SWEDEN

KEY FACTS:

- Steep decline in gas demand from 2010 to 2017, at 36% decrease.
- Fully dependent on gas coming from Denmark.
- Possible construction of one LNG terminal in Göteborg (PCI status) with high risk of become a stranded asset.

1. GAS DEMAND

According to EU data:[1]

- Gas represented 2% of Sweden's energy mix in 2016.
- Sweden consumed around 0.96bcm of gas in 2016
- Gas demand dropped by over 36% between 2010 and 2017.

In Sweden, natural gas is mainly used for industry purposes and is therefore highly sensitive to temperature changes. However even in 2016 with mean temperatures lower than usual, the Gas consumption increased very marginally compared to the two precedent years.[2]

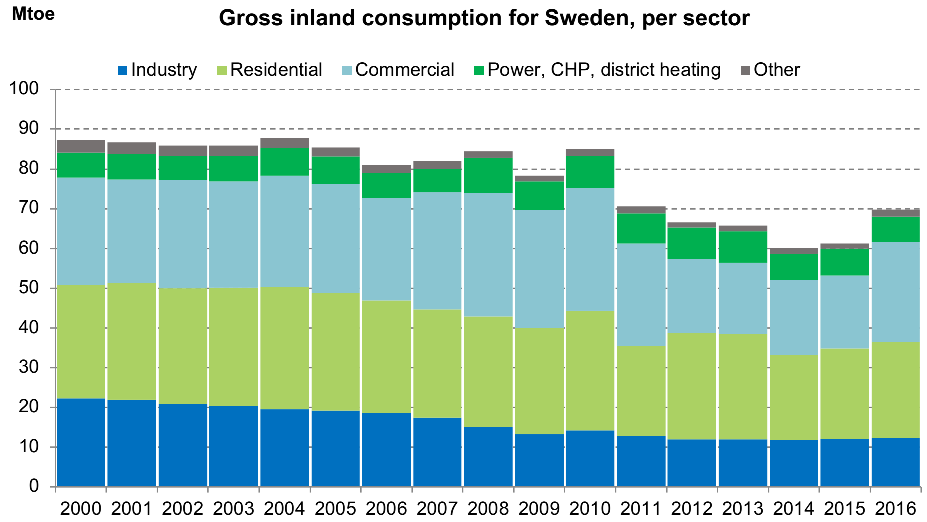
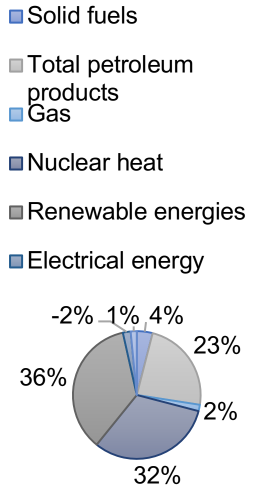


Figure 1: Sweden 2016 Energy Mix



2. GAS SUPPLY

Since Sweden does not produce any fossil gas of its own, all of it comes from imports.

Fossil gas, which was introduced to Sweden in 1985, accounts for a relatively small portion of the total energy supply. **Most imports come via pipeline from Denmark**, where the Danish gas system in turn is linked to the continental gas network in Europe. Smaller quantities of liquefied natural gas (LNG) are also imported, mainly from Norway. While from 2004 onwards, Denmark officially supplied 100% of Swedish gas until 2016, this changed recently: The biggest supply countries for Sweden in 2017 were Denmark with ~70%, Norway with ~18% and the Netherlands, with 5.5%.[3]

3. GAS INFRASTRUCTURE

The Swedish gas network stretches from Trelleborg to Göteborg and branches off along the way, to places such as Gnosjö and Stenungsund.

In this part of the country, fossil gas accounts for 25% of the primary energy supply. It is also near to the gas network where most gas is used, in the South-West of the country – see map.[4]

[1] E3G compilation of data extracted from Eurostat
[2] https://www.ei.se/PageFiles/310277/Ei_R2017_06.pdf
[3] https://ec.europa.eu/eurostat/cache/infographs/energy/bloc-2c.html
[4] https://www.swedegas.com/Gas_grid/gas_grid

Despite the extremely limited use of gas in Swedish energy mix and recent abrupt decline of the demand for gas, Sweden is still pushing to build new gas infrastructures. One in particular has already received PCI status:

Gothenburg LNG terminal

The country is indeed planning to build a **small LNG import terminal in Göteborg** intended to start operating in 2022 (delayed). The €100 million[5] terminal, with a 0.5 to 1bcm cm/y imports capacity and 25.000m³ storage capacity,[6] that could meet a large majority of the domestic demand (around two-thirds to over 100%). The need to build now such a costly project in a country where **gas represents less 1.5% of the total primary energy supply**[7] seems deeply questionable. Local mobilization against the project grows stronger.[8] Climate emergency and ambitious Paris Agreement objectives should push EU countries to start phasing-out the fossil fuel industry. In a country like Sweden where gas represents a tiny portion of the energy needs, such transition should be easier than in countries more heavily invested and reliant on fossil fuels. This **LNG terminal project only stands to worryingly undermine the necessary rapid energy transition**. Moreover, the steeply decreasing demand for gas in the country challenges the commercial viability of such project which could become quickly stranded.

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[5] https://ec.europa.eu/eipp/desktop/en/projects/project-26.html
[6] http://ec.europa.eu/energy/maps/pci_fiches/pci_8_6_en_2017.pdf &https://ec.europa.eu/energy/sites/ener/files/documents/pci_annex2_8_6_en_2017.pdf
[7] http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_110a&lang=en
[8] https://fossilgasfallan.se/