Partners	SHI	Teekay Shpg. (Gla)
2008	Al Thumama	216,200	Membrane	Nakilat, JC	HHI	NYK LNG Shipmngt.
2008	Al Utouriya	215,000	Membrane	Nakilat, JC	HHI	NYK LNG Shipmngt.
2008	Alto Acrux	147,798	Moss	TEPCO	MHI	NYK LNG Shipmngt.
2008	Amur River	149,743	Membrane	Dynagas LNG	HHI	Dynagas LNG
2008	Arwa Spirit	165,500	Membrane	Malt LNG	SHI	Teekay Shpg. (Gla)
2008	British Diamond	155,046	Membrane	BP Shipping	HSHI	BP Shipping
2008	British Sapphire	155,000	Membrane	BP Shipping	HHI	BP Shipping
2008	Bu Samra	267,335	Membrane	Qatar Gas (Nakilat)	SHI	STASCO (Shell)
2008	Cheikh Bouamama	75,558	Membrane	Hyproc Shipping Co.	Universal SB (Tsu)	Hyproc Shipping Co.
2008	Dapeng Moon	147,210	Membrane	CLNG	HZ	CLNG
2008	Dapeng Sun	147,236	Membrane	CLNG	HZ	CLNG
2008	Duhail	210,100	Membrane	Schulte Group	DSME	Pronav Ship Mngt
2008	Energy Navigator	147,558	Moss	Tokyo LNG Tanker Co.	KHI	Mitsui OSK Lines
2008	Fraiha	210,100	Membrane	Nakilat, JC	DSME	MOL LNG Europe
2008	Grace Cosmos	149,700	Membrane	Nippon Yusen Kaisha	HHI	Gazocean S.A.
2008	Grand Aniva	145,580	Moss	Sovcomflot JSC	MHI	SCF Mngt Dubai
2008	Grand Mereya	145,964	Moss	Mitsui OSK Lines	Mitsui SB (Chiba)	MOL LNG Transport
2008	Hyundai Ecopia	149,700	Membrane	Hyundai LNG Shipping	HHI	Hyundai Ocean
2008	K. Jasmine	145,877	Membrane	Korea Line	DSME	KLC SM
2008	K. Mugungwha	151,812	Membrane	Korea Line	DSME	KLC SM
2008	Kakurei Maru	2,536	Other	Tsurumi Sunmarine	Higaki Zosen	Tsurumi Sunmarine
2008	LNG Barka	155,982	Moss	Oman Shipping Co	KHI	Nippon Yusen Kaisha
2008	LNG Ebisu	147,546	Moss	KEPCO	KHI	MOL LNG Transport
2008	LNG Imo	148,300	Membrane	BW Gas	DSME	BW Fleet Mngt
2008	LNG Kolt	153,595	Membrane	Pan Ocean	HHIC	POS SM Co Ltd
2008	Marib Spirit	165,500	Membrane	Malt LNG	SHI	Teekay Shpg. (Gla)
2008	Methane Spirit	165,500	Membrane	Malt LNG	SHI	Teekay Shpg. (Gla)
2008	Mozah	267,335	Membrane	Qatar Gas (Nakilat)	SHI	Nakilat Shipping
2008	Murwab	210,100	Membrane	Nakilat, JC	DSME	MOL LNG Europe
2008	Seri Balhaf	157,721	Membrane	MISC	MHI	MISC
2008	Seri Bijaksana	152,888	Membrane	MISC	MHI	MISC
2008	Shinju Maru No. 2	2,536	Other	NS United Tanker	Higaki Zosen	NS United Tanker
2008	Tangguh Batur	145,700	Membrane	Sovcomflot JSC	DSME	NYK Shipmngt. Pte.

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Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2008	Tangguh Foja	155,641	Membrane	K-Line	SHI	K-Line Energ Mgmt
2008	Tangguh Hiri	154,971	Membrane	Teekay LNG Partners	HHI	Teekay Shpg. (Gla)
2008	Tangguh Jaya	155,641	Membrane	K-Line	SHI	K-Line Energ Mgmt
2008	Tangguh Towuti	145,700	Membrane	Sovcomflot JSC	DSME	NYK Shipmngt. Pte.
2008	Trinity Arrow	154,982	Membrane	K-Line	Koyo Dock	K Line LNG Shpg.
2008	Tristar Ruby	155,000	Membrane	Tristar Energy	HHI	Wilh. Ship Mngt
2008	Umm Al Amad	210,100	Membrane	Nakilat, JC	DSME	K Line LNG Shpg.
2008	Umm Slal	267,335	Membrane	Qatar Gas (Nakilat)	SHI	Nakilat Shipping
2009	Al Dafna	267,335	Membrane	Qatar Gas (Nakilat)	SHI	STASCO (Shell)
2009	Al Ghashamiya	217,000	Membrane	Qatar Gas (Nakilat)	SHI	STASCO (Shell)
2009	Al Karaana	210,191	Membrane	Qatar Gas (Nakilat)	DSME	STASCO (Shell)
2009	Al Kharaiyat	216,200	Membrane	Qatar Gas (Nakilat)	HHI	STASCO (Shell)
2009	Al Khattiya	210,196	Membrane	Qatar Gas (Nakilat)	DSME	STASCO (Shell)
2009	Al Mafyar	267,335	Membrane	Qatar Gas (Nakilat)	SHI	Nakilat Shipping
2009	Al Mayeda	267,335	Membrane	Qatar Gas (Nakilat)	SHI	STASCO (Shell)
2009	Al Nuaman	210,184	Membrane	Qatar Gas (Nakilat)	DSME	STASCO (Shell)
2009	Al Rekayyat	216,200	Membrane	Qatar Gas (Nakilat)	HHI	STASCO (Shell)
2009	Al Sadd	210,100	Membrane	Qatar Gas (Nakilat)	DSME	STASCO (Shell)
2009	Al Samriya	261,700	Membrane	Qatar Gas (Nakilat)	DSME	STASCO (Shell)
2009	Al Sheehaniya	210,166	Membrane	Qatar Gas (Nakilat)	DSME	STASCO (Shell)
2009	Aseem	155,000	Membrane	India LNG Transport	SHI	Shpg Corp of India
2009	BW Brussels	162,400	Membrane	BW Gas	DSME	BW Fleet Mngt
2009	Coral Methane	7,500	Other	Anthony Veder	Remontowa Repair	Anthony Veder
2009	Cygnus Passage	147,200	Moss	Cygnus LNG Shipping	MHI	NYK LNG Shipmngt.
2009	Dapeng Star	147,210	Membrane	CLNG	HZ	CLNG
2009	Energy Confidence	153,000	Moss	Tokyo LNG Tanker Co.	KHI	Nippon Yusen Kaisha
2009	Lijmiliya	261,700	Membrane	Qatar Gas (Nakilat)	DSME	STASCO (Shell)
2009	LNG Jupiter	155,999	Moss	Nippon Yusen Kaisha	KHI	NYK LNG Shipmngt.
2009	Magellan Spirit	165,500	Membrane	Malt LNG	SHI	Teekay Shpg. (Gla)
2009	Mekaines	267,335	Membrane	Qatar Gas (Nakilat)	SHI	Nakilat Shipping
2009	Mesaimer	216,200	Membrane	Qatar Gas (Nakilat)	HHI	Nakilat Shipping
2009	Min Lu	147,210	Membrane	CLNG	HZ	CLNG
2009	Min Rong	147,000	Membrane	CLNG	HZ	CLNG
2009	Oizmendi	600	Other	ITSAS Gas Bunker	Francisco Cardama	ITSAS Gas Bunker
2009	Onaiza	210,100	Membrane	Qatar Gas (Nakilat)	DSME	STASCO (Shell)
2009	Pacific Enlighten	147,200	Moss	TEPCO	MHI	NYK LNG Shipmngt.

* Cargo Containment System

LNG carrier fleet

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2009	Seri Balqis	157,611	Membrane	MISC	MHI	MISC
2009	Shagra	267,335	Membrane	Qatar Gas (Nakilat)	SHI	STASCO (Shell)
2009	Taitar No. 1	147,362	Moss	Nimic Ship Mgmt	MHI	Nimic Ship Mgmt
2009	Taitar No. 2	147,500	Moss	Nimic Ship Mgmt	KHI	Nimic Ship Mgmt
2009	Tangguh Palung	155,642	Membrane	K-Line	SHI	K-Line Energy Mgmt
2009	Tangguh Sago	154,971	Membrane	Teekay LNG Partners	HSHI	Teekay Shpg. (Gla)
2009	Trinity Glory	154,999	Membrane	K-Line	Koyo Dock	K Line LNG Shpg.
2009	Woodside Donaldson	165,936	Membrane	Malt LNG	SHI	Teekay Shpg. (Gla)
2010	Aamira	267,335	Membrane	Qatar Gas (Nakilat)	SHI	STASCO (Shell)
2010	Al Bahiya	210,185	Membrane	Qatar Gas (Nakilat)	DSME	STASCO (Shell)
2010	Barcelona Knutsen	173,400	Membrane	Knutsen OAS Shipping	DSME	Knutsen OAS Shipping
2010	Castillo de Santisteban	173,673	Membrane	Elcano	STX SB (Jiniae)	Elcano
2010	Coral Favia	10,030	Other	Anthony Veder	Taizhou Skaugen	Anthony Veder
2010	Coral Fraseri	10,030	Other	Anthony Veder	Taizhou Skaugen	B. Schulte (Hellas)
2010	GasLog Chelsea	153,000	Membrane	GasLog	HHIC	GasLog LNG Services
2010	GasLog Savannah	155,000	Membrane	GasLog	SHI	GasLog LNG Services
2010	GasLog Singapore	155,000	Membrane	GasLog	SHI	GasLog LNG Services
2010	Gigira Laitebo	155,000	Membrane	Mitsui OSK Lines	HHI	MOL LNG Europe
2010	Meridian Spirit	165,772	Membrane	Malt LNG	SHI	Teekay Shpg. (Gla)
2010	Methane Becki Anne	170,678	Membrane	GasLog Partners	SHI	GasLog LNG Services
2010	Methane Julia Louise	170,000	Membrane	Lepta Shipping Co	SHI	GasLog LNG Services
2010	Methane Mickie Harper	170,000	Membrane	STASCO (Shell)	SHI	STASCO (Shell)
2010	Methane Patricia Camila	170,000	Membrane	STASCO (Shell)	SHI	STASCO (Shell)
2010	Point Fortin	154,914	Membrane	Trinity LNG Carrier	Koyo Dock	MOL LNG Europe
2010	Rasheeda	267,335	Membrane	Qatar Gas (Nakilat)	SHI	STASCO (Shell)
2010	Ribera Del Duero Knutsen	173,400	Membrane	Knutsen OAS Shipping	DSME	Knutsen OAS Shipping
2010	Sevilla Knutsen	173,400	Membrane	Knutsen OAS Shipping	DSME	Knutsen OAS Shipping
2010	Spirit of Hela	173,010	Membrane	Mitsui OSK Lines	HSHI	MOL LNG Europe
2010	Taitar No. 3	147,366	Moss	Nimic Ship Mgmt	MHI	Nimic Ship Mgmt
2010	Taitar No. 4	147,546	Moss	Nimic Ship Mgmt	KHI	Nimic Ship Mgmt
2010	Valencia Knutsen	173,400	Membrane	Knutsen OAS Shipping	DSME	Knutsen OAS Shipping
2010	Zarga	267,335	Membrane	Qatar Gas (Nakilat)	SHI	STASCO (Shell)
2011	Akebono Maru	3,556	Other	NS United Tanker	Higaki Zosen	NS United Tanker
2011	Amali	148,000	Membrane	Brunei Shell Tankers	DSME	STASCO (Shell)
2011	Arkat	147,228	Membrane	Brunei Gas Carriers	DSME	STASCO (Shell)

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Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2011	Coral Fungia	10,030	Other		Taizhou Skaugen	Anthony Veder
2011	Coral Furcata	10,030	Other	Anthony Veder	Taizhou Skaugen	B. Schulte (Hellas)
2011	Energy Horizon	177,441	Moss	Tokyo LNG Tanker Co.	KHI	NYK LNG Shipmgt.
2011	Lobito	160,276	Membrane	MiNT LNG	SHI	Teekay Shpg. (Gla)
2011	Malanje	160,276	Membrane	MiNT LNG	SHI	Mitsui & Co
2011	Sonangol Benguela	160,500	Membrane	Sonangol	DSME	Chevron Shpg Co
2011	Sonangol Etosha	160,786	Membrane	Sonangol	DSME	Chevron Shpg Co
2011	Sonangol Sambizanga	160,785	Membrane	Sonangol	DSME	Chevron Shpg Co
2011	Soyo	160,276	Membrane	MiNT LNG	SHI	Teekay Shpg. (Gla)
2011	Stena Clear Sky	173,593	Membrane	Stena Bulk	DSME	Northern Marine Mngt
2011	Stena Crystal Sky	173,611	Membrane	Stena Bulk	DSME	Northern Marine Mngt
2011	Unikum Spirit	12,000	Other	Teekay LNG Partners	AVIC Dingheng SB	OSM Tanker
2011	Vision Spirit	12,022	Other	Teekay LNG Partners	AVIC Dingheng SB	OSM Tanker
2012	Coral Energy	15,600	Other	Anthony Veder	Neptun Werft	Anthony Veder
2012	Cubal	160,276	Membrane	MiNT LNG	SHI	NYK LNG Shipmgt.
2012	Shen Hai	147,210	Membrane	CLNG	HZ	CLNG
2013	Arctic Aurora	154,899	Membrane	Dynagas LNG	HHI	Dynagas LNG
2013	Cool Voyager	160,372	Membrane	Thenamaris	SHI	Thenamaris LNG
2013	Coral Anthelia	6,500	Other	Anthony Veder	AVIC Dingheng SB	Anthony Veder
2013	GasLog Santiago	155,000	Membrane	GasLog Partners	SHI	GasLog LNG Services
2013	GasLog Seattle	155,000	Membrane	GasLog Partners	SHI	GasLog LNG Services
2013	GasLog Shanghai	155,000	Membrane	GasLog Partners	SHI	GasLog LNG Services
2013	GasLog Skagen	155,000	Membrane	GasLog	SHI	GasLog LNG Services
2013	GasLog Sydney	155,000	Membrane	GasLog Partners	SHI	GasLog LNG Services
2013	Golar Celsius	160,000	Membrane	Golar LNG	SHI	Golar Management
2013	Golar Seal	160,000	Membrane	Golar LNG	SHI	Golar Management
2013	Grace Dahlia	177,630	Moss	Nippon Yusen Kaisha	KHI	NYK LNG Shipmgt.
2013	Kakuyu Maru	2,538	Other	Tsurumi Sunmarine	KHI	Tsurumi Sunmarine
2013	Lena River	155,165	Membrane	Dynagas LNG	HHI	Dynagas
2013	Wilforce	156,007	Membrane	Teekay LNG Partners	DSME	Awilco LNG Technical
2013	Wilpride	156,007	Membrane	Teekay LNG Partners	DSME	Awilco LNG Technical
2013	Woodside Goode	159,662	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2013	Woodside Rogers	160,668	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2013	Yenisei River	155,000	Membrane	Dynagas LNG	HHI	Dynagas LNG
2014	Adam LNG	161,870	Membrane	Oman Shipping Co	HHI	Oman Ship Mngt
2014	Amani	154,800	Membrane	Brunei Gas Carriers	HHI	STASCO (Shell)
2014	Asia Energy	160,000	Membrane	Chevron Transport	SHI	Chevron Transport

* Cargo Containment System

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2014	Asia Vision	160,000	Membrane	Chevron Transport	SHI	Chevron Transport
2014	Clean Ocean	161,881	Membrane	Dynagas	HHI	Dynagas LNG
2014	Clean Planet	161,814	Membrane	Dynagas	HHI	Dynagas
2014	Cool Runner	160,000	Membrane	Thenamaris	SHI	Thenamaris LNG
2014	Corcovado LNG	160,106	Membrane	TMS Cardiff Gas	DSME	TMS Cardiff Gas
2014	Esshū Maru	155,300	Moss	Mitsubishi Corp	MHI	MOL LNG Europe
2014	GasLog Saratoga	155,000	Membrane	GasLog	SHI	GasLog LNG Services
2014	Golar Bear	160,000	Membrane	Golar LNG	SHI	Golar LNG
2014	Golar Crystal	160,000	Membrane	Oriental Fleet Intl	SHI	Golar Management
2014	Golar Frost	160,000	Membrane	Golar LNG	SHI	Golar LNG
2014	Golar Glacier	162,000	Membrane	Golar LNG	HSHI	Golar Management
2014	Golar Penguin	160,000	Membrane	Golar LNG	SHI	Golar Management
2014	Kita LNG	160,118	Membrane	TMS Cardiff Gas	DSME	TMS Cardiff Gas
2014	LNG Venus	155,873	Moss	Mitsui OSK Lines	MHI	MOL LNG Transport
2014	Maran Gas Apollonia	161,870	Membrane	Maran Nakilat	HSHI	Maran Gas Maritime
2014	Maran Gas Delphi	159,800	Membrane	Maran Nakilat	DSME	Maran Nakilat
2014	Maran Gas Efessos	159,800	Membrane	Maran Nakilat	DSME	Maran Gas Maritime
2014	Maran Gas Posidonia	161,870	Membrane	Maran Nakilat	HSHI	Maran Nakilat
2014	Pacific Arcadia	147,200	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmngt.
2014	Palu LNG	160,000	Membrane	TMS Cardiff Gas	DSME	TMS Cardiff Gas
2014	Pskov	170,200	Membrane	Sovcomflot JSC	STX SB (Jiniae)	SCF Mngt Dubai
2014	Seishū Maru	155,300	Moss	Mitsubishi Corp	MHI	NYK LNG Shipmngt.
2014	Solaris	155,000	Membrane	GasLog Partners	SHI	GasLog LNG Services
2014	Velikiy Novgorod	170,567	Membrane	Sovcomflot JSC	STX SB (Jiniae)	SCF Mngt Dubai
2014	Yari LNG	160,000	Membrane	TMS Cardiff Gas	DSME	TMS Cardiff Gas
2015	Amadi	154,800	Membrane	Brunei Gas Carriers	HHI	STASCO (Shell)
2015	Asia Endeavour	160,000	Membrane	Chevron Transport	SHI	Chevron Transport
2015	Asia Excellence	160,000	Membrane	Chevron Transport	SHI	Chevron Transport
2015	Beidou Star	172,000	Membrane	Mitsui OSK Lines	HZ	Mitsui OSK Lines
2015	BW Pavilion Leeara	161,870	Membrane	BW Gas	HHI	BW Fleet Mngt
2015	BW Pavilion Vanda	161,870	Membrane	BW Gas	HHI	BW Fleet Mngt
2015	Clean Horizon	161,870	Membrane	Dynagas	HHI	Dynagas LNG
2015	Cool Explorer	161,352	Membrane	Thenamaris	SHI	Thenamaris LNG
2015	Energy Atlantic	159,924	Membrane	Alpha Tankers	STX SB (Jiniae)	B. Schulte (Hellas)
2015	GasLog Salem	155,000	Membrane	GasLog	SHI	GasLog LNG Services
2015	Golar Ice	160,000	Membrane	Golar LNG	SHI	Golar Management
2015	Golar Kelvin	162,000	Membrane	Golar LNG	HSHI	Golar Management

