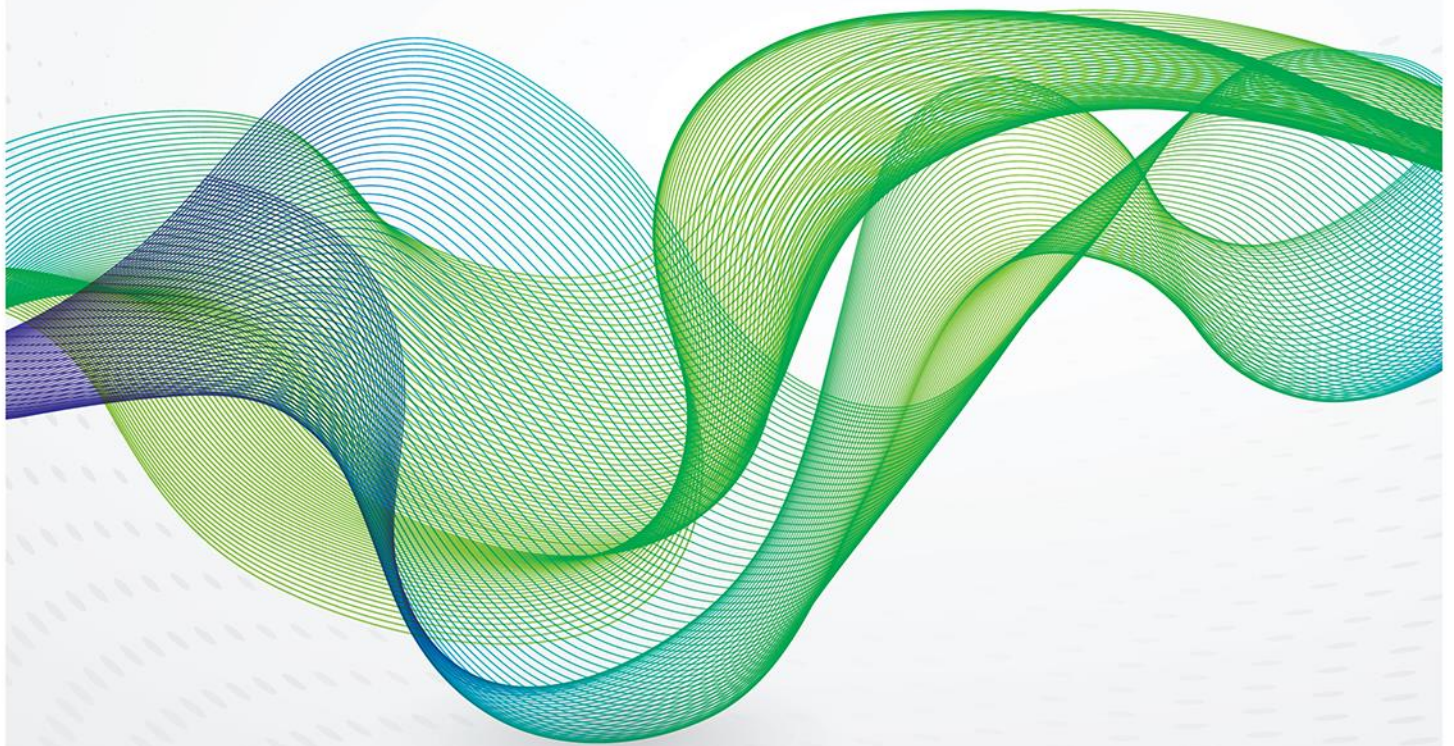


March 2017

Brexit's Impact on Gas Markets

Irish Options: IBP, NBP or TTF?

