



THE LNG INDUSTRY

2010



The LNG Industry in 2010

World energy situation

After a steady increase in consumption over the last ten years, with a record year in 2008, world primary energy consumption registered a -1.3% decrease in 2009 and was almost reduced to its 2007 level, as a consequence of global economic recession.

On a global basis, trends observed in late 2008 have continued in 2009 with a decline of consumption in OECD countries and a limited increase in energy demand in the Asia Pacific region: energy consumption in North America and in Europe fell respectively by 4.7% and 6% while it continued to grow by 4.4% in Asia Pacific. With respective growth rates of 8.7% and 6.6%, China and India remained the main drivers for energy demand in the region.

Between 2007 and 2009 fossil fuel consumption remained stable, the decrease in oil consumption being compensated by additional demand for coal. Gas consumption remained unchanged, while the demand for hydro and renewables increased by 6.4%.

The breakdown for the major types of energy in 2009, as compared with 2008 and 2007, was as follows:⁽¹⁾

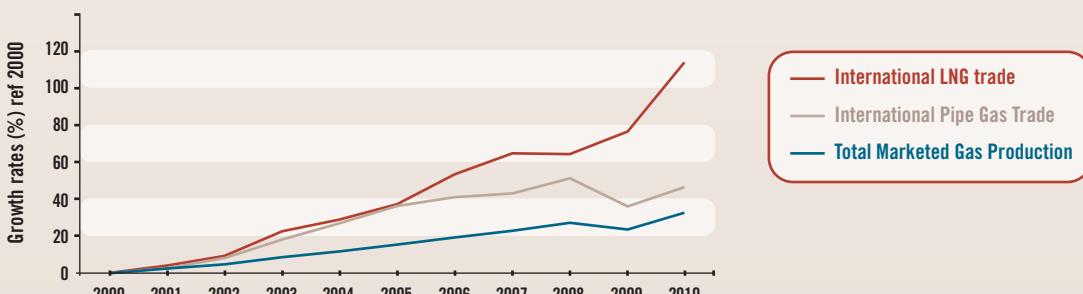
Consumption by fuel (in 10 ⁶ toe)					
Year	2009	2008	2007	09 vs 08	09 vs 07
Oil	3 882	3 960	3970	- 2.0%	- 2.2%
Coal	3 278	3 286	3184	- 0.2%	+ 3.0%
Natural gas	2 653	2 717	2652	- 2.4%	+ 0.0%
Nuclear	611	620	622	- 1.5%	- 1.8%
Hydro & others	740	31	696	+ 1.2%	+ 6.4%

Natural gas consumption declined sharply in 2009 (-2.4%) with some regional discrepancies: mature markets registered decreases (-6.8% in Europe, -1.2% in North America) while new consuming zones increased their demands (+3.4% in Asia and +4.4% in the Middle East). Due to the relatively small size in absolute terms of their still emerging gas markets, China and India had a limited impact on the evolution of global natural gas demand, despite respective growth rates of 9.4% and 10.3%. On a worldwide basis, the global market share for natural gas in the primary energy mix has slightly decreased below 24%.

In 2010, global energy demand has recovered. Estimates for World Natural Gas consumption⁽²⁾ show a 7.3% increase compared with 2009 thanks to the economic rally and the cold winter conditions in Western countries. Due to the decline of indigenous productions in mature markets and to the development of new gas markets, international gas flows continued to expand, and total international gas trade increased by 10.9% compared with 2009.

In this context, LNG flows recorded the largest growth with a 21% increase in 2010, the operational start-up of new liquefaction capacity in Qatar being the primary reason. By comparison, pipeline trade increased by 7%.

The graph hereunder gives the respective growth rates since 2000 for the marketed gas production, the total cross-border gas trade and the LNG trade:



Data excludes trade within the Former Soviet Union and United Arab Emirates

⁽¹⁾ Source: BP Statistical Review of World Energy, June 2010

⁽²⁾ Source: Cedigaz

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LNG Contracts and Trade



In 2010, LNG trade rose by $84.4 \text{ } 10^6 \text{ m}^3$ in liquid form with a growth rate of 21.2% compared with 2009. Spurred by global economic recovery, this record increase was allowed by the rise of production levels from existing facilities in Qatar, Nigeria, Indonesia and Russia, as well as by the addition of new liquefaction capacity in Qatar, Yemen and Peru.

On the import side, Asian LNG markets experienced a strong recovery (+16.8%) after a 4% decline in 2009. On a steady trend, European imports continued to grow by 24.8%, with the majority of additional volumes coming from Qatar and being delivered into three countries: Italy (Rovigo), the UK (South Hook) and Turkey (Aliaga). Imports into Central and South America more than doubled ($+13.2 \text{ } 10^6 \text{ m}^3$). As a consequence, the LNG market share for Asia (59.8%) declined by 2.5%, while Europe and the Americas respectively recorded a 0.9% and 1.0% increase in market share.

At the end of the year, Japan remained the leading LNG importer with $154.0 \text{ } 10^6 \text{ m}^3$, compared to $141.6 \text{ } 10^6 \text{ m}^3$ in 2009 (+8.7%). Meanwhile, Japan's share of the world's total imports slightly decreased from 35.3% in 2009 to 31.7% in 2010,

the largest increases in LNG consumption being noted in Korea ($+16.6 \text{ } 10^6 \text{ m}^3$), in the UK ($+13.5 \text{ } 10^6 \text{ m}^3$) and in Italy ($+9.9 \text{ } 10^6 \text{ m}^3$). With total volumes consumed of $71.5 \text{ } 10^6 \text{ m}^3$ (+30.2%), Korea's share of all imports reached 14.8%, compared with 13.8% in 2009. Third on the podium with 9.5% of all imports, Spain reached a consumption of $45.6 \text{ } 10^6 \text{ m}^3$ (+1.5% after an 8% reduction in 2009).

In 2010, India was the only Asian country to reduce its appetite for LNG, as a result of growing domestic production.

In the Americas, due to the rise of non-conventional domestic gas supplies and to the low-price environment, LNG imports into the U.S.A. have declined by 11.1%, from $20.9 \text{ } 10^6 \text{ m}^3$ in 2009 to $18.6 \text{ } 10^6 \text{ m}^3$ in 2010, after netting out the re-export of $1.3 \text{ } 10^6 \text{ m}^3$ in the course of the year. On the contrary, the appetite for LNG in South America (Argentina, Brazil, Chile) grew strongly, mainly as a result of gas demand for power generation. Imports by the three countries almost tripled and reached $12.6 \text{ } 10^6 \text{ m}^3$, bringing South America's global LNG market share to 2.6% at the end of 2010.

Dubai entered the LNG market during the year, with three cargoes imported in November.



On the export side, the LNG output grew at a quicker pace than total production capacity. To a large extent, additional volumes in 2010 can be explained by the production build-up of facilities commissioned in 2009 and by enhanced operational performance from existing trains, and, to a lesser extent, by new projects brought on-stream during the year in Qatar, Yemen and Peru (4 trains, amounting to an additional 23.35 mtpa of capacity).

On a regional basis, exports from the Pacific Basin grew by 15.1%, allowing the region to remain the major source of LNG exports with $181 \text{ } 10^6 \text{ m}^3$. Nevertheless, the Pacific Basin's share of world LNG exports went down from 39.5% in 2009 to 37.2% in 2010. With annual growth of 47.8% and exports of $164.4 \text{ } 10^6 \text{ m}^3$, the contribution of the Middle East sharply increased, rising from 27.9% of total exports in 2009 to 33.9% in 2010. Despite a 6.1% growth, the Atlantic Basin lost ground, its share being reduced from 32.5% in 2009 to 28.8% in 2010, mainly due to the reduction of exports from North Africa.

On a country basis, Qatar accounted for almost half of the total additional volumes ($+42.2 \text{ } 10^6 \text{ m}^3$), followed by Nigeria ($+13.8 \text{ } 10^6 \text{ m}^3$), Russia ($+10.6 \text{ } 10^6 \text{ m}^3$)

and Indonesia ($+9.2 \text{ } 10^6 \text{ m}^3$). On the contrary, Egypt, Algeria and Trinidad reduced their deliveries, the biggest decrease being recorded by Egypt (-30.2%), due to the growth of the country's domestic gas needs.

During 2010, Qatar was responsible for one quarter of global LNG production ($123.3 \text{ } 10^6 \text{ m}^3$), exporting to all countries except Greece, Kuwait, Puerto Rico and the Dominican Republic. Ranking third in 2009, Indonesia was back to the second place in 2010 with a 21.6% growth and exports of $51.5 \text{ } 10^6 \text{ m}^3$. Malaysia ranked third with $50.9 \text{ } 10^6 \text{ m}^3$, followed by Australia with $41.3 \text{ } 10^6 \text{ m}^3$. Nigerian exports rose by 54.2% due to restored gas supplies to the LNG plant following the restart of Soku, Nigeria's key feeder gas plant.

Spot and short-term imports (defined as contracts with a duration of 4 years or less) recorded a very strong increase (+40.0%) and reached $91.3 \text{ } 10^6 \text{ m}^3$ (727 cargoes) compared with $65.1 \text{ } 10^6 \text{ m}^3$ (491 cargoes) in 2009, accounting for 18.9% of the world LNG trade, as opposed to 16.3% in 2009. In comparison, LNG traded under long-term contracts recorded a 17.0% increase, reaching $391.8 \text{ } 10^6 \text{ m}^3$ in 2010. The rise of spot and short-term operations was particularly significant in Europe (+50.9%), thanks to the attractiveness of LNG prices compared with long-term prices and to the availability of uncommitted LNG supply from the Middle East. After a sharp decline in 2009, Asia experienced renewed growth in spot and short-term purchases, with $39.7 \text{ } 10^6 \text{ m}^3$. Despite a 17% increase, Asian spot and short-term imports remained behind their $52.8 \text{ } 10^6 \text{ m}^3$ level of 2008, a large portion of extra Asian supplies being provided by long-term contracts with Indonesia and Russia. Korea and Japan alone accounted for 38.2% of additional spot and short-term volumes. By way of comparison, Europe was responsible for 38.5% of additional spot and short-term quantities.

Spot and short-term trading of LNG in 2010 was also marked by the growing activity of non asset-based players, including financial institutions and oil trading companies, as well as by the significant number of re-exported cargoes. A total of 19 cargoes were re-loaded during the year (7 from Zeebrugge, 8 from Sabine Pass and 4 from Freeport LNG), totalling about $2.5 \text{ } 10^6 \text{ m}^3$. Noteworthy is the fact that in 2010, only 9 cargoes out of 19 were re-exported to countries located east of the Suez Canal, 10 remaining dedicated to the Atlantic Basin west of the canal.

At the end of the year, three cargoes re-exported from the U.S.A. at the end of December were still out at sea. They were delivered in January 2011 in the United Kingdom, India and South Korea.

As to the sourcing of spot and short-term trades in 2010, Qatar overtook Trinidad's leadership and came first with a 25.7% share, followed by Trinidad (17.2%), Nigeria (12.3%) and Egypt (7.3%). In 2010, new flexible volumes from Qatar contributed to 45.3% of the new spot and short-term volumes on the market, followed by Nigeria (18.8%) and Yemen (12.6%).

The world trade involved 149 "flows" (i.e. country-to-country trades) over 386 sea transportation routes (port-to-port routes). 100 routes were new and 73 ceased in 2010. In 2010, there were 42 new country-to-country flows: ABU-DHABI/Brazil, China, Korea, Kuwait, Spain and Taiwan - ALGERIA/Chile and Japan - EGYPT/Belgium, Chile and Kuwait - EQUATORIAL GUINEA/Greece, India, Italy and Kuwait - NIGERIA/Kuwait and UK - NORWAY/Belgium, Italy, Korea and Taiwan - PERU/Belgium, Brazil, Canada, Korea, Mexico, Spain and U.S.A. - QATAR/Argentina, Brazil, Dubai and Portugal - TRINIDAD & TOBAGO/Chile and Italy - YEMEN/Chile, China, France, India, Japan, Kuwait, UK and U.S.A..

20 flows disappeared: ABU-DHABI/India and Portugal, ALGERIA/India and Portugal - EGYPT/Argentina, Canada, China and Turkey - EQUATORIAL GUINEA/China, France, India and Portugal - INDONESIA/India - LYBIA/India - MALAYSIA/India - NORWAY/Mexico - OMAN/China and Turkey - RUSSIA/India and TRINIDAD & TOBAGO/China.

Contracts concluded in 2010

	Export country	Purchaser	Import country	Amount (mtpa)	Duration (Years)	Extra Years	Start	Delivery Format
Long & medium term Sales	Qatar	Repsol Energy Canada	Canada	> 2 mtpa			Dec. 2010	D.E.S.
	Australia (Queensland)	CNOOC	China	3.6	20		2014	D.E.S.
	Shell Portfolio	Osaka Gas	Japan	up to 0.8	25		2012	D.E.S.
	Iberdrola portfolio	DONG	Netherlands (Gate)	0.8	10	option for a 5 year extension	2011	
	Papua New Guinea	CPC Corporation, Taiwan	Taiwan	1.2	20		2013/2014	D.E.S.
Short term contracts (< 4 yrs)	GDF SUEZ portfolio	CNOOC	China	0.65	4		2013	D.E.S.
	Spain	GSPC	India	0.50	0.75		April 2010	D.E.S.
	Russia	GSPC	India	0.30	1		2011	D.E.S.
	Indonesia (Tangguh LNG)	Chubu Electric Power	Japan	0.25	2		2011	D.E.S.
	Indonesia (Tangguh LNG)*	Chubu Electric Power	Japan	0.5	3		2013	D.E.S.
	GDF SUEZ portfolio	KOGAS	Korea	0.72	3.25		Sept. 2010	D.E.S.
	BP (Trinidad & others)	KOGAS	Korea	0.72	3		Oct. 2010	D.E.S.
	TOTAL portfolio	KOGAS	Korea	0.18	2		Dec. 2010	D.E.S.
	SHELL portfolio	KOGAS	Korea	0.72	2		Oct. 2010	D.E.S.
	Indonesia (Bontang)	KOGAS	Korea	1.80	2		Jan. 2011	FOB
	Indonesia (Tangguh LNG)	KOGAS	Korea	0.36	2		Jan. 2011	D.E.S.
	Shell	KPC	Kuwait	2 to 3 cargoes from April to October	4		2010	D.E.S.
	Vitol	KPC	Kuwait	1 to 2 cargoes from April to October	4		2010	D.E.S.
	Iberdrola portfolio	Shell	Spain	0.58	1		Jan. 2010	D.E.S.
Heads of Agreement (H.O.A)	Qatar	Eni	U.S.A.	0.52	1		Jan. 2011	D.E.S.
	Gazprom	Sempra LNG Marketing (Cameron)	U.S.A.	0-1.5**	2+		June 2010	D.E.S.
	GDF SUEZ portfolio	Gazprom		0.36	2.5		2011	FO.B.
	Australia & BG Portfolio	Chubu Electric	Japan	up to 120 cargoes total approximately 0.4 mtpa	20		2014	D.E.S.
	Australia (Gorgon)	Nippon	Japan	0.3	15			
	Australia (Gorgon)	Kyushu Electric Power	Japan	0.3	15		2015	D.E.S.
	Australia (Queensland)	Tokyo Gas	Japan	1.2	20		2015	D.E.S.
	Australia (Wheatstone)	Kyushu Electric Power	Japan	0.68	20		2016-2018	F.O.B.
	Indonesia (Sengkang)	Tokyo Gas	Japan	0.5				
	Indonesia (Donggi Senoro)	Chubu Electric Power	Japan	< 1	13		2014	D.E.S.
	BG Portfolio	Chubu Electric Power	Japan	0.42***	20		2014	D.E.S.
	Tokyo Electric Power	Shizuoka Gas	Japan	0.26				D.E.S.
Agreements on re-gasification rights	Tokyo Gas	Hokkaido Gas	Japan		11		2012	D.E.S.
	Osaka Gas	Okinawa Electric Power	Japan	0.4	27		2012	D.E.S.
	Osaka Gas	Shizuoka Gas	Japan	0.3	20		2014	D.E.S.
	Australia (Gladstone)	Kogas	Korea	3.50	20		April 2015~ March 2016	F.O.B.
	Australia (Wheatstone)	Kogas	Korea	1.50	20		April 2015~ March 2017	F.O.B./D.E.S.
	U.S.A.	GAS NATURAL FENOSA	U.S.A./other (Bi-directional LNG processing capacity at Sabine Pass)	up to 1.5				
	U.S.A.	ENN Energy	U.S.A./China	up to 1.5				
		ENI	France (Fos Tonkin)	0.2	2		Oct. 2010	
		GAS NATURAL FENOSA	France (Montoir)	0.8	10		2011-2021	
		GAS NATURAL FENOSA	Italy (Panigaglia)	0.4	< 1		Nov. 2010	
Re-export of cargoes	Belgium	Vitol/KPC	Kuwait	0.07	spot			
	Belgium	Itochu/Tokyo Electric	Japan	0.06	spot			
	Belgium	Petrobras	Brazil	0.07	spot			
	Belgium	EDFT/Kogas	South Korea	0.07	spot			
	Belgium	EDFT/Egegaz	Turkey	0.06	spot			
	Belgium	Unknown	Spain	0.06	spot			
	Belgium	Gasnor	Norway	0.00	spot			
	U.S.A. (Sabine Pass)	EDFT/Petrobras	Brazil	0.07	spot			
	U.S.A. (Sabine Pass)	Golar	South Korea	0.07	spot			
	U.S.A. (Sabine Pass)	Gazprom	South Korea	0.07	spot			
	U.S.A. (Sabine Pass)	Citigroup	Spain	0.07	spot			
	U.S.A. (Sabine Pass)	Golar	Spain	0.02	spot			
	U.S.A. (Sabine Pass)	Total Gas & Power Ltd	United Kingdom	0.07	spot			
	U.S.A. (Freeport)****	Citigroup	Japan	0.06	spot			
	U.S.A. (Freeport)	Excelerate	South Korea	0.06	spot			
	U.S.A. (Freeport)	Excelerate	United Kingdom	0.07	spot			

* Same contract than above. ** Option agreement. None of the volumes are firm. *** Up to 120 cargoes over 20 years (i.e. up to 8.4 million tonnes if a 140.000 cubic metre capacity vessel is used).
**** Freeport LNG and ConocoPhillips amended their Terminal Use Agreement to provide for re-export of LNG cargoes. Start: 2009

LNG trade

In 2010, the world LNG trade accounted for 483.1 10⁶ m³ in liquid form⁽¹⁾ or 220.2 10⁶ t, as shown in the following table :

LNG Imports

	10 ⁶ m ³ liquid	10 ⁶ t	10 ⁹ m ³ (n) gaseous	share %	Var. 2009-10 %		10 ⁶ m ³ liquid	10 ⁶ t	10 ⁹ m ³ (n) gaseous	share %	Var. 2009-10 %
Belgium	9.58	4.40	5.46	2.0	-12.2	Algeria	31.34	14.22	18.02	6.5	-8.8
France	22.91	10.40	13.11	4.8	7.9	Egypt	15.58	6.72	9.07	3.3	-30.2
Greece	1.61	0.73	0.93	0.3	18.0	Equatorial Guinea	8.28	3.63	4.84	1.8	8.2
Italy	14.63	6.66	8.37	3.0	208.7	Libya	0.57	0.28	0.32	0.1	-51.6
Portugal	4.72	2.16	2.68	1.0	3.9	Nigeria	39.30	18.00	22.24	8.1	54.2
Spain	45.64	20.60	26.18	9.5	1.5	Norway	7.76	3.50	4.48	1.6	49.2
Turkey	12.37	5.62	7.08	2.6	39.4	Trinidad&Tobago	32.09	13.77	18.93	6.9	-4.1
U.K.	31.15	14.19	17.81	6.5	76.4	Peru	2.66	1.21	1.54	0.6	NA
Europe	142.63	64.75	81.63	29.6	24.8	Atlantic Basin	137.57	61.33	79.44	28.8	6.1
Argentina	2.95	1.27	1.74	0.6	103.9	Abu Dhabi	12.97	6.06	7.34	2.7	12.3
Brazil	4.69	2.10	2.70	1.0	482.4	Oman	18.96	8.91	10.67	3.9	5.9
Chile	4.95	2.17	2.89	1.0	370.4	Qatar	123.29	56.71	70.25	25.5	52.1
Dominican Rep	1.45	0.62	0.85	0.3	55.5	Yemen	9.18	3.99	5.21	1.9	1180.7
Mexico	9.38	4.28	5.33	1.9	55.5	Middle East	164.40	75.67	93.47	33.9	47.8
Puerto Rico	1.26	0.54	0.74	0.3	2.8	Australia	41.29	19.28	23.20	8.4	4.8
Canada	2.11	0.92	1.23	0.4	29.7	Brunei	14.43	6.65	8.14	3.0	0.8
U.S.A.	18.63	8.19	10.81	3.9	-11.1	U.S.A.	1.35	0.57	0.79	0.3	2.4
Americas	45.42	20.10	26.30	9.5	33.3	Indonesia	51.48	23.50	29.27	10.6	21.6
China	20.86	9.60	11.80	4.3	68.3	Malaysia	50.95	23.49	28.89	10.5	3.9
India	19.62	8.97	11.19	4.1	-3.2	Russia	21.65	9.72	12.34	4.5	95.9
Japan	154.04	70.87	87.31	31.7	8.8	Pacific Basin	181.14	83.21	102.63	37.2	15.1
Korea	71.53	32.64	40.69	14.8	30.2	Total	483.11	220.21	275.54	100.0	21.2
Taiwan	24.39	11.18	13.87	5.0	24.9						
Asia	290.44	133.26	164.87	59.8	16.8						
Kuwait	4.41	1.99	2.52	0.9	175.3						
Dubai	0.22	0.10	0.22	0.1	NA						
Middle East	4.63	2.10	2.75	1.0	189.3						
Total	483.11	220.21	275.54	100.0	21.2						

⁽¹⁾All figures related to LNG trade are based on unloaded volumes.