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Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2015	Golar Snow	160,000	Membrane	Golar LNG	SHI	Golar Management
2015	Hai Yang Shi You 301	31,043	Other	CNOOC EnerTech	Jiangnan SY Group	CNOOC EnerTech
2015	JS Ineos Ingenuity	27,566	Other	Evergas AS	Sinopacific Offshore	Thome Ship Mngt
2015	JS Ineos Insight	27,566	Other	Evergas AS	Sinopacific Offshore	Thome Ship Mngt
2015	JS Ineos Intrepid	27,566	Other	Evergas AS	Sinopacific Dayang	Thome Ship Mngt
2015	LNG Bonny II	176,809	Membrane	Bonny Gas Transport	HHI	Nigeria LNG Ltd.
2015	LNG Finima II	174,900	Membrane	Bonny Gas Transport	SHI	Bonny Gas Transport
2015	LNG Jurojin	155,300	Moss	Mitsui OSK Lines	MHI	Mitsui OSK Lines
2015	LNG Port Harcourt II	174,900	Membrane	Bonny Gas Transport	SHI	Bonny Gas Transport
2015	Maran Gas Alexandria	161,870	Membrane	Maran Gas Maritime	HSHI	Maran Gas Maritime
2015	Maran Gas Lindos	159,800	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2015	Maran Gas Mystras	159,800	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2015	Maran Gas Sparta	161,870	Membrane	Maran Gas Maritime	HSHI	Maran Gas Maritime
2015	Maran Gas Troy	159,800	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2015	Papua	172,000	Membrane	Mitsui OSK Lines	HZ	MOL LNG Europe
2015	SCF Melampus	170,200	Membrane	Sovcomflot JSC	STX SB (Jiniae)	SCF Mngt Dubai
2015	SCF Mitre	170,200	Membrane	Sovcomflot JSC	STX SB (Jiniae)	SCF Mngt Dubai
2015	Southern Cross	172,000	Membrane	Mitsui OSK Lines	HZ	MOL LNG Europe
2016	CESI Gladstone	174,323	Membrane	China Energy Shpg	HZ	China Energy Mngt
2016	Christophe de Margerie	172,845	Membrane	Sovcomflot JSC	DSME	Sovcomflot JSC
2016	Clean Vision	162,000	Membrane	Dynagas LNG	HHI	Dynacom Tankers Mgmt
2016	Creole Spirit	173,545	Membrane	Teekay LNG Partners	DSME	Teekay Bermuda
2016	Gaslog Geneva	174,000	Membrane	GasLog Partners	SHI	GasLog Partners
2016	GasLog Gibraltar	174,000	Membrane	GasLog Partners	SHI	GasLog Partners
2016	GasLog Glasgow	174,000	Membrane	GasLog Partners	SHI	GasLog Partners
2016	GasLog Greece	174,000	Membrane	GasLog Partners	SHI	GasLog Partners
2016	Hua Xiang 8	14,000	Other	Zhejiang Huaxiang	Fengshun Ship Hvy	Zhejiang Huaxiang
2016	JS Ineos Innovation	27,566	Other	Evergas AS	Sinopacific Dayang	Evergas AS
2016	JS Ineos Inspiration	27,566	Other	Evergas AS	Sinopacific Offshore	Thome Ship Mngt
2016	Kumul	172,000	Membrane	Mitsui OSK Lines	HZ	Mitsui OSK Lines
2016	La Mancha Knutsen	176,300	Membrane	Knutsen OAS Shipping	HHI	Knutsen OAS Shipping
2016	LNG Abalamabie	174,900	Membrane	Bonny Gas Transport	SHI	Bonny Gas Transport
2016	LNG Abuja II	174,900	Membrane	Bonny Gas Transport	SHI	Bonny Gas Transport
2016	LNG Fukurokuju	165,134	Moss	Mitsui OSK Lines	KHI	Mitsui OSK Lines

* Cargo Containment System

LNG carrier fleet

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2016	LNG Lagos II	176,809	Membrane	Bonny Gas Transport	HHI	Nigeria LNG Ltd.
2016	LNG Mars	155,693	Moss	Mitsui OSK Lines	MHI	MOL LNG Transport
2016	LNG Saturn	155,300	Moss	Mitsui OSK Lines	MHI	Mitsui OSK Lines
2016	Maran Gas Achilles	174,000	Membrane	Maran Gas Maritime	HSHI	Maran Gas Maritime
2016	Maran Gas Agamemnon	174,000	Membrane	Maran Gas Maritime	HSHI	Maran Gas Maritime
2016	Maran Gas Amphipolis	173,479	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2016	Maran Gas Hector	174,000	Membrane	Maran Gas Maritime	HSHI	Maran Gas Maritime
2016	Maran Gas Leto	174,000	Membrane	Maran Gas Maritime	HSHI	Maran Gas Maritime
2016	Maran Gas Pericles	175,069	Membrane	Maran Gas Maritime	HSHI	Maran Gas Maritime
2016	Maran Gas Vergina	174,364	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2016	Maria Energy	174,000	Membrane	Tsakos Energy Nav	HHI	Tsakos Energy Nav
2016	Oak Spirit	173,545	Membrane	Teekay LNG Partners	DSME	Teekay Bermuda
2016	Prachi	173,323	Membrane	India LNG Transport	HHI	Shpg Corp of India
2016	Rioja Knutsen	176,300	Membrane	Knutsen OAS Shipping	HHI	Knutsen OAS Shipping
2016	Seri Camellia	150,200	Moss	MISC	HHI	EagleStar Shipmgmt
2016	Tessala	171,800	Membrane	ITOCHU Corp	HHI	Hyproc Shipping Co.
2017	Asia Integrity	160,000	Membrane	Chevron Transport	SHI	Chevron Transport
2017	Asia Venture	160,000	Membrane	Chevron Transport	SHI	Chevron Transport
2017	Bishu Maru	165,287	Moss	K-Line	KHI	K-Line
2017	Boris Vilkitsky	172,636	Membrane	Dynagas LNG	DSME	Dynagas LNG
2017	Cardissa	6,469	Other	Shell Western LNG	STX SB (Jiniae)	STASCO (Shell)
2017	CESI Beihai	174,323	Membrane	China Energy Shpg	HZ	China Energy Mngt
2017	CESI Qingdao	174,323	Membrane	China Energy Shpg	HZ	China Energy Mngt
2017	CESI Tianjin	174,323	Membrane	China Energy Shpg	HZ	China Energy Mngt
2017	Coralius	5,737	Other	Anthony Veder	Royal Bodewes SY	Anthony Veder
2017	Eduard Toll	172,652	Membrane	Teekay Corp CLNG JV	DSME	Teekay Shpg. (Gla)
2017	Engie Zeebrugge	5,100	Other	Nippon Yusen Kaisha	HHIC	NYK LNG Shipmgnt
2017	Fedor Litke	172,636	Membrane	Dynagas LNG	DSME	Dynagas LNG
2017	Hyundai Peacepia	174,000	Membrane	Hyundai LNG Shipping	DSME	Hyundai Ocean
2017	Hyundai Princepia	174,000	Membrane	Hyundai LNG Shipping	DSME	Hyundai Ocean
2017	JS Ineos Independence	27,566	Other	Evergas AS	Sinopacific Offshore	Evergas
2017	JS Ineos Intuition	27,500	Other	Evergas AS	Jiangsu New YZJ	Evergas AS
2017	JS Ineos Invention	27,500	Other	Evergas AS	Jiangsu New YZJ	Evergas AS
2017	Macoma	173,545	Membrane	Teekay LNG Partners	DSME	STASCO (Shell)
2017	Maran Gas Olympias	173,638	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2017	Maran Gas Roxana	173,615	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2017	Maran Gas Ulysses	175,069	Membrane	Maran Gas Maritime	HSHI	Maran Gas Maritime
2017	Murex	173,545	Membrane	Teekay LNG Partners	DSME	STASCO (Shell)
2017	Ougarta	171,800	Membrane	ITOCHU Corp	HHI	Hyproc Shipping Co.
2017	Pan Asia	174,000	Membrane	Teekay LNG Partners	HZ	Teekay LNG Partners
2017	Seri Cempaka	150,200	Moss	MISC	HHI	MISC
2017	Seri Cenderawasih	150,200	Moss	MISC	HHI	EagleStar Shipmgmt
2017	SK Audace	180,000	Membrane	SK & Marubeni JV	SHI	SK Shipmgnt
2017	SM Eagle	174,263	Membrane	Korea Line	DSME	KLC SM
2017	SM Seahawk	174,263	Membrane	Korea Line	DSME	KLC SM
2017	Torben Spirit	173,545	Membrane	Teekay LNG Partners	DSME	Teekay Bermuda
2018	Boris Davyдов	172,636	Membrane	Dynagas LNG	DSME	Dynagas LNG
2018	British Achiever	173,644	Membrane	BP Shipping	DSME	BP Shipping
2018	British Contributor	173,644	Membrane	BP Shipping	DSME	BP Shipping
2018	British Partner	173,644	Membrane	BP Shipping	DSME	BP Shipping
2018	Bunker Breeze	4,864	Other	Grupo Suardiaz	Ast. Zamakona	Grupo Suardiaz
2018	BW Lilac	174,284	Membrane	BW Gas	DSME	BW Fleet Mngt
2018	BW Tulip	174,284	Membrane	BW Gas	DSME	BW Fleet Mngt
2018	Castillo de Caldelas	178,817	Membrane	Elcano	Imabari SB Saito	Elcano
2018	Castillo de Merida	178,817	Membrane	Elcano	Imabari SB Saito	Elcano
2018	CESI Lianyungang	174,323	Membrane	China Energy Shpg	HZ	China Energy Mngt
2018	CESI Wenzhou	174,323	Membrane	China Energy Shpg	HZ	China Energy Mngt
2018	Coral Encanto	30,133	Other	Anthony Veder	Ningbo Xinle SB	Anthony Veder
2018	Coral Energice	18,000	Other	Anthony Veder	Neptun Werft	Anthony Veder
2018	Diamond Gas Orchid	165,000	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmgnt
2018	Diamond Gas Rose	165,000	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmgnt
2018	Energy Liberty	166,571	Other	Mitsui OSK Lines	JMU Tsu Shipyard	MOL LNG Transport
2018	Enshu Maru	165,257	Moss	K-Line	KHI	K-Line
2018	Flex Endeavour	173,400	Membrane	Hyundai Glovis	DSME	FLEX Fleet Mngt.
2018	Flex Enterprise	173,400	Membrane	Hyundai Glovis	DSME	FLEX Fleet Mngt.
2018	Flex Rainbow	174,000	Membrane	FLEX LNG	SHI	FLEX Fleet Mngt.
2018	Flex Ranger	174,101	Membrane	FLEX LNG	SHI	FLEX Fleet Mngt.
2018	GasLog Genoa	174,000	Membrane	GasLog	SHI	GasLog
2018	GasLog Hong Kong	174,000	Membrane	GasLog	HHI	GasLog LNG Services
2018	GasLog Houston	174,000	Membrane	GasLog	HHI	GasLog LNG Services
2018	Georgiy Brusilov	172,636	Membrane	Dynagas LNG	DSME	Dynagas LNG
2018	Kairos	7,500	Other	Schulte Group	Hyundai Mipo	B. Schulte (Deutsch)
2018	Kinisis	174,000	Membrane	Chandris (Hellas)	DSME	K Line LNG Shpg.

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2018	LNG Juno	180,000	Moss	Mitsui OSK Lines	MHI	MOL LNG Transport
2018	LNG Sakura	177,582	Moss	KEPCO	KHI	NYK LNG Shipmngt.
2018	LNG Schneeweisschen	180,125	Membrane	Mitsui OSK Lines	DSME	MOL LNG Europe
2018	Magdala	173,545	Membrane	Teekay LNG Partners	DSME	STASCO (Shell)
2018	Maran Gas Spetses	173,554	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2018	Marvel Eagle	156,265	Moss	Mitsui OSK Lines	KHI	Mitsui OSK Lines
2018	Marvel Falcon	174,000	Membrane	Nippon Yusen Kaisha	SHI	NYK Shipmngt. Pte.
2018	Marvel Hawk	174,000	Membrane	Schulte Group	SHI	B. Schulte (UK)
2018	Megara	173,545	Membrane	Teekay LNG Partners	DSME	STASCO (Shell)
2018	Myrina	173,545	Membrane	Teekay LNG Partners	DSME	STASCO (Shell)
2018	Oceanic Breeze	155,671	Moss	K-Line	MHI	K-Line Energ Mgmt
2018	Pacific Breeze	183,352	Moss	K-Line	KHI	K-Line
2018	Pacific Mimosa	155,727	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmngt.
2018	Pan Americas	174,000	Membrane	Teekay LNG Partners	HZ	Teekay Shpg. (Gla)
2018	Pan Europe	174,000	Membrane	Teekay LNG Partners	HZ	Teekay LNG Partners
2018	Patris	174,000	Membrane	Chandris (Hellas)	DSME	K Line LNG Shpg.
2018	Rudolf Samoylovich	172,567	Membrane	Teekay Corp CLNG JV	DSME	Teekay Shpg. (Gla)
2018	Sean Spirit	174,162	Membrane	Teekay LNG Partners	HSHI	Teekay Bermuda
2018	Seri Camar	150,200	Moss	MISC	HHI	MISC
2018	Seri Cemara	150,200	Moss	MISC	HHI	EagleStar Shipmgmt
2018	SK Resolute	180,082	Membrane	SK & Marubeni JV	SHI	SK Shipmngt.
2018	SK Serenity	174,117	Membrane	SK Shipping	SHI	SK Shipping
2018	SK Spica	174,117	Membrane	SK Shipping	SHI	SK Shipping
2018	Vladimir Rusanov	172,658	Membrane	Arctic LNG	DSME	MOL LNG Europe
2018	Vladimir Vize	172,658	Membrane	Arctic LNG	DSME	MOL LNG Europe
2019	Adriano Knutsen	179,981	Membrane	Knutsen OAS Shipping	HHI	Knutsen OAS Shipping
2019	British Listener	173,644	Membrane	BP Shipping	DSME	BP Shipping
2019	British Mentor	173,644	Membrane	BP Shipping	DSME	BP Shipping
2019	British Sponsor	173,644	Membrane	BP Shipping	DSME	BP Shipping
2019	Bushu Maru	180,000	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmngt.
2019	BW Pavilion Aranda	173,400	Membrane	BW Gas	DSME	BW Fleet Mngrt
2019	Diamond Gas Sakura	165,000	Moss	Nippon Yusen Kaisha	MHI	NYK LNG Shipmngt.
2019	Energy Glory	166,686	Other	Nippon Yusen Kaisha	JMU Tsu Shipyard	NYK LNG Shipmngt.
2019	Energy Innovator	166,571	Other	Mitsui OSK Lines	JMU Tsu Shipyard	MOL LNG Transport
2019	Energy Universe	166,637	Other	Mitsui OSK Lines	JMU Tsu Shipyard	MOL LNG Transport
2019	Flex Constellation	173,400	Membrane	FLEX LNG	DSME	FLEX Fleet Mngrt.

Built	Vessel Name	Capacity (m³)	CCS*	Owner	Builder	Manager
2019	Flex Courageous	173,400	Membrane	FLEX LNG	DSME	FLEX Fleet Mngrt.
2019	GasLog Gladstone	174,000	Membrane	GasLog	SHI	GasLog
2019	GasLog Warsaw	180,000	Membrane	GasLog	SHI	GasLog
2019	Georgiy Ushakov	172,652	Membrane	Teekay Corp CLNG JV	DSME	Teekay Corp CLNG JV
2019	LNG Dubhe	174,000	Membrane	Mitsui OSK Lines	SCS Shipbuilding	Mitsui OSK Lines
2019	Maran Gas Andros	173,400	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2019	Maran Gas Chios	173,548	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2019	Maran Gas Hydra	173,617	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2019	Marvel Crane	177,627	Moss	Nippon Yusen Kaisha	MHI	NYK Shipmngt. Pte.
2019	Marvel Heron	177,000	Moss	Mitsui OSK Lines	MHI	Mitsui OSK Lines
2019	Marvel Kite	174,000	Membrane	Nippon Yusen Kaisha	SHI	MMS Co Ltd
2019	Marvel Pelican	156,265	Moss	Mitsui OSK Lines	KHI	Mitsui OSK Lines
2019	Nikolay Urvantsev	172,597	Membrane	Arctic Purple LNG	DSME	MOL LNG Europe
2019	Nikolay Yevgenov	172,625	Membrane	Teekay Corp CLNG JV	DSME	Teekay Corp CLNG JV
2019	Nikolay Zubov	172,636	Membrane	Dynagas LNG	DSME	Dynagas LNG
2019	Nohshu Maru	180,000	Moss	Mitsui OSK Lines	MHI	Mitsui OSK Lines
2019	Pan Africa	174,000	Membrane	Teekay LNG Partners	HZ	Teekay Shpg. (Gla)
2019	Prism Agility	180,024	Membrane	SK Shipping	HHI	SK Shipping
2019	Prism Brilliance	180,016	Membrane	SK Shipping	HHI	SK Shipping
2019	Rias Baixas Knutsen	180,041	Membrane	Knutsen OAS Shipping	HHI	Knutsen OAS Shipping
2019	Saga Dawn	45,000	Membrane	Saga LNG Shpg Pte.	CMHI (Jiangsu)	Saga LNG Shpg Pte.
2019	Shinshu Maru	177,481	Moss	Nippon Yusen Kaisha	KHI	NYK LNG Shipmngt.
2019	SM Jeju LNG1	7,654	Membrane	Korea Line	SHI	KLC SM
2019	Sohshu Maru	177,474	Moss	Mitsui OSK Lines	KHI	MOL LNG Transport
2019	Vladimir Voronin	172,608	Membrane	Teekay Corp CLNG JV	DSME	Teekay Shpg. (Gla)
2019	Woodside Chaney	173,579	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2019	Woodside Rees Withers	173,400	Membrane	Maran Gas Maritime	DSME	Maran Gas Maritime
2019	Yakov Gakkal	172,658	Membrane	Teekay Corp CLNG JV	DSME	Teekay Corp CLNG JV
2019	Yamal Spirit	174,174	Membrane	Teekay LNG Partners	HSHI	Teekay Bermuda

LNG imports in 2019 (net of re-exports)

Country	10 ⁶ m ³ liquid	10 ⁶ T	Global Share	Var. 2019/2018
Japan	170.01	76.87	21.7%	-6.8%
China	139.64	61.68	17.4%	14.2%
South Korea	90.02	40.14	11.3%	-8.7%
India	52.92	23.98	6.8%	7.0%
Taiwan	37.07	16.66	4.7%	-0.9%
Pakistan	18.04	8.10	2.3%	18.1%
Thailand	11.16	5.00	1.4%	12.7%
Bangladesh	9.09	4.07	1.1%	508.0%
Indonesia	8.25	3.65	1.0%	21.6%
Singapore	7.57	3.30	0.9%	28.7%
Malaysia	6.22	2.71	0.8%	93.8%
ASIA	549.99	246.16	69.4%	3.2%
Spain	35.67	15.72	4.4%	46.2%
France	35.05	15.57	4.4%	98.6%
UK	30.37	13.55	3.8%	173.7%
Italy	22.13	9.77	2.8%	60.8%
Turkey	20.86	9.37	2.6%	12.9%
Netherlands	13.17	5.79	1.6%	186.7%
Belgium	11.42	5.08	1.4%	167.5%
Portugal	9.26	4.12	1.2%	44.4%
Poland	5.62	2.46	0.7%	23.8%
Greece	4.73	2.11	0.6%	129.1%
Lithuania	3.14	1.40	0.4%	133.2%
Malta	0.85	0.37	0.1%	31.5%
Sweden	0.60	0.26	0.1%	5.8%
Finland	0.31	0.14	0.0%	93.3%
Norway	0.27	0.12	0.0%	1.0%
Gibraltar	0.12	0.05	0.0%	-
EUROPE	193.57	85.89	24.2%	75.6%

