Leading countries in the global market LNG

2025

Content

Introduction

Where it is not economically feasible or viable to deliver natural gas through pipelines, LNG serves as a means of transporting it from production sites to markets in countries and continents, helping to diversify geopolitical risks and achieve greater resilience and stability. Overall demand for LNG will remain strong due to the flexibility of this blue fuel and continued growth in energy consumption.

Global LNG trade began in the 1970s, and while the LNG market has become more active and accessible in recent years, its production and consumption is still too concentrated in the hands of a small number of countries and companies.

The LNG market is led by countries with large gas reserves and well-developed gas processing and transportation infrastructure.

LNG production is highly concentrated in a small number of countries. For example, nations such as Qatar, Australia and the United States dominate the global market. These three countries together account for about half of the world's total LNG production. This creates a situation where a few key players have a huge influence on global gas prices and supplies.

Asian countries such as China, Japan and South Korea remain the largest importers of this resource among all other regions of the world.

Natural gas is liquefied for transportation and transported on special ocean-going LNG ships or gas tankers.

At the receiving LNG import terminals, it is unloaded from the ships into special cryogenic tanks for the regasification process.

The gaseous natural gas is then delivered through pipelines to thermal power plants, industrial facilities, and domestic and commercial users.

Today, LNG accounts for about 15% of the world's gas supplies.

In 2023, global LNG trade totaled 401.42 million tons, with Europe accounting for 31% of all LNG contracts signed and the entire Asia-Pacific region accounting for 46%.

Around 180 companies in the global market participated in LNG supply under long-term contracts, with around 35% of the agreements at spot prices.

According to the Global Gas Report (GGR) 2023, presented at the ONS conference, the global LNG markets, comprising 20 exporting and 51 importing countries, remain in a delicate equilibrium as supply increases at a limited pace amid steady demand growth.

The Asian region continues to play a key role in this growth, while North America and the Middle East remain the leading exporters.

If gas demand continues to grow at the same rate as in the previous four years without additional production increases, a global supply deficit of 22% could emerge by 2030. If demand continues to grow, the shortfall will become even more pronounced.

This underscores the urgent need to expand investment. Energy consumption continued to increase in both developed and developing countries, with coal use reaching record levels in 2023, becoming the largest source of global carbon dioxide emissions.

If current trends in energy supply and demand continue, achieving decarbonization targets by 2030 will be at risk.

In Europe, energy demand is growing despite efficiency efforts and continued industrial decline.

Let's take a closer look at the world's top ten LNG producers.

Top 10 countries, the world's largest LNG suppliers in 2023

The global LNG market is driven by countries such as Qatar, Australia, USA, Russia, Algeria, Malaysia, Indonesia, Nigeria, Oman, Papua New Guinea, which together account for about 90% of the global market.

The top three - the US, Australia and Qatar - accounted for 60% of global LNG exports in 2023.

The US was the largest producer and exporter (84.53 tons in 2023 vs. 75.63 tons in 2022), followed by Australia (79.56 tons), Qatar (78.22 tons) and Russia (31.36).

Also, the US maintained its leading position in LNG exports to European countries. The share of the country's exports to this region reached 43%.

This was followed by Russia (17%), Qatar (12%), Algeria (8%), as well as Nigeria and Norway, which each accounted for 5%. In total, Europe imported 121.3 million tons of LNG.

Top 10 countries, the world's largest LNG suppliers in 2023

№	Countries	Export, mln/tonn	In % of total exports
	Total	**401,42**	**100.00**
1	**USA**	**84,53**	**21**
2	**Australia**	**79,56**	**20**
3	**Qatar**	**78,22**	**19**
4	**Russia**	**31,36**	**8**
5	**Malaysia**	**26,75**	**7**
6	**Indonesia**	**15,6**	**4**
7	**Algeria**	**13**	**3**
8	**Nigeria**	**13**	**3**
9	**Oman**	**11,4**	**3**
10	**Papua New Guinea**	**8,4**	**2**

After the top ten global LNG export leaders, the countries lined up in the following order:

- Trinidad and Tobago, 7.7mn tons-2%,
- UAE, 5mn tons-1%, Brunei, 4.6mn tons-1%,
- Norway, 4.4mn tons-1%,
- Angola, 3.7mn tons-1%,
- Peru, 3.7mn tons-1%, Egypt, 3.6mn tons-1%,
- Equatorial Guinea, 2.8mn tons-1%,
- Mozambique, 2.8mn tons-1%,
- United Arab Emirates, 3.7mn tons-1%,
- Egypt, 3.6 million tons-1%,
- Equatorial Guinea, 2.8 million tons-1%,
- Mozambique, 2.7 million tons-0.66%,
- Cameroon, 1.5 million tons-0.44%.

Let's take a closer look at the top ten LNG export leaders:

1. USA

Since 2023, the United States has become the leader in LNG exports for the first time, surpassing Australia and Qatar, with exports totaling 84.53 million tons per year, or 21% of global LNG exports.

At the same time, LNG exports accounted for 57% of total U.S. natural gas exports.

Deliveries were to 43 countries, including 16 countries in the European region.

The U.S. exported 68% of its shipments - 56.63 million tons of LNG - to Europe, with trade flows distributed as follows: To the Netherlands 11.97 million tons, to France 10.03 million tons, to the UK 8.81 million tons, to Spain 5.32 million tons, to Germany 4.14 million tons, to Italy 3.86 million tons, to Turkey 2.84 million tons, to Poland 2, 69 million tons, Belgium 1.71 million tons, Portugal 1.48 million tons, Croatia 1.1 million tons, Lithuania 1.08 million tons, Greece 0.78 million tons, Finland 0.74 million tons, Malta 0.05 million tons, and Gibraltar 0.001 million tons.

Asia Pacific accounted for 14.44 mt of LNG exports or 17% of shipments, distributed among 7 countries: Japan 5.63 mt, South Korea 5.15 mt, Chinese Taipei 1.96 mt, Thailand 1.05 mt, Singapore 0.38 mt, Philippines 0.11 mt, Indonesia 0.13 mt.