The conversion factors from liquid m³ are calculated from the table on page 8.

Quantities (10⁶ liquid m³) received in 2010 by the importing countries from the exporting countries

	Algeria	Belgium	Egypt	Equat. Guin.	Libya	Nigeria	Norway	Peru	Trinidad & Tobago	Abu Dhabi	Oman	Qatar	Yemen	Australia	Brunei	U.S.A.	Indonesia	Malaysia	Russia	Total Import	
Belgium		(0.84)*	0.28			0.27	0.14	0.14			9.59	0.16								9.58	
France	10.36		1.18			5.90	0.85	0.40		4.07										22.91	
Greece	1.41		0.08	0.05					0.07											1.61	
Italy	2.67		1.19	0.16			4.32		0.27		0.53		9.82							14.63	
Portugal											0.27	0.13								4.72	
Spain	8.40		0.13	4.30		0.57	12.93	2.95	1.05	5.30	0.28	9.17	0.39			0.19				45.64	
Turkey	6.01		0.15	0.44			1.98	0.40		0.39		3.00								12.37	
U.K.	2.07		0.20			0.66	1.55		2.69		23.26	0.43				0.30				31.15	
Europe	30.91	(0.57)	7.66	0.21	0.57	26.06	6.17	1.18	9.64	0.28	59.03	0.98	0.49							142.63	
Argentina										2.70		0.25								2.95	
Brazil		0.14		0.15		1.45		0.26	1.38	0.05		1.11				0.15				4.69	
Chile	0.29		0.29	2.48						1.26		0.45	0.17							4.95	
Domin Rep										1.45										1.45	
Mexico			0.26			3.70		0.24			1.68	0.31				3.20				9.38	
Puerto Rico										1.26										1.26	
Canada								0.09	1.59		0.42									2.11	
U.S.A.		3.38				1.94	1.20	0.74	8.78		2.11	1.80		(1.32)*						18.63	
Americas	0.29	0.14	3.93	2.63	7.08	1.20	1.33	18.42	0.05	6.02	2.28	(1.18)	3.20							45.42	
China					0.14	0.28			0.14		2.75	1.44	8.44			4.06	2.78	0.85		20.86	
India			0.14	0.28		0.52			1.01		17.35	0.32								19.62	
Japan	0.13	0.13	0.98	1.23		1.41		0.27	11.28	6.27	16.63	0.27	28.74	12.84	1.48	28.06	30.70	13.61		154.04	
Korea		0.15	1.88	2.80		1.98	0.26	0.14	1.53	0.41	10.13	15.20	3.75	2.35	1.59	0.56	11.85	10.87	6.09		71.53
Taiwan			0.28	0.55		1.84	0.12		0.72	0.69	0.83	6.08		1.76		4.31	6.22	0.97		24.39	
Asia	0.13	0.28	3.28	5.00	6.02	0.38	0.14	3.54	12.53	17.24	58.01	5.78	41.29	14.43	2.03	48.28	50.57	21.52	290.44		
Kuwait		0.15	0.70	0.44		0.13			0.49	0.39	1.45		0.22	0.15				0.37	0.14	4.41	
Dubai			0.15	0.70	0.44						0.22		0.15							0.22	
Middle East	0.15	0.70	0.44	0.44	0.13				0.49	0.39	1.45	0.22	0.15					0.37	0.14	4.63	
Total Export	31.34	0.00	15.58	8.28	0.57	39.30	7.76	2.66	32.09	12.97	18.96	123.29	9.18	41.29	14.43	1.35	51.48	50.95	21.65	483.11	

*Re-exports.

LNG Tankers

The world LNG tanker fleet consisted of 360 vessels at the end of 2010.

In 2010, the growth pace of the LNG fleet started to experience a slowdown after several years of rapid expansion.

25 ships were added to the world LNG tanker fleet during the year, for an additional capacity of $4.1 \cdot 10^6 \text{ m}^3$, i.e an average capacity of 164 000 m^3 per tanker. The order book was down from 37 at the end of 2009 to 20 at the end of 2010.

Only 3 ships with a capacity of over 200 000 m^3 were delivered, compared with 17 in 2009.

- Two ships were sold for scrapping in 2010:
 - Chill, ex Margaret Hill and Hoegh Galleon (Moss, 87 600 m^3 , delivered in 1974)
 - Supreme, ex Mel and ex Hassi R'Mel (NO82, 40 100 m^3 , delivered in 1971)
- One methane tanker is being converted into FSRU:
 - Golar Frost (Moss, 138 000 m^3 , will be called FSRU Toscana, end of the conversion planned for Q2 2011)
- Seven orders were placed for new ships, all of which using the membrane technique:
 - 6 Mark III and 1 NO96.



► Number of voyages completed in 2010

1 356 ► to Japan (1 267 in 2009)

519 ► to Korea (405 in 2009)

1 194 ► to Europe (1 080 in 2009)

379 ► to the United States, Puerto Rico, the Dominican Republic, Mexico, Argentina, Brazil, Chile and Canada (261 in 2009)

180 ► to Taiwan (145 in 2009)

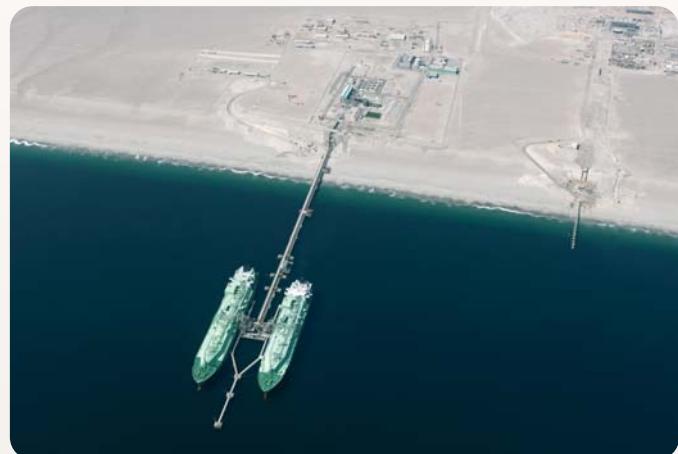
142 ► to India (149 in 2009)

145 ► to China (95 in 2009)

33 ► to Kuwait (12 in 2009)

3 ► to Dubai

TOTAL ► 3 951 voyages (3 414 in 2009)



► Laid-up ships in 2010

Name	Capacity	Delivery date	Containment
Ben Badis	177 000	2009	Mark III
Abdel Kader	177 000	2009	Mark III
LNG Bonny	132 600	1984	NO 88
Kotawaka Maru	125 200	1984	Moss
Dewa Maru	125 900	1984	Moss
Galeomma	126 450	1978	Mark I
Transgas	129 400	1977	NO 85
Gandria	125 800	1977	Moss
Khannur	126 000	1977	Moss
Gimi	126 300	1976	Moss
Hilli	126 200	1975	Moss
TOTAL	1 497 850		

Total shipping capacity in operation was almost $51 \cdot 10^6 \text{ m}^3$ in 2010; the average capacity per carrier was about 145 000 m^3 .

Total shipping capacity available on the market at the end of 2010 was just above $52 \cdot 10^6 \text{ m}^3$, including some $4.1 \cdot 10^6 \text{ m}^3$ of additional capacity with new ships delivered during the year.

At the end of December 2010, the number of LNG carriers under construction or on firm order was 20 of which 2 using the Moss technique and 18 using the GTT membrane technique. 11 should be delivered in 2011 (10 Membrane and 1 Moss).

In 2010, LNG traffic towards Europe via the Suez Canal skyrocketed with a 74% increase over 2009. This can be explained by the addition of new imports from the Middle East and by the 30% discount on official transit rates granted by Egypt following Qatar's request. By way of comparison, the traffic of loaded oil tankers via the Suez Canal only recorded a 1.8% increase.

25 ships delivered in 2010

➤ Membrane Technology (21)

Delivery date	Ship name	Capacity (m³)	Shipowner	Ship builder	Cargo system	Hull #
15/01/2010	Maersk Meridian	165 000	AP Moller - Maersk A/S 100%	SHI	Mark III	1633
27/01/2010	Al Bahiya	210 100	Nakilat 100%	DSME	NO 96	2286
18/02/2010	GDF SUEZ Point Fortin	154 200	LNG Japan - Sumitomo - MOL	Imabari/Koyo	Mark III	2263
05/03/2010	Zarga	266 000	Nakilat 100%	SHI	Mark III	1752
02/04/2010	Expedient	150 900	Excelsior 100%	DSME	NO 96	2271
19/04/2010	Methane Julia Louise	170 000	BG 100%	SHI	Mark III	1745
21/04/2010	Barcelona Knutsen	173 400	Knutsen OAS Shipping 100%	DSME	NO 96	2267
28/05/2010	Aamira	266 000	Nakilat 100%	SHI	Mark III	1753
31/05/2010	GasLog Savannah	154 800	GasLog 100%	SHI	Mark III	1641
01/06/2010	Sevilla Knutsen	173 400	Knutsen OAS Shipping 100%	DSME	NO 96	2269
01/06/2010	STX Frontier	153 500	STX Panocean 100%	Hanjin	Mark III	N193
01/06/2010	GDF SUEZ Cape Ann	145 000	Hoegh LNG 50% - MOL 48.5% Tokyo LNG Tanker 1.5%	SHI	Mark III	1689
28/07/2010	GasLog Singapore	154 800	GasLog 100%	SHI	Mark III	1642
10/08/2010	Rasheeda	266 000	Nakilat 100%	SHI	Mark III	1754
12/08/2010	Castillo de Santisteban	173 600	Elcano 100%	STX	NO 96	S-3008
17/09/2010	Methane Becki Anne	170 000	BG 100%	SHI	Mark III	1858
30/09/2010	Exemplar	150 900	Excelsior 100%	DSME	NO 96	2272
30/09/2010	Valencia Knutsen	173 400	Knutsen OAS Shipping 100%	DSME	NO 96	2274
29/10/2010	Methane Patricia Camila	170 000	BG 100%	SHI	Mark III	1746
30/11/2010	Ribera del Duero Knutsen	173 400	Knutsen OAS Shipping 100%	DSME	NO 96	2275
12/12/2010	Methane Mickie Harper	170 000	BG 100%	SHI	Mark III	1859

➤ Moss Technology (2)

Delivery date	Ship name	Capacity (m³)	Shipowner	Ship builder	Cargo system	Hull #
15/02/2010	Taitar n°3	147 200	CPC 45% - NYK 27.5% - Mitsui 27.5%	MHI	Moss	2242
01/10/2010	Taitar n°4	145 000	CPC 45% - NYK 27.5% - Mitsui 27.5%	KSC	Moss	1626

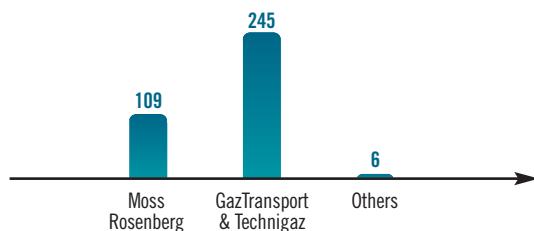
➤ Cylinders Technology (2)

Delivery date	Ship name	Capacity (m³)	Shipowner	Ship builder	Cargo system	Hull #
29/01/2010	Norgas Innovation	10 000	IM Skaugen 50% - GATX 50%	Taizhou - Skaugen - Wuzhou	Cylinders	WZL0601
14/07/2010	Norgas Creation	10 000	IM Skaugen 50% - GATX 50%	Taizhou - Skaugen - Wuzhou	Cylinders	WZL0602

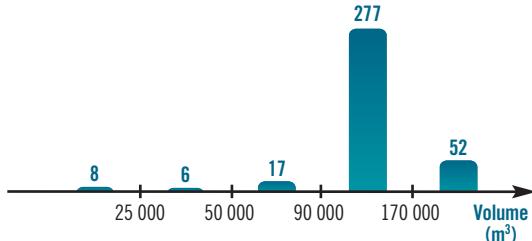
Tanker distribution

The vessels can be classified as follows (at the end of 2010):

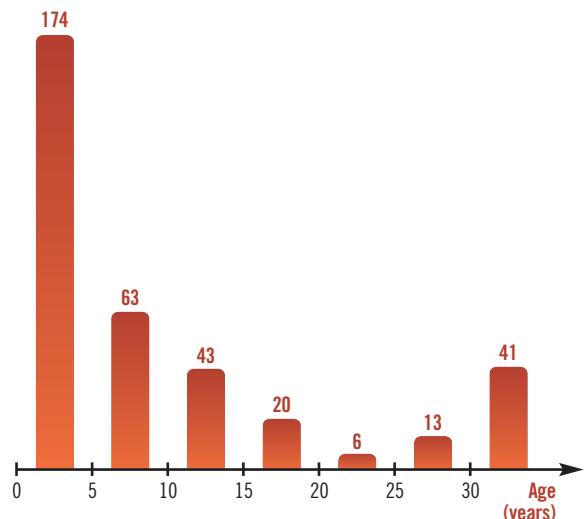
➤ According to containment system:



➤ According to cargo capacity:



➤ According to the delivery date or the age of the ships:



» LNG Characteristics

The average composition is chosen as being representative among compositions provided by the different receiving terminals

Origin	Nitrogen N2 %	Methane C1 %	Ethane C2 %	Propane C3 %	C4+ %	LNG density kg/m³	Gas density kg/m³(n)	Expansion ratio m³(n)/m³ liq	Gas GCV MJ/m³(n)
Algeria-Arzew	0.6	88.0	9.0	2.0	0.5	464	0.813	570	44.1
Algeria-Bethioua 1	0.9	88.1	8.4	2.0	0.7	455	0.806	573	35.7
Algeria-Bethioua 2	0.6	90.7	7.8	0.8	0.0	450	0.780	577	36.0
Algeria-Skikda	0.5	91.8	6.9	0.6	0.1	446	0.769	580	35.5
Egypt-Damietta	0.1	97.7	1.8	0.22	0.2	427	0.730	585	40.8
Egypt-Idku	0.0	95.9	2.8	0.9	0.5	436	0.752	579	38.9
Equatorial Guinea	0.0	93.4	6.5	0.0	0.0	439	0.755	585	42.0
Lybia	0.7	81.6	13.4	3.7	0.7	485	0.867	559	46.6
Nigeria	0.1	92.1	5.3	2.1	0.5	458	0.809	566	44.2
Norway	0.8	91.8	5.7	1.3	0.4	451	0.782	577	40.1
Trinidad	0.0	97.1	2.5	0.2	0.1	429	0.727	590	39.8
Abu Dhabi	0.3	84.8	13.2	1.6	0.1	467	0.826	566	44.9
Oman	0.4	87.9	7.3	2.9	1.6	470	0.834	563	45.3
Qatar-Qatargas I	0.4	90.1	6.2	2.3	1.0	460	0.808	569	44.0
Yemen	0.0	93.3	5.7	0.9	0.1	434	0.765	567	38.5
U.S.A.-Alaska	0.2	99.7	0.1	0.0	0.0	423	0.719	589	39.9
Australia-NWS	0.1	87.4	8.3	3.4	0.8	467	0.831	562	45.3
Brunei	0.1	90.6	5.0	2.9	1.5	461	0.816	564	44.6
Indonesia-Arun	0.2	90.7	6.2	2.0	1.0	457	0.803	569	43.9
Indonesia-Badak	0.0	91.2	5.5	2.4	0.9	456	0.801	568	43.9
Indonesia-Tangguh			2.9	0.5	0.2	432	0.744	580	41.0
Malaysia	0.3	90.3	5.3	3.1	1.1	461	0.813	567	44.3
Russia-Sakhalin	0.1	92.6	4.5	1.9	0.2	449		570	
Peru	0.6	89.1	10.3	0.1	0.0	456		579	

Liquefaction Plants

There were 25 LNG liquefaction facilities in operation in eighteen countries at the end of 2010.

4 new trains were commissioned in 2010: 1 train at Qatargas III and 1 train at RasGas III (Qatar), 1 train in Yemen (Balhaf) and 1 train in Peru (Pampa Melchorita).

The aggregate nominal capacity of all liquefaction plants amounted to $594.1 \cdot 10^6 \text{ m}^3$ of LNG per year, or $269.6 \cdot 10^6 \text{ t}$, for 94 liquefaction trains. Considering a total production of $484.1 \cdot 10^6 \text{ m}^3$ of LNG, the average utilization rate reached 81%, compared with 74% in 2009. The total storage capacity amounts to $9.2 \cdot 10^6 \text{ m}^3$ of LNG for 91 storage tanks, representing the equivalent of about seven days of production.

