

2011



The LNG Industry



The LNG Industry in 2011

Edito



The most significant event to mark the LNG trade in 2011 has been the catastrophe that hit Japan in March, in view of both its short-term effect on shifting flows and its long-term demand prospects of LNG as a source for gas-fired power generation.

The role of LNG as a flexible and secure energy source as well as the prompt response to provide back-up through additional supplies and cargo diversions to compensate for the sudden loss of nuclear capacity in Japan – with sellers exercising due price restraint in view of the human tragedy – has been a credit to the industry. The increase in production capacity in 2009 and 2010, in particular from Qatar, had permitted the necessary buffer to cope much better with the demand surge than during past disruptions (such as the aftermath of the Chuetsu earthquake in late 2007). Undoubtedly, the marked shift over the last decade in the industry's prevailing business model towards global trade, destination flexibility and portfolio play has also facilitated the rapid response.

As the total volume of LNG trade is very much determined by the availability of supply, 2011 has seen a growth of 9.4% over 2010, mainly as a result of the full availability of the six Qatar mega-trains over the past year.

On the demand side the two traditional basins have shown very contrasting trends: 15% higher LNG off-take in Asia (the five major markets all increasing between 37.4% and 8.9%), versus a 1.7% decrease in the Atlantic Basin.

Cargo diversions and an increasing number of reloads have boosted the exports from the Atlantic Basin to Asia in 2011 to more than 14 million tons (equivalent to more than 200 large size cargoes).

Remarkable is also the fast growth in new markets in Latin America and in the Middle East - albeit from a small base - with counter-seasonal but varying demand, offering attractive arbitrage opportunities to portfolio play.

Not surprising then that 2011 has seen another hike in spot and short-term trade, not just in absolute terms but also as a percentage of total trade (50% over 2010, 25.4% of total trade).

The outlook for LNG is strong and its global demand prospects further enhanced in the wake of the nuclear issues, the emergence of new buyers and the decline of indigenous reserves of gas exporters. This has underpinned a growing investment confidence which in turn resulted in 5 FIDs (Final Investment Decisions) in 2011 for a total liquefaction capacity of 27 million tons p.a. An event of great commercial significance in this regard would undoubtedly be one, or more FID's in North America in the near future.

GIIGNL has completed in 2011 its 40th full year of activity after its foundation in December 1971 in Paris. Its membership has grown to 68 companies worldwide, comprising nearly all companies active in the import of LNG or the operation/ownership of LNG import terminals. In 2011 the commercial and technical study groups have continued their study programme on some 15 topics in total, including:

- > Development of Master Sales and Purchase Agreements and Master Voyage Charter Party (posted on the website)
- > Market assessment of small-scale LNG
- > Third update of the Custody Transfer Handbook (available from the website)
- > Emissions from import terminals
- > Third update of the incident study

The last topic is part of the specific focus within the Group on safety, as the adherence to the highest standards and adequate information exchange in this domain is paramount to maintaining the excellent safety record within the industry, itself an absolute condition for its continued success.

Jean Vermeire
President

68 Member Companies in 21

GIIGNL (International Group of Liquefied Natural Gas Importers) is a non-profit organisation whose objective is to promote the development of activities related to LNG: purchasing, importing, processing, transportation, handling, re-gasification and its various uses.

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

Beginning with 19 member companies in 1971, GIIGNL has grown to 55 Full and 13 Associate members from 21 different countries around the world, grouped in three regions: Asia, Europe and the Americas.



AMERICAS - 11 members

BG Group Plc.
Cheniere Energy, Inc.
Chevron Global Gas
El Paso Corporation
Freeport LNG Development, L.P.
GDF SUEZ GAS NA
GNL Quintero S.A.
Marathon Oil
Repsol Energy Canada
Semptra LNG
YPF S.A.

countries

ASIA - 29 members

Chubu Electric Power Company, Inc.
CNOOC Gas & Power Group
CPC Corporation, Taiwan
Gail India Limited
Guangdong Dapeng LNG Company, Ltd.
Gujarat State Petroleum Corp. Lt. (GSPC)
Hiroshima Gas Company, Ltd.
Itochu Corporation
Korea Gas Corporation
Kyushu Electric Power Company, Inc.
LNG Japan Corporation
Marubeni Corporation
Mitsubishi Corporation
Mitsui & Company, Ltd.
Nippon Gas Company, Ltd.
Osaka Gas Company, Ltd.
Petronet LNG Limited
Posco
Saibu Gas Company, Ltd.
Shikoku Electric Power Company
Shizuoka Gas Company, Ltd.
SK E&S Company, Ltd.
Sumitomo Corporation
The Chugoku Electric Power Company, Inc.
The Kansai Electric Power Company, Inc.
The Tokyo Electric Power Company, Inc.
Toho Gas Company, Ltd.
Tohoku Electric Power Company, Inc.
Tokyo Gas Company, Ltd.

EUROPE - 28 members

BOTAS
BP Global LNG
Centrica LNG Company
DEPA
Distrigas S.A.
Dragon LNG Limited
E.ON Ruhrgas A.G.
EDF Trading Limited
Edison S.p.A.
EDP Gas SGPS, S.A.
Elengy S.A.
Enagas
Enel Trade
Eni S.p.A.
Fluxys LNG S.A.
Gas Natural Fenosa
Gate Terminal B.V.
GDF SUEZ
Iberdrola Generacion S.A.U.
N.V. Nederlandse Gasunie
National Grid Grain LNG, Ltd.
O.M.V. Gas and Power GmbH
Ren Atlântico, S.A.
Shell Gas & Power International BV
Sonatrach Gas Marketing UK Limited
South Hook LNG Terminal Company, Ltd.
Statoil ASA
Total S.A.

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Key figures 2011

240.8 million tons
imported or an increase
of **+9.4%** vs.2010

61.2 million tons
imported under spot or short-
term contracts or an increase
of **+50%** vs.2010

31%
of global LNG imports supplied
from Qatar

63%
of global LNG demand in Asia

14.7 million tons
exported from the Atlantic
to the Pacific Basin

At year-end:

89 LNG regasification
terminals

25 countries

640 million tons p.a.
total capacity

At year-end:

24 liquefaction facilities

18 countries

278 million tons p.a.
total capacity

LNG Contracts and Trade

In 2011, LNG trade grew by $49.4 \cdot 10^6 \text{ m}^3$ (20.7 Mt), a growth of 9.4% compared with 2010. As during the previous year, the main contribution to the increase of LNG flows came from Qatar, as the country was responsible for 67% of additional LNG produced in 2011. For the largest part, the remaining additional volumes produced in 2011 resulted from the build-up of the newly commissioned liquefaction facilities in Peru and in Yemen.

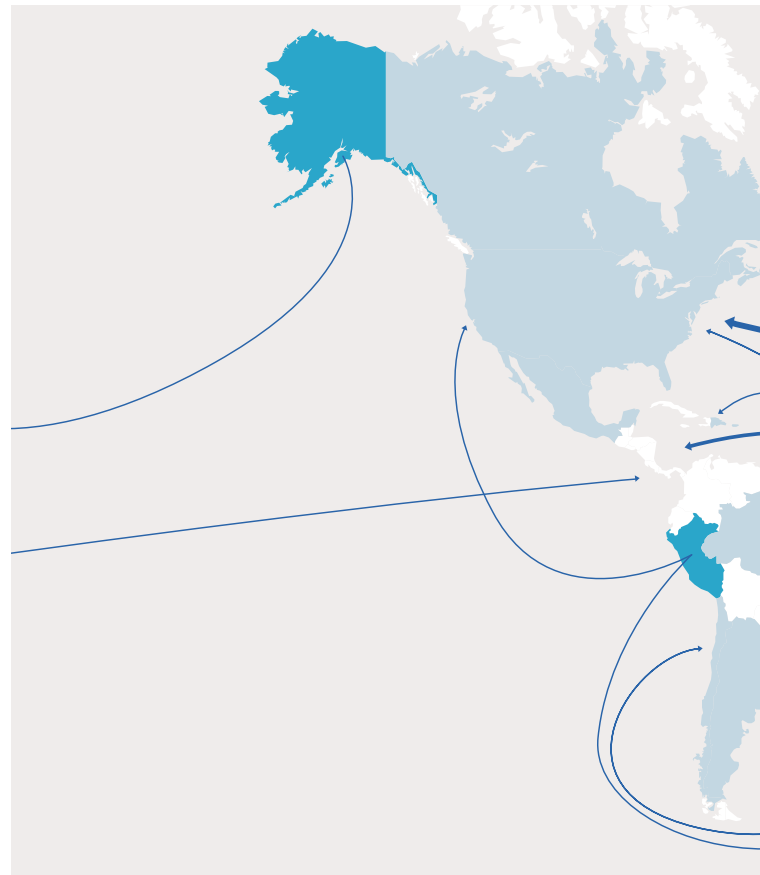
On the import side, LNG consumption in Asia continued to grow strongly (+14.8%), reaching a total of 153.0 Mt in 2011, i.e. 63.6% of the world's LNG trade. However, the Asian growth rate was reached in specific circumstances, considering the sharp increase in Japanese LNG demand which resulted from the loss of nuclear power generation capacity. Not surprisingly, at the end of 2011, Japan stands out as the world's n°1 LNG importer with 79.1 Mt, compared to 70.9 in 2010 (+11.6%). Japan accounted for 41.6% of Asia's additional LNG's imports in 2011 and the country's share of global LNG imports increased from 31.6% in 2010 to 32.8%. With LNG imports growing by 8.9% and total imports representing 35.6 Mt, Korea ranked second. Its share of the global LNG market remained nevertheless unchanged at 14.8%. Due among other factors to the lower than expected domestic production, India experienced Asia's fastest growth rate in LNG demand (+37.4% over 2010), closely followed by China (+36.1%). As a result of economic recovery, Taiwan also recorded a strong increase in LNG imports (+9.1%). In Asia, Thailand became an LNG importer during the year, with 0.8 Mt imported through the newly commissioned Map-Ta-Phut terminal during the year.

After a sharp rebound in 2010 (+24.8%), European imports barely increased by a mere 0.4%, with Qatari LNG volumes into the UK representing the greatest part of additional LNG imported into Europe. Spanish LNG imports experienced the most remarkable decline (-16.3%), followed by Turkey (-14.6%). The Netherlands joined the ranks of LNG importing countries with 0.6 Mt (8 cargoes) delivered at Gate Terminal during the year. For the first time, the UK overtook Spain as the world's third largest LNG importer, with 18.4 Mt imported during the year, 87.5% of the volumes coming from Qatar.

In North America, LNG imports into the U.S.A (net of re-exports) continued to decline (-25.1%), mainly due to the sustained high level of non-conventional domestic gas production. As a result of the low price environment in North America, LNG imports into Mexico also dropped, by 33.7%. Re-exports of cargoes from the U.S.A jumped by 75.2%, reaching a total of 1.0 Mt (19 cargoes).

In the short-term markets of South America, LNG demand continued to grow on average (+13.8%). With strong annual GDP growth rates, Argentina and Chile confirmed their current strong thirst for LNG, importing a combined 5.7 Mt during the year, i.e. a 66% increase over 2010. However, due to a larger output from hydroelectric facilities in 2011, Brazilian LNG consumption dropped by 70.9%, contributing to maintain the global LNG market share of South America around a stagnant 2.6%.

In newcomers Kuwait and Dubai, LNG deliveries almost doubled in 2011, reaching a combined 3.7 Mt.

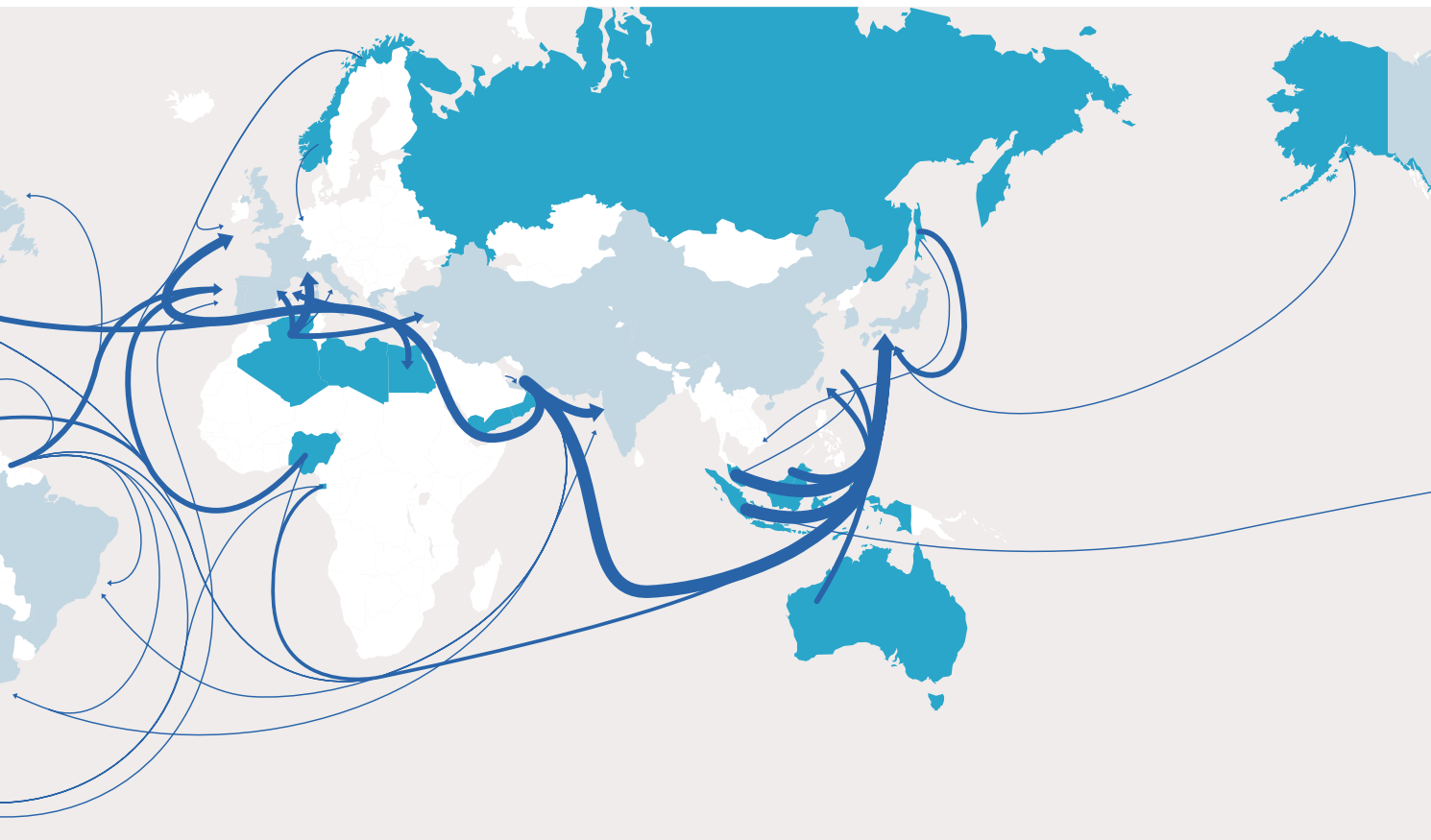


Overall, the total market share of Asian LNG buyers grew to 63.6%, while Europe and the Americas respectively recorded a 2.6% and 1.6% loss in market share to respectively 27% and 7.9%.

On the export side, Qatar reinforced its leading position, supplying 31.3% of global LNG (75.4 Mt). With 10.3% of global LNG supplies, Malaysia re-gained its second rank over Indonesia (9.1%) following the reduced output from Arun and the ramp-up of production from MLNG Dua. With 18.7 Mt of additional LNG sold throughout the world, Qatar accounted for 67% of the global trade growth during the year, followed by Peru (9%) and Yemen (9%). To a lesser extent, Malaysia, Nigeria and Russia also contributed to the growth by increasing their production rates.

For the first time and before the start-up of new Australian liquefaction projects, the Middle East (39.7% of global exports) overtook the Pacific Basin (36.5%) as the largest source for LNG. On the contrary and for the second year in a row, the Atlantic Basin recorded a decline in exported volumes (-4.8%), with negative production growth rates in all countries except Nigeria and Equatorial Guinea. The decrease was particularly strong in Algeria (-1.7 Mt) due to transmission issues and to the decommissioning of GL4Z.

After a 40% increase in 2010, **spot and short-term LNG trade** (defined as LNG traded under contracts with a duration of 4 years or less) recorded again a jump in 2011, this time by 50%, reaching 61.2 Mt (994 cargoes), i.e. more than a quarter of the total LNG trade (25.4%).



As to the sourcing, one third of LNG volumes traded on a spot or short-term basis came from Qatar, followed by Nigeria (12%) and Trinidad and Tobago (11%). In 2011, Qatar exported 26.7% of its total production on a spot or short-term basis. In terms of inter-regional flows, it must be highlighted that spot and short-term volumes exported from the Atlantic Basin to Asia recorded a twofold increase in 2011, reaching 12.7 million tons.

Asia attracted 60.9% of global spot and short-term volumes (37.3 Mt), compared with 43.6% (17.8 Mt) in 2010. This can primarily be explained by the increased LNG needs following the March 2011 events in Japan, where spot and short-term imports skyrocketed to 16.0 Mt (+123.5%) during the year, vs 7.2 Mt in 2010. In Korea, the annual volume of spot and short term LNG imports almost doubled, reaching 10.7 Mt (+96%). Spot and short-term imports more than doubled in China and almost tripled in India, with both countries importing a combined 6.5 Mt of LNG under this type of contracts.

On the contrary, Europe's spot and short-term LNG imports decreased by 7.8% (12.3 Mt). In the Americas, spot and short-term LNG trade recorded very strong growth rates in all countries except in the US and in Brazil, where it decreased by 32% and 71% respectively.

A total of 44 cargoes were re-loaded during the year, compared with 19 cargoes in 2010. Re-exported volumes were delivered to 13 countries, 14 cargoes being re-exported from the Atlantic Basin to Asia and 11 cargoes to South America (Argentina, Brazil, Chile).

At the end of the year, at least two cargoes re-exported from the U.S.A and one cargo re-exported from Spain were still out at sea. They were delivered in January 2012 respectively in Brazil, in South Korea and in Italy. One cargo delivered in Kuwait was a re-export from Brazil and was counted as LNG from Qatar in the present study. One cargo of Indonesian LNG delivered in Mexico (Costa Azul) was re-exported to Chile (Quintero) under a swap agreement.

The world trade involved 164 "flows" (i.e. country-to-country trades, excluding flows of re-exports) over 403 sea transportation routes (port-to-port routes). 117 routes were new and 100 ceased in 2011. In 2011, there were 37 new country-to-country flows: ABU-DHABI/India - ALGERIA/Netherlands and Portugal - AUSTRALIA/India, Kuwait and Taiwan - EGYPT/Argentina, China, Netherlands and Portugal - INDONESIA/Chile and Thailand - NIGERIA/Argentina, USA, Thailand and Netherlands - MALAYSIA/India and Dubai - NORWAY/India, Japan, Korea, Dominican Republic, Netherlands and Portugal - USA/China - OMAN/India - PERU/China, Japan, Thailand and Taiwan - QATAR/Greece, Netherlands and Thailand - RUSSIA/Thailand - TRINIDAD & TOBAGO/China and Netherlands - YEMEN/Japan.

16 flows disappeared: ABU-DHABI/Brazil, China - ALGERIA/Chile - EGYPT/Mexico, Belgium - NORWAY/Belgium and Turkey - OMAN/Kuwait - PERU/Brazil, Canada and Belgium - RUSSIA/Kuwait - TRINIDAD & TOBAGO/Portugal and YEMEN/Chile, Kuwait and Spain.