Asia accounted for 6.66 mt of U.S. LNG exports or about 8% of shipments, distributed among three countries: China 3.17 mt, India 3.09 mt, Bangladesh 0.40 mt.

Latin America accounted for 5.60 million tons or slightly more than 6% of LNG exports, delivered to 9 countries: Chile, Argentina, Dominican Republic, Jamaica,

Colombia, Brazil, El Salvador, Panama, Cuba, distributed in approximately equal shares.

North America and the Middle East accounted for just over 1% and 1.21 million tons, with shipments to Mexico, Kuwait, Jordan.

2. Australia

Australia became the second largest exporter in the world, exporting 79.56 million tons of LNG - 20% in 2023.

Deliveries were made to 14 countries, the largest export volume came from the Asia Pacific region, the largest importing countries of Australian LNG were China and Japan.

Asia Pacific accounted for 54.75 million tons of LNG exports or 69% of shipments, distributed among 8 countries: Japan 27.61 million tons, South Korea 10.74 million tons, Chinese Taipei 8.14 million tons, Thailand 2.81 million tons, Singapore 2.71 million tons, Malaysia 2.15 million tons, Indonesia 0.53 million tons, Philippines 0.06 million tons.

Asia accounted for 24.7 million tons of U.S. LNG exports or 31% of shipments, split between China 24.34 million tons, India 0.34 million tons.

Australia exported LNG to Europe to only one country - Spain 0.005 million tons.

Latin America also exported a small amount of LNG: El Salvador 0.04 million tons and Chile 0.001 million tons. In the Middle East, exports to one country: Kuwait 0.07 mln tons.

3. Qatar

Qatar ranked third in terms of exports, exporting 78.22 million tons of LNG -19% of global LNG exports in 2023.

The largest volume of Qatari LNG exports came from the Asian region-37.74 million tons and took 48% of all shipments. They were delivered to 4 countries in the following volumes: China 16.75 million tons, India 10.92 million tons, Pakistan 6.32 million tons, Bangladesh 3.75 million tons.

Asia Pacific accounted for 21.28mn tons of LNG exports or 27% of LNG shipments, distributed among 5 countries: South Korea 8.67mn tons, Chinese Taipei 5.55mn tons, Japan 2.83mn tons, Thailand 2.82mn tons, Singapore 1.41mn tons.

14.98mn tons of LNG was exported to Europe, accounting for 19% of all Qatari shipments and distributed among 7 countries: Italy 4.82mn tons, Belgium 3.20mn tons, United Kingdom 2.04mn tons, Poland 1.74mn tons, France 1.65mn tons, Spain 0.96mn tons, Netherlands 0.57mn tons.

The Middle East accounted for 4.07 million tons of LNG deliveries or just over 5%, distributed between 2 countries, Kuwait 3.41 million tons, UAE 0.66 million tons.

In Latin America, deliveries were made to Argentina - 0.14 mln tons.

4. Russia

Russia remained in fourth place in the ranking of LNG 2023 exporters with 31.36 million tons and 8%.

The largest LNG exports were to 11 countries in Europe, accounting for 14.27mn tons or 45% of the total: France 3.47mn tons, Spain 4.83mn tons, Netherlands 0.72mn tons, Italy 0.12mn tons, Turkey 1.16mn tons, Belgium 2.82mn tons, Portugal 0.29mn tons, Greece 0.59mn tons, Finland 0.15mn tons, Sweden 0.07mn tons, Norway 0.06mn tons.

In the Asian region, LNG was shipped to 2 countries and accounted for 8.64mn tons or 27% of total exports: China 8.15mn tons, India 0.49mn tons.

Asia Pacific accounted for 8.23 million tons of LNG exports or about 26% of shipments, distributed among 4 countries as follows: Japan 5.95 million tons, South Korea 1.65 million tons, Chinese Taipei 0.56 million tons, Singapore 0.07 million tons.

Insignificant volume of LNG came to Kuwait 0.07 mln tons and in Latin America to Brazil 0.06 mln tons.

5. Malaysia

Malaysia placed fifth in the top ten for 2023 LNG exports with 26.75 million tons - 7%.

The largest region, which accounted for 19.74 million tons of supply, or three-quarters of Malaysia's LNG export volume, 74%, was Asia Pacific.

Deliveries were made to 7 countries: Japan 10.43 million tons, South Korea 6.19 million tons, Chinese Taipei 0.65 million tons, Thailand 1.83 million tons, Singapore 0.06 million tons, Malaysia 0.44 million tons, Philippines 0.14 million tons.

To Asia, shipments of 6.87 million tons or one-quarter of total exports, 24% were distributed between China 6.76 million tons, Bangladesh 0.07 million tons.

0.14 million tons of shipments went to Kuwait.

6. Indonesia

Indonesia's LNG exports totaled 15.6 million tons-4%, placing the country in 6th place.

The largest export volume came from 11 countries of Asia Pacific region and amounted to 10.91 million tons (about 70%): Japan 2.69 million tons, South Korea 2.96 million tons, Chinese Taipei 0.44 million tons, Thailand 0.45 million tons, Singapore 0.23 million tons, Indonesia 4.04 million tons, Vietnam 0.08 million tons.

In Asia, 4.36 mln tons (about 28%) were delivered to 3 countries: China 4.06 mln tons, Pakistan 0.25 mln tons, Bangladesh 0.06 mln tons.

There were deliveries to Europe in a small volume to one country - Croatia 0.07 mln tons.

LNG was also supplied to one country in North America - Mexico - in the volume of 0.25 mln tons.

7. Algeria

Algeria's LNG exports amounted to 13.03 million tons, or 3% of the global total, placing the country in 7th place in the ranking.