Country	10 ⁶ m ³ liquid	10 ⁶ T	Global Share	Var. 2019/2018
Mexico	10.96	4.89	1.4%	-1.8%
Chile	5.66	2.45	0.7%	-20.0%
Brazil	5.30	2.32	0.7%	24.5%
Puerto Rico	3.21	1.37	0.4%	21.6%
Argentina	2.78	1.20	0.3%	-53.7%
Dom. Rep.	2.68	1.15	0.3%	26.9%
USA	2.40	1.03	0.3%	-37.5%
Panama	0.98	0.43	0.1%	167.9%
Canada	0.92	0.39	0.1%	-3.7%
Jamaica	0.64	0.28	0.1%	37.6%
Colombia	0.53	0.23	0.1%	-7.6%
AMERICAS	36.06	15.75	4.4%	-8.6%
Kuwait	7.93	3.55	1.0%	4.8%
Jordan	3.22	1.40	0.4%	-43.8%
UAE	3.06	1.36	0.4%	76.2%
Israel	1.33	0.57	0.2%	4.0%
Egypt	0.14	0.06	0.0%	-96.9%
MIDDLE EAST & AFRICA	15.67	6.94	2.0%	-23.9%
GLOBAL NET IMPORTS	795.30	354.73	100.0%	13.0%

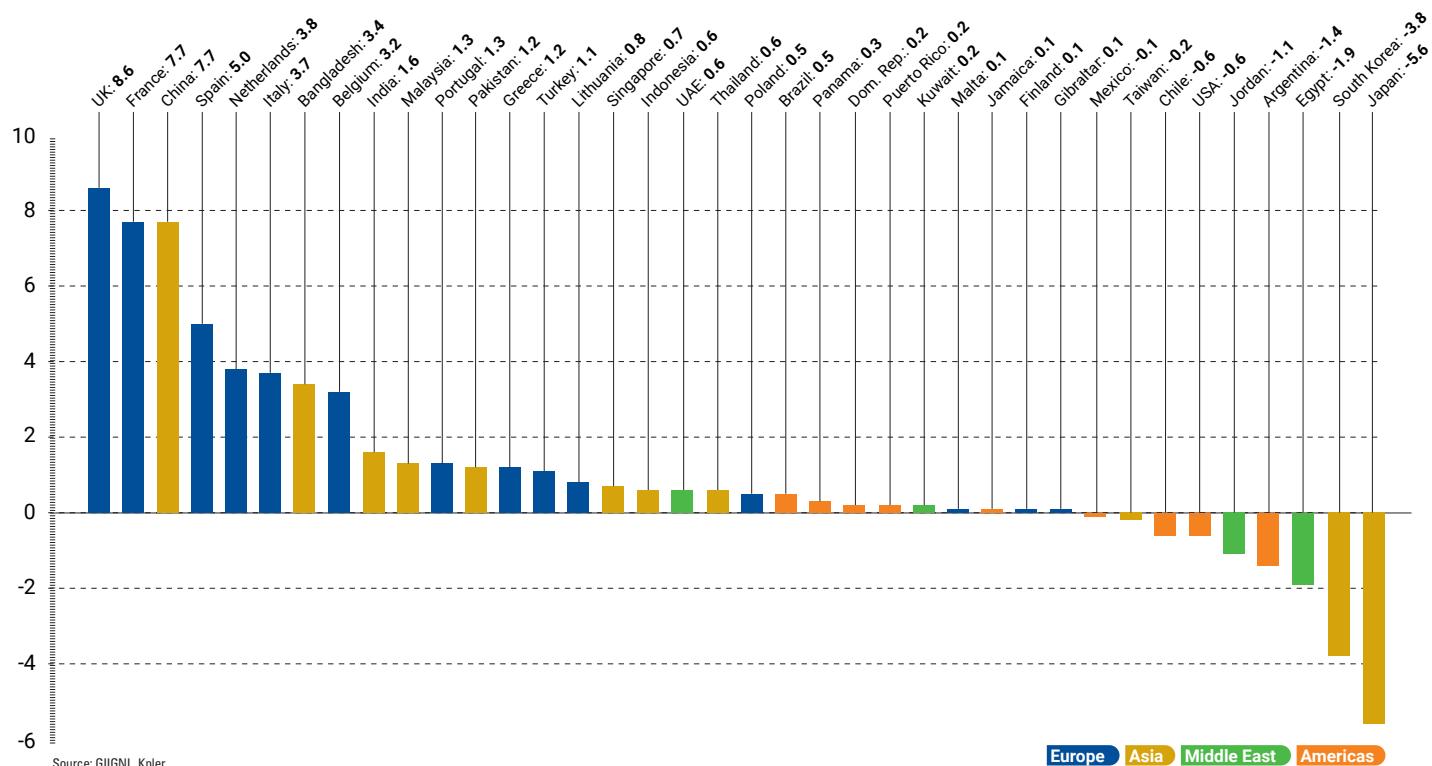
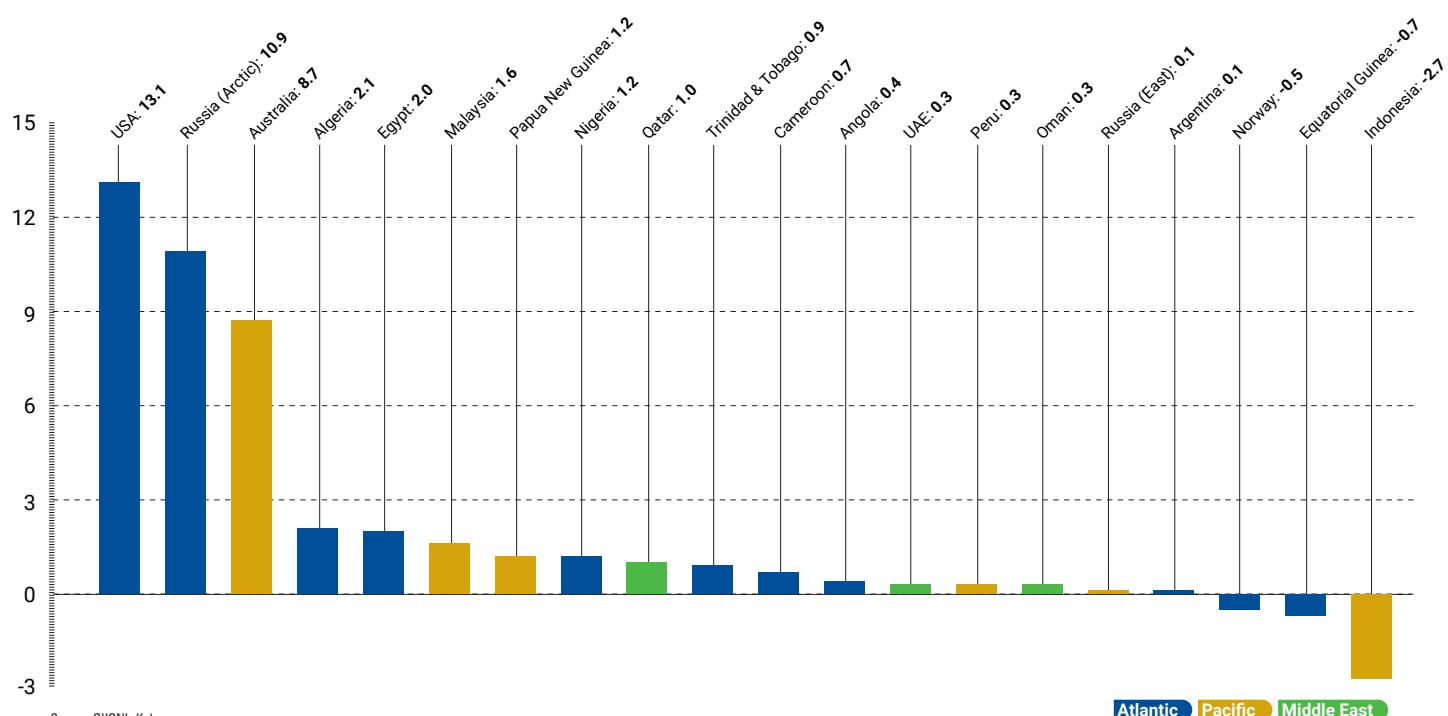
Source: GIIGNL, Kpler

Source of LNG imports in 2019

Country	10 ⁶ m ³ liquid	10 ⁶ T	Global Share	Var. 2019/2018
Australia	170.05	75.39	21.3%	13.1%
Brunei	14.08	6.41	1.8%	0.6%
Indonesia	35.04	15.47	4.4%	-15.1%
Malaysia	57.93	26.21	7.4%	6.3%
Papua New Guinea	17.69	8.23	2.3%	17.5%
Peru	8.41	3.80	1.1%	7.9%
Russia (East)	24.82	11.17	3.1%	1.0%
PACIFIC BASIN	328.01	146.68	41.3%	6.7%
Algeria	27.01	12.23	3.4%	21.1%
Angola	9.83	4.41	1.2%	10.7%
Argentina	0.12	0.05	0.0%	-
Cameroon	2.83	1.27	0.4%	108.5%
Egypt	7.94	3.45	1.0%	139.7%

Country	10 ⁶ m ³ liquid	10 ⁶ T	Global Share	Var. 2019/2018
Equatorial Guinea	6.22	2.80	0.8%	-19.0%
Nigeria	45.95	20.84	5.9%	5.9%
Norway	10.49	4.72	1.3%	-8.8%
Russia (Arctic)	41.20	18.15	5.1%	149.3%
Trinidad & Tobago	29.11	12.50	3.5%	7.4%
USA	77.61	33.75	9.5%	63.5%
ATLANTIC BASIN	258.30	114.16	32.2%	35.9%
Oman	22.41	10.26	2.9%	2.5%
Qatar	173.93	77.80	21.9%	1.3%
UAE	12.65	5.83	1.6%	5.1%
MIDDLE EAST	208.99	93.89	26.5%	1.7%
TOTAL	795.30	354.73	100.0%	13.0%

Source: GIIGNL, Kpler

LNG IMPORTS: 2019 VS. 2018 (MT)**SOURCE OF LNG IMPORTS: 2019 VS. 2018 (MT)**

Quantities (in MT) received in 2019 by the importing countries

Country	Algeria	Angola	Argentina	Australia	Brunei	Cameroon	Egypt	Equatorial Guinea	Indonesia	Malaysia	Nigeria
Japan	0.06	-	-	29.84	4.32	-	0.06	0.07	4.04	9.35	0.83
China	0.06	0.13	-	28.16	0.60	0.55	0.19	0.42	4.54	7.48	1.98
South Korea	-	-	-	7.59	0.58	-	0.11	0.08	2.31	4.74	0.56
India	0.21	2.88	-	1.01	-	0.40	0.20	0.51	-	0.39	2.71
Taiwan	-	-	-	4.39	0.25	0.06	0.11	0.14	0.35	2.48	0.20
Pakistan	0.27	-	-	-	-	-	0.64	0.22	-	0.06	0.96
Thailand	-	0.07	-	0.84	-	-	0.13	-	0.27	1.29	-
Bangladesh	0.29	-	-	-	-	-	0.06	-	0.06	0.13	0.36
Indonesia	-	-	-	0.07	-	-	-	-	3.58	-	-
Singapore	0.01	0.07	-	1.89	-	-	0.44	0.25	0.13	0.01	0.06
Malaysia	-	-	-	1.54	0.65	-	-	0.08	-	0.26	0.06
ASIA	0.89	3.15	-	75.33	6.41	1.01	1.94	1.76	15.28	26.21	7.74
Spain	0.80	0.20	-	-	-	0.06	-	0.06	-	-	3.14
France	2.68	0.26	-	-	-	-	0.32	-	-	-	2.96
UK	0.73	0.07	-	-	-	0.06	-	0.19	-	-	0.25
Italy	2.19	-	-	-	-	-	0.31	0.06	-	-	0.07
Turkey	4.27	-	-	-	-	-	0.32	0.06	-	-	1.82
Netherlands	0.14	0.20	-	-	-	-	-	0.04	-	-	0.24
Belgium	-	0.07	-	-	-	-	0.11	-	-	-	-
Portugal	0.06	-	-	-	-	-	-	-	-	-	2.37
Poland	-	-	-	-	-	-	-	-	-	-	-
Greece	0.41	0.07	-	-	-	-	0.18	-	-	-	0.32
Lithuania	-	-	-	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	0.05	-	-	-	-
Sweden	-	-	-	-	-	-	-	-	-	-	-
Finland	-	-	-	-	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-	-	-	-	-
Gibraltar	-	-	-	-	-	-	-	-	-	-	-
EUROPE	11.27	0.86	-	-	-	0.13	1.29	0.42	-	-	11.18
Mexico	-	-	-	-	-	-	-	0.35	0.18	-	1.03
Chile	-	-	-	-	-	-	-	0.14	-	-	-
Brazil	-	0.07	0.05	-	-	0.10	-	0.13	-	-	0.20
Puerto Rico	-	-	-	-	-	-	-	-	-	-	-
Argentina	-	-	-	-	-	0.03	-	-	-	-	-
Dom. Rep.	-	-	-	-	-	-	-	-	-	-	0.06
USA	-	-	-	-	-	-	-	-	-	-	0.07
Panama	-	-	-	-	-	-	0.03	-	-	-	-
Canada	-	0.07	-	-	-	-	-	-	-	-	-
Jamaica	-	-	-	-	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-	-	-	-	0.06
AMERICAS	-	0.14	0.05	-	-	0.14	0.03	0.62	0.18	-	1.41
Kuwait	0.07	0.13	-	-	-	-	0.06	-	-	-	0.37
Jordan	-	-	-	-	-	-	-	-	-	-	-
UAE	-	0.13	-	0.06	-	-	0.06	-	-	-	0.13
Israel	-	-	-	-	-	-	-	-	-	-	-
Egypt	-	-	-	-	-	-	0.06	-	-	-	-
MIDDLE EAST & AFRICA	0.07	0.26	-	0.06	-	-	0.18	-	-	-	0.50
GLOBAL NET IMPORTS	12.23	4.41	0.05	75.39	6.41	1.27	3.45	2.80	15.47	26.21	20.84

countries from the exporting countries

Norway ▼	Oman ▼	Papua New Guinea ▼	Peru ▼	Qatar ▼	Russia (Arctic) ▼	Russia (East) ▼	Trinidad & Tobago ▼	UAE ▼	USA ▼	Re-exports Received ▼	Re-exports Loaded ▼	2019 Net imports ▼
-	2.90	3.68	0.68	8.74	-	6.34	-	2.17	3.64	0.14	-	76.87
0.07	1.10	2.80	0.66	8.49	1.81	1.04	0.79	0.12	0.27	0.50	-0.07	61.68
-	3.85	0.31	1.13	11.12	0.07	2.31	0.07	0.18	5.05	0.06	-	40.14
0.06	1.01	-	-	9.74	0.21	-	0.14	2.64	1.79	0.15	-0.07	23.98
-	0.13	1.45	0.11	4.67	-	1.48	0.19	0.06	0.50	0.07	-	16.66
-	0.28	-	-	4.75	-	-	-	0.40	0.45	0.06	-	8.10
-	0.13	-	0.06	1.96	0.07	-	0.05	-	0.13	-	-	5.00
-	0.07	-	-	2.79	0.25	-	-	-	-	0.06	-	4.07
-	-	-	-	-	-	-	-	-	-	-	-	3.65
-	-	-	-	0.10	-	-	0.12	-	0.64	-	-0.41	3.30
-	-	-	-	-	-	-	-	-	0.08	0.07	-0.03	2.71
0.13	9.47	8.23	2.65	52.36	2.41	11.17	1.36	5.57	12.54	1.11	-0.58	246.16
0.49	-	-	0.33	3.21	2.26	-	2.06	-	3.12	-	-0.02	15.72
1.08	-	-	0.28	1.35	5.04	-	0.19	-	2.02	0.00	-0.61	15.57
0.25	-	-	0.21	6.56	2.38	-	0.69	-	2.15	-	-	13.55
0.12	-	-	-	4.67	0.06	-	1.08	-	1.15	0.07	-	9.77
0.06	-	-	-	1.76	0.07	-	0.28	-	0.73	-	-	9.37
0.33	-	-	0.34	0.09	3.07	-	0.05	-	1.42	-	-0.14	5.79
-	-	-	-	3.32	1.44	-	-	-	0.25	-	-0.12	5.08
-	-	-	-	0.49	0.14	-	0.11	-	0.95	-	-	4.12
0.12	-	-	-	1.67	-	-	-	-	0.67	-	-	2.46
0.40	-	-	-	0.40	0.13	-	0.02	-	0.16	0.02	-	2.11
0.99	-	-	-	-	0.31	-	-	-	0.07	0.06	-0.02	1.40
0.06	-	-	-	-	-	-	0.25	-	0.01	-	-	0.37
0.10	-	-	-	-	0.08	-	-	-	-	0.08	-	0.26
0.03	-	-	-	-	0.09	-	-	-	-	0.02	-	0.14
0.12	-	-	-	-	-	-	-	-	-	0.01	-	0.12
-	-	-	-	-	-	-	-	-	-	0.05	-	0.05
4.16	-	-	1.15	23.52	15.07	-	4.73	-	12.72	0.31	-0.91	85.89
-	-	-	-	-	-	-	0.44	-	2.89	-	-	4.89
-	-	-	-	-	-	-	0.63	-	1.68	-	-	2.45
0.25	-	-	-	-	-	-	0.42	-	1.09	-	-	2.32
-	-	-	-	-	0.06	-	1.33	-	-	0.02	-0.04	1.37
-	-	-	-	-	-	-	0.44	-	0.73	-	-	1.20
0.06	-	-	-	-	-	-	0.85	-	0.22	-	-0.03	1.15
-	-	-	-	-	-	-	0.96	-	-	-	-	1.03
0.12	-	-	-	-	-	-	0.05	-	0.21	0.02	-	0.43
-	-	-	-	-	-	-	0.33	-	-	-	-	0.39
-	-	-	-	-	-	-	0.08	-	0.17	0.04	-0.01	0.28
-	-	-	-	-	-	-	0.03	-	0.14	-	-	0.23
0.43	-	-	-	-	0.06	-	5.56	-	7.13	0.07	-0.07	15.75
-	0.73	-	-	1.84	-	-	0.14	-	0.21	-	-	3.55
-	-	-	-	0.08	0.35	-	0.19	-	0.78	-	-	1.40
-	0.06	-	-	-	0.13	-	0.07	0.26	0.39	0.06	-	1.36
-	-	-	-	-	0.12	-	0.45	-	-	-	-	0.57
-	-	-	-	-	-	-	-	-	-	-	-	0.06
-	0.79	-	-	1.92	0.61	-	0.85	0.26	1.37	0.06	-	6.94
4.72	10.26	8.23	3.80	77.80	18.15	11.17	12.50	5.83	33.75	1.56	-1.56	354.73