In 2010, only one Final Investment Decision was taken, regarding BG's Queensland Curtis facility in Australia.



New projects/extensions of existing plants:

➤ Australia:

In addition to existing trains (Darwin and Northwest Shelf) and facilities currently under construction, more than a dozen additional liquefaction projects are proposed, for a total potential volume of 100 mtpa. At the end of 2010, Australian projects targeting FID in 2011 amounted to more than 30 mtpa of potential additional liquefaction capacity.

• Pluto LNG

In Western Australia, the **Pluto LNG** project currently developed by Woodside, Tokyo Gas and Kansai Electric, is expected to produce LNG by the month of August 2011. At the end of 2010, Woodside revised its cost estimates for the 4.3 mtpa plant upwards, to about \$14 Bn.

• Gorgon

Also under construction in Western Australia, the Chevron-led **Gorgon LNG** project is on schedule to produce LNG in 2014. Located on Barrow Island, with

an estimated cost of over \$40 Bn, the project will include 3 liquefaction units of about 5 mtpa each, with possible addition of a fourth train. Owned by Chevron (47.3%), Shell Development Australia (25%), Exxon Mobil (25%), Osaka Gas (1.3%), Tokyo Gas (1%) and Chubu (0.4%), Gorgon will be mainly dedicated to supply Asian customers.

• QCLNG

In October, BG Group announced that it had taken the Final Investment Decision approving implementation of the first phase of the CBM based **Queensland Curtis** Liquefied Natural Gas project ("QCLNG"). The first phase of QCLNG encompasses the development of a two-train liquefaction plant on Curtis Island near Gladstone in Queensland together with the associated upstream and pipeline facilities. First LNG exports are planned to commence from 2014, underpinned by agreements in Chile, China, Japan and Singapore for the purchase of up to 9.5 mtpa of LNG.



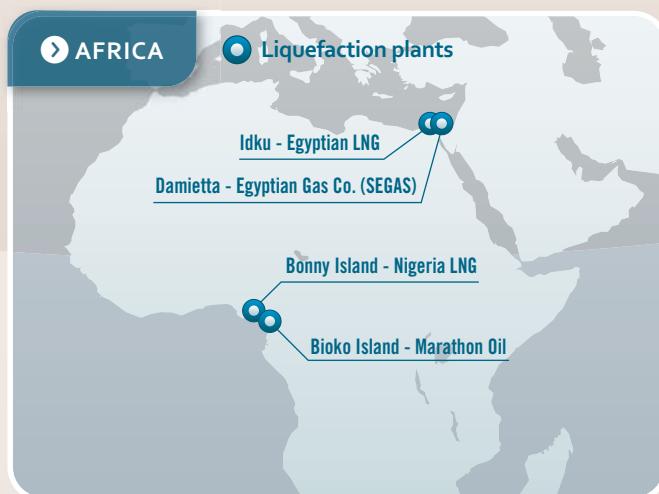
• Gladstone

In September 2010, Total announced the signature of an agreement with Santos and Petronas to acquire a 20% interest in the GLNG project (**Gladstone LNG**). In December, Total announced the signature of an agreement to acquire an additional 7.5% interest from Santos. At the same time, South Korea's Kogas has signed an agreement to join the project with a 15% stake and has also committed to lift 3.5 million tons per year (Mt/y).

The integrated LNG project consists of extracting coal seam gas from the Fairview, Arcadia, Roma and Scotia fields, located in Queensland, eastern Australia. The project also includes transporting the production over approximately 400 kilometers to a gas liquefaction plant in the industrial port of Gladstone, on the eastern coast of Australia. The GLNG liquefaction plant will consist of two trains with a total production capacity of 7.2 Mt/y. With the final investment decision in January 2011, the forecast start-up date for the first train is 2015. The LNG plant is expected to reach its plateau production in 2016 for more than 20 years.

• Bonaparte LNG

In January 2010, GDF SUEZ signed with Santos the final agreement for the purchase of a 60% share in three offshore gas fields in Australia (in August 2009, GDF SUEZ and Santos announced a strategic partnership to develop a 2 mtpa floating LNG plant in the Bonaparte Basin, off the coast of Australia).



• Cameroon:

In June 2010, following allocation by the State of a site for the LNG plant, GDF SUEZ and SNH initiated the Pre-FEED study, conducted by Foster Wheeler, for an onshore plant of a capacity comprised between 2.5 and 3.5 mtpa.

In December 2010, Société Nationale des Hydrocarbures (SNH) and GDF SUEZ announced the signing with the Republic of Cameroon of a Framework Agreement for Cameroon's first LNG project.

• Canada:

Kitimat LNG export plant in British Columbia filed an application with Canada's NEB (National Energy Board) to export up to 10 mtpa of LNG for 20 years. The project is owned by affiliates of Apache Canada (51%) and EOG Resources Canada (49%). According to the shareholders, the FID could be taken by the end of 2011 and the plant could start to export LNG around late 2015 or early 2016.

• Indonesia:

In **Tangguh**, BP is considering options for building a third train but no decision had been made at the end of the year. BP is the operator and owns 37.16% of the Tangguh liquefaction plant.

In December, a plan to develop a 2.5 mtpa project in the Timor Sea sponsored by Inpex (Masela FLNG project) was approved by the Indonesian government. Inpex plans to take a Final Investment Decision by 2013 with an operational start-up planned for 2018.

• Nigeria:

At the Bonny Island liquefaction plant, the **Nigeria LNG** joint venture is currently planning the construction of a seventh treatment unit, which is expected to come online in 2012. Approximately 60% of the operations preceding the final investment decision had been carried out at the end of 2010. At full capacity, the plant could produce around 30 mtpa.

Regarding the **Brass LNG** project, front end engineering operations are proceeding and the final investment decision is expected in the first quarter of 2012. The plant is expected to be completed in 2014 and it could produce up to 10 mtpa.

• Papua New Guinea:

Following the 2009 Final Investment Decision on **PNG LNG** project developed by Exxon and other partners, Daewoo Shipbuilding and Marine Engineering Energy and Resources announced that they had obtained approval to develop a 3 mtpa floating liquefaction plant along with Hoegh LNG and PNG's national oil company Petromin. Start-up of the plant would be targeted for 2014/15 but gas supplies for the project have not been clearly identified at this point.

• Peru:

Fed by the Camisea field, in which Repsol owns a 10% stake, South America's first liquefaction plant at **Pampa Melchorita** started exporting in June 2010. The plant has two tanks of 130 000 m³ each and its marine terminal can receive carriers between 90 000 m³ and 174 000 m³. In the future, the entire output (4.45 mtpa) is to be offtaken by Repsol, with 3.7 mtpa committed to the projected Manzanillo regasification terminal in Mexico.

• Qatar:

In 2010, 2 new trains were added to Qatar's existing liquefaction capacity: **Qatargas III** and **Rasgas III Train 2** (Train 7 of Rasgas). Each train has a design capacity of 7.8 mtpa.

These trains have increased Qatar's theoretical export capacity to around 69.2 mtpa at the end of 2010. Available production capacity in 2010 was nevertheless lower, due to maintenance on four trains, and Qatar has produced around 56.7 mt in 2010, i.e. an average utilization rate of almost 82%.

• U.S.A.:

In June 2010, Cheniere Energy proposed to add liquefaction services at the Sabine Pass terminal thereby converting **Sabine Pass** into a bi-directional facility that would liquefy and export natural gas as well as regasify imported LNG. Cheniere initiated the regulatory process for the project in July 2010 and secured Department of Energy (DOE) approval for the export of 2 Bcf/d of LNG for 30 years to the Free Trade Nations in September 2010. Concurrently, Cheniere initiated the NEPA (National Environmental Protection Act) pre-filing process with the FERC. As of December 31, 2010, Cheniere had signed Memoranda of Understanding with various counterparties for bi-directional processing capacity at Sabine Pass totaling up to 4.7 mtpa and had entered into negotiations of definitive Sale and Purchase Agreements (SPAs) with these counterparties. Sabine Pass could possibly begin exporting LNG in 2015.

Along with Macquarie Energy, **Freeport LNG** also plans to develop liquefaction facilities at Freeport LNG's existing import terminal. The new facilities could include four trains and produce up to 1.4 Bcf/d of LNG. Freeport LNG submitted applications by the Federal Energy Regulatory Commission and by the DOE in December 2010.

• Yemen:

The second train of the **Yemen LNG** natural gas liquefaction plant in Balhaf started production in April. Combined with production from the first train which was commissioned in October 2009, it will enable the Yemen LNG plant to reach its full capacity.

Regasification Plants

83 LNG regasification plants—including 10 floating structures—were in operation at the end of 2010. The total send-out capacity of the facilities in operation amounted to 600 mtpa (796 bcm/y of gas) and their storage capacity to 38.5 10⁶ m³ of LNG (liquid) for 363 tanks. Compared to an annual LNG consumption of 220 mtpa, the aggregate potential regasification capacity provides large opportunities for flexibility with a global average utilization rate of installations around 37%. The annual average utilization rate of regasification terminals is characterized by significant regional discrepancies: very low in North America (about 12%) due to the unforeseen development of unconventional gas, it reaches 42% in Asia and 50% in Europe, with intra-annual peaks according to the seasonal variations in demand.

In 2010, 4 new LNG terminals went on stream—Sakaide in Japan, Mejillones in Chile, Golden Pass and Neptune LNG in the U.S.A.—and 3 existing terminals were expanded—2 in the UK (second expansion of Isle of Grain and second phase of South Hook) and 1 in the US (Elba Island).

New projects/extensions of existing plants:

► Argentina:

YPF (operator) and ENARSA formed a UTE (Union Transitoria de Empresas) for the construction and operation of a second regasification terminal in Escobar (30 km north of Buenos Aires), and signed a 10 year time charter with Excelerate for the supply of a FSRU for this project. The estimated start-up date is May 2011.

► Brazil:

Petrobras announced plans to build a third regasification plant in the northern state of Bahia. Construction could begin in March 2012 and completion is expected in August 2013. The send out capacity would reach 5 bcm/y. The terminal will consist of a moored vessel with regasification facilities which will receive LNG delivered by ship-to-ship transfer. Two onshore connections to the gas networks are considered: one to the Bahia distribution system, the other to the South Northeast Gas Pipeline (GASENE).

► Chile:

- **GNL Mejillones:** With a send-out capacity of 5 million cubic meters per day, the terminal was commissioned in April 2010, followed by commercial operation in June. The terminal is operated by the company GNL and the supply contract is in place for 30 TBU per annum over 3 years with GDF SUEZ LNG. So far, the LNG Mejillones terminal has been operating with the use of a conventional ship—newly-built 162 400 m³ “BW GDF SUEZ Brussels”—as floating storage (FSU) and an onshore regasification facility. In November 2010, GDF SUEZ announced the construction of an on-shore LNG storage tank (net capacity of 175 000 m³) which will be completed by Q3 2013. GDF SUEZ will also increase its stake in the LNG company to 63% (CODELCO being the other shareholder).

► China:

- At the **Dapeng terminal**, the design has been completed for the fifth loading arm, and a new nitrogen generation facility will be installed and commissioned in 2011. Regasification capacity is now around 9 bcm/y.
- Kunlun Energy, a Hong Kong subsidiary of CNPC, has secured a 75% stake in Petrochina Dalian LNG company, the operator of the **Dalian LNG terminal** in China's Northeastern Liaoning province. The other shareholders of Petrochina Dalian LNG are Dalian Port (20%) and Dalian Construction Investments (5%). The company completed the construction of a wharf capable of receiving Q-Flex LNG tankers, which will be the first phase of a 3 mtpa project that is due to be commissioned in April 2011. A second step which may double the terminal capacity is planned later. LNG will come from Qatar and Australia.
- PetroChina's **Rudong LNG terminal** in China's Eastern province of Jiangsu is expected to receive its first cargo from Qatargas in Q2 2011. PetroChina has a 25-year supply contract with Qatargas IV for 3 mtpa.



- Sinopec has begun construction of its **Qingdao LNG terminal** project in the eastern province of Shandong. The project is scheduled to start up in 2014 with an initial import capacity of 3 mtpa which is expected to increase to 5-6 mtpa. The company signed a 20-year term 2 mtpa supply contract with Exxon Mobil from the PNG LNG project in Papua New Guinea.
- CNOOC has started construction at its **Zhuhai terminal**, its second terminal in the southern province of Guangdong after Dapeng. The initial capacity of 3.5 mtpa could be expanded to 12 mtpa. The terminal will receive LNG supplies from CNOOC's long term contracts with Qatargas and BG Group's Queensland Curtis project in Australia.



➤ Croatia:

- Croatia's state-owned gas pipeline operator, Plinacro, is awaiting government approval for the development of a floating LNG terminal as a short-term replacement for the delayed 10 bcm/y Adria LNG import project on the island of Krk.

➤ Dubai:

- At the end of November 2010, Dubai Supply Authority (DUSUP) completed the commissioning of its **Mina Jebel Ali** terminal, located 35 kilometers southwest of Dubai and developed with Shell. Consisting of the permanently moored FSRU "Golar Freeze", Jebel Ali had received three cargoes of LNG from Qatar at the end of the year. From 2011, the terminal will be primarily supplied with LNG from Qatargas IV sold to Shell and DUSUP.

➤ France:

- Fos Cavaou LNG terminal:** STMFC (subsidiary of ELENGY, 72% and TOTAL, 28%) has completed its new LNG terminal in Fos-sur-Mer (Cavaou peninsula) near Marseille. The terminal has carried up the commissioning phase from October 2009 to March 2010. The Fos-Cavaou terminal started commercial operations on April 1st, 2010 at 20% of full capacity and has received green light to operate at full capacity in August 2010. Full capacity amounts to 8.25 bcm/y.
- French power incumbent EDF will make a final investment decision by mid-2011 regarding the LNG regasification terminal project at **Dunkirk**, having twice postponed its commitment to the project. The 10 to 13 bcm/y LNG facility was due to be sanctioned in June 2010, but the deadline has already been pushed back to the end of 2010, with a scheduled project start-up in 2014.

➤ India:

- Petronet has started building a second jetty at the **Dahej terminal** in order to accommodate larger capacity LNG tankers. The company is studying plans to build two additional storage tanks to increase terminal capacity.
- The new **LNG terminal in Kochi** (Petronet) is expected to be commissioned at full capacity (5 mtpa) by March 2012.
- At the **Dabhol** LNG terminal located in Maharashtra (South West of India) and operated by Ratnagiri Gas and Power Private Ltd (RGPLL), operations have been delayed due to the lack of breakwater which would only be completed in 2011. Full capacity will be around 5 mtpa and three 160 000 m³ storage tanks will be built.
- Construction of a 6.5 mtpa LNG receiving & regasification terminal is planned at **Mundra** in Gujarat, India. FEED has been completed and land reclamation activity is under progress. FID is expected in 2011.

➤ Italy:

- Panigaglia LNG terminal:** In September 2010 the Ministry for the Environment gave its final authorization to the upgrading of the Panigaglia regasification terminal in order to expand the capacity from 3.5 to 8 bcm/y. The project includes:
 - the possibility to unload larger LNG ships (currently 65 000 m³ LNG);
 - an updating process of the main equipments of the plant involving:
 - the LNG storage tanks;
 - the berthing area;
 - other technical infrastructures;
 - the construction of a new cogeneration plant (32 MW).

The main permit needs to be issued by the Ministry of Economic Development and it has not been obtained yet. As a consequence, the project has been delayed.

- **Porto Empedocle** (Sicily): In December 2010, the Decree (previously granted in October 2009) granting the authorization to build and operate the terminal under the Italian Law was cancelled. If authorized again, the Enel-developed regasification terminal is foreseen to be in operation by 2016.

➤ Japan:

- The **Sakaide** terminal (Shikoku Electric, Cosmo Oil and Shikoku Gas) started commercial operations in March 2010. LNG supply of 0.42 mtpa will be provided by Malaysia LNG over a 15-year contract.
- Following the FID in February 2010, the construction of the Hibiki LNG Terminal (Saibu Gas) started in July. The terminal is located in the Kitakyushu City, Fukuoka Prefecture. Start of operations is scheduled for November, 2014.
- At the Mizushima LNG terminal (Chugoku Electric), expansion has been planned and the construction of a second 160 000 m³ tank is scheduled for April 2011.

➤ Korea:

- South Korea plans to build additional LNG tanks by 2013 so as to meet increasing domestic gas demand.
- The expansion of the 1.7 mtpa LNG receiving terminal in **Gwangyang** (Posco) was completed by September 2010 by the addition of a 3rd above-ground storage tank (165 000 m³) which will increase operational flexibility.

➤ Mexico:

- The construction of the **Manzanillo liquefied natural gas (LNG) regasification terminal** - Mexico's third LNG terminal after Altamira and Costa Azul could be completed by the end of 2011. Located in Colima State, the terminal will supply power stations in the western parts of the country as well as the city of Guadalajara. Gas supply will come from the Pampa Melchorita liquefaction plant in southern Peru of which Repsol YPF is the exclusive off-taker. Under the 15-year contract between Repsol and the Mexican Federal Electricity Commission (CFE), the total volume of gas supplied could reach more than 67 bcm.

➤ Netherlands:

- In 2010, the construction of the **Gate** terminal progressed well. Located in Rotterdam-Maasvlakte, Gate is on schedule to start commercial operations as of September 2011.

Gate terminal has decided to invest in an additional high-pressure compression facility, which will increase the flexibility of the terminal by allowing Gate's customers to reduce their minimum send-out. Gate terminal will be the first LNG terminal in the Netherlands. The project comprises two jetties, 3 storage tanks and a processing area. The initial throughput capacity of around 12 bcm/y could be increased to 16 bcm/y.

➤ North America - U.S.A.:

In several US terminals, upgrades have been planned in order to enhance flexibility or to improve efficiency:

- The new NGL extraction unit in **Lake Charles** allows to attract LNG with higher calorific value, and the new vaporizers –with the submerged combustion technology– bring better efficiency.
 - At the **Elba Island** terminal, new vaporizers have been installed, and a new 200 000 m³ tank is under construction. In a second phase, a pier will be upgraded to accommodate the larger Q-Max vessels and another tank will be built.
 - In **Cove Point**, the upgrade also permits the accommodation of Q-Max vessels, and completion of the pier expansion is scheduled for the end of 2011.
- 2 new terminals went on-stream:
- The **Golden Pass** terminal, with an initial regasification capacity of 3 mtpa. Located on the Sabine-Neches Waterway near Sabine Pass, Texas, the LNG terminal which is a joint-venture of ExxonMobil (17.6%), Qatar Petroleum (70%) and ConocoPhillips (12.4%), has been granted in-service authority by FERC and has begun commercial operations; 2 Q-Flex cargoes were received from Qatar in October and November 2010.
 - **Neptune LNG** (Massachusetts, U.S.A.): Developed by GDF SUEZ NA, the Neptune LNG terminal is a deepwater port with a buoy system and two Shuttle and Regasification Vessels (SRV) –GDF SUEZ Cape Ann and GDF SUEZ Neptune, 150 000 m³ each– which are moored 22 miles off the coast of Gloucester,

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Massachusetts. The terminal became operational in early 2010. In 2010, Neptune LNG received two partial cargoes from Trinidad.

