



## Key figures 2017

**GRTgaz**

**GRTgaz** is a leading European player in natural gas transmission and a global expert in gas transmission networks and systems.

In France, GRTgaz transfers the gas from the suppliers to the public distribution stations and the industrial consumers directly connected to the transmission network.

GRTgaz fulfils public service assignments, ensures the continuity of supply to consumers and sells transmission services to network users.

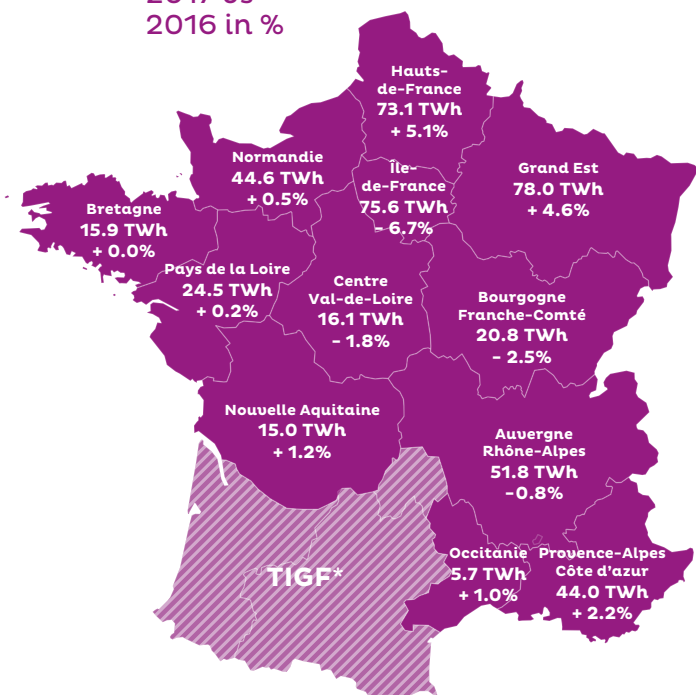
As a key player in the energy transition, GRTgaz invests in innovative solutions to adapt its network and reconcile competitiveness, security of supply and preservation of the environment.

[www.grtgaz.com](http://www.grtgaz.com)



## Gas consumption on the GRTgaz network

In TWh  
2017 vs  
2016 in %



\* TIGF operates the South-West France gas transmission network

Total consumption  
GRTgaz scope 2017  
**465.2 TWh**



## Main structures commissioned in 2017

### + Pipeline

\_ Reinforcement of the Macon (71) Branch

### + Interconnection station

\_ Partial commissioning of the Palleau station (71)

### + Customers

\_ Biomethane stations of Bioloie at l'Oie (85) and of Bassée Biogaz at Noyen-sur-Seine (77)

**Laying of the foundation stone of the industrial demonstrator project of Power to Gas, Jupiter 1000 at Fos-sur-Mer (13)**

# + The network

## Pipelines

Total length  
**32,414 km**

Main network  
**7,498 km**

Regional network  
**24,916 km**

Minimum diameter  
**DN 80 mm**

Maximum diameter  
**DN 1,200 mm**

## Network pressure

**74%** of the transmission network is operated at a maximum pressure of  
**67.7 bar**

Maximum network pressure:  
**95 bar**

Minimum network pressure:  
**16 bar**

## Odorisation

**28** odorisation installations (UHT injection + testing) on 21 sites

**31** odorisation testing sites on the network including 29 sites operated by GRTgaz

## Stations

Delivery stations

**3,386** public distribution stations<sup>1</sup>

**1,010** industrial consumer stations directly connected

**781** regulating stations<sup>2</sup>

**4,851** sectioning / cutoff stations<sup>3</sup>

1/ These stations provide the interface between the GRTgaz network and the distribution networks.

2/ The main function of the regulating station is to lower the pressure of the gas before it reaches the distribution network.

3/ The sectioning stations are designed to interrupt the flow of natural gas inside the pipelines by means of a valve. In the cutoff stations, a piston is inserted into the pipeline for cleaning or diagnostic purposes.