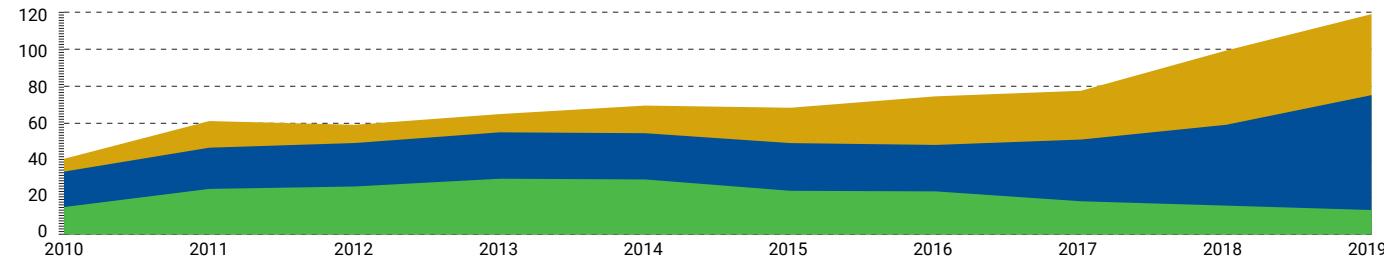
Source: GIIGNL, Kpler

Spot and short-term quantities* (in 10³T) received in 2019

Country	Algeria	Angola	Argentina	Australia	Brunei	Cameroon	Egypt	Equatorial Guinea	Indonesia	Malaysia	Nigeria
China	58	-	-	10,124	338	550	185	281	2,083	4,412	1,541
India	209	2,273	-	203	-	98	202	513	-	395	2,710
South Korea	-	-	-	2,831	198	-	113	77	473	2,652	360
Japan	-	-	-	3,580	467	-	62	-	626	853	618
Taiwan	-	-	-	2,178	-	-	57	71	234	2,479	142
Pakistan	273	-	-	-	-	-	639	216	-	64	904
Indonesia	-	-	-	66	-	-	-	-	1,768	-	-
Bangladesh	286	-	-	-	-	-	63	-	-	132	294
Thailand	-	72	-	340	-	-	62	-	144	128	-
Malaysia	-	-	-	112	138	-	-	77	-	61	62
Singapore	7	67	-	397	-	-	-	-	64	13	63
ASIA	833	2,412	-	19,830	1,141	648	1,384	1,234	5,392	11,189	6,693
Spain	293	133	-	-	-	63	-	64	-	-	620
Netherlands	137	200	-	-	-	-	-	42	-	-	240
UK	729	66	-	-	-	63	-	-	-	-	-
Italy	762	-	-	-	-	-	306	58	-	-	68
France	127	60	-	-	-	-	-	-	-	-	122
Turkey	-	-	-	-	-	-	324	58	-	-	626
Greece	114	66	-	-	-	-	183	-	-	-	322
Portugal	-	-	-	-	-	-	-	-	-	-	250
Lithuania	-	-	-	-	-	-	-	-	-	-	-
Belgium	-	66	-	-	-	-	113	-	-	-	-
Poland	-	-	-	-	-	-	-	-	-	-	-
Malta	-	-	-	-	-	-	48	-	-	-	-
Sweden	-	-	-	-	-	-	-	-	-	-	-
Finland	-	-	-	-	-	-	-	-	-	-	-
Norway	-	-	-	-	-	-	-	-	-	-	-
Gibraltar	-	-	-	-	-	-	-	-	-	-	-
EUROPE	2,163	591	-	-	-	126	973	222	-	-	2,249
Mexico	-	-	-	-	-	-	-	347	-	-	1,027
Brazil	-	68	54	-	-	103	-	134	-	-	200
Chile	-	-	-	-	-	-	-	-	-	-	-
Argentina	-	-	-	-	-	34	-	-	-	-	-
USA	-	-	-	-	-	-	-	-	-	-	70
Dom. Rep.	-	-	-	-	-	-	-	-	-	-	59
Puerto Rico	-	-	-	-	-	-	-	-	-	-	-
Canada	-	69	-	-	-	-	-	-	-	-	-
Colombia	-	-	-	-	-	-	-	-	-	-	59
Jamaica	-	-	-	-	-	-	-	-	-	-	-
Panama	-	-	-	-	-	-	-	-	-	-	-
AMERICAS	-	136	54	-	-	137	-	482	-	-	1,415
UAE	-	65	-	-	-	-	62	-	-	-	133
Kuwait	69	-	-	-	-	-	62	-	-	-	308
Israel	-	-	-	-	-	-	-	-	-	-	-
Jordan	-	-	-	-	-	-	-	-	-	-	-
Egypt	-	-	-	-	-	-	59	-	-	-	-
MIDDLE EAST & AFRICA	69	65	-	-	-	-	184	-	-	-	441
GLOBAL NET IMPORTS	3,065	3,205	54	19,830	1,141	911	2,540	1,937	5,392	11,189	10,797

SPOT & SHORT TERM FLOWS BY EXPORTING REGION (MTPA)

Pacific Atlantic Middle East

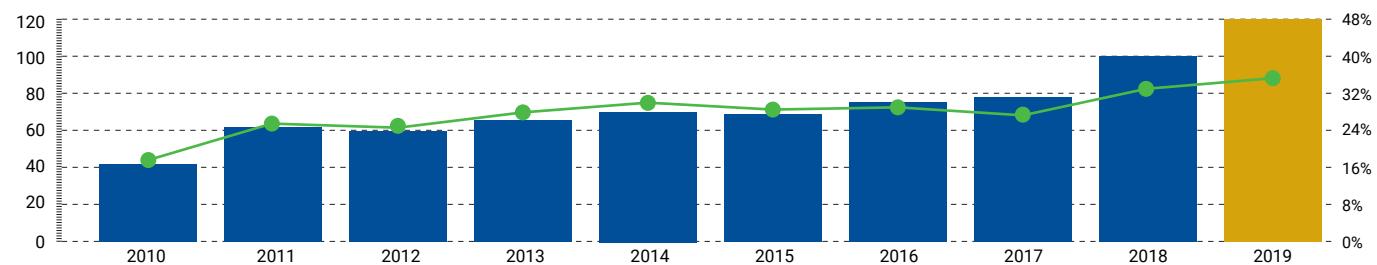


by the importing countries from the exporting countries

Norway	Oman	Papua New Guinea	Peru	Qatar	Russia (Arctic)	Russia (East)	Trinidad & Tobago	UAE	USA	Re-exports Received	Re-exports Loaded	2019 Net imports
71	786	1,306	393	619	756	843	188	60	265	504	-71	25,294
63	820	-	-	889	206	-	141	2,508	1,196	145	-68	12,503
-	128	231	459	1,033	-	446	-	182	2,426	61	-	11,670
-	508	200	70	128	-	644	-	594	1,211	138	-	9,699
-	129	148	-	60	-	772	189	61	376	75	-	6,969
-	281	-	-	745	-	-	-	400	453	61	-	4,036
-	-	-	-	-	-	-	-	-	-	-	-	1,834
-	65	-	-	321	252	-	-	-	-	63	-	1,477
-	-	-	-	-	72	-	-	-	61	-	-	880
-	-	-	-	-	-	-	-	-	78	66	-28	565
-	-	-	-	-	-	-	-	-	282	-	-409	483
135	2,718	1,885	922	3,795	1,286	2,704	518	3,805	6,349	1,113	-576	75,409
-	-	-	200	363	725	-	647	-	2,417	-	-18	5,507
59	-	-	280	-	2,517	-	55	-	1,237	-	-139	4,629
127	-	-	128	95	904	-	79	-	1,985	-	-	4,176
124	-	-	-	126	61	-	173	-	1,152	69	-	2,899
123	-	-	72	-	1,294	-	130	-	1,508	3	-611	2,826
61	-	-	-	627	68	-	277	-	730	-	-	2,772
402	-	-	-	397	127	-	20	-	162	20	-	1,812
-	-	-	-	243	72	-	109	-	503	-	-	1,177
372	-	-	-	-	240	-	-	-	66	57	-24	711
-	-	-	-	247	63	-	-	-	255	-	-117	625
123	-	-	-	26	-	-	-	-	267	-	-	415
61	-	-	-	-	-	-	253	-	6	-	-	368
104	-	-	-	-	78	-	-	-	-	83	-	264
31	-	-	-	-	89	-	-	-	-	16	-	135
113	-	-	-	-	-	-	-	-	-	5	-	118
-	-	-	-	-	-	-	-	-	-	54	-	54
1,699	-	-	679	2,123	6,236	-	1,743	-	10,288	307	-908	28,489
-	-	-	-	-	-	-	444	-	2,892	-	-	4,709
247	-	-	-	-	-	-	417	-	1,094	-	-	2,316
-	-	-	-	-	-	-	-	-	1,267	-	-	1,267
-	-	-	-	-	-	-	441	-	725	-	-	1,200
-	-	-	-	-	-	-	844	-	-	-	-	915
-	-	-	-	-	-	-	250	-	215	-	-31	493
-	-	-	-	-	58	-	344	-	-	21	-35	388
-	-	-	-	-	-	-	210	-	-	-	-	279
-	-	-	-	-	-	-	30	-	141	-	-	231
-	-	-	-	-	-	-	58	-	139	35	-6	226
-	-	-	-	-	-	-	19	-	89	16	-	125
247	-	-	-	-	58	-	3,057	-	6,562	73	-73	12,148
-	62	-	-	-	132	-	66	133	385	64	-	1,104
-	527	-	-	-	-	-	-	-	134	-	-	1,101
-	-	-	-	-	123	-	449	-	-	-	-	572
-	-	-	-	-	-	-	-	-	72	-	-	72
-	-	-	-	-	-	-	-	-	-	-	-	59
-	590	-	-	-	255	-	515	133	591	64	-	2,908
2,080	3,308	1,885	1,602	5,917	7,835	2,704	5,833	3,938	23,790	1,557	-1,557	118,954

* Quantities delivered under contracts of a duration of 4 years or less. Source: GIGNL, Kpler

SHARE OF SPOT & SHORT TERM VS. TOTAL LNG TRADE (MTPA/%)

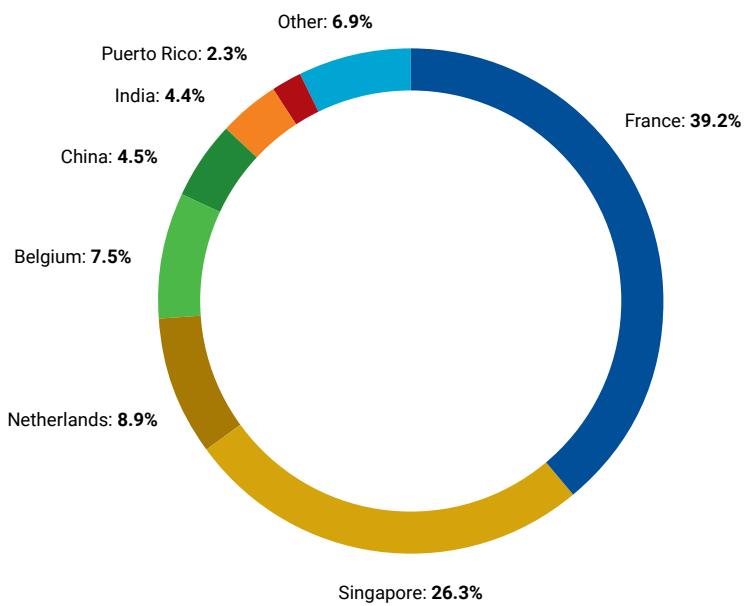


International re-exports

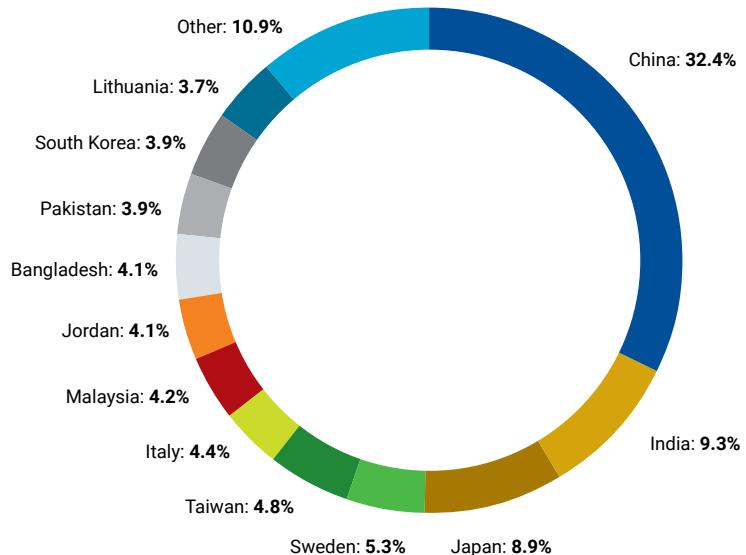
(Based on cargoes received in 2019)

Re-exporting Country	Import Country	Re-exported Volume (MT)	Total (MT)
Belgium	China	0.07	0.12
	Gibraltar	0.004	
	Norway	0.003	
	Sweden	0.04	
France	Bangladesh	0.06	0.61
	China	0.26	
	Greece	0.02	
	India	0.15	
	Lithuania	0.06	
	UAE	0.06	
Lithuania	Finland	0.01	0.02
	Sweden	0.02	
Netherlands	Finland	0.01	0.14
	Gibraltar	0.04	
	Italy	0.07	
	Norway	0.002	
Spain	Sweden	0.02	0.02
	France	0.003	
	Gibraltar	0.02	
EUROPE	Greece	0.001	0.91
China	Japan	0.07	0.07
India	China	0.07	0.07
Malaysia	China	0.03	0.03
Singapore	China	0.08	0.41
	Japan	0.07	
	Malaysia	0.07	
	Pakistan	0.06	
	South Korea	0.06	
	Taiwan	0.07	
ASIA			0.58
	Panama	0.01	
	Puerto Rico	0.02	
Jamaica	Panama	0.01	0.01
Puerto Rico	Jamaica	0.04	0.04
AMERICAS		0.07	
WORLD			1.56

RE-EXPORTS LOADED BY RELOADING COUNTRY IN 2019 (1.6 MT)

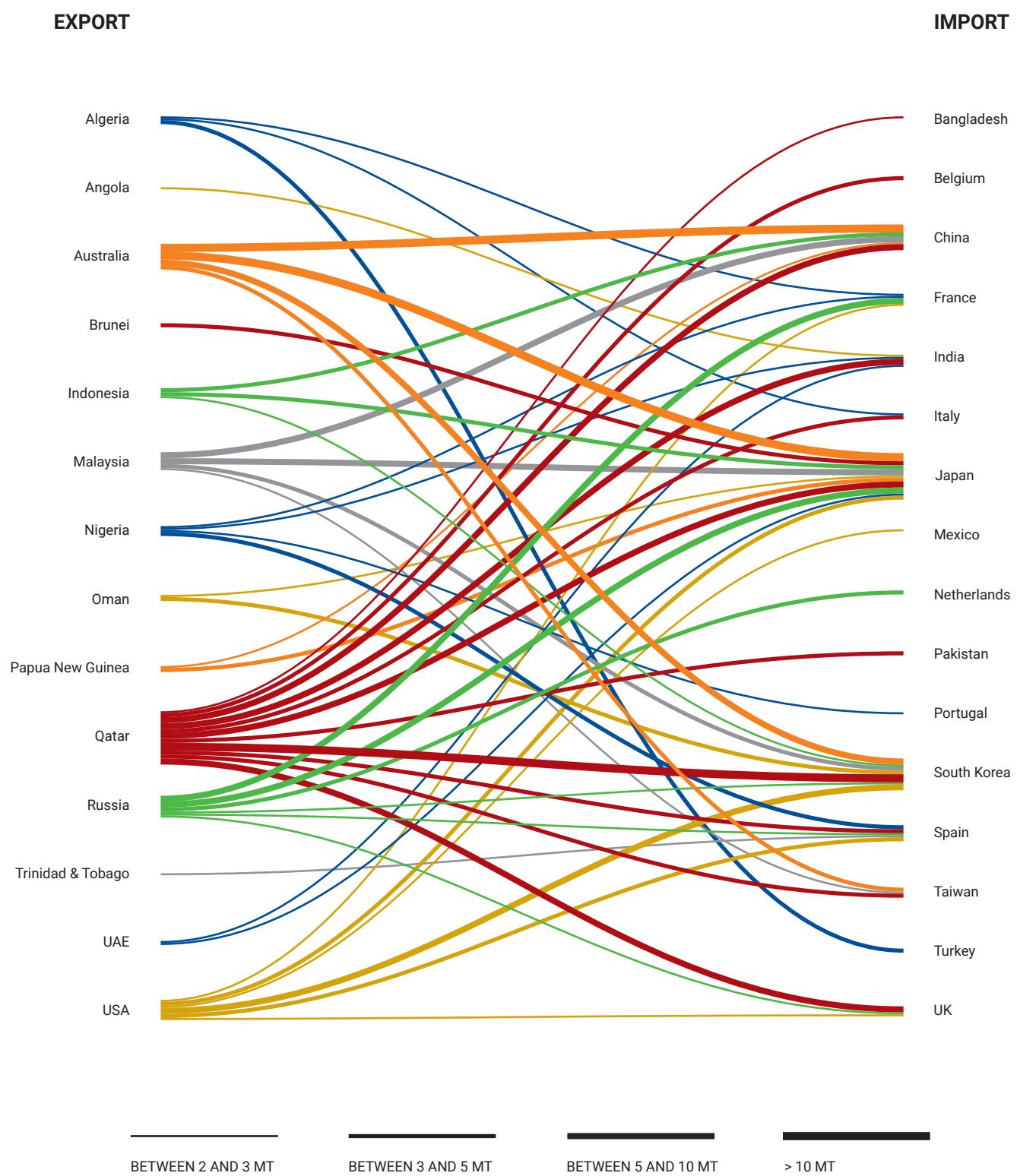


RE-EXPORTS RECEIVED BY RECEIVING COUNTRY IN 2019 (1.6 MT)



Source: GIIGNL, Kpler

Major LNG flows in 2019



Liquefaction plants

In 2019, global liquefaction capacity increased by **21 MTPA** to reach a total nameplate capacity of around **427 MTPA** at year-end.

5 new large-scale liquefaction projects started commercial operations in 2019: 4 onshore in the United States (Cameron LNG Train 1, the first two trains at Corpus Christi LNG, Freeport LNG Train 1 and the first two trains at Elba Island) and 1 offshore in Australia (Prelude FLNG). In addition, 2 small-scale liquefaction plants started-up exports: 1 onshore in Russia (Vysotsk LNG) and 1 floating unit in Argentina (Tango FLNG).

2019 was a record year in terms of Final Investment Decision (FID) in liquefaction projects. Six FIDs were taken during the year: Calcasieu Pass (10 MTPA), Golden Pass (15.6 MTPA) and Sabine Pass Train 6 (4.5 MTPA) in the U.S., Mozambique LNG (12.9 MTPA) in Mozambique, Arctic LNG-2 (19.8 MTPA) in Russia and NLNG Train 7 (7.6 MTPA including the debottlenecking of existing facilities) in Nigeria, are expected to add almost **71 MTPA** of liquefaction capacity by the mid-2020s.

At the end of the year, approximately 123 MTPA of new liquefaction capacity was under construction including the projects sanctioned in 2019. 54% of the capacity under construction was located in North America. The U.S. will continue to drive the capacity increase, with around 18 MTPA of new capacity expected to come online in 2020.

Argentina

In June, Exmar completed the commissioning of **Tango FLNG** (0.5 MTPA), former *Caribbean FLNG*, redeployed to the Port of Bahía Blanca. Argentina has joined the LNG exporting countries' club, with an initial plan to export 0.5 MTPA of LNG sourced from Vaca Muerta shale gas produced in the Neuquén Basin.

Australia

In 2020, Australia is expected to surpass Qatar as the world's largest LNG exporting country on an annual basis as newly commissioned projects in Australia ramp up production.

In June, the first shipment of LNG departed from Shell's **Prelude FLNG** facility (3.6 MTPA) located 475 km North East of Broome in Western Australia.

Cameroon

Kribi FLNG started operations in 2018 and produced 1.2 MT of LNG in 2019 from two out of the four liquefaction trains installed in the vessel. Golar LNG, the operator, has discussed with Perenco and Société Nationale des Hydrocarbures the utilization of the remaining two trains to increase output to 2.4 MTPA.

Canada

Pieridae Energy, the developer of **Goldboro LNG** project closed the acquisition of all of Shell's midstream and upstream assets in the southern Alberta Foothills in October. This transaction will help the company secure the natural gas supply needed for the first train of the Goldboro LNG project.

