ITALY

KEY FACTS:

- Italy is the third biggest gas consumer in Europe but demand is stagnating.
- Gas demand dropped by 10% between 2010 and 2017.
- Italy has well-diversified, high imports capacity & dense infrastructure throughout the country.
- Important gas infrastructure plans with PCI status such as the Southern Gas Corridor, EastMed and Melita pipeline which are not necessary and involve concerning human rights implications.

1. GAS DEMAND

According to EU data:[1]

- Between 1973 and 2005, demand for gas increased 5 times, as a result of a national programmes to alleviate the country's dependence on oil imports.[2]
- Gas represented 37% of Italy's energy mix in 2016.
- Italy consumed 69.1bcm of gas in 2016.
- Gas demand dropped by 10% between 2010 and 2017.

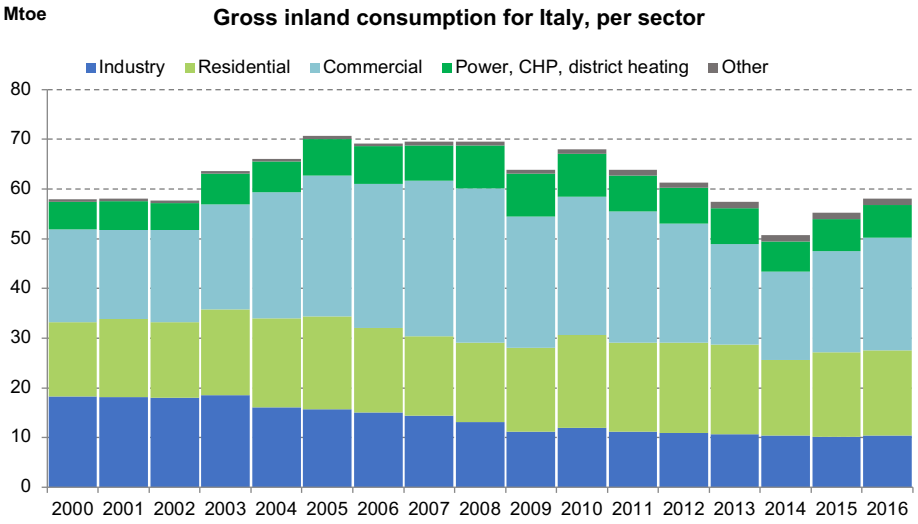
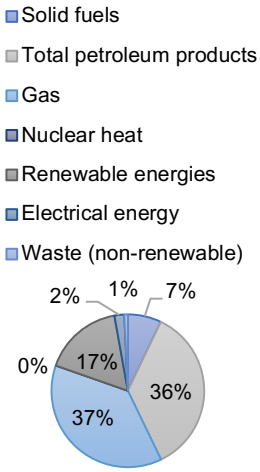
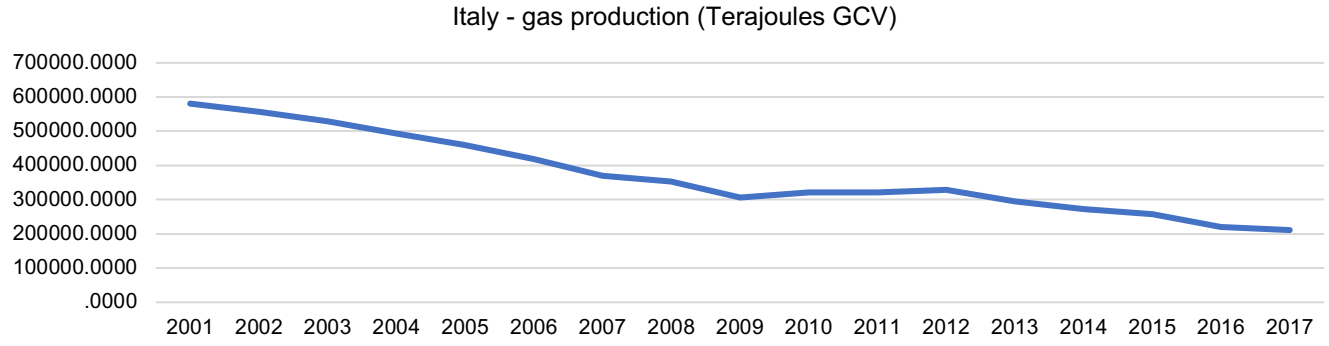


