The Spanish Gas System

2025 **REPORT**

enagas GTS

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Some published data are subject to change, as they are provisional data at the close of this report.
In the event of any discrepancy, the SL-ATR information prevails.

The Spanish Gas System, with 100% availability, confirms its key role in energy supply security

The natural gas system and its infrastructure assets have consolidated their fundamental role in the security of energy supply to Spain and Europe. The Spanish Gas System operated normally in 2025. Technical availability was 100% 24 hours a day, every day of the year, guaranteeing supply to all consumers at all times.

Transported natural gas demand grew by 7.4% compared to 2024, driven by growth in demand for electricity generation (+33.4%) and exports (+17.3%).

In the 'zero electricity' episode of 28 April 2025, the Gas System guaranteed supply to all consumers at all times, in particular to the combined cycle plants, which were key to the gradual recovery of the electricity system. In coordination with the National Commission on Markets and Competition (CNMC), the Technical System Operator adopted exceptional measures for commercial and imbalance management on 28 April 2025.

In the European regulatory sphere, the approval of the **19th sanctions package** in 2025 stood out, as well as the **agreement reached between the EU Council, the European Parliament and the European Commission for the progressive disconnection of Russian gas imports**, which sets a binding timetable for the prohibition of imports of liquefied natural gas (LNG) and pipeline gas. These actions, together with the reinforced coordination between the Commission and the Member States, have made it possible to strengthen the resilience of the European energy system and to face this process with greater guarantees for security of supply.

The Spanish Gas System once again demonstrated its high flexibility and received supplies during the year from 16 different origins, which positions Spain as a strategic entry point for LNG from Europe.

In terms of security of supply in Europe, the Spanish Gas System continued to contribute and shipped a total of 40.5 TWh of natural gas (+17.3%), both through interconnections and LNG tanker refuelling. Regasification terminals carried out 64% more LNG bunkering loads than in the previous year. This boost strengthens Spain's position as an energy hub and actively contributes to the decarbonisation of maritime transport, promoting a more sustainable and efficient model.

During the year 2025, the number of users adhering to the Framework Contract for Access to the Spanish Gas System Facilities and/or the Balance Portfolio Framework Contract increased significantly, with an increase of 19% and 20%, respectively, compared to the previous year. This is the highest growth in the last six years.
In addition, the high levels of LNG tank storage contracting and the high filling of underground storage facilities reflected the commitment of users to the Spanish Gas System. As a result of this interest, the capacity request and contracting platform has been recurrently subject to extensive participation.

In 2025, more than 240 unloading slots and more than 260 loading slots of all existing size categories (small scale, medium scale and large scale) have been formalised in the allocation processes that have been carried out, allocated until 2040. For the first time, an annual auction of loadings with an ascending clock mechanism has been carried out automatically in the SL-ATR system.

On the other hand, and as a result of current legislation, the Technical System Operator is playing a central role as **guarantor of the technical and operational viability of the integration of renewable gases.** The Technical System Operator assumed key functions in the technical evaluation of projects, in the coordination of the information necessary for the operation and planning of the System and in the development and management of renewable gas certification mechanisms.

In 2025, 61 renewable gas production facilities are expected to be in operation. Of these, **58 were registered in the Guarantees of Origin System (GdOs).** Transactions on the Guarantees of Origin Platform (GdOs) have exceeded 2.1 TWh and, for the first time, RFNBO-labelled hydrogen GdOs have been issued.

Key figures

+7.4%
Increase in total demand transported (vs. 2024)

331.5 TWh
Domestic demand for natural gas (**+6.3%** vs. 2024)

+33.4%
Increase in demand from the electricity sector (vs. 2024)

+17.3%
Increased demand of exports (vs. 2024)

16
Countries that have supplied natural gas to the System

+240
Unloading slots allocated until 2040

+260
Loading slots allocated until 2040

245
Ships unloaded in the Gas System (**+34** vs. 2024)

97%
Average contracting of LNG storage

+15%
Volume traded on market platforms (vs. 2024)

+10%
New users in the System (vs. 2024)

+63%
Direct consumers in market (vs. 2024)

61
Production facilities for renewable gas in operation

58
Facilities registered in the Guarantees of Origin System

49
New holders in the Guarantees of Origin System

2,547 GWh
Transactions of Guarantees of Origin

1. Demand

Transported natural gas demand **grew by 7.4% to 372 TWh,** driven by the increase in demand for electricity generation (+33.4%) and exports (+17.3%)

Key figures

Demand for transported natural gas grew by 7.4% to 372 TWh, driven by the increase in demand for electricity generation, which rose by 33.4%, and by exports, which increased by 17.3%.

The total national consumption of natural gas in 2025 reached 331.5 TWh, 6.3% more than the previous year. This figure was due to higher electricity market consumption (+24.9 TWh), as a result of a lower contribution from wind generation, an increase in electricity demand and cross-border flow through international connections.

Conventional demand for household, commercial and industrial consumption fell by 2.2% compared to the previous year, coming to 231.8 TWh, mainly due to lower industrial consumption.

International demand for natural gas, which includes exports by international connection and shiploads, increased by 17.3% in 2025 to 40.5 TWh. This decrease is mainly due to a lower export flow in the Pyrenees VIP, where the connection became a pure import connection in 2025.

Demand

%

	2025	2024		**2025** vs. 2024
	Year-end	Actual	TWh	%
Conventional	**231.8**	**237.1**	**-5.3**	**-2.2**
D/C + SMEs	51.6	47.8	3.9	+8.1
Industrial	167.7	176.9	-9.2	-5.2
LNG tankers	12.5	12.4	0.0	+0.2
Electricity service	**99.7**	**74.7**	**24.9**	**+33.4**
Total national demand	**331.5**	**311.9**	**19.6**	**+6.3**
Exports + LNG cargoes	40.5	34.5	6.0	+17.3
Total demand transported	**372.0**	**346.3**	**25.6**	**+7.4**

+7.4%
Increase in total demand for transported natural gas (vs. 2024)

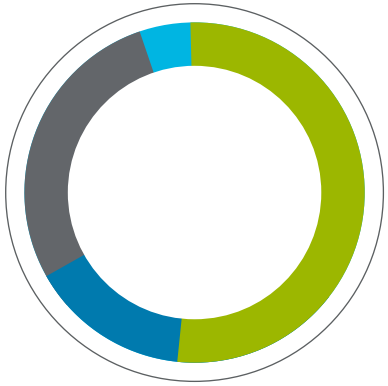
+33.4%
Increased demand for gas electricity sector (vs. 2024)

+17.3%
Increased exports (vs. 2024)

331.5 TWh
National demand for natural gas (**+6.3%** vs. 2024)

Gas demand in 2025

%

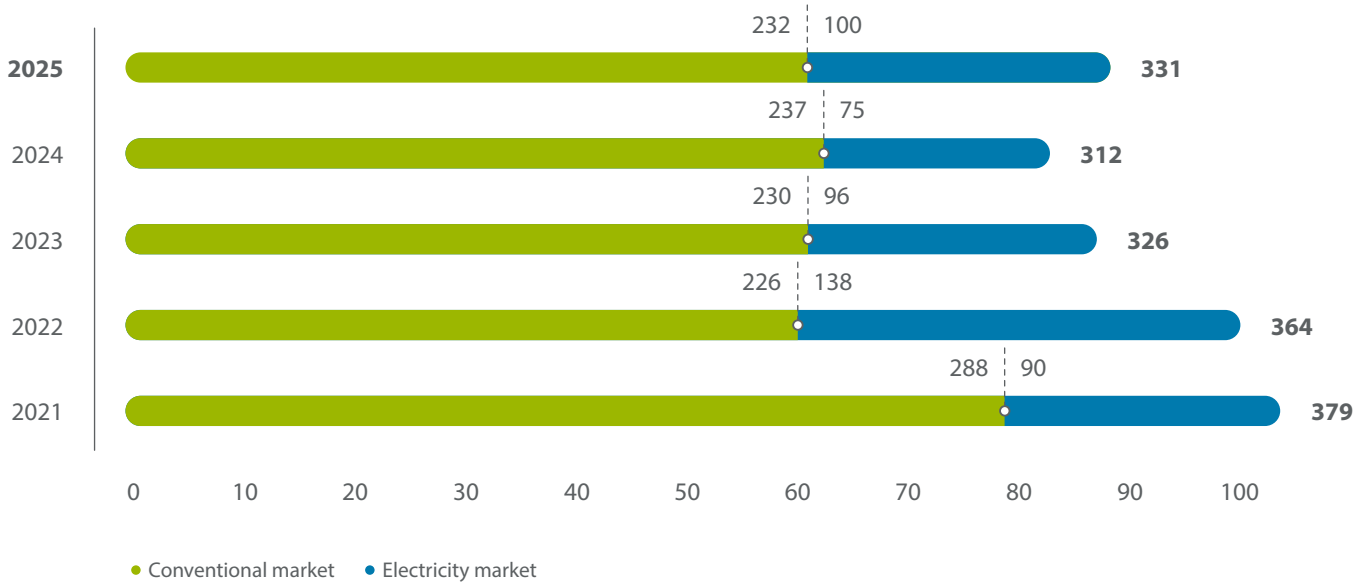


50.6%
15.6%
30.1%
3.8%

Industrial · D/C + SMEs · Electricity · LNG tankers

Annual evolution of natural gas demand

TWh/year



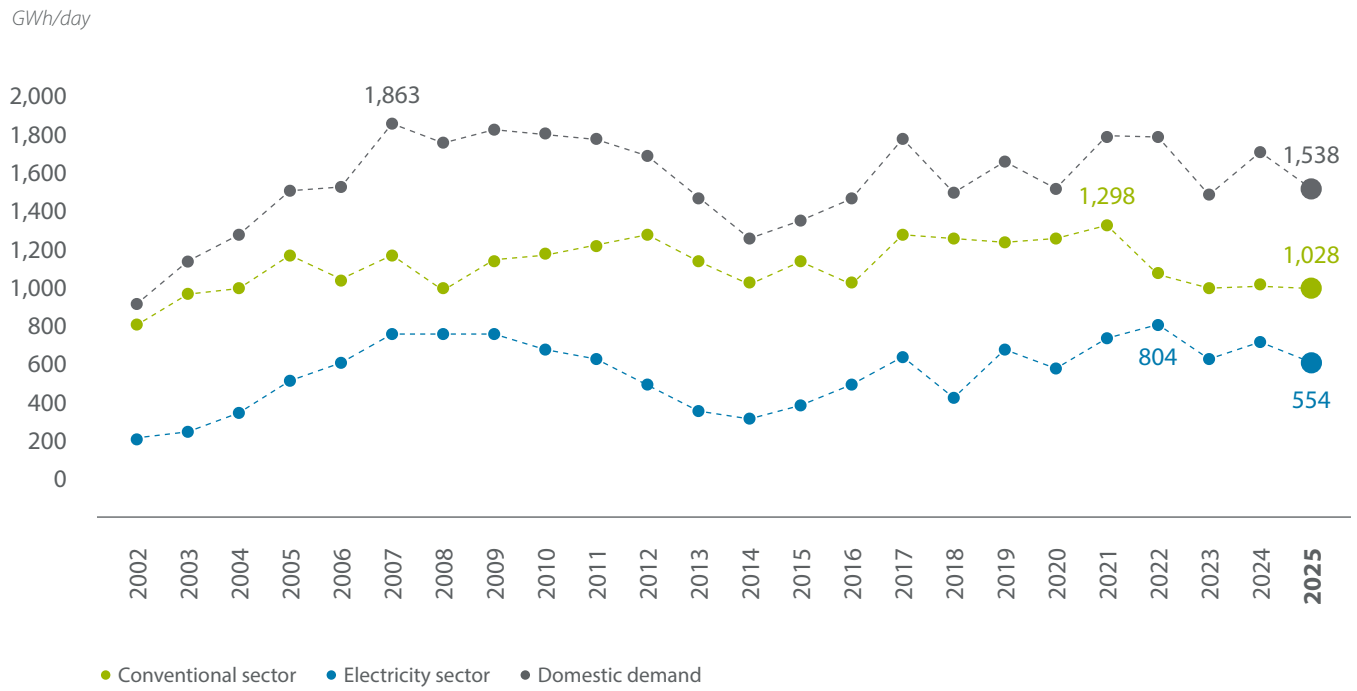
The **autonomous communities with the highest consumption** of natural gas were **Catalonia, Andalusia, Valencia and Madrid**

In 2025, the autonomous communities with the highest consumption of natural gas were Catalonia, Andalusia, Valencia and Madrid. Between them they account for almost half of the total consumption of natural gas in Spain.

Daily peaks reached in 2025 were:

- Total national demand:
  1,538 GWh/day 20 January
- Conventional demand:
  1,028 GWh/day 15 January
- Electricity sector demand:
  554 GWh/day 20 January

Evolution of annual demand peaks



Conventional demand for gas

During 2025, the conventional sector recorded 231.8 TWh, 2.2% lower than the previous year. This decrease was mainly due to lower consumption of natural gas by the industrial market.

Domestic-commercial and SMEs

In 2025, gas demand in the domestic-commercial and SME market increased by 3.9 TWh (+8.1%) compared to the previous year. This increase is due to significantly colder temperatures in 2025 in the months with the greatest impact on natural gas demand.

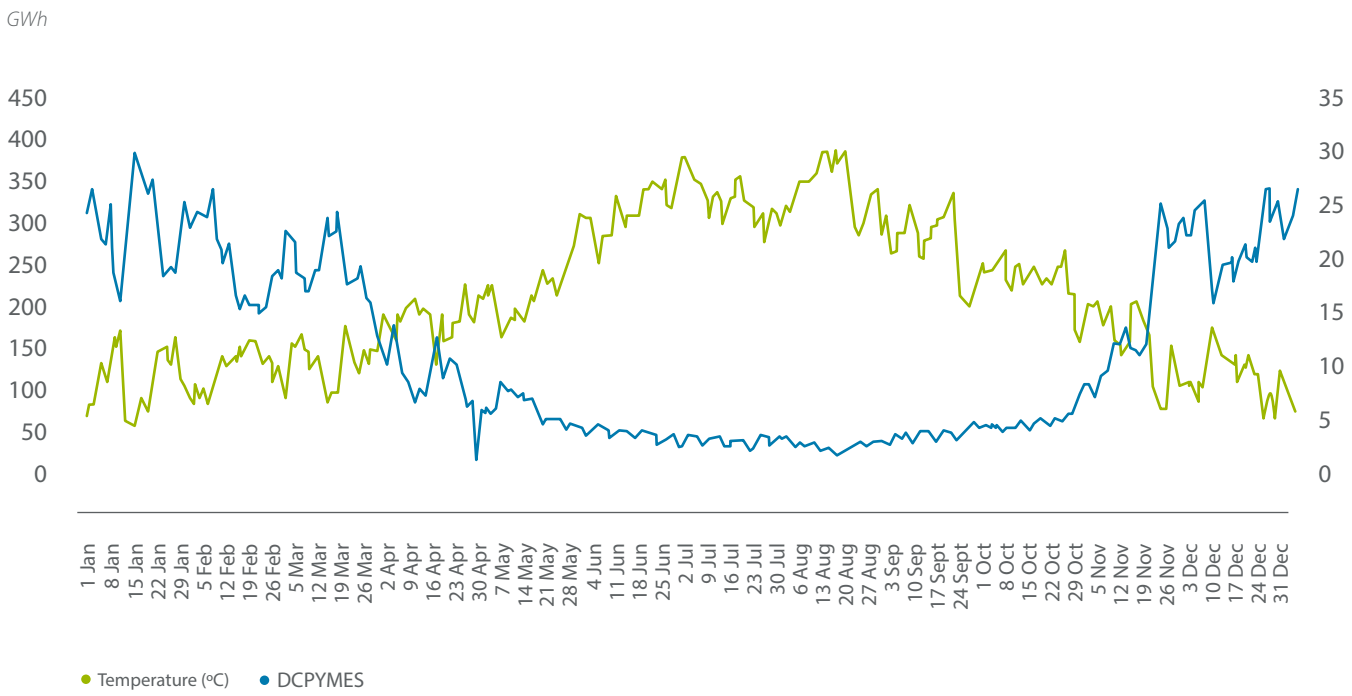
231.8 TWh

Conventional demand for natural gas

+8.1 %

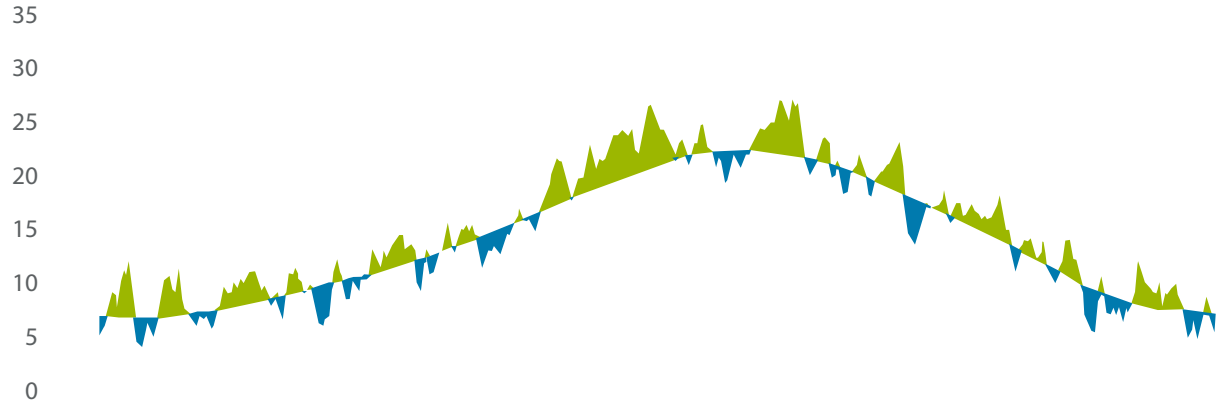
Increase in gas demand from the domestic-commercial market and SMEs or DCPYMES (vs. 2024)

Demand from the domestic-commercial and SME sector



Reference temperature of the Gas System

ºC



	Jan	Feb	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Σ ºC for excess	54.45	37.43	17.85	35.21	26.39	92.64	35.36	66.48	29.73	41.70	26.31	35.25	498.78
Σ ºC by default	-18.83	-9.37	-31.35	-12.02	-24.20	-0.25	-18.68	-8.95	-30.18	-6.39	-28.17	-19.67	-208.05
Change	**35.62**	**28.06**	**-13.50**	**23.19**	**2.19**	**92.38**	**16.68**	**57.53**	**-0.44**	**35.31**	**-1.86**	**15.58**	**290.73**

Industrial

Gas consumption in the industrial sector in 2025 is forecast at 167.7 TWh, which is 9.2 TWh less than in 2024 (-5.2%). This decline in gas demand for the industrial market was mainly influenced by lower consumption in the chemical/pharmaceutical and refining sector.

167.7 TWh

Natural gas consumption
in the industrial sector

Annual consumption of natural gas by industrial sector

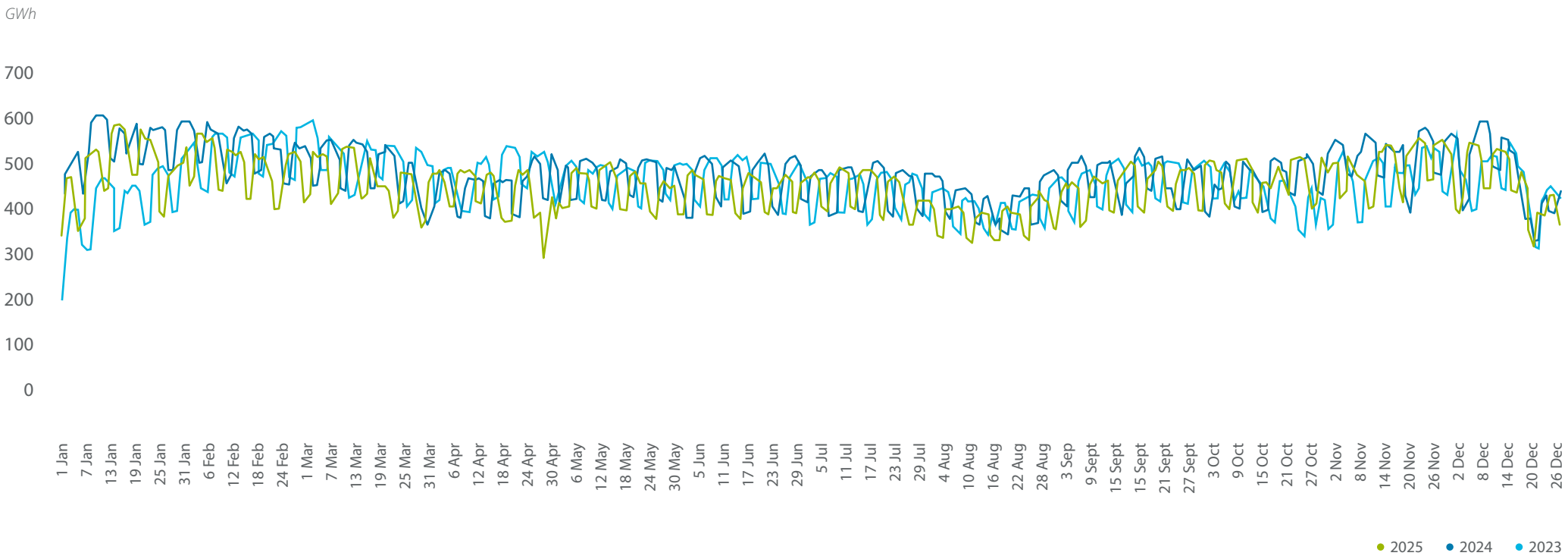
TWh/year

	2025	**2025** vs. 2024
		%
Textile	**1.7**	3.53
Services	**12.0**	1.73
Construction	**20.0**	1.01
Paper	**11.8**	-1.45
Metallurgy	**12.1**	-2.01
Agri-food	**18.0**	-4.50
Other industry	**14.1**	-6.07
Electricity	**19.6**	-8.15
Refining	**32.9**	-9.37
Chemistry/Pharmaceuticals	**21.0**	-11.00

IGIG evolution

[1]The Large Industrial Gas Consumers Index (IGIG), which began to be published by the Technical Manager of the System in 2015, shows the evolution of gas consumption of the main gas-consuming industries for the ten most intensive industrial sectors in the use of this fuel.