In July, **Woodfibre LNG** was granted a permit from the BC Oil and Gas Commission, allowing the start of construction. The project signed a binding SPA with BP for the delivery of 0.75 MTPA of LNG over 15 years with first delivery expected in 2023. It involves the construction and operation of an LNG export facility, with a storage capacity of 250,000 m³ and production capacity of approximately 2.1 MTPA of LNG.

In December, the Canada Energy Regulator approved an application from Chevron, the developer of **Kitimat LNG** to export LNG for a term of 40 years. Chevron has since revealed plans to sell its 50 percent share in the project.

Egypt

Egypt increased LNG exports from the **Idku** liquefaction plant to 3.45 MT in 2019 compared to 1.44 MT in 2018. Idku has two trains each with a nameplate liquefaction capacity of 3.6 MTPA of LNG.

In February 2020, Eni signed a series of agreements with the Arab Republic of Egypt, the Egyptian General Petroleum Corporation, the Egyptian Natural Gas Holding Company and Naturgy for the restart of the **Damietta** liquefaction plant by June 2020, which has been idle since November 2012.

Indonesia

In July, SKK Migas, the Indonesian upstream oil and gas regulator, reported that start-up of **Tangguh LNG** Train 3 will be delayed by one year from its initial target of the third quarter of 2020 to the third quarter of 2021. Train 3 is expected to add a production capacity of 3.8 MTPA of LNG, bringing the total capacity of Tangguh to 11.4 MTPA.

In July, INPEX and Shell received official approval from Indonesian government authorities for the revised development plan of the **Abadi LNG** project with an onshore liquefaction plant. This approval followed the signing of an amendment to the PSC including a 7 year additional time allocation and a 20 year extension for the project. The project is expected to have a capacity of 9.5 MTPA of LNG with start-up around 2028.

Malaysia

In May, PETRONAS started LNG production from its **PFLNG Satu** at the Kebabangan cluster field, 90 km offshore Sabah. Operated by Kebabangan Petroleum Operating Company, Kebabangan field is the second location for **PFLNG Satu** after its initial operation in the Kanowit field, offshore Sarawak.

PFLNG Dua was delivered to PETRONAS from the EPCIC consortium of the floating LNG facility. **PFLNG Dua** will be moored over the Rotan Gas Field located 140 km offshore Kota Kinabalu, Sabah, with the capacity to produce 1.5 MTPA of LNG. The first cargo is expected to be delivered in the 2nd half of 2020.

Mauritania/Senegal

In February, Golar LNG signed a lease and operating agreement with BP for chartering an FLNG unit for the **Greater Tortue Ahmeyim** project located offshore Mauritania and Senegal. The facility is expected to start producing approximately 2.5 MTPA of LNG in 2022.

Mexico

In March 2019, **Energía Costa Azul** LNG project received two authorizations from the U.S. Department of Energy (DOE) to export U.S. produced natural gas



to Mexico and to re-export LNG to countries that do not have a free-trade agreement with the U.S. for its Phase 1 and Phase 2 liquefaction projects. Phase 1 of the project includes a single train LNG facility to be located adjacent to the existing LNG receiving terminal, which is expected to utilize the existing storage tanks, marine berth and associated facilities. Three HOAs for the supply of LNG were signed with Mitsui, Tokyo Gas and Total for 0.8 MTPA for 20 years each. FID is expected in the first quarter of 2020.

Mozambique

In January 2020, Eni and the Area 4 partners announced the launch of the hull of the **Coral Sul** Floating Liquefied Natural Gas (FLNG). The FLNG is part of the Coral South project that will put into production 450 billion cubic meters of gas of the Coral reservoir, offshore Mozambique. With a liquefaction capacity of 3.4 MTPA, the project was estimated to be over 60% complete and on track for production to start in 2022.

Anadarko and its partners of Offshore Area 1 in Mozambique reached the FID on **Mozambique LNG** project in June. The project consists of two trains with a total nameplate capacity of 12.88 MTPA and gas supply from the Golfinho/Atum fields located in Offshore Area 1. In Sep-

tember, Total closed the acquisition of Anadarko's 26.5% operated interest in the project and said that the company is planning to add two more trains. Mitsui 20%, ENH 15%, ONGC 10%, Bharat PetroResources 10%, PTTEP 8.5% and Oil India 10% are the other shareholders.

In October, the **Rovuma LNG** project led by ExxonMobil and Eni awarded an EPC contract to a consortium of JGC Corporation, Fluor and TechnipFMC. The project includes the construction of two liquefaction trains with a total nameplate capacity of 15.2 MTPA of LNG as well as associated onshore facilities. FID for Rovuma LNG is expected in 2020.

Nigeria

In December 2019, **Nigeria LNG** (NLNG) took FID for its Train 7 project and the debottlenecking of existing facilities, which will increase the capacity of NLNG's plant from the existing 22 MTPA to around 30 MTPA. The construction period will be approximately five years with first LNG expected in 2024.

Oman

In September 2019, **Oman LNG** kicked-off the debottlenecking of the plant, which is expected to boost the nameplate capacity from 10.4 MTPA to 11.4 MTPA. The process is expected to be completed by 2021.

Papua New Guinea

In April 2019, Total, ExxonMobil and Oil Search signed a Gas Agreement with the Independent State of Papua New Guinea defining the fiscal framework for the **Papua LNG** Project, which will consist of two LNG trains of 2.7 MTPA capacity each. This agreement allows the partners to enter the FEED phase of study. The gas production will be operated by Total and the LNG plant will be developed in synergy with ExxonMobil-operated PNG LNG project through an expansion of the existing plant in Caution Bay.

Qatar

In November, Qatar Petroleum (QP) announced that it aims to increase Qatar's LNG production capacity to 126 MTPA by 2027, representing an increase of 64% from the current 77 MTPA.

Russia

At the end of March 2020, the commissioning of **Yamal LNG** Train 4 was scheduled to start up in Q3 2020. In April 2019, **Vysotsk LNG** commenced its production. It is a small-scale LNG project with a liquefaction capacity of 0.66 MTPA located in Russia's Baltic Sea port of Vysotsk. The project includes a 42,000 m³ LNG storage tank and an offloading berth for LNG carriers with a capacity of up to 30,000 m³.

FID for the **Arctic LNG-2** project was taken in September. It consists of the development of the Utrenneye field and the construction of a liquefaction plant on the Gydan Peninsula in the Russian Arctic region. The Project participants are NOVATEK (60%), Total (10%), CNPC (10%), CNOOC Limited (10%) and the Japan Arctic LNG consortium of Mitsui & Co and JOGMEC (10%). The LNG plant will consist of three trains with overall production capacity of 19.8 MTPA. The launch of Train 1 is scheduled for 2023, with Train 2 and 3 to be launched in 2024 and 2026, respectively. A consortium of TechnipFMC, Saipem and NIPIGAS was awarded the contract on engineering, procurement and construction for the LNG plant, with the design and construction of gravity-based structures by Russian company SAREN, a joint venture of RHI Russia and Saipem.

USA

In 2019, the U.S. added 16 MTPA of liquefaction capacity from four projects.

Trains 1 and 2 at the Corpus Christi LNG terminal are complete and in operation. Train 1 achieved substantial completion in February and Train 2 achieved substantial completion in August 2019. Train 3 is expected to achieve substantial completion in the first half of 2021.

Each train is capable of liquefying 4.5 MTPA of LNG. In August 2019, the first train at the **Cameron LNG** project began commercial operations in Hackberry, Louisiana. Phase 1 of the project includes three liquefaction trains with a nameplate capacity of 13.5 MTPA of LNG. First LNG from train 2 was produced in December 2019 and commercial operations began in March 2020. Train 3 is currently under construction and anticipated to begin production in Q2 2020 and commercial operations in Q3 2020.

In 2019, the **Elba Island** Liquefaction terminal began commissioning ten LNG liquefaction trains and, in December 2019, the terminal loaded the first LNG vessel. Fully developed, the liquefaction facility is expected to have a total capacity of approximately 2.5 MTPA of LNG.

In December, **Freeport LNG** started the commercial operations for its first liquefaction train. Train 2 has also begun its commercial operations in January 2020. Train 3 of the Freeport LNG plant is expected to start commercial operations by Q2 2020. Freeport LNG's three trains are expected to produce over 15 MTPA.

Three FIDs were taken in the U.S. during the year:

Trains 1 through 5 at the **Sabine Pass** Liquefaction facility are complete and in operation. In June 2019,

Cheniere took FID on Train 6 of the project in Cameron Parish, Louisiana. The company has issued full notice to proceed with construction to Bechtel. Train 6 will have a liquefaction capacity of 4.5 MTPA of LNG and is expected to achieve substantial completion in the first half of 2023.

In February 2019, Qatar Petroleum and ExxonMobil took the FID on the **Golden Pass** LNG export project, located in Sabine Pass, Texas. The project is owned by Golden Pass Products, a joint venture between affiliates of Qatar Petroleum (70%) and ExxonMobil (30%). The plant will have a liquefaction capacity of about 15.6 MTPA and the project's EPC contract was awarded to a consortium comprising Chiyoda, McDermott and Zachry.

In August 2019, Venture Global LNG announced the FID for its **Calcasieu Pass LNG** facility and associated TransCameron pipeline in Cameron Parish, Louisiana. Full-site construction has been underway since February 2019, and the project, which has a capacity of 10 MTPA, is expected to reach commercial operations in 2022.

Several other projects have been approved by FERC and are aiming to take FID in the near future, for a total capacity of 158 MTPA as of March 2020.



Liquefaction plants at the end of 2019

Country	Name	Liquefaction		Storage		Owner(s)	Operator	MT - LT Buyer(s)	Start-up date
		Number of trains	Nominal capacity (MTPA)	Number of tanks	Total capacity (lq m ³)				
ATLANTIC BASIN									
Algeria	Arzew GL1Z T1 - T6	6	7.9	3	300,000	Sonatrach	Sonatrach	Botas, Cepsa Gas, DEPA, Enel, Endesa, Total	1978
	Arzew GL2Z T1 - T6	6	8.2	3	300,000				1981
	Arzew GL3Z	1	4.7	2	320,000				2014
	Skikda GL1K	1	4.5	1	150,000				2013
Angola	Angola LNG	1	5.2	1	360,000	Angola LNG (Chevron 36.4%, Sonangol 22.8%, BP 13.6%, ENI 13.6%, Total 13.6%)	Angola LNG		2013
Argentina	Tango (FLNG)	1	0.5	1	16,000	Exmar	Exmar		2019
Cameroon	Kribi (FLNG)	4	2.4	1	125,000	Golar LNG 89%, Keppel Corporation Ltd 10%, Black & Veatch 1%	Golar LNG	Gazprom	2018
	Damietta (stopped)	1	5.0	2	300,000	SEGAS (Union Fenosa Gas 80%, EGPC 10%, EGAS 10%)	SEGAS SERVICES	BP, Union Fenosa Gas	2005
Egypt	Idku T1	1	3.6	2	280,000	Egyptian LNG (Shell 35.5%, Petronas 35.5%, EGPC 12%, EGAS 12%, Total 5%)	Egyptian LNG	Total	2005
	Idku T2	1	3.6			Egyptian LNG (Shell 38%, Petronas 38%, EGAS 12%, EGPC 12%)		Shell	
Equatorial Guinea	EG LNG	1	3.7	2	272,000	EG LNG (Marathon 60%, Sonagas 25%, Mitsui 8.5%, Marubeni 6.5%)	EG LNG	Shell	2007
Nigeria	NLNG T1 - T2	2	6.6	4	336,000	Nigeria LNG (NNPC 49%, Shell 25.6%, Total 15%, ENI 10.4%)	NLNG	Botas, Enel, Galp Energía, Naturgy, Total	T1: 1999 T2: 2000
	NLNG T3	1	3.3					Galp Energía, Naturgy	2002
	NLNG T4 - T5	2	8.2					Endesa, ENI, Galp Energía, Pavilion Energy, Shell, Total	2006
	NLNG T6	1	4.1					Shell, Total	2008
Norway	Snohvit	1	4.2	2	250,000	Equinor 36.8%, Petoro 30%, Total 18.4%, Neptune Energy 12%, DEA 2.8%	Equinor	Equinor, Pavilion Energy, RWE Supply & Trading, Total	2007
Russia	Vysotsk LNG	1	0.66	1	42,000	Novatek 51%, Gazprombank 49%	CryoGAS Vysotsk		2019
	Yamal T1 - T3	3	16.5	4	640,000	Yamal LNG (Novatek 50.1%, CNPC 20%, Total 20%, Silk Road Fund 9.9%)	Yamal LNG	CNPC, Gazprom Marketing & Trading, Naturgy, Novatek, Total	T1: 2017 T2: 2018 T3: 2018
	Atlantic LNG T1	1	3.3	1	102,000	Shell 46%, BP 34%, CIC 10%, NGC Trinidad 10%		ENGIE, Naturgy	1999
Trinidad & Tobago	Atlantic LNG T2 - T3	2	6.8	2	262,000	Shell 57.5%, BP 42.5%	Atlantic LNG	BP, ENGIE, Naturgas Energia, Naturgy, Shell	T2: 2002 T3: 2003
	Atlantic LNG T4	1	5.2	1	160,000	Shell 51.1%, BP 37.8%, NGC Trinidad 11.1%		BP, Shell	2006
	Cameron LNG T1	1	4.5	3	480,000	Sempra LNG 50.2%, Mitsui & Co 16.6%, Total 16.6%, Mitsubishi Corporation 11.6%, NYK 5.0%	Cameron LNG	Mitsubishi, Mitsui & Co, Total	2019
USA	Corpus Christi T1	1	4.5	2	320,000	Corpus Christi Liquefaction (Cheniere 100%)	Cheniere	Cheniere Marketing, EDF, Endesa, Pavilion Energy, Naturgy, Pertamina, Woodside	2018
	Corpus Christi T2	1	4.5						2019
	Cove Point	1	5.25	7	700,000	Dominion Energy Cove Point LNG (Dominion Energy 75%, Brookfield 25%)	Dominion Energy Cove Point LNG	Gail, Sumitomo Corp.	2018
USA	Elba Island	10	2.5	5	550,000	Kinder Morgan	Southern LNG	Shell	2019
	Freeport LNG T1	1	4.6	1	160,000	Freeport LNG 50%, JERA 25%, Osaka Gas 25%	Freeport LNG	Osaka Gas, JERA	2019
	Sabine Pass T1	1	4.5	5	800,000	Sabine Pass Liquefaction (Cheniere 100%)	Cheniere		2016
	Sabine Pass T2	1	4.5						2016
	Sabine Pass T3	1	4.5					Centrica, Cheniere Marketing, GAIL, KOGAS, Naturgy, Shell, Total	2017
	Sabine Pass T4	1	4.5						2017
	Sabine Pass T5	1	4.5						2018
ATLANTIC BASIN TOTAL		156.5			7,225,900				

Liquefaction plants at the end of 2019

Country	Name	Liquefaction		Storage		Owner(s)	Operator	MT - LT Buyer(s)	Start-up date
		Number of trains	Nominal capacity (MTPA)	Number of tanks	Total capacity (lq m³)				
MIDDLE EAST									
Oman	Oman T1 - T2	2	7.1			Government of Oman 51%, Shell 30%, Total 5.5%, Korea LNG 5%, Mitsubishi 2.8%, Mitsui 2.8%, Partex 2%, Itochu 0.9%	Oman LNG	BP, Itochu, KOGAS, Osaka Gas	2000
	Qalhat	1	3.3	2	240,000	Government of Oman 65.6%, Shell 11%, Mitsubishi 4%, ENI 3.7%, Naturgy 3.7%, Itochu 3.3%, Osaka Gas 3%, Total 2.1%, Korea LNG 1.9%, Mitsui 1%, Partex 0.7%		Mitsubishi, Osaka Gas, Union Fenosa Gas	2005
Qatar	Qatargas I T1 - T3	3	9.5	4	340,000	Qatar Petroleum 65%, ExxonMobil 10%, Total 10%, Marubeni 7.5%, Mitsui 7.5%	Qatargas Operating Company	Chugoku Electric, JERA, Kansai Electric, Naturgy, Osaka Gas, Shizuoka Gas, Toho Gas, Tohoku Electric, Tokyo Gas	T1: 1996 T2: 1997 T3: 1998
	Qatargas II T1	1	7.8			Qatar Petroleum 70%, ExxonMobil 30%	Qatargas Operating Company	Botas, ExxonMobil, KPC, Pakistan State Oil, Petrochina	2009
	Qatargas II T2	1	7.8			Qatar Petroleum 65%, ExxonMobil 18.3%, Total 16.7%	Qatargas Operating Company	CNOOC, ExxonMobil, Petrochina, Total	2009
	Qatargas III	1	7.8	8	1,000	Qatar Petroleum 68.5%, ConocoPhillips 30%, Mitsui 1.5%	Qatargas Operating Company	CNOOC, JERA, Kansai Electric, PGNIG, PTT, RWE Supply & Trading, Tohoku Electric	2010
	Qatargas IV	1	7.8			Qatar Petroleum 70%, Shell 30%	Qatargas Operating Company	Centrica, CNPC, Marubeni, Petronas, Shell, Uniper	2011
	Rasgas I T1 - T2	2	6.6			Qatar Petroleum 63%, ExxonMobil 25%, KORAS 5%, Itochu 4%, LNG Japan 3%	Qatargas Operating Company	Endesa, ENI, KOGAS	T1: 1999 T2: 2000
	Rasgas II T1	1	4.7				Qatargas Operating Company	Petronet	2004
	Rasgas II T2	1	4.7				Qatargas Operating Company	Edison	2005
	Rasgas II T3	1	4.7	6	840,000	Qatar Petroleum 70%, ExxonMobil 30%	Qatargas Operating Company	CPC, EDF Trading, ENI	2007
	Rasgas III T1	1	7.8				Qatargas Operating Company	EDF Trading, ExxonMobil, KOGAS, Petronet	2009
	Rasgas III T2	1	7.8				Qatargas Operating Company	CPC, KOGAS, Petrobangla, Petronet	2010
UAE	Das Island T1 - T3	3	5.8	3	240,000	ADNOC LNG (ADNOC 70%, Mitsui 15%, BP 10%, Total 5%)	ADNOC LNG		T1: 1977 T2: 1977 T3: 1994
Yemen	Balhaf T1 - T2 (stopped)	2	7.2	2	280,000	Yemen LNG (Total 39.6%, Hunt Oil Co. 17.2%, SK Innovation 9.6%, KOGAS 6%, Yemen Gas 16.7%, Hyundai 5.9%, GASSP 5%)	Yemen LNG	Total	T1: 2009 T2: 2010
MIDDLE EAST TOTAL			100.4		3,100,000				
PACIFIC BASIN									
Australia	NWS T1 - T5	5	16.3	4	260,000	BHP, BP, Chevron, Woodside (16.7% each), Shell 16.7%, Mitsubishi, Mitsui (8.3% each)	Woodside	Chugoku Electric, CNOOC, JERA, Kansai Electric, Kyushu Electric, Osaka Gas, Shizuoka Gas, Toho Gas, Tohoku Electric, Tokyo Gas	T1: 1989 T2: 1989 T3: 1992 T4: 2004 T5: 2008
	Darwin	1	3.7	1	188,000	Santos 68.4%, INPEX 11.4%, Eni 11%, JERA 6.1%, Tokyo Gas 3.1%	Santos	JERA, Tokyo Gas	2006
	Pluto	1	4.9	2	240,000	Woodside 90%, Kansai Electric 5%, Tokyo Gas 5%	Woodside	Kansai Electric, Tokyo Gas	2012
	QCLNG T1	1	4.25			Shell 50%, CNOOC 50%	Shell	CNOOC, Shell	2015
	QCLNG T2	1	4.25			Shell 97.5%, Tokyo Gas 2.5%	Shell	Shell, Tokyo Gas	2015
	GLNG T1 - T2	2	7.8	2	280,000	Santos 30%, Petronas 27.5%, Total 27.5%, KOGAS 15%	Santos	KOGAS, Petronas	T1: 2015 T2: 2016
	APLNG T1	1	4.5	2	320,000	ConocoPhillips 37.5%, Origin Energy 37.5%, Sinopec Group 25%	Australia Pacific LNG	Sinopec	2016
	APLNG T2	1	4.5	1			Australia Pacific LNG	Kansai Electric, Sinopec	2016
	Gorgon T1 - T3	3	15.6	2	360,000	Chevron 47.3%, ExxonMobil 25%, Shell 25%, Osaka Gas 1.3%, Tokyo Gas 1%, JERA 0.4%	Chevron	BP, GS Caltex, JERA, JXTG Nippon Oil & Energy, Kyushu Electric, Osaka Gas, Petrochina, Petronet, Shell, SK E&S, Tokyo Gas	T1: 2016 T2: 2016 T3: 2017
	Wheatstone T1 - T2	2	8.9	2	300,000	Chevron 64.1%, KUFPEC 13.4%, Woodside 13%, JOGMEC 3.4%, Mitsubishi 3.2%, Kyushu Electric 1.5%, NYK 0.8%, JERA 0.6%	Chevron	JERA, Chevron, Kyushu Electric, Tohoku Electric	T1: 2017 T2: 2018