Figure 1: Italy 2016 Energy Mix

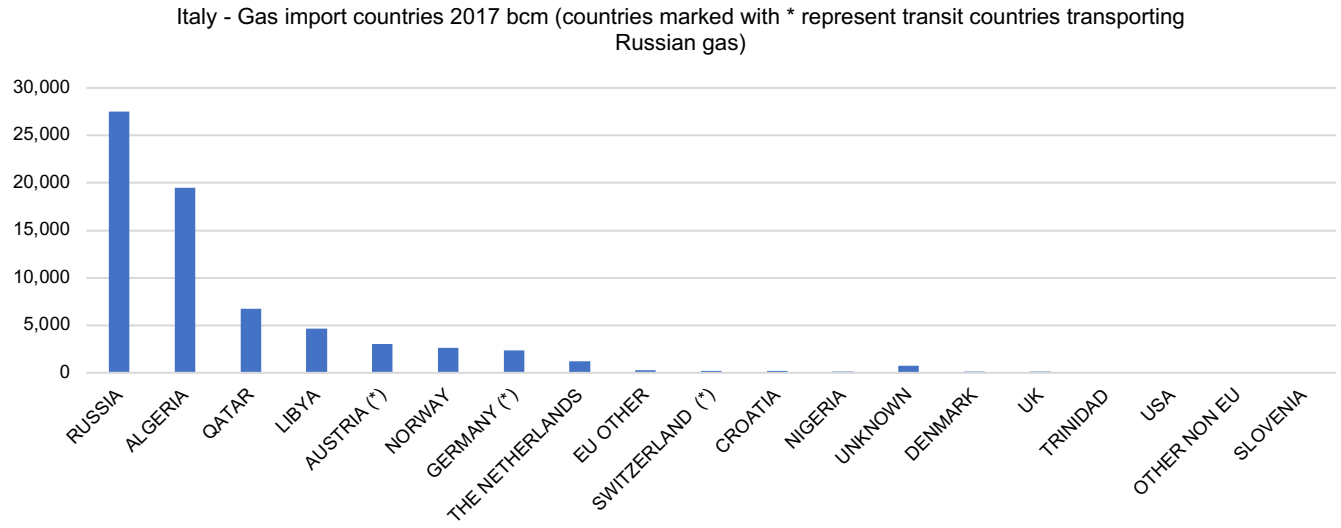


2. GAS SUPPLY

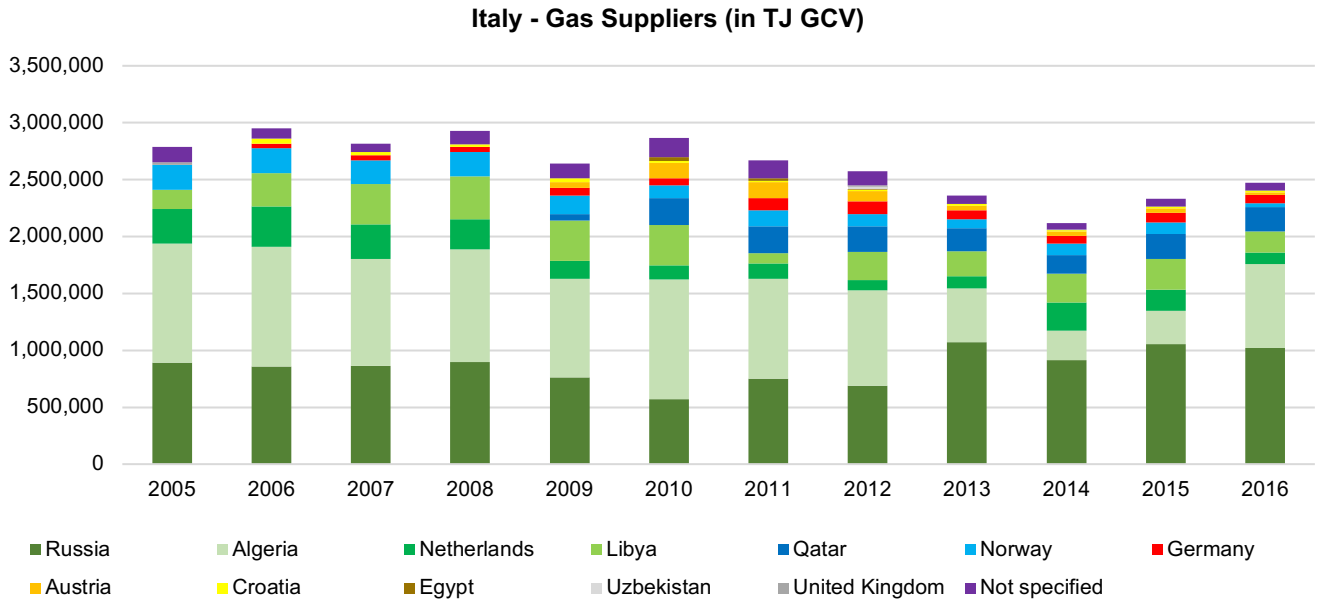
While Italy produces gas indigenously, this production is in steep decline: with 15.4bcm of gas produced in 1973, domestic production accounted for 90% of Italy's needs.[3] In comparison, Italy's **production in 2016 reached only 6.27bcm** showing a 19% decrease compared to 2010, accounting for **only 8.15% of the country's demand**,[4] and the decline continued (see graph).