Europe accounted for the largest volume of 11.72mn tons, accounting for 90% of the country's LNG exports. Deliveries were made to 10 countries: France 3.02mn tons, Spain 1.43mn tons, Netherlands 0.19mn tons, United Kingdom 0.34mn tons,

Italy 0.71mn tons, Turkey 4.29mn tons, Belgium 0.14mn tons, Lithuania 0.006mn tons, Greece 0.29mn tons, Finland 0.07mn tons.

In Asia, 0.83 million tons (6%) were supplied to 3 countries: China 0.35 million tons, India 0.34 million tons, Bangladesh 0.13 million tons.

Four countries in the Asia Pacific region accounted for 0.33 million tons of LNG exports or about 3% of Algeria's shipments: Japan 0.06 million tons, South Korea 0.13 million tons, Thailand 0.08 million tons, Philippines 0.07 million tons.

In Latin America, 0.07 mt was supplied to 2 countries in equal shares: Argentina and Brazil 0.04 mt each, respectively. 0.08 mln tons were supplied to Kuwait.

8. Nigeria

Nigeria ranked 8th with 12.97 million tons -3% of LNG exports in 2023.

The bulk of shipments of 6.93 million tons or 53% came from the European continent, distributed among 11 countries: France 0.45 million tons, Spain 3.59 million tons, Netherlands 0.20 million tons, UK 0.34 million tons, Italy 0.22 million tons, Turkey 0.36 million tons, Belgium 0.06 million tons, Portugal 1.51 million tons. tons, Netherlands 0.20 million tons, Great Britain 0.34 million tons, Italy 0.22 million tons, Turkey 0.36 million tons, Belgium 0.06 million tons, Portugal 1.51 million tons, Lithuania 0.07 million tons, Greece 0.06 million tons, Croatia 0.06 million tons.

In Asia, shipments of 2.53 million tons (about 20%) were made to 4 countries: China 1.21 million tons, India 0.73 million tons, Pakistan 0.38 million tons, Bangladesh 0.21 million tons.

Following was the Asia Pacific region which accounted for 1.51 million tons of shipments or about 12% of Nigeria's total LNG exports which were distributed to 5 countries as follows: Japan 0.26 million tons, South Korea 0.63 million tons, Chinese Taipei 0.33 million tons, Thailand 0.27 million tons, Indonesia 0.01 million tons.

In Latin America, LNG recipients were Argentina 0.06 million tons and Jamaica 0.76 million tons, which took up just over 6% of the country's LNG exports.

Deliveries to North America amounted to 0.33 million tons or 2.5%, distributed between 2 countries: Puerto Rico 0.3 million tons and the USA 0.03 million tons.

0.87 million tons of shipments went to Kuwait.

9. Oman

Oman is in 9th place in the ranking with 11.4 million tons of LNG.

The Asia Pacific region accounted for the largest volume of LNG exports with 8.45 million tons of supply or about three quarters (74%) of Oman's total LNG exports, which were distributed among 5 countries as follows: Japan 2.19 million tons, South Korea 5.08 million tons, Chinese Taipei 0.41 million tons, Thailand 0.63 million tons, Philippines 0.14 million tons.

In Asia, shipments of 2.03 million tons (about 18%) were made to 3 countries: China 1.08 million tons, India 0.88 million tons, India 0.38 million tons, Pakistan 0.07 million tons.

In Europe, 0.55 million tons of LNG (less than 5%) were delivered to 4 countries: France 0.07 million tons, Spain 0.19 million tons, Turkey 0.06 million tons, Croatia 0.23 million tons.
In North America, supplies were distributed between 2 countries: Mexico 0.06 mln tons, Canada 0.07 mln tons.

10.Papua New Guinea

Papua New Guinea completes the top three LNG exporting countries in the world with 8.35 million tons -2%.

Asia Pacific region accounted for the largest volume of LNG exports with 5.81 million tons of supply 70% of the country's total LNG exports, which were distributed among 3 countries as follows: Japan 3.80 million tons, South Korea 0.60 million tons, Chinese Taipei 1.40 million tons.

The country supplied 2.54 million tons of LNG to Asia, which accounted for 30% of the total exports and this volume went to China.

It becomes clear that Asia Pacific region has become the leader in receiving LNG in 2023 with 155.32 million tons of total imports, Eupopa took the second position with 121.29 million tons, Asia became the third largest importing region with 105.5 million tons of LNG.

World's largest liquefied natural gas export capacity

The largest operating natural gas liquefaction facilities are concentrated in key exporting countries and are listed below in descending order of operating capacity (data for 2023-2024):

USA

Capacity: ~120–130 mln tons/year
Largest terminals:

- Sabine Pass (Louisiana) – ~30 mln tons/year

- Corpus Christi (Texas) – ~25 mln tons/year
- Freeport (Texas) – ~20 mln tons/year
- Cameron (Louisiana) – ~15 mln tons/year

Australia

Capacity: ~85–90 mln tons/year
Largest projects:

- Gorgon (Chevron) – ~15,6 mln tons/year

- North West Shelf (Woodside) – ~16,9 mln tons/year
- Queensland Curtis LNG (Shell) – ~8,5 mln tons/year
- Prelude FLNG (Shell) – ~3,6 mln tons/year

Qatar QA

Capacity: ~77–80 mln tons/year (before expansion North Field)
Largest projects:

- North Field (Qatargas, RasGas) - 14 liquefaction lines
  After 2025-2027: Capacity to grow to **126 mln tons/year**.