Country	Name	Liquefaction		Storage		Owner(s)	Operator	MT - LT Buyer(s)	Start-up date
		Number of trains	Nominal capacity (MTPA)	Number of tanks	Total capacity (lq m³)				
Australia	Ichthys T1 - T2	2	8.9	1	165,000	INPEX 66.3%, Total 26%, CPC 2.6%, Tokyo Gas 1.6%, Kansai Electric 1.2%, Osaka Gas 1.2%, JERA 0.7%, Toho Gas 0.4%	INPEX	CPC, INPEX, JERA, Kansai Electric, Kyushu Electric, Osaka Gas, Toho Gas, Tokyo Gas, Total	2018
	Prelude (FLNG)	1	3.6	1	220,000	Shell 67.5%, INPEX Corporation 17.5%, KOGAS 10%, CPC 5%	Shell	CPC, INPEX, KOGAS, Shell	2019
Brunei	Brunei T1 - T5	5	7.2	3	195,000	Brunei Government 50%, Shell 25%, Mitsubishi 25%	Brunei LNG	JERA, Osaka Gas, Petronas, Shell, Tokyo Gas	1973
Indonesia	Bontang	4	11.5	6	630,000	Government of Indonesia	PT Badak NGL (Pertamina 55%, PHSS 20%, PNA 15%, Total 10%)	ENI, JERA, Kansai Electric, Kyushu Electric, Nippon Steel, Osaka Gas, PLN, Toho Gas	Tr. E: 1990 Tr. F: 1994 Tr. G: 1998 Tr. H: 1998
	Tangguh T1 - T2	2	7.6	2	340,000	Tangguh LNG (BP 40.2%; CNOOC 13.9%; JX Nippon Oil & Energy 12.2%; Mitsubishi 9.9%; INPEX 7.8%; LNG Japan 7.4%; KG Beru 6.3%; Mitsui 2.3%)	Tangguh LNG	CNOOC, Kansai Electric, PLN, Posco, Sempra LNG, SK E&S, Tohoku Electric	2009
	Donggi-Senoro	1	2.0	1	170,000	PT Donggi-Senoro LNG (Mitsubishi 45%, Pertamina 29%, KOGAS 15%, Medco 11%)	PT Donggi-Senoro LNG	JERA, KOGAS, Kyushu Electric	2015
	MLNG 1 Satu	3	8.4			Petronas 90%, Mitsubishi 5% Sarawak state government 5%		Hiroshima Gas, Saibu Gas, Shikoku Electric, Tokyo Gas	1983
Malaysia	MLNG 2 Dua	3	9.6			Petronas 80%, Mitsubishi 10% Sarawak state government 10%		CPC, JERA, JXTG Nippon Oil & Energy, Osaka Gas, Sendai City Gas, Shizuoka Gas, Tohoku Electric, Tokyo Gas	1995
	MLNG 3 Tiga	2	7.7	6	390,000	Petronas 60%, Sarawak state government 25%, JXTG Nippon Oil & Energy 10%, Diamond Gas 5%	Petronas	CNOOC, JAPEX, KOGAS, Osaka Gas, Toho Gas, Tohoku Electric, Tokyo Gas	2003
	MLNG T9	1	3.6			Petronas 70%, JXTG Nippon Oil & Energy 10%, PTT 10%, Sarawak state government 10%		Hokkaido Electric, Hokuriku Electric	2016
	PFLNG Satu (FLNG)	1	1.2	1	180,000	Petronas	Petronas		2017
Papua New Guinea	PNG LNG T1 - T2	2	6.9	2	320,000	PNG LNG (Exxon Mobil 33.2%, Oil Search 29%, Kumul Petroleum 16.8%, Santos 13.5%, JX Nippon Oil & Gas 4.7%, MRDC 2.8%)	PNG LNG	BP, CNPC, CPC, JERA, Osaka Gas, Sinopec	2014
Peru	Peru	1	4.45	2	260,000	Hunt Oil 50%, Shell 20%, SK Innovation 20%, Marubeni 10%	Hunt Oil	Shell	2010
Russia	Sakhalin-2 T1 - T2	2	10.8	2	200,000	Sakhalin Energy Investment Company (Gazprom 50%, Shell 27.5%, Mitsui 12.5%, Mitsubishi 10%)	Sakhalin Energy Investment Company	CPC, Gazprom, Hiroshima Gas, JERA, KOGAS, Kyushu Electric, Osaka Gas, Saibu Gas, Shell, Toho Gas, Tohoku Electric, Tokyo Gas	2009
USA (Alaska)	Kenai (mothballed)	1	1.5	3	108,000	Andeavour	Andeavour		1969
PACIFIC BASIN TOTAL		169.7			5,406,000				
WORLD TOTAL		426.6			15,731,900				



Regasification terminals

In 2019, global active regasification capacity reached **920 MTPA** at year-end.

42* countries imported LNG in 2019. Seven new terminals were commissioned, adding a combined 13 MTPA of new regasification capacity. Two terminals are based on a floating solution and four are small-scale facilities with a regasification capacity of less than 1 MTPA.

Three expansion programs were completed in India, Taiwan and Thailand, adding 5 MTPA of LNG regasification capacity.

At the end of the year, 8 new floating terminals and 18 new onshore terminals were reported to be under construction. Total regasification capacity under construction at year end reached 131 MTPA. 63% of the capacity under construction was located in Asia, of which nearly half in China and India.

Australia

In June, AGL selected *Höegh Esperanza* as the FSRU for the **Crib Point** project in Victoria, Australia. *Höegh Esperanza* has both a closed loop and an open loop system. It is currently chartered by CNOOC in Tianjin until June 2021.

The New South Wales government awarded planning approval for Australian Industrial Energy (AIE) to construct an LNG receiving terminal at **Port Kembla**. The project will include an FSRU, wharf infrastructure and a pipeline to connect to the existing gas network nearby. AIE selected *Höegh LNG* as the FSRU provider for the project and *Höegh Galleon* is planned to move to Port Kembla.

Bahrain

In January 2020, **Bahrain LNG** announced that it had completed the mechanical construction and commissioning of the LNG receiving terminal located at the port of Hidd in the Kingdom of Bahrain. The terminal comprises a floating storage unit (FSU) with a storage capacity of 174,000 m³, an offshore LNG receiving jetty and breakwater, an adjacent offshore regasification platform with a regasification capacity of 6.1 MTPA, subsea gas pipelines from the platform to shore, an onshore gas receiving facility, and an onshore nitrogen production facility. The commercial operations are expected to start-up in 2020.

Bangladesh

Summit LNG, Bangladesh's second LNG import terminal located offshore Moheshkhali Island began its operations in late April 2019. Excelerate's FSRU *Summit LNG* (formerly FSRU *Excelerate* previously moored in Abu Dhabi), was utilized for the project, with a regasification capacity of 3.8 MTPA.

The government of Bangladesh is planning an onshore terminal that could handle 7.5 MTPA of LNG at **Matarbari** in the Cox's Bazar district of southern Bangladesh. The process for selecting companies to build the facility under a 20-year build-own-operate-transfer basis will be conducted in 2020.

In October, ACWA Power announced the signing of a MOU with the Bangladesh Power Development Board (BPDB) for a LNG-based power plant and terminal in Bangladesh. As part of the agreement, ACWA Power will target the development of a 3,600 MW gas-fired independent power plant as well as a regasification terminal located in **Moheshkhali**, or an alternative location.

Belgium

Since December 2019, the 5th storage tank has been fully operational at the **Zeebrugge** LNG terminal. With a capacity of 180,000 m³, it marks the start of the long-term contract for transhipment services between Fluxys LNG and Yamal LNG. In September, Qatar Petroleum and Fluxys signed a long-term LNG Services Agreement for the Zeebrugge LNG terminal. Under the agreement, Qatar Terminal, a subsidiary of Qatar Petroleum, subscribed unloading slots at the facility from the expiry of the current contracts until 2044.

Benin

Total, the Republic of Benin and the Société Béninoise d'Energie Electrique have signed the Gas Supply Agreement and the Host Government Agreement for the development of an LNG import terminal and the supply of up to 0.5 MTPA of LNG to Benin for 15 years, starting in 2021. Total will develop and operate the regasification infrastructure that will comprise an FSRU located offshore and an offshore pipeline connected to power plants in **Maria Gléta**.

Brazil

Golar Nanook, a FSRU with a storage capacity of 170,000 m³ reached the site of the **Porto de Sergipe I** Gas-to-Power project in March 2019 following a 25-year charter agreement with power company CELSE. Commercial operations of the 1,500 MW Sergipe power station are expected to commence in the 1st half of 2020. In December, BW LNG completed modification works on the FSRU *BW Magna* before starting a 23-year charter for the **Gas Natural Açu (GNA)** Gas-to-Power project in Brazil. The vessel with a storage capacity of 173,400 m³ reached Port Açu in February 2020. The GNA I power station is expected to begin operations in 2021, and GNA II, in 2023.

Chile

Ameris Capital AGF Fund acquired Codelco's stake in **GNL Mejillones**. A truck-loading facility has been available at the terminal since December 2019. Ship reloading facilities are under construction at the **GNL Quintero** terminal and the service is expected to be available as of the 2nd quarter of 2020.

China

Two new regasification terminals started commercial operations in 2019. In January 2019, **Fangchenggang** LNG started up with a nameplate regasification

* Gibraltar started receiving LNG in 2019 but the territory was not added to the number of importing countries due to its specific status. Russia inaugurated a FSRU in Kaliningrad but it had not been importing yet at the time of this writing.

capacity of 0.6 MTPA of LNG and **Shenzhen Gas** terminal (capacity 0.8 MTPA) received its first commercial LNG cargo in August.

In November, *Höegh Esperanza* returned to FSRU mode at the Tianjin LNG terminal. *Höegh Esperanza* is in the 2nd year of a three-plus-one year FSRU/LNG carrier time charter with CNOOC Gas & Power Trading and Marketing.

Zhoushan LNG terminal is being expanded, with two more storage tanks to be delivered by 2021 to increase the receiving capacity from 3 to 5 MTPA. The temporary permission for truck distribution through the bridge connecting Zhoushan island to the mainland started from July 31, 2019.

Expansion programs in other existing terminals are ongoing in Caofeidian, Ningbo, Putian, Qidong, Qingdao and Rudong terminals. These expansions are expected to add more than 15 MTPA of regasification capacity by 2021.

Colombia

In September, SPEC LNG, Calamari, Avenir LNG and Höegh LNG announced a Joint Development Agreement to offer additional LNG services from SPEC LNG, Colombia's LNG import terminal in **Cartagena** based on Höegh LNG's FSRU *Höegh Grace*. The additional services include cool-down of conventional LNG carriers and re-loading of small LNG cargoes for onward distribution throughout Latin America and the Caribbean.

Croatia

In July, the European Commission has approved support for a Croatian LNG terminal at **Krk island**. The measures will support the construction and operation of an LNG receiving terminal, consisting of an FSRU and the connections to the national gas transmission network. The LNG terminal is designed to deliver up to 2 MTPA of natural gas into Croatia's national transmission network from 2021.

Cyprus

In August, a consortium led by the China Petroleum Pipeline Engineering Corporation, Wilhelmsen Ship Management, Aktor, Metron, and Hudong-Zhonghua Shipbuilding, was selected as the preferred bidder for the construction of an LNG terminal at **Vassiliko Port** in Cyprus. The terminal will include an FSRU, a jetty and onshore pipelines as well as additional facilities. The project is scheduled to be completed in 2021.

Dominican Republic

In October, AES awarded the engineering contract for the first phase of the expansion of its **Andres LNG**

terminal in Santo Domingo. The project consists of a second LNG storage tank, additional vaporization facilities and the addition of 2 truck-loading bays.

El Salvador

In December, Energía del Pacífico (EDP) completed the project financing for the LNG-to-power project under construction at the **Port of Acajutla**, which consists of a 378 MW natural gas-fired power plant, an FSRU, and an approximately 44 km electric transmission line. The project is expected to be operational in 2021. EDP has signed a contract with Shell for the supply of LNG.

Equatorial Guinea

The first LNG receiving facility was inaugurated at the Port of **Akonikien** in August. The facility is being built with a storage capacity of 14,000 m³ in 12 bullet tanks, which allows LNG to be distributed on the mainland. A truck-loading station and 12 km of gas pipeline are also being installed.

France

In **Dunkerque**, the works on the LNG truck-loading bay have been completed and the commercial operations are now planned to start in the 1st half of 2020. This supports the agreement between Total Marine Fuels Global Solution and Brittany Ferries to supply LNG for the first French LNG-powered cruise ferry, the Honfleur. Works to adapt the existing jetty, which can accommodate vessels from 65,000 m³ to Qmax vessels, to be able to receive small LNG vessels from 5,000 m³ are ongoing. Completion of these works is planned in 2020. Dunkerque LNG is studying potential extensions including a 2nd jetty for transshipment, a 3rd jetty for small-scale vessels and a 2nd truck-loading bay.

Since September, **Fos Cavaou** LNG terminal can accommodate small-scale vessels with a capacity down to 5,000 m³, allowing those vessels to offer LNG bunkering in the port of Marseille-Fos or to deliver LNG to neighboring French and foreign Mediterranean ports. A new truck-loading facility was commissioned in October 2019 with a capacity of approximately 40 truck-loadings per day. Fosmax LNG is considering expanding the capacity of the facility, which would involve the construction of one or two additional storage tanks and one additional jetty. This would allow doubling the receiving capacity to 13 MTPA and an improvement of services such as transshipment and reloading of small-scale LNG carriers. FID will be made on the basis of a market consultation. In February 2020, Total completed the sale of its interest in Fosmax LNG to LNG terminal operator Elengy.

At **Fos Tonkin**, the truck-loading capacity increased from 20 to 34 trucks per day thanks to a second loading bay. Following a call for subscription conducted in 2019, Elengy has announced in January 2020 that the proposed regasification capacity has been entirely booked until 2028.

In **Montoir-de-Bretagne**, Elengy also conducted an Open Subscription Period (OSP) from July to November 2019, which consisted of offering the regasification capacity that had not been subscribed yet. As a result of this commercial operation, the terminal is now fully booked up to 2035. Elengy is considering expanding above its current level as well as beyond 2035.

Germany

In September, German LNG Terminal, the joint venture of Vopak, Oiltanking and Gasunie completed the EPC pre-qualification process to construct an onshore LNG import terminal in **Brunsbüttel** in Northern Germany, with subsequent EPC contract award planned before the end of April 2020. The permit request will include two tanks of 240,000 m³ as well as a jetty for vessels and barges of up to 265,000 m³. Some of the milestone decisions leading up to the FID will be taken in early 2020. Commercial operations will start following a construction phase that will take up to three years. The development of the first offshore German LNG regasification terminal in **Wilhelmshaven** also progressed during the year. Mitsui OSK Lines and Uniper signed an MoU to seal a cooperation to design and operate the FSRU. Alongside regasification and injection into the transmission grid, the FSRU will offer the possibility of loading LNG onto bunker barges or tank trucks for road transport. The FSRU has a planned send-out capacity of 7.3 MTPA and an LNG storage capacity of around 263,000 m³. In January 2019, Uniper entered into a HOA with ExxonMobil to book a share of regasification capacity long-term.

Ghana

Based on an FRU and FSU, the **Tema LNG** project developed by Helios Investment Partners applied for financing by the African Development Bank in April 2019.

Gibraltar

In May, Shell announced the opening of a new regasification terminal in **Gibraltar** that was completed by Shell and Gasnor, a 100% Shell-owned subsidiary. As a result, Gibraltar has switched from diesel-fuelled power generation to cleaner-burning natural gas, using a newly commissioned 80 MW gas-fired power plant. LNG will be stored in five double-walled stainless-steel tanks, each able to hold 1,000 m³ of LNG.

Greece

According to DESFA's 10-year Development Plan, LNG truck-loading and bunkering infrastructure is expected to be ready in 2022 and 2024 respectively at the **Revithoussa** terminal.

DEPA acquired a 20% stake in Gastrade, the company developing an FSRU project in **Alexandroupolis** in Northern Greece. The FSRU will have a storage capacity of up to 170,000 m³ and a send-out capacity of 5 MTPA of LNG. It is a project of common interest (PCI), i.e a priority project of the European Union. In January 2019, Bulgartransgaz bought a 20% share in Gastrade.

Hong Kong

In June, MOL entered into a long-term contract with **Hong Kong LNG** Terminal Ltd. to supply an FSRU, jetty operation & maintenance services and port services. MOL will utilize the *MOL FSRU Challenger* which has a storage capacity of 263,000 m³ and is currently employed on a mid-term charter at Dörytol in southern Turkey. The FSRU will be delivered to Hong Kong to begin testing and commissioning when the project finishes construction, currently expected in 2021.

India

In May 2019, Indian Oil Corporation commissioned the **Ennore** LNG terminal. This is the first LNG terminal on the east coast in South India. It has a regasification capacity of 5 MTPA of LNG and two storage tanks of 180,000 m³ each.

GSPC LNG has developed an onshore LNG terminal with a capacity of 5 MTPA, expandable up to 10 MTPA, at **Mundra**, in the state of Gujarat. The terminal includes berthing and unloading facilities for ships with a capacity ranging from 70,000 m³ to 265,000 m³ and two LNG storage tanks of 160,000 m³ each. The commissioning of the terminal was completed in February 2020.

H-Energy, a unit of Hiranandani group, is at an advanced stage in the commissioning of India's first FSRU-based LNG terminal project at **Jaigarh** Port, in Ratnagiri district of Maharashtra. Phase-I of the project consists of a jetty based FSRU with a 4.0 MMTPA capacity. H-Energy has executed an agreement with Total for the charter of its *Cape Ann* FSRU, which has a storage capacity of 145,000 m³ and is also able to reload LNG onto other LNG vessels. It is connected to the market through two major natural gas pipeline networks, namely Dabhol-Bangalore Pipeline (DBPL) and Dahej-Uran-Panvel-Dabhol Pipeline (DUPL-DPPL) at Dabhol, Maharashtra. The FSRU was slated to arrive on site to begin commissioning in the last week of March 2020. First deliveries are expected around six to eight weeks thereafter.

Adani Ports is constructing an onshore LNG terminal at **Dhamra** port in Odisha, on India's north-east coast. The terminal will have an initial regasification capacity of 5 MTPA, expandable to 10 MTPA and two full containment tanks of 180,000 m³ capacity each. Indian Oil and Gail have booked regasification capacity for 3 MTPA and 1.5 MTPA, respectively. The terminal is expected to be commissioned during the second half of 2021.