[1] E3G compilation of data extracted from Eurostat
[2] https://www.iea.org/media/freepublications/security/EnergySupplySecurity2014_Italy.pdf
[3] https://www.iea.org/media/freepublications/security/EnergySupplySecurity2014_Italy.pdf
[4] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_103m&lang=en



The rest of the gas consumed domestically by Italy is therefore imported. In 2016, 29bcm of gas imports originated from Russia (41% of total imports) and was injected into the national network at the entry point of Tarvisio and Gorizia. The second most important exporters to Italy are Algeria at around 20bcm which means that in 2016 and 2017 Algeria made up 29.5% and 28% respectively of total imports - up from 12% in 2015. In these years, Quatar was the 3rd biggest supply country exporting 5.98bcm equalling 8.4% of gas consumed in Italy in 2016 and ~10% in 2017 (see graph)[5]. Imports from Libya, the Netherlands, Norway, Germany, Austria and Croatia follow – see chart below.[6] With gas also coming from Egypt, Uzbekistan, the UK, Trinidad & Tobago, etc. Italy therefore largely exceeds the minimum criteria of the European Commission in terms of gas diversification.



3. GAS INFRASTRUCTURE

In Italy, imported natural gas is introduced into the national network at seven entry points, where the network connects to the import pipelines (Tarvisio, Gorizia, Passo Gries, Mazara del Vallo, Gela) and at the LNG regasification terminals (Panigaglia, Porto Levante and Livorono).[7]

[5] https://dgsaie.mise.gov.it/gas_naturale_importazioni.php & https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html
[6] https://www.statista.com/statistics/787720/natural-gas-imports-by-country-of-origin-in-italy/
[7] http://www.eniscuola.net/en/argomento/natural-gas1/extraction-and-distribution1/natural-gas-in-italy/ & https://www.kslaw.com/attachments/000/006/010/original/LNG_in_Europe_2018_-_An_Overview_of_LNG_Import_Terminals_in_Europe.pdf?1530031152

Two pipeline entry points (Tarvisio and Mazara del Vallo) account for the biggest share (60% in 2017)[8] of Italy's gas imports. Italy's biggest entry point is the TAG pipeline interconnection through Tarvisio in the northeast of the country, which in 2017 delivered 43.5% of total gas imports to Italy, e.g. ~30bcm of gas (maximum capacity of the pipeline is 4.99mcm/h, i.e. 44bcm/y). The TransMed interconnection to Tunisia through Mazara del Vallo in Sicily is also significant, delivering ~19bcm equalling 27% in 2017 (maximum capacity of 4.40mcm/h, i.e. 38.5bcm/y).[9] Other important import points are Passo Gries connecting to Switzerland, Rovigo – Cavarzere marking the LNG terminal Porto Levante and Gela on Sicily.[10]