Contracts concluded in 2011

Origin	Export country/exporter	Purchaser	Import country	Amount (mmtpa)	Duration (yrs)	Extra years	Start	Delivery format
Long & medium term Sales	Australia & BG Portfolio	CHUBU ELECTRIC	Japan	0.41 ^(*)	21		2014	D.E.S
	Australia (QCLNG/BG)	TOKYO GAS	Japan	1.2	20		2015	D.E.S
	Australia (Gorgon)	KYUSHU ELECTRIC	Japan	0.3	15		2015	D.E.S
	Australia (APLNG)	KANSAI ELECTRIC	Japan	1	20		2016	D.E.S
	Australia (Wheatstone)	The Tokyo Electric Power Co.	Japan	3.1	20		2017	
	Australia (Wheatstone)	KYUSHU ELECTRIC	Japan	0.7	20		2017	F.O.B
	Australia (IchtyS)	The Tokyo Electric Power Co.	Japan	1.05	15		2017	F.O.B
	Australia (IchtyS)	TOKYO GAS	Japan	1.05	15		2017	F.O.B
	Australia (IchtyS)	KANSAI ELECTRIC	Japan	0.8	15		2017	F.O.B
	Australia (IchtyS)	KYUSHU ELECTRIC	Japan	0.3	15		2017	F.O.B
	Australia (IchtyS)	OSAKA GAS	Japan	0.8	15		2017	F.O.B
	Australia (IchtyS)	TOTAL		0.9	15		2017	F.O.B
	Qatar (QATARGAS)	CHUBU ELECTRIC/SHIZUOKA	Japan	0.2	6		2014	D.E.S
	Indonesia	KOGAS	South Korea	0.7	13		2015	F.O.B
	TOTAL Portfolio	KOGAS	South Korea	2	18		2014	D.E.S
	IBERDROLA Portfolio	BP	Spain	0.38	10		January 2012	D.E.S
	USA (CHENIERE)	BG Group		3.5	20		2015	F.O.B
	USA (CHENIERE)	GASNATURAL FENOSA		3.5	20	12	2015	F.O.B
	USA (CHENIERE)	GAIL		3.5	20		2017	F.O.B
	USA (CHENIERE)	KOGAS (signed in Jan. 2012)		3.5	20	up to 10	2017	F.O.B
Short term contracts (< 4 yrs)	Indonesia	KOGAS	South Korea	0.96	1,5		Q3 2011	D.E.S
	Peru	PTT	Thailand	0.3	1		July 2011	D.E.S
	Peru	MITSUBISHI	Japan	0.3	0,5		December 2011	D.E.S
	Qatar	Centrica	UK	2.4	3		June 2011	D.E.S
	GDF SUEZ Portfolio	PETRONAS	Malaysia	2.5	3,5		2012	D.E.S
	GDF SUEZ Portfolio	PETRONET	India	0.6	1		2012	D.E.S
Heads of Agreement (H.O.A)	BG portfolio	GSPC	India	2.5	20		2014	D.E.S
	Tokyo Gas	Saibu Gas	Japan	0.3	16		2014	D.E.S
	SHELL Portfolio	KOGAS	South Korea	3.6	23		2013	D.E.S
	SHELL Portfolio	CPC	Taiwan	2	20		2016	D.E.S
Memorandum of understanding (M.O.U.)	QATAR/QATARGAS	ENARSA	Argentina	5.0	20		2014	
	RUSSIA/GAZPROM	PETRONET	India	2.5	25		2016	
	RUSSIA/GAZPROM	GSPC	India	2.5	25		2016	
Agreements on re-gasification rights		ENARSA	Argentina	1.8	0,4		November 2011	
		GN Europe	France	0.7	10		2011	

(*) Up to 122 cargoes over 21 years (i.e up to 8.4 million tonnes if a 70,000 tons capacity vessel is used).

Origin	Export country/exporter	Purchaser	Import country	Number of cargoes	Duration (yrs)	Extra years	Start	Delivery format
Re-export of cargoes	Belgium/Zeebrugge		Japan	3	spot		2011	
	Belgium/Zeebrugge		Netherlands	1	spot		2011	
	Belgium/Zeebrugge		South Korea	1	spot		2011	
	Belgium/Zeebrugge		Spain	4	spot		2011	
	Spain/Cartagena		Argentina	1	spot		2011	
	Spain/Cartagena		Italy	5	spot		2011	
	Spain/Huelva		Argentina	1	spot		2011	
	Spain/Huelva		Italy	3	spot		2011	
	Spain/Mugardos		Argentina	3	spot		2011	
	Spain/Mugardos		Italy	1	spot		2011	
	Spain/Mugardos		Kuwait	1	spot		2011	
	Spain/Mugardos		Taiwan	1	spot		2011	
	Mexico/ECA		Chile	1	spot		2011	
	USA/Sabine Pass		Brasil	3	spot		2011	
	USA/Freeport		Brasil	1	spot		2011	
	USA/Sabine Pass		Chile	1	spot		2011	
	USA/Sabine Pass		China	2	spot		2011	
	USA/Freeport		India	2	spot		2011	
	USA/Sabine Pass		India	2	spot		2011	
	USA/Cameron		Japan	1	spot		2011	
	USA/Freeport		South Korea	1	spot		2011	
	USA/Sabine Pass		South Korea	1	spot		2011	
	USA/Cameron		Spain	1	spot		2011	
	USA/Sabine Pass		Spain	1	spot		2011	
	USA/Sabine Pass		United Kingdom	1	spot		2011	



LNG Trade

In 2011, the world LNG trade accounted for 532.35 10⁶ m³ in liquid form ⁽¹⁾ or 240.8 10⁶ 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. 2010 / 2011 (%)
Belgium	9.03	4.08	5.16	1.7	-7.2
France	23.37	10.53	13.39	4.4	1.2
Greece	2.03	0.91	1.16	0.4	25.8
Italy	13.89	6.27	7.95	2.6	-5.8
Netherlands	1.29	0.58	0.74	0.2	N/A
Portugal	4.74	2.14	2.71	0.9	-0.7
Spain	38.51	17.25	22.11	7.2	-16.3
Turkey	10.63	4.80	6.09	2.0	-14.6
U.K.	40.77	18.42	23.30	7.7	29.8
Europe	144.26	64.99	82.62	27.0	0.4
Argentina	6.71	2.93	3.89	1.2	130.0
Brazil	1.38	0.61	0.80	0.3	-71.2
Chile	6.32	2.78	3.66	1.2	27.9
Dominican Rep	1.60	0.69	0.93	0.3	11.1
Mexico	6.29	2.84	3.60	1.2	-33.7
Puerto Rico	1.52	0.65	0.88	0.3	21.4
Canada	5.50	2.45	3.16	1.0	166.4
USA	13.82	6.14	7.96	2.5	-25.1
Americas	43.14	19.08	24.87	7.9	-5.0
China	28.77	13.06	16.41	5.4	36.1
India	27.34	12.33	15.64	5.1	37.4
Japan	173.16	79.09	98.48	32.8	11.6
Korea	78.82	35.55	45.05	14.8	8.9
Taiwan	26.93	12.20	15.38	5.1	9.1
Thailand	1.78	0.80	1.02	0.3	N/A
Asia	336.81	153.03	191.98	63.6	14.8
Kuwait	5.73	2.60	3.27	1.1	30.6
Dubai	2.41	1.08	1.38	0.5	952.2
Middle East	8.14	3.69	4.65	1.5	75.9
Total	532.35	240.80	304.11	100.0	9.4

SOURCE OF IMPORTS

	10 ⁶ m ³ liquid	10 ⁶ t	10 ⁹ m ³ (n) gaseous	share (%)	Var. 2010 / 2011 (%)
Algeria	27.55	12.48	15.78	5.2	-12.2
Egypt	14.62	6.33	8.53	2.6	-5.8
Equatorial Guinea	8.97	3.95	5.19	1.6	8.6
Lybia	0.13	0.06	0.07	0.0	-76.9
Nigeria	41.84	18.91	23.89	7.9	5.1
Norway	5.61	2.51	3.22	1.0	-28.2
Trinidad & Tobago	30.11	12.98	17.52	5.4	-5.7
Atlantic Basin	128.82	57.22	74.21	23.8	-4.8
Abu Dhabi	12.46	5.82	7.05	2.4	-3.9
Oman	17.70	8.09	10.05	3.4	-9.2
Qatar	166.37	75.36	95.00	31.3	32.9
Yemen	14.39	6.36	8.30	2.6	59.6
Middle East	210.91	95.63	120.40	39.7	26.4
Australia	42.07	19.52	23.77	8.1	1.2
Brunei	15.34	7.09	8.65	2.9	6.6
USA	0.76	0.32	0.44	0.1	-44.0
Indonesia	48.87	21.88	27.97	9.1	-6.9
Malaysia	54.02	24.90	30.63	10.3	6.0
Peru	8.11	3.70	4.70	1.5	205.5
Russia	23.43	10.57	13.38	4.4	8.7
Pacific Basin	192.61	87.98	109.54	36.5	4.2
Total	532.35	240.80	304.11	100.0	

QUANTITIES (IN 10⁶ T) RECEIVED IN 2011 BY THE IMPORTING COUNTRIES FROM THE EXPORTING COUNTRIES

	Algeria	Belgium	Egypt	Equ. Guin.	Libya	Nigeria	Norway	Peru	Spain	Trinidad & Tobago	Abu Dhabi	Oman	Qatar	Yemen	Australia	Brunei	USA	Indonesia	Malaysia	Russia	Total Imports
Belgium	-	(0.5) ^(a)	-	-	-	0.1	-	-	-	0.1	-	-	4.2	0.3	-	-	-	-	-	-	4.1
France	4.2	-	0.6	-	-	2.6	0.3	-	-	0.3	-	-	2.4	0.1	-	-	-	-	-	-	10.5
Greece	0.6	-	0.1	-	-	0.1	-	-	-	0.0	-	-	0.1	-	-	-	-	-	-	-	0.9
Italy	1.2	-	0.3	-	-	-	0.1	-	0.2	0.1	-	-	4.4	-	-	-	-	-	-	-	6.3
Netherlands	0.1	0.1	0.1	-	-	0.1	0.1	-	-	0.1	-	-	0.2	-	-	-	-	-	-	-	0.6
Portugal	0.1	-	0.1	-	-	1.9	0.1	-	-	-	-	-	0.1	-	-	-	-	-	-	-	2.1
Spain	2.9	0.2	1.7	-	0.1	4.9	0.9	1.4	(0.4) ^(a)	1.7	-	0.1	3.6	-	-	-	0.1	-	-	-	17.2
Turkey	3.0	-	0.3	-	-	1.0	-	-	-	-	-	-	0.4	-	-	-	-	-	-	-	4.8
U.K.	0.2	-	0.1	-	-	0.9	0.3	-	-	0.4	-	-	16.1	0.5	-	-	0.1	-	-	-	18.4
Europe	12.2	(0.2)	3.2	-	0.1	11.4	1.7	1.4	(0.3)	2.7	-	0.1	31.7	0.8	-	-	0.2	-	-	-	65.0
Argentina	-	-	0.1	-	-	0.3	-	-	0.1	2.1	-	-	0.3	-	-	-	-	-	-	-	2.9
Brazil	-	-	-	-	-	0.1	-	-	-	0.2	-	-	0.2	-	-	-	0.2	-	-	-	0.6
Chile	-	-	0.1	1.0	-	-	-	-	-	0.8	-	-	0.4	0.3	-	-	0.1	0.1	-	-	2.8
Domin Rep	-	-	-	-	-	-	0.1	-	-	0.6	-	-	-	-	-	-	-	-	-	-	0.7
Mexico	-	-	-	-	-	0.8	-	0.5	-	-	-	-	1.3	0.1	-	-	-	0.1	-	-	2.8
Puerto Rico	-	-	-	-	-	-	-	-	-	0.7	-	-	-	-	-	-	-	-	-	-	0.7
Canada	-	-	-	-	-	-	-	-	-	0.8	-	-	1.6	-	-	-	-	-	-	-	2.4
USA	-	-	0.7	-	-	0.0	0.3	0.3	-	2.6	-	-	1.9	1.2	-	-	(1.0) ^(a)	-	-	-	6.1
Americas	-	-	0.8	1.0	-	1.3	0.4	0.8	0.1	7.7	-	-	5.8	1.7	-	-	(0.8)	0.2	-	-	19.1
China	-	-	0.2	0.1	-	0.7	-	0.1	-	0.3	-	-	2.4	0.7	3.7	-	0.1	2.6	1.8	0.3	13.1
India	0.2	-	0.5	-	-	1.1	0.1	-	-	0.4	0.1	0.1	9.4	0.1	0.1	-	0.2	-	0.1	-	12.3
Japan	0.1	0.2	0.7	1.5	-	2.0	0.2	0.3	-	0.3	5.6	3.8	11.9	0.1	14.1	6.4	0.4	9.2	15.2	7.1	79.1
Korea	-	0.1	0.4	0.7	-	1.1	-	0.7	-	1.4	-	3.9	7.8	2.7	1.1	0.7	0.1	7.9	4.0	2.9	35.6
Taiwan	-	-	0.5	0.6	-	0.7	0.1	0.1	0.1	0.1	0.1	0.1	4.1	0.1	0.3	-	-	1.9	3.4	0.2	12.2
Thailand	-	-	-	-	-	0.1	-	0.2	-	-	-	-	0.3	-	-	-	-	0.1	-	0.1	0.8
Asia	0.2	0.2	2.3	2.9	-	5.6	0.4	1.5	0.1	2.4	5.8	8.0	35.9	3.8	19.3	7.1	0.8	21.7	24.5	10.6	153.0
Kuwait	-	-	0.1	-	-	0.6	-	-	0.1	-	0.1	-	1.3	-	0.2	-	-	-	0.3	-	2.6
Dubai	-	-	-	-	-	0.1	-	-	-	0.2	-	-	0.7	-	0.1	-	-	-	0.1	-	1.1
Middle East	-	-	0.1	-	-	0.7	-	-	0.1	0.2	0.1	-	2.0	-	0.3	-	-	-	0.4	-	3.7
Total exports	12.5	-	6.3	3.9	0.1	18.9	2.5	3.7	-	13.0	5.8	8.1	75.4	6.4	19.5	7.1	0.3	21.9	24.9	10.6	240.8

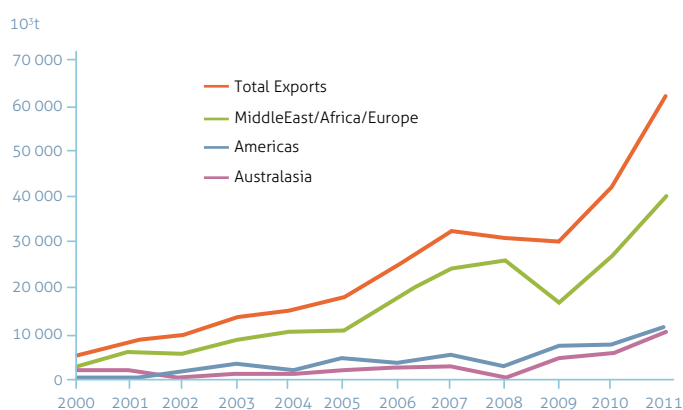
^(a) Re-exports.

SPOT AND SHORT-TERM QUANTITIES (10³ T) RECEIVED IN 2011 BY THE IMPORTING COUNTRIES FROM THE EXPORTING COUNTRIES

	Algeria	Belgium	Egypt	Equ. Guin.	Libya	Nigeria	Norway	Peru	Spain	Trinidad & Tobago	Abu Dhabi	Oman	Qatar	Yemen	Australia	Brunei	USA	Indonesia	Malaysia	Russia	Total Imports
Belgium	-	(504) ^(a)	-	-	-	-	-	-	-	55	-	-	568	269	-	-	-	-	-	-	389
France	94	-	57	-	-	-	126	-	-	178	-	-	651	120	-	-	-	-	-	-	1 226
Greece	149	-	59	-	-	86	-	-	-	19	-	-	143	-	-	-	-	-	-	-	456
Italy	30	-	-	-	-	-	58	-	162	-	-	-	-	-	-	-	-	-	-	-	250
Netherlands	55	63	53	-	-	58	-	-	-	53	-	-	235	-	-	-	-	-	-	-	517
Portugal	28	-	57	-	-	-	59	-	-	-	-	-	-	-	-	-	-	-	-	-	144
Spain	548	202	355	-	-	909	423	1 394	(417) ^(a)	342	-	-	271	-	-	-	116	-	-	-	4 142
Turkey	-	-	317	-	-	-	-	-	-	-	-	-	434	-	-	-	-	-	-	-	752
U.K.	176	-	57	-	-	231	202	-	-	59	-	-	3 372	253	-	-	112	-	-	-	4 462
Europe	1 079	(238)	955	-	-	1 285	868	1 394	(255)	706	-	-	5 674	643	-	-	228	-	-	-	12 337
Argentina	-	-	56	-	-	325	-	-	145	2 090	-	-	314	-	-	-	-	-	-	-	2 930
Brazil	-	-	-	-	-	56	-	-	-	161	-	-	216	-	-	-	172	-	-	-	605
Chile	-	-	56	185	-	-	-	-	-	279	-	-	64	-	-	-	52	-	-	-	635
Domin Rep	-	-	-	-	-	-	55	-	-	-	-	-	-	-	-	-	-	-	-	-	55
Mexico	-	-	-	-	-	-	-	466	-	-	-	-	181	-	-	-	-	-	-	-	647
Puerto Rico	-	-	-	-	-	-	-	-	-	111	-	-	-	-	-	-	-	-	-	-	111
Canada	-	-	-	-	-	-	-	-	-	-	-	-	1 642	-	-	-	-	-	-	-	1 642
U.S.A.	-	-	178	-	-	49	-	348	-	1 034	-	-	1 229	122	-	-	(978) ^(a)	-	-	-	1 982
Americas	-	-	290	185	-	430	55	813	145	3 675	-	-	3 646	122	-	-	(753)	-	-	-	8 609
China	-	-	117	127	-	700	-	144	-	324	-	-	187	196	-	-	143	-	180	127	2 244
India	183	-	476	-	-	818	62	-	-	373	91	126	1 484	109	63	-	244	-	121	-	4 151
Japan	58	184	716	925	-	1 608	117	335	-	104	752	887	5 657	128	937	-	352	1 607	498	1 091	15 955
Korea	-	55	117	726	-	1 057	-	692	-	1 361	-	67	946	944	396	-	106	3 057	-	1 140	10 663
Taiwan	-	-	481	500	-	598	122	60	53	54	60	125	868	128	213	-	-	-	61	186	3 509
Thailand	-	-	-	-	-	122	-	229	-	-	-	-	321	-	-	-	-	69	-	-	742
Asia	241	238	1 907	2 277	-	4 904	301	1 460	53	2 216	903	1 205	9 462	1 506	1 609	-	845	4 734	860	2 543	37 265
Kuwait	-	-	63	-	-	639	-	-	57	-	60	-	1 252	-	199	-	-	-	335	-	2 605
Dubai	-	-	-	-	-	61	-	-	-	114	-	-	95	-	61	-	-	-	60	-	391
Middle East	-	-	63	-	-	700	-	-	57	114	60	-	1 347	-	260	-	-	-	395	-	2 996
Total exports	1 320	-	3 215	2 462	-	7 319	1 224	3 667	-	6 712	962	1 205	20 129	2 271	1 869	-	320	4 734	1 255	2 543	61 206

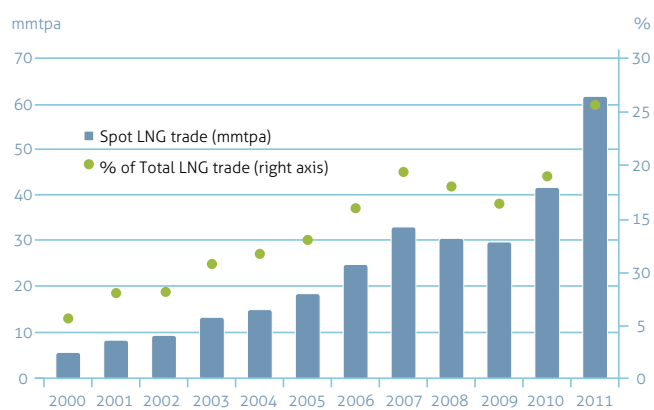
^(a) Re-exports.

Spot and short-term LNG trade development since 2000



Note: Short-term trade denotes trades under contracts of a duration of 4 years or less.