Daily industrial demand



Tankers

Consumption of gas supplied by LNG tankers increased in 2025 to 12.5 TWh/year (43,700 tankers loaded), 0.02 TWh/year more than in 2024. Barcelona was the busiest loading terminal, followed by Huelva and Sagunto.

Mugardos

0.9 TWh/year
3,2 thousand loads
24% F_{ut}

Huelva

2.4 TWh/year
8,3 thousand loads
37% F_{ut}

Cartagena

2.2 TWh/year
7,9 thousand loads
35% F_{ut}

Barcelona

2.5 TWh/year
9,0 thousand loads
40% F_{ut}

Sagunto

2.3 TWh/year
8,1 thousand loads
59% F_{ut}

Bilbao

1.3 TWh/year
4,5 thousand loads
70% F_{ut}

El Musel

0.8 TWh/year
2,7 thousand loads
24% F_{ut}

43,700

Tankers loaded

Mobility

The demand for natural gas in the transport sector continued the trend of previous years, with increased consumption. In 2025, this sector consumed 2.8 TWh/year more than the previous year, reaching 9.4 TWh/year, a growth of 41.4%. This increase was mainly due to growth in maritime transport, up 2.6 TWh from the previous year.

Land transport

The annual consumption of vehicle gas in Spain registered an increase of 5% compared to 2024, reaching 2.7 TWh/year (1.4 TWh tankers + 1.3 TWh pipeline).

Maritime transport

Over the course of 2025, the amount of 6.7* TWh was supplied for maritime transport.

The demand for natural gas for mobility continued the upward trend of the last few years and **grew by 41.4% vs. 2024**

*Information prepared from that available in the SL-ATR

Gas demand for the electricity sector

In 2025, gas deliveries to the electricity sector reached 99.7 TWh. This figure was 33.4% higher than in 2024 due to a lower contribution from wind generation and an increase in electricity demand and cross-border flow through international connections.

In the 'zero electricity' episode of 28 April 2025, the Gas System guaranteed supply to all consumers at all times, in particular to the combined cycle plants, which were key to the gradual recovery of the electricity system.

The demand for electricity in Spain, according to Redeia year-end data, increased by 2.5% in 2025 compared to the previous year.

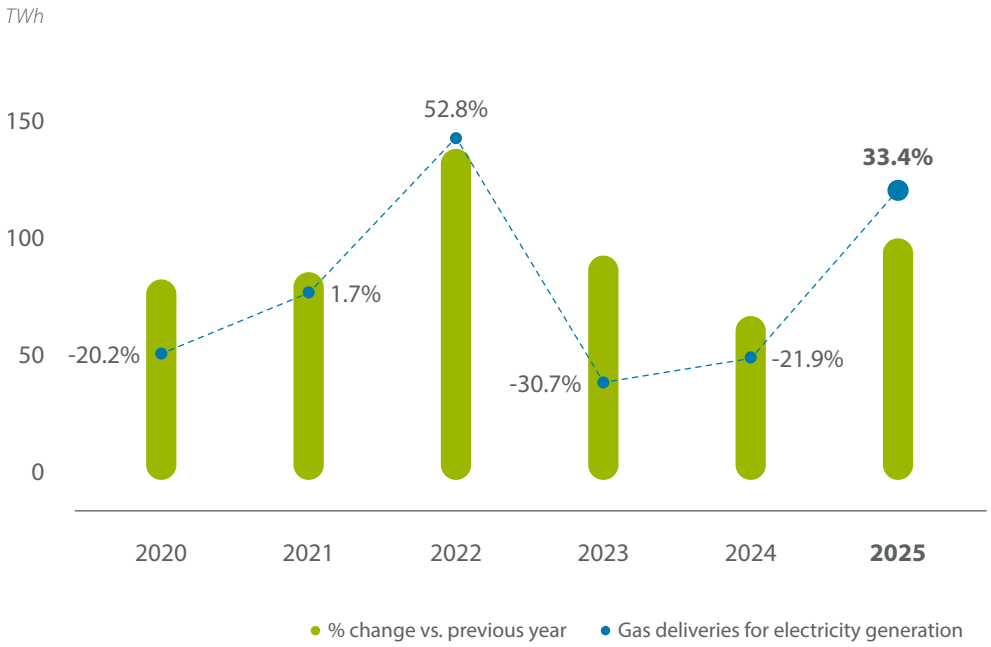
Natural gas contributed 15% of the electricity system's demand coverage.

The most significant variations with respect to the previous year were as follows:

- Increase in gas delivered for electricity generation, which includes supply to combined cycle plants and the reconverted Aboño thermal power plant (+10.6 TWh)
- Increase in electricity demand (+5.8 TWh).
- Increase in solar generation. In 2025, 5.1 TWh(e) more energy than in the previous year and an increase in installed capacity of 8.4 GW were recorded, making it the renewable source with the highest installed capacity.
- Decrease in wind power generation (-2.6 TWh).
- Decline in exports to neighbouring countries (+2.6 TWh(e)).

During the 'zero electricity' episode, the Gas System guaranteed supply to the combined cycle plants at all times, which was key to the gradual recovery of the electricity system

Gas deliveries for electricity generation



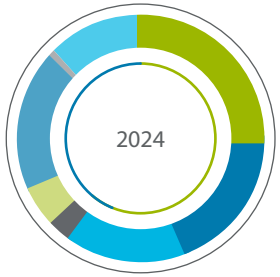
Balance of annual electricity

TWh (e)

	2024	**2025**	**2025** vs. 2024	
			TWh(e)	%
Electricity demand	**233.6**	**239.4**	**5.8**	**+2.5**
Wind	59.5	**57.0**	-2.6	-4.3
Solar	47.8	**52.9**	5.1	+10.7
Hydraulic	40.4	**39.4**	-0.9	-2.3
Other renewables	5.5	**5.4**	-0.1	-2.2
Cogeneration	16.4	**15.4**	-1.0	-6.2
Nuclear	52.4	**51.8**	-0.6	-1.1
Carbon	3.0	**1.4**	-1.6	-52.4
Natural gas	29.1	**39.8**	10.6	+36.6
International balances	-10.2 export	**-12.8 export**	-2.6	+25.1
France	3.0	**0.2**	-2.8	-
Portugal	-10.5	**-8.0**	2.5	-
Morocco	-2.5	**-3.2**	-0.6	-

Source: Redeia.

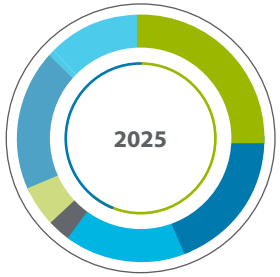
Corrected for labour and temperature effects **+1.4%**



Renewable 60%
Non-renewable 40%

23% **6%**
19% **21%**
16% **1%**
2% **12%**

Wind · Hydraulic · Cogeneration · Carbon
Solar · Other renewables · Nuclear · Natural gas



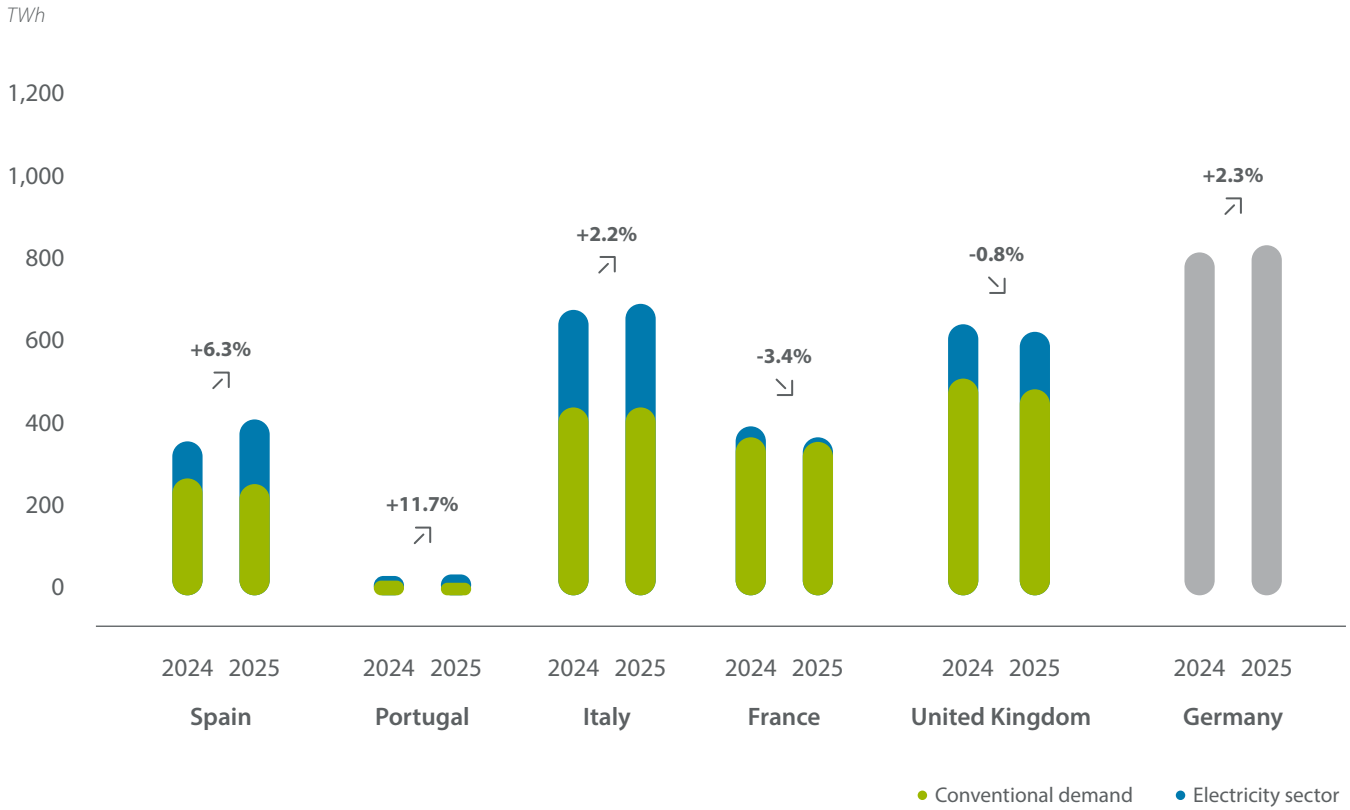
Renewable 59%
Non-renewable 41%

22% **6%**
20% **20%**
15% **0%**
2% **15%**

European comparison of natural gas demand

Total natural gas demand increased significantly in Portugal and Spain in 2025, while France and the UK saw slight decreases compared to the previous year.

Total natural gas demand by country



Source: TSO websites (REN, Natran, Teréga, National Grid, Snam, Trading Hub).

Note: The same detail of comparable conventional and electricity demand is not available for Germany.
Some data are subject to change as they are provisional.

2. Physical operation

The Spanish Gas System operated normally in 2025. **Availability was 100% 24 hours a day, every day of the year**, guaranteeing supply to all consumers at all times

Continuity, quality and security of supply

In 2025, the Technical System Operator continued to guarantee the continuity, quality and security of supply, under the principles of objectivity, transparency and non-discrimination; seeking the correct operation of the System with criteria of effectiveness, efficiency, better customer service and the correct coordination between access points, storage, transmission and distribution.

Among the measures taken during 2025 to strengthen the resilience of the European energy system and ensure security of supply, the following stand out:

- Council Regulation (EU) 2025/2033 of 23 October 2025, amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine (19th sanctions package). It provides for a ban on imports of liquefied natural gas (LNG) of Russian origin from 1 January 2027 for long-term contracts and within six months of the entry into force of the penalty regime for short-term contracts.

- Provisional agreement between the Council of the European Union, the European Parliament and the European Commission on the Regulation for the phasing out of Russian gas imports under RePowerEU, establishing a ban on imports of LNG of Russian origin from 1 January 2027 and of Russian pipeline gas as from autumn 2027. It incorporates a transitional regime for existing supply contracts, as well as a system of prior authorisation applicable to all gas imports and national diversification plans.

- Council Regulation (EU) 2025/1494 of 18 July 2025, amending Regulation (EU) No 833/2014 concerning restrictive measures in view of Russia's actions destabilising the situation in Ukraine (18th sanctions package). It provides for an absolute prohibition to participate, directly or indirectly, in any transaction relating to the Nord Stream 1 and Nord Stream 2 natural gas pipelines - including the completion, operation, maintenance, use or financing of these infrastructure assets - for the purpose of preventing the resumption or establishment of the supply of natural gas through these pipelines.

- Regulation (EU) 2025/1733 of the European Parliament and of the Council of 18 July 2025 amending Regulation (EU) 2017/1938 as regards the role of gas storage in securing gas supply before winter (extension until 2027 and adjustments to the filling and flexibility framework linked to security of supply).

In terms of crisis levels, as defined in the European Regulation (EU) 2017/1938, seven countries maintained the "Early Warning" level at the end of 2025 (namely Austria, Croatia, Estonia, Germany, Italy, Latvia and the Netherlands), one fewer than in 2024.

At national level, and in this changing environment in international energy markets, the Spanish Gas System had a high level of supply diversification. Spain received natural gas from 16 different origins thanks to the regasification terminals, which position our country as a strategic entry point for LNG within Europe.

In addition, Spain contributed to the security of supply of the rest of Europe by sending natural gas, both through interconnections and by reloading LNG carriers to other European countries. The incorporation of the El Musel Terminal in 2023 meant a structural reinforcement of security of supply at European level, making it possible to provide additional input capacity to the Gas System if the Competent Authority deems it necessary in the event of a Situation of Exceptional Operation (SOE) or declaration of one of the crisis levels, in accordance with Regulation (EU) 2017/1938. Its implementation, framed as measure 72 of the "More Energy Security Plan" (Plan +SE), reinforces the resilience of the System, improves the capacity to respond to stress scenarios and contributes to the diversification and robustness of gas supply in the European Union.

The Technical System Operator continued in 2025 to ensure the proper functioning of the System under the principles of objectivity, transparency and non-discrimination

Spain consolidated its key role in Europe's security of supply in 2025, with the contribution of 40.5 TWh (+17.3% vs. 2024) of natural gas supplied to the rest of the continent, ensuring a stable flow of energy. In addition, regasification terminals performed 64% more LNG loads for bunkering compared to the previous year. This not only strengthens Spain's position as an energy hub, but also actively contributes to the decarbonisation of maritime transport by promoting a more sustainable and efficient model.

The 90% filling target, set by Regulation (EU) 2022/1032 for 1 November 2025, was deemed to have been met by Spain. The filling level in the underground storage facilities stood at 86%; however, in accordance with the characteristics of the Spanish Gas System and in accordance with European regulations, it was possible to calculate additional stocks in LNG terminals for the purpose of meeting this target.

On the other hand, in 2025, a total of 245 LNG unloading operations were carried out at Spanish regasification terminals as a whole.

Spain reinforced its key role in Europe's security of supply in 2025, with a total of 40.5 TWh (+17.3% vs. 2024) of natural gas delivered to the rest of the continent

Operating Notes

Nine Operating Notes were published throughout 2025, in the following order:

- Operation Note No. 1/2025 - 30.01.2025: Order TED/72/2023: Minimum level of operational buffer stocks of users.
- Operation Note No. 2/2025 - 13.03.2025: Exceptional operation situation - cold snap.
- Operation Note No. 3/2025 - 28.04.2025: Exceptional operating situation - national power failure.
- Operation Note No. 4/2025 - 03.10.2025: Exceptional operating situation - local and temporary transport limitation on the Castellón branch 16" and Castellón deployment branch 16".
- Operation Note No. 5/2025 - 21.11.2025: Low temperature warning.
- Operation Note No. 6/2025 - 25.12.2025: Low temperature warning.

The Spanish Gas System operated normally in 2025. Technical availability was 100% 24 hours a day, every day of the year, guaranteeing supply to all consumers at all times.

Natural gas and LNG physical supplies

In 2025, natural gas supplies reached 372,498 GWh.

For the seventh consecutive year, supplies in the form of liquefied natural gas (LNG) exceeded those of natural gas. The inflow of LNG accounted for 67% of the gas supply for the Spanish Gas System. In 2025, LNG came from 16 different origins.

372,498 GWh

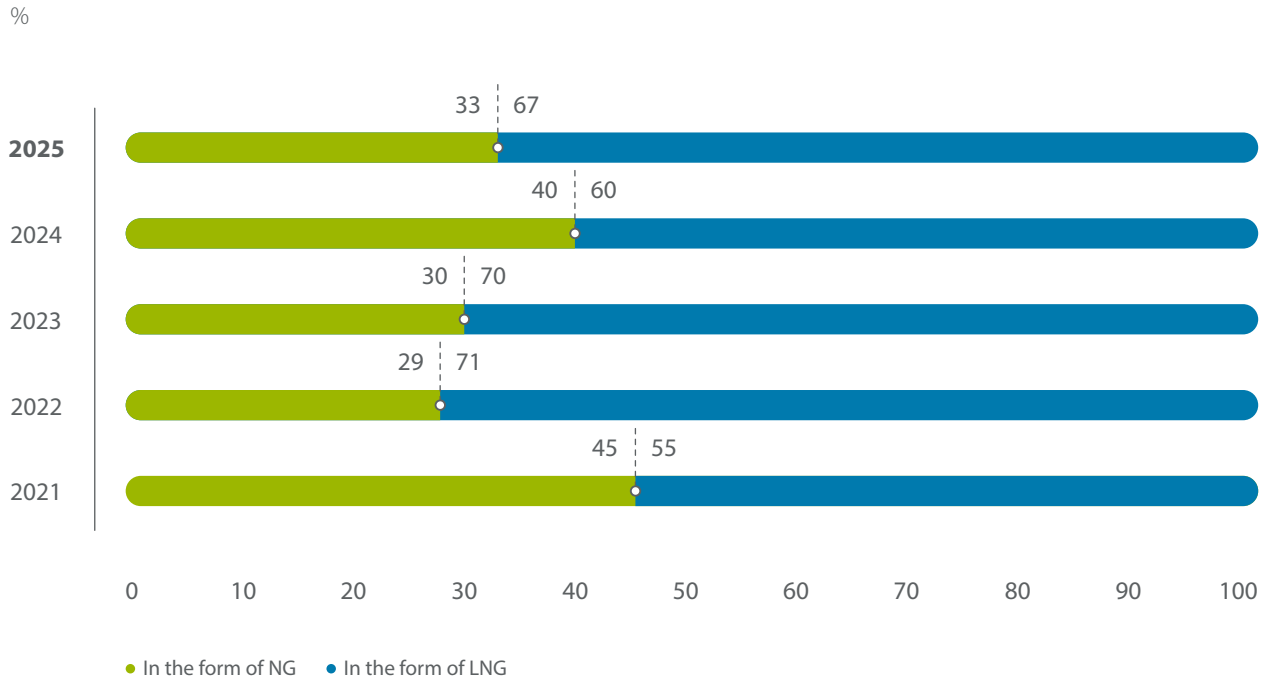
Natural gas supplies

Inflows to the Spanish Gas System

Inflows in the form of natural gas accounted for 124,414 GWh.

LNG supply, meanwhile, reached 248,084 GWh.