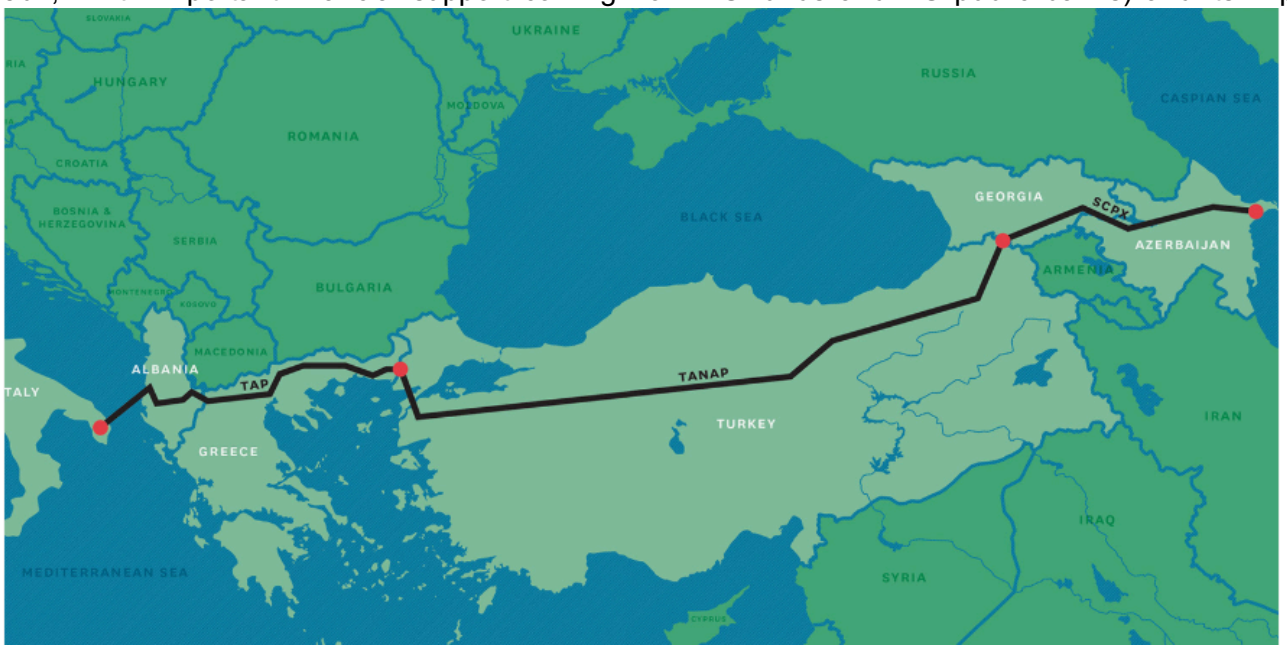
Figure 2: Gas Infrastructure in Italy

The Italian LNG Terminals have important diversification potential, with their distribution on both sides of the country and their yearly import capacity of 14bcm of gas, equivalent to 20% of Italy's gas demand. However, their potential is far from being fully exploited. Between January 2012 and March 2019 all Italian LNG terminals were used at only ~31% of their capacity.[11]

In this market where the country is in a capacity to receive more than enough gas to meet its demand and from more than enough suppliers to comply with the EU diversification policy, Italy could still see more gas infrastructure built on its territory in the close future, notably thanks to a number of projects which obtained PCI status.[12] Two projects in particular should be noted.

The Southern Gas Corridor (PCI list)[13]

Portrayed as being crucial for the EU's energy security, this mega-pipeline project connecting Azerbaijan to Italy (see map) is currently Europe's main energy flagship project. This project is meant to contribute to decrease Europe's dependence on Russian gas, but with a 10bcm/y capacity, its impact on overall EU gas demand (435bcm in 2015) will be only marginal. The balance between the cost of the project (around $45bn,[14] with important financial support coming from EU funds and EU public banks) and its import



Proposed Southern Gas Corridor Project: https://bankwatch.org/project/southern-gas-corridor-euro-caspian-mega-pipeline

[8] https://dgsaie.mise.gov.it/gas_naturale_importazioni.php
[9] https://dgsaie.mise.gov.it/gas_naturale_importazioni.php
[10] https://dgsaie.mise.gov.it/gas_naturale_importazioni.php
[11] http://www.igu.org/publications/2016-world-lng-report
[12] http://ec.europa.eu/energy/infrastructure/transparency_platform/map-viewer/
[13] Mega-pipeline Project divided in smaller portions under the PCI list: TAP & TANAP
https://circabc.europa.eu/webdav/CircaBC/Energy/13%20Regional%20Meetings/Library/2019%20May%207-8%20RGs%20meetings%20gas/_SGC.pdf
[14] https://www.tap-ag.com/the-pipeline/the-big-picture/southern-gas-corridor