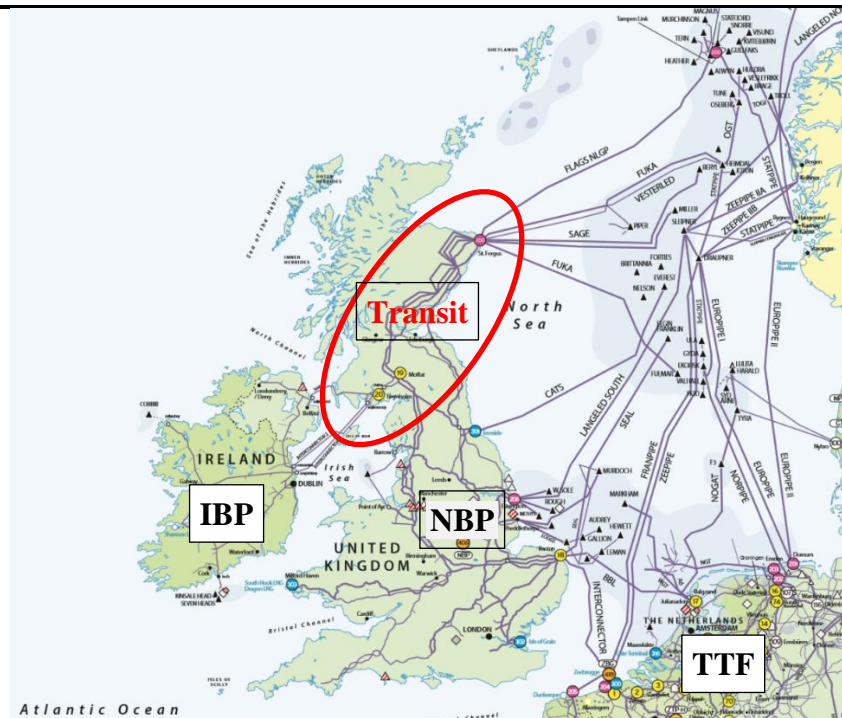


The UK and Ireland have a long trade history pre-dating the EU. But ahead of an unknown Brexit outcome, what are Ireland's options to continue to benefit from the advantages of the EU gas markets whilst being geographically blocked by a third country, the UK? Moreover, under the EU security of supply regulation, the UK provides a great deal of security to Ireland but if the UK is not required to do so any longer, Ireland could be placed in a difficult situation.

As described in our paper "Brexit and Security of Supply for the UK and Ireland"¹, Brexit negotiations could have an impact on the NBP-TTF spread. We believe that a possible outcome could be for the NBP premium to increase versus the TTF particularly in winter. In addition, with the NBP becoming a smaller regional hub, trades will be reduced (and with financial services moving away from the UK, the NBP paper market could shrink), and NBP volatility could increase compared to the TTF.

Our paper was quoted by Irish policymakers² worried about both security of supply and potentially higher prices³. The Irish Balancing Point (IBP) could move away from the NBP to the more liquid, less volatile and potentially cheaper TTF hub. It would also make much more sense for a Eurozone country to trade its gas in euros and not in pounds. For Ireland to benefit from this move it needs to avoid ending up with a premium⁴ to the TTF. In addition, instead of trying to establish a new domestic hub to meet the EU Gas Target Model, the Irish regulator would need to state that the TTF would be the new proxy used everywhere in Ireland (as the Italian regulator did back in 2013⁵ when the PSV was not liquid enough to provide a trusted price signal for the domestic market). Corrib⁶ gas would then be sold at just below TTF, which should be acceptable for the producer. The EU should favour this option which would have the interesting outcome of surrounding the UK gas market with the same price signal to both East and West.

Infrastructure Map showing the Scottish transit and the 3 hubs



Source: ENTSOG, thierrybros.com

¹ <https://www.oxfordenergy.org/publications/brexit-impact-gas-markets-brexit-security-supply-uk-ireland/>

² <http://www.radiokerry.ie/kerry-senator-says-government-needs-financially-back-shannon-ing-project>

³ Irish gas prices are linked to the NBP plus the entry fee into the Irish system.

⁴ The premium could be calculated as the extra cost needed to push gas from the Netherlands to Ireland via the UK/EU interconnectors plus entry and exit fees payable to the UK TSO (the National Grid) plus an entry fee in Ireland.

⁵ The Italian regulator ruled then that regulated retail prices must be linked 20% to the TTF between April and the end of September 2013 and 100% as of October 2013.

⁶ Shell E&P (45% - Operator), Statoil (36.5%) and Vermilion Energy (18.5%) are the partners in the Corrib field.

To be profitable (and to hedge their risks), Irish mid-streamers would therefore need to buy gas from outside the UK under a TTF proxy and use UK transportation as a transit route. As the UK is a member of the Energy Charter it is bound to follow the Energy Charter Treaty⁷ that addresses the complex political, economic and legal problems associated with energy transit. Irish buyers could therefore sign a contract with Norwegian producers for gas to transit via the UK (and specifically Scotland) from St Fergus to Moffat⁸ and be priced under the TTF. Norwegian producers could be better off as they would be able to have TTF contracts for the EU, and NBP contracts for the UK and could make sure that they always provide the swing while benefitting from the highest possible revenues. In short, this would allow for a nice new segmentation of markets for Norway which is currently not allowed under EU regulation but which would be possible as soon as the UK leaves. This would also provide increased security of supply to Ireland once the Corrib⁹ field starts to decline around 2020.

