



4.6 Environmental management

[GRI 103-1, GRI 103-2, GRI 103-3]

Environmental management is one of the key areas for Enagás, as is reflected in the Company's Health and Safety, Environment and Quality Policy. The control and minimization of our impacts on the environment produces direct internal benefits by improving the use of

resources, ensuring the sustainability of our business and generating confidence in our stakeholders.

The key aspects that we address in our environmental management model are the environmental management system,

the analysis of environmental impacts through the evaluation of environmental aspects (atmospheric emissions, control of spillages and waste, noise control, water management and biodiversity) and environmental impact studies.

Milestones 2017

- ✓ EMAS verification of the Serrablo and Yela underground storage facilities.
- ✓ Adaptation of the management system to the requirements of the new ISO9001 and ISO14001 standards..
- ✓ Creation of a general plan on noise reduction, customised for each facility.
- ✓ Creation of a general plan to reduce the consumption of water, customised for each facility.
- ✓ Creation and execution of a plan to disseminate information regarding the environment.

Targets 2018

- ✓ Preparation of the environmental performance report of the facilities.
- ✓ 40% reduction in the consumption of municipal water at the Barcelona Plant through the installation of a desalination plant for the use of fire fighting water to replace drinking water.
- ✓ Control and optimization of network water consumption in the Barcelona and Cartagena Plants through the installation of flow meters.
- ✓ Preparation, approval and publication of a Consumption Control Procedure for all infrastructures.
- ✓ Creation and execution of a plan to disseminate information regarding the environment.

100%

of activity certified in accordance with ISO 14001

128,711 m³

of water consumption[GRI 303-1]

896 t of NO_x

3,036 t

of waste generated

16 t of SO_x

38 t CO

Environmental management system

Enagás undertakes its environmental commitments (as outlined in the Health and Safety, Environment and Quality Policy) via its Environmental Management System. 100% of Enagás activity is ISO 14001 certified. In 2017, work was carried out to adapt the management system to the requirements of the new ISO9001 and

ISO14001 standards (version 2015).

Likewise, in 2017 the EMAS analysis was carried out on the Serrablo and Yela underground storage facilities which are joining the regasification plants in Huelva and Barcelona that already have this certification.

Impact studies and assessment of environmental issues [GRI 304-1]

Enagás studies the environmental impact of all its construction, operation and maintenance activities by means of environmental assessments. What is more, for infrastructure construction projects, and based on their type and on applicable regulations, environmental impact studies are carried out which include both the impacts themselves and the

measures taken to mitigate them, while also establishing stakeholder consultation procedures. (See the chapter on '[Local communities](#)').

In 2017, environmental audits were carried out on site in one facility.

Environmental monitoring is carried out through environmental audits of works, environmental surveillance, assessments of legal compliance in all installations and monitoring of environmental indicators and improvement plans. In 2017, environmental monitoring was carried out on 124 km of gas pipeline.

Circular economy

Enagás has signed the Pact for the Circular Economy promoted by the Ministries of Agriculture and Fisheries, Food and Environment and Economy, Industry and Competitiveness.

Through this Pact, Enagás undertakes to promote the transition to a circular economy through different actions:

- Promotion of a model of responsible consumption that includes the use of sustainable products and services and lower use of non-renewable natural resources.

- Empowering the principle of waste hierarchy, promoting the prevention of its generation, promoting reuse and recycling and promoting its traceability.
- Promoting guidelines to increase process innovation and efficiency.
- Promoting analysis of the product life cycles (incorporating ecodesign criteria, making repair possible and prolonging service life).
- Raising awareness on the importance of moving towards a circular economy.

This commitment is evidenced by the initiatives that Enagás has been developing over the last year with the works carried out in the Gaviota Underground Storage environment certified under the Ecodesign standard (ISO 14006: 2011); the signing of the agreement with the Otro Tiempo association, which promotes the recycling of coffee capsules at the Enagás head office while employing women at risk of social exclusion; the signing of a protocol with the Huelva City Council for the implementation of an energy efficiency project, linked to the use of the residual cold of the Huelva regasification plant.

Biodiversity protection

During the development of infrastructures, Enagás carries out activities aimed at protecting and preserving flora and fauna, thereby mitigating any impact on biodiversity. Such activities start with on-site reconnaissance before any work commences in order to check for the presence/absence of species along the route.

In addition, after the construction work,

Enagás returns the affected areas to the way they were by reforesting the entire area.