Spot and Short-Term LNG Trade & Share of Total LNG Trade since 2000



LNG tankers

The world LNG tanker fleet consisted of 359 vessels at the end of 2011.

In 2011, high demand in Asian markets combined with the absence of significant additional capacity led to a tighter LNG shipping market and to an escalation of spot charter rates.

16 ships were added to the world LNG tanker fleet during the year (compared with 25 in 2010), leading to an additional capacity of $1.8 \cdot 10^6 \text{ m}^3$, i.e. an average capacity of $114\,000 \text{ m}^3$ per tanker. The order book was up from 20 at the end of 2010 to 59 at the end of 2011, but 53 of the ships ordered will not come into service before 2013.

- Four ships were sold to be scrapped in 2011:
 - Bekulan (Mark I, $75\,000 \text{ m}^3$, delivered in 1973)
 - Belais (Mark I, $75\,000 \text{ m}^3$, delivered in 1974)
 - Bekalang (Mark I, $75\,000 \text{ m}^3$, delivered in 1973)
 - Tellier (Mark I, $40\,100 \text{ m}^3$, delivered in 1974)
- One methane tanker is being converted into a FSRU:
 - FSRU Toscana (start-up planned for Q4 2012)
- Two ships are being converted into FSUs:
 - Tenaga Empat ($130\,000 \text{ m}^3$, delivered in 1981)
 - Tenaga Satu ($130\,000 \text{ m}^3$, delivered in 1982)

59 orders were placed for new ships: 54 using the membrane technique, 3 using the MOSS technique and 2 using the cylinders technique.

4110 voyages completed in 2011

- 1 438** » to Japan (1 356 in 2010)
- 563** » to Korea (519 in 2010)
- 1 109** » to Europe (1 194 in 2010)
- 346** » to the United States, Puerto Rico, the Dominican Republic, Mexico, Argentina, Brazil, Chile and Canada (379 in 2010)
- 198** » to Taiwan (180 in 2010)
- 195** » to India (142 in 2010)
- 194** » to China (145 in 2010)
- 11** » to Thailand
- 39** » to Kuwait (33 in 2010)
- 17** » to Dubai (3 in 2010)



LAID-UP SHIPS IN 2011

Name	Capacity	Delivery date	Containment
Echigo Maru	125 800	1983	Moss
Galeomma	126 450	1978	Mark I
Gandria	125 800	1977	Moss
Hilli	126 200	1975	Moss
Koto	125 200	1984	Moss
LNG Bonny	132 600	1984	NO 88
LNG Palmaria	41 000	1969	Esso
Sunrise	129 400	1977	NO 85
Tenaga Dua	130 000	1981	NO 88
Tenaga Lima	130 000	1981	NO 88
Tenaga Tiga	130 000	1981	NO 88
Wakaba Maru	125 900	1985	Moss
Wilgas	125 900	1984	Moss
TOTAL	1 574 250		

Total shipping capacity in operation throughout the year 2011 was $51.9 \cdot 10^6 \text{ m}^3$ (with an average capacity per carrier of about $145\,000 \text{ m}^3$), while total shipping capacity available on the market at the year-end reached $53.5 \cdot 10^6 \text{ m}^3$, including some $1.8 \cdot 10^6 \text{ m}^3$ of additional capacity from new ships delivered during the year.

In all, **4110** loaded voyages were completed in 2011, compared to 3 951 in 2010.

Due to a higher utilization rate of large size carriers and of Q-Series, the average delivery volume reached $130\,000 \text{ m}^3$ in 2011, compared with $122\,000 \text{ m}^3$ in 2010.



16 ships delivered in 2011

MEMBRANE TECHNOLOGY (10)

Official Delivery Date	Ship name	Capacity (m³)	Shipowner	Shipbuilder	Cargo System	Hull number
02/18/2011	Arkat	147 000	Brunei Government 80% Mitsubishi 10% Shell 10%	DSME	NO 96	DSME 2273
05/27/2011	Stena Crystal Sky	173 400	Stena 100%	DSME	NO 96	DSME 2268
05/31/2011	Stena Clear Sky	173 400	Stena 100%	DSME	NO 96	DSME 2278
08/01/2011	Amali	147 000	Brunei Government 80% Mitsubishi 10% Shell 10%	DSME	NO 96	DSME 2277
08/30/2011	Soyo	160 400	Mitsui (MBK) 34 % NYK 34% Teekay 32%	SHI	Mark III	SHI 1810
09/30/2011	Malanje	160 400	Mitsui (MBK) 34 % NYK 34% Teekay 32%	SHI	Mark III	SHI 1811
10/04/2011	Sonangol Sambizanga	160 500	Sonangol 100%	DSME	NO 96	DSME 2280
10/31/2011	Lobito	160 400	Mitsui (MBK) 34% NYK 34% Teekay 32%	SHI	Mark III	SHI 1812
11/01/2011	Sonangol Etosha	160 500	Sonangol 100%	DSME	NO 96	DSME 2281
12/01/2011	Sonangol Benguela	160 500	Sonangol 100%	DSME	NO 96	DSME 2282

MOSS TECHNOLOGY (1)

Official Delivery Date	Ship name	Capacity (m³)	Shipowner	Shipbuilder	Cargo System	Hull number
08/31/2011	Energy Horizon	177 000	NYK Line 90% Tokyo LNG Tanker 10%	KSC	Moss	KSC 1664

CYLINDERS TECHNOLOGY (5)

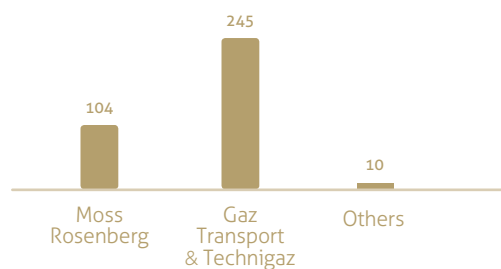
Delivery Date	Ship name	Capacity (m³)	Shipowner	Shipbuilder	Cargo System	Hull number
01/10/2011	Norgas Invention	10 000	IM Skaugen 50% GATX 50%	Taizhou Skaugen Wuzhou	Cylinders	WZL0603
06/30/2011	Norgas Unikum	12 000	Teekay 100%	Dingheng Jiangsu	Cylinders	DJ 2007-001
10/28/2011	Bahrain Vision	12 000	Bahrain Oil & Gas Holding Company 35% IMS Marine Services 35% Suffun Bahrain 30%	Dingheng Jiangsu	Cylinders	DJ 2007-002
10/31/2011	Akebono Maru	3 500	Shinwa Chemical Tanker 100%	KHI	Cylinders	KHI 1682
10/31/2011	Norgas Conception	10 000	IM Skaugen 50% GATX 50%	Taizhou Skaugen Wuzhou	Cylinders	WZL0604

Source: GTT.

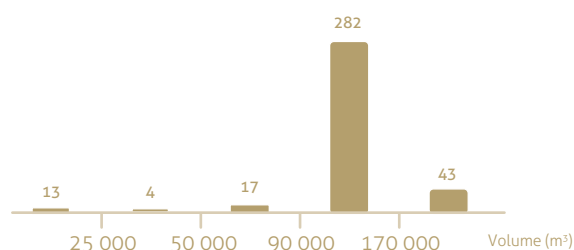
Tanker distribution

The vessels can be classified as follows (at the end of 2011):

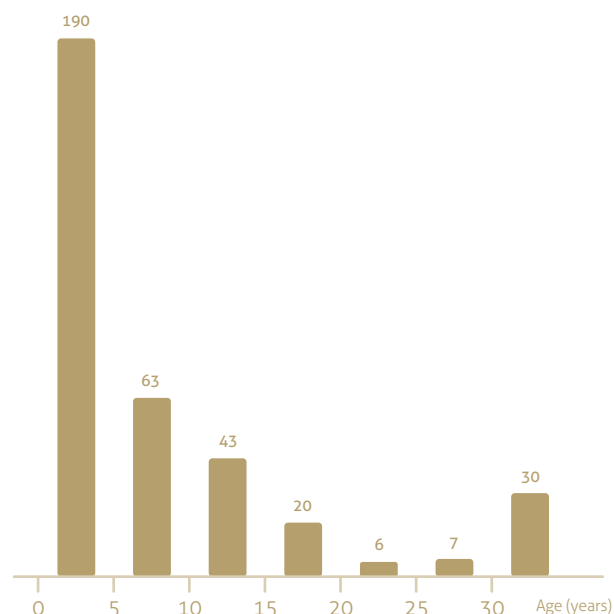
According to containment system



According to cargo capacity



According to the delivery date or the age of the ships



LNG Characteristics (2011 update)

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

Origin	Nitrogen - N2	Methane - C1	Ethane - C2	Propane - C3	C4+	Total	LNG Density ⁽¹⁾ kg/m³	Gas Density ⁽²⁾ kg/m³(n)	Expansion ratio m³(n)/ m³ liq	Gas GCV ⁽²⁾ MJ/m³(n)	Wobbe Index ⁽²⁾ MJ/m³(n)
Australia - NWS	0,0	87,3	8,3	3,3	1,0	100	467	0,831	562	45,3	56,5
Australia - Darwin	0,1	87,6	10,0	2,0	0,3	100	461	0,812	568	44,4	56,0
Algérie - Skikda	0,6	90,4	7,4	0,6	0,1	100	447	0,776	576	42,3	54,6
Algeria - Bethioua	0,6	89,5	8,2	1,3	0,3	100	455	0,795	572	43,2	55,1
Algeria - Arzew	0,7	88,9	8,4	1,6	0,4	100	457	0,801	570	43,5	55,2
Brunei	0,0	90,1	5,3	3,0	1,5	100	462	0,818	564	44,7	56,2
Egypt - Idku	0,0	95,3	3,6	0,7	0,3	100	437	0,756	578	41,8	54,6
Egypt - Damietta	0,0	97,3	2,5	0,1	0,1	100	429	0,737	582	40,9	54,1
Equatorial Guinea	0,0	93,4	6,5	0,1	0,0	100	440	0,760	579	42,0	54,7
Indonesia - Arun	0,1	91,9	5,7	1,6	0,8	100	451	0,789	571	43,3	55,4
Indonesia - Badak	0,0	90,1	5,5	3,0	1,4	100	461	0,816	565	44,6	56,2
Indonesia - Tangguh	0,1	96,9	2,4	0,4	0,2	100	431	0,742	581	41,0	54,1
Libya	0,6	82,6	12,6	3,6	0,7	100	479	0,858	558	46,2	56,8
Malaysia	0,1	91,7	4,6	2,6	0,9	100	454	0,798	569	43,7	55,6
Nigeria	0,0	91,7	5,5	2,2	0,6	100	452	0,791	571	43,4	55,5
Norway	0,5	92,0	5,7	1,3	0,4	100	448	0,782	574	42,7	54,9
Oman	0,2	90,7	5,8	2,1	1,2	100	457	0,805	568	44,0	55,7
Peru	0,6	89,1	10,3	0,1	0,0	100	452	0,787	547	42,9	55,0
Qatar	0,3	90,9	6,4	1,7	0,7	100	453	0,795	571	43,4	55,4
Russia - Sakhalin	0,1	92,5	4,5	2,0	1,0	100	451	0,789	571	43,3	55,4
USA - Alaska	0,2	99,7	0,1	0,0	0,0	100	421	0,719	586	39,9	53,5
Trinidad	0,0	96,8	2,8	0,4	0,1	100	431	0,741	582	41,1	54,2
Yemen	0,0	93,2	5,9	0,8	0,1	100	442	0,767	577	42,3	54,9

(1) Calculated according to ISO 6578 [T = -160°C]. (2) Calculated according to ISO 6976 [0°C / 0°C, 1.01325 bar].

Delivery dates of the LNG tankers

1969

- SCF Arctic (ex Methane Arctic)
- SCF Polar (ex Methane Arctic)

1970

- LNG Elba

1972

- Bebatik

1973

- Norman Lady

1975

- Annabella
- Belanak
- Bilis
- Bubuk
- Isabella

1976

- Gimi
- Mostefa Ben
- Boulaïd

1977

- Golar Freeze
- Khannur
- Larbi Ben M'Hidi
- LNG Aquarius
- LNG Aries
- LNG Lagos (ex Gastor)
- LNG Port Harcourt

1978

- LNG Capricorn
- LNG Delta (ex Southern)
- LNG Gemini
- LNG Leo
- Methania

1979

- Bachir Chihani
- LNG Libra
- LNG Taurus
- LNG Virgo
- Matthew (ex Gamma)

1980

- LNG Abuja (ex Louisiana)
- LNG Edo (ex Lake Charles)
- Mourad Didouche

1981

- Golar Spirit
- Ramdane Abane
- Tenaga Empat

1982

- Tenaga Satu

1983

- Banshu Maru
- Bishu Maru

1984

- LNG Finima
- Senshu Maru

1989

- Ekaputra
- NW Sanderling
- NW Swallow
- NW Swift

1990

- NW Snipe

1991

- NW Shearwater

1992

- NW Seaeagle

1993

- Aman Bintulu
- Arctic Spirit (ex Arctic Sun)
- LNG Flora
- NW Sandpiper
- Polar Spirit (ex Polar Eagle)

1994

- Al Khaznah
- Dwiputra
- Hyundai Utopia
- LNG Vesta
- NW Stormpetrel
- Puteri Intan
- Shahamah
- YK Sovereign

1995

- Ghasha
- Hanjin Pyeong-Taek
- Ish
- Puteri Delima
- Puteri Nilam

1996

- Al Zubarah
- Hyundai Greenpia
- Mraweh
- Mubaraz
- Puteri Zamrud
- Surya Aki

1997

- Al Hamra
- Al Khor
- Al Rayyan
- Al Wajbah
- Aman Sendai
- LNG Portovenere
- Puteri Firus
- Umm Al Ashtan

1998

- Al Wakrah
- Aman Hakata
- Broog
- LNG Lerici
- Zekreet

1999

- Al Bidda
- Doha
- Hanjin Muscat
- Hyundai Technopia
- SK Summit

2000

- Al Jasra
- Golar Mazoa
- Hanjin Ras Laffan
- Hanjin Sur
- Hyundai Aquapia
- Hyundai Cosmopia
- Hyundai Oceanpia
- K Acacia
- K Freesia
- LNG Jamal
- SK Splendor
- SK Stellar
- SK Supreme
- Surya Satsuma

2001

- Sohar LNG (ex Lakshimi)

2002

- Abadi
- British Trader
- Excalibur
- Galea
- Gallina
- Hispania Spirit (ex Fernando Tapias)
- LNG Rivers
- LNG Sokoto
- Puteri Delima Satu
- Puteri Intan Satu

2003

- BW Suez Boston (ex Berge Boston)
- British Innovator
- British Merchant
- BW Suez Everett (ex Berge Everett)
- Castillo de Villalba
- Catalunya Spirit (ex Inigo Tapias)
- Energy Frontier
- Excel

- Golar Arctic (ex Granatina)
- LNG Bayelsa
- Methane Princess
- Pacific Notus
- Puteri Nilam Satu
- SK Sunrise

2004

- Berge Arzew
- Bilbao Knutsen
- Cadiz Knutsen
- Disha
- Dukhan
- Fuwairit
- Galicia Spirit
- Gemmata
- Golar Winter
- Lala Fatma N'Soumer
- LNG Akwa Ibom
- LNG River Orashi
- Madrid Spirit
- Maersk Ras Laffan
- Methane Kari Elin
- Muscat LNG
- NW Swan
- Puteri Firus Satu
- Puteri Zamrud Satu
- Raahi

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

Delivery dates of the LNG tankers (cont'd.)



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
- Ibri 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 Gharafa
- 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

- Gas Log Savannah
- Gas Log Singapore
- GDF SUEZ Cape Ann
- GDF SUEZ Point Fortin
- Maersk Meridian
- Methane Becki Anne
- Methane Julia Louise
- Methane Mickie Harper
- Methane Patricia Camila
- Norgas Creation
- Norgas Innovation
- Rasheeda
- Ribera del Duero Knutsen
- Sevilla Knutsen
- STX Frontier
- Taitar N°3
- Taitar N°4
- Valencia Knutsen
- Zarga

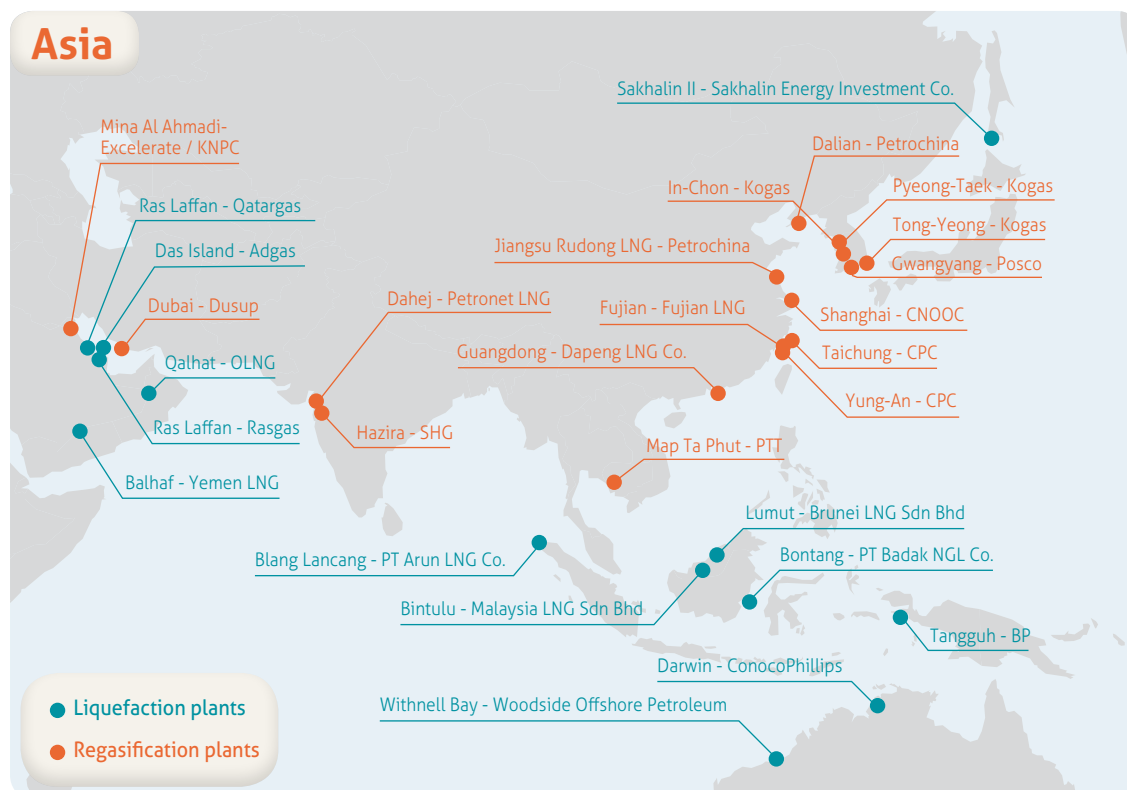
2011

- Akebono Maru
- Amali
- Arkat
- Bahrain Vision
- Energy Horizon
- Lobito
- Malanje
- Norgas Conception
- Norgas Invention
- Norgas Unikum
- Sonangol Benguela
- Sonangol Etosha
- Sonangol Sambizanga
- Soyo
- Stena ClearSky
- Stena CrystalSky

Liquefaction plants

There were 24 LNG liquefaction facilities in operation in eighteen countries at the end of 2011. One single train was commissioned in 2011: Train 4 at Qatargas IV. The aggregate nominal capacity of all liquefaction plants amounted to 609.6 10⁶ m³ of LNG per year (278 mmtpa) for 92 liquefaction trains. Total storage capacity remained stable, with 9.2 10⁶ m³ of LNG for 88 storage tanks, representing the equivalent of about six days of consumption.

In 2011, several FIDs were taken on Australian projects: Gladstone in January, Prelude LNG in May, Australia-Pacific LNG in June, Wheatstone LNG in October. The only non-Australian project to reach FID in 2011 was Donggi-Senoro in Indonesia. All these projects will provide an additional LNG production capacity of 26.8 mmtpa.



