IRELAND

KEY FACTS:

- Between 2010 and 2017, Irish gas demand declined by 8%
- Gas represented 29% of Ireland's energy mix in 2016.
- Ireland's primary gas production has been multiplied by 20.
- UK single source of gas imports but new gas field providing 60% of domestic gas needs
- Only connector to UK who provides all of Ireland's gas imports: Moffat
- Shannon LNG terminal planned (PCI) but high uncertainty about the project's viability

1. GAS DEMAND

According to EU data:[1]

- Gas represented 29% of Ireland's energy mix in 2016.
- Ireland consumed 5.14bcm of gas in 2016
- Electricity generation in Ireland relies heavily on gas (48.5% in 2016)[2]
- The Irish power sector dominates gas demand, utilising 55% of total gas demand in 2016.

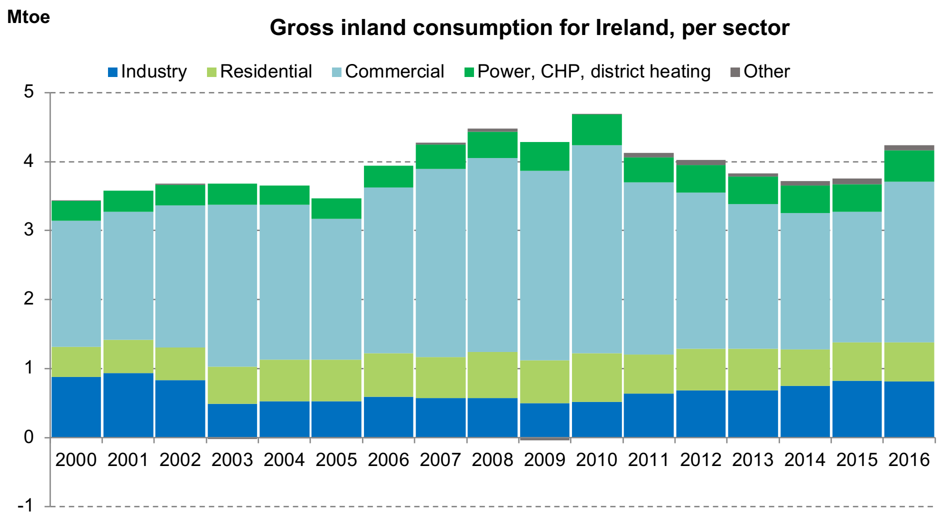
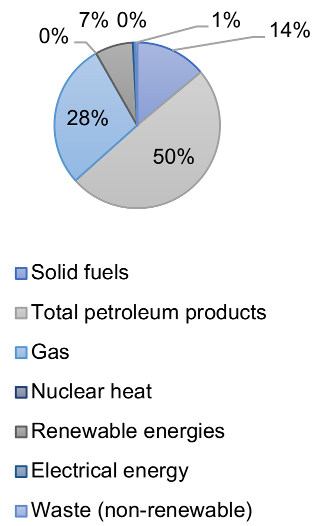
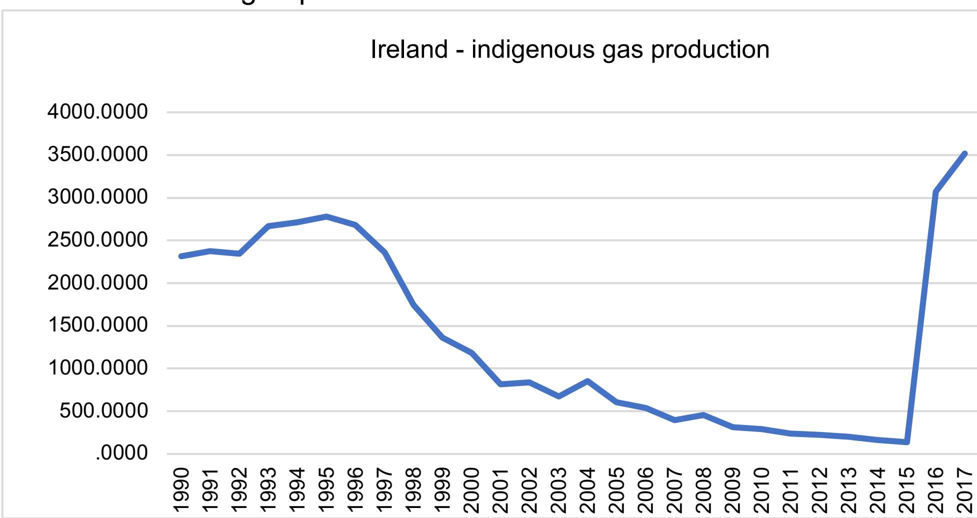