Enagás is working on the concept study of the interconnection corridor of the South Transit East Pyrenees Project as part of the Common Interest Project “Interconnection point between Spain and France at Le Perthus, Eastern Spain-France Axis (now known as MidCat)”. This study is being carried out in order to find the best corridors, from an environmental

standpoint, to develop during the subsequent phases of the project, as well as to indicate the location of the interconnection point on the border between France and Spain. This is done taking into account the environmental constraints and restrictions outlined in European, Spanish and French regulations as well as also the technical limitations of the construction of the gas pipeline. [\[GRI 304-2, GRI 304-3, GRI 064\]](#)

Water management

At Enagás, we do not consume water in our production processes. The company has thus not stated significant risks linked to water shortages in the yearly assessments that are conducted in line with the company’s risk management model. In addition, environmental risk assessments are conducted at each of our infrastructures

as water is considered to be one of the most important environmental aspects within the environmental management system (consumption and compliance with legal limits of water intake).

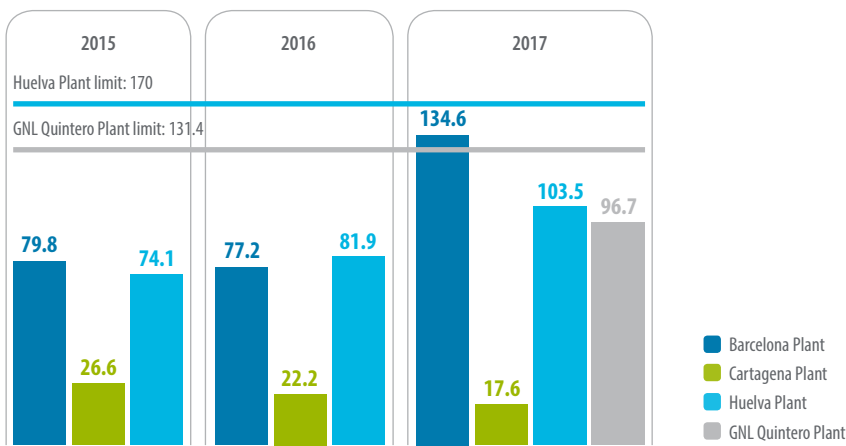
We withdraw seawater for use in floodwater and seawater evaporators at

regasification plants. This water is returned under the same conditions as those in which it is withdrawn (the temperature decrease is minimal and it does not affect the marine ecosystem). The volume of water taken is directly proportional to the quantity of gas regasified. [\[GRI 303-2\]](#)

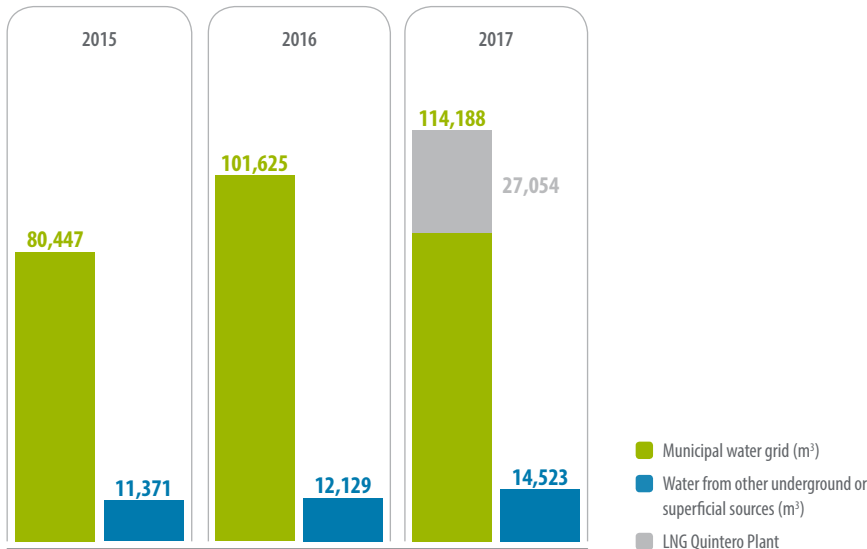
■ Seawater withdrawn and returned to its source (hm³) [\[GRI 303-2\]](#)

Barcelona Plant limit: 490.5

Cartagena Plant limit: 297.8



■ Consumption of water by source (m³) [GRI 303-1]



NB: Consumption data for 2016 has been changed from what is reported in the 2016 Annual Report, due to an error detected in the accounting of the invoices received. [GRI 102-48]

Enagás reports on its water performance, risks and opportunities through its participation in CDP Water

The company's consumption of water is due to uses such as sanitation, irrigation and fire-fighting equipment. The company therefore has various measures aimed at reducing water consumption such as better techniques for irrigation and sanitation.