New projects/extensions of existing plants

Algeria

- In Algeria, Sonatrach decommissioned Arzew GL4Z (Camel) at the end of 2010, which reduced Algerian LNG production capacity by 0.9 mmtpa. At the end of 2011, Arzew facilities included two existing plants (6 x 1.3 mmtpa trains on one plant and 6 x 1.4 mmtpa trains on the other) for a total capacity of 16.2 mmtpa. Decommissioned capacities will be replaced by a new train in Gassi Touil (Arzew GL3Z). With a capacity of 4.7 mmtpa, GL3Z could be operational by the end of 2013.

Angola

- In Angola, the first 5.2 mmtpa train of Angola LNG was still under construction at year-end 2011. It is expected to start-up production in the second half of 2012. When operational, Angola will become the 19th LNG exporting country. Initially expected to supply the US market, Angola LNG has set up a joint-venture in order to market volumes in other markets given the low price conditions in North America.

Australia

- Pluto LNG:** at the end of 2011, the first train (4.3 mmtpa) had been completed and first production is expected first half of 2012; Woodside is securing gas for additional trains to reach FID.
- Queensland Curtis LNG:** the first coal bed methane-to-LNG project is now under construction. The project will be composed of two trains (2 x 4.25 mmtpa) and should come on line in 2015. BG (90%) - with partner CNOOC (10%) - is considering extension up to 12 mmtpa. LNG sales will be delivered to the Asian-Pacific zone and to Chile.
- In addition, several projects made significant progress in 2011: four FIDs were taken and many developments are still under consideration, which could progressively increase Australia's output from about 19.5 mmtpa in 2011 to a target of 100 mmtpa by the end of the decade.
- Gladstone LNG:** partners Santos (30%), Petronas (27.5%), Total (27.5%) and Kogas (15%) took FID in January for the 2 x 3.9 mmtpa project. Gas supply will come from Queensland's coal bed methane fields and from Cooper Basin's conventional gas fields. Start-up is expected in 2015.
- Prelude LNG:** FID for this first floating LNG project (3.6 mmtpa) was taken by Shell as 100% owner in May 2011. Inpex joined Shell in March 2012 by acquiring 17.5% of the shares in the project. Total cost is around \$ 12 bn. The project is planned to be operational around 2017-2018 and most of the sales will be made through Shell's portfolio.

Liquefaction plants (cont'd.)

- **Australia Pacific LNG:** Project partners Origin, Conoco-Philips (42.5% each) and Chinese company Sinopec (15 %) took FID for the first train (4.5 mmtpa) in July 2011. The project is expected to come on line in 2016. After **Queensland Curtis (QCLNG)** and **Gladstone, APLNG** is the third Coalbed Methane-based LNG plant in Australia.
- **Wheatstone LNG:** FID was reached in September for this two train facility (2 x 4.45 mmtpa). Chevron (72.14%) is joined by several partners including Apache (13%), Kuwait Petroleum (7%), Shell (6.4%) and Kyushu Electric (1.46%). Most of the LNG will be sold under LT agreements with Japanese customers (SPAs were finalised with TEPCO and Kyushu Electric).
- **Ichtyis LNG:** after finalising SPAs in late 2011, Inpex and Total took FID on the 8.4 mmtpa Ichtyis LNG project located in the North West of Australia in January 2012. Construction will probably start in Q2 2012, and first production is expected by the end of 2016. Around 70% of the volumes will be sent to Japan (TEPCO, Tokyo Gas, Osaka Gas, Toho Gas, Chubu Electric, Kyushu Electric & Kansai Electric).
- **Gorgon LNG:** initially expected to come on line in 2014, the 3x5 mmtpa project will probably be delayed until 2015. Owned by Chevron (47.3%), Shell (25%), Exxon Mobil (25%), Osaka Gas (1.3%), Tokyo Gas (1%) and Chubu (0.4%), Gorgon will mostly supply Asian markets under LT contracts but also spot markets.

Canada

- In British Columbia, the 5 mmtpa **Kitimat** export project will be fed from shale gas plays. Led by Apache (40%), EOG Resources (30%) and Encana (30%), the partnership is facing high costs of transmission of gas feed to the plant. In addition, sales agreements may take some time to be reached, since sellers are seeking oil-linked prices whereas potential buyers may favour hub-based prices (AECO or Henry Hub). Partners plan to reach FID by 2012 and to start LNG production in late 2015.

Indonesia

- **Donggi-Senoro LNG** reached FID in January. The single train 2 mmtpa project is announced to come on line in the second half of 2014. The plant will be fed by Donggi and Senoro fields. Liquefaction investment could be in the range of \$ 2.8 bn. Project partners include Pertamina (29%), Medco (11%), Mitsubishi (45%) and KOGAS (15%), and LNG volumes will be sold to Japanese power companies (Chubu and Kyushu) and to KOGAS.
- Concerning the **Tangguh** plant, following drilling activities in the Bintuni Bay, BP reported in August 2011 that sufficient reserves had been certified to support the third train. BP is now planning to submit a Plan of Development (POD) to the Indonesian government for the expansion.

Libya

- In Libya, due to the Civil War, output from Libyan liquefaction plant Marsa El Brega stopped in March 2011, causing very limited impact on global LNG supplies.

Nigeria

- At Bonny Island, trains 7 and 8 are still uncertain given other projects in Nigeria including Brass LNG and Olokola LNG.
- With regard to the **Brass LNG** project, front end engineering is now completed and FID is awaited by Q3 2012. Cost estimates are in the range of \$ 15 bn.

Papua New Guinea

- The Papua New Guinea 2 x 6.6 mmtpa project is under construction, and train 1 is expected to come on line in the second half of 2014 (train 2 in 2015). LNG volumes will be sold to Sinopec, CPC and Japanese companies TEPCO and Osaka Gas.



Qatar

- The last 7.8 mtpa **Qatargas** train came on line in February 2011, bringing Qatar's LNG liquefaction capacity to the well publicized number of 77 mmtpa, establishing the country as the leading LNG producing country in the world. In 2011, Qatar produced around 75 mmtpa, i.e. more than 30% of the global LNG production, with an average utilization rate of facilities close to 95%.

United States

- In Alaska, the **Kenai** liquefaction plant was expected to be decommissioned in 2011 because of declining reserves, but production was finally extended until at least 2012. In September 2011, ConocoPhillips acquired Marathon's 30% shares in the liquefaction plant, with Marathon remaining involved in the upstream portion of the project. The plant has a license to export LNG until March 2013.
- The 18 mmtpa **Sabine Pass** liquefaction project made significant progress during the year with FEED in early 2011 and 16 mmtpa of long-term SPAs signed with several buyers including BG, Gas Natural, GAIL from India (KOGAS joined them in early 2012). Approval from the US Federal Energy Regulatory Commission (FERC) was given in April 2012. Cheniere plans to begin construction in 2012 and to start production in 2015.
- **Freeport LNG** is also proposing to add liquefaction infrastructure at its existing regasification terminal to provide export capacity of 13.2 mmtpa of LNG. In February 2011 Freeport LNG received approval from DOE to export LNG to Free Trade Agreement countries. Completion and start-up of the first liquefaction train is expected in early 2017.

Three other projects based on existing regasification terminals have also applied for export licenses: Cameron (Semptra), Lake Charles (BG/Southern Union) and Cove Point (Dominion). In addition, two greenfield export projects are being proposed: Gulf Coast LNG (in Texas) and Jordan Cove (in Oregon). The total combined capacity of US export projects could amount to more than 100 mmtpa.

Liquefaction plants 2011

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 m³				
Atlantic Basin									
Algeria	Arzew GL 1Z	6	8,19	3	300 000	Sonatrach	Sonatrach	GDF Suez, Botaş, SNAM-Rete, Iberdrola, Depa, Cepsa Gas, Statoil, Endesa	1981
	Arzew GL 2Z	6	7,98	3	300 000	Sonatrach	Sonatrach	GDF Suez, Botaş, SNAM-Rete, Iberdrola, Depa, Cepsa Gas, Statoil, Endesa	1972
	Skikda - GL 1K	3	3,13	5	308 000	Sonatrach	Sonatrach	GDF Suez, Botaş, SNAM-Rete, Iberdrola, Depa, Cepsa Gas, Statoil, Endesa	1981
Egypt	Damietta	1	5,00	2	300 000	Union Fenosa Gas (80%), EGPC (10%), EGAS (10%)	SEGAS SERVICES	Union Fenosa Gas, BP	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	4	0,60	2	96 000	LNOC	LNOC	GasNatural Fenosa	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	1999-2002
		2	8,10			Nigeria LNG (NNPC, Shell, TOTAL, ENI)	Nigeria LNG Ltd	BGLT-BGGM, Shell, Iberdrola, Endesa, Ren Atlantico, TOTAL, ENI	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	Statoil, Petoro, Total, GDF SUEZ, RWE, Hess	Statoil	Total, Statoil, GDF SUEZ, Iberdrola	2007
Trinidad & Tobago	Point Fortin	4	15,10	4	520 000	Atlantic LNG (BP, BG, Repsol, NGC)	Atlantic LNG (BP, BG, Repsol, GDF SUEZ, NGC)	GDF Suez, Gas Natural Fenosa (T1), Repsol, BP, BG (T4), Naturgas, Repsol, BP, BG (T2-3)	1999
Middle-East									
Abu Dhabi	Das Island	3	5,60	3	240 000	Adgas (ADNOC, BP, TOTAL, Mitsui)	Adgas	The Tokyo Electric Power Co.	1977
Oman	Qalhat	2	7,10	2	240 000	Oman LNG (Oman gvt, Shell, TOTAL, Korea LNG, Mitsubishi, Mitsui, Partex, Itochu)	Oman LNG	Kogas, Shell, Osaka Gas, BP, Itochu	2000
		1	3,60			Qalhat LNG (Oman gvt, Oman LNG, Itochu, Mitsubishi, Union Fenosa Gas, Osaka Gas)	Qalhat LNG	Mitsubishi, Osaka Gas, Gas Natural Fenosa, Itochu	2006

Liquefaction plants 2011 (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				
Qatar	Ras Laffan (Qatargas 1-T1 & 2)	2	6,40	4	340 000	Qatargas (QP, ExxonMobil, TOTAL, Marubeni, Mitsui)	Qatargas I	Chubu Elec, Osaka Gas, Tokyo Gas, Toho Gas, Tohoku Elec, Kansai Elec, Chugoku Elec, Gas Natural Fenosa, PGNiG, PTT	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	8	1 160 000	(Qatar Petroleum, ExxonMobil)	Qatargas II	ExxonMobil, Chubu	2009
	Ras Laffan (Qatargas 2-T2)	1	7,80			(Qatar Petroleum, TOTAL, ExxonMobil)	Qatargas II	Qatar Petroleum, ExxonMobil, TOTAL	2009
	Ras Laffan (Qatargas 3-T1)	1	7,80			Qatar Petroleum, Conoco, Mitsui	Qatargas III	Conoco Philips, Repsol	2010
	Ras Laffan (Qatargas 4-T1)	1	7,80			Qatar Petroleum, Shell	Qatargas IV	Shell, Petrochina, Marubeni	2011
	Ras Laffan (Rasgas 1-T1 & 2)	2	6,60	6	840 000	Rasgas 1 (QP, ExxonMobil, Kogas, Itochu, LNG Japan)	RasGas I	Kogas, ENI	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, CPC	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 (Qatar Petroleum, Exxon Mobil)	RasGas III	ExxonMobil	April 2010
Yemen	Balhaf - Train 1 & 2	2	6,70	2	280 000	Yemen LNG (TOTAL, Kogas, Yemen Gas Co., Hunt Oil Co., SK Corporation, Hyundai, GASSP)	Yemen LNG	Kogas, GDF SUEZ, TOTAL	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
	Withnell Bay	1	4,30	1	65 000	Woodside, 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

Liquefaction plants 2011 (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				
Australia (cont'd.)	Darwin	1	3,40	1	188 000	Darwin LNG (ConocoPhillips, ENI, Santos, Inpex, TEPCo, Tokyo Gas)	ConocoPhillips	Tokyo Electric, Tokyo Gas	2006
Brunei	Lumut	5	7,20	3	195 000	Brunei LNG (Brunei gvnt, Shell, Mitsubishi)	Brunei LNG Sdn Bhd	Tokyo Gas, Tokyo Electric, Osaka Gas, Kogas	1973
U.S.A.	Kenai	1	1,40	3	108 000	ConocoPhillips	ConocoPhillips	Tokyo Gas, Tokyo Electric	1969
Indonesia	Blang Lancang - Arun	2	4,75	4	508 800	Pertamina	PT Arun NGL Co. (Pertamina, ExxonMobil, JILCO)	Kogas	1978-1979
	Bontang - Badak	8	22,20	6	630 000	Pertamina	PT Badak NGL Co. (Pertamina, VICO, TOTAL, JILCO)	Kansai Elec, Chubu Elec, Kyushu Elec, Osaka Gas, Toho Gas, Nippon Steel Co.	1977
	Bontang - Badak A & B	2						Kansai Elec, Chubu Elec, Osaka Gas, Toho Gas	1983
	Bontang - Badak C & D	2						C.P.C.	1990
	Badak E	1						Tokyo Gas, Osaka Gas, Toho Gas, Hiroshima Gas, Nippon Gas	1994
	Badak F	1						Kogas	1998
	Badak G	1						C.P.C.	1998
	Badak H	1							
	Tangguh	2	7,60	2	340 000	Government of Indonesia	BP	Posco, K-Power, Sempra LNG, CNOOC, Tohoku Elec	2009
Malaysia	Bintulu MLNG 1 (Satu)	3	8,10	6	390 000	Malaysia LNG Sdn Bhd (Petronas, Shell, Mitsubishi)	Malaysia LNG Sdn Bhd	Tokyo Gas, Tokyo Elec, Saibu Gas, Shikoku Electric	1983
	Bintulu MLNG 2 (Dua)	3	7,80			Malaysia LNG Dua (Petronas, Shell, Mitsubishi, Sarawak state Gvnt)	Malaysia LNG Dua	Tokyo Gas, Osaka Gas, Toho Gas, Kansai Elec, Shizuoka Gas, Tohoku Elec, CPC, Sendai City Gas, Kogas, Chubu Elec	1995
	Bintulu MLNG 2 (Dua) - debottleneck	1	1,50			Malaysia LNG Dua (Petronas, Shell, Mitsubishi, Sarawak State Gvnt)	Malaysia LNG Dua	Tokyo Gas, Osaka Gas, Toho Gas, Kansai Elec, Shizuoka Gas, Tohoku Elec, C.P.C., Sendai City Gas, Kogas, Chubu Elec	2010
	Bintulu MLNG 3 (Tiga)	2	6,80			Malaysia LNG Tiga (Petronas, Shell, Nippon Oil, Mitsubishi, Sarawak State Gvnt)	Malaysia LNG Tiga	Tokyo Gas, Osaka Gas, Toho Gas, Tohoku Elec, Japex, Kogas, CNOOC	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, Shell, Kogas, Chubu Elec, Hiroshima Gas, Kyushu Elec, Osaka Gas, Saibu Gas, Toho Gas, Tohoku Elec, Tokyo Elec, Tokyo Gas	2009
Total		92	278	88	9 207 600				

Regasification plants

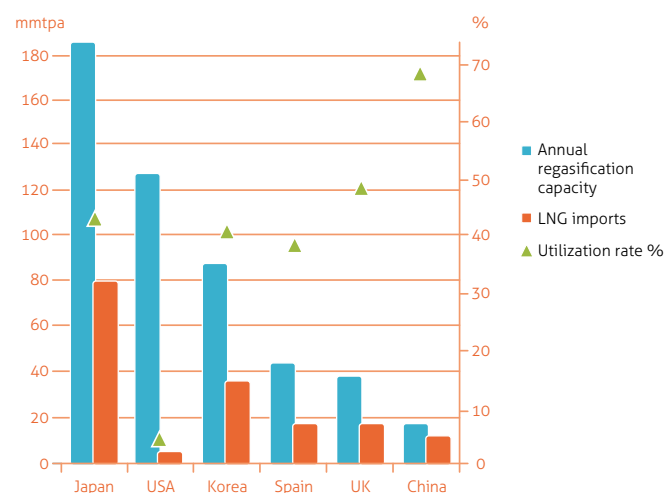
89 LNG regasification terminals - including 10 floating facilities - where in operation at the end of 2011, compared with 40 terminals in 2001. Over the last ten years, the number of importing countries grew from 11 in 2001 to 25.

The combined nominal send-out capacity of the facilities reached about 640 mmtpa (868 bcm/y) and total storage capacity amounted to 44.1 10⁶ m³ of LNG (liquid) with 394 tanks. Together, Japan and Korea accounted for 43% of the world's regasification capacity. Compared to an annual LNG consumption of 240.8 mmtpa, the global average utilization rate of installations remained stable, around 37%. While Asian and European regasification terminals recorded average utilization rates of respectively 45% and 46%, the average utilization rate of US terminals dropped below 5%.

New projects/extensions of regasification units



Regasification capacity vs LNG imports in 2011



Seven new terminals were commissioned in 2011. Combined with the expansion of Fujian, new facilities added 39.2 mmtpa to the existing global regasification capacity.

Argentina

- After **Bahia Blanca** in 2009, Enarsa and YPF started operating a second offshore terminal in the country in Puerto Escobar, 30 miles outside Buenos Aires. With a capacity of 2.7 mmtpa, GNLE (GNL Escobar) was commissioned in June 2011. Like **Bahia Blanca**, **GNL Escobar** uses a Floating, Storage and Regasification Unit permanently moored at the new port facilities. In the meantime, YPF increased **Bahia Blanca's** regasification capacity from 10 MMm³/day to a maximum capacity of 14 MMm³/day. Final upgrade to 17 MMm³/day will be performed in 2012.

Belgium

- In **Zeebrugge**, Fluxys decided to construct a second jetty at the LNG terminal for unloading as well as loading LNG ships (including small sizes). The Port of Zeebrugge has just started the construction of the underwater structure and operator Fluxys LNG plans to commission the jetty by early 2015.

China

- At the **Fujian** LNG receiving terminal (60% owned by CNOOC), two new storage tanks were built in 2011, allowing to bring the terminal's receiving capacity to more than 8 mmtpa.

Two new terminals came online in 2011:

- In May, Petrochina started receiving cargoes at its 3.5 mmtpa terminal located in **Rudong**, Jiangsu province. The Rudong terminal is owned by Kunlun Energy of Hong Kong (55%) in which Petrochina is a majority shareholder, Pacific Oil and Gas (35%) and local government investment company Jiangsu Guozin (10%).

- Also in 2011, Petrochina commissioned its other terminal, located in **Dalian**, Liaoning province. The 3 mmtpa facility is owned by Kunlun Energy of Hong Kong (75%), the port of Dalian (20%) and local government investment company Dalian Construction Investment (5%).

In addition, three land-based terminals are under construction:

Zhejiang, Zhuhai and Hainan.

- Zhejiang LNG receiving terminal is expected to come on stream in August 2012 with an initial receiving capacity of 3 mmtpa. CNOOC is the leading shareholder with 51% of the shares.

- Zhuhai LNG terminal is expected to come on stream in 2013 with an initial capacity of 3.5 mmtpa. CNOOC owns 30% of shares in the terminal.

Regasification plants

- Hainan LNG receiving terminal started construction in August 2011, and is expected to come on stream in 2014 with an initial receiving capacity of 3 mmtpa. The terminal is owned by CNOOC (65%) and Hainan Development Holdings (35%).
In October 2011, CNOOC also started building facilities for a floating LNG receiving terminal in **Tianjin**. The FSRU (145 000 m³ GDF SUEZ Cape Ann) has been reserved with GDF SUEZ in 2011. The terminal is expected to come on stream in 2013 with an initial receiving capacity of 2.2 mmtpa. In a second phase planned for 2015, the terminal's capacity could be brought to 6 mmtpa with the addition of land-based facilities. CNOOC is the only shareholder in the terminal at the moment but is expected to bring on board two other shareholders.

India

- In India, Petronet continued the construction of its 2.5 mmtpa regasification facility at **Kochi** in the State of Kerala. The facility is scheduled to be commissioned by the end of October 2012. The total EPC cost of the additional regasification facility reaches 68 USD Million. In addition, a 2.5 mmtpa second phase could be operational by the end of 2013.