Figure 1: Ireland 2016 Energy Mix



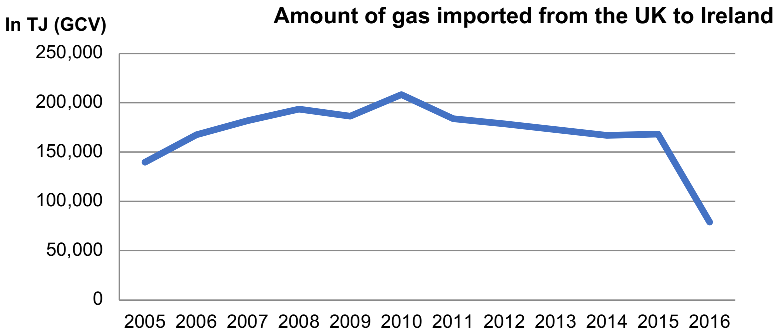
2. GAS SUPPLY

There was a dramatic increase in Ireland's domestic gas production due to extractions from the Corrib field that officially started at the beginning of 2016, with increasing rates of extraction planned for 2016-2017 and 2017-2018 before a predicted substantial decrease.[3] Ireland is currently [status 2017] utilizing indigenous gas to supply more than 50% of its total gas consumption.[4] In the 1990s, declining continuously until 2015, Ireland already produced significant volumes of gas, but never since then as much as in the years since Corrib gas field started operating (Eurostat, see graph).



[1] E3G compilation of data extracted from Eurostat
[2] https://www.seai.ie/resources/publications/Energy-in-Ireland-1990-2016-Full-report.pdf
[3] https://www.dccae.gov.ie/en-ie/energy/topics/gas/Pages/default.aspx
[4] http://www.engineersjournal.ie/2018/05/15/irelands-future-natural-gas-supply-well-connected-island/

In 2014, 96% of gas used in Ireland had to be imported. All of Ireland's fossil gas imports come from the UK who also started being a net importer of fossil gas in 2011 (see UK section).[5] However, gas import numbers are changing as a result of the new offshore field: the **Corrib gas field** is said to have the potential of meeting up to 60% of Ireland's gas needs for around 20 years (with sharply declining production expected).[6]



External gas suppliers could be further diversified in the future if the **Shannon LNG terminal which has been part of all the PCI** lists so far [status July 2019] is built.[7]

3. GAS INFRASTRUCTURE

The Irish Transmission System Operator (TSO), Gas Networks Ireland (GNI), have **three gas entry points, (1) Moffat**: connecting to the UK via two subsea interconnectors **(2) Inch**: connecting to Kinsale and Seven Heads gas fields and **(3) Corrib gas pipeline:** connecting to the Corrib gas field in the North (see map).[8]

The Moffat entry point is the only infrastructure connecting to the UK, Irelands biggest gas provider. The twin interconnectors composing this entry point can be utilised as a significant storage facility to provide backup to indigenous natural gas supplies.[9] Interconnector 1 has a capacity of 6bcm/y and Interconnector 2 has a capacity of 8bcm/y.[10]

Despite well-diversified gas suppliers, a transmission system able to meet declining gas demand, and a new gas field production able to provide 60% of domestic demand during a period of 10-20 years when the country should organize its almost complete decarbonisation, Ireland is planning new projects to further develop its gas infrastructure, including two import infrastructure projects, which received PCI status.[11]

Shannon LNG Terminal

This proposed project will have a final maximum regasification capacity of up to 10bcm/y[12] representing almost twice the volumes of gas Ireland consumes every year. However, a lack of clarity of the real size for the terminal's capacity remains. The current commissioning date envisaged is 2022. While the start of commercial operations were announced for beginning of 2018, the project has suffered many delays, due to several reasons. First there is a fear that imports of LNG through the Shannon terminal could render the gas interconnector with the UK a stranded asset, resulting in a raise of gas prices for Irish consumers.[13] Similarly, the fact that Hess Corporation, the lead operator of the Shannon LNG consortium, decided at the end of 2015 to pull out of the project (despite a €63 million investment) because of the "*plunging global prices for LNG*".[14] It should also be said that recent presentations of the project[15] have shown that the terminal could be used to import shale gas from the US