Russia

Capacity: ~35–40 mln tons/year
Largest projects:

- Sakhalin-2 (Gazprom, Shell) - ~10 mln tons/year
- - Yamal LNG (NOVATEK) - ~19.8 mln tons/year
- - Krymsk (NOVATEK - future project)

Malaysia

Capacity: ~30–35 mln tons/year
Largest projects:

- Petronas LNG Complex (Bintulu) – ~30 mln tons/year

Nigeria

Capacity: ~22–25 mln tons/year
Largest projects:

- Nigeria LNG (Bonny Island) – 6 lines (~22 mln tons/year)

Algeria

Capacity: ~25–30 mln tons/year*
Largest projects:

- Skikda LNG, Arzew GL4Z

**At peak 2000s (through 2010s), actual LNG exports are lower today due to shutdown of some capacity: Arzew GL4Z: ~8 mtpa (new line), Skikda: ~4.5 mtpa. Bethioua and old Arzew lines shut down.*

Indonesia

Capacity: ~20–22 mln tons/year
Largest projects:

- Bontang LNG, Tangguh LNG

Trinidad and Tobago

Capacity: ~15–20 mln tons/year
Largest projects:

- Atlantic LNG

Oman LNG

Capacity: ~10–12 mln tons/year
Largest projects:

- Oman LNG, Qalhat LNG

Prospective players: The U.S. and Qatar are aggressively building capacity, while Australia has slowed new project development.

Let's take a closer look at some of the world's largest liquefaction and natural gas export terminals.

World's largest LNG export terminals

Qatar and the US lead in liquefaction volumes, but new projects in Africa and the Arctic could change the balance.

- **Ras Laffan LNG (Qatar)**

A key facility of the global gas industry, providing about 20% of global LNG supplies. The world's largest complex located on the northeast coast of Qatar, 80 km north of Doha.

- **Operators:** QatarEnergy
- **Year of launch:** First line – 1996 (QatarGas-1).
- **Capacity:** ~77 mln tons/year
- **Number of lines:** 14 trains

- **Storage facilities:** more than 20 tanks with a total volume of ~9 mln m³.
- **Berths:** 7 specialized tanker loading terminals (including Q-Max - the largest in the world)

The complex combines several mega-projects developed at **the North field** (the world's largest gas field):

1. QatarGas (1–4)

- **Capacity:** ~42 mln tons/year.
- **Members:** QatarEnergy, TotalEnergies, ExxonMobil, Shell, Mitsui, Marubeni.

2. RasGas (1–3)

- **Capacity:** ~35 mln tons/year.
- **Members:** QatarEnergy, ExxonMobil.

3. North Field LNG (main deposit)

Capacity will grow to 126 mln tons/year by 2027 (North Field East & West).

Main markets: Asia (Japan, China, South Korea, India), Europe (especially after 2022).

Ras Laffan features: served by the largest LNG tanker in the world (Q-Max. Provides a third of all EU gas after 2022. First LNG plant in the world to operate with CO_2 capture (from 2019).

- **Sabine Pass LNG (Louisiana, USA)**

Sabine Pass is one of the world's largest natural gas liquefaction and export terminals, located on the Texas-Louisiana border at the mouth of the Sabine River.

Main features:

- **Operator:** Cheniere Energy (through subsidiary Sabine Pass Liquefaction)
- **Startup year:** 2016 (first phase), sixth phase in 2022
- **Current Capacity:** ~30 mtpa of LNG
- **Number of liquefaction lines:** 6 (~4.5 million tons/year each)
- **Storage:** 17 tanks totaling ~3.8 million m³
- **Berths:** 2 deepwater terminals for tanker loading
- **Main contracts:** long-term supply to Asia and Europe (including Shell, GAIL, KOGAS).
- Uses ConocoPhillips Optimized Cascade technology (efficient multi-stage liquefaction).
- Connected to the Creole Trail Pipeline gas transportation system and other pipelines.
- Can accommodate Q-Flex class tankers (up to 216,000 m³)

Sabine Pass is the largest U.S. LNG hub, accounting for about 15% of U.S. exports and playing a key role in supplying Europe.

- **Corpus Christi LNG (Texas, USA)**

Corpus Christi LNG is the largest LNG export terminal in the United States, located on the Gulf Coast in San Patricio County, Texas.

Main features:

- **Operator:** Cheniere Energy (through subsidiary Corpus Christi Liquefaction)
- **Startup Year:** 2018 (first phase)
- **Current Capacity:** ~25 mtpa
- **Number of liquefaction lines (trains):**
  3 operational (~5 mtpa each)
  4th and 5th trains under construction (2024-2025)
- **Storage:** 3 tanks of ~160,000 m³ each
- **Berths:** 2 deepwater terminals for tanker loading.
- Plans to increase capacity to ~35 million tons/year by 2026 and deploy carbon capture technologies (CCS).
- Uses ConocoPhillips Optimized Cascade technology
- Connected to Kinder Morgan Texas Pipeline and Cheniere Corpus Christi Pipeline.
- Can handle Q-Flex class tankers (up to 216,000 m³)

Among the top 5 largest LNG terminals in the world in terms of export volumes. Key markets: Asia (China, South Korea) and Europe (especially after 2022), has long-term contracts with GAIL (India), PTT (Thailand), Trafigura.

- **North West Shelf (NWS) LNG (Australia)**

North West Shelf (NWS) LNG is Australia's oldest and one of Australia's most powerful LNG terminals, located in the Pilbara region of Western Australia.

Main features:

- **Operator:** Woodside Energy
- **Launch Year:** 1989 (Australia's first LNG project)
- **Current Capacity:** ~16.9 Mtpa
- **Number of Trains:** 5
- **Liquefaction Technology:** ConocoPhillips Optimized Cascade
- **Storage:** 6 tanks
- **Berths:** 2
- **Tankers:** Standard LNG tankers (up to 180,000m³)

Gas source: Fields North West Shelf

Main sales markets: Japan (long-term contracts with Tokyo Gas, Kansai Electric), China (CNPC), South Korea (KOGAS)

- **Gorgon LNG (Australia)**

Gorgon LNG is one of the largest and most technologically advanced LNG projects in the world, located on Barrow Island (Western Australia).

Main features:

- **Operator: C**hevron (47.3%), jointly with ExxonMobil (25%), Shell (25%), Osaka Gas (1.25%)
- **Startup Year:** 2016
- **Current Capacity:** ~15.6 million tons of LNG/year
- **Number of Liquefaction Lines:** 3
- **Gas Source:** Gorgon Gas Field and Jansz-Io
- **Storage:** 3 tanks
- **Berths:** 2
- **Largest CO_2 Capture System (CCS) -** 4 million tons of CO_2/year pumped underground

The plant has long-term contracts with Japan (JERA, Tokyo Gas), South Korea (KOGAS), China (Sinopec).