- In Mississippi, Gulf LNG Energy plans to start up its 5 mtpa **Pascagoula LNG terminal** by the end of 2011. The developers of Gulf LNG –the Crest Group, a group of Houston-based investors– will continue to own 30% of the project, while Angolan state Sonangol will hold 20%.

At the end of 2010, 2 existing terminals (**Sabine Pass**, **Freeport**) had successfully applied to FERC for permission to re-export cargoes and one application was still pending (**Cameron**, authorized in January 2011).

► Poland:

- The **Swinoujscie LNG terminal** is scheduled to be operational in 2013 and will start with a capacity of 5 bcm/y, to be expanded to 7 bcm/y. Construction has already begun. First LNG deliveries from Qatar are scheduled to arrive in mid-2014.

► Portugal:

- REN Atlantico, the operator of the **Sines LNG terminal** (Portugal) is building a third storage tank and is expected to increase the plant's nominal send-out capacity from approximately 4.8 bcm/y to 7.2 bcm/y.

► Singapore:

- Singapore LNG**: Developed by Singapore LNG, the Singapore LNG import terminal is the country's first LNG regasification facility, located in Jurong Island. It is expected to serve as a hub for physical LNG trading and regional redistribution. Terminal will have a capacity of 3.5 mtpa which could be expanded to over 6 mtpa. Construction of the project began in March 2010 and is expected to be completed by 2013. The terminal will have two storage tanks of 188 000 m³ each, with a send-out capacity of 3.5 mtpa as well as reloading capability. In addition, a jetty capable of accepting the latest Q-Max vessels will also be constructed.

► Spain:

- Sagunto**: the Sagunto regasification plant Saggas (42.5% owned by Gas Natural Fenosa Group) will be expanded with the construction of a fourth LNG storage tank. The commissioning of this new tank, scheduled for the first quarter of 2012, will allow Saggas to double its initial storage capacity, to 600 000 m³.
- Bilbao**: the Board of Directors of Bahia de Bizkaia Gas (BBG) has approved the construction of a new 150 000 m³ LNG tank, which represents a 50% increase of the plant's current storage capacity. The construction will start in 2011 and the new equipment is expected to be operational by 2014.
- New storage tanks (150 000 m³) have been commissioned in several Spanish terminals in 2010**: one in Barcelona, one in Huelva and one in Cartagena.

► Thailand:

- PTT Mab Ta Phut LNG terminal**: the future terminal will have an initial 5 mtpa capacity, which could be expanded to 10 mtpa through the addition of a third storage tank and a second berth and will be able to receive Q-Max carriers. The commissioning process could begin in May 2011 and the terminal could be fully operational by July. Preliminary agreements with Qatar for 1 mtpa of LNG have failed but PTT will buy spot cargoes for commissioning and is looking for short or medium term supply for the period 2011-2014. Australian LNG supplies are also under consideration.

► United Kingdom:

- Isle of Grain LNG terminal**: the second major expansion of the National Grid Grain LNG facility, was successfully commissioned and went live on December 1st 2010. This third phase includes a new 190 000 m³ tank, 4 additional vaporizers, associated process plant and a new jetty capable of accepting Q-Max vessels.
- Building and commissioning of phase 2 were completed on April 2010 at the **South Hook LNG terminal**. The terminal now operates at full capacity (15 mtpa).



Long-term and medium-term contracts in force in 2010*

Reference	Trade	Export	Seller	Import	Buyer	Nominal quantity ACQ 10 ⁶ t/year	Duration	Type of contract	Comments
DZ-F 1	Algeria-France	Arzew-Bethioua	Sonatrach	Fos - Montoir	GDF SUEZ	1.3	1992/2013	F.O.B.	Extension 2019
DZ-F 2	"	Skikda	"	Fos	"	2.5	1972/2013	"	
DZ-F 3	"	Bethioua	"	Fos - Montoir	"	3.7	1976/2013	"	
DZ-GR	Algeria-Greece	Arzew-Skikda	Sonatrach	Revithoussa	DEPA S.A.	0.5	2000/2021	F.O.B.	
DZ-I 1	Algeria-Italy	Skikda-Bethioua	Sonatrach	Panigaglia	Eni	1.40	1997/2014	F.O.B.	Eni LNG portfolio
DZ-I 2	"	"	"	"	Enel	1.15	1999/2022	D.E.S.	Swap GDF SUEZ/ Enel linked with the NIG-F 2 contract
DZ-SP 2	Algeria-Spain	Skikda-Bethioua	Sonatrach	Barcelona, Huelva, Cartagena, Sagunto	Endesa	0.75	2002/2017	D.E.S.	
DZ-SP 3	"	"	"	"	Cepsa	0.77	2002/2022	"	
DZ-SP 4	"	Arzew-Bethioua	"	"	Iberdrola S.A	1.15	2002/2021	"	
	Italy-Spain	Panigaglia	Eni	Spain	Iberdrola S.A	0.92	2002-2018	D.E.S.	Eni LNG portfolio
	"	"	"	"	Hidroelectrabrico + EDP	0.36	2005-2016	"	"
	"	"	"	"	E.On Espana	0.65	2007/2022	"	"
DZ-TR	Algeria-Turkey	Arzew-Bethioua	Sonatrach	Marmara Ereglisi	Botas	3	1994/2014	D.E.S.	
DZ-US	Algeria-U.S.A.	Arzew-Bethioua	Sonatrach	Cove Point	Statoil	0.75	2003/2009	D.E.S.	Extension 2014
EG-EU	Egypt-Europe	Idku	ELNG	Montoir, Fos	GDF SUEZ	3.6	2005/2025	F.O.B.	
EG-SP	Egypt-Spain	Damietta	EGAS	Spain, other	BPGM	1	2005/2025	F.O.B.	
"	"	"	EGAS	Barcelona, Huelva, Cartagena, Sagunto	Union Fenosa gas	3.3	2005/2029	"	
EG-U.S.A./UK	Egypt-U.S.A./UK				Petronas	0.72	2005/2010	F.O.B.	
EG-US	Egypt-U.S.A.	Idku	Egypt LNG T2	Lake Charles, LA	BGGM	3.6	2006/2023	F.O.B.	
"	"	Damietta	Egyptian General Petroleum Corporation Egypt Natural Gas Holding Co. (EGAS) PETRONAS	"	"	0.45	2005/2010	"	Extension 2012
EqG-US	Equatorial Guinea - U.S.A.	Equatorial Guinea	Equatorial Guinea Train 1,S.A.	Lake Charles, LA	BGGM	3.4	2007/2023	F.O.B.	
LY-SP	Libya-Spain	Marsa-el-Brega	NOC	Barcelona, Huelva, Cartagena, Sagunto	Gas Natural Fenosa	0.55	1981/2004	F.O.B.	Extension 2012
NIG-F 1	Nigeria-France	Bonny Island	Nigeria LNG	Montoir	GDF SUEZ	0.33	1999/2022	D.E.S.	
NIG-F 2	"	"	"	"	Enel	2.56	"	"	Swap GDF SUEZ/Enel
NIG I-SP	Nigeria-Spain or U.S.A.	Bonny Island	Nigeria LNG	Ba. H.Cart. Bil.	Gas Natural Fenosa	1.17	1999/2021	D.E.S.	
NIG II-SP	"	"	"	Ba. H.Cart.	Gas Natural Fenosa	1.99	2002/2024	"	
NIG III-SP	Nigeria-Spain	Bonny Island	Nigeria LNG	Ba. H.Cart. Bil.Sag.	Endesa	0.75	2005/2025	D.E.S.	
NIG IV-SP	"	"	"	"	Iberdrola	0.38	"	"	
NIG V-SP	"	"	"	Huelva	Eni	1.15	2006/2028	"	Eni LNG portfolio
	"	"	"	"	Galp Energia	0.18	2005-2016	"	"
NIG-TR	Nigeria-Turkey	Bonny Island	Nigeria LNG	Marmara Ereglisi	Botas	0.9	1999/2021	D.E.S.	
NIG-P	Nigeria-Portugal	Bonny Island	Nigeria LNG	Sines	Galp Energia	1.42	2006/2026	D.E.S.	
"	"	"	"	"	"	0.73	2002/2022	"	
"	"	"	"	"	"	0.26	1999/2022	"	
NIG-US	Nigeria-U.S.A.	Bonny Island	Nigeria LNG	Lake Charles, LA	BGLS	2.3	2004/2023	D.E.S.	
NIG-US/EU	Nigeria/U.S.A. or EU	Bonny Island	Nigeria LNG	US Gulf Coast/Europe	Total	1.1	2005/2026	D.E.S.	
NIG-US/MEX	Nigeria-US/Mexico	Bonny Island	Nigeria LNG	US/GoM	Shell Western LNG	1.13	2007/2026	D.E.S.	
	Nigeria- US/Mexico/Spain	"	"	Spain/US/GoM	"	1.51	2009/2028	"	
	Nigeria-US/Mexico	"	"	US/GoM	"	1.74	"	"	
NO-GoM/EU	Norway-GoM/EU	Hammerfest	Total E&P Norge	Gulf of Mexico/Europe	Total	0.7	2007/2027	D.E.S.	
NO-EU	Norway-Europe	Hammerfest	GDF SUEZ	Hammerfest	European terminals	0.5	2007/ depletion	F.O.B.	
NO-US	Norway-U.S.A.	Hammerfest	StatoilHydro, RWE, Hess, Petoro	Cove Point	Statoil Natural Gas	~1.75	2006/2026	D.E.S.	
NO-SP	Norway-Spain	Hammerfest	StatoilHydro, RWE, Hess, Petoro	Spain	Iberdrola	1.13	2006/2023	D.E.S.	
US-JP	U.S.A.-Japan	Kenai	Conoco Phillips, Marathon	Negishi, Futtsu, Sodegaura	Tokyo Gas, Tokyo Electric	1.22	1989/2009	D.E.S.	Extension March 2011
TT I-SP	T&T-Spain or U.S.A.	Point Fortin	Atlantic LNG	Cart.Ba. H. Bil.	Gas Natural Fenosa	1.06	1999/2018	F.O.B.	
TT II-SP	"	"	Atlantic 2/3	"	Gas Natural Fenosa	0.65	2002/2023	"	

*Duration above four years

➤ Long-term and medium-term contracts in force in 2010* (cont'd)

Reference	Trade	Export	Seller	Import	Buyer	Nominal quantity ACQ 10 ⁶ t/year	Duration	Type of contract	Comments
TT-SP	T&T-Spain	Point Fortin	Atlantic 2/3	Cartagena/BBE	Repsol	1.13	2006/2023	D.E.S.	
"	"	"	"	Spain	GdE	1	2003/2023	F.O.B.	
TT-US 1	T&T-U.S.A.	Point Fortin	Atlantic LNG of T&T	Everett/Penuelas	GDF SUEZ NA	1.63	1999/2018	F.O.B.	
TT-US 2	"	"	Atlantic LNG 2/3	"	"	0.34	2000/2020	"	
TT-US 3	"	"	"	U.S.A., Other	BP Gas Marketing	0.8	2002/2021	"	
TT-US 4	"	"	Atlantic LNG	Elba Island, GA Lake Charles, LA	BG	2.2	2004/2024	"	
TT-US	"	"	"	U.S.A., Other	BP	2.5	2006/2025	"	
"	"	"	Atlantic LNG 4		BG	1.50	2005/2026	"	
"	"	"	Atlantic LNG 2/3		NGC	0.58	2006/2026	"	
TT-DR	T&T-Dominican Republic	Point Fortin	BP	Punta Caucedo	AES	0.75	2003/2023	D.E.S.	
AE-JP	Abu Dhabi-Japan	Das Island	Adgas	Higashi-Ogishima, Futtsu	Tokyo Electric	4.30	1994/2019	F.O.B.	
BR-JP	Brunei-Japan	Lumut	Brunei LNG	Sodegaura, Negishi, Senboku, Futtsu, Higashi-Ogishima	Tokyo Gas, Osaka Gas, Tokyo Electric	6.01	1993/2013	F.O.B.	
BR-KR	Brunei-Korea	Lumut	Brunei LNG	Pyeong-Taek, In-Chon or Tong-Yeong	Kogas	0.7	1997/2013	F.O.B.	
MY-JP 1	Malaysia-Japan	Bintulu	Malaysia LNG	Sodegaura, Higashi-Ogishima, Futtsu, Negishi	Tokyo Gas, Tokyo Electric	7.4	1983/2003	F.O.B./D.E.S.	Extension 2018
MY-JP 2	"	"	"	Niigata	Tohoku Electric	0.50	1996/2016	D.E.S.	
MY-JP 3	"	"	"	Sodeshi	Shizuoka Gas	0.45	"	"	
MY-JP 6	"	"	"	Fukuoka, Nagasaki	Saibu Gas	0.39	1993/2013	"	Extension 2028
MY-JP 8	"	"	"	Sodegaura, Negishi, Senboku, Himeji, Sakai, Chita, Ogishima	Tokyo Gas, Osaka Gas, Kansai Electric, Toho Gas	2.1	1995/2015	"	
MY-JP 9	"	"	"	Shin-Minato	Gas Bureau, City of Sendai	0.15	1997/2016	"	
MY-JP 10	"	"	Malaysia LNG TIGA	Niigata	Japan Petroleum, Explorat [®] Co Ltd	0.48	2002/2021	"	
MY-JP 11	"	"	"	Sodegaura, Negishi, Ogishima, Chita, Senboku, Himeji	Tokyo Gas, Toho Gas, Osaka Gas	0.68	2004/2024	"	
MY-JP 12	"	"	"	Hatsukaichi	Hiroshima Gas	0.008~0.016 0.032	2005/2012	D.E.S. F.O.B.	
MY-JP 13	"	"	"	Niigata	Tohoku Electric	0.5	2005/2025	"	
MY-JP 14	"	"	"	Chita	Toho Gas	0.52	2007/2027	D.E.S.	
MY-JP 15	"	"	Malaysia LNG	Sakaide	Shikoku Electric	0.36	2010/2025	"	
MY-KR 1	Malaysia-Korea	Bintulu	Malaysia LNG Dua	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	2	1995/2015	F.O.B.	
MY-KR 2	"	"	Malaysia LNG TIGA	"	"	1.5	2003/2010	D.E.S.	
MY-KR 3	"	"	"	"	"	1.5	2008/2028	"	
MY-CN	Malaysia-China	Bintulu	Malaysia LNG TIGA	Shanghai LNG	Shanghai LNG Co.	3.0	2009/2029	D.E.S.	
MY-TW	Malaysia-Taiwan	Bintulu	Malaysia LNG Dua	Yung-An	C.P.C.	2.25	1995/2015	D.E.S.	
ID-JP 1	Indonesia-Japan	Bontang	Pertamina	Senboku, Himeji, Chita, Tobata, Ohita, Sakai, Kawagoe, Yokkaichi	Kansai Electric, Chubu Electric, Kyushu Electric, Osaka Gas, Toho Gas, Nippon Steel	8.45	1977/2000	D.E.S.	Extension 2010
ID-JP 2	"	"	"	Chita-Senboku, Himeji, Sakai, Yokkaichi, Kawagoe	Chubu Electric, Kansai Electric, Osaka Gas, Toho Gas	3.52	1983/2003	"	Extension 2011
ID-JP 3	"	"	"	Senboku, Himeji, Sodegaura, Chita, Ogishima	Osaka Gas, Tokyo Gas, Toho Gas	2.31	1994/2013	"	
ID-JP 4	"	"	"	Hatsukaichi, Kagoshima, Senboku, Himeji	Hiroshima Gas, Nippon Gas, Osaka Gas	0.39	1996/2015	"	
ID-KR 2	Indonesia-Korea	B L-Bontang	Pertamina	Gwangyang	KOGAS	2	1994/2014	F.O.B.	
ID-KR 3	"	Bontang	"	"	"	1	1998/2017	"	
ID-KR 4	"	Tanah Merah	Tangguh PSC Contractor Parties	"	Posco	0.55	2005/2024	D.E.S.	
ID-KR 5	"	"	Tangguh PSC Contractor Parties	"	K-Power	0.6	2006/2026	"	