## Compression

**26** compressor stations

Total installed power (elec/gas):

**598 MW**

including

Electro-operated  
**295 MW**  
(32 machines)

Turbo-operated  
**298 MW**  
(42 machines)

Motor  
**5 MW**  
(5 machines)

## Quantities of natural gas consumed

Consumptions in the GRTgaz zones <sup>5/</sup>	2017	2016	2017/2016
Industrial customers	189.7 TWh	179.8 TWh	+ 5.53%
Uncorrected public distribution	275.5 TWh	283.7 TWh	- 2.89%
Climate-corrected public distribution	276.5 TWh	277.6 TWh	- 0.41%
Total uncorrected	465.2 TWh	463.5 TWh	+ 0.37%
Total climate-corrected	466.2 TWh	457.4 TWh	+ 1.92%

## Consumption by industrial customers

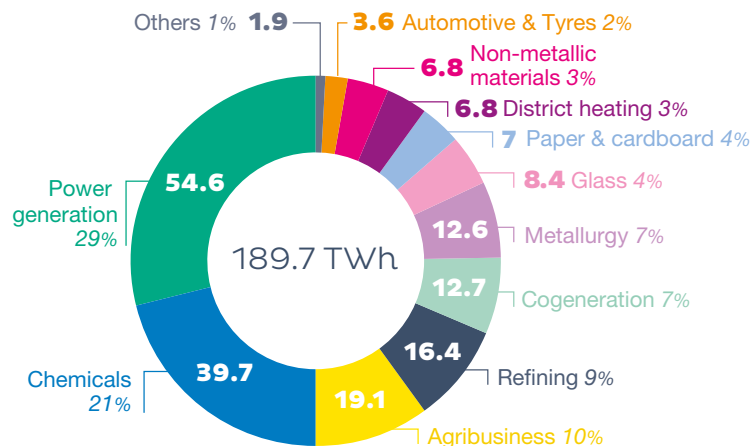
**189.7 TWh**

**+ 5.5%**

Compared with 2016

### Breakdown of consumption by industrial customers in 2017

(In TWh, all regions, activity sectors in %)



5/ Excluding maintenance activities and GRTgaz network own consumption.

# Quantities of natural gas transported

Raw data, i.e. not corrected for climate

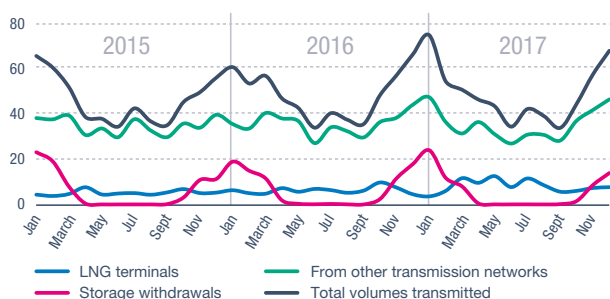
The natural gas quantities transported by GRTgaz are calculated:

- Either as the sum of entries to the network (LNG terminals, other transmission networks, storage withdrawals),
- Or as the sum of the exits from the network (other transmission networks, consumption, storage injections).

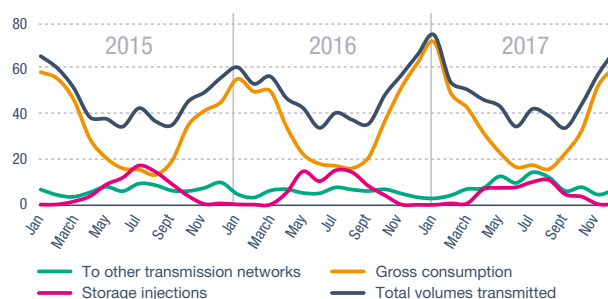
Period	Entries to the GRTgaz network			Exits from the GRTgaz network			Total quantities transported
	LNG Terminals	From other transmission networks	Storage withdrawals	To other transmission networks	Consumption <sup>6</sup>	Storage injections	
2017	103.4 TWh	451.1 TWh	72.8 TWh	102.5 TWh	467.0 TWh	57.8 TWh	627.3 TWh
2016	79.5 TWh	452.9 TWh	84.7 TWh	72.7 TWh	465.3 TWh	79.1 TWh	617.1 TWh
2017/2016	+ 30%	- 0.4%	- 14.1%	+ 41.0%	+ 0.4%	- 27%	+ 1.6%

<sup>6/</sup> These are the quantities consumed by the major consumers directly connected to the GRTgaz network, by the consumers connected to the public distribution networks supplied by GRTgaz and by GRTgaz itself for its own needs, particularly to power its compressor stations.