At the **Dabhol** terminal (30% owned by GAIL), commissioning expected in April was delayed in order to dredge the channel and to accommodate 160 000 m³ vessels.

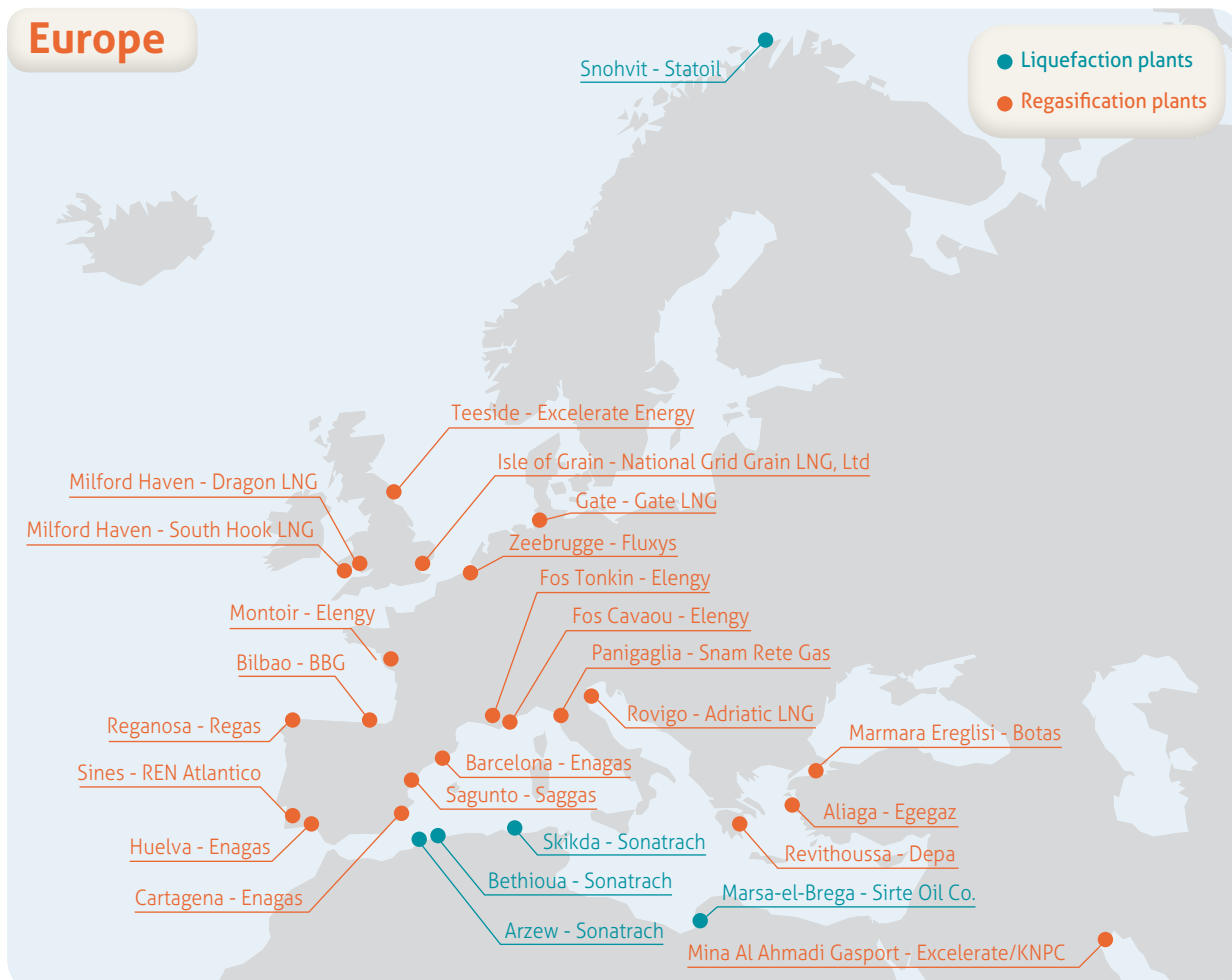
France

- In France, decision was taken to extend **Montoir-de-Bretagne** LNG terminal's life until 2035, while maintaining its capacity. Since Autumn 2011, Montoir-de-Bretagne is ready to receive Q-Max vessels after notably some works in order to reinforce a jetty.

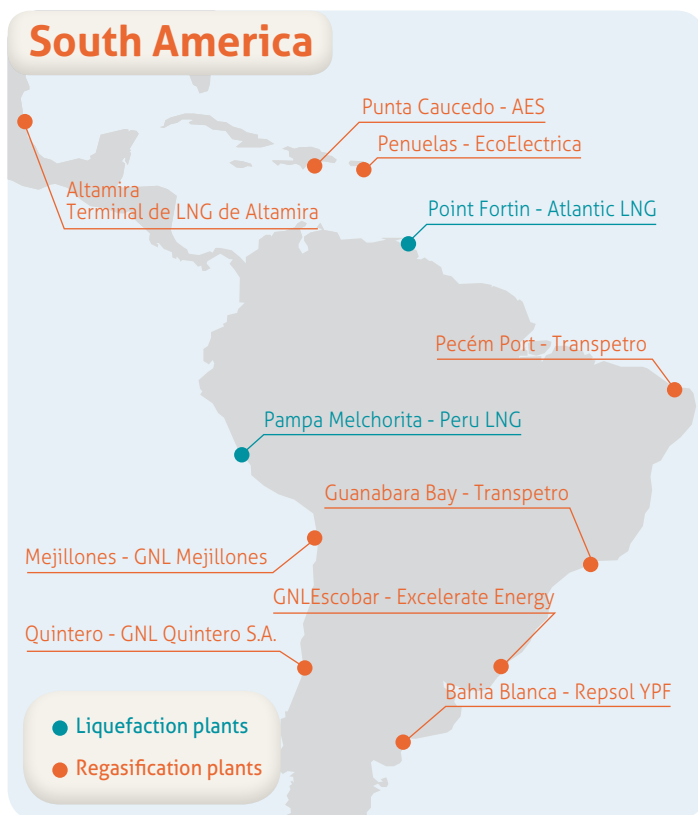
Also in 2011, FID was taken on the new **Dunkerque LNG terminal**, which is expected to come online in 2015. With a capacity of about 10 mmtpa, the terminal will be owned by EDF (65.01%), Fluxys (25%) and Total (9.99%).

Italy

- In Italy, the **Panigaglia** LNG terminal was shutdown in October 2011 in order to install new tube-bundles inside the 4 SCV vaporizers. As a consequence, the total capacity of the plant was formally restored after it had been reduced by one third in 2009 (from 17 500 liquid m³/day to 12 000 liquid m³/day).



Regasification plants (cont'd.)



Japan

• In Japan, Chugoku Electric and JX Nippon Oil completed the construction of a second 160 000 m³ tank at their **Mizushima** LNG terminal in April 2011.

In Joetsu City, Chubu Electric started importing LNG to supply its **Joetsu** combined-cycle plant. The facility is expected to have storage capacity of 540 000 m³.

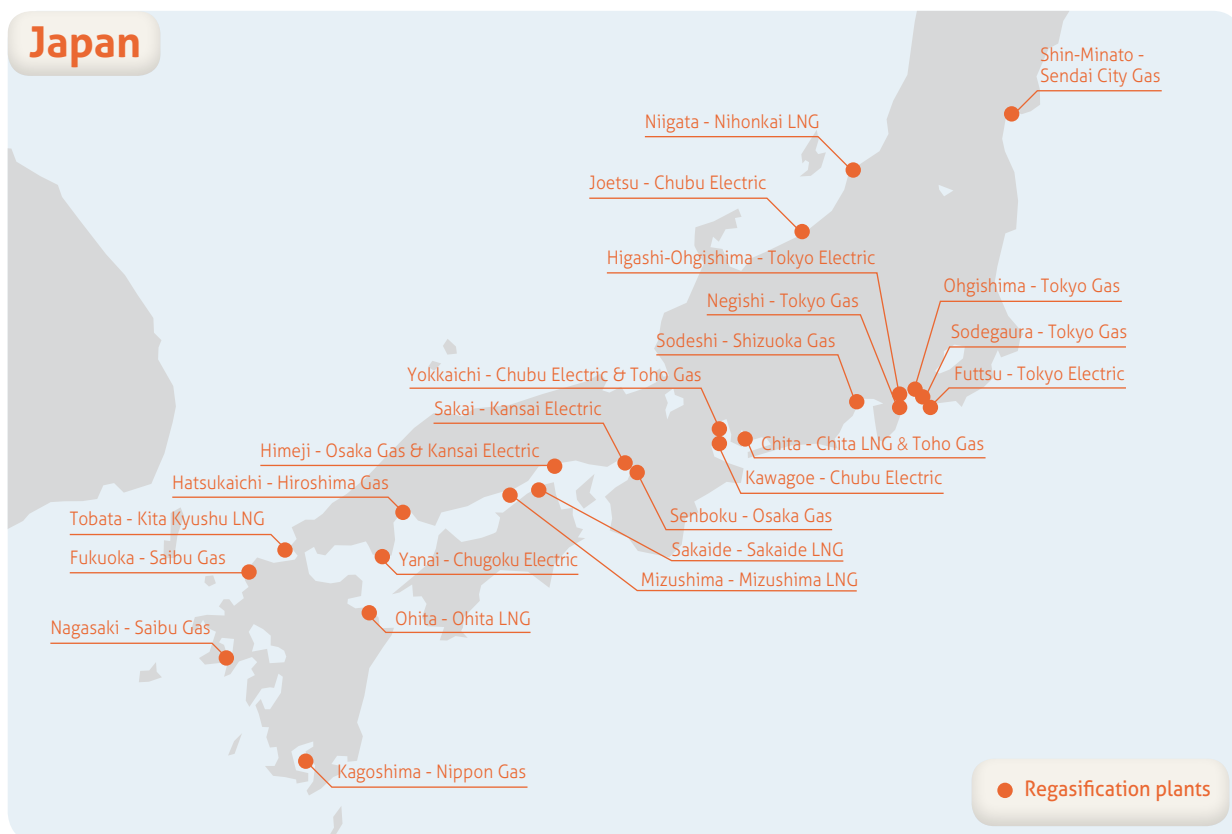
Three new terminals are currently under construction:

- **Ishikari LNG**, developed by Hokkaido Gas and expected to come on stream by the end of 2012 with an initial capacity of 1.4 mtpa.
- **Naoetsu**, developed by Inpex, expected in 2014 with an initial capacity of 1.5 mtpa and a 360 000 m³ storage capacity.
- **Hachinohe**, developed by JX Nippon Oil, with expected start-up in 2015 and an initial capacity of 1.5 mtpa.

Noteworthy, in November 2011, Chita LNG Terminal (co-owned by Chubu Electric and Toho Gas) received its 3000th LNG tanker since it was launched in 1977.

Mexico

• In June 2011, a joint-venture of Vopak (60%) and Enagas (40%) announced the acquisition of the LNG storage and regasification terminal in **Altamira**. The jointly controlled entity has acquired 100% of the shares in the terminal from Shell (50%), Total (25%) and Mitsui & Co LTD. (25%) for 408 USD million. Total has no more equity in the facility but preserves its 1.25 Bcm/y subscription of capacities.



Regasification plants (cont'd.)



Netherlands

- In Rotterdam, **Gate LNG** terminal started importing LNG in June 2011, receiving a total of 8 cargoes during the year. With an initial capacity of 8.9 mmtpa, **Gate** comprises three 180 000 m³ storage tanks. The terminal is owned by Vopak (42.5%), Gasunie (42.5%), Essent (5%), Dong (5%) and OMV (5%).

Portugal

- In 2011, the **Sines** LNG Terminal concluded the second phase of its expansion project, which started in 2009 and will finalize in 2012. Completion of the second phase will increase the capacity of the terminal from 3.4 mmtpa to 4.6 mmtpa.

Spain

- In December 2011, the **Sagunto** regasification plant SAGGAS (42.5% owned by GAS NATURAL FENOSA) puts its fourth LNG storage tank into commercial operation. The entry into commercial operation of this new tank allows Saggas to double its initial storage capacity, to 600 000 m³.
 - In **Barcelona**, one new 150 000 m³ tank was commissioned in 2011, bringing the terminal's storage capacity to 840 000 m³.
 - In **Bilbao**, BBG (Bahia de Bizkaia Gas) approved the construction of a new tank of 150 000 m³, which implies a 50% increase in the actual storage capacity of the plant. The construction started in 2011 and the new installation is expected to be operational by July 2014.

- In **Gijon (El Musel)**, a new terminal including two 150 000 m³ tanks is currently under construction. With an initial capacity of 5.8 mmtpa, the terminal was expected to be completed by the end of 2012. It will finally be mothballed due to insufficient gas demand.

Thailand

- In Thailand, PTT started up operating its **Map Ta Phut** terminal in the second quarter of 2011, receiving 11 cargoes during the year. The terminal has a capacity of 5 mmtpa.

United States

- In the United States, due to the shift in gas supply and demand balance, Excelerate Energy decided to cease operating its existing 3 mtpa **Gulf Gateway** terminal. Located off the coast of Louisiana, the terminal will be decommissioned in 2012.
 - One new terminal (**Gulf LNG**) was commissioned at Pascagoula, in Mississippi. With a capacity of 8.8 mmtpa, the terminal is operated by Gulf LNG Energy, a subsidiary of El Paso (50%) and General Electric (50%).
 - In Texas, Golden Pass LNG started commercial operations and received 8 cargoes during the year.



Regasification Terminals in 2011

Country	Site	Storage		Send out		Owner	Operator	T.P.A.	Source of import	Start up date
		No. of tanks	Total cpcty in cm (liq)	No. of Vaporizers*	Nominal cpcty in NG bcm/y					
AMERICAS										
Argentina	Bahia Blanca	1	151 000	6	5,10	YPF	YPF	No	Trinidad & Tobago, Egypt, Qatar	June 2008
	Escobar	1	151 000	6	5,10	YPF, Enarsa	YPF	No	Trinidad & Tobago, Nigeria, Qatar	01/05/2011
Brazil	Guanabara Bay	1	138 000	2	5,00	Petrobras	Transpetro	No	Trinidad & Tobago, Nigeria	2009
	Pecem	1	129 000	2	2,50	Petrobras	Transpetro	No	Trinidad & Tobago, Nigeria	2009
Canada	Canaport LNG	3	160 000	8	10,00	Repsol Energy Canada Ltd (74.25%), Irving Canaport LP Co. Lmt'd (24.75%), Repsol Canada Ltd (0.75%), Irving Canaport GP Co. (0.25%)	Repsol Canada Ltd	Yes (but no RTPA)	Trinidad & Tobago, Qatar	2009
Chile	Mejillones	1	154 500	3	2,00	GNLM	GNLM	Yes	Yemen, Egypt, Trinidad	April 2010
	Quintero	3	334 000	3	3,65	GNL Quintero S.A.	GNL Quintero S.A.	Yes	Trinidad & Tobago, Qatar, Equatorial Guinea	2009
Dominican Rep.	Punta Caucedo	1	160 000	2	2,32	AES Andres	AES Andres	No	Trinidad & Tobago	2003
Mexico	Altamira	2	300 000	5	7,80	Terminal de LNG de Altamira (Vopak 60%, Enagas 40%)	Terminal de LNG de Altamira (Vopak 60%, Enagas 40%)	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, Trinidad & Tobago	May 2008
Puerto Rico	Penuelas	1	160 000	2	3,75	EcoElectrica	EcoElectrica		Trinidad & Tobago	2000
U.S.A.	Cameron LNG	3	480 000	10	15,50	Sempra	Sempra	Yes	Qatar, Trinidad & Tobago	2009
	Cove Point	5	380 000	10	10,74	Dominion Cove Point LNG	Dominion Cove Point LNG	Shell, BP, Statoil, Peakers 1/4 each	Trinidad & Tobago, Egypt	1978, restarted 2003
	Cove Point Expansion	2	320 000	15	8,00	Dominion Cove Point LNG	Dominion Cove Point LNG	Statoil	Norway	2008
	Elba Island	5	535 000	11	16,30	Southern LNG	El Paso	Yes	Egypt, Equatorial Guinea, Nigeria, Trinidad & Tobago, Qatar	1978, restarted 2001, expanded 2006, expanded 2010
	Everett	2	155 000	4	6,90	Distrigas of Mass Co.	GDF SUEZ LNG North America	Yes	Trinidad & Tobago	1971
	Freeport LNG	2	320 000	7	18,00	Freeport LNG Development, L.P.	Freeport LNG Development, L.P.	Yes	Trinidad & Tobago, Egypt, Nigeria, Peru, Yemen	2008
	Golden Pass	5	775 000		9,80	QP (70%) Exxon (17,6%), Conoco Philips (12,4%)	Golden Pass LNG		Qatar	2010
	Gulf LNG Energy	2	320 000		12,00	Gulf LNG Energy	El Paso	No	Angola	2011
	Lake Charles	4	425 000	14	24,30	Trunkline LNG	Trunkline LNG	Yes	Algeria, Australia, Egypt, Equatorial Guinea, Malaysia, Nigeria, Trinidad & Tobago, Oman, Qatar	1982, Infrastructure enhancement project completed March 2010
	Neptune LNG	2	290 000		3,90	GDF SUEZ NA	GDF SUEZ NA			2010
	Northeast Gateway	1	150 000		4,60	Excelerate Energy			Trinidad & Tobago	2008
	Sabine Pass	5	800 000	16	41,35	Cheniere Energy	Cheniere Energy	Total, Chevron, CMI	Qatar, Nigeria	2008
ASIA-MIDDLE EAST										
China	Dalian	2	320 000	3	4,20	Petrochina	Petrochina			2011
	Dapeng, Shenzhen	3	480 000	7	9,00	GDLNG	GDLNG	No	Australia, Qatar, Nigeria, Equatorial Guinea, Malaysia, Russia, Oman, Yemen, UAE, Indonesia, Egypt, Algeria, Peru, Trinidad	2006
	Fujian	2	320 000		3,70	Fujian LNG (CNOOC 60%, Fujian NV & Dev. Corp. 40%)	Fujian LNG	No	Egypt , Equatorial Guinea	2008
	Rudong	2	320 000	3	4,20	Petrochina	Petrochina			2011