[5] https://www.seai.ie/Publications/Statistics_Publications/Energy_Security_in_Ireland/Energy-Security-in-Ireland-2015.pdf
[6] http://www.irishtimes.com/news/ireland/irish-news/natural-gas-begins-flowing-from-controversial-corrib-field-1.2480577
[7] http://www.europarl.europa.eu/sides/getAllAnswers.do?reference=E-2015-015139&language=EN
[8] https://circabc.europa.eu/webdav/CircaBC/Energy/13%20Regional%20Meetings/Library/2019%20May%207-8%20RGs%20meetings%20gas/_NSI%20West.pdf
[9] https://circabc.europa.eu/webdav/CircaBC/Energy/13%20Regional%20Meetings/Library/2019%20May%207-8%20RGs%20meetings%20gas/_NSI%20West.pdf
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[13] http://www.irishexaminer.com/ireland/kfqlgbeymhql/rss2/
[14] http://www.irishexaminer.com/business/mid-west-could-lose-out-on-1bn-gas-terminal-in-shannon-estuary-if-lng-not-sold-365396.html
[15] https://cloud.foeeurope.org/index.php/s/1v1lsApWXwpHTEZ

(see map), which would be in total contradiction not only with EU climate objectives (because of significant share of methane emissions and the disastrous environmental and public health impacts) but even more so with the fracking ban currently being debated.[16] Given that US energy company New Fortress Energy has agreed to develop the terminal together with Shannon LNG in 2018, the connection to the US is even more visible.[17] In the meantime, the deadline given of 2008 for the planning permission for the proposed terminal has expired and the process might need to go back to the start again. Opposition to the project has grown significantly in the past years and a number of Irish groups fight this terminal now.[18]

Figure 44 *Map of the gas grid*

Source: Gas Networks Ireland

There is also another, but less discussed LNG project in Ireland. **The Cork LNG terminal and a connecting Pipeline** is a project that looks create a new terminal in Whitegate, Cork financed by the US company Next Decade. This project would allow Ireland to import fracked gas from the South of Texas for a maximum import capacity of up to roughly 3.9bcm of gas.[19] This import capacity alone could cover more than 80% of Ireland's gas consumption and just like Shannon LNG could be used as a gateway for fracked gas from the US.

Reverse flow project at the Moffat interconnection point, in the UK.[20] Possibly in the context of the new production in the Corrib gas field and the potential construction of the Shannon LNG terminal, this PCI project would consist of bidirectional flows of gas from the Moffat entry point, so the UK could also receive gas from Ireland. However, with its immense but poorly used LNG import capacities (UK LNG terminals were used at an average of 22% between January 2012 and March 2019),[21] it is very unclear as to why the UK would need more import capacities.[22] As for Ireland, the short-term production of the Corrib gas field and the high uncertainty about the construction and commercial viability of the Shannon LNG Terminal, let alone the looming climate crisis, therefore casting serious doubt about its ability to become a gas exporter.

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[16] http://www.ecowatch.com/ireland-ban-fracking-2066270815.html
[17] https://www.lngworldnews.com/shannon-lng-picks-new-fortress-energy-for-terminal-development/
[18] http://www.safetybeforelng.ie/news.htm and https://iwdg.ie/shannon-lng-is-using-bottlenose-dolphins-as-a-key-issue-in-this-debate-misplaced/
[19] https://www.foodandwatereurope.org/blogs/irelands-clean-energy-revolution-wont-be-helped-by-lng-imports/
[20] https://circabc.europa.eu/webdav/CircaBC/Energy/13%20Regional%20Meetings/Library/2019%20May%207-8%20RGs%20meetings%20gas/_NSI%20West.pdf
[21] https://alsi.gie.eu – note that numbers are only available for 2 out of the UK's 3 LNG terminals
[22] http://www.igu.org/publications/2016-world-lng-report