capacity (equal to ~2% of European gas consumption) looks indeed extremely dubious. Ongoing discussions however, mention a capacity increase from 80 to 100bcm/y. One-fourth (or even more if, in the meantime, gas demand continues to decline) of the entirety of EU gas imports could be coming from Azerbaijan which is not much different to the heavily criticized current shares of gas coming from Russia to the European gas market. The devastating effect on people and climate that this project is very likely to have (gas coming from an autocratic regime, raising challenging corruption cases,[15] primarily benefiting only some private actors, risk of quickly becoming a stranded asset and of contributing to a new fossil fuel lock-in catastrophic for climate)[16] should be sufficient reasons to stop this unnecessary project.

The communities around the planned entry point of the TAP in Italy, in Melendugno, have resisted this project for years, with growing numbers. Not only does the pipeline construction put livelihoods of e.g. olive farmers at risk, but also, in reaction to the protest, a militarized zone has been set up, severely impacting local people's daily lives.[17]

Dependent on the TAP, a further contested pipeline to carry the imported gas to the North of Italy is planned.

Another pipeline project ending in Italy would connect Italy to the newly discovered and highly disputed Eastern Mediterranean reserves. This project is called the **East-Med Pipeline -** while the part carrying the gas through the Adriatic Sea to Italy is known as the **Poseidon Pipeline**, with a planned capacity of 14bcm. Since their discovery, the Eastern Mediterranean gas reserves (estimated to represent up to 1700bcm in Aphrodite, Leviathan, Aphrodite and Zhor gas fields in Cypriot, Israeli and Egyptian waters alone) have sparked great interest and created many geopolitical tensions.[18] The project promoter does not indicate where exactly the gas for this pipeline should be coming from, but many of the gas fields are in disputed/high tension areas. Disputes between Cyprus and Turkey, Israel and Palestine, Cyprus and Israel as well as Israel and Lebanon could be fuelled by this pipeline. Both pipelines managed to be included on the PCI list.

The Galsi Pipeline[19]

This is a new transcontinental gas pipeline project between Algeria and Italy (via Sardinia island and the Italian mainland), with a 7.6bcm/y import capacity. Despite its heavy promotion (particularly by the Algerian gas company Sonatrach) and surveys undertaken, Europe's gas demand slump since 2010 has casted serious doubts on the project's viability[20] and it has not been included in the 2017 PCI list. It is very unclear what a new pipeline like this one would indeed bring to Italy, in a market already saturated with gas and with already significant import capacity from North Africa. Its commercial viability needs to be proven and this part of Europe is already well-diversified and secured. Developing access for renewables to the electricity market should be a much higher priority as part of the EU countries' decarbonisation objective.

Melita Trans Gas Pipeline (formerly called Gela Interconnector) is planned to connect Malta to the European gas network. The bidirectional pipeline is supposed to have a capacity of 56GWh/d (~2bcm/y), and is planned to consist of a 159km offshore as well as 7km onshore pipeline, primarily aiming to transport gas from Italy to Malta. Studies for this pipeline already received ~4million € via CEF.[21] It is hard to see any use for this pipeline since Malta with its small number of inhabitants (400,000) would never consume 2bcm/y gas and already has a terminal to import LNG, while Sicily is well connected to the dense Italian transmission grid. Nevertheless, this project has been included in the 2017 PCI list.

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[15] https://www.banktrack.org/blog/the_azerbaijani_laundromat_scandal_and_the_trans_adriatic_pipeline_bank_financing_for_fossil_fuels_is_dirty_but_how_dirty
[16] http://bankwatch.org/our-work/projects/southern-gas-corridor-euro-caspian-mega-pipeline & http://globalmotion.pageflow.io/walkingtheline
[17] https://www.climaxi.be/nieuws/reisverslag-naar-melendugno-om-no-tap-verzet-te-steunen
[18] https://www.oxfordenergy.org/wpcms/wp-content/uploads/2012/12/NG-71.pdf
[19] https://circabc.europa.eu/webdav/CircaBC/Energy/13%20Regional%20Meetings/Library/2019%20May%207-8%20RGs%20meetings%20gas/_NSI%20West.pdf
[20] http://www.naturalgasworld.com/sardinia-lng-unit-pending-final-approval-34068
[21] https://www.energywateragency.gov.mt/news/melita-transgas-pipeline-awarding-of-contracts/)