Country	Site	Storage		Send out		Owner	Operator	T.P.A.	Source of import	Start up date
		No. of tanks	Total cpcty in cm (liq)	No. of Vaporizers*	Nominal cpcty in NG bcm/y					
China	Shanghai, Mengtougou	3	120 000		0,20	Shanghai Gas Group	Shanghai Gas Group		Malaysia	2008
	Shanghai, Yangshan (Ximentang Isle)	3	495 000		4,10	Shanghai LNG (CNOOC 45%, Shenergy Group Ltd 55%)	Shanghai LNG	No	Malaysia	2009
Dubai	Jebel Ali	1	125 850		3,00	Dubai Supply Authorities (DUSUP)	Dubai Supply Authorities (DUSUP)	No	Qatar	2010
India	Dahej	4	592 000	19	12,50	Petronet LNG	Petronet LNG	Yes (on a cargo by cargo basis)	Qatar, USA, Egypt, Nigeria, Malaysia, Trinidad & Tobago, Oman, Norway	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	Chita	7	640 000	11	14,78	Chita LNG	Chita LNG	Yes	Indonesia, Malaysia, Australia, Qatar, Algeria	1983
	Chita Kyodo	4	300 000	14	9,74	Toho Gas / Chubu Elec	Toho Gas	Yes	Indonesia, Malaysia, Australia, Qatar, Russia	1978
	Chita-Midoriham Works	2	400 000	7	9,20	Toho Gas	Toho Gas	Yes	Indonesia, Malaysia, Australia, Qatar, Russia	2001
	Fukuoka	2	70000	7	1,10	Saibu Gas	Saibu Gas	"	Malaysia	1993
	Futtsu	10	1110000	13	26,00	Tokyo Electric	Tokyo Electric	Yes	Indonesia, Malaysia, Qatar, Australia, Oman, Abu Dhabi, Brunei, Russia	1985
	Hatsukaichi	2	170 000	4	1,15	Hiroshima Gas	Hiroshima Gas	No	Indonesia, Malaysia, Russia	1996
	Higashi-Ogishima	9	540 000	9	18,00	Tokyo Electric	Tokyo Electric	Yes	Indonesia, Malaysia, Qatar, Australia, Oman, Abu Dhabi, Brunei, Russia	1984
	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
	Joetsu				2,50	Chubu Electric				2011
	Kagoshima	2	86 000	3	0,30	Nippon Gas	Nippon Gas	No	Indonesia, Australia	1996
	Kawagoe	4	480 000	4	6,69	Chubu Electric	Chubu Electric	Yes	Indonesia, Malaysia, Australia, Qatar, Russia	1997
	Mizushima	1	160 000	3	1,30	Mizushima LNG	Mizushima LNG	Yes	Australia, Qatar, Oman	2006
	Nagasaki	1	35 000	3	0,20	Saibu Gas	Saibu Gas	Yes	Malaysia, Russia	2003
	Negishi	14	1 180 000	14	15,4	Tokyo Gas / Tokyo Electric	Tokyo Gas / Tokyo Electric	Negotiated TPA	Indonesia, Malaysia, Australia, Qatar, Brunei, Russia	1969
	Niigata	8	720 000	14	11,60	Nihonkai LNG	Nihonkai LNG	Yes	Indonesia, Malaysia, Qatar, Australia, Russia	1984
	Ogishima	3	600 000	10	12,40	Tokyo Gas	Tokyo Gas	Negotiated TPA	Indonesia, Malaysia, Australia, Qatar, Russia	1998
	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
	Sakaide	1	180 000	3	1,64	Sakaide LNG	Sakaide LNG		Malaysia	2010
	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
	Shin-Minato	1	80000	3	0,38	Gas Bureau	Gas Bureau, City of Sendai	No	Malaysia	1997
	Sodegaura	35	2660000	36	41,60	Tokyo Gas / Tokyo Electric	Tokyo Gas / Tokyo Electric	Negotiated TPA	Indonesia, Malaysia, Australia, Qatar, Brunei, Russia	1973
	Sodeshi	3	337 200	8	3,90	Shimizu LNG	Shimizu LNG	No	Malaysia, Australia, Qatar, Nigeria, Indonesia, Russia	1996
	Tobata	8	480 000	9	10,28	Kita Kyushu	Kita Kyushu LNG	No	Indonesia, Australia, Russia, Equat. Guinea, Qatar	1977
	Yanai	6	480 000	5	3,10	Chugoku Elec	Chugoku Electric	Yes	Australia, Qatar, Oman	1990
	Yokkaichi LNG Centre	4	320 000	8	8,68	Chubu Electric	Chubu Electric	Yes	Indonesia, Malaysia, Australia, Qatar, Russia	1988
	Yokkaichi Works	2	160 000	4	2	Toho Gas	Toho Gas	Yes	Indonesia	1991

Country	Site	Storage		Send out		Owner	Operator	T.P.A.	Source of import	Start up date
		No. of tanks	Total cpcty in cm (liq)	No. of Vaporizers*	Nominal cpcty in NG bcm/y					
Korea	Gwangyang	3	365 000	2	2,30	Posco	Posco	No	Indonesia	2005
	Incheon	20	2 880 000	37	47,78	Kogas	Kogas	No	Indonesia, Malaysia, T&T, Brunei, Qatar, Oman, Egypt, Australia, Algeria, Nigeria, Equatorial Guinea	1996
	Pyeong-Taek	21	2 960 000	34	47,30	Kogas	Kogas	No	Indonesia, Malaysia, T&T, Brunei, Qatar, Oman, Egypt, Australia, Algeria, Nigeria, Equatorial Guinea	1986
	Tong-Yeong	16	2 480 000	12	20,76	Kogas	Kogas	No	Indonesia, Malaysia, T&T, Brunei, Qatar, Oman, Egypt, Australia, Algeria, Nigeria, Equatorial Guinea	2002
Kuwait	Mina Al Ahmadi	1	150 000		7,07	KNPC	Excelerate Energy, KNPC		Australia, Malaysia, Russia	2009
Taiwan	Taichung	3	480 000	6	9,00	C.P.C.	C.P.C.	No	Qatar	2009
	Yung-An	6	690 000	16	23,00	C.P.C.	C.P.C.	No	Indonesia, Malaysia	1990
Thailand	Map Ta Phut	2	320 000		6,50	PTT LNG	PTT LNG		Qatar, Nigeria, Peru, Russia, Indonesia	2011
EUROPE										
Belgium	Zeebrugge	4	380 000	11	9,00	Fluxys LNG	Fluxys LNG	Yes	Qatar, Egypt, Norway, T&T, Nigeria	1987
France	Fos-Cavaou	3	330 000	4	8,25	Société du Terminal Méthanier de Fos-Cavaou (Elengy, Total)	Elengy	Yes	Algeria, Egypt, Nigeria, Norway, Qatar, Trinidad & Tobago, Yemen	2009 (commercial operation from April 2010)
	Fos-sur-Mer	3	150 000	12	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, Trinidad & Tobago, Yemen	1980
Greece	Revithoussa	2	130 000	6	5,00	Depa S.A.	Depa S.A.	No	Algeria	2000
Italy	Panigaglia	2	100 000	4	3,32	GNL Italia S.p.A.**	GNL Italia S.p.A.**	Yes	YPF, Enarsa	YPF
	Rovigo (Atlantic LNG)	2	200 000	5	8,00	Adriatic LNG (Qatar Petroleum, Edison, Exxon)	Adriatic LNG (Qatar Petroleum, Edison, Exxon)	Yes (20%)	Qatar	2009
Netherlands	Gate LNG	3	540 000		8,90	Gasunie, Vopak	Gate LNG	yes	various sources	2011
Portugal	Sines	2	240 000	5	7,60	Ren Atlantico	Ren Atlantico	Yes	Nigeria, Qatar, T&T, Egypt, Equatorial Guinea	2004
Spain	Barcelona	8	840 000	13	17,08	Enagas	Enagas	Regulated T.P.A.	Algeria, Egypt, Libya, Nigeria, Oman, Qatar, T&T, Norway, Peru	1969
	Bilbao	2	300 000	4	7,00	Enagas, Infrastructure Arzak 2, BV, EVE	Bahia de Bizkaia Gas, SL (BBG)	Regulated T.P.A.	Algeria, Nigeria, Norway, T&T, Qatar, Peru, USA, Belgium	2003
	Cartagena	5	587 000	9	11,83	Enagas	Enagas	Regulated T.P.A.	Algeria, Egypt, Libya, Nigeria, Oman, Qatar, T&T, Norway, Peru	1989
	Huelva	5	610 000	9	11,83	Enagas	Enagas	Regulated T.P.A.	Algeria, Belgium, Egypt, Libya, Nigeria, Oman, Qatar, T&T, Norway, Peru	1988
	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	4	600 000	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
Turkey	Aliaga/Izmir	2	280 000	5	6,00	Egegaz	Egegaz	No	Algeria	2006
	Marmara Ereglisi	3	255 000	7	6,20	Botas	Botas	No	Algeria, Nigeria	1994
United-Kingdom	Dragon	2	320 000	6	6,00	BG Group, Petronas	Dragon LNG	Yes (but no RTPA)	Egypt, Nigeria, Norway, Trinidad & Tobago, Qatar	2009
	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
	South Hook	5	775 000	15	21,00	Qatar Petroleum, Exxon Mobil, Total	South Hook LNG Terminal Company Ltd	Yes	Qatar	2009
	Teesside	1	138 000		4,60	Excelerate Energy			Trinidad & Tobago	2007
TOTAL		394	44 053 550	662	868,1					

Long-term and medium-term contracts in force in 2011(*)

Ref.	Trade	Export	Seller	Import	Buyer	Nominal quantity ACO 10 ⁶ t/year	Duration	Type of contract	Comments
ATLANTIC BASIN									
DZ-F 1	Algeria-France	Arzew-Bethioua	Sonatrach	Fos - Montoir	GDF SUEZ	1.3	1992/2013	F.O.B.	extension to 2019
DZ-F 2	Algeria-France	Skikda	Sonatrach	Fos	GDF SUEZ	2.5	1972/2013	F.O.B.	extension to 2019
DZ-F 3	Algeria-France	Bethioua	Sonatrach	Fos - Montoir	GDF SUEZ	3.7	1976/2013	F.O.B.	extension to 2019
DZ-GR	Algeria-Greece	Arzew-Skikda	Sonatrach	Revithoussa	DEPA S.A.	0.5	2000/2021	F.O.B.	extension to 2019
DZ-I 1	Algeria-Italy	Skikda-Bethioua	Sonatrach	Panigaglia	Eni	1.40	1997/2014	F.O.B.	Eni LNG portfolio
DZ-I 2	Algeria-Italy	Skikda-Bethioua-Arzew	Sonatrach	Panigaglia	Enel	0.94	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	Algeria-Spain	Skikda-Bethioua	Sonatrach	Barcelona, Huelva, Cartagena, Sagunto	Cepsa	0.77	2002/ 2022	D.E.S.	
DZ -SP 4	Algeria-Spain	Arzew-Bethioua	Sonatrach	Barcelona, Huelva, Cartagena, Sagunto	Iberdrola	1.15	2002/2021	D.E.S.	
	Algeria/Nigeria-Spain	ENI LNG Portfolio	Eni	Spain	Iberdrola	0.92	2002-2018	D.E.S.	Eni LNG portfolio
	Algeria/Nigeria-Spain	ENI LNG Portfolio	Eni	Spain	Hidroecantabrico + EDP	0.36	2005-2016	D.E.S.	Eni LNG portfolio
	Algeria/Nigeria-Spain	ENI LNG Portfolio	Eni	Spain	E.On Espana	0.65	2007/2022	D.E.S.	Eni LNG portfolio
DZ-TR	Algeria-Turkey	Arzew-Bethioua	Sonatrach	Marmara Ereğlisi	Botas	3	1994/2014	D.E.S.	
DZ-US	Algeria-USA	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	1.0	2005/2025	F.O.B.	
EG-SP	Egypt-Spain	Damietta	EGAS	Barcelona, Huelva	Union Fenosa gas	3.3	2005/2029	F.O.B.	
EG-US	Egypt-U.S.A.	Idku	Egypt LNG T2	Lake Charles, LA	BGGM	3.6	2006/2023	F.O.B.	
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	Nigeria-France	Bonny Island	Nigeria LNG	Montoir	Enel	2.4	1999/2022	D.E.S.	Swap GDF SUEZ/Enel
NIG I-SP	Nigeria - Spain or USA	Bonny Island	Nigeria LNG	Ba. H.Cart. Bil.	Gas Natural Fenosa	1.17	1999/2021	D.E.S.	
NIG II-SP	Nigeria - Spain or USA	Bonny Island	Nigeria LNG	Ba. H.Cart.	Gas Natural Fenosa	1.99	2002/2024	D.E.S.	
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	Nigeria - Spain	Bonny Island	Nigeria LNG	Ba. H.Cart. Bil.Sag.	Iberdrola	0.38	2005/2025	D.E.S.	
NIG V-SP	Nigeria - Spain	Bonny Island	Nigeria LNG	Huelva	Eni	1.15	2006/2028	D.E.S.	Eni LNG portfolio
	Nigeria-Spain	Bonny Island	Nigeria LNG	Huelva	Galp Energia	0.18	2005/2016	D.E.S.	Eni LNG portfolio
	Spain-Spain	Bonny Island	Gas Natural Aprovevisionamientos	Spain	Iberdrola	1.0	2003/2020	D.E.S.	
NIG-TR	Nigeria-Turkey	Bonny Island	Nigeria LNG	Marmara Ereğlisi	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.	
NIG-P	Nigeria-Portugal	Bonny Island		Sines	Galp Energia	0.73	2002/2022	D.E.S.	
NIG-P	Nigeria-Portugal	Bonny Island	Nigeria LNG	Sines	Galp Energia	0.26	1999/2022	D.E.S.	
NIG-US	Nigeria-USA	Bonny Island	Nigeria LNG	Lake Charles, LA	BGLS	2.3	2004/2023	D.E.S.	
NIG-US/EU	Nigeria/USA 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	Bonny Island	Nigeria LNG	Spain/US/GOM	Shell Western LNG	1.51	2009/2028	D.E.S.	
	Nigeria-US/Mexico	Bonny Island	Nigeria LNG	US/GOM	Shell Western LNG	1.74	2009/2028	D.E.S.	
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 - USA	Hammerfest	Statoil, RWE, Hess, Petoro	Cove Point	Statoil Natural Gas	~1.75	2006/2026	D.E.S.	
NO-SP	Norway - Spain	Hammerfest	Statoil, RWE, Hess	Spain	Iberdrola	1.13	2006/2023	D.E.S.	
TT I-SP	T&T - Spain or USA	Point Fortin	Atlantic LNG	Cart.Ba. H. Bil.	Gas Natural Aprovevisionamientos	1.06	1999/2018	F.O.B.	

(*) Duration above four years

Ref.	Trade	Export	Seller	Import	Buyer	Nominal quantity ACQ 10 ⁶ t/year	Duration	Type of contract	Comments
TT-II-SP	T&T - Spain or USA	Point Fortin	Atlantic 2/3	Cart.Ba. H. Bil.	Gas Natural sdg	0.65	2002/2023	F.O.B.	
TT-SP	T&T - Spain	Point Fortin	Atlantic 2/3	Cartagena/BBE	Repsol	1.13	2006/2023	F.O.B.	
TT-SP	T&T - Spain	Point Fortin	Atlantic 2/3	Spain	Naturgas Energia	0.7	2003/2023	F.O.B.	
TT-US 1	T&T - U.S.A.	Point Fortin	Atlantic 2/3	Everett/Penuelas	GDF SUEZ NA	1.63	1999/2018	F.O.B.	
TT-US 2	T&T - U.S.A.	Point Fortin	Atlantic 2/3	Everett/Penuelas	GDF SUEZ NA	0.34	2000/2020	F.O.B.	
TT-US 3	T&T - U.S.A.		Atlantic 2/3	USA, Other	BP Gas Marketing	0.8	2002/2021	F.O.B.	
TT-US 4	T&T - U.S.A.		Atlantic LNG	Elba Island, GA Lake Charles, LA	BG	2.2	2004/2024	F.O.B.	
TT-US	T&T - U.S.A.		Atlantic LNG 4	USA, Other	BP	2.5	2006/2025	F.O.B.	
TT-US	T&T - U.S.A.		Atlantic LNG 4		BG	1.5	006/2025	F.O.B.	
TT- Ca	T&T - Canada		Atlantic LNG 4	Canaport	Repsol	1.0	2009/2027	D.E.S.	
TT-DR	T&T - Dominican Republic		BP	Punta Caucedo	AES	0.75	2003/2023	D.E.S.	
TT-PR	T&T - Puerto Rico			Penuelas	Ecoelectrica	0.6	2000/2020	D.E.S.	

PACIFIC BASIN

AU-CN	Australia - China	Withnell Bay	BHP Billiton Petroleum (North West Shelf) Pty.Ltd., BP Developments Australia, Chevron Australia, Japan Australia LNG (MIMI) Pty. Ltd. Shell Development Australia, Woodside Energy Ltd., CNOOC NWS Private Ltd.	Dapeng, Shenzhen	GDLNG	3.3	2006/2031	F.O.B.			
AU-JP1	Australia-Japan	Withnell Bay	Woodside Energy, Japan Australia LNG, Shell Development Australia, BHP Billiton Petroleum, BP Development, Chevron Australia Australia	Yanai, Mizushima	Chugoku Electric	1.43	2009/2021	D.E.S.			
AU-JP2			Shell Development Australia BHP Billiton Petroleum	Oita, Tobata	Kyushu Electric	0.7	2009/2017	F.O.B.			
AU-JP3			BP Development Australia	Chita, Kawagoe	Chubu Electric	0.5	2009/2016	D.E.S.			
			Chevron Australia	Yokkaichi							
AU-JP4			"	Himeji, Sakai	Kansai Electric	0.4	2009/2017	D.E.S.			
AU-JP5				Sodegaura, Futtsu, Higashi-Ohgishima	Tokyo Electric	0.3	2009/2017	D.E.S.			
AU-JP6				Chita	Toho Gas	0.76	2009/2019	D.E.S.			
AU-JP7				Sodegaura, Negishi, Ohgishima	Tokyo Gas	0.5	2009/2017	D.E.S.			
AU-JP8				Senboku, Himeji	Osaka Gas	0.5	2009/2015	D.E.S.			
				Sodegaura	Tokyo Gas	1.37	2004/2029	F.O.B.			
AU-JP9				Negishi, Ohgishima	Toho Gas						
				Chita							
				Himeji		Osaka Gas	1.0	2004/2033	F.O.B.		
Senboku											
AU-JP10				Sodeshi	Shizuoka Gas	0.13	2004/2029	F.O.B.			
AU-JP11				Niigata	Tohoku Electric	1.0	2010/2019	D.E.S.			
AU-JP12				Oita, Tobata	Kyushu Electric	0.5	2006/2021				
AU-JP13				Chita Kawagoe, Yokkaichi	Chubu Electric	0.6	2009/2029				
AU-JP14				Himeji, Sakai	Kansai Electric	0.5	2009/2015				
AU-JP15											
AU-JP16				Darwin	Conocophillips, ENI Santos, Inpex TTSR	Futtsu, Sodegaura Negishi, Ohgishima	Tokyo Electric	2.0	2006/2022	F.O.B.	
						Sodegaura, Negishi, Ohgishima	Tokyo Gas	1.0			
AU-JP17				Pluto	Pluto LNG	Himeji, Sakai Senboku	Kansai Electric	1.75	2011/2025	F.O.B./D.E.S.	
AU-JP18	Tokyo Gas	1.5-1.75					2011/2025	F.O.B./D.E.S.			
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.			