*Duration above four years

Reference	Trade	Export	Seller	Import	Buyer	Nominal quantity ACQ 10 ⁶ t/year	Duration	Type of contract	Comments
ID-MX1	Indonesia-Mexico	Tanah Merah	Tangguh PSC Contractor Parties	Energia Costa Azul	Sempra LNG	3.7	2008/2029	D.E.S.	
ID-CN	Indonesia-China		Tangguh PSC Contractor Parties	Fujian	CNOOC	2.6	2009/2033	F.O.B.	
ID-TW 1	Indonesia-Taiwan	Bontang	Pertamina	Yung-An	C.P.C.	1.57	1990/2009	F.O.B.	
ID-TW 2	"	"	"	"	"	1.84	1998/2017	"	
Q-B	Qatar-Belgium	Ras Laffan	RasGas	Zeebrugge	Distrigas	2.05	2007/2027	F.O.B.	
"	"	"	RasGas II	"	EDF Trading	3.4	2007/2012	D.E.S.	
Q-CN	Qatar-China	Ras Laffan	Qatargas	China	CNOOC	2	2009/2028	D.E.S.	
Q-I	Qatar-Italy	Ras Laffan	RasGas	Rovigo	Edison	4.6	2009/2034	D.E.S.	
Q-IN	Qatar-India	Ras Laffan	RasGas	Dahej	Petronet LNG	7.5	2004/2028	F.O.B.	
Q-JP 1	Qatar-Japan	Ras Laffan	Qatargas	Chita/Kawagoe, Yokaichi	Chubu Electric	4	1997/2021	F.O.B.	
Q-JP 2	"	"	"	Niigata, Ohgishima, Senboku, Himeji, Sakai, Sodegaura, Futtsu, Chita, Yanai, Mizushima, Higashi-Ohgishima	Tohoku Electric, Tokyo Gas, Osaka Gas, Kansai Electric, Tokyo Electric, Toho Gas, Chugoku Electric	2	1998/2021	D.E.S.	
Q-KR 1	Qatar-Korea	Ras Laffan	RasGas	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	4.92	1999/2024	F.O.B.	
Q-KR 2	"	"	RasGas III	"	"	2.1	2007/2026	D.E.S.	
Q-SP	Qatar-Spain	Ras Laffan	Qatargas	Ba.H.Cart.	Gas Natural Fenosa	0.66	2001/2009	? C.I.F.	Extension 2012
"	"	"	"	"	"	"	2002/2007	"	"
"	"	"	"	Ba.H.Cart.Sag.	"	0.75	2005/2025	? F.O.B.	
"	"	"	RasGas	Barcelona	ENI	"	2004/2023	"	
"	"	"	RasGas II		Endesa	0.74	2005/2025	"	
Q-UE	Qatar-EU	Ras Laffan	Qatargas	EU	Gas Natural Fenosa	0.75	2006/2025	F.O.B.	
Q-TW	Qatar-Taiwan	Ras Laffan	RasGas II	Taichung	C.P.C.	3.08	2008/2032	F.O.B.	
Q-UK	Qatar-UK	Ras Laffan	Qatargas II TB	South Hook	ExxonMobil	7.6	2009/2034	D.E.S.	
"	"	"	"	"	"	0.8	2009/2033	"	
"	"	"	"	"	Total	1.50	2009/2034	"	
Q-US	Qatar-US	Ras Laffan	Qatargas II TB	Sabine Pass	Total	1.15	2009/2034	C.I.F.	
Q-Mex	Qatar-Mexique	Ras Laffan	Qatargas II TB	Altamira	Total	0.70	2009/2021	D.E.S.	
Q-France	Qatar-France	Ras Laffan	Qatargas II TB	Fos Cavaou	Total	1.85	2009/2034	D.E.S.	
OM-JP 1	Oman-Japan	Qalhat	Oman LNG	Senboku, Himeji	Osaka Gas	0.66	2000/2024	F.O.B.	
OM-JP 2	"	"	"	Yanai, Mizushima	Itochu Corp., Chugoku Electric	0.77	2006/2020	F.O.B.	
OM-JP 3	Oman-Japan/U.S.A.	"	"	U.S.A./Futtsu	Mitsubishi Corp., Tokyo Electric	0.8	"	F.O.B./D.E.S.	
OM-JP 4	Oman-Japan	"	Qalhat LNG	Senboku, Himeji	Osaka Gas	"	2009/2026	F.O.B.	
OM-KR 1	Oman-Korea	Qalhat	Qalhat LNG	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	4.06	2000/2024	F.O.B.	
OM-SP	Oman-Spain	Qalhat	Qalhat LNG	Spain, Other	BP GM	0.77	2004/2009	D.E.S.	
"	"	"	"	Spanish terminals	Union Fenosa Gas	1.65	2006/2025	"	
AU-CN	Australia-China	Withnell Bay	Woodside, Japan Australia LNG, Shell Development Australia, BHP Billiton Petroleum, BP International, Chevron Oil Trading, CNOOC	Dapeng, Shenzhen	Petrochina	3.3	2006/2031	F.O.B.	
AU-JP 1	Australia-Japan	Withnell Bay	Woodside, Japan Australia LNG, Shell Development Australia, BHP Billiton Petroleum, BP International, Chevron Australia	Yanai, Mizushima	Chugoku Electric	1.43	2009/2021	D.E.S.	
AU-JP 2	"	"		Oita, Tobata	Kyushu Electric	0.7	2009/2017	F.O.B.	
AU-JP 3	"	"		Chita, Kawagoe, Yokaichi	Chubu Electric	0.5	2009/2016	D.E.S.	
AU-JP 4	"	"		Himeji, Sakai	Kansai Electric	0.4	2009/2017	"	
AU-JP 5	"	"		Sodegaura, Futtsu, Higashi-Ohgishima	Tokyo Electric	0.3	"	"	
AU-JP 6	"	"		Chita	Toho Gas	0.76	2009/2019	"	
AU-JP 7	"	"		Sodegaura, Negishi, Ohgishima	"	0.5	2009/2017	"	
AU-JP 8	"	"		Senboku, Himeji	Osaka Gas	"	2009/2015	"	
AU-JP 9	"	"		Sodegaura, Negishi, Ohgishima, Chita	Tokyo Gas, Toho Gas	1.37	2004/2029	F.O.B.	

*Duration above four years

➤ Long-term and medium-term contracts in force in 2010* (cont'd)

Reference	Trade	Export	Seller	Import	Buyer	Nominal quantity ACQ 10 ⁶ t/year	Duration	Type of contract	Comments
AU-JP 10	Australia-Japan	Withnell Bay	Woodside, Japan Australia LNG, Shell Development Australia, BHP Billiton Petroleum, BP Development Australia, Chevron Australia	Himeji, Senboku	Osaka Gas	1.00	2004/2033	F.O.B.	
AU-JP 11	"	"		Sodegaura	Shizuoka Gas	0.13	2004/2029	"	
AU-JP 12	"	"		Niigata	Tohoku Electric	0.4	2005/2020	"	
AU-JP 13	"	"		Oita, Tobata	Kyushu Electric	0.5	2006/2021	D.E.S.	
AU-JP 14	"	"		Chita, Kawagoe, Yokkaichi	Chubu Electric	0.6	2009/2029	"	
AU-JP 15	"	"		Himeji, Sakai	Kansai Electric	0.5	2009/2015	"	
AU-JP 16	"	Darwin	Conocophillips, ENI, Santos, Inpex, TTSR	Futtsu, Sodegaura, Negishi, Ohgishima, Higashi-Ohgishima	Tokyo Electric, Tokyo Gas	2 1	2006/2022	F.O.B.	
AU-KR	Australia-Korea	Withnell Bay	Woodside, Japan Australia LNG, Shell Development Australia, BHP Billiton Petroleum, BP International, Chevron Oil Trading	In-Chon, Tong-Yeong	Kogas	0.5	2003/2016	D.E.S.	
Ru-JP 1	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Futtsu, Sodegaura, Higashi-Ohgishima	Tokyo Electric	1.5	2007/2029	F.O.B.	
Ru-JP 2	"	"	"	Sodegaura, Negishi, Ohgishima	Tokyo Gas	1.1	2007/2031	"	
Ru-JP 3	"	"	"	Hatsukaichi	Hiroshima Gas	0.21	2008/2028	"	
Ru-JP 4	"	"	"	Senboku, Himeji	Osaka Gas	0.2	2008/2031	"	
Ru-JP 5	"	"	"	Oita, Tobata	Kyushu Electric	0.5	2009/2031	D.E.S.	
Ru-JP 6	"	"	"	Chita	Toho Gas	"	2009/2033	"	
Ru-JP 7	"	"	"	Niigata	Tohoku Electric	0.42	2010/2029	F.O.B.	
Ru-JP 8	"	"	"	Fukuoka, Nagasaki	Saibu Gas	0.008	2010/2028	"	
Ru-KR	Russia-Korea	Sakhalin	Sakhalin Energy	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	1.5	2008/2028	F.O.B.	
Ru-Mex	Russia-Mexico	Sakhalin	Sakhalin Energy	Energia Costa Azul	Gazprom, Global LNG	1.6	2009/2028	D.E.S.	
Y-US	Yemen-US	Balhaf	Yemen LNG	Sabine Pass	TGPL	2	2009/2029	D.E.S.	
"	"	"	"	Gulf of Mexico	GDF SUEZ	2.55	"	"	
Y-KR	Yemen-Korea	Balhaf	Yemen LNG	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	2	2008/2028	F.O.B.	
Ptf-KR	Portfolio-Korea	Portfolio including Equatorial Guinea	BG	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	1.3	2008/2016	D.E.S.	
Ptf-CL	Portfolio-Chile	BG Portfolio	BG	Quintero	Quintero LNG, Chile	1.7	2009/2030	D.E.S.	
Ptf-CN	Portfolio-China	Total Portfolio	Total Gas and Power	China	CNOOC	1	2010/2024	D.E.S.	

*Duration above four years

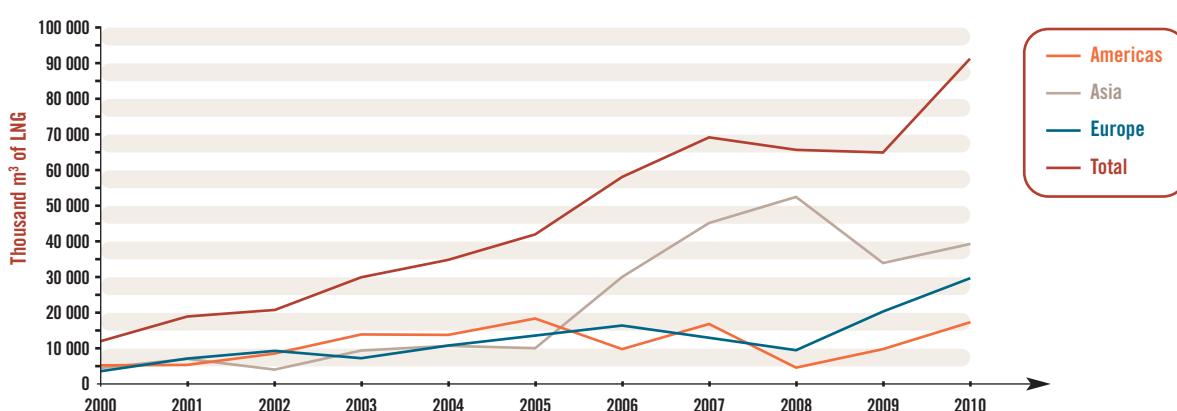


» Spot & short-term quantities (10^3 liquid m 3) received in 2010 by the importing countries from the exporting countries

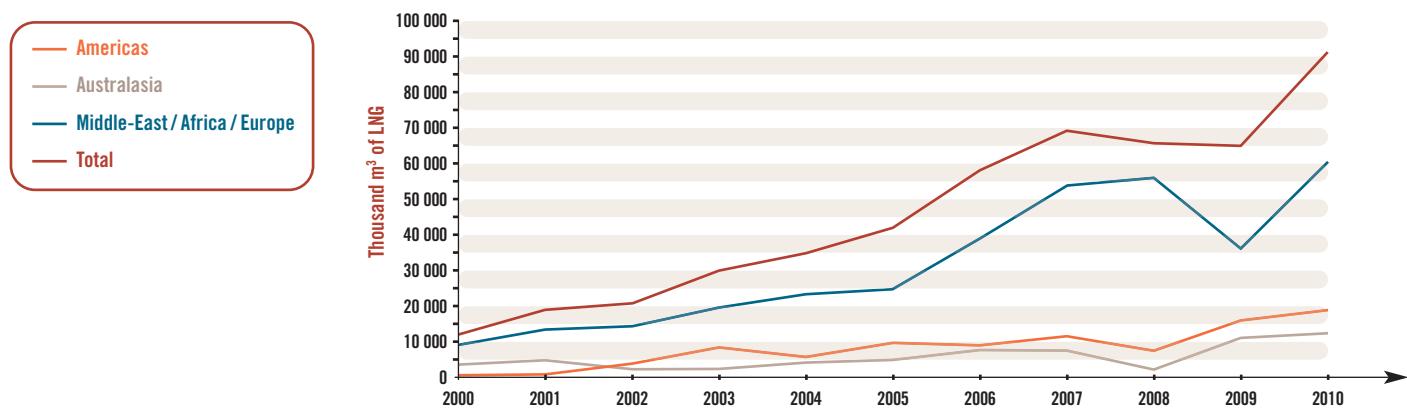
	Algeria	Belgium	Egypt	Equat. Guin.	Nigeria	Norway	Peru	Trinidad & Tobago	Abu Dhabi	Oman	Qatar	Yemen	Australia	U.S.A.	Indonesia	Malaysia	Russia	Total Import
Belgium		(844)*	140		275	140	140				1 329							1 179
France	101				246	125		396			2 416	160						3 444
Greece	465		75	50				75										665
Italy	386		143	157		140		530			446							1 801
Portugal								269			131							399
Spain	756	127	1 674		3 133	652		236			1 784	252		191				8 804
Turkey	610	149	443		130	405		388			2 998							5 122
The U.K.					256	1 413		1 769			4 354	428		301				8 520
Europe	2 316	(569)	2 475	207	4 040	2 875	140	3 662			13 458	840		491				29 935
Argentina								2 702			250							2 952
Brazil		140		147	1 452		257	1 383	54		1 108			147				4 688
Chile			294					223				172						689
Mexico			259				243											502
Puerto Rico								133										133
Canada								1 026			424							1 450
The U.S.A.			777		538	1 204	743	2 818			1 470	294		(1 324)*				6 519
Americas	140	1 330	147	1 990	1 204	1 242	8 284	54		3 252	466		(1 177)					16 933
China				138	146				139			715	289		135		845	2 408
India			139	281	522			1 013			1 229	320						3 505
Japan	288	130	842	939	1 155			265	572	422	3 850	269	986	1 480	242	802	3 667	15 908
Korea		146	942		1 976	262	137	1 389	410	1 109	1 232	694	665	555	566	799	1 261	12 142
Taiwan			284	554	1 306	122		610	555	554	137		806		136	695		5 759
Asia	288	276	2 206	1 912	5 104	384	137	3 277	1 676	2 085	6 448	1 999	2 746	2 035	943	1 737	6 469	39 721
Kuwait		153	700	443	132			489	387	1 445		145				374	136	4 405
Dubai											330							330
Middle East		153	700	443	132			489	387	1 445	330	145				374	136	4 735
Total Export	2 604	0	6 711	2 710	11 266	4 463	1 520	15 712	2 117	3 530	23 488	3 450	2 746	1 349	943	2 111	6 605	91 324

*Re-exports.

» Spot & short-term LNG imports over the last ten years (10^3 m 3 liq)



» Spot & short-term LNG exports over the last ten years (10^3 m 3 liq)