Swan Energy Ltd. is developing an offshore 5 MTPA LNG terminal at **Jafrabad** port in Gujarat. The FSRU was ordered from Korea's Hyundai yard in August 2017. A jetty is planned to berth vessels up to Q-max size. The company targets completion of the construction in 2020.

Atlantic Gulf & Pacific (AG&P) is developing a 1 MTPA FSRU-based LNG import facility at **Karaikal** Port, South India. Commercial operations are expected by the fourth quarter of 2021.

HPCL Shapoorji Energy has awarded the EPC work to Toyo Engineering for a new regasification plant at **Chhara** in Gujarat State on the west coast of India. The regasification terminal will have a send-out capacity of 5 MTPA and a storage capacity of 200,000 m³. It is scheduled to be completed at the beginning of 2022.

In June, Petronet LNG completed the expansion of **Dahej** terminal. The nameplate regasification capacity of the terminal is now 17.5 MTPA, after having added two vaporizers. The company commissioned India's first LNG dispensing station and launched the first commercially approved and registered LNG bus to commute its employees. It has also commissioned its second LNG dispensing station at **Kochi** Terminal in 2019. **Dabhol** terminal in Maharashtra is in the process of developing break water facilities by 2021 - 2022, enhancing capacity to 5 MTPA. In addition, it is commissioning its third storage tank.

In January 2019, Shell announced completion of the acquisition of Total's 26% equity interest in the **Hazira** LNG terminal. This takes Shell's ownership to 100%. In October 2019, Total expanded its partnership with the Adani Group to contribute to the development of the Indian natural gas market. The 50/50 partnership includes several assets across the gas value chain notably two import and regasification LNG terminals: **Dhamra** in East India and potentially **Mundra** in the West.

Indonesia

At **Arun**, PTK, a subsidiary of PT Pertamina, has acquired an LNG-fueled tug boat to serve the terminal. In July, Höegh LNG completed class renewal afloat of **PGN FSRU Lampung**. The renewal was completed while the vessel remained at its offshore location.

Italy

In May 2019, Australian fund First State Investments acquired Uniper's 48.24% share in **OLT offshore LNG Toscana**.

In February 2020, Snam completed the acquisition from Iren Group of a 49.07% stake of the regasification terminal.

Nuove Energie, a company owned by Enel Global Trading, continues to develop an LNG regasification terminal in the industrial area of **Porto Empedocle**, Sicily. The project with a nominal send-out capacity of 6 MTPA is fully authorized.

Jamaica

In July, New Fortress Energy commenced operating a floating LNG regasification terminal off the coast of **Old Harbour** Bay in Jamaica. With a storage capacity of 125,000 m³ and a regasification capacity of 3.6 MTPA of LNG, FSRU *Golar Freeze* will serve a 15-year charter with New Fortress Energy and supply gas-fired power plants.

Japan

Hokkaido Gas is currently expanding the **Ishikari** LNG Terminal in Hokkaido. The fourth LNG storage tank will be completed in 2020.

JERA has completed the construction of two storage tanks with a capacity of 125,000 m³ each at its **Futtsu** terminal and has added four BOG compressors at the **Chita** terminal.

In September MOL announced that it had participated in an LNG bunkering trial at the **Port of Kobe**, organized by the Kobe City Port and Harbor Authority, and carried out bunkering for the LNG-fueled tugboat *Ishin*. This marks the first LNG bunkering in the Port of Kobe.

Lithuania

In November, Klaipedos Nafta made a decision to acquire FSRU *Independence* by the end of 2024.

Mozambique

KARMOL (Karpower International and Mitsui OSK lines) is developing a LNG-to-powership project in Nacala. The FSRU is being converted from the existing LNG carrier *Dwiputra*, while the powership is currently operating with heavy fuel oil to produce electricity for Electricidade de Moçambique (EDM).

Netherlands

Gate terminal invested in increasing the ship loading flow rate for large ships from 2,300 m³/hour to 4,000 m³/hour to lower port time for vessels.

Pakistan

In January 2020, Excelerate and Engro Elengy Terminal signed a HOA for the expansion of the LNG

import terminal located in **Port Qasim**, Pakistan. Under the agreement, Excelerate will exchange its existing FSRU *Exquisite* with a newbuild FSRU, Hull 2477, currently under construction in South Korea. Hull 2477 will increase the send-out capacity by more than 1 MTPA of LNG and increase LNG storage capacity from 150,900 m³ to 173,400 m³. Excelerate will take delivery of the vessel, which has been chartered from Maran Gas in April 2020, and anticipates beginning expanded operations in Pakistan prior to winter 2020.

Panama

In October, AES Corporation announced the start of commercial operations of the first LNG storage at the **AES Colón plant**.

AES Colón plant. AES Colón consists of the 180,000 m³ LNG tank and a 381 MW combined cycle power plant, which reached commercial operations in 2018. GasLog signed a 10-year time charter with **Sino-Iam LNG Terminal** for the provision of a converted 155,000 m³ floating storage unit (FSU) to a gas-fired power project being developed near Colón in Panama.

Philippines

In September, First Gen Corporation announced that it has chosen JGC as the EPC contractor for its LNG terminal project in **Batangas** City. The company will look to start building the modified jetty and the early completion of this work will allow an FSRU to be brought in on an interim basis. The FSRU will allow First Gen to receive LNG as early as 2021.

Poland

In October 2019, Polskie LNG S.A. signed a contract with Selas-Linde for the purchase of two additional submerged combustion vaporisers (SCVs), key equipment for the expansion program of the LNG terminal in **Świnoujście**. There are currently five SCV vaporizers installed in the terminal, four in operation and one redundant.

Polskie LNG is planning to expand operations at the facility through three key projects: the construction of a third LNG storage tank, delivery of additional process installations increasing the regasification capacity to 7.5 billion cubic meters per year, and a transshipment facility together with a railway siding.

Russia

In January, the commissioning ceremony for an offshore receiving terminal called *Marshal Vasilevskiy* was held in the Kaliningrad region. Since then, the FSRU has been used as an LNG carrier and no imports have been recorded.

Singapore

In February 2019 SLNG completed modifications to its second jetty at the **Jurong** terminal. The modifications included the installation of a new marine loading arm and gangway, and new facilities for securing small LNG ships at the jetty. The terminal is now able to receive and reload small LNG vessels ranging between 2,000 m³ and 10,000 m³. Pavilion Energy and Total signed a 10-year deal to develop a LNG bunker supply chain in the **port of Singapore**. The cooperation includes the shared long-term use of the newly built 12,000 m³ GTT Mark III LNG bunker vessel operated by MOL.

Spain

Enagás has awarded a contract to Spanish engineering company Ayesa to redesign the jetty at its **Huelva** LNG terminal. The revamped mooring set-up will enable the loading of small-scale gas carriers, including LNG bunker vessels, and the direct loading of bunker tanks on LNG-powered vessels.

South Korea

KOGAS has completed the construction of its small-scale regasification terminal at the Aewol port on **Jeju island**. The LNG terminal has two LNG storage tanks with a capacity of 45,000 m³ each and regasification facilities with a capacity of 0.4 MTPA. The terminal received its first cargo which was reloaded at KOGAS' Tongyoung terminal in September. In January 2020, KOGAS announced that it has commenced the FEED for of its fifth regasification terminal in **Dangjin**. The terminal will include ten LNG storage tanks with a capacity of 200,000 m³ each, related regasification facilities and a jetty for vessels of up to 270,000 m³. The first phase of the construction is expected to start in 2022.

Taiwan

The phase 2 expansion program at CPC's **Taichung** terminal was completed at the end of 2019. The expansion includes three new LNG storage tanks with a capacity of 160,000 m³ each, related regasification facilities and additional equipment. It will commence operations in early 2020. CPC's third receiving terminal located at **Datan Borough**, Taoyuan in northern Taiwan is under construction and is expected to commence operations in 2023.

Thailand

In January 2019, PTT completed the expansion of **Map Ta Phut** LNG terminal, increasing capacity from 10.7 MTPA to 11.5 MTPA. The company plans to test the reloading facilities in 2020.

PTT is also developing the **Nong Fab** LNG receiving terminal in Rayong. The terminal is expected to be completed in 2022. It will have a total regasification capacity of 7.5 MTPA.

Turkey

FSRU *Turquoise* replaced *Höegh Neptune* at **Etki** LNG import terminal. With 170,000 m³ storage, the *Turquoise* FSRU has a design regasification capacity of 5.7 MTPA. The vessel is capable of reloading and bunkering LNG.

Vietnam

A consortium of Samsung C&T and Petrovietnam Technical Services Corporation started construction of the **Tibai** LNG terminal in the coastal area southeast of Ho Chi Minh City. The facility will provide natural gas to the Nhon Trach combined cycle power plant. The terminal includes a 180,000 m³ LNG storage tank and will be constructed over a 40-month period starting in June 2019. It is expected to be completed in October 2022.

In September, Delta Offshore Energy (DeltaOE) and LNG Limited (LNGL) jointly announced an alliance with the **Bac Lieu** Provincial Government to develop an LNG-to-power project. The project includes the construction and operation of an LNG import terminal, a 3,200 MW combined-cycle power plant and delivery of power generation to the Bac Lieu Province. The integrated project is expected to commence operations in 2023 pending government approvals.

Regasification terminals at the end of 2019

Country	Site	Storage		Send-out		Owner	Operator	Third Party Access	Additional Services offered	Start-up date
		Number of tanks	Total capacity (liq m³)	Number of vaporizers	Nominal capacity (MTPA)					
AMERICAS										
Argentina	Bahia Blanca <i>No vessel chartered</i>									2008
Brazil	GNL Escobar <i>Excelsior Expedient (FSRU)</i>	151,000	6	5.2	Owner: Excelsior Energy Charterer: UTE Escobar (50% Enarsa, 50% YPF)	YPF	No			2011
Canada	Bahia <i>Golar Winter (FSRU)</i>	137,000		3.8	Owner: Golar Charterer: Petrobras	Petrobras	No			2013
Chile	Guanabara Bay <i>No vessel chartered</i>									2009
Colombia	Pecem <i>Excelsior Experience (FSRU)</i>	173,400	6	6.0	Owner: Excelsior Energy Charterer: Petrobras	Excelsior Energy	No	Reloading		2009
Dominican Rep.	Canaport LNG	3	480,000	8	7.4	Repsol (75%), Irving Oil (25%)	Canaport LNG	Yes		2009
Jamaica	Mejillones	1	187,000	3	1.5	ENGIE (63%), Ameris Capital (37%)	GNLM	Yes	Transshipment, Truck loading	2010
Mexico	Quintero	3	334,000	4	4.0	Enagas (45.4%), Omers (34.6%), ENAP (20%)	GNL Quintero	Yes	Truck loading	2009
Panama	Cartagena <i>Höegh Grace (FSRU)</i>	170,000	4	4.0	Owner: Höegh LNG Charterer: Sociedad Portuaria El Cayao (SPEC)	Höegh LNG	No	Reloading, Transshipment		2016
Puerto Rico	Andrés	1	160,000	3	1.7	AES	AES	No	Reloading, Truck loading	2003
USA	Montego Bay	1	7,000		0.5	New Fortress Energy	New Fortress Energy		Truck loading	2016
	Old Harbour <i>Golar Freeze (FSRU)</i>		125,000		3.6	Owner: Golar Charterer: New Fortress Energy	New Fortress Energy		Reloading	2019
	Altamira	2	300,000	5	5.7	Terminal de LNG de Altamira (Vopak 60%, Enagas 40%)	Terminal de LNG de Altamira	Yes		2006
	Energia Costa Azul	2	320,000	6	7.6	IEnova (Sempra)	IEnova (Sempra)	Yes	Reloading	2008
	Manzanillo	2	300,000		3.8	Mitsui (37.5%), Samsung (37.5%), KOGAS (25%)	Terminal KMS			2012
	Costa Norte	1	180,000		1.5	AES Panama (50.1%), Inversiones Bahia (49.9%)	AES		Bunkering, Truck loading	2018
	Cove Point	7	700,000	25	13.7	Dominion Energy Cove Point LNG (Dominion Energy 75%, Brookfield 25%)	Dominion Energy Cove Point LNG			1978
	Elba Island	5	535,000	11	12.0	Kinder Morgan	Southern LNG	Yes		1978
	Everett	2	155,000	4	5.1	Exelon	Exelon	Yes	Truck loading	1971
	Freeport LNG	2	320,000	7	13.2	Freeport LNG Development, L.P.	Freeport LNG Development	Yes		2008
	Golden Pass	5	775,000	8	15.7	QP (70%), ExxonMobil (30%)	Golden Pass LNG	No		2010
	Gulf LNG	2	320,000		8.8	Kinder Morgan (50%), GE (40%), AES (10%)	Gulf LNG Energy	No		2011
	Lake Charles	4	425,000	14	17.9	Lake Charles LNG	Lake Charles LNG	Yes		1982
	Northeast Gateway <i>No vessel chartered</i>		151,000	6	3.0	Excelsior Energy	Excelsior Energy			2008
	Sabine Pass	5	800,000	24	30.4	Sabine Pass LNG	Cheniere	Yes	Reloading	2008
AMERICAS TOTAL			7,845,400		189.1					

Country	Site	Storage		Send-out		Owner	Operator	Third Party Access	Additional Services offered	Start-up date
		Number of tanks	Total capacity (liq m³)	Number of vaporizers	Nominal capacity (MTPA)					
ASIA										
Bangladesh	Moheshkhali <i>Excelsior Excellence (FSRU)</i>		138,000		3.8	Owner: Excelsior Energy Charterer: Petrobangla	Excelsior Energy			2018
	Summit LNG <i>Summit LNG (FSRU)</i>		138,000		3.8	Owner: Excelsior Energy Charterer: Summit Power International	Excelsior Energy			2019
China	Beihai, Guangxi	3	480,000		2.9	Sinopec (80%), Beibu Gulf Port Group (20%)	Sinopec		Truck loading	2016
	Caofeidian (Tangshan), Hebei	4	640,000		6.4	Petrochina (51%), Beijing Enterprises (29%), Hebei Natural Gas (20%)	Petrochina	Yes	Truck loading	2013, 2015
	Chennan, Hainan	2	40,000		0.6	Petrochina (90%), Beijing Gas Blue Sky 10%	Petrochina	No		2014
	Dalian, Liaoning	3	480,000	3	5.7	Petrochina (75%), Dalian Port Company Limited (20%), Dalian Construction Investment (5%)	Petrochina	Yes	Reloading, Truck loading	2011
	Dapeng, Shenzhen	4	640,000	7	6.8	CNOOC (33%), Guangdong Province Consortium (31%), BP (30%), HK & China Gas (3%), Hong Kong Electric (3%)	GDLNG	No	Truck loading	2006
	Dongguan, Guangdong	2	160,000	4	1.0	Jovo Group	Jovo		Truck loading	2013
	Diefu, Shenzhen	4	640,000		4.0	CNOOC (70%), Shenzhen Energy Group (30%)	CNOOC		Truck loading	2018
	Fangchenggang, Guangxi	2	60,000		1.0	CNOOC (51%), Fangchenggang Port Group Co. LTD (49%)	CNOOC			2019
	Haikou, Hainan	2	320,000		3.0	CNOOC (65%), Guodian Hainan Holdings New Energy (35%)	CNOOC	No		2014
	Hua'an, Guangdong	1	80,000		0.8	Shenzhen Gas	Shenzhen Gas		Truck loading	2018
	Ningbo, Zhejiang	3	480,000		3.0	CNOOC (51%), Zhejiang Energy (29%), Ningbo Electric (20%)	CNOOC	No	Truck loading	2012
	Putian, Fujian	6	960,000		6.3	Fujian LNG (CNOOC 60%, Fujian Inv. & Dev.Co. 40%)	CNOOC	No	Truck loading	2008, 2011
	Qidong, Jiangsu	3	260,000		1.2	Guanghai Energy	Xinjiang Guanghai Petroleum		Truck loading	2017
	Qingdao, Shandong	4	640,000		6.1	Sinopec (99%), Qingdao Port Group (1%)	Sinopec	No	Truck loading	2014
	Rudong, Jiangsu	4	680,000	3	6.5	Petrochina (55%), Pacific Oil & Gas (35%), Jiangsu Guoxin Investment Group (10%)	Petrochina	Yes	Truck loading	2011, 2016
	Tianjin <i>Höegh Esperanza (FSRU)</i> & Onshore facilities	4	420,000		6.0	Owner: Höegh LNG Charterer: CNOOC Gas & Power Trading and Marketing	Höegh LNG	No	Truck loading	2013, 2017 (Cape Ann 2018)
	Tianjin LNG	4	640,000		3.0	Sinopec (98%), Tianjin Nangang Industrial Zone Development Co., Ltd. (2%)	Sinopec		Truck loading	2018
	Wuhaogou, Shanghai	3	120,000		1.0	Shanghai Gas (Shenergy 100%)	Shenergy Group	No		2008
	Yangshan, Shanghai	3	480,000		3.0	Shanghai LNG (CNOOC 45%, Shenergy Group Ltd 55%)	Shenergy Group	No		2009
	Yuedong, Guangdong	3	480,000		2.0	CNOOC	CNOOC	No	Truck loading	2017
	Zhoushan, Zhejiang	2	320,000		3.0	ENN Energy	ENN Energy		Truck loading	2018
	Zhuhai, Guangdong	3	480,000		3.5	CNOOC (35%), Yudean (GEG) (25%), Guangdong Gas Development & Investment Group Incorporated (25%), Others (15%)	CNOOC		Reloading, Truck loading	2013