Evolution of supplies



Origin of supplies

GWh

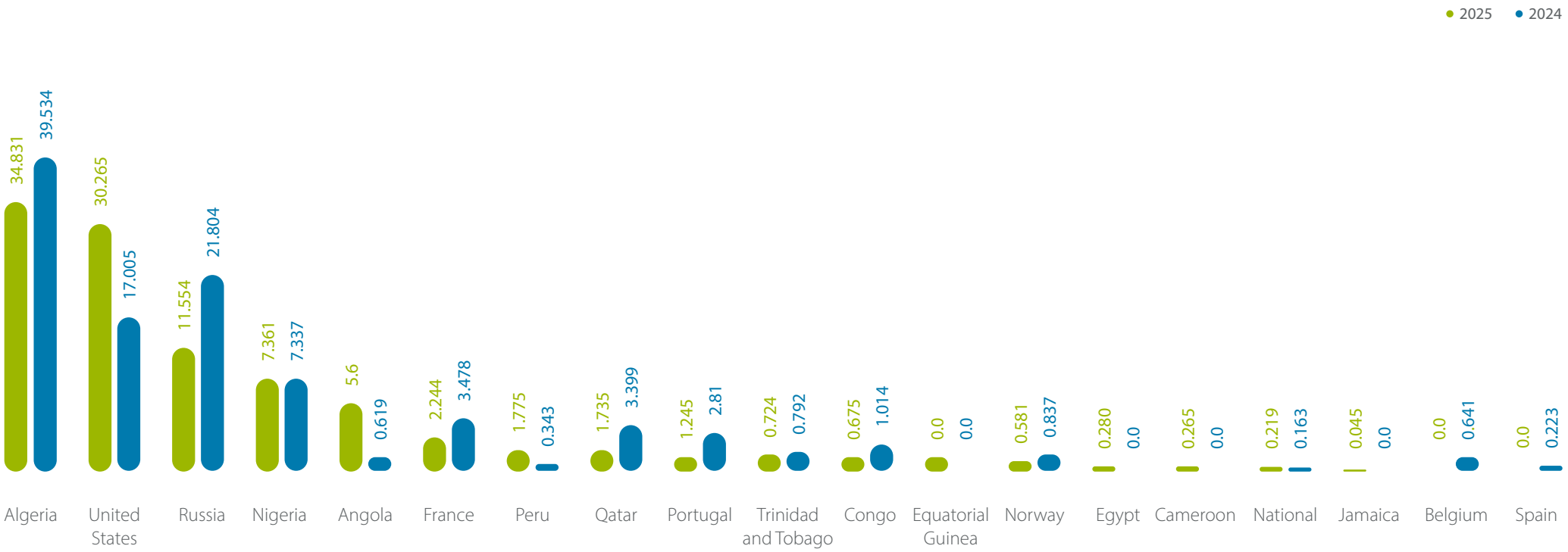
16

Countries that have supplied natural gas to the System

In the supply portfolio, Algeria became the main supplier to the Spanish Gas System, accounting for 35% of supplies in 2025.

Percentage of diversification of supplies

%



Number of LNG vessel unloading operations

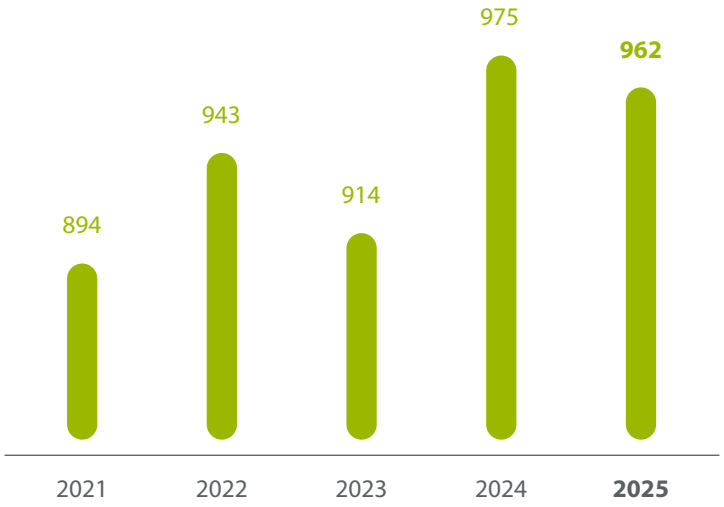
	2024	**2025**
Barcelona Terminal	34	**48**
Huelva Terminal	38	**42**
Cartagena Terminal	35	**35**
Bilbao Terminal	49	**53**
Sagunto Terminal	32	**41**
Mugardos Terminal	23	**26**
Total	**211**	**245**

245

Vessels unloaded in the Gas System
(**+34 ships** vs. 2024)

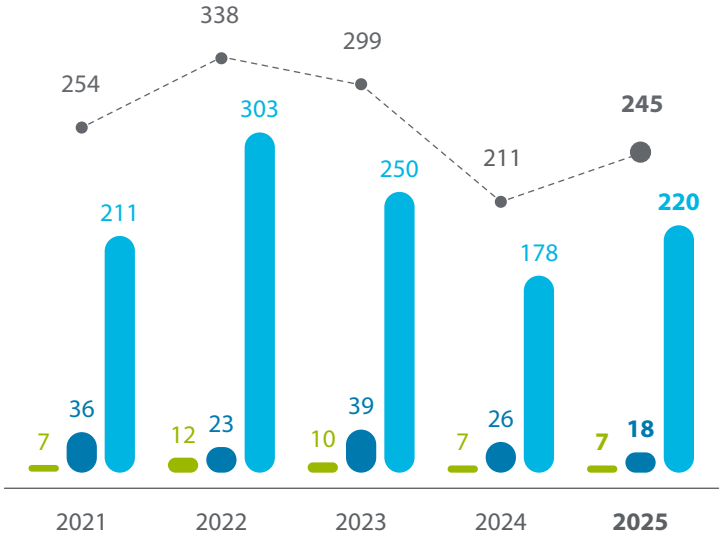
Evolution of average volume: Unloaded LNG

∑ GWh total vessels / Total no.



In 2025, 34 more ships were unloaded than in 2024, which means an increase in LNG bunkering volume of 30 TWh. As for the average volume unloaded per vessel in 2025, the figure reached 962 GWh, slightly lower than in 2024.

Evolution of the number of vessels unloaded



Unloading operations by origins and regasification terminals

In 2025, each regasification terminal received gas from at least three different countries. The terminal with the highest number of unloading operations was Bilbao, followed by Barcelona and Huelva.

By origin, the United States was the country from which the largest number of cargoes was received, a total of 108 LNG tankers.

Unloading operations by origins and regasification terminals

No. of unloading operations

	Angola	Algeria	Cameroon	Congo	Egypt	United States	Equatorial Guinea	Jamaica	Nigeria	Norway	Peru	Qatar	Russia	Trinidad and Tobago	Total	Average size unloaded (GWh)
Barcelona	5	6	-	-	-	18	1	1	3	-	2	8	3	1	**48**	880
Huelva	2	3	-	1	-	19	-	-	15	-	1	-	1	-	**42**	996
Cartagena	7	5	1	1	-	12	-	-	6	1	2	-	-	-	**35**	987
Bilbao	-	-	-	-	-	27	-	-	-	1	-	-	24	1	**53**	1,036
Sagunto	5	9	-	1	1	18	1	-	3	1	1	-	-	1	**41**	855
Mugardos	1	-	-	-	-	14	-	-	-	-	-	-	11	-	**26**	1,044
Total	**20**	**23**	**1**	**3**	**1**	**108**	**2**	**1**	**27**	**3**	**6**	**8**	**39**	**3**	**245**	**962**
Average size unloaded (GWh)	269	504	-	447	309	-	863	28	535	734	-	-	586	25	962	–

Regasification terminals

Spain continues to lead Europe in terms of the number of LNG infrastructure assets and LNG vaporisation and storage capacity.

The facilities maintain their characteristics and technical capacities and have 27 storage tanks, nine berths and a capacity for LNG vessels of up to 270,000 m^3.

Spain is the **country with the most LNG terminals, vaporisation capacity and LNG storage** in Europe

Single Tank Model

The year 2025 was the fifth full year in which the pooled tank model has been in place. This has made it easier for users to manage their business and has provided greater flexibility and liquidity to the Spanish regasification terminal system.

Technical characteristics of the regasification terminals

		LNG storage		Tanker loading capacity	Berths	
Regasification terminal	Maximum vaporisation capacity (Nm^3/h)	No. of tanks	m^3 of LNG	GWh/day	No. of berths	m^3 of LNG
Barcelona	1,950,000	6	760,000	17	2	266,000
Huelva	1,350,000	5	619,500	17	1	175,000
Cartagena	1,350,000	5	587,000	17	2	266,000
Bilbao	800,000	3	450,000	5	1	270,000
Sagunto	1,000,000	4	600,000	11	1	266,000
Mugardos	412,800	2	300,000	11	1	266,000
El Musel	800,000	2	130,000	9	1	266,000
Total	**7,662,800**	**27**	**3,446,500**	**87**	**9**	**Up to 270,000**

Production at regasification terminals

In 2025, inflows from regasification terminals to the System totalled 216,583 GWh. Tanker loading maintained similar values compared to 2024, with a slight variation of 0.2%, while regasification increased by 17.8%.

Average daily emissions at the regasification terminals reached 593 GWh/day and the average contracting was 625 GWh/day.

In terms of stocks in tanks, the annual average was 58%, reaching 77% in some cases.

216,583 GWh

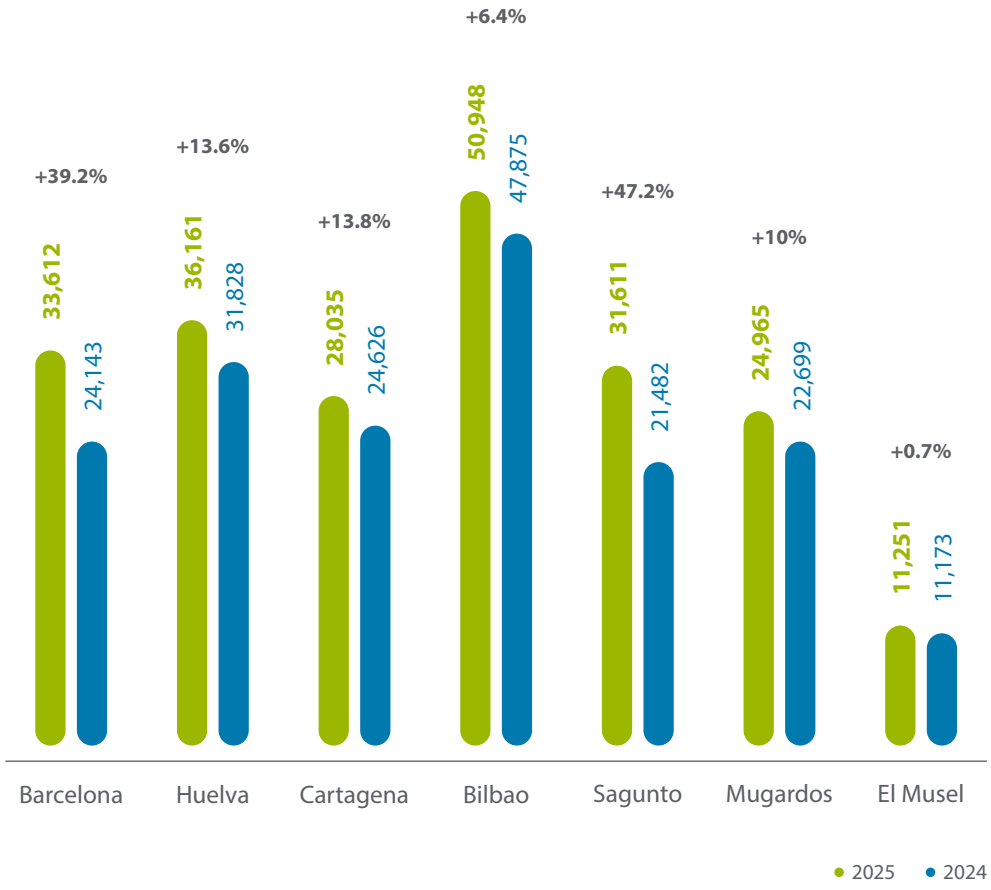
Regasification in 2025
(**+17.8%** vs. 2024)

593 GWh/day

Average daily production
of the regasification terminals

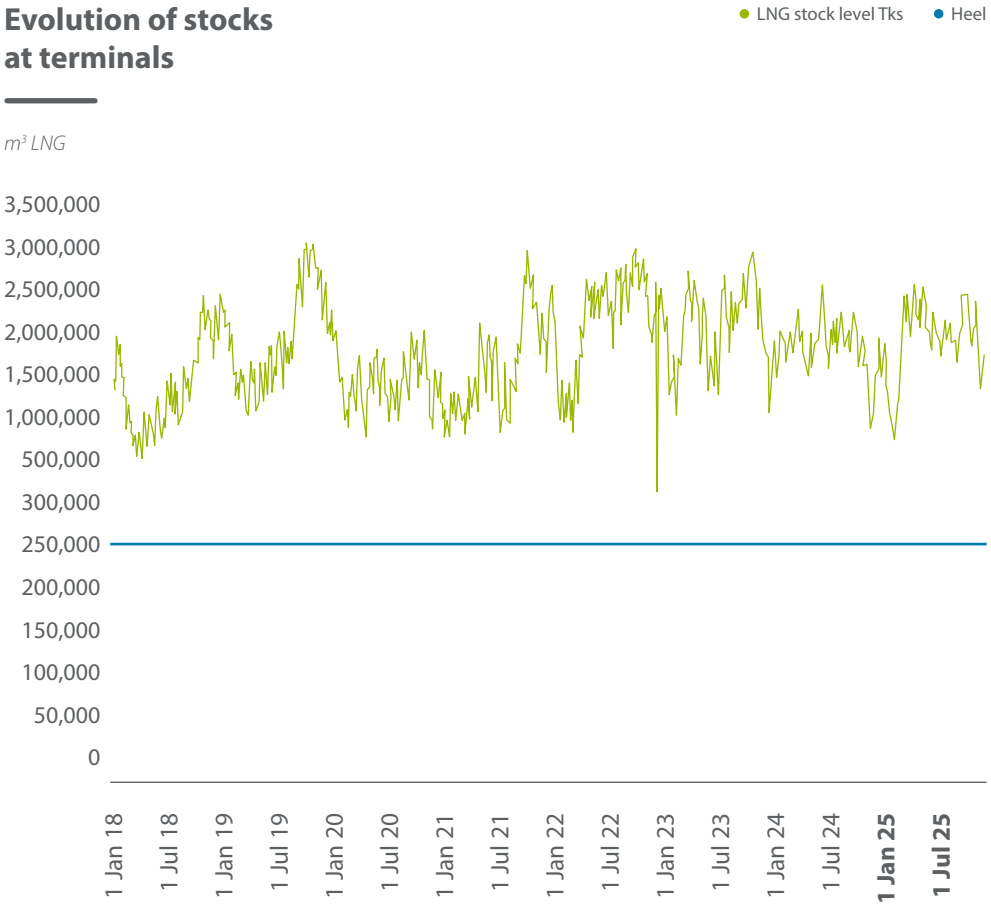
Regasification evolution

GWh

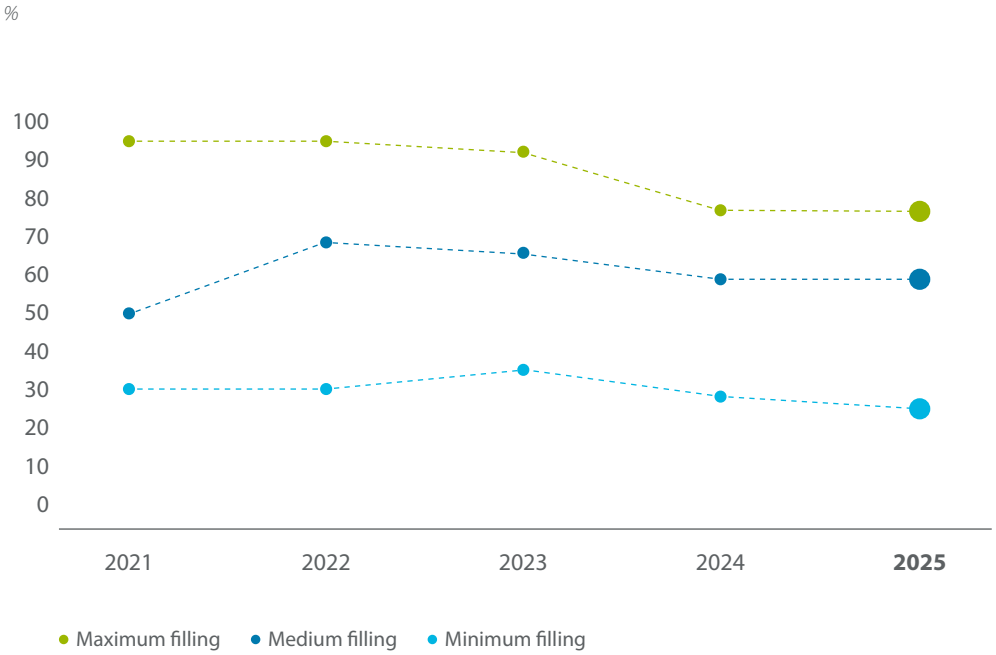


Stocks at terminals

Evolution of stocks at terminals

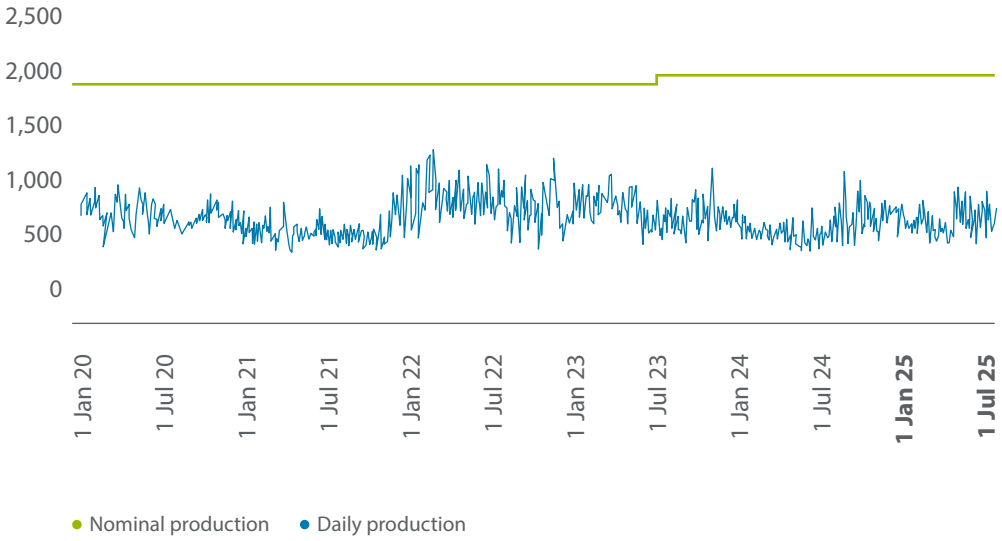


Evolution of total stocks in tanks



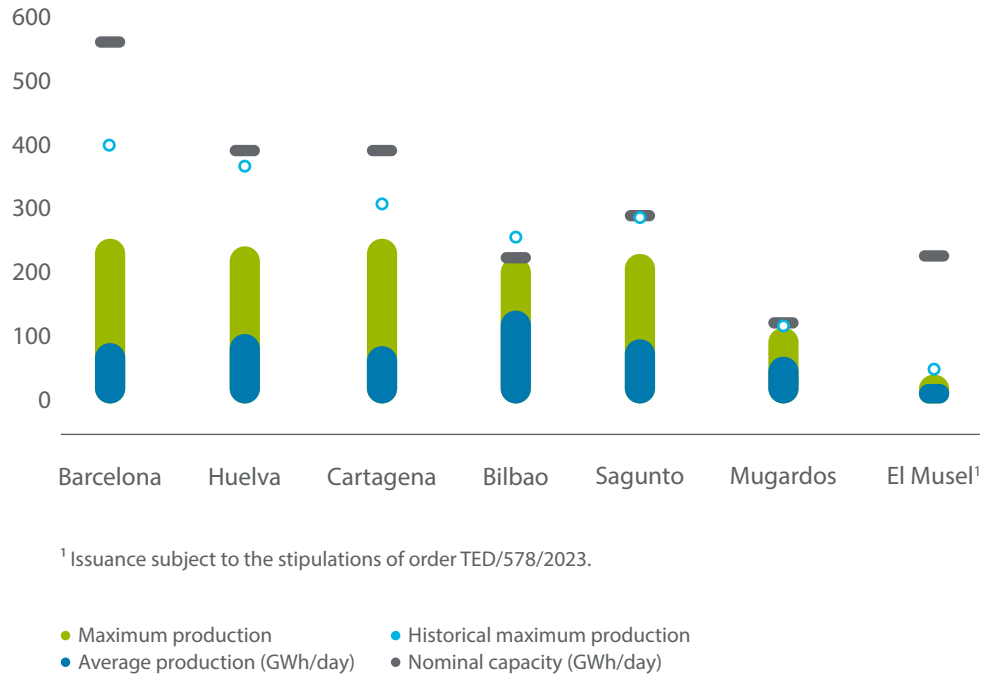
Evolution of nominal and daily production

GWh/day



Productions and capacities by regasification terminals

GWh



[1] Issuance subject to the stipulations of order TED/578/2023.