Sea transportation routes

Reference	Contracts	Export	Import	Miles	Reference	Contracts	Export	Import	Miles
Az-Bn	DZ-SP	Arzew	Barcelona	343	BI-M	NIG-F	Bonny Island	Montoir	3 980
Az-H	DZ-SP	Arzew	Huelva	691	BI-Pc	NIG-BR	Bonny Island	Pecem	2 811
Az-P	DZ-I	Arzew	Panigaglia	684	BI-Fp	NIG-US	Bonny Island	Port Freeport	6 227
Ba-Al	DZ-TR2	Bethioua	Aliaga	1 404	BI-Rg	NIG-SP	Bonny Island	Reganosa	3 746
Ba-Bn	DZ-SP 1/2/3	Bethioua	Barcelona	343	BI-So	NIG-SP	Bonny Island	Sagunto	3 686
Ba-Bo	DZ-SP 1	Bethioua	Bilbao	1118	BI-Si	NIG-P	Bonny Island	Sines	3 417
Ba-Ca	DZ-SP 1/2/3	Bethioua	Cartagena	113	BI-TY	NIG-KR	Bonny Island	Tong-Yeong	10 354
Ba-FC	DZ-F	Bethioua	Fos Cavaou	520	BI-Yg	NIG-TW	Bonny Island	Yung-An	9 440
Ba-F	DZ-F 3	Bethioua	Fos Tonkin	530	BI-Z	NIG-B	Bonny Island	Zeebrugge	4 424
Ba-H	DZ-SP 1/2/3	Bethioua	Huelva	373	Hm-Al	NO-TR	Hammerfest	Alaga	4 287
Ba-JG	DZ-JK	Bethioua	Isle of Grain	1 675	Hm-Ba	NO-SP	Hammerfest	Barcelona	3 155
Ba-ME	DZ-TR 1	Bethioua	Marmara Ereglisi	1 500	Hm-Ca	NO-SP	Hammerfest	Cartagena	2 885
Ba-M	DZ-F 3	Bethioua	Montoir	1 260	Hm-Bb	NO-SP	Hammerfest	Bilbao	2 045
Ba-Qr	DZ-CL	Bethioua	Quintero	7 240	Hm-CP	NO-US	Hammerfest	Cove Point	3 975
Ba-Rg	DZ-SP	Bethioua	Reganosa	945	Hm-Dn	NO-UK	Hammerfest	Dragon	1 599
Ba-Rv	DZ-GR	Bethioua	Revithoussa	1 270	Hm-H	NO-SP	Hammerfest	Huelva	2 594
Ba-Sa	DZ-SP	Bethioua	Sagunto	243	Hm-IG	NO-UK	Hammerfest	Isle of Grain	1 423
Ba-Sa	DZ-JP	Bethioua	Sakai	9 491	Hm-M	NO-F	Hammerfest	Montoir	1 889
Sk-Bn	DZ-SP	Skikda	Barcelona	351	Hm-Ro	NO-I	Hammerfest	Rovigo	4 196
Sk-Ca	DZ-SP	Skikda	Cartagena	388	Hm-Sa	NO-SP	Hammerfest	Sagunto	3 065
Sk-F	DZ-F 2	Skikda	Fos Tonkin	400	Hm-Ty	NO-KR	Hammerfest	Tong-Yeong	12 140
Sk-H	DZ-SP	Skikda	Huelva	716	Hm-Yg	NO-TW	Hammerfest	Yung-An	11 238
Sk-P	DZ-I 2/3	Skikda	Panigaglia	456	Hm-Z	NO-B	Hammerfest	Zeebrugge	1 455
Sk-RV	DZ-GR	Skikda	Revithoussa	920	MB-Bn	LY-SP	Marsa-el-Brega	Barcelona	1 068
Da-At	EG-MEX	Damietta	Altamira	6 733	MB-Ca	LY-SP	Marsa-el-Brega	Cartagena	1 175
Da-Bn	EG-SP	Damietta	Barcelona	1 554	MB-H	LY-SP	Marsa-el-Brega	Huelva	1 496
Da-CP	EG-US	Damietta	Cove Point	5 291	MB-So	LY-SP	Marsa-el-Brega	Sagunto	1 139
Da-Dj	EG-IN	Damietta	Dahej	3 142	DI-Gg	AE-CN	Das Island	Dapeng, Shenzhen	5 044
Da-H	EG-SP	Damietta	Huelva	1 984	DI-Fu	AE-JP	Das Island	Futtsu	6 290
Da-Ro	EG-I	Damietta	Rovigo	1 299	DI-GB	AE-BR	Das Island	Guanabara Bay	8 132
Da-So	EG-SP	Damietta	Sagunto	1 645	DI-HO	AE-JP	Das Island	Higashi-Ogishima	6 310
Da-Ta	EG-TW	Damietta	Taichung	7 132	DI-IC	AE-KR	Das Island	In-Chon	6 172
Da-Ty	EG-KR	Damietta	Tong-Yeong	7 617	DI-MA	AE-KW	Das Island	Mina Al Ahmadi	390
Da-Yg	EG-TW	Damietta	Yung-An	6 715	DI-Pc	AE-BR	Das Island	Pecem	8 601
Da-Z	EG-B	Damietta	Zeebrugge	3 259	DI-Yg	AE-TW	Das Island	Yung-An	5 204
Ik-Al	EG-TR	Idku	Aliaga	603	K-N	US-JP	Kenai	Negishi	3 290
Ik-Bn	EG-SP	Idku	Barcelona	1 491	K-Sd	US-JP	Kenai	Sodegaura	3 300
Ik-Ca	EG-SP	Idku	Cartagena	1 595	PF-AI	TT-TR	Point Fortin	Aliaga	5 100
Ik-Dj	EG-IN	Idku	Dahej	3 273	PF-BB	TT-ARG	Point Fortin	Bahia Blanca	4 628
Ik-El	EG-US	Idku	Elba Island	5 495	PF-Bn	TT-SP	Point Fortin	Barcelona	3 976
Ik-E	EG-US	Idku	Everett	4 867	PF-Bo	TT-SP	Point Fortin	Bilbao	3 669
Ik-FC	EG-F	Idku	Fos Cavaou	1 430	PF-Cr	TI-US	Point Fortin	Cameron	2 201
Ik-GG	EG-US	Idku	Gulf Gateway	6 495	PF-Ct	TI-Ca	Point Fortin	Canaport	2 150
Ik-Hj	EG-JP	Idku	Himeji	7 911	PF-Ca	TI-SP	Point Fortin	Cartagena	3 701
Ik-H	EG-SP	Idku	Huelva	1 920	PF-Dj	TI-IN	Point Fortin	Dahej	8 463
Ik-IC	EG-KR	Idku	In-Chon	7 768	PF-CP	TI-US	Point Fortin	Cove Point	1 879
Ik-IG	EG-UK	Idku	Isle of Grain	3 232	PF-Dn	TI-JK	Point Fortin	Dragon	3 734
Ik-LC	EG-US	Idku	Lake Charles	6 514	PF-Ef	TI-US	Point Fortin	Elba Island	1 690
Ik-Og	EG-JP	Idku	Ogishima	8 002	PF-E	TI-US	Point Fortin	Everett	2 032
Ik-Mj	EG-CL	Idku	Mejjilones	10 439	PF-GB	TI-BR	Point Fortin	Guanabara Bay	3 245
Ik-Ma	EG-KW	Idku	Mina Al Ahmadi	3414	PF-GG	TI-US	Point Fortin	Gulf Gateway	2 133
Ik-M	EG-F	Idku	Montoir	2 771	PF-Ha	TI-IN	Point Fortin	Hazira	8 428
Ik-Ng	EG-US	Idku	North East Gateway	4 852	PF-H	TI-SP	Point Fortin	Huelva	3 417
Ik-pt	EG-KR	Idku	Pyeong-Taek	7 764	PF-IC	TI-KR	Point Fortin	In-Chon	9 685
Ik-Rv	EG-CR	Idku	Revithoussa	540	PF-IG	TI-JK	Point Fortin	Isle of Grain	4 064
Ik-Ro	EG-I	Idku	Rovigo	1 299	PF-Mi	TI-CL	Point Fortin	Mejjilones	7 596
Ik-So	EG-SP	Idku	Sagunto	1 571	PF-MA	TT-KW	Point Fortin	Mina Al Ahmadi	10 541
Ik-Sa	EG-JP	Idku	Sakai	7 907	PF-M	TT-F	Point Fortin	Montoir	1 618
Ik-Tb	EG-JP	Idku	Tobata	7 607	PF-Pc	TI-BR	Point Fortin	Pecem	1 732
Ik-Z	EG-B	Idku	Zeebrugge	3 259	PF-Pn	TI-PR	Point Fortin	Penuelas	560
Bk-Dj	EgG-IN	Bioko Island	Dahej	7 127	PF-PC	TT-DR	Point Fortin	Punta Caudedo	679
Bk-Fi	EgG-CN	Bioko Island	Fujian	10 045	PF-PT	TT-KR	Point Fortin	Pyeong-Taek	9 685
Bk-GB	EgG-BR	Bioko Island	Guanabara Bay	3 476	PF-Qr	TT-CL	Point Fortin	Quintero	7 051
Bk-Hj	EgG-JP	Bioko Island	Himeji	10 781	PF-Rg	TT-SP	Point Fortin	Reganosa	3 452
Bk-Ic	EgG-KR	Bioko Island	In-Chon	10 651	PF-RV	TI-GR	Point Fortin	Revithoussa	4 965
Bk-Ma	EgG-KW	Bioko Island	Mina Al Ahmadi	7 579	PF-Ro	TI-I	Point Fortin	Rovigo	5 180
Bk-Ni	EgG-JP	Bioko Island	Negishi	10 955	PF-So	TT-SP	Point Fortin	Sagunto	3 858
Bk-Nt	EgG-JP	Bioko Island	Niigata	11 058	PF-Sa	TI-JP	Point Fortin	Sakai	13 721
Bk-Og	EgG-JP	Bioko Island	Ogishima	10 897	PF-Si	TT-P	Point Fortin	Sines	3 315
Bk-Ot	EgG-JP	Bioko Island	Oita	10 616	PF-Ta	TI-TW	Point Fortin	Taichung	12 453
Bk-Pc	EgG-BR	Bioko Island	Pecem	2 898	PF-Ty	TI-KR	Point Fortin	Tong-Yeong	9 303
Bk-pt	EgG-KR	Bioko Island	Pyeong-Taek	10 648	PF-Yg	TI-TW	Point Fortin	Yung-An	10 174
Bk-Qr	EgG-CL	Bioko Island	Quintero	6 752	PF-Z	TT-B	Point Fortin	Zeebrugge	3 985
Bk-Rv	EgG-GR	Bioko Island	Revithoussa	4 966	Lu-Fu	BR-JP	Lumut	Futtsu	2 390
Bk-Ro	EgG-I	Bioko Island	Rovigo	5 180	Lu-Ho	BR-JP	Lumut	Higashi-Ogishima	2 423
Bk-Sa	EgG-JP	Bioko Island	Sakai	10 758	Lu-Hj	BR-JP	Lumut	Kimje	2 999
Bk-Sb	EgG-JP	Bioko Island	Senboku	10 600	Lu-Ic	Br-KR	Lumut	In-Chon	2 850
Bk-Ta	EgG-TW	Bioko Island	Taichung	10 032	Lu-Ni	BR-JP	Lumut	Negishi	2 416
Bk-Tb	EgG-JP	Bioko Island	Tobata	10 591	Lu-Pt	BR-KR	Lumut	Peong-Taek	2 850
Bk-Ty	EgG-KR	Bioko Island	Tong-Yeong	10 578	Lu-Sb	BR-JP	Lumut	Senboku	2 405
Bk-Yg	EgG-TW	Bioko Island	Yung-An	9 657	Lu-Sd	BR-JP	Lumut	Sodegaura	2 430
Bl-Al	NIG-TR	Bonny Island	Aliaga	5 042	Lu-Ty	BR-KR	Lumut	Tong-Yeong	2 014
Bl-At	NIG-MEX	Bonny Island	Altamira	6 214	Bu-Ch	MY-JP 8	Bintulu	Chita	2 395
Bl-Bn	NIG-SP	Bonny Island	Barcelona	3 824	Bu-Fk	MY-JP 6	Bintulu	Fukuoka	2 160
Bl-Bo	NIG-SP	Bonny Island	Bilbao	3 914	Bu-Fu	MY-JP 1	Bintulu	Futtsu	2 505
Bl-Ca	NIG-SP	Bonny Island	Cartagena	3 574	Bu-Ho	MY-JP 1	Bintulu	Higashi-Ogishima	2 530
Bl-Ch	NIG-JP	Bonny Island	Chita	10 602	Bu-Hi	MY-JP	Bintulu	Himeji	2 400
Bl-Dj	NIG-IN	Bonny Island	Dahej	7 136	Bu-Ic	MY-KR	Bintulu	In-Chon	2 124
Bl-Dg	NIG-CN	Bonny Island	Dapeng, Shenzhen	9 328	Bu-Ma	MY-KW	Bintulu	Mina Al Ahmadi	4 479
Bl-Fu	NIG-JP	Bonny Island	Dragon	4 206	Bu-Nk	MY-JP 6	Bintulu	Nagasaki	2 151
Bl-GB	NIG-BR	Bonny Island	Futtsu	10 914	Bu-Ni	MY-JP 1/8	Bintulu	Negishi	2 513
Bl-Ha	NIG-IN	Bonny Island	Guanabara Bay	3 422	Bu-Nt	MY-JP 2	Bintulu	Niigata	2 511
Bl-Ho	NIG-JP	Bonny Island	Hazira	7 053	Bu-Og	MY-JP 1/8	Bintulu	Ogishima	2 530
Bl-Hj	NIG-JP	Bonny Island	Himeji	10 790	Bu-Pt	MY-KR	Bintulu	Pyeong-Taek	2 124
Bl-H	NIG-SP	Bonny Island	Huelva	3 359	Bu-Sa	MY-JP 8	Bintulu	Sakai	2 376
Bl-IC	NIG-KR	Bonny Island	In-Chon	10 390	Bu-Sb	MY-JP 8	Bintulu	Senboku	2 376
Bl-Kw	NIG-JP	Bonny Island	Kawagoe	10 604	Bu-St	MY-CN	Bintulu	Shanghai Mengtougou	1 942
Bl-Lc	NIG-US	Bonny Island	Lake Charles	6 111	Bu-Sd	MY-CN	Bintulu	Shanghai	1 942
Bl-ME	NIG-TR	Bonny Island	Marmara Ereglisi	5 059	Bu-Sh	MY-JP 1/8	Bintulu	Sodegaura	2 515
Bl-Ma	NIG-KW	Bonny Island	Mina Al Ahmadi	7 588	Bu-Sm	MY-JP 9	Bintulu	Sodeshi	2 378
								Shin-Minato	2 603

Reference	Contracts	Export	Import	Miles	Reference	Contracts	Export	Import	Miles
Bu-TY	MY-KR	Bintulu	Tong-Yeong	1 674	SI-Fu	Ru-JP	Sakhalin II	Futtsu	1 065
Bu-Yg	MY-TW	Bintulu	Yung-An	1 350	SI-Hk	Ru-JP	Sakhalin II	Hatsukaichi	1 105
Bt-Ch	ID-JP1/3/8/12	Bontang (Badak)	Chita	2 500	SI-Hi	Ru-JP	Sakhalin II	Himeji	1 196
Bt-Fj	ID-CN	Bontang (Badak)	Fujian	1 856	SI-Ho	Ru-JP	Sakhalin II	Higashi-Otgishima	1 067
Bt-Hk	ID-JP 9	Bontang (Badak)	Hatsukaichi	2 412	SI-Ic	Ru-KR	Sakhalin II	In-Chon	1 763
Bt-Hi	ID-JP 1/3/8	Bontang (Badak)	Himeji	2 400	SI-Kw	Ru-JP	Sakhalin II	Kawagoe	1 029
Bt-Ic	ID-KR 1/2/7	Bontang (Badak)	In-Chon	2 493	SI-Ma	Ru-KW	Sakhalin II	Mina Al Ahmadi	7 315
Bt-Kg	ID-JP 9	Bontang (Badak)	Kagoshima	2 211	SI-Nk	Ru-JP	Sakhalin II	Nagasaki	1 120
Bt-Kw	ID-JP 1/3/11	Bontang (Badak)	Kawagoe	2 510	SI-Ni	Ru-JP	Sakhalin II	Negishi	1 010
Bt-Ni	ID-JP 1/3/8	Bontang (Badak)	Negishi	2 573	SI-Ni	Ru-JP	Sakhalin II	Niigata	581
Bt-Og	ID-JP 8	Bontang (Badak)	Otgishima	2 560	SI-Og	Ru-JP	Sakhalin II	Otgishima	964
Bt-Of	ID-JP 1	Bontang (Badak)	Oita	2 413	SI-Ot	Ru-JP	Sakhalin II	Oita	1 061
Bt-PT	ID-KR 1/2/7	Bontang (Badak)	Pyeong-Taek	2 493	SI-PT	Ru-KR	Sakhalin II	Pyeong-Taek	1 763
Bt-Sa	ID-JP	Bontang (Badak)	Sakai	2 385	SI-Sa	Ru-JP	Sakhalin II	Sakai	1 176
Bt-Sb	ID-JP 1/3/8	Bontang (Badak)	Senboku 2	2 385	SI-SG	Ru-CN	Sakhalin II	Shanghai	1 444
Bt-Sd	ID-JP 8	Bontang (Badak)	Sodegaura	2 566	SI-Sd	Ru-JP	Sakhalin II	Sodegaura	1 020
Bt-Sh	ID-JP	Bontang (Badak)	Sodeshi	6 465	SI-Sh	Ru-JP	Sakhalin II	Sodeshi	934
Bt-Tb	ID-JP 1	Bontang (Badak)	Tobata	2 370	SI-Tb	Ru-JP	Sakhalin II	Tobata	981
Bt-Ty	ID-KR 1/2/7	Bontang (Badak)	Tong-Yeong	2 043	SI-Ty	Ru-KR	Sakhalin II	Tong-Yeong	1 363
Bt-Yk	ID-JP 1/3	Bontang (Badak)	Yokkaichi	2 510	SI-Yg	Ru-TW	Sakhalin II	Yung-An	1 967
Bt-Yg	ID-TW	Bontang (Badak)	Yung-An	1 455	Bf-At	Ym-MEX	Balhaf	Altamira	8313
BL-Tj	ID-CN	Blang Lancang (Arun)	Fujian	2 489	Bf-Dg	Ym-CN	Balhaf	Dapeng, Shenzhen	5108
BL-Fu	ID-JP	Blang Lancang (Arun)	Futtsu	3 504	Bf-Fj	Ym-CN	Balhaf	Fujian	5634
BL-Ho	ID-JP 2	Blang Lancang (Arun)	Higashio-Otgishima	3 456	Bf-Ha	Ym-IN	Balhaf	Hazira	1703
BL-Nt	ID-JP 2	Blang Lancang (Arun)	Niigata	3 496	Bf-Ig	Ym-UK	Balhaf	Isle of Grain	4735
BL-IC	ID-KR 1/2/7	Blang Lancang (Arun)	In-Chon	3 149	Bf-E	Ym-US	Balhaf	Everett	6373
BL-PT	ID-KR 1/2/7	Blang Lancang (Arun)	Pyeong-Taek	3 149	Bf-Fu	Ym-JP	Balhaf	Futtsu	6549
BL-Ty	ID-KR 1/2/7	Blang Lancang (Arun)	Tong-Yeong	2 699	Bf-H	Ym-SP	Balhaf	Huelva	3 456
Tg-At	ID-MEX	Tangguh	Altamira	14 262	Bf-Mj	Ym-CL	Balhaf	Meijilones	10 020
Tg-Dg	ID-CN	Tangguh	Dapeng, Shenzhen	2 129	Bf-Ma	Ym-KW	Balhaf	Mina Al Ahmadi	1 767
Tg-Ec	ID-MEX	Tangguh	Energia Costa Azul	6 850	Bf-M	Ym-F	Balhaf	Montoir	4 505
Tg-Fj	ID-CN	Tangguh	Fujian	2 227	Bf-Pt	Ym-KR	Balhaf	Pyeong-Taek	6 025
Tg-Gy	ID-KR	Tangguh	Gwangyang	2 548	Bf-Sp	Ym-US	Balhaf	Sabine Pass	8 118
Tg-Ta	ID-TW	Tangguh	Taichung	2 204	Bf-So	Ym-SP	Balhaf	Sagunto	3 078
Tg-Yg	ID-TW	Tangguh	Yung-An	1 972	Bf-Sg	Ym-CN	Balhaf	Shanghai	5 720
RL-Al	Q-TR	Ras Laffan	Aliaga	3 722	Bf-Ty	Ym-KR	Balhaf	Tong-Yeong	5 625
RL-At	Q-MEX	Ras Laffan	Altamira	9 922	WB-Ch	AU-JP	Withnell Bay	Chita	3 612
RL-BB	Q-ARG	Ras Laffan	Bahia Blanca	8 630	WB-Dg	AU-CN	Withnell Bay	Dapeng, Shenzhen	2 770
RL-Bn	Q-SP	Ras Laffan	Barcelona	4 710	WB-Fj	AU-CN	Withnell Bay	Fujian	3 053
RL-Bn	Q-SP	Ras Laffan	Bilbao	5 925	WB-Fu	AU-JP	Withnell Bay	Futtsu	3 683
RL-Cr	Q-US	Ras Laffan	Cameron	9 680	WB-Hi	AU-JP	Withnell Bay	Himeji	3 596
RL-Ct	Q-Ca	Ras Laffan	Canaport	8 007	WB-Ic	AU-KR	Withnell Bay	In-Chon	3 613
RL-Ca	Q-SP	Ras Laffan	Cartagena	4 817	WB-Kg	AU-JP	Withnell Bay	Kagoshima	3 334
RL-Ch	Q-JP 1	Ras Laffan	Chita	6 446	WB-Kw	AU-JP	Withnell Bay	Kawagoe	3 622
RL-Dj	Q-IN	Ras Laffan	Dahej	1 290	WB-Mz	AU-JP	Withnell Bay	Mizushima	3 638
RL-Dg	Q-CN	Ras Laffan	Dapeng, Shenzhen	5 098	WB-Ni	AU-JP	Withnell Bay	Negishi	3 664
RL-Dn	Q-UK	Ras Laffan	Dragon	6 184	WB-Nt	AU-JP	Withnell Bay	Niigata	3 995
RL-Fc	Q-F	Ras Laffan	Fos Cavaou	4 684	WB-Og	AU-JP	Withnell Bay	Otgishima	3 683
RL-Fj	Q-CN	Ras Laffan	Fujian	5 625	WB-Ot	AU-JP	Withnell Bay	Oita	3 460
RL-Fu	Q-JP 1	Ras Laffan	Futtsu	6 508	WB-Pt	AU-KR	Withnell Bay	Pyeong-Taek	3 613
RL-Gp	Q-US	Ras Laffan	Golden Pass	9 824	WB-Sa	AU-JP	Withnell Bay	Sakai	3 570
RL-Gb	Q-BR	Ras Laffan	Guanabara Bay	8 197	WB-Sb	AU-JP	Withnell Bay	Senboku	3 570
RL-Gg	Q-US	Ras Laffan	Gulf Gateway	9 691	WB-Sd	AU-JP	Withnell Bay	Sodegaura	3 692
RL-Ha	Q-IN	Ras Laffan	Hazira	1 236	WB-Sh	AU-JP	Withnell Bay	Sodeshi	3 632
RL-Ho	Q-JP	Ras Laffan	Higashio-Otgishima	6 544	WB-Tb	AU-JP	Withnell Bay	Tobata	3 585
RL-Hj	Q-JP 2	Ras Laffan	Himeji	6 350	WB-Ty	Au-Kr	Withnell Bay	Tong-Yeong	3 526
RL-H	Q-SP	Ras Laffan	Huelva	5 134	WB-Ya	AU-JP	Withnell Bay	Yanai	3 491
RL-Ic	Q-KR	Ras Laffan	In-Chon	6 156	WB-Yk	AU-JP	Withnell Bay	Yokkaichi	3 668
RL-Ig	Q-UK	Ras Laffan	Isle of Grain	6 428	WB-Yg	AU-TW	Withnell Bay	Yung-An	2 715
RL-Kw	Q-JP 1	Ras Laffan	Kawagoe	6 448	Dw-Fu	AU-JP	Darwin	Futtsu	3 036
RL-Mn	Q-DU	Ras Laffan	Mina Jebel Ali	231	Dw-Ho	AU-JP	Darwin	Higashio-Otgishima	3 056
RL-M	Q-F	Ras Laffan	Montoir	6 015	Dw-Ni	AU-JP	Darwin	Negishi	3 017
RL-Ni	Q-JP	Ras Laffan	Negishi	6 615	Dw-Og	AU-JP	Darwin	Otgishima	3 055
RL-Nt	Q-JP 2	Ras Laffan	Niigata	6 640	Dw-Sd	AU-JP	Darwin	Sodegaura	3 045
RL-Og	Q-JP	Ras Laffan	Otgishima	6 513	Pm-At	Pr-Mex	Pampa Melchorita	Altamira	10 298
RL-I	Q-I	Ras Laffan	Panigaglia	4 774	Pm-Bn	Pr-Sp	Pampa Melchorita	Barcelona	9 566
RL-Pt	Q-Kr	Ras Laffan	Pyeong-Taek	6 156	Pm-Bo	Pr-Sp	Pampa Melchorita	Bilbao	9 639
RL-Qr	Q-Cl	Ras Laffan	Quintero	10 040	Pm-Ct	Pr-Ca	Pampa Melchorita	Canaport	9 631
RL-Rg	Q-SP	Ras Laffan	Reganosa	5 689	Pm-Ca	Pr-Sp	Pampa Melchorita	Cartagena	9 292
RL-Ro	Q-I	Ras Laffan	Rovigo	4 438	Pm-Ec	Pr-Mex	Pampa Melchorita	Energia Costa Azul	3 548
RL-Sp	Q-US	Ras Laffan	Sabine Pass	9 796	Pm-GB	Pr-BR	Pampa Melchorita	Guanabara Bay	5 096
RL-Sa	Q-SP	Ras Laffan	Sagunto	4 719	Pm-H	Pr-Sp	Pampa Melchorita	Huelva	9 053
RL-Sb	Q-JP 2	Ras Laffan	Sakai	6 347	Pm-Ic	Pr-Kr	Pampa Melchorita	In-Chon	9 274
RL-Si	Q-P	Ras Laffan	Senboku	6 347	Pm-Fp	Pr-US	Pampa Melchorita	Port Freeport	10 236
RL-Sd	Q-JP 2	Ras Laffan	Sines	5 291	Pm-Sp	Pr-US	Pampa Melchorita	Sabine Pass	10 208
RL-Su	Q-UK	Ras Laffan	Sodegaura	6 576	Pm-Z	Pr-B	Pampa Melchorita	Zeebrugge	10 068
RL-Ta	Q-Tw	Ras Laffan	South Hook	6 137					
RL-Ty	Q-Kr	Ras Laffan	Taichung	5 229					
RL-Ya	Q-JP 2	Ras Laffan	Tong-Yeong	5 706					
RL-Yg	Q-Tw	Ras Laffan	Yanai	6 170					
RL-Yk	Q-JP 1	Ras Laffan	Yung-An	5 230					
RL-Z	Q-B	Ras Laffan	Yokkaichi	6 448					
Qt-Bn	Om-SP	Qalhat	Zeebrugge	6 277					
Qt-Ca	Om-SP	Qalhat	Barcelona	4 159					
Qt-Fu	Om-JP3	Qalhat	Cartagena	4 260					
Qt-Ha	Om-IN	Qalhat	Futtsu	5 985					
Qt-Ho	Om-JP	Qalhat	Hazira	760					
Qt-Hj	Om-JP 1	Qalhat	Himeji	5 838					
Qt-Ic	Om-KR	Qalhat	In-Chon	5 750					
Qt-Kw	Om-JP	Qalhat	Kawagoe	5 834					
Qt-Ma	Om-KW	Qalhat	Mina Al Ahmadi	794					
Qt-Mz	Om-JP2	Qalhat	Mizushima	5 873					
Qt-pt	Om-KR	Qalhat	Pyeong-Taek	5 750					
Qt-Sb	Om-JP 1	Qalhat	Senboku	5 812					
Qt-Ty	Om-KR	Qalhat	Tong-Yeong	5 300					
Qt-Ya	Om-JP	Qalhat	Yanai	5 700					
Qt-Yg	Om-Tw	Qalhat	Yung-An	4 719					
Si-Ch	Ru-JP	Sakhalin II	Chita	1 085					
Si-Dg	Ru-CN	Sakhalin II	Dapeng, Shenzhen	2 244					
Si-Fj	Ru-CN	Sakhalin II	Fujian	2 063					