Both Australian projects are critical to the Asian LNG market.

- **Petronas LNG Complex (Bintulu)(Malaysia)**

Petronas LNG Complex (PLNGC) in Bintulu is one of the world's largest liquefied natural gas (LNG) complexes located in the state of Sarawak, Bintulu, Malaysia (on the island of Borneo).

Main features:

• **Operator:** Petronas (Malaysia's national oil and gas company).

• **Year of commissioning:** launched in 1983.

• **Capacity:** 30 million tons of LNG per year.

The complex consists of several production lines (trains):

1. Main LNG plants (9 trains) – produce LNG for export.
2. Liquefied petroleum gas plant (MLNG Dua).
3. Condensate plant (MLNG Tiga).

- **Marine terminal for loading tankers.**
- **LNG storage facilities.**
- **Infrastructure for receiving and processing gas from fields in the region**.

Gas comes from offshore fields in Sarawak: Central Luconia, Bintulu Basin and others. The complex is one of the key LNG hubs in the Asia-Pacific region.

- **Nigeria LNG (Bonny Island) (Nageria)**

Nigeria LNG (Bonny Island) is a key player in the global LNG market, important to the Nigerian economy, located on Bonny Island in the Niger Delta, Rivers State, Nigeria.

Main features:

- **Operator:** Nigeria LNG Limited (joint venture).
- **Year of commissioning:** 1999
- **Capacity:** 22 million tons of LNG per year (up to 30 million tons after completion of Train 7).
- 6 production lines (Trains 1-6)
- Liquefied Petroleum Gas (LPG) and condensate plants.
- Marine terminal for LNG exports.

Gas comes from fields in the Niger Delta.

It is the largest LNG exporter in Africa (about 5% of global LNG supplies), supplying Europe (Spain, France, Portugal, Turkey), Asia (China, India, Japan, South Korea) and the Americas (USA, Mexico, Brazil).

- **Atlantic LNG (Trinidad and Tobago)**

Atlantic LNG is the key liquefied natural gas export terminal in the Western Hemisphere, located on the island of Trinidad.

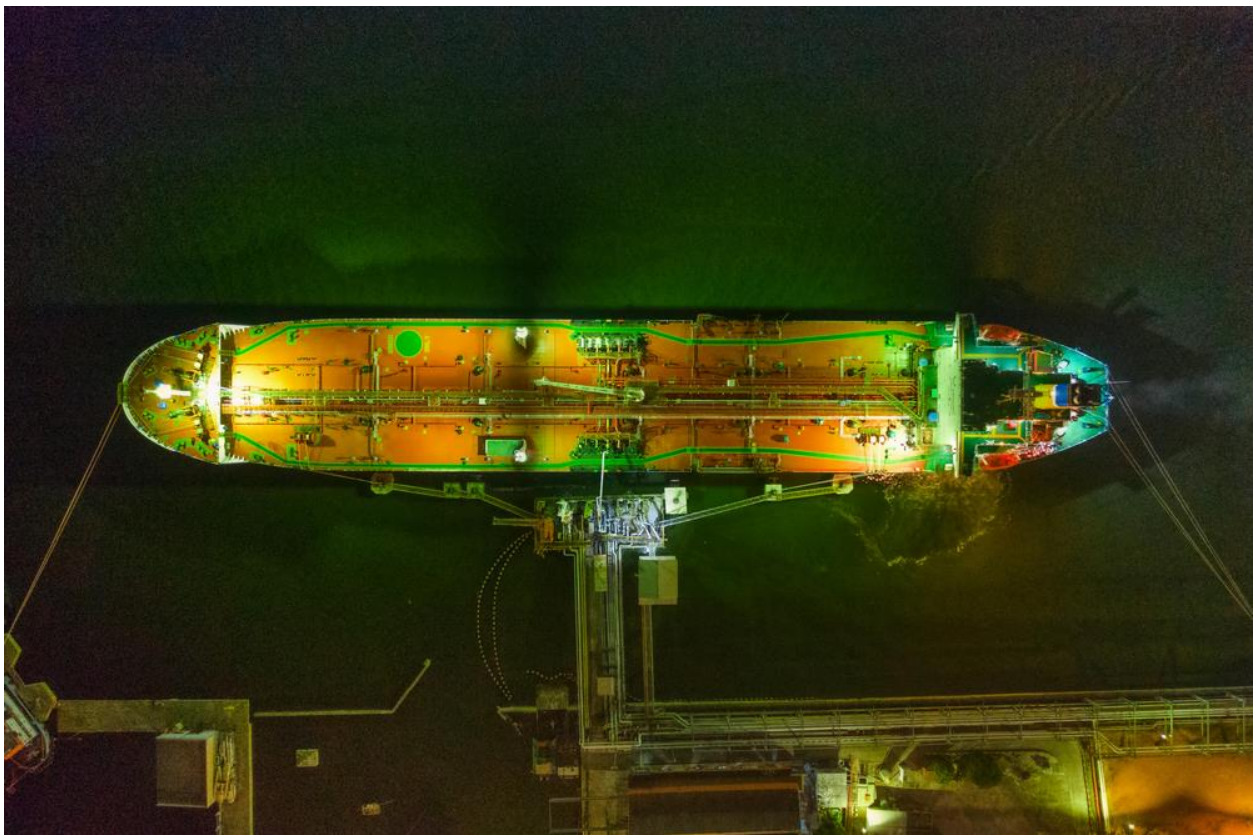
Founded in the 1990s, it has long been a major supplier of LNG to the US and Europe.