## Entries to the GRTgaz network



## Exits from the GRTgaz network



## The safety of the pipelines



### Monitoring

- \_ Network visible from a road: from once per week to once per month
- \_ Network visible from a plane: once to twice per month
- \_ Network visible only on foot: once per year



### Control of third party work

- \_ Number of DT<sup>4</sup> + DICT<sup>5</sup> received and processed by GRTgaz in 2017: **77,991**
- \_ Number of DT + DICT concerning GRTgaz: **71,283**

<sup>4-</sup> Work Project Declaration  
<sup>5-</sup> Declaration of Intent to Start Work

Incidents due to third party work:

**7** in 2015 / **4** in 2016 / **4** in 2017



## Renewable gas and new gas applications



### Fuel oil-gas conversion

Nearly **4.3 TWh** of gas consumption linked to the new fuel oil-gas conversions of industrial customers

**1.8 Mt** of CO<sub>2</sub> avoided



### Biomethane

**3 biomethane production units** connected to the GRTgaz network

**406 GWh** injected

to all networks in 2017 (multiplication by 2), or the equivalent of the annual consumption of 1,800 buses or 34,000 households heated with gas.

**90,000 t** of CO<sub>2</sub> avoided as a substitute for natural gas



### Gas mobility

**16,200 NGVs** (+10 %)

including 1,300 heavy goods vehicles (multiplication by 2)

**88,000 t** of CO<sub>2</sub> avoided as a substitute for diesel vehicles



## Customers

**140** shipper customers  
as of end 2017

**19** distribution network  
operators connected

**749** industrial customers  
active in 2017, including 13 power-  
generating plants consuming natural  
gas at end 2017



## Exchanges on the French market

**960 TWh**  
exchanges at the Gas Trading  
Points (PEG Nord and TRS)

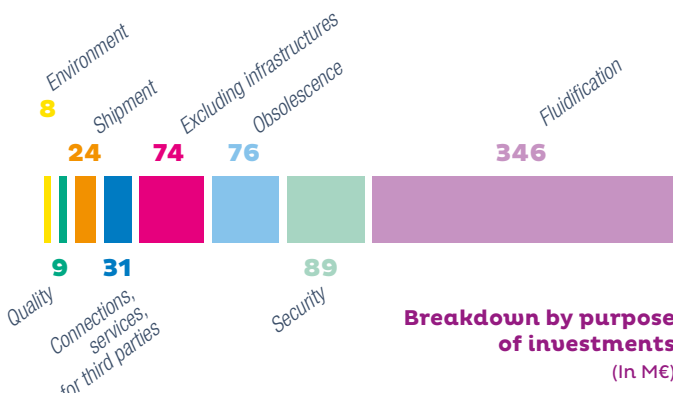


## 2017 investments

**€657 M**

**€275 M**  
for facility maintenance

**€382 M**  
for facility expansion



## 2017 financial results

IFRS standard consolidated data excluding Elengy

Revenue **€1,972 M**

EBITDA **€1,124 M**

Net income from  
recurring operations **€325 M**



## Human resources

**2,887** GRTgaz  
France employees  
as of 31/12/2017

**2,226** men  
**661** women

including ..... Line staff ..... Supervisory staff ..... Management  
343 1,335 1,209



## Health and safety at work

Frequency  
rate: **1.6**

Extended  
frequency index: **14.6**

Severity  
rate: **0.06**

Frequency rate of external  
contractors providing  
services for GRTgaz: **6.4**



Connecting the energy of tomorrow



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**grtgaz.com**

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