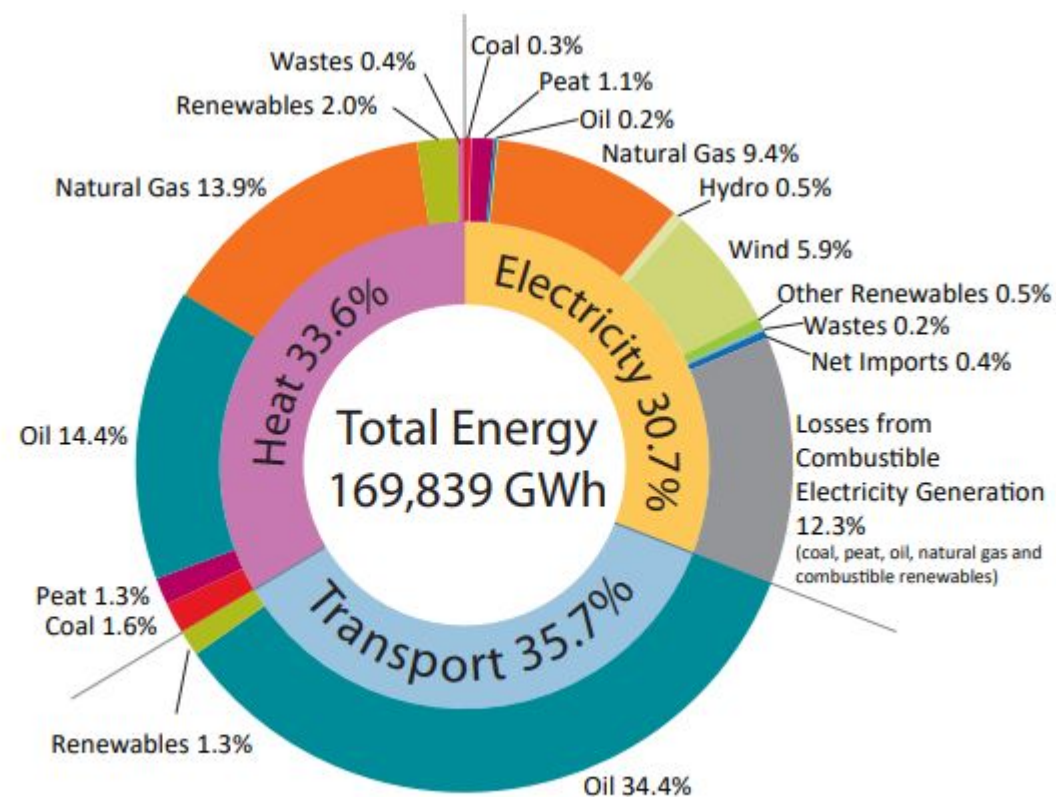


LNG and “Energy Security”?

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NHNA webinar 4th Feb 2021



Ireland's energy (2019)



Source: SEAI

Ireland's *electricity* (2019)

- 31% of total (primary) energy
- Sources (as % of final/consumption):
 - Natural gas: 51%
 - Wind: 32%
 - + others (peat, hydro, coal, imports...)

Ireland's *heat energy* (2019)

- 34% of (primary) energy
- Sources (as % of final/consumption):
 - Oil: 43%
 - Natural gas: 41%
 - + others (biomass, coal, peat...)

Ireland and “energy security”

Primary energy (2019)

- Fossil fuels 87%
 - of which, natural gas: 31%
 - *imported natural gas*: 16%
 - *indigenous natural gas*: 15%
- Overall “**import dependency**”: 69%
 - somewhat down from chronic level of ~90% 2000-2016
 - ... *mainly* due to Corrib gas
 - ... which is *rapidly* depleting

Ireland and oil security



- **No** indigenous supply
- Maintain **90 day reserve** (dedicated storage)
 - Mostly on the island of Ireland
 - for use “in the event of a physical shortage of supplies”



Ireland and natural gas security?

- **No** dedicated storage facility
- In event of supply disruption:
 - Indigenous production from Corrib
 - “Line pack” in GB pipelines
 - Meet NG needs of “protected customers” for ~30 days
 - Electricity generation: oil backup, 3-5 days
 - Then what?
 - NG may *instantaneously* account for ~80%+ of electricity generation
 - *Because:* “when the wind doesn’t blow and the sun doesn’t shine”
 - ... which *might* last for *multiple weeks*
 - ... in winter

Ireland and natural gas security?

In summary?

- *Heuston, we have a problem...*
- Getting better?
 - Enhanced reliability of GB pipeline connections
 - Additional electricity interconnection
 - Reducing *average* use of NG in electricity
- Getting worse?
 - Corrib depletion
 - Increasing *peak* use of NG in electricity
 - BRexit?

What's the *end game*?

- There *are* arguments in favour of acting to reduce the risks associated with NG supply disruption
- But choosing the right measures *depends* on the *end game*: what, if any, role will NG imports have in the (near) future IE energy system?
- *Only* way to continue would be premised on CCS
 - Not applicable for most heat use
 - Low technology maturity
 - Significant *residual, local, emissions*
 - **No** impact on *upstream emissions*
- But ... **There Is No Alternative!** ([TINA](#))

What's the *end game*?

- So:
 - TINA *is* a fallacy
 - There *are alternatives*
 - *Climate* disruption risks *far* outweigh energy security risks
 - *Fast and reliable* elimination of CO₂ emissions are critical to managing climate risks
 - The fastest and most reliable way of eliminating CO₂ emissions is by *not burning fossil fuels!*
 - ***That's the end game! And it needs to be as quick as we can possibly make it!***
 - "Net zero" CO₂ emissions ***well ahead of 2050 - ideally c. 2035!***

So: what about LNG?

- “Sticking plaster on gangrene”?
- Would inevitably *slow down* the exit from NG
- Would *likely* expose us to greater upstream emission ...
- And greater upstream damages generally...

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(Hopeful) conclusion?

“... we find that rapid fossil fuel phase out is not only technically feasible, but can progressively eliminate the security-of-supply risks associated with all imported fossil fuels, while simultaneously decarbonising with the scale and urgency demanded by good faith participation in the Paris agreement — subject, of course, to securing the comprehensive societal support necessary to enable this transformation.”

— [Is Natural Gas “Essential for Ireland’s Future Energy Security”? A Critical Response to the Irish Academy of Engineering.](#) Barry McMullin, Paul Price, James Carton, Kevin Anderson. November 2018.

Contact me...

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