Main features:

- **Operator:** Shell (45%), BP (25%), NGC (Trinidad, 10%), others
- **Launch year:** 1999, last train – 2005
- **Current Capacity:** 15 million tons of LNG/year
- **Liquefaction technology:** ConocoPhillips Optimized Cascade
- **Number of trains:** 4
- **Storage:** 3 tanks of 140,000 m³
- **Berths:** 2
- **Tankers:** LNG tankers up to 180,000 m³

Columbus Basin and East Coast Marine gas fields.

Sales markets: South America (Brazil, Argentina), Europe (Spain, UK), Asia (spot supplies).



- **Oman LNG (Oman)**

Oman LNG is a strategically important liquefied natural gas export terminal in the Sultanate of Oman, playing a significant role in supplying Asia and Europe. It is located in the port of Qalhat near Sur.

Main features:

- **Operator:** Oman LNG LLC (Government of Oman – 51%, Shell – 30%, TotalEnergies – 5.5%, others).
- **Launch year:** 2000
- **Current Capacity:** 10.4 million tons of LNG/year
- **Number of trains:** 3
- **Storage:** 2 tanks of 160,000 m³
- **Berths:** 2 tanker loading terminals
- **Liquefaction technology:** AP-X™ (Air Products)
- **Tankers:** LNG tankers up to 180,000 m³

Sales markets: Japan (JERA, Kansai Electric), South Korea (KOGAS), China (CNOOC), Europe (spot deliveries).

- **Bontang LNG & Tangguh LNG (Indonesia)**

Bontang LNG & Tangguh LNG are the two pillars of Indonesian gas exports.

Bontang LNG is the world's first fully integrated LNG plant from production to shipment, launched in 1977, located in East Kalimantan**.**

Main features:

- **Operator:** PT Badak NGL (consortium of Pertamina, TotalEnergies, Mitsubishi)

- **Current Capacity:** 11.5 mln tons/year (initially 22 mln tons/8 lines)

Gas source: depleting Mahakam field.

Main buyers: Japan (70% of volumes), South Korea.

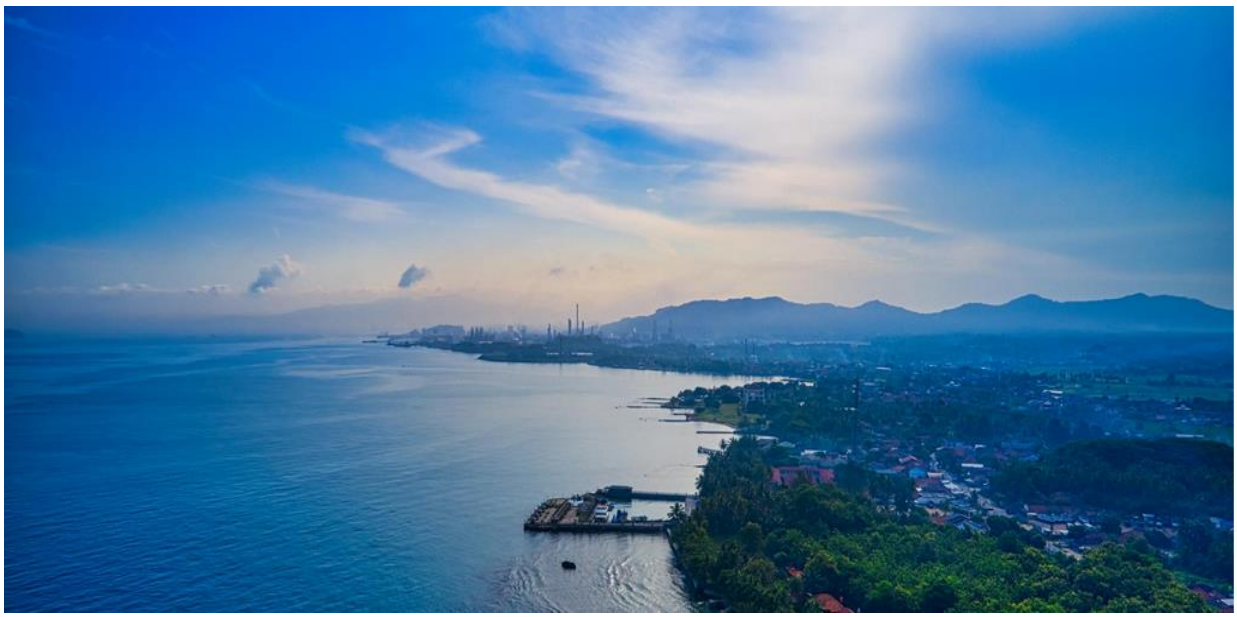
Since 2015, it has been operating at 50% of capacity, the average age of equipment is 40+ years**.**

Tangguh LNG is Indonesia's modern LNG flagship located in Bintuni Bay, West Papua.

Main features:

- **Operator:** BP (40.5%) with consortium (CNOOC, Mitsubishi, Nippon Oil)
- **Launch year:** 2009 (Train 1-2), 2023 (Train 3)
- **Current Capacity:** 11.4 mln tons/year (14.6 mln after 2025)
- **Technology:** Modern DMR lines DMR (Dual Mixed Refrigerant)

Gas source: Berau field reserves: 14.4 trillion cubic feet (25+ years of production).
Sales markets: 85% of production – long-term contracts with China (CNOOC) and Korea (KOGAS).
The project is planned to expand with the launch of Train 4 (+3.8 million tons by 2027).
By 2030, Indonesia may retain 5-7% of the world LNG market.



LNG delivery

As of the beginning of 2024, the global fleet of gas carriers consisted of 701 (including 47 FSRU and 10 FLNG) tankers.

Their average age is about 12 years. 32 new tankers.

The global LNG fleet is relatively new, as the LNG trade has grown significantly over the past twenty years, and is predominantly made up of vessels under 20 years old - their share reaches 85.3%.

They are characterized by increased size, high fuel efficiency and consistently good performance.

And only 21 vessels are over 30 years old, 8 of which have been modernized into floating storage and regasification units (FSRU) or liquefied gas storage units (FSU).