Ref.	Trade	Export	Seller	Import	Buyer	Nominal quantity ACO 10 ⁶ t/year	Duration	Type of contract	Comments
BR-JP	Brunei-Japan	Lumut	Brunei LNG	Sodegaura, Negishi, Senboku, Himeji, Futtsu Higashi-Ohgishima	Tokyo Gas, Osaka Gas, Tokyo Electric,	6.01	1993/2013	D.E.S.	
BR-KR	Brunei-Korea	Lumut	Brunei LNG	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	0.7	1997/2013	D.E.S.	
ID-JP 1	Indonesia-Japan	Bontang	Pertamina, Total E & P Indonesia, INPEX,	Senboku, Sakai, Chita, Joetsu Tobata, Ohita Himeji, Kawagoe, Yokkaichi	Kansai Electric, Chubu Electric, Kyushu Electric, Osaka Gas, Toho Gas, Nippon Steel	3.0	2011/2020	F.O.B./D.E.S.	Extension
ID-JP 2	Indonesia-Japan	Bontang	Pertamina	Chita, Senboku, Himeji, Sakai, Yokkaichi, Kawagoe	Chubu Electric, Kansai Electric, Osaka Gas, Toho Gas	3.52	1983/2003	F.O.B.	Extension 2011
ID-JP 3	Indonesia-Japan	Bontang	Pertamina	Senboku, Himeji Sodegaura, Chita, Ohgishima	Osaka Gas, Tokyo Gas, Toho Gas	2.31	1994/2013	D.E.S.	
ID-JP 4	Indonesia-Japan	Bontang	Pertamina	Hatsukaichi, Kagoshima, Senboku, Himeji	Hiroshima Gas, Nippon Gas, Osaka Gas	0.39	1996/2015	D.E.S.	
ID-JP 5	Indonesia-Japan	Tanah Merah	Pertamina, Tangguh PSC Contractor Parties	Niigata	Tohoku Electric	0.12	2010/2024	D.E.S.	
ID-KR 2	Indonesia-Japan	B L - Bontang	Pertamina	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	2	1994/2014	F.O.B.	
ID-KR 3	Indonesia-Japan	Bontang	Pertamina	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	1	1998/2017	F.O.B.	
ID-KR 4	Indonesia-Japan	Tanah Merah	Tangguh PSC Contractor Parties	Gwangyang	Posco	0.55	2005/2024	D.E.S.	
ID-KR 5	Indonesia-Japan	Tanah Merah	Tangguh PSC Contractor Parties	Gwangyang	K-Power	0.6	2006/2026	D.E.S.	
ID-MX1	Indonesia-Mexico	Tanah Merah	Tangguh PSC Contractor Parties	Energia Costa Azul	Sempre LNG	3.7	2008/2029	D.E.S.	
ID-CN	Indonesia-China	Tanah Merah	Tangguh PSC Contractor Parties	Fujian	CNOOC	2.6	2009/2033	F.O.B.	
ID-TW 2	Indonesia-Taiwan	Bontang	Pertamina	Yung-An	C.P.C.	1.84	1998/2017	F.O.B.	
MY-JP 1	Malaysia-Japan	Bintulu	Malaysia LNG	Sodegaura, Higashi-Ohgishima, Futtsu, Negishi	Tokyo Gas, Tokyo Electric	7.4	1983/2003	F.O.B./D.E.S.	Extension 2018
MY-JP 2	Malaysia-Japan	Bintulu	Malaysia LNG	Niigata	Tohoku Electric	0.50	1996/2016	D.E.S.	
MY-JP 3	Malaysia-Japan	Bintulu	Malaysia LNG	Sodeshi	Shizuoka Gas	0.45	1996/2016	D.E.S.	
MY-JP 6	Malaysia-Japan	Bintulu	Malaysia LNG	Fukuoka, Nagasaki	Saibu Gas	0.39	1993/2013	D.E.S.	Extension 2028
MY-JP 8	Malaysia-Japan	Bintulu	Malaysia LNG	Sodegaura, Negishi, Senboku, Himeji, Sakai, Chita, Ohgishima	Tokyo Gas, Osaka Gas, Kansai Electric, Toho Gas	2.1	1995/2015	D.E.S.	
MY-JP 9	Malaysia-Japan	Bintulu	Malaysia LNG	Minato	Gas Bureau, wCity of Sendai	0.15	1997/2016	D.E.S.	
MY-JP 10	Malaysia-Japan	Bintulu	Malaysia LNG	Chita, Kawagoe, Yokkaichi	Chubu Electric	~0.54	2011/2031	D.E.S.	
MY-JP 11	Malaysia-Japan	Bintulu	Malaysia LNG	Hatsukaichi	Hiroshima Gas	0.01	2005/2012	D.E.S.	
MY-JP 12	Malaysia-Japan	Bintulu	Malaysia LNG	Sakaide	Shikoku Electric	0.36	2010/2025	D.E.S.	
MY-JP 13	Malaysia-Japan	Bintulu	Malaysia LNG TIGA	Niigata	Japan Petroleum Exploration Co Ltd	0.48	2002/2021	D.E.S.	
MY-JP 14	Malaysia-Japan	Bintulu	Malaysia LNG TIGA	Sodegaura, Negishi, Ohgishima, Chita, Senboku	Tokyo Gas, Toho Gas, Osaka Gas	0.68	2004/2024	D.E.S.	
MY-JP 15	Malaysia-Japan	Bintulu	Malaysia LNG TIGA	Niigata	Tohoku Electric	0.5	2005/2025	F.O.B.	
MY-JP 16	Malaysia-Japan	Bintulu	Malaysia LNG TIGA	Chita	Toho Gas	0.52	2007/2027	D.E.S.	
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-Korea	Bintulu	Malaysia LNG TIGA	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	1.5	2003/2010	D.E.S.	
MY-KR 3	Malaysia-Korea	Bintulu	Malaysia LNG TIGA	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	1.5	2008/2028	D.E.S.	
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.	
Ru-JP1	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Futtsu, Sodegaura, Higashi-Ohgishima	Tokyo Electric	1.5	2007/2029	F.O.B.	
Ru-JP2	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Sodegaura, Negishi, Ohgishima	Tokyo Gas	1.1	2007/2031	F.O.B.	
Ru-JP3	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Hatsukaichi	Hiroshima Gas	0.21	2008/2028	F.O.B.	
Ru-JP4	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Senboku, Himeji	Osaka Gas	0.2	2008/2031	F.O.B.	

Ref.	Trade	Export	Seller	Import	Buyer	Nominal quantity ACQ 10 % t/year	Duration	Type of contract	Comments
Ru-JP5	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Oita, Tobata	Kyushu Electric	0.5	2009/2031	D.E.S.	
Ru-JP6	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Chita	Toho Gas	0.5	2009/2033	D.E.S.	
Ru-JP7	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Niigata	Tohoku Electric	0.42	2010/2029	F.O.B.	
Ru-JP8	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Fukuoka, Nagasaki	Saibu Gas	0.008	2010/2028	F.O.B.	
Ru-JP9	Russia-Japan	Prigorodnoye	Sakhalin Energy Investment	Chita, Kawagoe, Yokkaichi	Chubu Electric	0.5	2011/2026	D.E.S.	
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	Shell	1.6	2009/2028	D.E.S.	
Ru-Mex	Russia-Mexico	Sakhalin	Sakhalin Energy	Energia Costa Azul	Gazprom Global LNG	1	2009/2028	D.E.S.	
MIDDLE EAST									
AE-JP	Abu Dhabi-Japan	Das Island	Adgas	Higashi-Ohgishima, Futttsu	Tokyo Electric	4.70	1994/2019	D.E.S.	
Q-B	Qatar - Belgium	Ras Laffan	RasGas	Zeebrugge	Distrigas	2.05	2007/2027	F.O.B.	
Q-B	Qatar - Belgium	Ras Laffan	RasGas II	Zeebrugge	EDF Trading	3.4	2007/2012	D.E.S.	
Q-Ch	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, Yokkaichi	Chubu Electric	4	1997/2021	F.O.B.	
Q-JP 2	Qatar -Japan	Ras Laffan	Qatargas	Niigata, Ohgishima, Senboku, Himeji, Sakai, Sodegaura, Futttsu, 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-KR1	Qatar-Korea	Ras Laffan	RasGas	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	4.92	1999/2024	F.O.B.	
Q-KR2	Qatar-Korea	Ras Laffan	RasGas III	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	2.1	2007/2026	D.E.S.	
Q-SP	Qatar - Spain	Ras Laffan	Qatargas	Ba.H.Cart.	Gas Natural Aproximadamente	0.66	2001/2009	F.O.B.	Extension to mid-2012
Q-SP	Qatar - Spain	Ras Laffan	Qatargas	Ba.H.Cart.	Gas Natural Aproximadamente	0.66	2002/2007	D.E.S.	Extension to mid-2012
Q-SP	Qatar - Spain	Ras Laffan	Qatargas	Ba.H.Cart.Sag.	Gas Natural sdg	0.75	2005/2025	D.E.S.	
Q-SP	Qatar - Spain	Ras Laffan	RasGas II		Endesa	0.74	2005/2025	F.O.B.	
Q-UE	Qatar - EU	Ras Laffan	Qatargas	EU	Gas Natural sdg	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.	
Q - UK	Qatar - UK	Ras Laffan	Qatargas II TB	South Hook	ExxonMobil	0.8	2009/2033	D.E.S.	
Q-UK	Qatar - UK	Ras Laffan	Qatargas II TB	South Hook	Total	1.50	2009/2034	D.E.S.	
Q-US	Qatar -US	Ras Laffan	Qatargas II TB	Sabine Pass	Total	1.15	2009/2034	C.I.F.	
Q- Mex	Qatar - Mexico	Ras Laffan	Qatargas II TB	Altamira	Total	0.70	2009/2021	D.E.S.	
Q- F	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-JP2	Oman-Japan	Qalhat	Oman LNG	Yanai, Mizushima	Itochu Corp. Chugoku Electric	0.77	2006/2020	F.O.B.	
OM-JP3	Oman-Japan/USA	Qalhat	Oman LNG	USA/Futttsu	Mitsubishi Corp Tokyo Electric	0.8	2006/2020	F.O.B./D.E.S.	
OM-JP4	Oman-Japan	Qalhat	Qalhat LNG	Senboku, Himeji	Osaka Gas	0.8	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	Oman LNG	Spain, Other	BP	0.77	2004/2009	D.E.S.	
OM-SP	Oman-Spain	Qalhat	Qalhat LNG	Spanish terminals	Union Fenosa Gas	1.65	2006/2025	D.E.S.	
Y - US	Yemen - US	Balhaf	Yemen LNG	Sabine Pass	TGPL	2	2009/2029	D.E.S.	
Y - US	Yemen - US	Balhaf	Yemen LNG	Gulf of Mexico	GDF SUEZ	2.55	2009/2029	D.E.S.	
Y-KR	Yemen-Korea	Balhaf	Yemen LNG	Pyeong-Taek, In-Chon, Tong-Yeong	Kogas	2	2008/2028	F.O.B.	
OTHER									
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.	
Ptf - NE	Portfolio - Netherlands	Iberdrola Portfolio	Iberdrola	Gate	DONG	0.72	2011/2021	D.E.S.	

Sea transportation routes

Ref.	Contracts	Export	Import	miles
Az-Ca	DZ-SP	Arzew	Cartagena	113
Az-H	DZ-SP	Arzew	Huelva	691
Az-IG	DZ-SP	Arzew	Isle of Grain	1675
Az-P	DZ-I	Arzew	Panigaglia	684
Ba-Bn	DZ-SP 1/2/3	Bethioua	Barcelona	343
Ba-Bo	DZ-SP 1	Bethioua	Bilbao	1118
Ba-Dj	DZ-IN	Bethioua	Dahej	4421
Ba-Ca	DZ-SP 1/2/3	Bethioua	Cartagena	113
Ba-FC	DZ-F	Bethioua	Fos Cavaou	520
Ba-F	DZ-F 3	Bethioua	Fos Tonkin	530
Ba-H	DZ-SP 1/2/3	Bethioua	Huelva	373
Ba-ME	DZ-TR 1	Bethioua	Marmara Ereglisi	1500
Ba-M	DZ-F 3	Bethioua	Montoir	1260
Ba-P	DZ-I	Bethioua	Panigaglia	461
Ba-Rg	DZ-SP	Bethioua	Reganosa	945
Ba-Rv	DZ-GR	Bethioua	Revithoussa	1270
Ba-Rt	DZ-ND	Bethioua	Rotterdam	1714
Ba-So	DZ-SP	Bethioua	Sagunto	243
Ba-Si	DZ-P	Bethioua	Sines	568
Ba-Sa	DZ-JP	Bethioua	Sakai	9491
Sk-Bn	DZ-SP	Skikda	Barcelona	351
Sk-Ca	DZ-SP	Skikda	Cartagena	388
Sk-H	DZ-SP	Skikda	Huelva	716
Sk-P	DZ-I 2/3	Skikda	Panigaglia	456
Da-Bn	EG-SP	Damietta	Barcelona	1554
Da-Ca	EG-SP	Damietta	Cartagena	1677
Da-Dj	EG-IN	Damietta	Dahej	3142
Da-Dg	EG-CN	Damietta	Dapeng, Shenzhen	6556
Da-Dn	EG-UK	Damietta	Dragon	3041
Da-Ha	EG-IN	Damietta	Hazira	3153
Da-H	EG-SP	Damietta	Huelva	1984
Da-Rg	EG-SP	Damietta	Reganosa	2580
Da-Rt	EG-ND	Damietta	Rotterdam	3346
Da-Si	EG-P	Damietta	Sines	2182
Ik-Al	EG-TR	Idku	Aliaga	603
Ik-BB	EG-ARG	Idku	Bahia Blanca	7490
Ik-Cr	EG-US	Idku	Cameron	6481
Ik-Ch	EG-JP	Idku	Chita	7990
Ik-Dg	EG-CN	Idku	Dapeng, Shenzhen	6665
Ik-El	EG-US	Idku	Elba Island	5495
Ik-FC	EG-F	Idku	Fos Cavaou	1430
Ik-F	EG-F	Idku	Fos Tonkin	1440
Ik-GL	EG-US	Idku	Gulf LNG	6405
Ik-Hj	EG-JP	Idku	Himeji	7911
Ik-IC	EG-KR	Idku	In-Chon	7768
Ik-Mj	EG-CL	Idku	Mejillones	10439
Ik-MA	EG-KW	Idku	Mina Al Ahmadi	3414
Ik-M	EG-F	Idku	Montoir	2771
Ik-Ni	EG-JP	Idku	Negishi	8104
Ik-Og	EG-JP	Idku	Ohgishima	8111
Ik-Ot	EG-JP	Idku	Oita	7766
Ik-Fp	EG-US	Idku	Port Freeport	6640
Ik-PT	EG-KR	Idku	Pyeong-Taek	7764
Ik-RV	EG-GR	Idku	Revithoussa	540
Ik-Ro	EG-I	Idku	Rovigo	1299
Ik-So	EG-SP	Idku	Sagunto	1571
Ik-Sa	EG-JP	Idku	Sakai	7907
Ik-Tb	EG-JP	Idku	Tobata	7607
Ik-Yg	EG-TW	Idku	Yung-An	6824
Bk-DL	EqG-CN	Bioko Island		
Bk-Dg	EqG-CN	Bioko Island	Dapeng, Shenzhen	9516
Bk-Hj	EqG-JP	Bioko Island	Himeji	10781
Bk-IC	EqG-KR	Bioko Island	In-Chon	10651
Bk-Ni	EqG-JP	Bioko Island	Negishi	10955
Bk-Og	EqG-JP	Bioko Island	Ohgishima	10897
Bk-Ot	EqG-JP	Bioko Island	Oita	10616
Bk-PT	EqG-KR	Bioko Island	Pyeong-Taek	10648
Bk-Qr	EqG-CL	Bioko Island	Quintero	6752
Bk-Sa	EqG-JP	Bioko Island	Sakai	10758
Bk-Tb	EqG-JP	Bioko Island	Tobata	10591
Bk-TY	EqG-KR	Bioko Island	Tong-Yeong	10578
Bk-Yg	EqG-TW	Bioko Island	Yung-An	9657
BI-At	NIG-MEX	Bonny Island	Altamira	6214
BI-Bn	NIG-SP	Bonny Island	Barcelona	3824
BI-BB	NIG-ARG	Bonny Island	Bahia Blanca	4662
BI-Bo	NIG-SP	Bonny Island	Bilbao	3914
BI-Ca	NIG-SP	Bonny Island	Cartagena	3574
BI-CP	NIG-US	Bonny Island	Cove Point	5256
BI-Dj	NIG-IN	Bonny Island	Dahej	7136
BI-Dg	NIG-CN	Bonny Island	Dapeng, Shenzhen	9328
BI-Dn	NIG-UK	Bonny Island	Dragon	4206
BI-Es	NIG-ARG	Bonny Island	Escobar	4995
BI-FC	NIG-F	Bonny Island	Fos Cavaou	4091
BI-Fj	NIG-CN	Bonny Island	Fujian	10054
BI-GB	NIG-BR	Bonny Island	Guanabara Bay	3422
BI-Ha	NIG-IN	Bonny Island	Hazira	7053
BI-Hj	NIG-JP	Bonny Island	Himeji	10790
BI-H	NIG-SP	Bonny Island	Huelva	3359
BI-IC	NIG-KR	Bonny Island	In-Chon	10390
BI-IG	NIG-UK	Bonny Island	Isle of Grain	4469
BI-JR	NIG-CN	Bonny Island	Jiangsu Rudong	10230
BI-Mt	NIG-TH	Bonny Island	Map Ta Phut	8708
BI-ME	NIG-TR	Bonny Island	Marmara Ereglisi	5059
BI-MA	NIG-KW	Bonny Island	Mina Al Ahmadi	7588
BI-Mn	NIG-DU	Bonny Island	Mina Jebel Ali	7209
BI-M	NIG-F	Bonny Island	Montoir	3980
BI-Ot	NIG-JP	Bonny Island	Oita	10626
BI-Pc	NIG-BR	Bonny Island	Pecem	2811
BI-PT	NIG-KR	Bonny Island	Pyeong-Taek	10657
BI-Rg	NIG-SP	Bonny Island	Reganosa	3746
BI-Ro	NIG-GR	Bonny Island	Revithoussa	4899
BI-ND	NIG-ND	Bonny Island	Rotterdam	4493
BI-So	NIG-SP	Bonny Island	Sagunto	3686
BI-Sa	NIG-JP	Bonny Island	Sakai	10767
BI-SG	NIG-CN	Bonny Island	Shanghai	10328