Inter-Trade

Zeebrugge	Aliaga	3037
Zeebrugge	Bilbao	806
Zeebrugge	Guanabara Bay	5 219
Zeebrugge	Hammerfest	1 455
Zeebrugge	Higashio-Otgishima	11 262
Zeebrugge	Mina Al-Ahmadi	6580
Zeebrugge	Pyeong-Taek	10 948
Port Freeport	Higashio-Otgishima	9 214
Port Freeport	In-Chon	4 300
Port Freeport	Teeside	
Sabine Pass	Cartagena	
Sabine Pass	Guanabara Bay	
Sabine Pass	Isle of Grain	15432
Sabine Pass	In-Chon	4165
Sabine Pass	Sagunto	

Liquefaction plants



Country	Site	Liquefaction		Storage		Owner	Operator	Buyer	Start-up date
		Number of trains	Nominal capacity 10 ⁶ t per year	Number of tanks	Total capacity m ³				
ATLANTIC BASIN									
Algeria	Arzew GL 4Z	3	0.93	3	33 000	Sonatrach	Sonatrach	GDF SUEZ, DEPA	1964
	Arzew GL 1Z	6	8.19	3	300 000	Sonatrach	Sonatrach	GDF SUEZ, Botas, ENI Gas & Power, Edison, Shell, Statoil, Endesa, DEPA, CEPSA	1978
	Arzew GL 2Z	6	7.98	3	300 000	Sonatrach	Sonatrach		1981
	Skikda - GL 1K	3	3.13	5	308 000	Sonatrach	Sonatrach	GDF SUEZ, DEPA, ENI Gas & Power	1972
Egypt	Damietta	1	5.00	2	300 000	SEGAS	SEGAS SERVICES	Gas Natural Fenosa, EGAS (BP, BG & Petronas)	2005
	Idku	2	7.20	2	280 000	Egyptian LNG (EGPC, EGAS, BG, GDF SUEZ, Petronas)	Egyptian LNG (EGPC, EGAS, BG, GDF SUEZ, Petronas)	GDF SUEZ	2005
Equatorial Guinea	Bioko Island	1	3.70	2	272 000	Marathon, Sonagas, Mitsui, Marubeni	Marathon	BG Gas Marketing	2007
Libya	Marsa-el-Brega	3	0.60	2	96 000	Sirte Oil Co.	Sirte Oil Co.	Gas Natural	1970
Nigeria	Bonny Island	3	9.60	3	252 600	Nigeria LNG (NNPC, Shell, TOTAL, ENI)	Nigeria LNG Ltd	Enel, Gas Natural Fenosa, Botas, GDF SUEZ, Ren Atlantico	1999-2000
		2	8.10			Nigeria LNG (NNPC, Shell, TOTAL, ENI)	Nigeria LNG Ltd	BGLT-BGGM, Shell, Iberdrola, Endesa, Ren Atlantico, TOTAL, ENI Gas & Power	2006
		1	4.00	1	84 200	Nigeria LNG (NNPC, Shell, TOTAL, ENI)	Nigeria LNG Ltd	Total, Shell	2008
Norway	Hammerfest	1	4.30	2	250 000	StatoilHydro, Pétoro, Total, GDF SUEZ, RWE-DEA, Hess	StatoilHydro	Total, StatoilHydro, GDF SUEZ, Iberdrola	2007
Trinidad & Tobago	Point Fortin	4	15.10	4	520 000	Atlantic LNG (BP, BG, Repsol, GDF SUEZ, NGC)	Atlantic LNG (BP, BG, Repsol, GDF SUEZ, NGC)	GDF SUEZ, Gas Natural Fenosa, Repsol, BP, BG, NGC + various spot buyers	1999

Country	Site	Liquefaction		Storage		Owner	Operator	Buyer	Start-up date
		Number of trains	Nominal capacity 10 ⁶ t per year	Number of tanks	Total capacity m ³				
MIDDLE-EAST									
Abu Dhabi	Das Island	3	5.60	3	240 000	Adgas (ADNOC, BP, TOTAL, Mitsui)	Adgas	Tokyo Electric Power	1977
Oman	Qalhat	2	7.10	2	240 000	Oman LNG (Oman gvt, Shell, TOTAL, Korea LNG, Mitsubishi, Mitsui, Partex, Itochu)	Oman LNG	Kogas, Itochu, Osaka Gas, BP	2000
		1	3.60			Qalhat LNG (Oman gvt, Oman LNG, Itochu, Mitsubishi, Union Fenosa Gas, Osaka Gas)	Oman LNG	Mitsubishi, Osaka Gas, Union Fenosa Gas	2006
Qatar	Ras Laffan (Qatargas 1-T1&2)	2	6.40	4	340 000	QatarGas (QP, ExxonMobil, TOTAL, Marubeni, Mitsui)	Qatargas I	1997-98 (Chubu Elec), 1999 (Osaka Gas, Tokyo Gas, Toho Gas, Tohoku Elec, Kansai Elec, Chugoku Elec, Gas Natural)	1999
	Ras Laffan (Qatargas 1-T3)	1	3.10			QatarGas (QP, ExxonMobil, TOTAL, Marubeni, Mitsui)	Qatargas I	Tokyo Gas	1999
	Ras Laffan (Qatargas 2-T1)	1	7.80			(Qatar Petroleum, ExxonMobil)	Qatargas II	South Hook Gas	2009
	Ras Laffan (Qatargas 2-T2)	1	7.80			(Qatar Petroleum, TOTAL, ExxonMobil)	Qatargas II	South Hook, TOTAL Gas & Power Ltd	2009
	Ras Laffan (Qatargas 3-T1)	1	7.80	8	1 160 000	Qatar Petroleum, Conoco, Mitsui	Qatargas III	Conoco Philips, Repsol	2010
	Ras Laffan (RasGas 1-T1&2)	2	6.60			RasGas 1 (QP, ExxonMobil, Kogas, Itochu, Nissho Iwai, LNG Japan)	RasGas I	Kogas, Distrigas, ... others (non GIIGNL members)	1999-2000
	Ras Laffan (RasGas 2-T1)	1	4.70			Rasgas 2 (Qatar Petroleum, Exxon Mobil)	RasGas II	Petronet LNG	2004
	Ras Laffan (RasGas 2-T2)	1	4.70			Rasgas 2 (Qatar Petroleum, Exxon Mobil)	RasGas II	Endesa, Edison	2005
	Ras Laffan (RasGas 2-T3)	1	4.70			Rasgas 2 (Qatar Petroleum, Exxon Mobil)	RasGas II	Petronet, EDF, Distrigas, C.P.C.	March 2007
	Ras Laffan (Rasgas 3-T1)	1	7.80			Rasgas 3 (Qatar Petroleum, Exxon Mobil)	RasGas III	Petronet, KOGAS, Chevron, Sempra, Statoil	August 2009
	Ras Laffan (Rasgas 3-T2)	1	7.80			Rasgas 3 (Qatar Petroleum, Exxon Mobil)	RasGas III	Exxon, Kuwait Oil	April 2010
	Balhaf - Train 1 & 2	2	6.70	2	140 000	Yemen LNG (TOTAL, Kogas, Yemen Gas Co., Hunt Oil Co., SK Corporation, Hyundai, GASSP1)	Yemen LNG	Kogas, GDF SUEZ, TOTAL Gas & Power Ltd	October 2009 & April 2010
PACIFIC BASIN									
Australia	Withnell Bay	4	12.10	4	260 000	NWS LNG JV (Woodside, Shell, BHP, BP Australia, Chevron, Mitsubishi/Mitsui)	Woodside	Tokyo Elec, Chubu Elec, Kansai Elec, Chugoku Elec, Kyushu Elec, Tokyo Gas, Osaka Gas, Shizuoka Gas, Tohoku Elec, Nippon Gas, Kogas, Shell Hazira Gas, DPLNG)	1989
		1	4.30	1	65 000	Woodsie, Shell, BHP, BP, Chevron, Australia Japan LNG (16.67% each)	Woodside	Tokyo Elec, Chubu Elec, Kansai Elec, Chugoku Elec, Kyushu Elec, Tokyo Gas, Osaka Gas, Shizuoka Gas, Tohoku Elec, Nippon Gas, Kogas, Shell Hazira Gas, DPLNG)	2008
	Darwin	1	3.40	1	188 000	Darwin LNG (ConocoPhillips, ENI, Santos, Inpex, TEPCo, Tokyo Gas)	ConocoPhillips	Tokyo Electric, Tokyo Gas	2006

► Liquefaction plants (cont'd)

Country	Site	Liquefaction		Storage		Owner	Operator	Buyer	Start-up date
		Number of trains	Nominal capacity 10 ⁶ t per year	Number of tanks	Total capacity m ³				
PACIFIC BASIN (CONT'D)									
Brunei	Lumut	5	7.20	3	195 000	Brunei LNG (Brunei Govt, Shell, Mitsubishi)	Brunei LNG Sdn Bhd	Tokyo Gas, Tokyo Electric, Osaka Gas, Kogas (1997)	1973
U.S.A.	Kenai	2	1.40	3	108 000	ConocoPhillips, Marathon	ConocoPhillips, Marathon	Tokyo Gas, Tokyo Electric	1969
Indonesia	Blang Lancang Arun	3	4.75	4	508 800	Pertamina	PT Arun NGL Co. (Pertamina, ExxonMobil, JILCO)	Tokyo Electric, Kogas (1986)	1978-1979
	Bontang - Badak	8	22.20						
	Bontang Badak A & B	2						Kansai Elec, Chubu Elec, Kyushu Elec, Osaka Gas, Toho Gas, Nippon Steel Co.	1977
	Bontang Badak C & D	2						Kansai Elec, Chubu Elec, Osaka Gas, Toho Gas	1983
	Badak E	1						C.P.C.	1990
	Badak F	1						Tokyo Gas, Osaka Gas, Toho Gas, Hiroshima Gas, Nippon Gas	1994
	Badak G	1						Kogas	1998
	Badak H	1						C.P.C.	1998
	Tangguh	2	7.60	2	340 000	Government of Indonesia	BP	Posco, K-Power, Sempra LNG, CNOOC Fujian LNG, Tohoku Elec	2009
Malaysia	Bintulu MLNG 1 (Satu)	3	8.10	6	445 000	Malaysia LNG Sdn Bhd (Petronas, Shell, Mitsubishi)	Malaysia LNG Sdn Bhd	Tokyo Gas, Tokyo Elec, Saibu Gas	1983
	Bintulu MLNG 2 (Dua)	3	7.80					Tokyo Gas, Osaka Gas, Kansai Elec, Toho Gas, Shizuoka Gas, Tohoku Elec, Gas Bureau (city of Sendai), Saibu Gas, Kogas, C.P.C.	1995
	Bintulu MLNG 3 (Tiga)	2	6.80					Tokyo Gas, Osaka Gas, Toho Gas, Tohoku Elec, Japex, Hiroshima Gas, Kogas, C.P.C.	2003
Peru	Peru LNG	1	4.45	2	260 000	Hunt Oil (50%), Marubeni (10%), Repsol YPF (20%), SK Corp (20%)	Hunt Oil	Repsol YPF	2010
Russia	Sakhalin 2	2	9.55	2	200 000	Sakhalin Energy Invest Co. (Gazprom, Shell, Mitsui, Mitsubishi)	Sakhalin Energy Invest Company	Gazprom Global LNG, Shell Eastern Trading, Kogas, Chubu Elec, Hiroshima Gas, Kyushu Elec, Osaka Gas, Saibu Gas, Toho Gas, Tohoku Elec, Tokyo Elec, Tokyo Gas	2009
	TOTAL	94	269.58	91	9 155 600				

Regasification terminals



Country	Site	Storage		Send out		Owner	Operator	T.P.A.	Source of import	Start-up date
		Number of tanks	Total capacity in cm (liq)	Number of vaporizers (*)	Nominal capacity in NG bcm/y					
France	Fos-sur-Mer	3	150 000	15	5.50	Elengy	Elengy	Yes	Algeria, Egypt	1972
	Montoir-de-Bretagne	3	360 000	11	10.00	Elengy	Elengy	Yes	Algeria, Egypt, Nigeria, Norway, Qatar, T&T, Yemen	1980
	Fos-Cavaou	3	330 000	4	8.25	Société du Terminal Méthanier de Fos-Cavaou	Elengy	Yes	Algeria, Egypt, Qatar	2009 (commercial operation from April 2010)
Spain	Barcelona	6	540 000	13	17.08	Enagas S.A.	Enagas S.A.	"	Algeria, Libya, Qatar, Nigeria, T&T, Egypt, Norway, Oman	1969
	Huelva	4	460 000	9	11.83	Enagas S.A.	Enagas S.A.	"	Algeria, Libya, Norway, Oman, Yemen, T&T, Nigeria, Qatar, Egypt	1988
	Cartagena	4	437 000	9	11.80	Enagas S.A.	Enagas S.A.	"	Algeria, Libya, Qatar, Oman, Nigeria, T&T, Egypt, Norway	1989
	Bilbao	2	300 000	4	7.00	Enagas, Repsol, Deutsche Bank, EVE	Bahia de Bizkaia Gas, SL (BBG)	"	Algeria, Egypt, Nigeria, Norway, T&T, Qatar, Oman	2003
	Mugardos	2	300 000	3	3.60	Gas Natural Fenosa, Endesa, Xunta Galicia, Sonatrach, Tojeiro Group, Galicia Government, Caixa Galicia, Pastor, Caixanova	Reganosa	Regulated T.P.A.	Algeria, Nigeria, T&T, Oman, Qatar	2007
	Sagunto	3	450 000	5	8.76	Gas Natural Fenosa, RREEF Alternative Investments, Endesa, Oman Oil Holding Spain	Saggas	Regulated T.P.A.	Algeria, Libya, Qatar, T&T, Nigeria, Oman, Egypt	2006
Italy	Panigaglia	2	100 000	4	3.32	GNL Italia S.p.A.***	GNL Italia S.p.A.***	Yes	Algeria, Qatar	1969
	Rovigo (Atlantic LNG)			5	8.00	Adriatic LNG	Adriatic LNG	Yes (20%)	Qatar	2009
Belgium	Zeebrugge	4	380 000	11	9.00	Fluxys LNG	Fluxys LNG	Yes	Qatar, Egypt, Norway, T&T, Nigeria	1987
Turkey	Marmara Ereglisi	3	255 000	7	6.20	Botas	Botas	No	Algeria, Nigeria	1994
	Aliaga/Izmir	2	280 000	5	6.00	Egegaz	Egegaz	No	Algeria	2006
Greece	Revithoussa	2	130 000	6	5.00	Depa S.A.	Depa S.A.	No	Algeria	2000
Portugal	Sines	2	240 000	5	5.20	Ren Atlantico	Ren Atlantico	Yes	Nigeria, T&T, Equatorial Guinea	2004

*Not including back-up capacity

**Floating Storage Regasification Unit - FSRU

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Regasification terminals (cont'd)