This also points to a 5.0% increase in the fleet between 2022 and 2023, which compares to a 1.7% increase in LNG sailings, indicating a significant increase in the number of LNG carriers compared to the increase in LNG trade volumes.

Key LNG fleet operators:

- **Teekay LNG –** 50+ tankers
- **MOL (Mitsui O.S.K. Lines)** – 100+ vessels
- **NYK Line** – 80+ tankers
- **China COSCO Shipping** – rapidly growing fleet (60+ vessels)

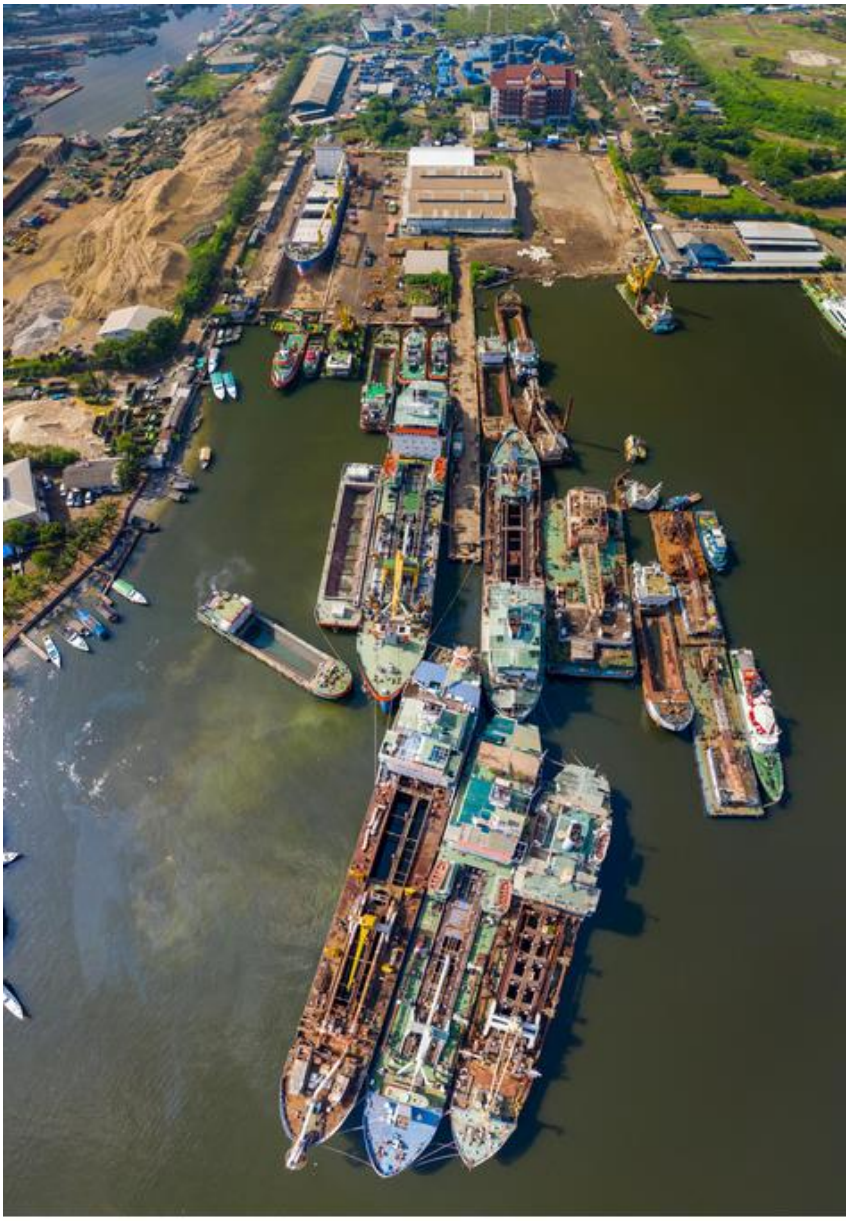
At the start of 2024, a record 359 new vessels were under construction, representing over half (51%) of the existing fleet. This large order book reflects shipowners' confidence in the continued growth of the LNG market, supported by the planned expansion of liquefaction capacity. Of the 359 vessels, 66 were scheduled for delivery by the end of 2024, 91 in 2025, 97 in 2026, 55 in 2027, 46 in 2028 and 4 in 2029.

Geography of LNG transportation

- **Main routes:**
  - **Qatar - Asia** ~80 million tons with a market share of 30% (Japan, China, South Korea)
  - **USA - Europe** ~55 million tons with a market share of 20% (Sabine Pass/Corpus Christi - Netherlands/France/UK)
  - **Australia - Asia** ~45 million tons with a market share of 17% (North West Shelf/Gorgon - Japan/China)
  - **Russia - China/Europe** ~30 million tons with a market share of 11% (Yamal LNG - China (Northern Sea Route) / France (spot deliveries)
  - **Africa (Nigeria/Algeria) -** EU ~15 million tons with a market share of 6% (Bonny Island/Skikda - Spain/Italy)
  - **Others (Norway, Oman, etc.)** ~40 million tons with a market share of 16% (Snøhvit LNG - Asia; Oman LNG – Japan)

Geography of LNG transportation in 2023

- In 2023, due to the geopolitical situation in the world, there was a sharp jump in shipments from the USA to Europe, showing an increase of 18% compared to the previous year.
- Due to sanctions, there was a decrease in Russian supplies to the EU (-40%) and a redirection of flows to Asia.
- Supplies to China reached record levels, increasing by 22% to 85 million tons in 2023. The main suppliers were Qatar (30%), the USA (25%), Russia (15%). Delivery time to China was reduced to 15 days (versus 30+ days via Suez along the Northern Sea Route).