In 2017, a general water consumption reduction plan was drawn up, with specific consumption reduction measures established for the facilities, in order to reduce water consumption to 8.000 m³.

The wastewater discharged by Enagás is comparable to urban waste. In 2017, we discharged 4,587 m³ of water into the public mains and 10,585 m³ of water into septic tanks or the sea. [GRI 306-1]

Spillage and waste control

With regards to spillage, the company carries out preventive measures such as dual-wall underground tanks, which are inspected regularly to ensure that they

are watertight, and the placement of containment troughs and trays.

Accidental spillage in 2017 was: [GRI 306-3]

■ Accidental spills in 2017

5.1 litres of gasoil	Corrective actions include damage assessment, land decontamination and replenishment, removal and treatment by the waste manager and preparation of the incident report.
192 litres of oils	
15 litres of water with ethylene glycol	

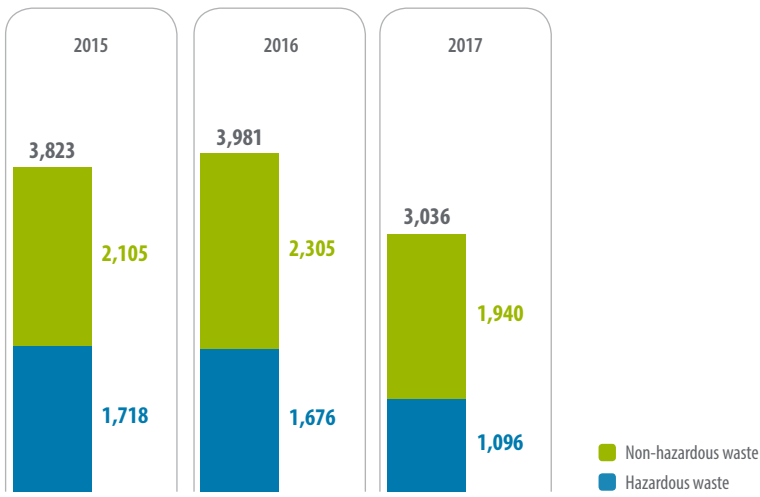
■ 4 Creation of value for our stakeholders

Enagás has implemented a system of segregation, management, storage and delivery to authorised managers of hazardous and non-hazardous waste. Enagás mainly generates waste through facility and equipment maintenance. The company's objective is to recycle and

recover this waste wherever possible. In this sense, the objective of treating (recycling / re-using) 95% of hazardous and non-hazardous waste has been established in the contract with the waste management company. [GRI 306-2]

Enagás has recycled 68% of the waste generated

■ Waste generated and managed (T)



Noise control

Noise at Enagás' facilities is produced by the operation of regulators, turbines, vaporizers and pumps. Every facility carries out an environmental noise measurement report around its perimeter, in line with the limits set out in municipal by-laws or legislation that is in force.

Enagás conducts annual noise measurement campaigns at its facilities in order to minimise noise pollution. In 2017, a total of 43 noise measurements were conducted at the regasification plants, 7 compression stations and at 32 sites. During 2017, actions were taken

to minimize noise levels in the following silencing regulation stations at positions K-45 Valdepeñas and K-19 Morón de la Frontera. At Alcazar compression station, a turbocompressor soundproofing booth has been installed.

Atmospheric emission control

The main non-GHG emissions at our facilities are CO, SO_x and NO_x. There are also emissions of less significant gases. These emissions are produced in the natural gas combustion process of the different equipment.

The energy efficiency measures and the objectives of reducing CO₂ emissions (see the chapter on '[Climate Change and Energy Efficiency](#)') are directly related to the reduction in these atmospheric emissions. [\[GRI 305-7\]](#)

Enagás carries out regulatory and voluntary atmospheric checks (self-checks) at all its combustion sites.

The control actions are as follows:

- Legalisation of the point of emission and inclusion in the Logbook.
- Initial regulatory inspection (conducted by an authorised inspection organisation (AIO)).

- Annual TESTO check (carried out with their own resources (Analysing team and Enagás employees)).

- Periodic regulatory inspections.

Both the regulatory inspections and the internal TESTO checks are planned annually for every facility as part of the Atmospheric Monitoring Programme.

■ Non-GHG emissions (t)

	2015	2016	2017 ^(*)
CO	45	39	38
NO _x	784	826	896
SO _x	14	14	16

(*) 2017 includes emissions from the Quintero LNG regasification plant