Country	Site	Storage		Send-out		Owner	Operator	Third Party Access	Additional Services offered	Start-up date
		Number of tanks	Total capacity (lq m³)	Number of vaporizers	Nominal capacity (MTPA)					
India	Dabhol	2	320,000	6	1.9	Konkan LNG Pvt. Ltd.	Gail	Yes		2013
	Dahej	6	932,000	21	17.5	Petronet LNG	Petronet LNG	Yes	Truck loading	2004
	Ennore	2	360,000		5.0	Indian Oil Corporation (90%), Tamil Nadu Industrial Development Corporation (10%)	Indian Oil Corporation			2019
	Hazira	2	320,000	5	4.9	Shell Energy India Private Ltd. (Shell 100%)	Shell Energy India Private Ltd.	Negotiated		2005
	Kochi	2	368,000	5	5.0	Petronet LNG	Petronet LNG	Yes	Bunkering, Cool-down, Gassing-up, Reloading, Truck loading	2013
Indonesia	Arun Regas	2	220,000		3.0	PT Perta Arun Gas (Pertamina 70%, Government of Aceh 30%)	PT Perta Arun Gas	Yes	Bunkering, Cool-down, Reloading	2015
	Benoa FSRU				0.3	JSK Group (50%), PT Pelindo III (50%)	PT Pelindo Energi Logistik (PEL)			2016
	Lampung LNG PGN FSRU Lampung (FSRU)	170,000	3	2.9	Owner: Höegh LNG Charterer: PGN	Höegh LNG	No			2014
	Nusantara Nusantara Regas Satu (FSRU)	125,000	6	3.0	Owner: Golar LNG Charterer: PT Nusantara Regas	PT Nusantara Regas (Pertamina & PGN)	No			2012
	Chita	7	640,000	11	10.9	Chita LNG	Chita LNG	Yes	Truck loading	1983
Japan	Chita Kyodo	4	300,000	14	7.5	Toho Gas / JERA	Toho Gas	Yes	Truck loading	1978
	Chita-Midorihamama Works	3	620,000	8	7.7	Toho Gas	Toho Gas	Yes	Truck loading	2001
	Futtsu	12	1,360,000	13	19.1	JERA	JERA	Yes	Truck loading	1985
	Hachinohe	2	280,000	5	1.0	JXTG Nippon Oil & Energy	JX Nippon LNG Service	Yes	Reloading, Truck loading	2015
	Hatsukaichi	2	170,000	4	0.8	Hiroshima Gas	Hiroshima Gas	No	Truck loading	1996
	Hibiki	2	360,000	5	2.4	Hibiki LNG (Saibu Gas 90%, Kyushu Electric 10%)	Hibiki LNG	Yes	Cool-down services, Gas test services, Truck loading	2014
	Higashi-Ogishima	9	540,000	9	13.2	JERA	JERA	Yes		1984
	Himeji	8	740,000	7	5.9	Osaka Gas	Osaka Gas	Yes	Reloading, Truck loading	1979
	Himeji LNG	7	520,000	8	8.1	Kansai Electric	Kansai Electric	Yes	Truck loading	1979
	Hitachi	1	230,000	5	5.3	Tokyo Gas	Tokyo Gas	Yes	Reloading, Truck loading	2016
	Ishikari	3	610,000	7	4.6	Hokkaido Gas / Hokkaido Electric	Hokkaido Gas	Yes (No.1,2 tank) No (No.3 tank)	Reloading, Truck loading	2012
	Joetsu	3	540,000	8	2.4	JERA	JERA	No	Truck loading	2011
	Kagoshima	2	86,000	3	0.2	Nippon Gas	Nippon Gas	No	Truck loading	1996
	Kawagoe	6	840,000	7	4.9	JERA	JERA	Yes	Truck loading	1997
	Minato	1	80,000	3	0.3	Gas Bureau, City of Sendai	Gas Bureau, City of Sendai	No	Truck loading	1997
	Mizushima	2	320,000	6	4.3	Mizushima LNG	Mizushima LNG	Yes	Truck loading	2006
	Nagasaki	1	35,000	3	0.1	Saibu Gas	Saibu Gas	Yes	Truck loading	2003
	Naoetsu	2	360,000	4	2.1	INPEX Corporation	INPEX Corporation	Yes		2013
	Negishi	14	1,180,000	14	12.0	Tokyo Gas / JERA	Tokyo Gas	Yes	Truck loading	1969
	Niigata	8	720,000	13	8.5	Nihonkai LNG	Nihonkai LNG	Yes		1984
	Ohgishima	4	850,000	12	10.4	Tokyo Gas	Tokyo Gas	Yes		1998

Country	Site	Storage		Send-out		Owner	Operator	Third Party Access	Additional Services offered	Start-up date
		Number of tanks	Total capacity (liq m³)	Number of vaporizers	Nominal capacity (MTPA)					
Japan	Oita	5	460,000	7	5.4	Oita LNG	Oita LNG	Yes	Truck loading	1990
	Sakai	4	560,000	6	6.4	Kansai Electric	Kansai Electric	Yes	Truck loading	2006
	Sakaide	1	180,000	3	1.2	Sakaide LNG	Sakaide LNG	No	Truck loading	2010
	Senboku I	1	230,000	5	2.2	Osaka Gas	Osaka Gas	Yes	Truck loading	1972
	Senboku II	16	1,435,000	15	11.5	Osaka Gas	Osaka Gas	Yes	Truck loading	1977
	Shin-Sendai	2	320,000	3	0.8	Tohoku Electric	Tohoku Electric	No		2015
	Sodegaura	33	2,540,000	38	35.5	Tokyo Gas / JERA	Tokyo Gas	Yes	Reloading, Truck loading	1973
	Sodeshi	3	337,200	8	2.9	Shimizu LNG (Shizuoka Gas 65%, JXTG Nippon Oil & Energy Corporation 35%)	Shimizu LNG	Yes	Reloading, Truck loading	1996
	Soma	1	230,000		0.7	Japex	Japex		Truck loading	2018
	Tobata	8	480,000	9	7.6	Kita Kyushu LNG	Kita Kyushu LNG	Yes	Reloading, Truck loading	1977
	Toyama Shinko	1	180,000	4	1.8	Hokuriku Electric	Hokuriku Electric	No	Truck loading	2018
	Yanai	6	480,000	5	2.3	Chugoku Electric	The Chugoku Electric	No	Truck loading	1990
	Yokkaichi LNG Center	4	320,000	8	6.4	JERA	JERA	Yes		1987
	Yokkaichi Works	2	160,000	6	2.1	Toho Gas	Toho Gas	Yes	Truck loading	1991
	Yoshinoura	2	280,000	3	0.8	Okinawa Electric	Okinawa Electric		Truck loading	2012
Malaysia	Melaka									
	Tenaga Empat (FSU) and Tenaga Satu (FSU)		260,000	3	3.8	Petronas	Petronas Gas	No	Reloading	2013
Pakistan	Pengerang	2	400,000		3.5	Petronas Gas (65%), Dialog Group (25%) and Johor State (10%)	Petronas Gas		Bunkering, Cool-down, Gassing-up, Reloading, Truck loading	2017
	Port Qasim Karachi Excelerate Exquisite (FSRU)	150,900	6	4.8	Owner: Excelerate Energy Charterer: ETPL (Engro (51%), Vopak (29%), IFC (20%))	Excelerate Energy	No			2015
South Korea	Port Qasim GasPort BW Integrity (FSRU)	170,000		5.0	Owner: BW Charterer: Pakistan GasPort	Pakistan GasPort Consortium				2017
	Jurong	4	800,000	5	11.0	SLNG	SLNG	Limited	Cool-down, Reloading, Storage, Transhipment, Truck loading	2013
South Korea	Boryeong	3	600,000		3.0	GS Energy (50%), SK E&S (50%)	Boryeong LNG		Reloading	2016
	Gwangyang	4	530,000	2	2.3	POSCO	POSCO	No	Reloading	2005
	Incheon	20	2,880,000	52	41.7	KOGAS	KOGAS	No		1996
	Pyeong-Taek	23	3,360,000	35	38.1	KOGAS	KOGAS	No	Truck loading	1986
	Samcheok	12	2,610,000	8	10.9	KOGAS	KOGAS	No		2014
	Tong-Yeong	17	2,620,000	20	24.9	KOGAS	KOGAS	No	Truck loading, Reloading	2002
	Jeju	2	90,000	5	0.4	KOGAS	KOGAS	No		2019
Taiwan	Taichung	6	960,000	10	6.0	CPC	CPC	No		2009
	Yung-An	6	690,000	18	10.5	CPC	CPC	No		1990
Thailand	Map Ta Phut	4	640,000	9	11.5	PTT	PTT LNG	Yes		2011 expansion in 2019
ASIA TOTAL		48,925,100		524.8						

Regasification terminals

Country	Site	Storage		Send-out		Owner	Operator	Third Party Access	Additional Services offered	Start-up date
		Number of tanks	Total capacity (l iq m³)	Number of vaporizers	Nominal capacity (MTPA)					
EUROPE										
Belgium	Zeebrugge	5	566,000	12	6.6	Fluxys LNG	Fluxys LNG	Yes	Bunkering, Cool-down, Reloading, Transshipment, Truck loading	1987
Finland	Tornio Manga	1	50,000	0.4	Manga LNG (Gasum, Outokumpu, SSAB and EPV Energy)				Bunkering, Truck loading	2018
	Pori	1	28,500	0.1	Gasum	Gasum	Yes		Bunkering, Truck loading	2016
France	Dunkerque LNG	3	600,000	10	9.6	Fluxys (30.39%), AXA Investment Managers (15.19%), Crédit Agricole Assurances (15.19%), Korean investors consortium led by IPM Group in cooperation with Samsung Asset Management (39.24%)	Dunkerque LNG	Yes	Reloading, Truck loading	2016
	Fos Cavaou	3	330,000	4	6.6	Fosmax LNG (Elengy 100%)	Elengy	Yes	Bunkering, Cool-down, Reloading, Transshipment, Truck loading	2009 (commercial operation from April 2010)
	Fos Tonkin	1	80,000	6	2.4	Elengy	Elengy	Yes	Bunkering, Cool-down, Reloading, Truck loading	1972
	Montoir-de-Bretagne	3	360,000	11	8.0	Elengy	Elengy	Yes	Bunkering, Cool-down, Reloading, Transshipment, Truck loading	1980
Gibraltar	Gibraltar	5	5,000	3	0.1	Shell	Gasnor			2019
Greece	Revithoussa	3	225,000	6	5.1	DESFA S.A.	DESFA S.A.	Yes		2000
Italy	Toscana FSRU Toscana (FSRU)	4	137,500	3	2.8	OLT (First State Investments 48.24%, SNAM 49.07%, Golar 2.69%)	OLT Offshore LNG Toscana	Yes		2013
	Panigaglia	2	100,000	4	2.5	GNL Italia S.p.A.	GNL Italia S.p.A.	Yes		1971
	Rovigo (Gravity-Based Structure)	2	250,000	5	5.6	Adriatic LNG (ExxonMobil (70.7%), Qatar Petroleum (22%), SNAM (7.3%))	Adriatic LNG (ExxonMobil, Qatar Petroleum, SNAM)	Yes		2009
Lithuania	Klaipeda Höegh Independence (FSRU)		170,000	4	2.9	Owner: Höegh LNG Charterer: Klaipedos Nafta	Höegh LNG	Yes	Bunkering, Reloading, Truck loading, Truck cool-down	2014 LNG reloading station in 2017
Malta	Delimara Armada LNG Mediterranea (FSU)		125,000		0.5	Owner: BumiArmada Charterer: Electrogas Malta (GEM Holdings Limited (33.34%), Siemens (33.33%), SOCAR (33.33%))	Reganosa			2017
Netherlands	Gate	3	540,000	8	8.8	Gasunie (50%), Vopak (50%)	Gate Terminal	Yes	Bunkering, Cool-down, Reloading, Transshipment, Truck loading	2011
Norway	Fredrikstad	9	5,900		0.1	Gasum	Gasum	Yes	Bunkering, Truck loading	2011
	Mosjøen	8	6,500	4	0.0	Gasnor	Gasnor	Partly	Truck loading	2007
Poland	Świnoujście	2	320,000	5	3.7	Polskie LNG	Polskie LNG	Yes	Truck loading	2016
Portugal	Sines	3	390,000	7	5.6	Ren Atlântico	Ren Atlântico	Yes	Cool-down, Reloading, Truck loading	2004
Russia	Kaliningrad No vessel chartered									2019
Spain	Barcelona	6	760,000	13	12.6	Enagas	Enagas	Yes	Bunkering, Cool-down, Reloading, Transshipment, Truck loading	1968

Country	Site	Storage		Send-out		Owner	Operator	Third Party Access	Additional Services offered	Start-up date
		Number of tanks	Total capacity (lq m³)	Number of vaporizers	Nominal capacity (MTPA)					
Spain	Bilbao	3	450,000	4	7.0	Enagas (50%), EVE (50%)	Bahia de Bizkaia Gas, SL (BBG)	Yes	Bunkering, Cool-down, Reloading, Truck loading	2003
	Cartagena	5	587,000	9	8.7	Enagas	Enagas	Yes	Bunkering, Cool-down, Reloading, Transshipment, Truck loading	1989
	Ei Musel (mothballed)	2	300,000	4	5.1	Enagas	Enagas	Yes	Reloading, Truck loading	Construction completed in 2013
	Huelva	5	619,500	9	8.7	Enagas	Enagas	Yes	Cool-down, Reloading, Transshipment, Truck loading	1988
	Mugardos	2	300,000	3	2.6	Tojeiro Group (51%), Xunta Galicia (24%), Sojitz (15%), Sonatrach (10%)	Reganosa	Yes	Bunkering, Cool-down, Reloading, Truck loading	2007
Sweden	Sagunto	4	600,000	5	6.4	Infraestructuras de Gas [Enagas and Oman Oil Company S.A.O.C.] (50%), Iniciativas de Gas [Enagás and Osaka Gas] (50%)	Saggas	Yes	Cool-down, Reloading, Truck loading	2006
	Lysekil	1	30,000		0.2	Gasum	Gasum		Bunkering, Truck loading	2014
	Nynashamn	1	20,000		0.4	AGA Gas	AGA Gas		Bunkering, Truck loading	2011
Turkey	Izmir Aliaga	2	280,000	5	4.4	Egegaz	Egegaz	No	Truck loading	2006
	Döertyol MOL FSRU Challenger (FSRU)		263,000		4.1	Owner: MOL Charterer: Botas (for 3 years)	MOL			2018
	Etki Turquoise		170,000		5.7	Owner: Pardus Energy Charterer: Etki Terminal	Pardus Energy		Bunkering, Reloading	2016
	Marmara Ereğlisi	3	255,000	7	4.6	Botas	Botas	No	Truck loading	1994
	Dragon	2	320,000	6	5.6	Shell (50%), Ancala (50%)	Dragon LNG	Yes		2009
UK	Grain	8	1,000,000	14	14.3	National Grid	Grain LNG	Yes	Cool-down, Reloading, Transshipment, Truck loading	2005
	South Hook LNG	5	775,000	15	15.4	Qatar Petroleum International (67.5%), Exxon Mobil (24.15%), Total (8.35%)	South Hook LNG Terminal Company Ltd	Yes		2009
	Teesside GasPort Awaiting recommissioning					Trafigura				2007
EUROPE TOTAL		11,018,900		177.1						
MIDDLE EAST										
Egypt	Sumed BW Singapore	170,000	4	5.7	Owner: BW Charterer: Egas	BW	No			2015
Israel	Hadera Excelerate Excelsior (FSRU)	138,000	6	3.5	Owner: Excelerate Energy Charterer: INGL	Excelerate Energy	No			2013
Jordan	Aqaba Golar Eskimo (FSRU)	160,000		3.8	Owner: Golar Charterer: MEMR (Jordan Ministry of Energy and Mineral Resources)	Golar	No			2015
Kuwait	Mina Al Ahmadi Golar Igloo (FSRU)	170,000		5.8	Owner: Golar Charterer: KPC (Kuwait National Petroleum Company)	Golar	No			2014
UAE	Jebel Ali Excelerate Explorer (FSRU)	150,900	6	6.0	Owner: Excelerate Energy Charterer: DUSUP (Dubai Supply Authority)	Excelerate Energy	No			2010
	Ruwais, Abu Dhabi Excelerate Express (FSRU)	151,000		3.8	Owner: Excelerate Energy Charterer: ADNOC	Excelerate Energy	No			2016
MIDDLE EAST TOTAL		939,900		28.7						
WORLD TOTAL		68,729,300		919.7						







ZOOM
Japan



ZOOM
China



Retail LNG in 2019

SMALL-SCALE LNG CARGOES LOADED FROM RECEIVING TERMINALS IN 2019

Country	2019 10 ³ T	2018 10 ³ T	Var. 2019/2018
BELGIUM	86.5	83.5	4%
INDONESIA	90.3	71.4	27%
JAPAN	426.6	413.5	3%
NETHERLANDS	106.4	124.0	-14%
SINGAPORE	4.3	NA	NA
SOUTH KOREA	3.9	NA	NA
SPAIN	30.7	0.9	3,315%

TRUCK-LOADING OF LNG FROM RECEIVING TERMINALS IN 2019

Country	2019 10 ³ T	2018 10 ³ T	Var. 2019/2018
AMERICAS			
CHILE	220.5	250.8	-12%
DOMINICAN REPUBLIC	169.0	104.1	62%
USA	70.3	82.6	-15%
ASIA			
CHINA	16,060.0	14,040.0	14%
INDIA	39.2	46.5	-16%
INDONESIA	35.0	2.9	1,106%
JAPAN	1,427.9	1,430.3	-0.2%
SINGAPORE	0.9	0.3	263%
SOUTH KOREA	168.8	181.3	-7%
EUROPE			
BELGIUM	46.7	25.8	81%
FRANCE	162.9	112.2	45%
LITHUANIA	4.8	0.1	4,700%
NETHERLANDS	67.8	53.4	27%
POLAND	40.6	30.8	32%
PORTUGAL	121.7	116.3	5%
SPAIN	831.0	718.5	16%
TURKEY	382.2	459	-17%
UNITED KINGDOM	31.0	26.4	17%



About GIIGNL

GIIGNL is the international association of LNG importers. It constitutes a forum for exchange of information and experience among its members with a view to enhance safety, reliability, efficiency and sustainability of LNG import activities.

GIIGNL is a non-profit organisation registered under the French law of 1901 and its resources only come from the membership fees.

Governance

The Association is composed of two main governing bodies: the General Assembly and the Executive Committee.

The General Assembly is composed of the whole membership and holds its annual meeting in the Fall.

The Executive Committee is currently composed of **12 member companies**, who are elected by the General Assembly for 2-year terms and meet at least once a year. The Executive Committee elects a Bureau composed of the President and of 3 regional Vice-Presidents to assist him.

The Executive Committee steers two **Standing Study Groups** within which leaders from the LNG industry offer their commercial and technical expertise to improve efficiency and safety across the midstream of the LNG value chain.

GIIGNL's day-to-day activities are coordinated by the **General Delegate**, in charge of the Central Office located near Paris (Neuilly-sur-Seine).



GIIGNL Staff



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President
J.M. Dauger



VP for Americas
S. Hill
Shell



VP for Asia
M. Hirose
Tokyo Gas



VP for Europe
A. Della Zoppa
Eni

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AMERICAS



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J. Bird
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A. Takeuchi
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Naturgy Energy Group



P. Olivier
Total

Study Groups

Commercial Study Group Chair



D. DeWick
Total

Technical Study Group Chair



P.E. Decroës
Engie

88 member companies

Founded in 1971, GIIGNL gathers 88 companies from **26 countries** headquartered in three regions: Americas, 11 members, Asia, 44 and Europe, 33.

GIIGNL comprises nearly all companies active in LNG imports or in the operation of LNG terminals.

11
members
in Americas

33
members
in Europe

44
members
in Asia

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BP Global LNG
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Cheniere Energy, Inc.
CNOOC Gas & Power Trading & Marketing Ltd.
CPC Corporation
DEPA
Dominion Cove Point LNG
Dubai Supply Authority
Dunkerque LNG SAS
Edison S.p.A.
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ENGIE
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Equinor ASA
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Exelon
Fluxys LNG SA
Freeport LNG Development, L.P.
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Guangdong Dapeng LNG Company, Ltd.
Hiroshima Gas Co., Ltd.
Höegh LNG AS
Hokkaido Gas Co., Ltd.
Hokuriku Electric Power Company
Iberdrola Generación España, S.A.U.
Itochu Corporation
JERA Co., Inc.
JXTG Nippon Oil & Energy Corporation
Korea Gas Corporation
Kyushu Electric Power Co., Inc.

LNG Japan Corporation
Marubeni Corporation
Mitsubishi Corporation
Mitsui & Co., Ltd.
Mitsui O.S.K. Lines, Ltd.
National Grid Grain LNG, Ltd.
Naturgy Energy Group S.A.
Nippon Gas Co., Ltd.
N.V. Nederlandse Gasunie
Osaka Gas Co., Ltd.
Pavilion Energy
PetroChina International Co., Ltd.
Petronet LNG Limited
PTT Public Company Limited
Ren Atlántico – Terminal de GNL, S.A.
Saibu Gas Co., Ltd.
Sempra LNG
Shell Energy North America, L.P.
Shell Energy India Private, Ltd.
Shikoku Electric Power Co., Inc.
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Singapore LNG Corporation
SSK E&S Co., Ltd.
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South Hook LNG Terminal Company, Ltd.
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Total S.A.
Trafigura
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Gazprom Marketing & Trading Limited
GSPC LNG Limited
HE Terminals Pvt. Ltd.
INPEX Corporation
Jera Global Markets Pte. Ltd.
MET International AG
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INTERNATIONAL GROUP
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