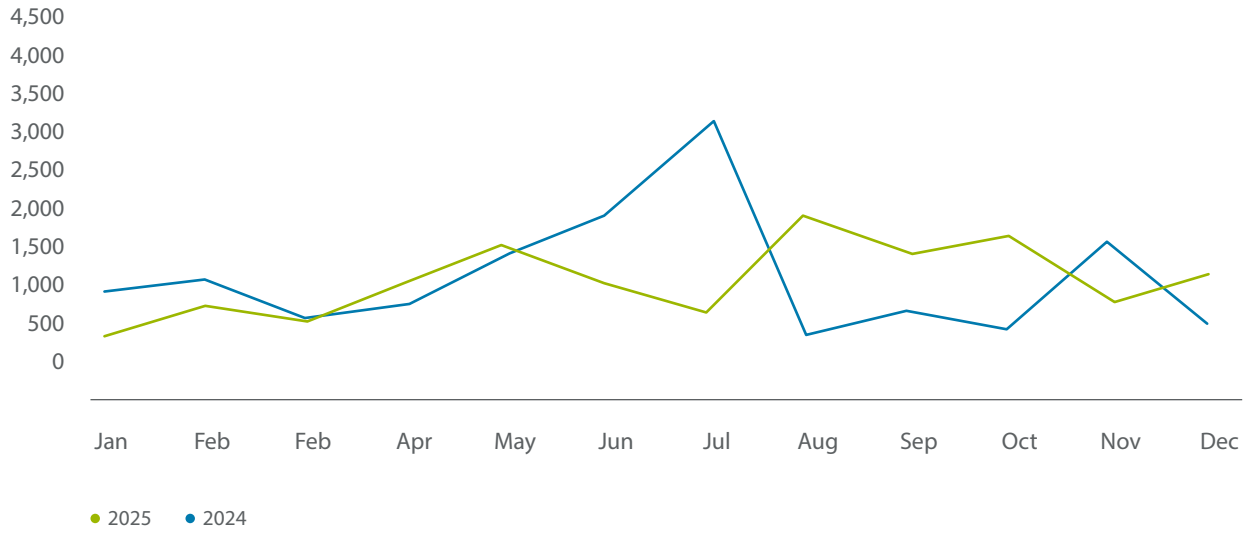
Tanker loading at regasification terminals

In 2025, outflows from regasification terminals in the form of shiploads totalled 11,745 GWh, which contributed to Europe's security of supply.

11,745 GWh

Vessel loading
in regasification terminals

Evolution of vessel loading



Tankers loading at regasification terminals

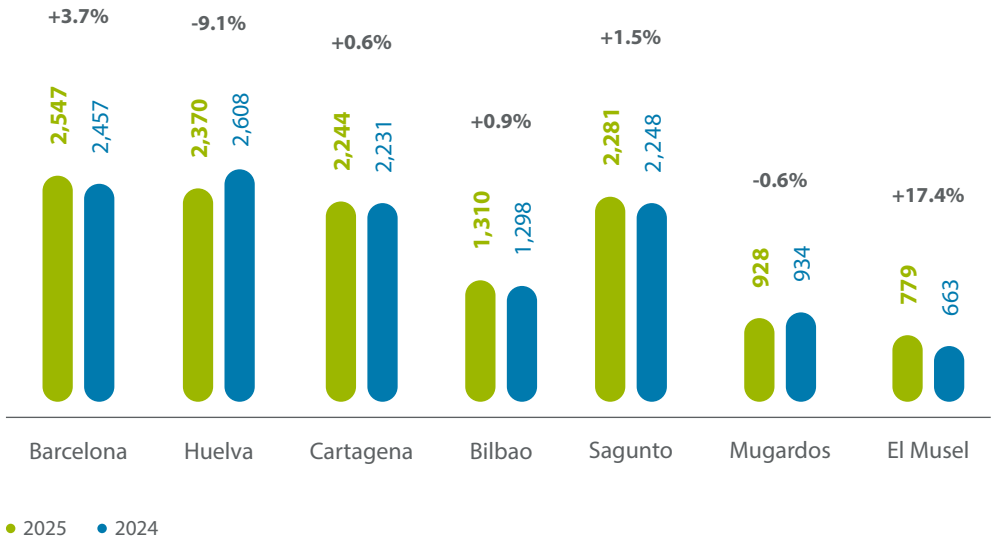
In 2025, the volume of tanks managed was 12,459 GWh, 0.2% more than in 2024. The El Musel terminal is the one with the highest growth compared to the previous year (+17.4%), with 2025 being its second year of activity in tanker loading.

Tankers loading at regasification terminals

	2024	**2025**			
Terminal	**Total GWh**	**Total GWh**	**excl. 2024**	**Max. daily GWh/day**	**excl. 2024**
Barcelona	2,457	**2,547**	**+3.7%**	**14**	**+16.4%**
Huelva	2,608	**2,370**	**-9.1%**	**12**	**-13.1%**
Cartagena	2,231	**2,244**	**+0.6%**	**13**	**-11.6%**
Bilbao	1,298	**1,310**	**+0.9%**	**6**	**-2.1%**
Sagunto	2,248	**2,281**	**+1.5%**	**10**	**+2.1%**
Mugardos	934	**928**	**-0.6%**	**7**	**+18.6%**
El Musel	663	**779**	**+17.4%**	**4**	**+12.5%**
Total	**12,439**	**12,459**	**+0.2%**	**55**	**+1.8%**

Evolution of the loading of tankers

GWh



International connections

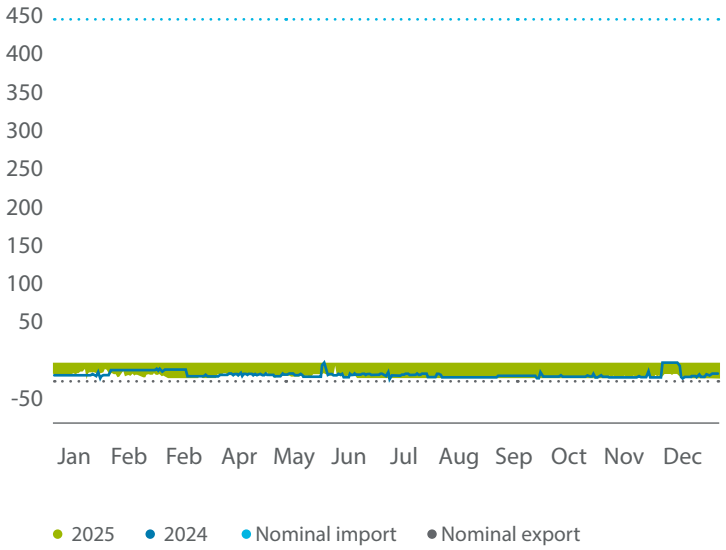
The net balance for international connections was 94,872 GWh, 15% lower than in 2024.

International connections with North Africa

In 2025, the net balance through North Africa's international connections reached 96,804 GWh, similar to 2024.

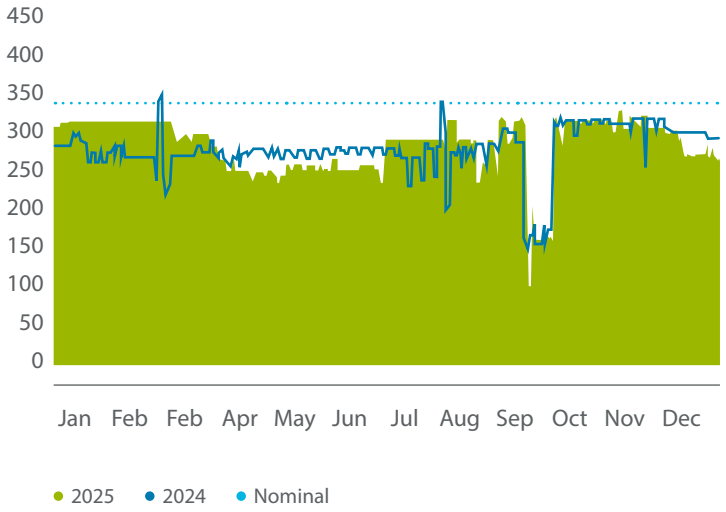
Physical movements - CI Tarifa

GWh/day



Physical movements - CI Almeria

GWh/day

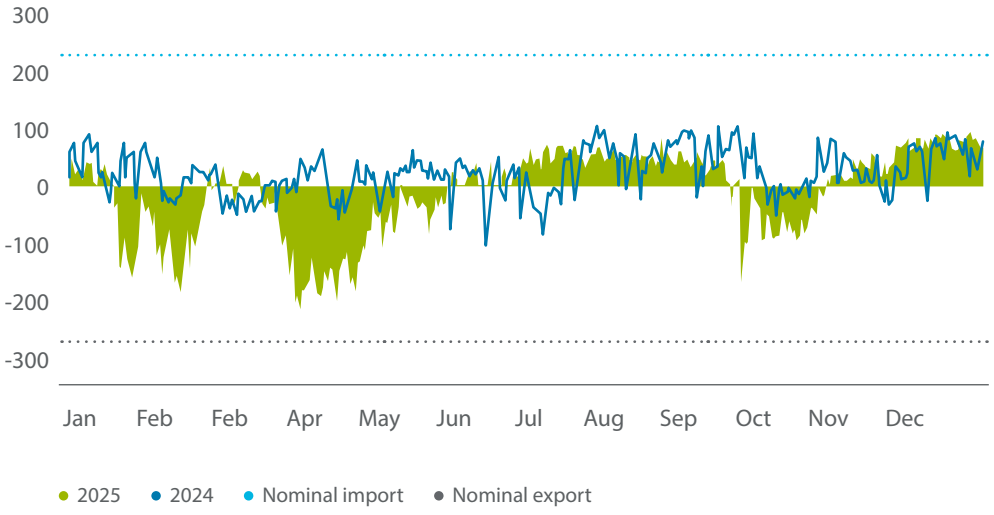


International connections with France

In 2025, the net balance through international connections with France reached 3,787 GWh, in an export direction, mainly due to the filling of French underground storage facilities, the level of activity of its regasification terminals and prolonged strike episodes in France. The net balance in 2024 was in an import direction.

Physical movements - CI France

GWh/day
Balance = Imports - Exports

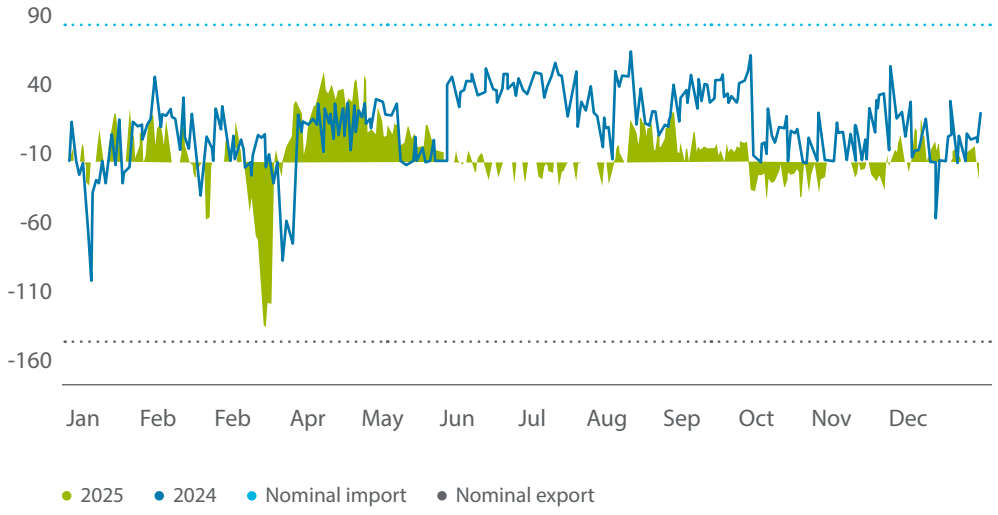


International connections with Portugal

In 2025, the net balance through international connections with Portugal reached 1,855 GWh.

Physical movements - CI Portugal

GWh/day
Balance = Imports - Exports



Underground storage facilities

Gas injected during 2025 amounted to 9,360 GWh. Extraction, on the other hand, was 14,464 GWh.

The 90% filling target, set by Regulation (EU) 2022/1032 for 1 November 2025, was deemed to have been met by Spain. It stood at 86%; however, it was possible to count additional stocks in LNG plants for the purpose of meeting the filling targets.

9,360 GWh

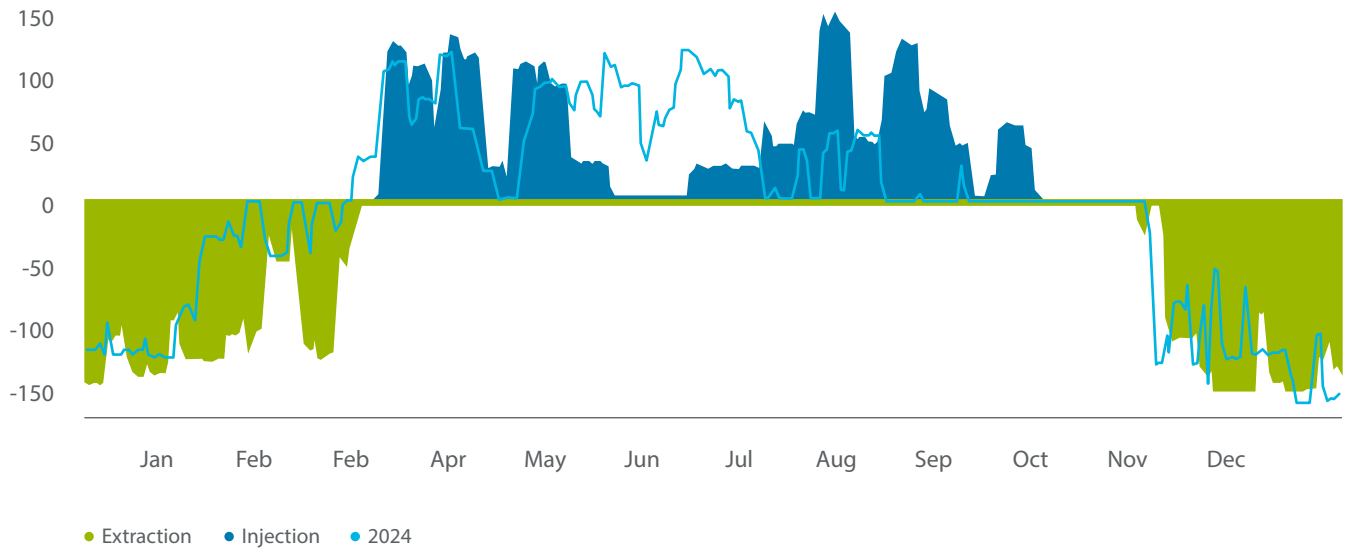
Gas injected into storage

14,464 GWh

Gas extracted in storage

Extraction / injection vs. 2024

GWh/day



Injection/Extraction in storage facilities

GWh

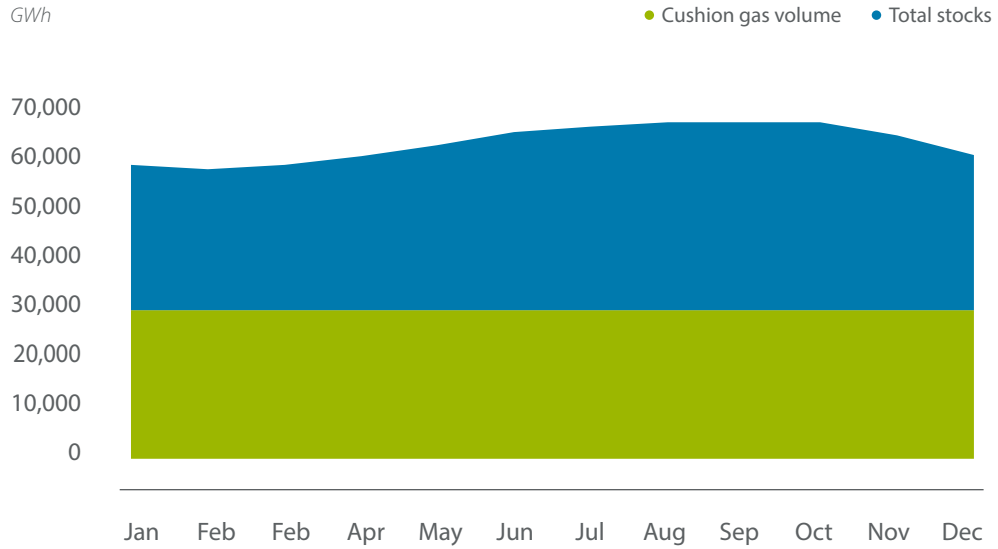
	2024	**2025**	excl. 2024
Injection	9,200	**9,360**	2%
Extraction	10,609	**14,464**	36%

53,717 GWh

End stocks
in underground storage facilities

Stocks in underground storage facilities

GWh



Full management of underground storage facilities

		Jan	Feb	Feb	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Useful capacity	*GWh*	**34,179**	**34,179**	**34,179**	**34,179**	**34,179**	**34,179**	**34,179**	**34,179**	**34,179**	**34,179**	**34,179**	**34,179**
Cushion gas volume	*GWh*	**28,793**	**28,793**	**28,793**	**28,793**	**28,793**	**28,793**	**28,793**	**28,793**	**28,793**	**28,793**	**28,793**	**28,793**
Initial stocks	***GWh***	**58,820**	**55,115**	**52,567**	**51,818**	**54,029**	**55,554**	**55,898**	**57,917**	**60,003**	**60,514**	**60,516**	**57,921**
Injection (net)	**GWh/month**	**0**	**0**	**662**	**2,211**	**1,525**	**345**	**2,018**	**2,087**	**511**	**1**	**0**	**0**
Average daily injection	*GWh/day*	0	0	21	74	49	11	65	67	17	0	0	0
Extraction (gross)	**GWh/month**	**3,706**	**2,547**	**1,411**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**2,595**	**4,204**
Average daily extraction	*GWh/day*	120	88	46	0	0	0	0	0	0	0	86	136
End stocks	***GWh***	**55,115**	**52,567**	**51,818**	**54,029**	**55,554**	**55,898**	**57,917**	**60,003**	**60,514**	**60,516**	**57,921**	**53,171**

Gas transmission

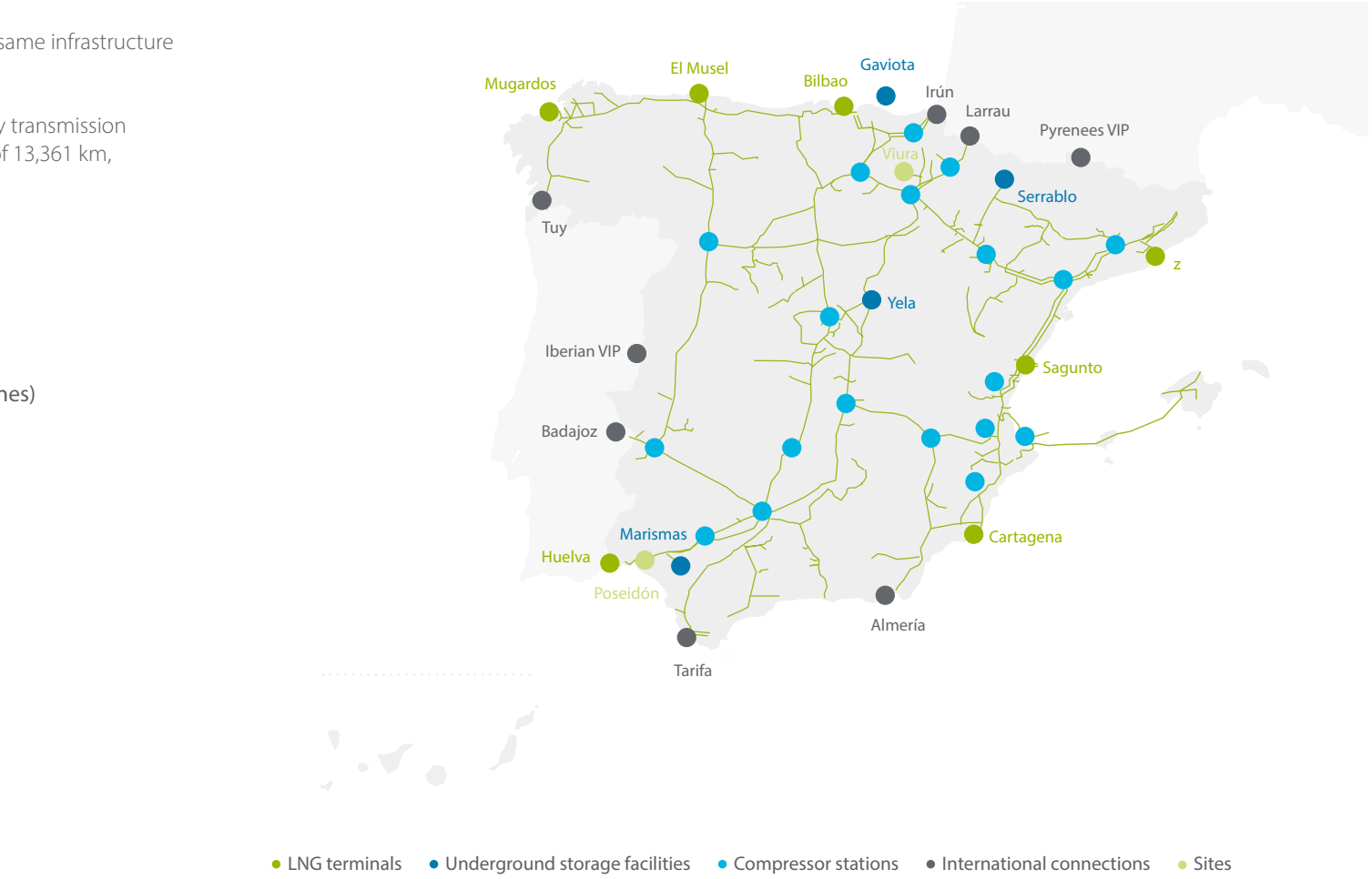
The Spanish Gas System in 2025 had the same infrastructure assets as the previous year.