Ref.	Contracts	Export	Import	miles
BI-Si	NIG-P	Bonny Island	Sines	3417
BI-Tb	NIG-JP	Bonny Island	Tobata	10600
BI-TY	NIG-KR	Bonny Island	Tong-Yeong	10354
BI-Yg	NIG-TW	Bonny Island	Yung-An	9440
BI-Z	NIG-B	Bonny Island	Zeebrugge	4424
Hm-Ba	NO-SP	Hammerfest	Barcelona	3155
Hm-Ca	NO-SP	Hammerfest	Cartagena	2885
Hm-Bo	NO-SP	Hammerfest	Bilbao	2045
Hm-CP	NO-US	Hammerfest	Cove Point	3975
Hm-Dj	NO-IN	Hammerfest	Dahej	7665
Hm-Dn	NO-UK	Hammerfest	Dragon	1599
Hm-FC	NO-F	Hammerfest	Fos Cavaou	3349
Hm-Hj	NO-JP	Hammerfest	Himeji	12344
Hm-H	NO-SP	Hammerfest	Huelva	2594
Hm-IC	NO-KR	Hammerfest	In-Chon	12214
Hm-IG	NO-UK	Hammerfest	Isle of Grain	1423
Hm-M	NO-F	Hammerfest	Montoir	1889
Hm-Ot	NO-JP	Hammerfest	Oita	12180
Hm-PC	NO-DR	Hammerfest	Punta Caucedo	4613
Hm-PT	NO-KR	Hammerfest	Pyeong-Taek	12211
Hm-Rg	NO-SP	Hammerfest	Reganosa	2048
Hm-Rt	NO-Rt	Hammerfest	Rotterdam	1401
Hm-Ro	NO-I	Hammerfest	Rovigo	4196
Hm-SP	NO-US	Hammerfest	Sabine Pass	5455
Hm-So	NO-SP	Hammerfest	Sagunto	3065
Hm-Si	NO-P	Hammerfest	Sines	2398
Hm-Tb	NO-JP	Hammerfest	Tobata	12154
Hm-TY	NO-KR	Hammerfest	Tong-Yeong	12140
Hm-Yg	NO-TW	Hammerfest	Yung-An	11238
MB-Bn	LY-SP	Marsa-el-Brega	Barcelona	1068
MB-Ca	LY-SP	Marsa-el-Brega	Cartagena	1175
MB-H	LY-SP	Marsa-el-Brega	Huelva	1496
DI-Dj	AE-IN	Das Island	Dahej	1227
DI-Ha	AE-IN	Das Island	Hazira	1244
DI-MA	AE-KW	Das Island	Mina Al Ahmadi	390
K-Hj	US-JP	Kenai	Himeji	3727
K-JR	US-CN	Kenai	Jiangsu Rudong	4190
K-SG	US-CN	Kenai	Shanghai	4235
K-Sd	US-JP	Kenai	Sodegaura	3300
PF-BB	TT-ARG	Point Fortin	Bahia Blanca	4628
PF-Bn	TT-SP	Point Fortin	Barcelona	3976
PF-Bo	TT-SP	Point Fortin	Bilbao	3669
PF-Cr	TT-US	Point Fortin	Cameron	2201
PF-Ct	TT-Ca	Point Fortin	Canaport	2150
PF-Ca	TT-SP	Point Fortin	Cartagena	3701
PF-Dj	TT-IN	Point Fortin	Dahej	8463
PF-Dg	TT-CN	Point Fortin	Dapeng, Shenzhen	12479
PF-Dn	TT-UK	Point Fortin	Dragon	3734
PF-El	TT-US	Point Fortin	Elba Island	1690
PF-Es	TT-ARG	Point Fortin	Escobar	4920
PF-E	TT-US	Point Fortin	Everett	2032
PF-FC	TT-F	Point Fortin	Fos Cavaou	4147
PF-Fj	TT-CN	Point Fortin	Fujian	13007
PF-GB	TT-BR	Point Fortin	Guanabara Bay	3245
PF-GL	TT-US	Point Fortin	Gulf LNG	1978
PF-Hj	TT-JP	Point Fortin	Himeji	9230
PF-H	TT-SP	Point Fortin	Huelva	3417
PF-IC	TT-KR	Point Fortin	In-Chon	9685
PF-IG	TT-UK	Point Fortin	Isle of Grain	4064
PF-LC	TT-US	Point Fortin	Lake Charles	2247
PF-Mj	TT-CL	Point Fortin	Mejillones	7596
PF-MA	TT-KW	Point Fortin	Mina Al Ahmadi	10541
PF-M	TT-F	Point Fortin	Montoir	1618
PF-Pc	TT-BR	Point Fortin	Pecem	1732
PF-Pn	TT-PR	Point Fortin	Penuelas	560
PF-Fp	TT-US	Point Fortin	Port Freeport	2272
PF-PC	TT-DR	Point Fortin	Punta Caucedo	679
PF-PT	TT-KR	Point Fortin	Pyeong-Taek	9685
PF-Qr	TT-CL	Point Fortin	Quintero	7051
PF-Rg	TT-SP	Point Fortin	Reganosa	3452
PF-RV	TT-GR	Point Fortin	Revithoussa	4965
PF-Ro	TT-ND	Point Fortin	Rotterdam	4102
PF-Rt	TT-I	Point Fortin	Rovigo	5180
PF-SP	TT-US	Point Fortin	Sabine Pass	2247
PF-Sa	TT-JP	Point Fortin	Sakai	13721
PF-TY	TT-KR	Point Fortin	Tong-Yeong	9303
PF-Yg	TT-TW	Point Fortin	Yung-An	10174
PF-Z	TT-B	Point Fortin	Zeebrugge	3985
Lu-Hj	BR-JP	Lumut	Himeji	2999
Lu-IC	BR-KR	Lumut	In-Chon	2850
Lu-Ni	BR-JP	Lumut	Negishi	2416
Lu-PT	BR-KR	Lumut	Pyeong-Taek	2850
Lu-Sb	BR-JP	Lumut	Senboku	2405
Lu-Sd	BR-JP	Lumut	Sodegaura	2430
Lu-TY	BR-KR	Lumut	Tong-Yeong	2014
Bu-Ch	MY-JP 8	Bintulu	Chita	2395
Bu-Dj	MY-IN	Bintulu	Dahej	3337
Bu-Dg	MY-CN	Bintulu	Dapeng, Shenzhen	1256
Bu-Fk	MY-JP 6	Bintulu	Fukuoka	2160
Bu-Fu	MY-JP 1	Bintulu	Futtsu	2505
Bu-HO	MY-JP 1	Bintulu	Higashi-Ohgishima	2530
Bu-Hj	MY-JP	Bintulu	Himeji	2400
Bu-IC	MY-KR	Bintulu	In-Chon	2124
Bu-JR	MY-CN	Bintulu	Jiangsu Rudong	2205
Bu-MA	MY-KW	Bintulu	Mina Al Ahmadi	4479
Bu-Mn	MY-DU	Bintulu	Mina Jebel Ali	4101
Bu-Nk	MY-JP 6	Bintulu	Nagasaki	2151
Bu-Ni	MY-JP 1/8	Bintulu	Negishi	2513
Bu-Nt	MY-JP 2	Bintulu	Niigata	2511
Bu-Og	MY-JP 1/8	Bintulu	Ohgishima	2530
Bu-PT	MY-KR	Bintulu	Pyeong-Taek	2124
Bu-Sa	MY-JP 8	Bintulu	Sakai	2376
Bu-Sb	MY-JP 8	Bintulu	Senboku	2376
Bu-St	MY-CN	Bintulu	Shanghai Mengtougou	1942
Bu-SG	MY-CN	Bintulu	Shanghai	1942

Ref.	Contracts	Export	Import	miles
Bu-Sd	MY-JP 1/8	Bintulu	Sodegaura	2515
Bu-Sh	MY-JP 3	Bintulu	Sodeshi	2378
Bu-Tb	MY-JP	Bintulu	Tobata	2210
Bu-TY	MY-KR	Bintulu	Tong-Yeong	1674
Bu-Yg	MY-TW	Bintulu	Yung-An	1350
Bt-Ch	ID-JP13/8/12	Bontang (Badak)	Chita	2500
Bt-Fj	ID-CN	Bontang (Badak)	Fujian	1856
Bt-Hk	ID-JP 9	Bontang (Badak)	Hatsukaichi	2412
Bt-Hj	ID-JP 1/3/8	Bontang (Badak)	Himeji	2400
Bt-IC	ID-KR 1/2/7	Bontang (Badak)	In-Chon	2493
Bt-Kg	ID-JP 9	Bontang (Badak)	Kagoshima	2211
Bt-Kw	ID-JP 1/3/11	Bontang (Badak)	Kawagoe	2510
Bt-Mt	ID-TH	Bontang (Badak)	Map Ta Phut	1610
Bt-Ni	ID-JP 1/3/8	Bontang (Badak)	Negishi	2573
Bt-Nt	ID-JP	Bontang (Badak)	Niigata	2857
Bt-Og	ID-JP 8	Bontang (Badak)	Oghishima	2560
Bt-Ot	ID-JP 1	Bontang (Badak)	Oita	2413
Bt-PT	ID-KR 1/2/7	Bontang (Badak)	Pyeong-Taek	2493
Bt-Sa	ID-JP	Bontang (Badak)	Sakai	2385
Bt-Sb	ID-JP 1/3/8	Bontang (Badak)	Senboku 2	2385
Bt-Sd	ID-JP 8	Bontang (Badak)	Sodegaura	2566
Bt-Tb	ID-JP 1	Bontang (Badak)	Tobata	2370
Bt-TY	ID-KR 1/2/7	Bontang (Badak)	Tong-Yeong	2043
Bt-Yk	ID-JP 1/3	Bontang (Badak)	Yokkaichi	2510
Bt-Yg	ID-TW	Bontang (Badak)	Yung-An	1455
BL-Fu	ID-JP	Blang Lancang (Arun)	Futtsu	3504
BL-HO	ID-JP 2	Blang Lancang (Arun)	Higashi-Oghishima	3456
BL-PT	ID-KR 1/2/7	Blang Lancang (Arun)	Pyeong-Taek	3149
BL-TY	ID-KR 1/2/7	Blang Lancang (Arun)	Tong-Yeong	2699
Tg-Ch	ID-JP	Tangguh	Chita	2569
Tg-EC	ID-MEX	Tangguh	Energia Costa Azul	6850
Tg-Fj	ID-CN	Tangguh	Fujian	2227
Tg-Gy	ID-KR	Tangguh	Gwangyang	2548
Tg-IC	ID-KR	Tangguh	In-Chon	2736
Tg-Jo	ID-JP	Tangguh	Joetsu	2965
Tg-Nt	ID-JP	Tangguh	Niigata	3036
Tg-Og	ID-JP	Tangguh	Oghishima	2339
Tg-Ot	ID-JP	Tangguh	Oita	2458
Tg-PT	ID-KR	Tangguh	Pyeong-Taek	2734
Tg-Qr	ID-CL	Tangguh	Quintero	9135
Tg-Sb	ID-JP	Tangguh	Senboku 2	2458
Tg-Yg	ID-TW	Tangguh	Yung-An	1972
RL-Al	Q-TR	Ras Laffan	Aliaga	3722
RL-At	Q-MEX	Ras Laffan	Altamira	9922
RL-BB	Q-ARG	Ras Laffan	Bahia Blanca	8630
RL-Bn	Q-SP	Ras Laffan	Barcelona	4710
RL-Bo	Q-SP	Ras Laffan	Bilbao	5925
RL-Ct	Q-Ca	Ras Laffan	Canaport	8007
RL-Ca	Q-SP	Ras Laffan	Cartagena	4817
RL-Ch	Q-JP 1	Ras Laffan	Chita	6446
RL-Dj	Q-IN	Ras Laffan	Dahej	1290
RL-DL	Q-CN	Ras Laffan	Dalian	5935
RL-Dg	Q-CN	Ras Laffan	Dapeng, Shenzhen	5098
RL-Dn	Q-UK	Ras Laffan	Dragon	6184
RL-El	Q-US	Ras Laffan	Elba Island	8716
RL-Es	Q-ARG	Ras Laffan	Escobar	9023
RL-FC	Q-F	Ras Laffan	Fos Cavaou	4684
RL-GP	Q-US	Ras Laffan	Golden Pass	9824
RL-GB	Q-BR	Ras Laffan	Guanabara Bay	8197
RL-Ha	Q-IN	Ras Laffan	Hazira	1236
RL-Hj	Q-JP 2	Ras Laffan	Himeji	6350
RL-H	Q-SP	Ras Laffan	Huelva	5134
RL-IC	Q-KR	Ras Laffan	In-Chon	6156
RL-IG	Q-UK	Ras Laffan	Isle of Grain	6428
RL-JR	Q-CN	Ras Laffan	Jiangsu Rudong	5825
RL-Kw	Q-JP 1	Ras Laffan	Kawagoe	6448
RL-Mt	Q-TH	Ras Laffan	Map Ta Phut	4326
RL-MA	Q-KW	Ras Laffan	Mina Al Ahmadi	354
RL-Mn	Q-DU	Ras Laffan	Mina Jebel Ali	231
RL-Mz	Q-JP	Ras Laffan	Mizushima	6316
RL-M	Q-F	Ras Laffan	Montoir	6015
RL-Og	Q-JP	Ras Laffan	Oghishima	6513
RL-P	Q-I	Ras Laffan	Panigaglia	4774
RL-Pc	Q-BR	Ras Laffan	Pecem	8621
RL-PT	Q-KR	Ras Laffan	Pyeong-Taek	6156
RL-Qr	Q-CL	Ras Laffan	Quintero	10040
RL-Rg	Q-SP	Ras Laffan	Reganosa	5689
RL-RV	Q-GR	Ras Laffan	Revithoussa	3696
RL-Rt	Q-ND	Ras Laffan	Rotterdam	6509
RL-Ro	Q-I	Ras Laffan	Rovigo	4438
RL-SP	Q-US	Ras Laffan	Sabine Pass	9796
RL-So	Q-SP	Ras Laffan	Sagunto	4719
RL-Sa	Q-JP	Ras Laffan	Sakai	6347
RL-Sb	Q-JP 2	Ras Laffan	Senboku	6347
RL-SG	Q-CN	Ras Laffan	Shanghai	5901
RL-Si	Q-P	Ras Laffan	Sines	5291
RL-Sd	Q-JP 2	Ras Laffan	Sodegaura	6576
RL-Su	Q-UK	Ras Laffan	South Hook	6137
RL-Ta	Q-TW	Ras Laffan	Taichung	5229
RL-TY	Q-KR	Ras Laffan	Tong-Yeong	5706
RL-Ya	Q-JP 2	Ras Laffan	Yanai	6170
RL-Yg	Q-TW	Ras Laffan	Yung-An	5230
RL-Yk	Q-JP 1	Ras Laffan	Yokkaichi	6448
RL-Z	Q-B	Ras Laffan	Zeebrugge	6277
Qt-Bn	Om-SP	Qalhat	Barcelona	4159
Qt-Ca	Om-SP	Qalhat	Cartagena	4260
Qt-Ch	Om-JP	Qalhat	Chita	6032
Qt-Dj	Om-IN	Qalhat	Dahej	773
Qt-Hj	Om-JP 1	Qalhat	Himeji	5838
Qt-IC	Om-KR	Qalhat	In-Chon	5750
Qt-Mz	Om-JP2	Qalhat	Mizushima	5873
Qt-PT	Om-KR	Qalhat	Pyeong-Taek	5750
Qt-Sa	Om-JP	Qalhat	Sakai	5812
Qt-Sb	Om-JP 1	Qalhat	Senboku	5812
Qt-TY	Om-KR	Qalhat	Tong-Yeong	5300
Qt-Ya	Om-JP	Qalhat	Yanai	5700
Qt-Yg	Om-TW	Qalhat	Yung-An	4719
SI-Ch	Ru-JP	Sakhalin II	Chita	1085
SI-Dg	Ru-CN	Sakhalin II	Dapeng, Shenzhen	2244
SI-Fj	Ru-CN	Sakhalin II	Fujian	2063
SI-Fu	Ru-JP	Sakhalin II	Futtsu	1065
SI-Hk	Ru-JP	Sakhalin II	Hatsukaichi	1105
SI-Hj	Ru-JP	Sakhalin II	Himeji	1196
SI-HO	Ru-JP	Sakhalin II	Higashi-Oghishima	1067
SI-IC	Ru-KR	Sakhalin II	In-Chon	1763

Ref.	Contracts	Export	Import	miles
SI-JR	Ru-CN	Sakhalin II	Jiansu Rudong	1410
SI-Kw	Ru-JP	Sakhalin II	Kawagoe	1029
SI-Mt	Ru-TH	Sakhalin II	Map Ta Phut	3356
SI-Nk	Ru-JP	Sakhalin II	Nagasaki	1120
SI-Ni	Ru-JP	Sakhalin II	Negishi	1010
SI-Ni	Ru-JP	Sakhalin II	Niigata	581
SI-Og	Ru-JP	Sakhalin II	Oghishima	964
SI-OT	Ru-JP	Sakhalin II	Oita	1061
SI-PT	Ru-KR	Sakhalin II	Pyeong-Taek	1763
SI-Sa	Ru-JP	Sakhalin II	Sakai	1176
SI-Sb	Ru-JP	Sakhalin II	Senboku	1233
SI-SG	Ru-CN	Sakhalin II	Shanghai	1444
SI-Sd	Ru-JP	Sakhalin II	Sodegaura	1020
SI-Sh	Ru-JP	Sakhalin II	Sodeshi	934
SI-Tb	Ru-JP	Sakhalin II	Tobata	981
SI-TY	Ru-KR	Sakhalin II	Tong-Yeong	1363
SI-Yg	Ru-TW	Sakhalin II	Yung-An	1967
BF-At	Ym-MEX	Balhaf	Altamira	8313
BF-Ch	Ym-JP	Balhaf	Chita	6433
BF-Dg	Ym-CN	Balhaf	Dapeng, Shenzhen	5108
BF-E	Ym-US	Balhaf	Everett	6373
BF-FC	Ym-F	Balhaf	Fos Cavaou	2993
BF-Fj	Ym-CN	Balhaf	Fujian	5634
BF-Ha	Ym-IN	Balhaf	Hazira	1703
BF-IC	Ym-KR	Balhaf	In-Chon	6243
BF-IG	Ym-UK	Balhaf	Isle of Grain	4735
BF-JR	Ym-CN	Balhaf	Jiangsu Rudong	5802
BF-Kw	Ym-JP 1	Balhaf	Kawagoe	6435
BF-M	Ym-F	Balhaf	Montoir	4505
BF-Fp	Ym-US	Balhaf	Port Freeport	8146
BF-PT	Ym-KR	Balhaf	Pyeong-Taek	6025
BF-SP	Ym-US	Balhaf	Sabine Pass	8118
BF-TY	Ym-KR	Balhaf	Tong-Yeong	5625
BF-Yg	Ym-TW	Balhaf	Yung-An	5268
BF-Z	Ym-B	Balhaf	Zeebrugge	4690
WB-Ch	AU-JP	Withnell Bay	Chita	3612
WB-Dg	AU-CN	Withnell Bay	Dapeng, Shenzhen	2770
WB-Dj	AU-IN	Withnell Bay	Dahej	3857
WB-Fj	AU-CN	Withnell Bay	Fujian	3053
WB-Hj	AU-JP	Withnell Bay	Himeji	3596
WB-IC	AU-KR	Withnell Bay	In-Chon	3613
WB-Kg	AU-JP	Withnell Bay	Kagoshima	3334
WB-Kw	AU-JP	Withnell Bay	Kawagoe	3622
WB-MA	AU-KW	Withnell Bay	Mina Al Ahmadi	5041
WB-Mz	AU-JP	Withnell Bay	Mizushima	3638
WB-Ni	AU-JP	Withnell Bay	Negishi	3664
WB-Nt	AU-JP	Withnell Bay	Niigata	3995
WB-Og	AU-JP	Withnell Bay	Oghishima	3683
WB-OT	AU-JP	Withnell Bay	Oita	3460
WB-PT	AU-KR	Withnell Bay	Pyeong-Taek	3613
WB-Sa	AU-JP	Withnell Bay	Sakai	3570
WB-Sb	AU-JP	Withnell Bay	Senboku	3570
WB-Sd	AU-JP	Withnell Bay	Sodegaura	3692
WB-Tb	AU-JP	Withnell Bay	Tobata	3585
WB-TY	AU-KR	Withnell Bay	Tong-Yeong	3526
WB-Ya	AU-JP	Withnell Bay	Yanai	3491
WB-Yk	AU-JP	Withnell Bay	Yokkaichi	3668
Dw-Mn	AU-DU	Darwin	Mina Jebel Ali	5231
Dw-Ni	AU-JP	Darwin	Negishi	3017
Dw-og	AU-JP	Darwin	Oghishima	3055
Dw-Sa	AU-JP	Darwin	Sakai	3088
Dw-Yg	AU-TW	Darwin	Yung-An	2430
Pm-At	Pr-MEX	Pampa Melchorita	Altamira	10298
Pm-Bn	Pr-SP	Pampa Melchorita	Barcelona	9566
Pm-Bo	Pr-SP	Pampa Melchorita	Bilbao	9639
Pm-Cr	Pr-US	Pampa Melchorita	Cameron	10215
Pm-Ca	Pr-SP	Pampa Melchorita	Cartagena	9292
Pm-Dg	Pr-CN	Pampa Melchorita	Dapeng, Shenzhen	9603
Pm-H	Pr-SP	Pampa Melchorita	Huelva	9053
Pm-IC	Pr-KR	Pampa Melchorita	In-Chon	9274
Pm-Kt	Pr-JP	Pampa Melchorita	Kawagoe	8576
Pm-Mt	Pr-TH	Pampa Melchorita	Map Ta Phut	11027
Pm-Fp	Pr-US	Pampa Melchorita	Port Freeport	10236
Pm-PT	Pr-KR	Pampa Melchorita	Pyeong-Taek	9266
Pm-Rg	Pr-SP	Pampa Melchorita	Reganosa	9405
Pm-So	Pr-SP	Pampa Melchorita	Sagunto	9451
Pm-SG	Pr-CN	Pampa Melchorita	Shanghai	9325
Pm-Yg	Pr-TW	Pampa Melchorita	Yung-An	9740

Inter-Trade				
		Cartagena	Panigaglia	637
		Cartagena	Escobar	5526
		Huelva	Panigaglia	1914
		Huelva	Escobar	5325
		Reganosa	Panigaglia	1485
		Reganosa	Escobar	5598
		Reganosa	Mina Al Ahmadi	5735
		Reganosa	Yung-An	9164
		Zeebrugge	Bilbao	806
		Zeebrugge	Huelva	1222
		Zeebrugge	Himeji	11081
		Zeebrugge	Higashi-Oghishima	11262
		Zeebrugge	Pyeong-Taek	10948
		Zeebrugge	Rotterdam	101
		Zeebrugge	Sagunto	1705
		Cameron	Bilbao	4723
		Cameron	Himeji	9506
		Port Freeport	Dahej	9710
		Port Freeport	Guanabara Bay	5306
		Port Freeport	Gwangyang	6102
		Port Freeport	In-Chon	4300
		Sabine Pass	Cartagena	10118
		Sabine Pass	Dahej	9649
		Sabine Pass	Fujian	10344
		Sabine Pass	Guanabara Bay	10252
		Sabine Pass	Gwangyang	4453
		Sabine Pass	Isle of Grain	4165
		Sabine Pass	In-Chon	15432
		Sabine Pass	Pecem	3336
		Sabine Pass	Sagunto	14200
		Sabine Pass	Quintero	4113
		Energia Costa Azul	Quintero	4679
		Guanabara Bay	Mina Al Ahmadi	8375





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