Top 5 on natovarite routes (according to data on Vortexa)

1. Ras Laffan (Qatar) - Tianjin (China) – 12 million tons
2. Sabine Pass (USA) - Rotterdam (Netherlands) – 9 million tons
3. Gorgon (Australia) - Tokyo (Japan) – 7 million tons
4. Yamal (Russia) - Jiangsu (China) – 6 million tons
5. Bonny Island (Nigeria) - Barcelona (Spain) – 4 million tons

Conclusion

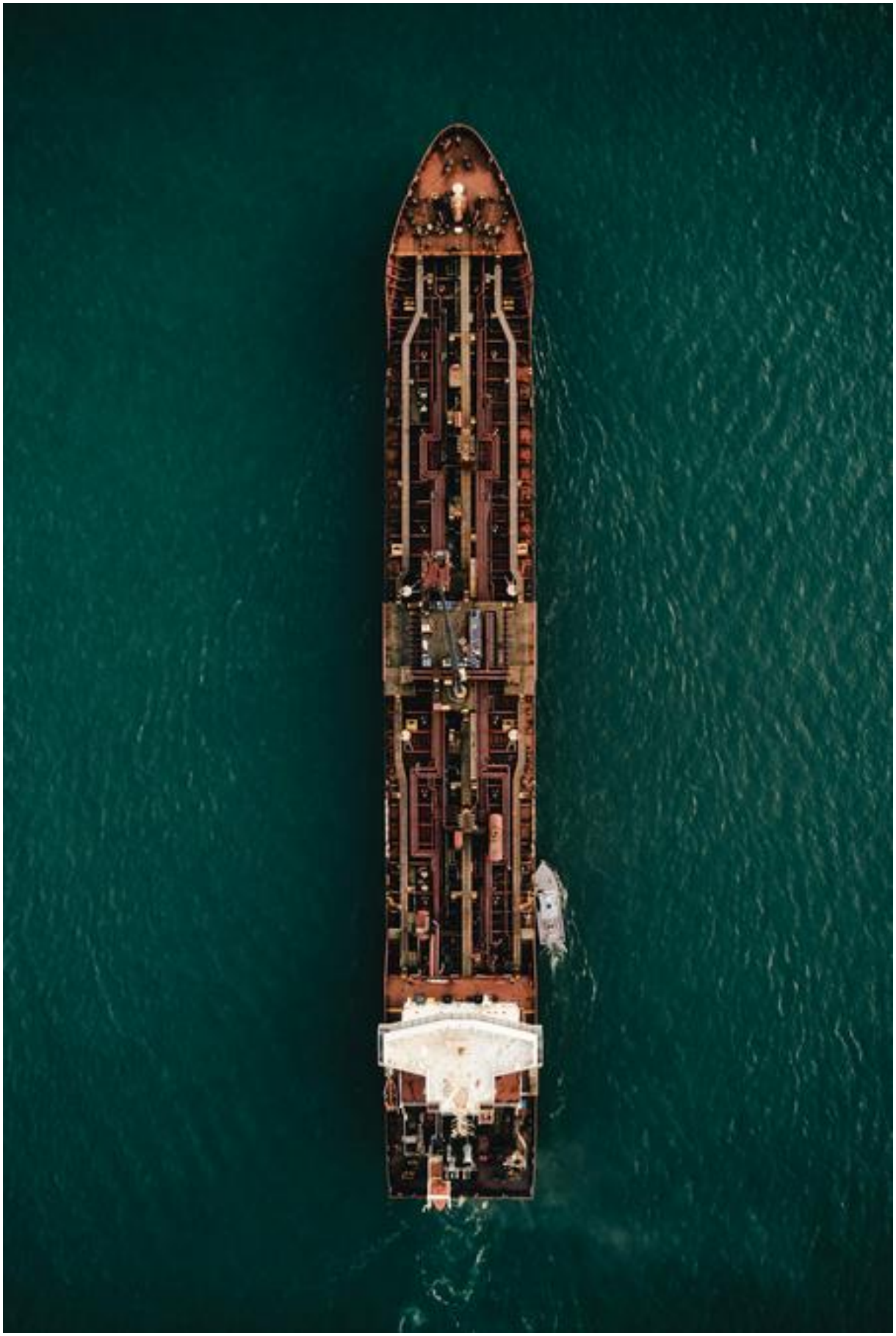
As the world strives to achieve ambitious climate goals, liquefied natural gas is becoming a key player in the energy sector. Governments around the world are increasing their focus on reducing carbon emissions and achieving strict environmental standards. In this regard, it is increasingly important to maintain a constructive dialogue between energy producers and consumers. Such a collective approach is necessary to ensure universal access to affordable and clean energy. Natural gas, especially in the form of LNG, plays an important role in the energy transition, balancing economic interests with the need to protect the environment. Against the backdrop of increasing global uncertainty, the global liquefied natural gas market is becoming a key source of flexibility, energy stability and access to energy for many regions of the world. This trend has become especially noticeable in Europe, where the effect of a significant reduction in pipeline gas supplies from Russia continues to be acutely felt.

The global liquefied natural gas market comprises 20 exporting and 51 importing countries. Currently, the main factor holding back the development of this market is supply, i.e. the volume of available gas on the market.

Despite significant fluctuations observed over the past two years, the LNG market has managed to regain some stability. However, it is worth noting that available gas volumes remain limited in the near future, which creates a certain shortage of resources.

This year, demand for LNG will continue to grow, especially in Asia, which will increase the shortage of gas carriers and raise freight rates. The fleet is actively being updated: 60% of new vessels use environmentally friendly technologies (X-DF, methanol). Sanctions and geopolitics remain key risks, reformatting traditional supply routes.

Natural gas, which currently accounts for about 30% of total fossil fuel consumption, is an economically advantageous and environmentally preferable option compared to oil and coal, as it emits significantly fewer greenhouse gases. Given the growing availability of liquefied natural gas worldwide, natural gas is expected to overtake coal in terms of use by 2030, and oil by 2050. In this review, we examined the critical players in the global liquefied natural gas market, their export and technological capacities. We also presented the capacity volume, technological features, infrastructure and sources of raw materials, the main supply routes of the key LNG hubs of the global LNG market.



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