The Gas System had 11,369 km of primary transmission pipelines at the end of 2025, and a total of 13,361 km, including secondary pipelines.

11,369 km

Primary transmission pipelines
(13,361 km, including secondary pipelines)

Transmission infrastructure



Compressor stations

The gas pipeline network has nineteen compressor stations, as well as transport centres, regulation and measurement stations and connection points to the network. They allow the correct primary distribution of gas throughout national territory and provide security of supply of natural gas even in situations of peak demand.

Compressor stations

1. EC Sevilla
2. EC Almendralejo
3. EC Córdoba
4. EC Almodóvar
5. EC Chinchilla
6. EC Crevillente
7. EC Denia
8. EC Montesa
9. EC Alcázar
10. EC Paterna
11. EC Algete
12. EC Coreses
13. EC Zaragoza
14. EC Tivisa
15. EC Villar de Arnedo
16. EC Haro
17. EC Navarra
18. EC Bañeras
19. EC Euskadour

Average quality of emission gases

	Barcelona	Huelva	Cartagena	Bilbao	Sagunto	Mugardos	El Musel	Aznalcázar site	Viura site	Valdemingómez	La Galera	Biomethane Montes de Toledo	Green Hysland	Portugal connection	France connection	Tarifa	Almería
Molar fractions %																	
Nitrogen (N_2)	0.191	0.163	0.224	0.196	0.263	0.123	0.131	1.267	1.010	0.754	0.999	0.600	0.000	0.286	0.663	1.288	1.730
Carbon dioxide (CO_2)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.246	0.427	1.204	0.889	0.470	0.000	0.179	0.446	1.178	1.625
Gas quality																	
H.C.V. [KWh/m^3(n)]	11.668	11.737	11.741	11.522	11.724	11.528	11.367	11.362	11.618	10.877	10.925	10.970	3.543	11.664	11.648	11.677	11.647
H.C.V. [MJ/m^3(n)]	42.005	42.255	42.268	41.479	42.206	41.502	40.923	40.902	41.826	39.157	39.330	41.188	12.755	41.925	41.931	42.037	41.928
Relative density	0.590	0.594	0.595	0.582	0.595	0.582	0.572	0.588	0.603	0.570	0.570	0.562	0.069	0.593	0.602	0.622	0.632

3. Commercial operation

The Spanish Gas System in 2025 **guaranteed national supply and reinforced Europe's security of supply**, through the interest and participation in capacity contracting processes

Contracting and commercial use

Main commercial figures

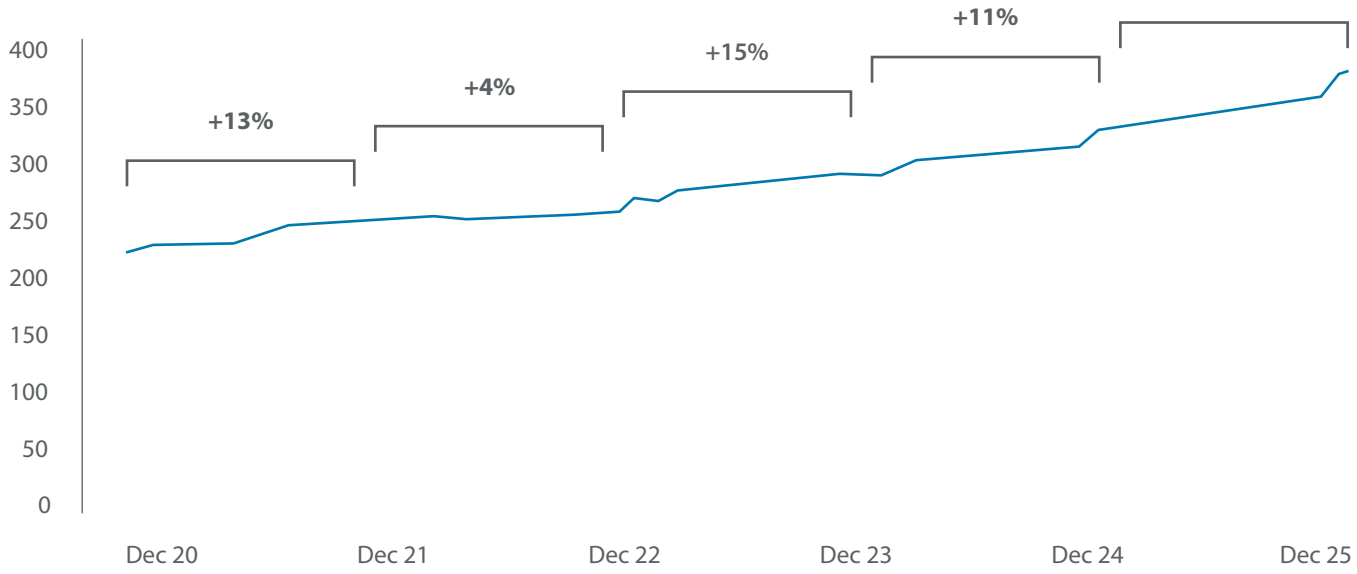
During 2025, the number of users adhering to the Framework Contract for Access to the Spanish Gas System Facilities (+19%) and/or the Balance Portfolio Framework Contract (+20%) increased significantly compared to the previous year. This is the largest increase in the last six years.

This rise is mainly motivated by two aspects:

- The increase in the number of resellers that signed up to the aforementioned contracts in 2025 (22 users, +10% compared to the previous year).
- The strong increase of direct consumers in the market (+63% vs. 2024). These customers purchase natural gas directly without the intermediation of a reseller, accessing the facilities of third parties for their own consumption and who, at the end of 2025, accounted for a total of 88 agents.

Evolution of persons authorised to access Gas System facilities[1]

+19%
Higher annual increase



[1] Including trading platforms and central counterparties

At 31 December 2025:

365 Users adhered to the Framework Agreement for access to the Spanish Gas System Facilities

344 Users adhered to the Balance Portfolio Framework Contract. All had Balance Portfolio in PVB

- **295** with Balance Portfolio in TVB
- **296** with Balance Portfolio in AVB

295 Authorised companies in the Framework Contract for Access to the Spanish Gas System Facilities and in the three Balance Portfolios (PVB, TVB and AVB)

31 Balance Portfolio Groupings in place

- **31** in PVB
- **18** in AVB
- **19** on TVB
- **127** subjects are part of the groupings

+1,700 Active users in the SL-ATR Logistics System.

Capacity contracting

The high level of interest and participation in the capacity contracting processes highlights the confidence of users in the system, which has become a common trend in recent years. The high levels of LNG tank storage contracting and the high filling of underground storage facilities reflect the commitment of users to the Spanish Gas System. This situation made it possible to continue to maintain a solid guarantee of supply in 2025, capable of meeting domestic demand and reinforcing security of supply at European level by means of exports through international connections and the reloading of ships from Spanish terminals.

As a result of this high level of interest, the capacity request and contracting platform, managed by the Technical System Operator, has been subject to recurrent competitive auction processes, with multiple rounds and extensive participation. This dynamic was particularly reflected in the annual auctions, in which loading and unloading slots were allocated, as well as LNG storage capacity until 2040.

In this context, the highlights of the year 2025 in terms of capacity contracting have been as follows:

- More than 150,000 capacity allocation processes.
- 70 resellers have participated in the allocation processes.
- Great interest in the services of loading and unloading slots, LNG storage and underground storage, with contracting ratios close to 100%.

+150,000
Capacity allocation processes

+70
Resellers that have participated in allocation processes

Services associated with slots

- Over the course of 2025, more than 240 unloading slots and over 260 loading slots of all existing size categories (small scale, medium scale and large scale), have been formalised in allocation processes until 2040.
- At the annual auction of unloading slots, 196 slots have been offered for the next 15 years. The allocation ratio for the first 14 years offered was almost 100% of the offering, in line with previous years. There was strong user interest in this service, as the ratio of applications received to those offered was approximately 183%.
- For the first time, a monthly auction of loadings with an ascending clock mechanism was carried out automatically in the SL-ATR system.

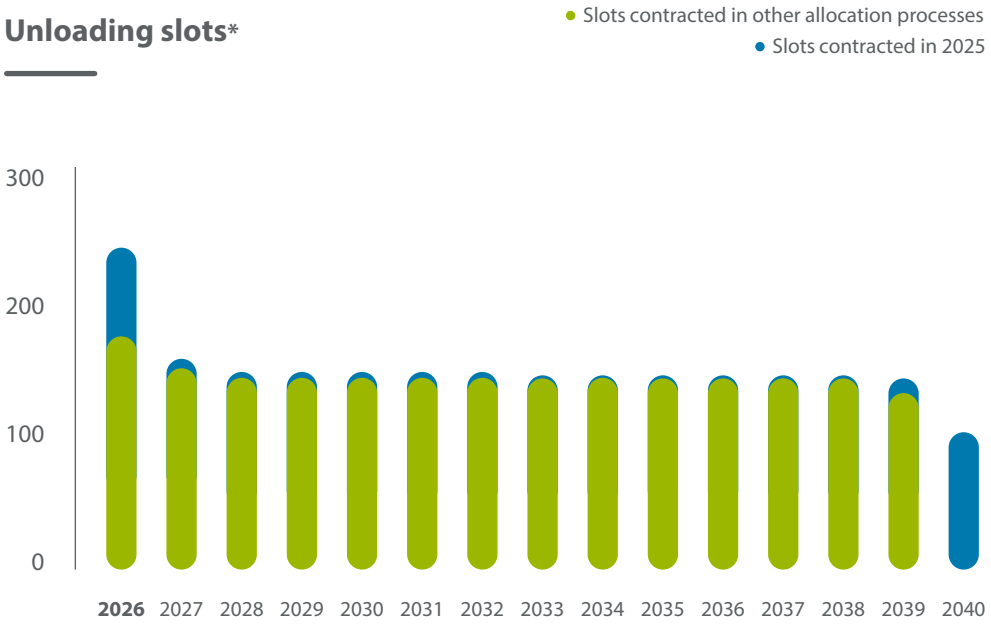
+240

Unloading slots allocated until 2040

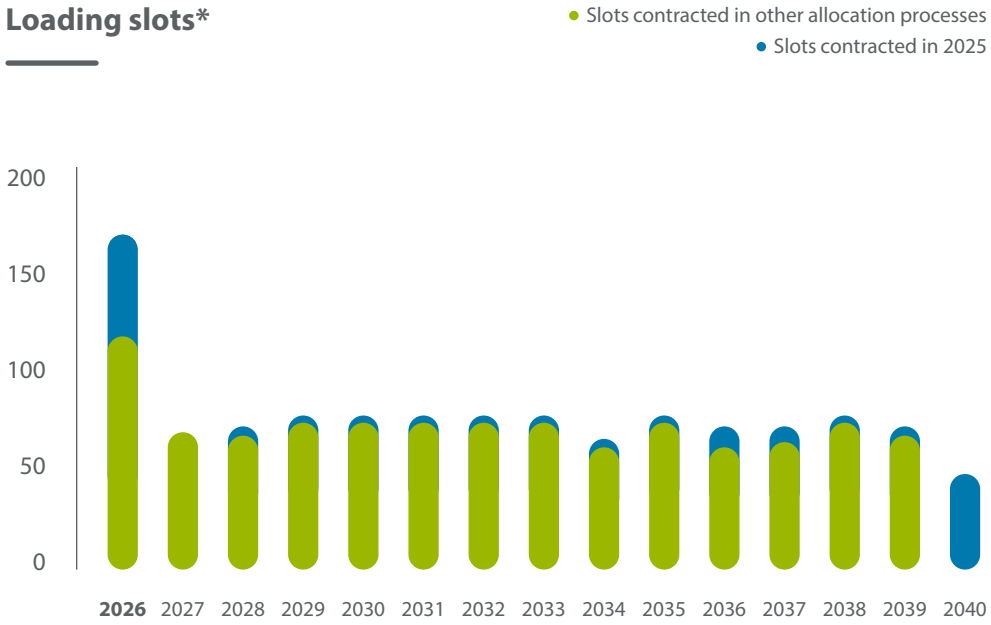
+260

Loading slots allocated until 2040

Unloading slots*



Loading slots*



*Slots allocated in allocation processes from resignations are not included

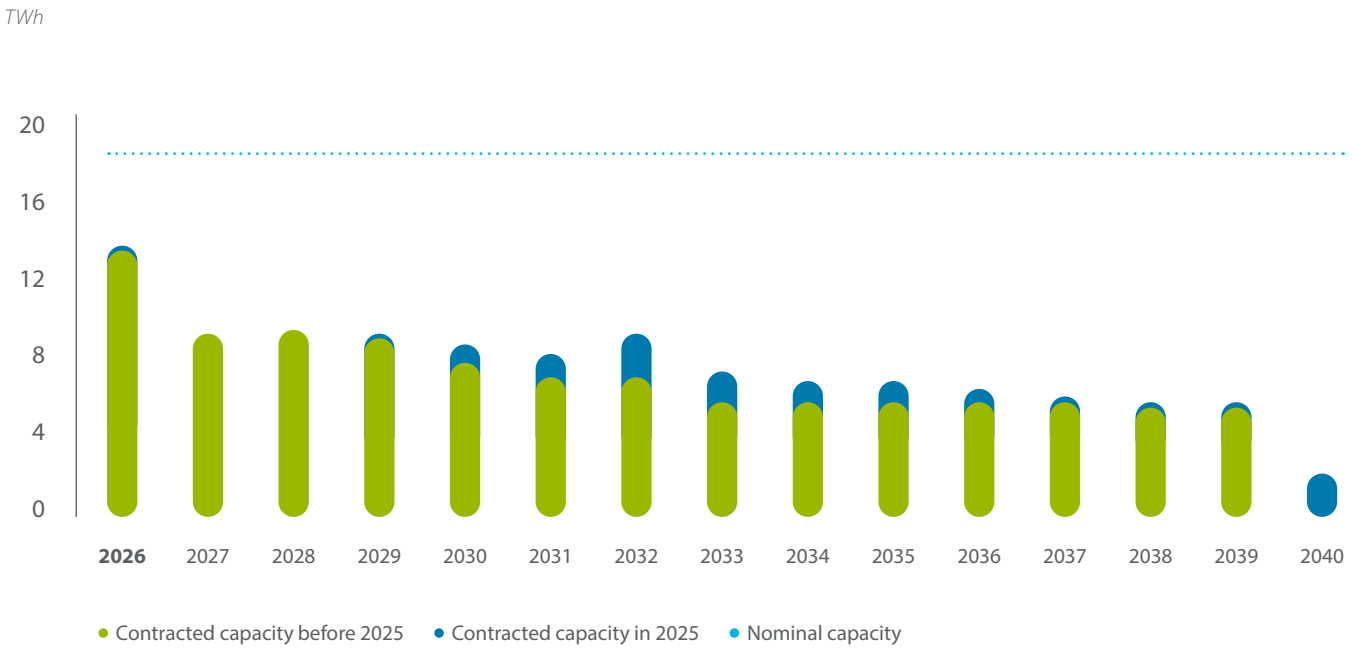
LNG storage service

- The contracting of the LNG storage service during 2025 reached an average of 97%. On some days, this contracting reached 100%.
- In the 2025 annual auction, capacity was offered for the following 15 years, i.e. until 2040, except for 2027 and the 2028 gas years, in which there was no available capacity. It was allocated in all years in which capacity was offered.
- In general terms, the requested capacity was higher than the capacity offered for the initial years, even exceeding 400% for the year 2026.

97%

Average contracting of the LNG storage service

LNG storage contracting



Underground storage service

- In contrast to the previous year, when no capacity was offered since August 2024 because it was fully contracted, more than 4 TWh of storage is available in 2025.
- Consequently, no premiums have been recorded in the long-term allocation auctions.

For further details of the **contracted capacities** in the System, see **Annex 1** of this chapter in the downloadable information by clicking **here**

For more details on **auctions of services that do not involve *slots,*** see **Annex 2** of this chapter in the downloadable information by clicking **here**

For further details on the **allocation procedures for the LNG unloading service**, please refer to **Annex 3** of this chapter in the downloadable information by clicking **here**

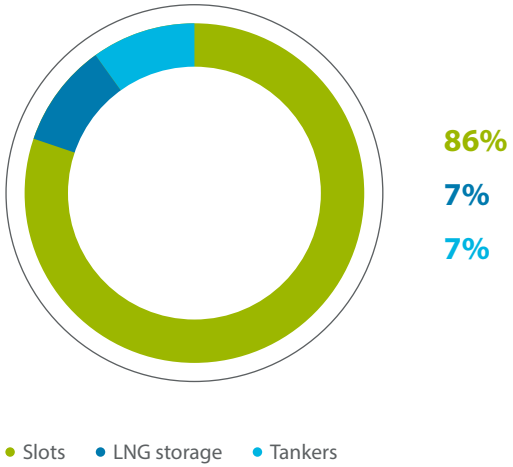
For further details on the **allocation procedures for the LNG cargo service**, please refer to **Annex 4** of this chapter in the downloadable information by clicking here **here**

Organised secondary capacity market*

During the year, a total of 64 users have been enabled to trade on the organised secondary capacity market. The total number of users authorised to operate in this market was 205. 69 transactions were matched, 59 associated with unloading slots, 5 for LNG storage and 5 for tanker trucks loading.

Secondary market matched trades

%



*Matched transactions between companies belonging to the same corporate group have been excluded.

Continuous improvement in contracting processes

Improved anti-congestion mechanisms

The year 2025 was the period in which the TSO consolidated the congestion management and capacity anti-hoarding mechanisms. This was a major challenge due to the great complexity of these services and their impact on daily and intraday processes, especially when the contracting levels in some of the services, such as LNG storage or tanker loading, have been above 90% or 95%.

In order to further strengthen user monitoring and improve the quality and security of the process, the TSO started work during 2025 on the automation of the calculation of the level of under-utilisation of the different services and facilities for long-term congestion, so that users can know their utilisation status on a daily basis. The aim is for this process to be fully integrated into their systems by 2026.

Strengthening the contracting platform

In 2025, several initiatives have been implemented in the SL-ATR to strengthen the functioning of the capacity contracting platform. In this regard, improved navigation and communications with users in relation to capacity allocation procedures have been achieved, favouring stability and user experience.

Use of facilities by agents

Regasification terminals

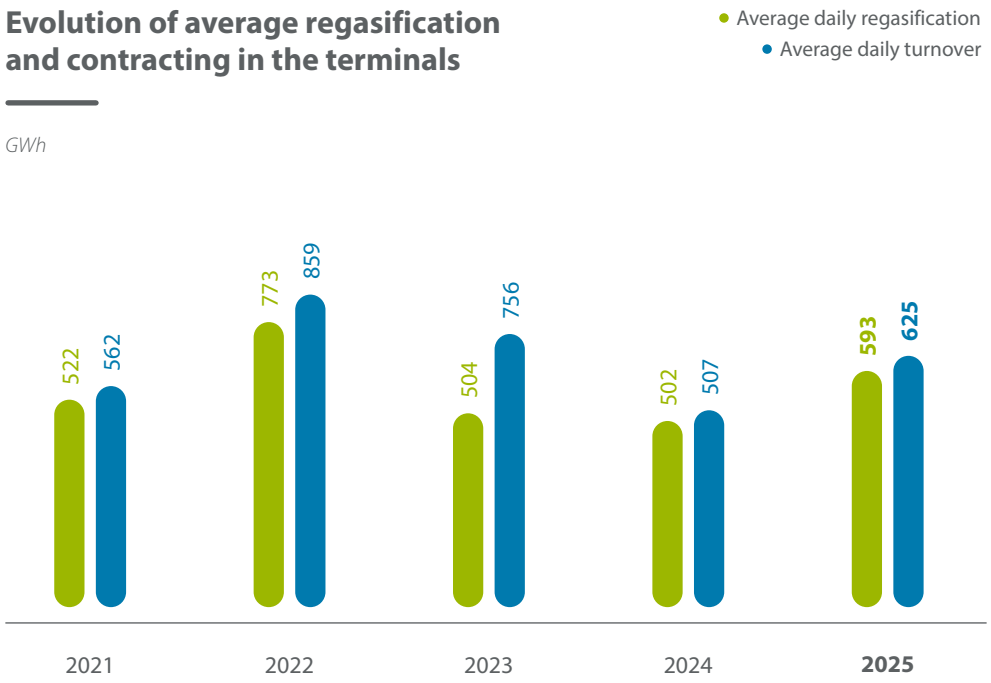
The volume of LNG offloaded amounted to 248,084 GWh, 20% more than in the previous year.