Country	Site	Storage		Send out		Owner	Operator	T.P.A.	Source of import	Start-up date
		Number of tanks	Total capacity in cm (liq)	Number of vaporizers (*)	Nominal capacity in NG bcm/y					
United-Kingdom	Isle of Grain	8	1 000 000	14	19.50	National Grid	Grain LNG	Yes (but no RTPA)	Algeria, Egypt, Qatar, T&T, Norway, Australia	2005
	Teesside	1	138 000		4.60	Excelerate Energy			T&T	2007
	Dragon	2	320 000	6	6.00	BG Group, Petronas, 4Gas	Dragon LNG	No	(Various)	2009
	South Hook	5	775 000	15	21.00	Qatar Petr. LNG Services (QP), Exxon Mobil, Qatargas Tml Co Ltd, ELF Petr. UK Ltd (TOTAL)	South Hook LNG Terminal Company Ltd	Yes	Qatar	2009
Canada	Canaport LNG	3	160 000	8	10.00	Rexpol Energy Canada Ltd (74.25%), Irving Canaport LP Co. Ltd (24.75%), Rexpol Canada Ltd (0.75%), Irving Canaport GP Co. (0.25%)	Rexpol Canada Ltd	Yes (but no RTPA)	T&T, Qatar	2009
U.S.A.	Everett	2	155 000	4	6.90	Distrigas of Mass Co.	GDF SUEZ LNG North America	Yes	T&T	1971
	Lake Charles	4	425 000	14	24.30	Trunkline LNG	Trunkline LNG	Yes	Nigeria, Egypt	1982, Infrastructure enhancement project completed March 2010
	Elba Island	5	535 000	11	16.30	Southern LNG	EI Paso	Yes	T&T, Egypt	1978, restarted 2001, expanded 2006, expanded 2010
	Cove Point	5	380 000	10	10.74	Dominion Cove Point LNG	Dominion Cove Point LNG	Shell, BP, Statoil, Peakers, 1/4 each	T&T, Egypt	1978, restarted 2003
	Cove Point Expansion	2	320 000	15	8.00	Dominion Cove Point LNG	Dominion Cove Point LNG	Statoil-Hydro	Norway	2008
	Gulf Gateway	1	150 000		4.60	Excelerate Energy			T&T	2005
	Northeast Gateway	1	150 000		4.60	Excelerate Energy			T&T	2008
	Sabine Pass	3	480 000	16	27.00	Cheniere Energy	Cheniere Energy	Total, Chevron, CMI	Qatar, Nigeria	2008
	Golden Pass	5	775 000		9.80	QP (70%) Exxon (17.6%), Conoco Philips (12.4%)	Golden Pass LNG		Qatar	2010
	Freeport LNG	2	330 694	7	18.00	Freeport LNG Development, L.P.	Freeport LNG Development, L.P.	Yes	T&T, Egypt, Nigeria, Peru	2008
Dominican Rep.	Cameron LNG	3	480 000	10	15.50	Sempra	Sempra	Yes	Qatar, T&T	2009
	Neptune LNG	2	290 000		3.90	GDF SUEZ NA	GDF SUEZ NA			2010
Puerto Rico	Punta Caucedo	1	160 000	2	2.32	AES Andres	AES Andres	No	T&T	2003
Mexico	Altamira	2	300 000	5	7.80	Terminal de LNG de Altamira (50% Shell, 25% Total, 25% Mitsui)	Terminal de LNG de Altamira	No	Nigeria, Egypt, Qatar, T&T	August 2006
	Energia Costa Azul	2	320 000	6	10.33	Energia Costa Azul (100% Sempra LNG)	Energia Costa Azul	Yes	Indonesia, Qatar, T&T	May 2008
Puerto Rico	Penuelas	1	160 000	2	3.75	EcoElectrica	EcoElectrica		T&T	2000
Argentina	Bahia Blanca			6	3.00	Repsol YPF	YPF		T&T, Egypt	June 2008
Brazil	Pecem**	1	129 000	2	2.50	Petrobras	Transpetro	No	T&T, Nigeria	2009
	Guanabara Bay**	1	138 000	2	5.00	Petrobras	Transpetro	No	T&T, Nigeria	2009
Chile	Quintero	3	344 000	3	3.65	GNL Quintero S.A.	GNL Quintero S.A.	No	T&T, Qatar, Equatorial Guinea	2009
	Mejillones (FSU)	1	154 500	3	2.00	GNLM	GNLM	Yes	Yemen, Egypt, T&T	April 2010 (phase I)
Dubai	Jebel Ali (FSRU)	1	125 850		3.00	Dubai Supply Authorities (DUSUP)	Dubai Supply Authorities (DUSUP)	No	Qatar	2010
Kuwait	Mina Al Ahmadi	1	150 000		7.07	KNPC	Excelerate Energy, KNPC		Australia, Malaysia, Russia	2009
China	Dapeng, Shenzhen	3	480 000	7	4.90	GDLNG	GDLNG	No	Australia, Qatar, Nigeria, Equatorial Guinea, Malaysia, Russia, Oman, Yemen, UAE, Indonesia	2006
	Fujian	2	320 000		3.70	Fujian LNG (CNOOC 60%, Fujian NV & Dev.Corp. 40%)	Fujian LNG	No	Egypt, Equatorial Guinea	2008
	Shanghai, Yangshan (Ximentang Isle)	3	495 000		4.10	Shanghai LNG (CNOOC 45%, Shenergy Group Ltd 55%)	Shanghai LNG	No	Malaysia	2009
	Shanghai, Mengtougou	3	120 000		0.20	Shanghai Gas Group	Shanghai Gas Group		Malaysia	2008

*Not including back-up capacity

**Floating Storage Regasification Unit - FSRU

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Country	Site	Storage		Send out		Owner	Operator	T.P.A.	Source of import	Start-up date
		Number of tanks	Total capacity in cm (liq)	Number of vaporizers (*)	Nominal capacity in NG bcm/y					
India	Dahej	4	592 000	19	12.50	Petronet LNG	Petronet LNG	Yes (on cargo by cargo basis)	Qatar, (Algeria), Egypt, (Australia), Oman, T&T, Nigeria,	2004, expansion in July 2009
	Hazira	2	320 000	5	3.40	Hazira LNG Private Ltd (74% Shell, 26% Total)	Hazira LNG Private Ltd	No	Nigeria, Egypt, Algeria, Oman, Qatar, Qatar/Belgium, Australia, T&T, Abu Dhabi, Norway, Equatorial Guinea	April 2005
Japan	Niigata	8	720 000	14	11.60	Nihonkai LNG	Nihonkai LNG	Yes	Indonesia, Malaysia, Qatar, Australia, Russia	1984
	Higashi-Oghishima	9	540 000	9	18.00	Tokyo Electric	Tokyo Electric	Yes	Indonesia, Malaysia, Qatar, Australia, Oman, Abu Dhabi, Brunei, Russia	1984
	Futtsu	10	1 110 000	13	26.00	Tokyo Electric	Tokyo Electric	Yes	Indonesia, Malaysia, Qatar, Australia, Oman, Abu Dhabi, Brunei, Russia	1985
	Chita Kyodo	4	300 000	14	9.89	Toho Gas / Chubu Elec	Toho Gas	Yes	Indonesia, Malaysia, Australia, Qatar, Russia	1978
	Chita-Midorihama Works	2	400 000	7	9.20	Toho Gas	Toho Gas	Yes	Indonesia, Malaysia, Australia, Qatar, Russia	2001
	Chita	7	640 000	11	15.70	Chita LNG	Chita LNG	Yes	Indonesia, Malaysia, Australia, Qatar, Algeria	1983
	Himeji	8	740 000	6	6.40	Osaka Gas	Osaka Gas	Yes	Indonesia, Malaysia, Australia, Qatar, Oman, Brunei	1984
	Himeji LNG	7	520 000	8	11.00	Kansai Electric	Kansai Electric	Yes	Indonesia, Malaysia, Qatar, Australia	1979
	Yanai	6	480 000	5	3.10	Chugoku Elec	Chugoku Elec	Yes	Australia, Qatar, Oman	1990
	Mizushima	1	160 000	3	1.30	Mizushima LNG	Mizushima LNG	Yes	Australia, Qatar, Oman	2006
	Oita	5	460 000	6	6.27	Oita LNG	Oita LNG	Yes	Indonesia, Australia, Russia, Algeria	1990
	Sakai	3	420 000	6	8.70	Kansai Electric	Kansai Electric	Yes	Indonesia, Malaysia, Australia, Qatar	2006
	Senboku I	4	180 000	5	2.94	Osaka Gas	Osaka Gas	Yes	Brunei	1972
	Senboku II	18	1 585 000	15	15.70	Osaka Gas	Osaka Gas	Yes	Indonesia, Malaysia, Australia, Qatar, Oman, Brunei, Russia	1977
	Tobata	8	480 000	9	10.28	Kita Kyushu	Kita Kyushu LNG	No	Indonesia, Australia, Russia (Sakhalin), Equat. Guinea, Qatar	1977
	Yokkaichi LNG Centre	4	320 000	8	9.20	Chubu Electric	Chubu Electric	Yes	Indonesia, Qatar, Australia	1988
	Yokkaichi Works	2	160 000	4	2.00	Toho Gas	Toho Gas	Yes	Indonesia	1991
	Negishi	14	1 180 000	14	15.00	Tokyo Gas / Tokyo Electric	Tokyo Gas / Tokyo Electric	Negotiated TPA	Indonesia, Malaysia, Australia, Qatar, Brunei, Russia	1969
	Sodegaura	35	2 660 000	36	41.60	Tokyo Gas / Tokyo Electric	Tokyo Gas / Tokyo Electric	Negotiated TPA	Indonesia, Malaysia, Australia, Qatar, Brunei, Russia	1973
	Ohgishima	3	600 000	10	12.40	Tokyo Gas	Tokyo Gas	Negotiated TPA	Indonesia, Malaysia, Australia, Qatar, Russia	1998
	Fukuoka	2	70 000	7	1.10	Saibu Gas	Saibu Gas	"	Malaysia	1993
	Sodeshi	3	337 200	8	3.90	Shimizu LNG	Shimizu LNG	No	Malaysia, Australia, Qatar, Nigeria, Indonesia, Russia	1996
	Hatsukaichi	2	170 000	4	1.15	Hiroshima Gas	Hiroshima Gas	No	Indonesia, Malaysia, Russia	1996
	Kagoshima	2	86 000	3	0.30	Nippon Gas	Nippon Gas	No	Indonesia, Australia	1996
	Kawagoe	4	480 000	4	7.10	Chubu Electric	Chubu Electric	Yes	Indonesia, Australia, Qatar	1997
	Shin-Minato	1	80 000	3	0.38	Gas Bureau	Gas Bureau, City of Sendai	No	Malaysia	1997
	Nagasaki	1	35 000	3	0.20	Saibu Gas	Saibu Gas	Yes	Malaysia, Russia	2003
	Sakaide	1	180 000	3	1.64	Sakaide LNG	Sakaide LNG		Malaysia	2010
Korea	Pyeong-Taek	14	1 560 000	31	40.28	Kogas	Kogas	No	Indonesia, Malaysia, T&T, Brunei, Qatar, Oman, Egypt, Australia, Algeria, Nigeria, Equatorial Guinea	1986
	Incheon	20	2 680 000	33	40.99	Kogas	Kogas	No	"	1996
	Tong-Yeong	12	1 680 000	12	20.72	Kogas	Kogas	No	"	2002
	Gwangyang	3	365 000	2	2.30	Posco	Posco	No	Nigeria, Oman, Malaysia, Australia, Indonesia	2005
Taiwan	Yung-An	6	690 000	16	23.00	C.P.C.	C.P.C.	No	Indonesia, Malaysia	1990
	Taichung	3	480 000	6	9.00	C.P.C.	C.P.C.	No	Qatar	2009
	TOTAL	364	38 632 244	646	798.5					

*Not including back-up capacity

**Floating Storage Regasification Unit - FSRU

***GNL Italia is a wholly-owned subsidiary of Snam Rete Gas

Delivery date of the LNG tankers

1969	1978	1989	1997	Gallina
• LNG Palmaria	• Galeomma (ex Arzew)	• Ekaputra	• Al Hamra	• Hispania Spirit
• SCF Arctic (ex Methane Arctic)	• LNG Capricorn	• NW Sanderling	• Al Khor	(ex Fernando Tapias)
• SCF Polar (ex Methane Polar)	• LNG Delta (ex Southern)	• NW Swallow	• Al Rayyan	• LNG Rivers
	• LNG Gemini	• NW Swift	• Al Wajbah	• LNG Sokoto
	• LNG Leo		• Aman Sendai	• Puteri Delima Satu
	• Methania	1990	• LNG Portovenere	• Puteri Intan Satu
1970		• NW Snipe	• Puteri Firus	
• LNG Elba			• Umm Al Ashtan	
1972	1979	1991	1998	2003
• Bebatik	• Bachir Chihani	• NW Shearwater	• Al Wakrah	• British Innovator
	• LNG Libra		• Aman Hakata	• British Merchant
	• LNG Taurus	1992	• Broog	• BW Suez Boston (ex Berge Boston)
	• LNG Virgo	• NW Seaeagle	• LNG Lerici	• BW Suez Everett (ex Berge Everett)
	• Matthew (ex Gamma)		• Zekreet	• Castillo de Villalba
1973	1980	1993	1999	• Catalunya Spirit (ex Inigo Tapias)
• Bekalang	• LNG Abuja (ex Louisiana)	• Aman Bintulu	• Al Bidda	• Energy Frontier
• Bekulan	• LNG Edo (ex Lake Charles)	• Arctic Spirit (ex Arctic Sun)	• Doha	• Excel
• Norman Lady	• Mourad Didouche	• LNG Flora	• Hanjin Muscat	• Golar Arctic (ex Granatina)
1974		• NW Sandpiper	• Hyundai Technopia	• LNG Bayelsa
• Belais		• Polar Spirit (ex Polar Eagle)	• SK Summit	• Methane Princess
• Tellier			2000	• Pacific Notus
1975	1981	1994	• Al Jasra	• Puteri Nilam Satu
• Annabella	• Golar Spirit	• Al Khaznah	• Golar Mazo	• SK Sunrise
• Belanak	• LNG Bonny	• Dwiputra	• Hanjin Ras Laffan	
• Bilis	• Ramdane Abane	• Hyundai Utopia	• Hanjin Sur	
• Bubuk	• Tenaga Dua	• LNG Vesta	• Hyundai Aquapia	
• Hilli	• Tenaga Empat	• NW Stormpetrel	• Hyundai Cosmopia	
• Isabella	• Tenaga Lima	• Puteri Intan	• K Acacia	
1976	1982	• Shahamah	• K Freesia	
• Gimi	• Tenaga Satu	• YK Sovereign	• LNG Jamal	
• Mostefa Ben Boulaïd	• Tenaga Tiga		• SK Splendor	
1977	1983	1995	• SK Stellar	
• Gandria (ex Hoegh Gandria)	• Banshu Maru	• Ghasha	• SK Supreme	
• Golar Freeze	• Bishu Maru	• Hanjin Pyeong-Taek	• Surya Satsuma	
• Larbi Ben M'Hidi	• Echigo Maru	• Ish		
• LNG Aquarius		• Puteri Delima		
• LNG Aries		• Puteri Nilam		
• LNG Lagos (ex Gastor)	1984		2001	
• LNG Port Harcourt	• Dowa Maru	1996	• Sohar LNG (ex Lakshimi)	
• Transgas (ex Edouard L.D.)	• Kotowaka Maru	• Al Zubarah		
	• LNG Finima	• Hyundai Greenpia		
	• Senshu Maru	• Mraweh		
1985		• Mubaraz		
	• Wakaba Maru	• Puteri Zamrud		
		• Surya Aki		
			2002	
			• Abadi	
			• British Trader	
			• Excalibur	
			• Galea	

2005

- Al Deebel
- Al Thakhira
- Energy Advance
- Excellence
- Excelsior
- Gracilis
(ex Golar Viking)
- Grandis (ex Golar Mist)
- LNG Adamawa
- LNG Cross River
- LNG Enugu
- LNG Pioneer
- Lusail
- Maran Gas Asclepius
- Nizwa LNG
- Puteri Mutiara Satu
- Salalah LNG
- Seri Alam
- Umm Bab

2006

- Al Marrouna
- Arctic Discoverer
- Arctic Lady
- Arctic Princess
- Arctic Voyager
- Bluesky
- Energy Progress
- Excelerate
- GDF SUEZ
- Global Energy
(ex Gaz de France
Energy)
- Golar Maria
(ex Granosa)
- Iberica Knutsen
- Ibra LNG
- Iibri LNG
- LNG Benue
- LNG Berge Oyo
- LNG Dream
- LNG Lokoja
- LNG River Niger
- Maersk Qatar
- Methane Jane
Elizabeth
- Methane Lydon Volney
- Methane Rita Andrea

- Pacific Eurus
- Provalys
- Seri Amanah
- Seri Anggun
- Seri Angkasa
- Simaisma

2007

- Al Areesh
- Al Daayen
- Al Gattara
- Al Gharrafa
- Al Ghariya
- Al Jassasiya
- Al Ruwais
- Al Safliya
- British Emerald
- Cheikh El Mokrani
- Clean Energy
- Clean Power
- Duhail
- Ejnan
- Gaselys
- Grace Acacia
- Grace Barleria
- Grand Elena
- LNG Borno
- LNG Kano
- LNG Ogun
- LNG Ondo
- Maran Gas Coronis
- Methane Alison
Victoria
- Methane Heather Sally
- Methane Nile Eagle
- Methane Shirley
Elisabeth
- Neo Energy
- Neva River
(ex. Celestine River)
- Seri Ayu
- Seri Bakti
- Seri Begawan
- Sestao Knutsen
- Sun Arrows
- Tembek

2008

- Al Aamniya
- Al Ghuwairiya
- Al Hamla
- Al Huwaila
- Al Kharsaah
- Al Khuwair
- Al Oraiq
- Al Sahla
- Al Shamal
- Al Thumama
- Al Utouriya
- Alto Acrux
- British Diamond
- British Ruby
- British Sapphire
- Bu Samra
- Cheikh Bouamara
- Clean Force
- Dapeng Moon
- Dapeng Sun
- Ebisu
- Energy Navigator
- Explorer
- Fraiha
- Grace Cosmos
- Grand Aniva
- Grand Mereya
- Hyundai Ecopia
- K Jasmine
- K Mugungwha
- LNG Barka
- LNG Imo
- Maersk Arwa
- Maersk Marib
- Maersk Methane
- Mozah
- Murwab
- Seri Balhaf
- Seri Bijaksana
- STX Colt
- Tangguh Batur
- Tangguh Foja
- Tangguh Hiri
- Tangguh Jaya
- Tangguh Towuti
- Trinity Arrow
- Umm Al Amad
- Umm Slal

2009

- Abdel Kader
- Al Dafna
- Al Ghashamiya
- Al Kharaana
- Al Kharaitiyat
- Al Khattiya
- Al Mafyar
- Al Mayeda
- Al Nuaman
- Al Rekayyat
- Al Sadd
- Al Samriya
- Al Sheehaniya
- Aseem
- Ben Badis
- BW GDF SUEZ Brussels
- BW GDF SUEZ Paris
- Cygnus Passage
- Dapeng Star
- Energy Confidence
- Express
- Exquisite
- GDF SUEZ Neptune
- Lijmiliya
- LNG Jupiter
- Maersk Magellan
- Mekaines
- Mesaimeer
- Min Lu
- Min Rong
- Onaiza
- Pacific Enlighten
- Seri Balqis
- Shagra
- Taitar n° 1
- Taitar n°2
- Tangguh Palung
- Tangguh Sago
- Trinity Glory
- Woodside Donaldson

2010

- Aamira
- Al Bahiya
- Barcelona Knutsen
- Castillo
de Santisteban
- Exemplar
- Expedient
- GasLog Savannah
- GasLog Singapore
- GDF SUEZ Cape Ann
- GDF SUEZ Point Fortin
- Maersk Meridian
- Methane Becki Anne
- Methane Julia Louise
- Methane Patricia
Camila
- Methane Mickie Harper
- Norgas Creation
- Norgas Innovation
- Rasheeda
- Ribera del Duero
Knutsen
- Sevilla Knutsen
- STX Frontier
- Taitar N°3
- Taitar N°4
- Valencia Knutsen
- Zarga



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