In the long run (post 2025), in order to increase diversity of supply, Ireland should revert to the EU Commission. To foster an integrated EU energy market, the European Commission has drawn up a list of 195 key energy infrastructure projects known as projects of common interest (PCI)¹⁰. These are seen as essential projects for completing the European internal energy market and for reaching the EU's energy policy objectives of affordable, secure and sustainable energy. In the Priority Corridor "North-South Gas Interconnections in Western Europe", Shannon LNG¹¹ terminal and 26km of connecting pipeline in Ireland are included in the PCI list. This list will need to be amended once the UK leaves the EU, and Ireland could fast-track Shannon LNG and also access financial support from the Connecting Europe Facility (CEF). This EU funding instrument supports the development of high performing, sustainable and efficiently interconnected trans-European networks. CEF investments connect the missing links in Europe's energy, transport and digital backbone. Once the regas Final Investment Decision is taken, Irish utilities would then need to access LNG at TTF pricing. This could be done by buying it from an LNG producer or an LNG aggregator that would not see a major difference by berthing its cargo at Shannon or Gate terminal in the Netherlands (for some LNG producers, Shannon could even represent a shorter route than Gate).

Another solution would be to review the Irish gas market by taking into account Directive 2014/94/EU on the deployment of alternative fuels infrastructure. This states that LNG refuelling stations are to be installed in all 139 maritime and inland ports on the trans-European Transport (TEN-T) Core Network by 2025 and 2030 respectively. For Ireland, the relevant ports are Cork, Dublin and Limerick¹². To deal with both issues (Brexit and Directive 2014/94/EU), Ireland could go for a cheaper FSRU instead of the usual onshore regas. In addition, an Irish utility could sign a deal with an EU company providing LNG at the French or Spanish terminals to access reloaded LNG while benefiting from the subsidies available under the EU trans-European network of "Motorways of the Sea".

The Irish solution to use the UK as a transit country could also be used by the UK vis-à-vis the EU. UK utilities could sign contracts with Russia based on NBP pricing for gas to be delivered in the UK using the EU as a transit country, with the Energy Charter guaranteeing the benefit from stable, predictable and non-discriminatory rules. In this case, the Regional Economic Integration Organisation (REIO) clause would apply, meaning that transit should follow the same rules as transportation inside the EU. So the UK buyer or the Russian seller would "only" need to deal with

⁷ The Energy Charter Treaty promotes the principles of freedom of transit and of non-discrimination and an obligation to provide national treatment for energy in transit, but prohibits the interruption of flows and the placing of obstacles to the construction of new energy transport facilities. The Treaty goes further than World Trade Organisation (WTO) / General Agreement on Tariffs and Trade (GATT) in developing a specific transit-related regime for the energy sector. This has allowed Energy Charter member states to benefit from stable, predictable and non-discriminatory trade rules in the energy sector. Norway, Russia, the EU and the UK are members of the Energy Charter but neither Norway nor Russia has ratified the Energy Charter Treaty.

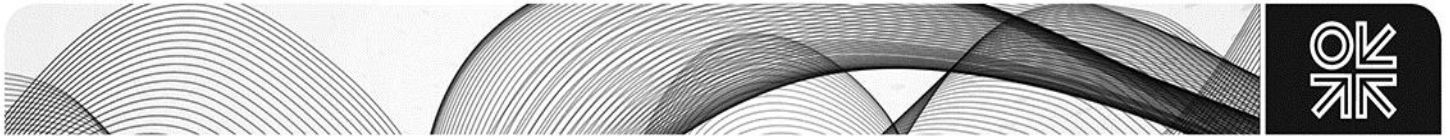
⁸ Moffat is a regulated pipe owned by the Irish TSO.

⁹ The Corrib gas field that started in December 2015, has greatly enhanced Ireland's security of supply in the short-term. However with an estimated 20-year life for the Corrib field, production rates will begin to decline after five years. So post-2020, Ireland is likely to remain largely dependent on imported gas.

¹⁰ List available at http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:JOL_2016_019_R_0001&from=EN

¹¹ The ultimate capacity could be 10 bcm/y.

¹² <https://ec.europa.eu/transport/sites/transport/files/themes/infrastructure/ten-t-guidelines/doc/maps/ie-uk.pdf>



transporting gas in each EU country between Russia and the UK, a lengthy and costly task of pancaking entry/exit fees.

Conclusion

On top of the “Business as Usual” / “no change” solution, Ireland has different options to increase its future security of supply while avoiding excessive prices. An interesting one could be for the Irish regulator to acknowledge that TTF is the European index and to use this price signal for Ireland. The UK gas market would then be surrounded with the same price signal to both the East and the West. Instead of sourcing its gas on the UK hub, Irish utilities would then need to sign contracts with Norwegian producers for gas to be delivered in Ireland at a TTF price (with the UK being used as a transit country). Brussels, Dublin and Oslo could have the power to redesign North-West European gas markets where the UK as a transit country from Norway to Ireland gets a potentially different¹³ commodity price than surrounding countries. There must be a question as to whether the EU and Norway have the political will to confront the UK on this issue, particularly in light of the sensitivity of Brexit negotiations. Longer term, Ireland should turn to the EU Commission to fast track LNG regas to foster an integrated EU energy market if the UK is not required to provide security of supply.

¹³ A potentially higher price if Norway decides to segment the UK and the EU markets.