Meanwhile, vessel reloading operations totalled 11,745 GWh, 14% less than in 2024.

During the year 2025, users made use of the regasification terminals 18% more than in the previous year.

	2024	**2025**
Regasification	183,825	**216,583**

Evolution of average regasification and contracting in the terminals



Underground storage facilities

Users made greater use of underground storage in 2025 than in 2024. Extraction increased by 17% and injection decreased by 2%.

Use of underground storage

GWh

	2024	**2025**
Extraction	10,948	**12,754**
Injection	8,548	**8,335**

+17%

Increased extraction
in underground storage facilities vs. 2024

International connections

By 2025, users have made the following usage for international connections:

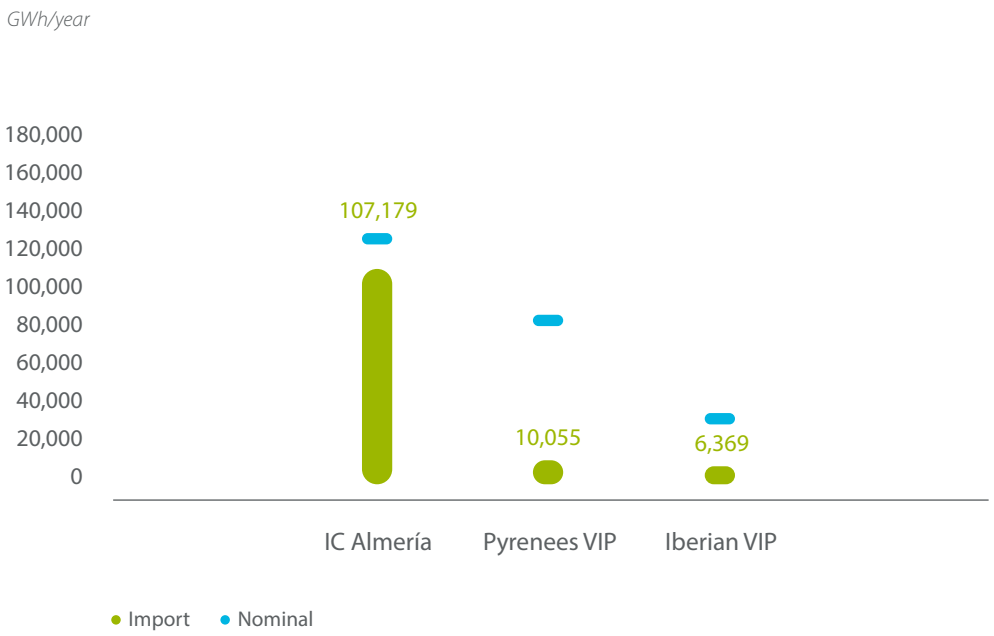
- Tarifa International Connection. Exports reached 10,375 GWh, 7% higher than the previous year.
- Almería International Connection. Imports reached 107,179 GWh, 1% higher than the previous year.
- Pyrenees VIP International Connection. Imports registered 10,055 GWh, 37% lower than the previous year, while exports reached 13,842 GWh, 59% higher than in 2024.
- Iberian VIP International Connection. Imports amounted to 6,369 GWh, 48% lower than the previous year, while exports amounted to 4,514 GWh, 11% higher than in 2024.

Use of international connections

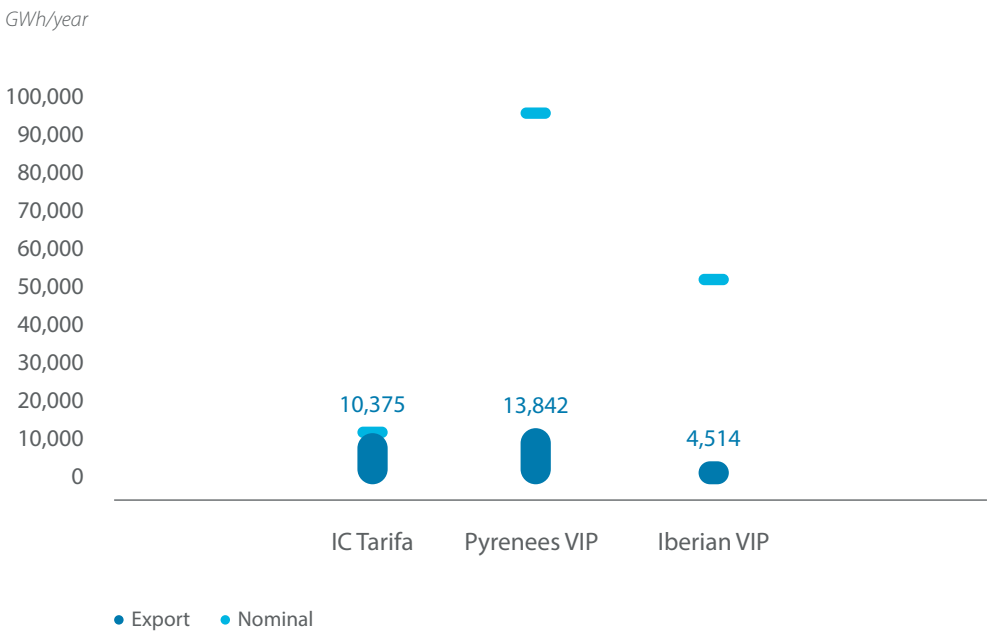
GWh

	2024			**2025**		
	Balance	**Import**	**Export**	**Balance**	**Import**	**Export**
IC Tarifa	-9,703	0	9,703	**-10,375**	**0**	**10,375**
IC Almería	105,891	105,891	0	**107,179**	**107,179**	**0**
Pyrenees VIP	7,367	16,076	8,709	**-3,787**	**10,055**	**13,842**
Iberian VIP	8,248	12,303	4,056	**1,855**	**6,369**	**4,514**

Import / Nominal

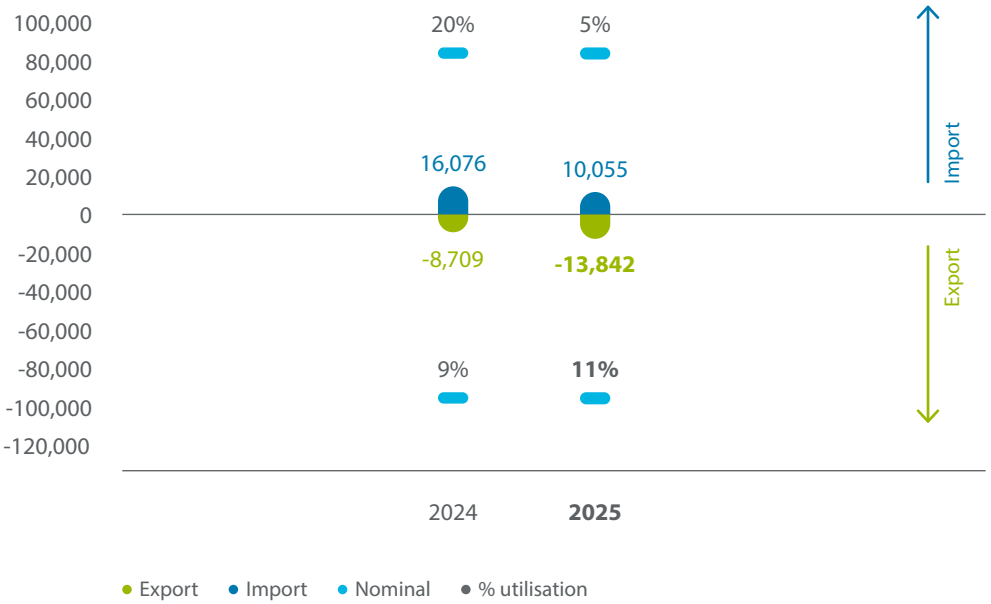


Export / Nominal



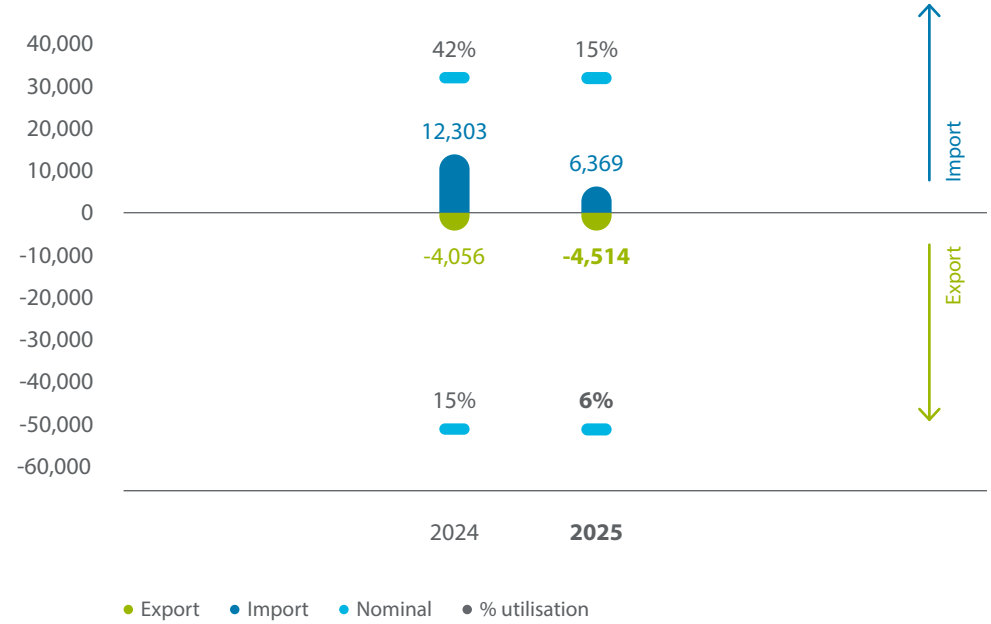
Pyrenees VIP movements

GWh/year



Iberian VIP movements

GWh/year



Guarantees

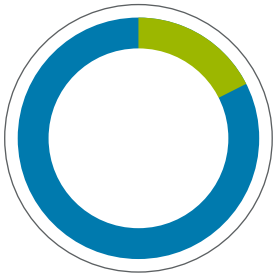
The Spanish Gas System establishes a system of guarantees for users to meet their obligations to pay service contract toll and royalty invoices and imbalance surcharges in accordance with the provisions of the CNMC (National Commission on Markets and Competition), ensuring that the System is reliable and economically secure.

The calculation and management of guarantees in contracting, for all products that can be contracted in the Spanish Gas System, and imbalance activities are carried out by the TSO and are notified to the affected user and to the Guarantees Manager.

The average guarantees retained in 2025 came to a total of €479.32 M for imbalance and contracting activities.

Average guarantees withheld

%



14% €37.9 M

86% €460.9 M

● Average imbalances ● Average contracting

Guarantees for capacity contracting

CNMC Circular 2/2025, of 9 April, which establishes the methodology and conditions for access and capacity allocation in the natural gas system, imposes a system of guarantees to cover possible non-payment of tolls and fees for capacity contracts.

The availability of guarantees is a prerequisite for requesting capacity, submitting a bid for an auction and concluding capacity contracts.

Most relevant indicators of guarantees for capacity contracting

€458.0 M	€410.0 M	€367.9 M
Maximum **guarantees**	Average **guarantees**	Minimum **guarantees**

Guarantees for imbalances

CNMC Circular 2/2020, of 9 January, establishing the natural gas balancing rules imposes a guarantee scheme to cover the risk of non-payment of imbalance surcharges.

Users with a balance portfolio must have collateral to cover their level of risk, which takes into account both the user's operational situation and its net debit or credit position with respect to imbalance surcharges.

Most relevant indicators of guarantees for imbalances

€105.8 M	€69.3 M	€38.7 M
Maximum guarantees	**Average** guarantees	**Minimum** guarantees

Enforcement of guarantees

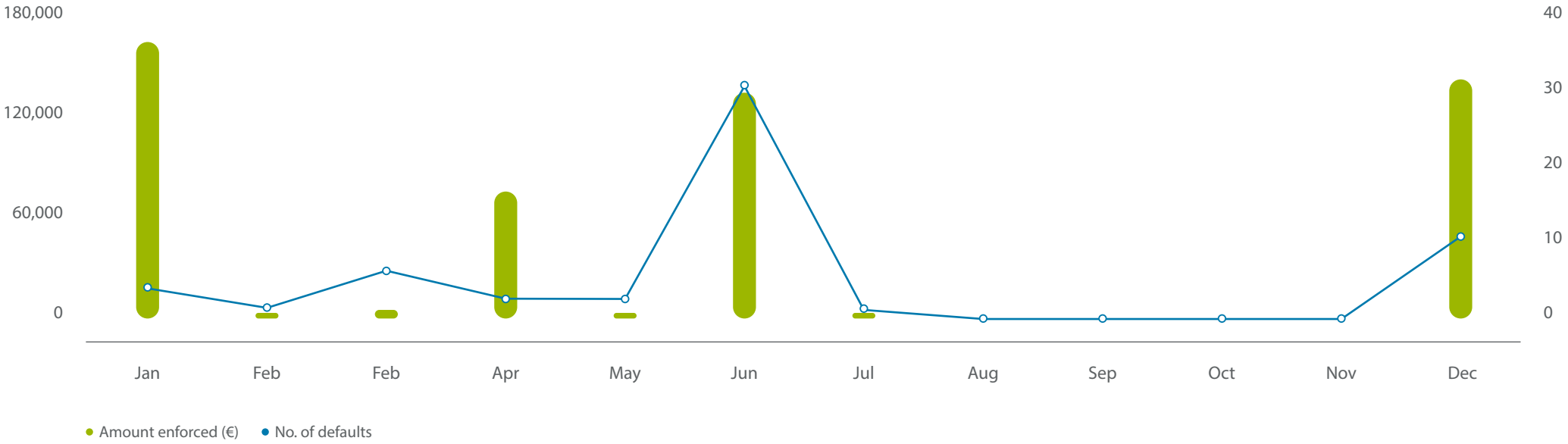
The aforementioned CNMC Circulars 2/2020 and 2/2025, indicated previously, establish the enforcement of previously withheld guarantees in the event of non-compliance with payment obligations both for tolls and fees for contracted access services and for imbalance surcharges. The Technical System Operator is responsible for requesting the Guarantees Manager to enforce guarantees in accordance with the regulations in force in order to recover the amounts owed in the imbalance and contracting activities.

Globally, most of the enforcements accumulated in September. In March the volume of collateral enforced (€M) was higher but the number of enforcements was lower, with a negligible ratio of amounts enforced compared to the volume of collateral posted.

Most relevant indicators on defaults and enforcement of guarantees

54	€0.51 M	€0.51 M
No. of defaults	Amount **paid**	Guarantees **enforced**

Amounts of enforced and defaulted guarantees



In 2025, it was necessary to carry out 41 enforcements associated with the contracting activity. The amounts of these enforcements came to approximately €342,056 and these enforcements affected 6 users.

In relation to the daily assessment of the risk index, it was necessary to make 13 enforcements of guarantees associated with the contracting process. These enforcements have affected 11 users, with an approximate annual enforcement amount of €169,063.

Gas markets

Prices in the main European hubs recorded average increases of around 43%.

The role of the TSO in the Organised Market

As established in the Balancing Circular 2/2020, the Technical System Operator (TSO) is responsible for maintaining the transmission network of the Gas System within the normal operating limits by means of the so-called balancing actions in PVB, and is also responsible for management of imbalances in TVB and AVB.

In addition, according to the Resolution of 12 July 2023 of the Secretary of State for Energy, which develops the procedure for the purchase of operating gas and gas intended for minimum filling level, the TSO is responsible for making these purchases in the Organised Market.

Likewise, Order TED/72/2023, of 26 January, which develops the procedures necessary for compliance with the obligation to maintain minimum buffer stocks of natural gas, authorised the TSO to purchase natural gas destined for minimum buffer stocks on the Organised Gas Market in the event of non-compliance by users.

Significant events

- 98% efficiency in taking balancing actions for maintenance of the stock in the transmission network.
- 3.17% of the volume traded on MIBGAS was managed by the TSO.
- 15% decrease in trading volume on market platforms in 2025 compared to 2024.

The Technical System Operator **is responsible for maintaining the transmission network of the Gas System within the normal** operating limits by means of the balancing actions in PVB

98%

Efficiency in taking balancing actions for stock maintenance of the transmission network

+15%

Increase in the volume of gas traded on market platforms (vs. 2024)

Evolution of prices in the main European hubs and JKM

Gas prices in European hubs, after the increases recorded in 2024, which lasted until February 2025, have subsequently followed a downward trend, standing at 28.51 €/MWh at the end of December.

The gas market was conditioned by the continuation of the process of reducing Russian gas imports to Europe, consolidating a structural change in supply flows. This was largely offset by a high inflow of LNG, with the United States playing a particularly prominent role as the main supplier. Although the Russian-Ukrainian conflict remained active throughout the year, occasional signs of possible peace negotiations temporarily helped to ease market tensions and moderate bullish expectations. In addition, tensions in the Middle East, in particular those related to Iran, generated bouts of volatility due to the risk of disruptions in the transit of LNG cargoes through the Strait of Hormuz, contributing to a tight overall balance and high price sensitivity to geopolitical developments.

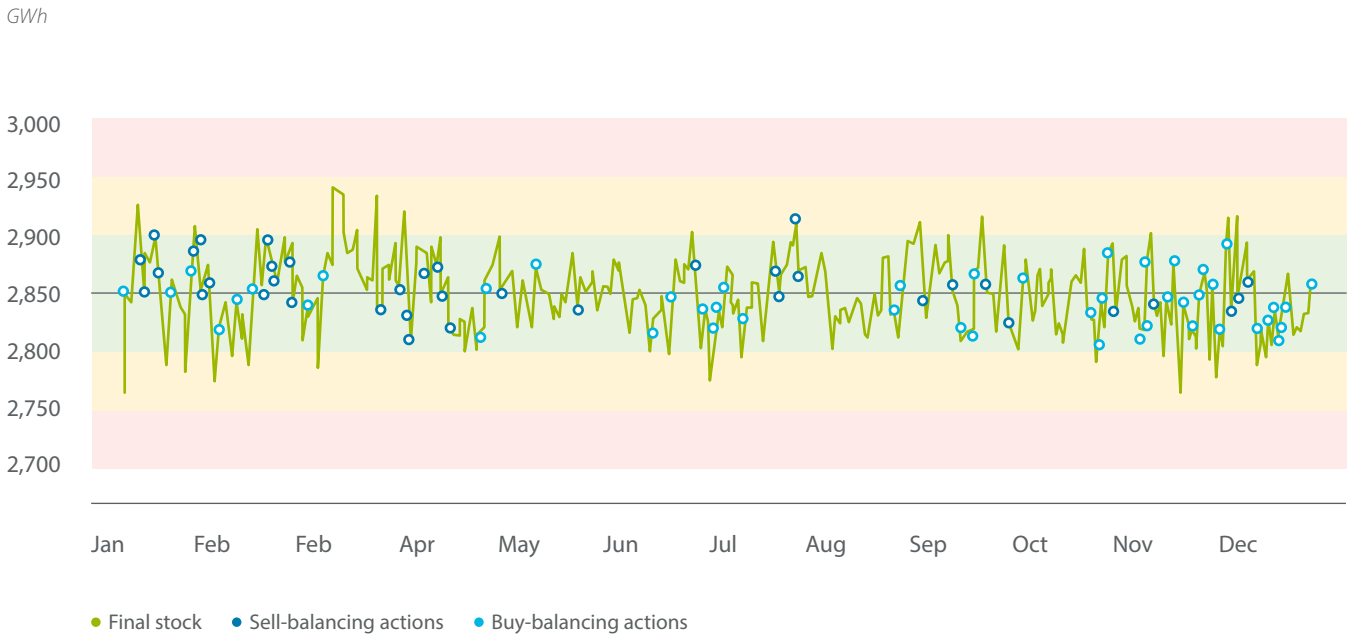
Evolution of prices in the main European hubs and JKM

Balancing actions in PVB

Action by means of balancing actions is an operation that the TSO must carry out in the Organised Market when it estimates that the expected gas stock in the transmission network at the end of the day is going to move away from the band of optimal values for operational functioning (green band), with the aim of returning the stock to that band.

- Sell-balancing actions: when the stock is expected to end up in the upper warning band (upper red band).
- Buy-balancing actions: when the stock is expected to end up in the lower warning band (lower red band).

Balancing actions and evolution of the state of the System



During the year 2025, 85 of the 87 balancing actions (BA) carried out by the TSO met the objective of ending the gas day with the stock located in the indifference band; only in those carried out on 10 January and 26 July, the volume of gas available ended outside the indifference band.

In 2025, the TSO carried out approximately one balancing action every four days.

Management of imbalances in TVB and AVB

According to current regulations, the TSO manages imbalances in TVB/AVB, and must go to the market to buy/sell the net balance of users' imbalances within a maximum of five days of their occurrence.

- The default imbalances are practically daily, generally of a few kWh and respond to tanker loads not supplied by the users.
- Excess imbalances are sporadic, of much more significant quantities and motivated by the lack of available storage, both in tanks and in underground facilities.

Balancing actions (buy)

Balancing actions	48
Quantity (GWh)	2,094
Cost (€M)	73.74

Imbalance management (sell)

Imbalance management	140
Quantity (GWh)	73
Cost (€M)	3.00

Balancing actions (sell)

Balancing actions	39
Quantity (GWh)	1,760
Income (€M)	65.85

Imbalance management (sell)

Imbalance management	17
Quantity (GWh)	27
Income (€M)	1.00

Operating gas

In accordance with the Resolution of 12 July 2023 of the Secretary of State for Energy, which develops the procedure for the purchase of operating gas and gas intended for minimum filling level, the TSO has extended both the products and the type of session in which it makes purchases of paid operating gas. During 2025, the TSO purchased 1,119 GWh of operating gas, at a cost of €39.91 M.

During 2025, the TSO was not required to turn to the market for the purchase of gas for the minimum filling level of the facilities.

The presence of the TSO in the Organised Market

In 2025, the TSO traded 3,854 GWh in balancing actions, 1,119 GWh for the purchase of operating gas and 100 GWh for imbalance management in TVB/AVB, which amounts to a total of 5,073 GWh/year and represents 3.17% of the volume traded on the Organised Market.

Maintenance of minimum buffer stocks of natural gas

The steps taken by the TSO, in coordination with CORES and the users, have led to the latter complying with the maintenance of the minimum buffer stocks established in current legislation, avoiding the need for the TSO to resort to the Market for the subsidiary acquisition of these stocks.

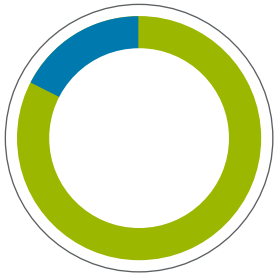
This obviated the need for the TSO to go to the Market for the subsidiary purchase of the same.

Volumes traded on platforms

In 2025, 311,109 bilateral OTC transactions were recorded on the MS-ATR platform belonging to the TSO, representing a recorded volume of 984,699 GWh. Compared to the previous year, the volume of transactions decreased by 15%.

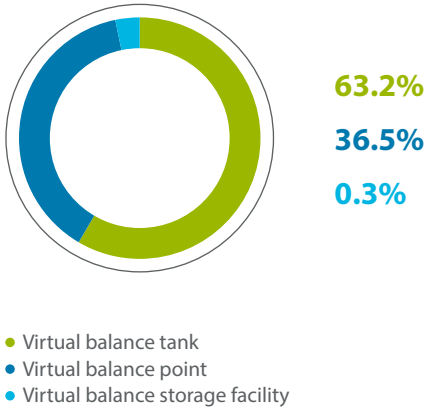
Turnover

%



Bilateral transactions

%



It is worth noting that the volume registered in PVB was 359,329 GWh, 108% of the national demand and 0.08% less than the previous year.

In the case of TVB, the record of transactions totalled 622,362 GWh, representing 188% of national demand and 26% more than the previous year.

4. Renewable gases

The evolution of the **European regulatory framework**, in line with energy transition objectives, provided the Technical System Operator with reinforced capacities for the **integration of renewable gases in infrastructure assets**

Regulatory framework

The integration of renewable gases in the Spanish Gas System is articulated through a new regulatory framework that has undergone significant evolution in recent years, in line with the objectives of decarbonisation and energy transition. The purpose of this framework is to facilitate the progressive incorporation of new energy carriers, guaranteeing at all times the security of supply, the integrity of infrastructures and the correct operation of the Gas System.

In this context, **Circular 2/2025 of 9 April of the National Commission on Markets and Competition (CNMC)** establishes the methodology and conditions for access and connection of plants producing other gases - mainly biomethane and hydrogen - to the natural gas transmission and distribution networks.

In addition, **Order TED/181/2025, of 13 February,** approving the **Technical Management Regulations for the Gas System (NGTS from its Spanish initials)**, incorporated, by means of its **Chapter 11**, an annual and multi-annual planning approach that provides the TSO with enhanced capabilities to analyse, model and anticipate safety, pressure, mixing and gas quality impacts. Finally, the deployment of renewable gases is being supported by the Guarantees of Origin (GdO) system, as a fundamental instrument to provide transparency to the market and to measure and certify the effective contribution of these gases to the decarbonisation objectives.

The national regulatory framework of the Guarantees of Origin System is based on **Royal Decree 376/2022, Order TED/1026/2022**, which approves the System Management Procedure and establishes the operational rules for the System, and **Order TED/728/2024**, which incorporated information on sustainability and emission reductions into the Guarantees of Origin. This regulatory framework remained unchanged in 2025.

The deployment of renewable gases relies on the GdO System as a key instrument to provide transparency to the market and to measure and certify the effective contribution of these gases to the decarbonisation targets

As a result of all these regulations, the role of the Technical System Operator in the different stages of integration of renewable gases into the Gas System is defined as follows:

Planning and connection

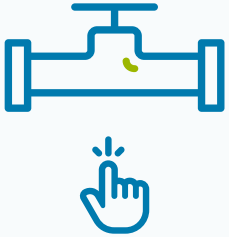
Management of connection requests and analysis of necessary facilities (reverse flows)

Access

Access management of connection contracts and TSO value chain processes

Operation

Operation of biomethane and hydrogen plants



Measurement and certification

Verification that the gas injected into the grid is from renewable energy sources

Click for more information

Deployment status of facilities

In 2025, there will be significant progress in the implementation of renewable gas production plants, with three distinct levels of maturity: facilities in operation, in the pipeline and in the initial development phase.

Facilities in operation

In 2025, 61 renewable gas production facilities are in operation. Of these, 58 are registered in the System of Guarantees of Origin. The remaining 3 facilities were only registered in the Logistics System for Third Party Access to the Network (SL-ATR).

Consult the **updated map with the registration of production facilities** in the GdO System on the platform's website by clicking **here**

Of the 58 facilities registered in the Guarantees of Origin System, 19 correspond to biomethane plants, mostly oriented towards injection into the Gas System, although off-grid and self-consumption projects are also included. Four facilities correspond to renewable hydrogen, with modalities that cover both injection into networks - including networks outside the gas system - and off-grid production. The remaining 35 facilities are biogas facilities, mainly for self-consumption.

61

Production facilities
for renewable gas in operation

58

Facilities registered
in the System of Guarantees of Origin

Biomethane — **19**

- **17** for injection into the **Gas System**
- **1** **off-grid:** BioLNG
- **1** **self-consumption**
- **+3** injecting into the network, **without registration in GdOs** (1 in process of registration)

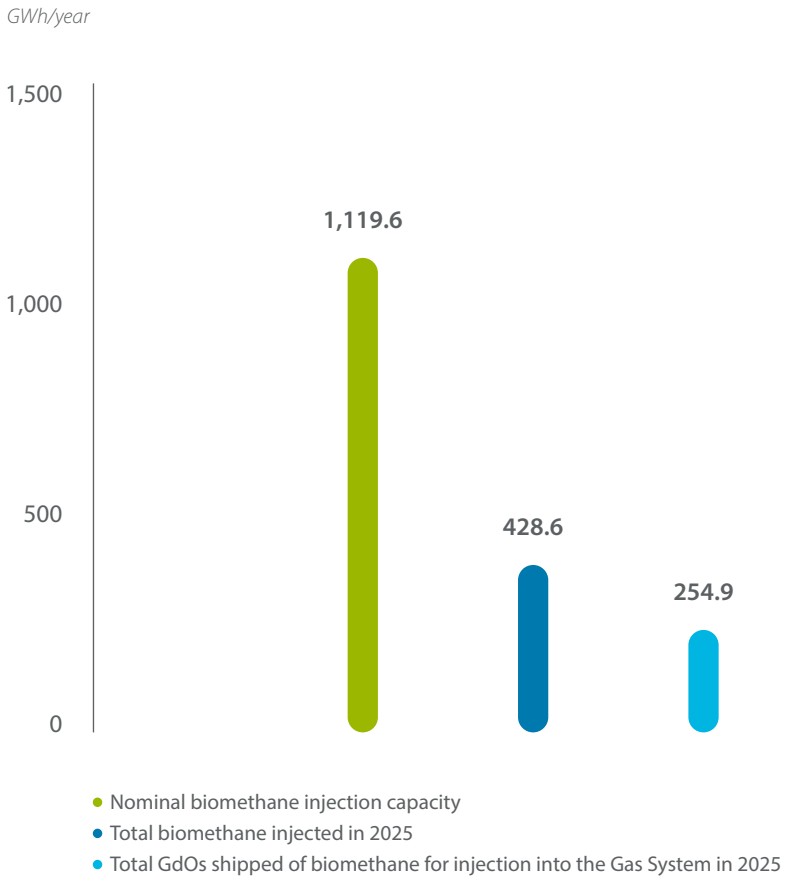
Renewable hydrogen — **4**

- **2** for injection into **network outside the Gas System**
- **1** **off-grid for injection into the Gas System**
- **1** **off-grid**

Biogas — **35**

- **33** for **self-consumption**
- **2** for injection into the **grid outside the Gas System**

Comparison of nominal biomethane injection capacity vs. biomethane injected and certified in 2025



Projects under development and growth prospects

The regulated access and connection process makes it possible to monitor the evolution of projects in 2025.

Biomethane

By 2025, 256 biomethane facilities have been made viable. The developers expect up to 46 plants to be operational by the end of 2026, with a production capacity of 4.6 TWh/year.

Updated scenarios to 2027 show an increase in annual conditional biomethane capacity to 11 to 14 TWh/year, which would be equivalent to producing approximately 3% to 5% of national natural gas demand. By 2030, production capacity could reach 22 TWh/year if all projects are realised.

256

Biomethane facilities feasible with the quality requested by the promoter

Renewable hydrogen

The TSO initiated in 2025 the first capacity allocation process for hydrogen injection into the gas network, in accordance with the provisions of Article 14 of Circular 2/2025.

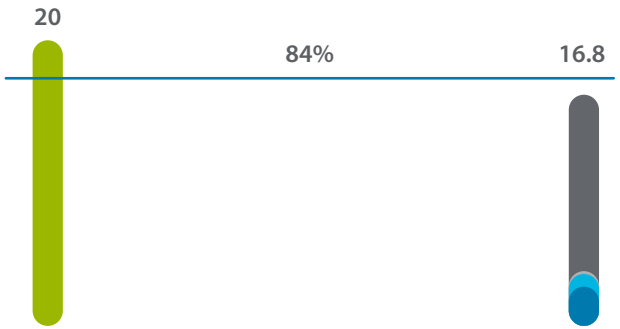
In the initial phase of the process, a total of 285 access applications with injection capacity of 300 GWh/day have been received. From these, the TSO has calculated the potential hydrogen injection capacity using algorithms, with a value of 26.6 GWh/day.

Objectives of the National Integrated Energy and Climate Plan

Data provided by the sector for 2030 in relation to the objectives defined in the National Integrated Energy and Climate Plan (PNIEC) show the following:

Biogas production target

TWh/year



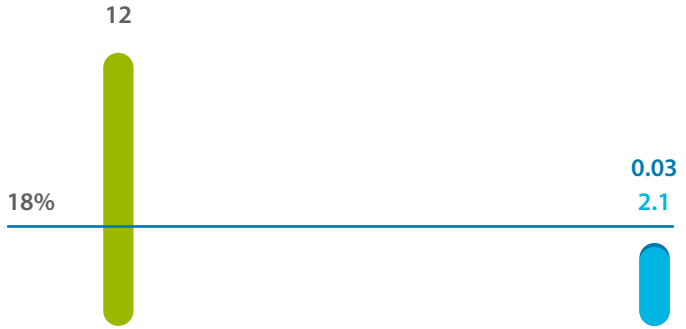
- Biogas facilities in operation
- Operational biomethane plants without registration in GdO
- Biomethane facilities in GdO
- Biomethane injection requests in the pipeline

Intended use of operational facilities + processing phase of connection or construction

TWh/year

Target of installed capacity of electrolysers

GW



- Operational facilities in GdO
- Facilities on provisional GdO register + electrolysis capacity of allocated requests* for hydrogen injection into the gas network

Installed capacity of GdOs electrolysers + injection requests

GW

*Preliminary information, pending closure of the allocation process

Technical activity of the TSO during 2025

Management of biomethane applications

Circular 2/2025 introduces the concept of conditional capacity and regulates for biomethane a continuous process of access and connection, based on a chronological criterion of the date of request for connection on the platform of the grid operator, whether it is a transporter or distributor. In this framework, the TSO is involved in the technical assessment of the quality compliance of connection requests, as provided for in Article 14.

Remember...

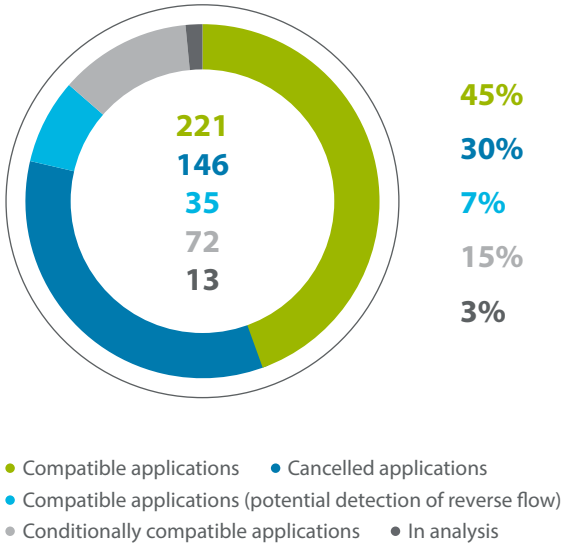
Conditional capacity: "Firm capacity which carries transparent and predefined conditions to allow access from production plants of other gases to the virtual interchange point", i.e. that maximum allowable capacity or throughput, the use of which is subject to conditions laid down in advance in the connection contract.

In 2025, the TSO managed 487 biomethane connection requests and enabled 256 requests, equivalent to 22 TWh/year.

487

Biomethane connection requests

Análisis de conformidad GTS a solicitudes de inyección de biometano



Allocation of hydrogen capacity

Circular 2/2025 establishes a specific conditional connection capacity allocation procedure for hydrogen, regulated in its Article 14, which is articulated in three phases.

Remember...

Calculation of the conditional hydrogen capacity: the capacity is determined from the actual historical flows and demands of the last year, dividing the network into 63 areas and calculating, for each of them, the statistical distribution of hydrogen flows compatible with the 2% blending limit. This calculation incorporates a matrix of inter-area effects, which reflects how hydrogen injected in one area can move and affect other areas, and allows determining a system-wide consistent area capacity through a matrix approach that ensures that, considering all interactions between areas, the fraction of natural gas does not fall below 98% at any point in the network.

The published capacity corresponds to the 95th percentile (P95) of this distribution, i.e. a value that would only be exceeded in 5% of the hours of the year.

Consult the **capacity allocation procedure**, structured in three phases, in the specific section on the Enagás website by clicking here
click **here**

Allocation of biomethane/hydrogen access capacity

Circular 2/2025 sets out the principles for the request for access capacity and the allocation of firm capacity product entering the Virtual Balancing Point from production plants of other gases.

As a result of these processes, in 2025 the average daily contracted access capacity associated with the injection of other gases is around 2 GWh/day.

2 GWh/day

Contracted average daily access capacity associated with the injection of other gases

Operation and procedures

Once the facilities are in operation, the TSO is responsible for ensuring that biomethane injection is carried out under conditions compatible with the safety and quality of the gas and the integrity of the Gas System.

In 2025, injection limitation or cut-off procedures have been developed and published in the Technical System Management section of the Enagás website in January 2026.

Certification of renewable gases

During 2025, 49 new holders have joined the GdO System, bringing the total number of registered entities to 228: 45 producers, 21 suppliers, 32 consumers and 137 intermediaries. Of the 58 registered production facilities, 21 were registered in 2025 and 26 were also provisionally registered.

Remember...

A GdO certifies the renewable character of 1 MWh of gas by means of a unique identifier that remains unchanged throughout its life cycle. The system is applicable to biogas, biomethane and renewable hydrogen and covers all forms of sale and marketing, including injection into the Gas System, isolated pipelines, off-grid logistics and self-consumption.

See the "**Register of production facilities**" section of the GdO website for a complete list by clicking **here**

Overall, 2,547 GWh of Guarantees of Origin have been transacted in 2025, accumulating 3,586 GWh since the start of operation of the System.

From an operational point of view, the 2025 System involved a major milestone in dispatch. 1,149.8 GWh were dispatched, 130% more than in the previous year. For the first time, RFNBO-labelled hydrogen GdOs have been issued. Specifically, 1,369 MWh of off-grid hydrogen produced at a green hydrogen plant in Barcelona was recorded, as well as 10,937 RFNBO-labelled GdOs corresponding to hydrogen generated at a facility in Puertollano. This development reinforces the full integration of renewable hydrogen into the certification scheme.

49

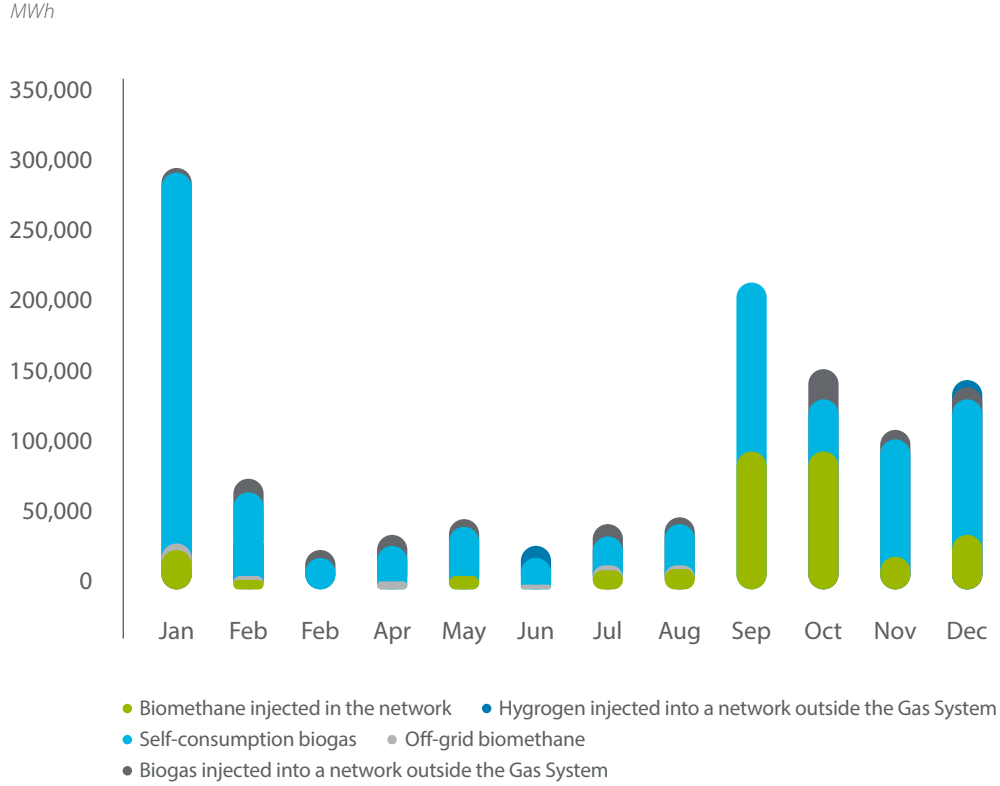
New holders in the GdO System in 2025 (**228** in total)

2,547 **GWh**

Transactions in 2025 in the GdO System (**3.586 GWh** from start-up in 2023)

In 2025, for the first time, the following **RFNBO-labelled hydrogen GdOs have been dispatched**

GoO issued by gas type and commercialisation logistics



In terms of GdOs redeemed, the total number of redemptions was 817,556, an increase of 139% over the previous year. A large part of these redemptions have been for self-consumption at plants. On the other hand, gas vehicle operations have maintained a marginal weight, with only 88 MWh in the whole year. In addition, the first 6,466 GdOs have been redeemed in 2025 through the supply portfolio modality, representing 1% of the total. This type of redemption is a modality in which the user does not associate the GdO to a specific consumption but to his entire supply portfolio.

Remember...

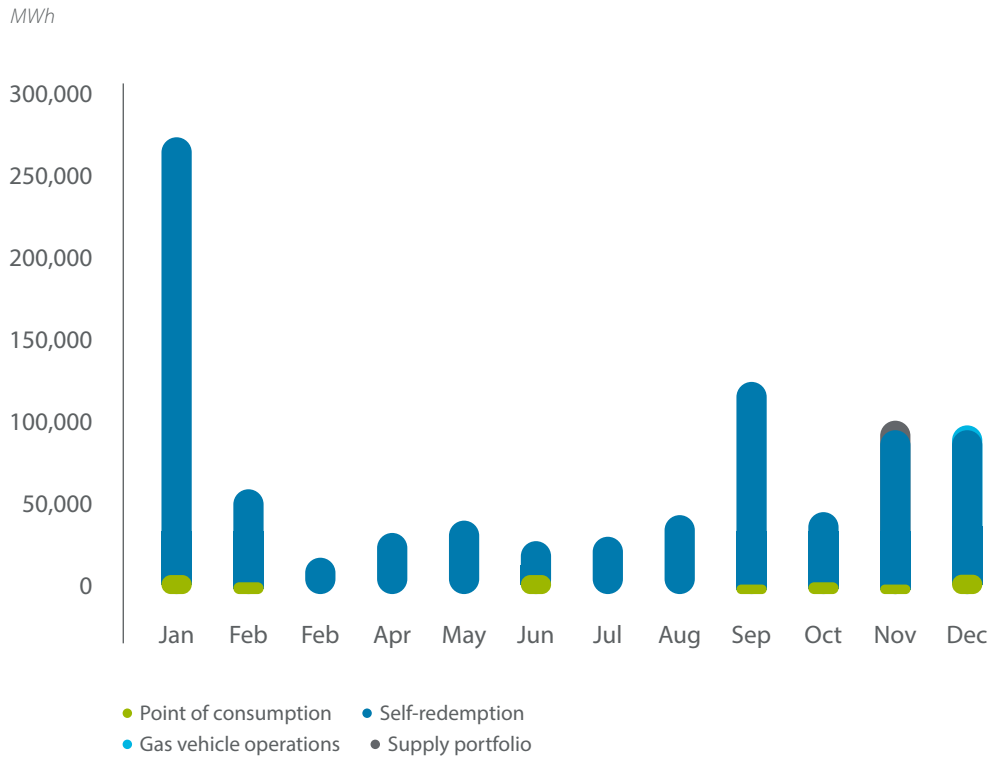
Redemption is the process by which guarantees of origin are associated with physical consumption of energy. For example, an agent who consumes 100 MWh in a month and who wants to claim that 100% of their consumption is renewable would have to redeem 100 GdOs.

In 2025, the following were redeemed for the first time **GdOs in supply portfolio mode**

817,556

Total redemptions in 2025
(**+139%** vs. 2024)

GoO redeemed by type



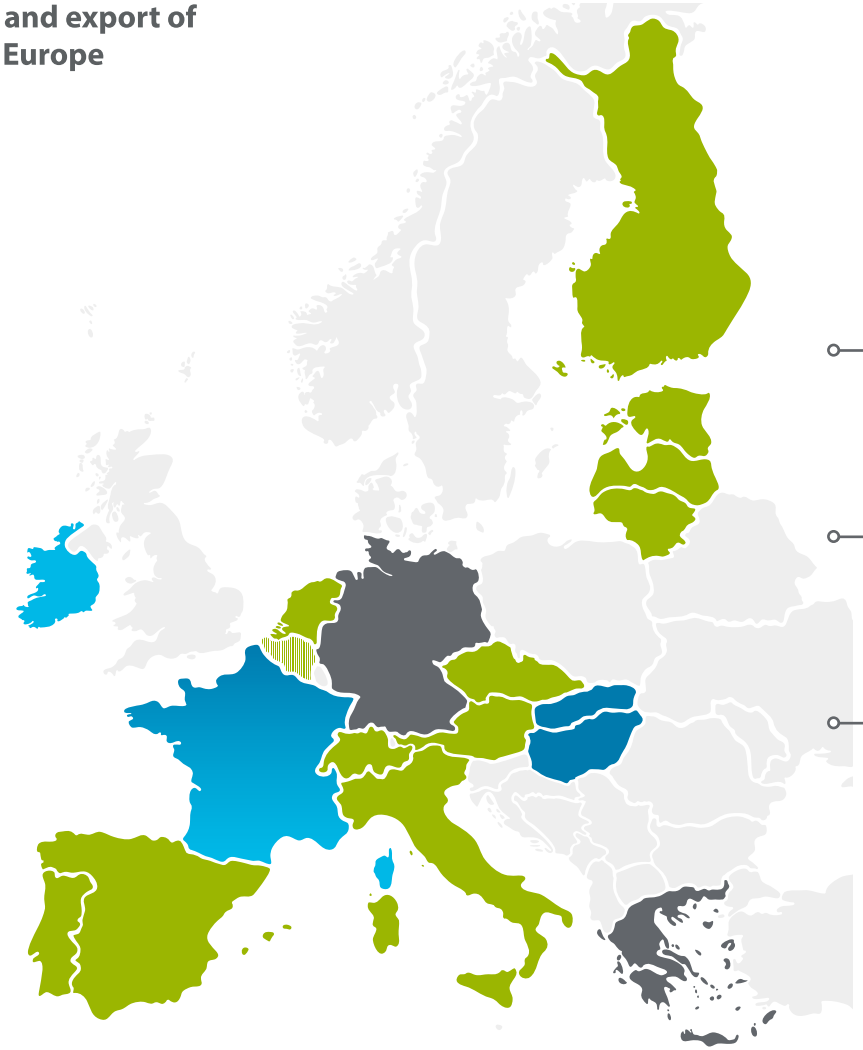
European integration and market functioning

During 2025 there was a significant increase in transfers of Guarantees of Origin, both domestically and internationally.

Cross-border operations are carried out through the AIB (Association of Issuing Bodies) hub, which interconnects the national registers of GdOs in Europe, and through the Ex Domain Cancellation (EDC) mechanism for those countries not yet integrated.

Over the course of 2025, the number of connected national registers was expanded, with five new countries being connected to the hub: Portugal, the Netherlands, Lithuania, Estonia and Switzerland, bringing the total to 12 countries (including Spain). Three countries were also in the process of being connected: Slovakia, Hungary and France.

Import and export of GoO in Europe



12
Registers connected to the AIB hub: **Spain, Italy, Austria, Belgium (Brussels Region), Czech Republic, Finland, Latvia, Portugal, Netherlands, Lithuania, Estonia and Switzerland.**

3
Countries in the process of connecting to the AIB hub: **Slovakia, Hungary and France.**

2
Countries with defined agreements to perform *Ex Domain Cancellation*: **Ireland and France.**

2
Countries with agreements in process to carry out *Ex Domain Cancellation*: **Germany and Greece.**

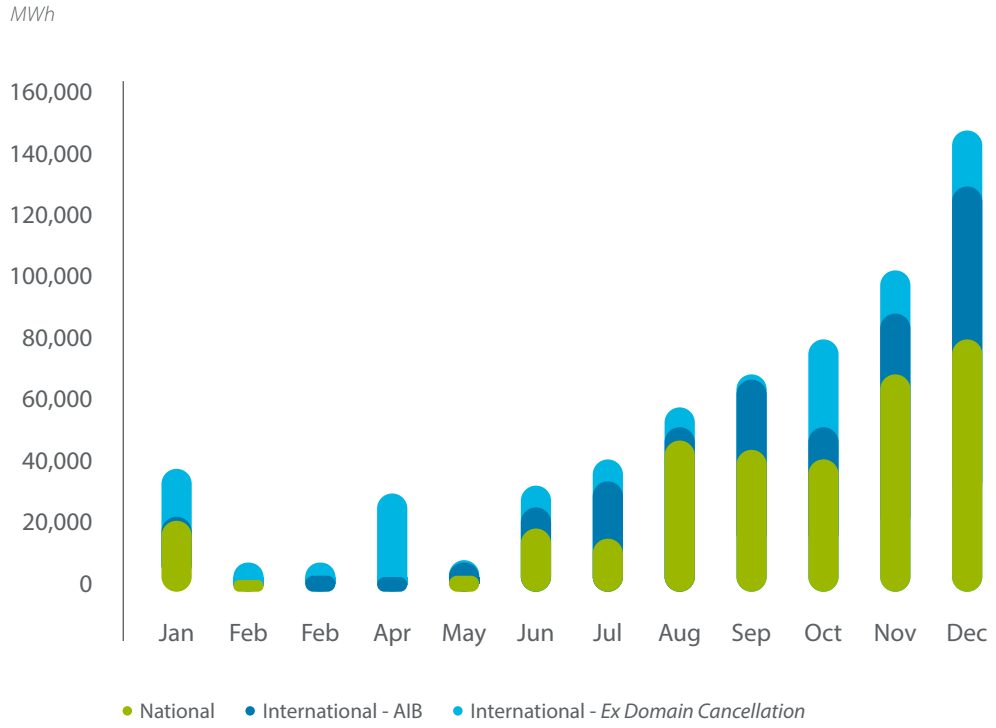
- Connected to AIB*hub*
- Upcoming connection to AIB hub
- Agreement on Ex *Domain Cancellation*
- EDC under discussion

In 2025, GdOs have been exchanged for the first time with Portugal, Switzerland, Finland, Latvia, the Czech Republic and the Netherlands.

Likewise, during the year, tests were carried out on the Union Database's gas module, in coordination with the European Commission, with the aim of validating the system's operations and ensuring the correct implementation of the European certificate registration scheme.

In 2025, GdOs have been exchanged for the first time with **Portugal, Switzerland, Finland, Latvia, Czech Republic and the Netherlands**

GoO transferred



Governance, continuous improvement and transparency

During 2025, the governance framework of the GdO System continued to be strengthened, highlighting the role of the Committee of Subjects as the main forum for information, coordination and participation of the System's agents. During the year, 62 new entities joined, bringing the total number of members to 290.

In parallel, work continued on the development of new detailed procedures aimed at clarifying technical and operational aspects and reinforcing the integrity of the system:

- A13: Exemption from netting in anaerobic digestion plants. From 2025, anaerobic digestion plants are exempted from the netting calculation, which means that Guarantees of Origin (GdO) will be issued on the total gross production.
- A14: Redemption of GdOs at the border without destination country allocation. This procedure was designed to allow for the redemption of GdOs at the border in cases where the receiving country is not connected to the AIB platform and where it is not possible to establish an *Ex Domain Cancellation* agreement.
- A15: Validation of sustainability. This procedure was implemented, alllowing the sustainability certification audit to be used to complete the registration of a production facility in the GdO System.

290

Members of the Committee of Subjects
(**+62** in 2025)

The activity of the System of Guarantees of Origin was complemented by the dissemination and generation of information content, aimed at facilitating the understanding of its operation by the different agents.

Watch the **video** in which we briefly explain the **different types of hydrogen** according to the current regulatory framework by clicking here **here**

In addition, a technical sub-group was formed to harmonise the measurement of renewable gases with the GdO issuance processes and operational adjustments have been agreed to improve consistency between injection data and certification.

Perspectives for the development of the GdO System

Significant developments in the GdO system are expected in the coming years, driven by the transposition of the RED III Directive into national legislation. Planned developments include:

- Extension of the scope of certification to low carbon gases.
- Integration of the GdO and the sustainability test, strengthening transparency and unifying the instruments that measure compliance with certification targets.
- Administrative simplification to facilitate the incorporation of small production facilities.

5. Transparency and services to the sector

The Transmission System Operator continued to boost the development of **new initiatives** and consolidated the existing ones, focusing its efforts on **providing the best possible service to all the System's agents**, based on the principles of transparency, objectivity, independence and neutrality

The Technical System Operator (TSO) performs its functions in accordance with the principles of transparency, objectivity, independence and neutrality. Security of supply and proper coordination between access points to the system are the main pillars of its performance.

In 2025, the TSO promoted the development of new initiatives and consolidated existing ones. It also focused its efforts on providing the best possible service to all System agents.

Overview

Throughout 2025, the TSO continued to work on promoting the sustainability of the Gas System, integrating renewable gases and reducing the footprint of the gas system.

Integration of hydrogen and other gases in the Gas System

The TSO contributed to the development of the regulatory framework for the access of renewable gases to the Spanish Gas System. To this end, it participated actively in the forums and meetings organised by the National Markets and Competition Commission (CNMC).

Continuing this communication and regulatory support, the TSO has been actively involved in national public consultations on other gases.

Circular 2/2025, approved by the CNMC in April 2025, represents a structural change in the regulation of access and connection of other gas plants to the Gas System, introducing for the first time a differentiated and specific framework for biomethane and hydrogen. The standard articulates two complementary models: a continuous and chronological process for biomethane and a competitive conditional capacity allocation procedure for hydrogen, allowing to manage in an orderly way a demand for connection far exceeding the available technical capacity.

In this new scheme, the TSO assumes a key role of System integration. It is responsible for translating developers' requests into real impacts on the network, assessing hydraulic capacity, gas quality limits and operational constraints in each area of the system. Based on these analyses, the TSO calculates and publishes the conditional capacity available for hydrogen, issues technical feasibility reports for biomethane and coordinates with transporters and distributors the homogeneous application of the regulatory criteria defined by the CNMC and the Ministry for Ecological Transition and the Demographic Challenge, guaranteeing the neutrality, traceability and security of the process of integrating renewable gases.

Agent plan: "Customer centric"

In 2025, the TSO reaffirmed its commitment to listening to industry needs, suggestions and consultations along the entire process chain. As part of this policy of active listening and continuous improvement, an action plan has been defined which includes various initiatives with a "Customer Centric" approach.

In drawing up this plan, we have taken into account the contributions of users gathered in the Customer Satisfaction Survey carried out by the TSO, as well as the comments and requests made in different participation forums, with the aim of being more proactive, maintaining more strategic communication and committing to the digitalisation of commercial processes and more dynamic digitalised reporting.

The main blocks addressed during 2025 were:

- Customer satisfaction survey 2025 (100 valid surveys). Among the most relevant data, the NPS (*Net Promoter Score*, an indicator relating to customer experience programmes) increased to 75%, compared to 47% the previous year.

- Experience in process management, with automation of the LNG cargo allocation process.
- Contact with stakeholders, including meetings with plant operators and resellers.
- TSO Good Practice Guide, published in the Technical System Management section of the Enagás website. This document compiles and promotes the use of good practices, with the aim of ensuring proper and rigorous information management to strengthen mutual trust and operational efficiency in the relationship between the TSO and the users involved.

Among the initiatives implemented in the year 2025, the following stand out:

- Improved navigation of the SL-ATR main panel and extended inactivity shutdown time.
- Inclusion of a section in the SL-ATR of "TSO Training" with nine training videos with all the processes involved in the natural gas chain and which will centralise the documentation presented in the different workshops, thus facilitating its location and consultation.
- Improving the operation of capacity allocation auctions through comprehensive stabilisation and monitoring plans.
- Extension of the window for submission of applications in the annual LNG loading and unloading allocation process.
- Extension of the publication horizon of the Operation Plan, including the month "M+3".
- Publication of indicators for requesting slot flexibility.
- Improved responses to the denial of flexibility.
- Opening of a listening channel to the sector, with the inclusion of a new suggestions section in the communication systems between the TSO and users.

All this meant that by 2025 more than 20 of the initiatives envisaged in the Customer Centric plan presented to the sector in numerous forums have been implemented, including the Gas System Monitoring Committees held in July, September and November 2025.

+20

Initiatives implemented
by the Customer Centric plan

New Scada system at the Main Control Centre and hydraulic simulator

As part of Enagás' Digital Transformation Plan, a milestone was reached in 2025 with the renewal and commissioning of the new supervision, control and data acquisition system that manages the gas transmission network.

This is the third generation of Scada systems implemented by Enagás in its 25 years as Technical System Operator. Among its most outstanding features are greater connectivity, the ability to manage large volumes of data in real time and maximum robustness in cybersecurity, an essential aspect in today's environment.

In addition, the new Scada is a system adapted to operate a multi-molecule, bi-directional network compatible with the future deployment and operation of a dedicated hydrogen network.

As part of the Enagás Digital Transformation Plan, a new hydraulic simulator has also been deployed. In line with the features sought in the Scada system, the new simulator offers greater versatility, agility and robustness. In addition, it becomes a unique simulation tool within the TSO, offering uniform convergence in the results obtained by the different teams using it.

Monitoring of adverse weather events

Extreme weather phenomena, such as lack of wind and sunshine, significant temperature drops or adverse weather storms, together with the geopolitical tension of recent years, have meant that episodes in which the operation and availability of infrastructures are subject to demanding conditions are increasingly present.

In this context, the capacity to anticipate has become even more relevant to minimise the impact of these extreme events and protect the System's strategic assets. Thus, in order to guarantee operational safety and reinforce preventive management, the TSO has implemented continuous monitoring of meteorological phenomena, identifying infrastructures exposed to adverse impacts and activating, if necessary, the corresponding operational protocols.

Workshops

In the exercise of its functions under the principle of transparency and to promote coordination between agents, in 2025 the TSO organised informative events with the sector, including:

- Four workshops on the contracting process to share with the users of the system details of the plan to strengthen the contracting platform, the implementation of new developments and other aspects of interest to users.
- Two workshops on Guarantees, based on the implementation of guarantees in monthly distribution and the automation of the quarterly and monthly process.
- A meeting on the analysis and use of slot flexibility to jointly review the various milestones involved in managing ship loading/unloading slots, as well as sector proposals for improving the process and the basic viability criteria for flexibility requests.
- Two sessions for new agents of the Gas System to provide them with all the information they need to operate: authorisation, access to the systems, contracting, management of their balancing, etc.
- Twelve sessions of the TSO working group with operators (transporters and distributors), for the implementation of the management processes for requests for connection and access of renewable gas plants to the Gas System as indicated in Circular 2/2025.
- Six sessions of the TSO working group with operators (transporters and distributors), for the development of the procedure for reducing the capacity of renewable gas plants indicated in Circular 2/2025.

Control Centre Days

On 29 October 2025, the TSO held the 12th edition of the Control Centre Conference at the Enagás Corporate University. The annual meeting focused on the management of critical supplies and participants gave their views on the importance of the ability to respond to the absence of a critical supply in their work within their sector's value chains.

On this occasion, representatives of the Ministry for Ecological Transition and the Demographic Challenge and the CNMC were present, as well as representatives of companies and associations from the sector.

During the year, a series of round tables was also held to discuss decarbonisation in the different industrial sectors with the participation of companies from the sector.

Working subgroups of the Technical Management Committee of the Gas System

The main objective of this group is to propose and review the technical standards and operating procedures of the Spanish Gas System to ensure its proper functioning and adaptation to the needs of the sector.

Among them, in the subgroup "Adequacy and compatibility of renewable gas measurement and GdO" the adequacy and compatibility of renewable gas measurement and GdO has been analysed.

Gas System Monitoring Committee (CSSG)

This event takes place every two months and the March 2025 meeting celebrated Enagás' 25th anniversary as Technical System Operator.

Publications

In 2025, Enagás TSO, in line with its commitment to transparency, published information of interest to the sector, both through its section on the Enagás website and on the website of the Logistics System for Third Party Access to the Network (SL-ATR).

Its publications include:

- The monthly gas statistics bulletin.
- The Annual Report on the Spanish Gas System.
- Operational notes and communiqués
- Daily operations of the System: stocks in plants, underground storage facilities and inflows and outflows in the transmission network, both in the past and three months ahead.
- A specific section on the Enagás website for the process of allocating conditional hydrogen capacity in the gas network during 2025, together with the publication of the capacity to be offered.

Committee of Subjects of the GdO System

The GdO System Subjects Committee is a body that meets every two months to monitor the functioning and management of the System, as well as to gather concerns from the sector and channel proposals for improvement.

As a milestone, the 13th session of this committee took place in December 2025. During the meeting, the activity of the GdO System in the year was reviewed and the priority lines of work for 2026 were announced, with a focus on operational improvement, traceability and interoperability of certificates. It also reviewed the evolution of biomethane, the challenges of renewable hydrogen certification and the Estonian success story in the integration of the two certificates, the GdO and the Proof of Sustainability (PoS), which certifies that a batch of gas complies with the sustainability and GHG emission reduction requirements defined in the Renewable Energy Directive.

Service desk

The service desk serves the sector 24 hours a day, seven days a week, all year round.

It is in charge of the support and continuous attention of all claims, incidents and queries of the daily and intraday processes of authorisation, contracting, guarantees, nomination, renomination, operation, provision of information, notifications of market platforms, distributions and balances, following the guidelines of the different areas of the TSO. In addition, it performs the balancing actions necessary to keep the transmission network within its operational limits.

During 2025, users made more than 3,600 interactions (queries or incidents) through the Portal. The TSO responded satisfactorily to all of them through the same channel.

+3,600

Consultations satisfactorily dealt
with by the service desk through the Portal

The service desk is active
24 hours a day, 365 days a year

Unloading

In this section you can download in editable format (Excel) part of the graphical content of the TSO published in this report, along with the referenced annexes.

1 Demand

2 Physical operation

3 Commercial operation

Annex 1
Capacity contracted

Annex 2
Auction services without slots

Annex 3
Allocation of LNG unloading service

Annex 4
Allocation of services loading LNG

4 Renewable gases

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