

How might Brexit impact the UK energy industry?

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The implications of Brexit for Britain's energy future was not an important point of contention during the referendum debate. "Environmental" issues were only identified as important in influencing their vote for 1% of individuals surveyed before the referendum vote (Ipsos Mori, 2016). Since the vote to leave, environmental and energy issues have remained outside the central focus of the debate.

That being said, Brexit has the potential to have profound effects on both environmental and energy policy in the UK in the months and years ahead. As the debate moves on from the merits or demerits of the referendum outcome to the actual practicalities of the terms of the UK's exit and our future economic relationship with the EU, such issues are likely to gain significant attention.

Allan (2016) says "critical to avoiding a more negative outcome [from Brexit] will be ensuring access to the internal energy market and the benefits of access and market integration that will help drive Scotland and the UK towards its long-term environmental ambitions". Here we outline developments since July 2016, and focus on items raised in February 2017's Brexit White Paper (UK Government, 2017).

We can group these under two headings. Firstly, the UK government's vision of the energy and environmental policy trajectory, and secondly its vision of future participation in an integrated European energy market.

1. Future Energy Policy

The Brexit White Paper makes clear the UK Government's commitment to the 2008 Climate Change Act. New nuclear power, further decarbonisation of electricity through renewables and electricity storage, and electrification are all necessary to meet environmental obligations committed, and considerable investment will be required. (The UK Government made the decision to proceed with Hinckley Point C since June's vote, and it was formally awarded a Contract for Difference in September 2016.)

New generation capacity will continue to be built and the overall carbon consequences will depend on the technological mix. Investment decisions in the energy sector (worth a total of £100 billion over 15 years (HM Treasury, 2016)) will be taken in the next five years and will determine the profile of that generation fleet. November's Autumn Statement saw no increase to the Contracts for Difference lifetimes, a consultation on the Levy Control Framework, and the confirmation of Carbon Price Support to 2020/21. With these "steady as she goes" actions in the last few months, it is clear that the detail of UK's exit from the EU will be important for the UK energy industry, and it is likely to have long-lasting consequences on the UK's energy future.

2. Integration with the EU's energy market

The detail of UK's energy exit from the EU will determine how the UK energy system links into the wider European energy landscape. These links are both physical and regulatory. Exiting membership of the various regulatory bodies that govern the EU's internal energy market (IEM) is almost certain to remove any direct input for the UK in their governance and objectives. Being outside the IEM and its regulatory frameworks may then dilute the ability of the UK to finance and develop the development of the future physical infrastructure and networks that may underpin energy security.

A good example of the regulatory links that the UK currently has with the EU is its membership of the Euratom organisation. The White Paper makes an explicit reference to the UK leaving Euratom, as this organisation uses the EU institutions of the European Commission, Council of Ministers and the European Court of Justice. There are two key implications of the UK leaving Euratom. First, there is the need to replace and fund the inspection duties on existing nuclear generation and waste facilities. For instance, Froggatt (2017) writes that a quarter of time spent on nuclear inspections in the EU occurs within the UK. Second, the impact on the significant existing nuclear R&D activities in the UK funded by EU programmes. The UK Nuclear Industry Association has raised further concerns about ensuring transitional arrangements with EU member states and third countries (NIA, 2017).

Another EU institution that the UK is currently party to, and which forms a key part of meeting its environmental goals, is the EU's Emissions Trading Scheme (EU ETS) (Committee on Climate Change, 2016). The EU ETS is a 'cap and trade' scheme which covers emissions from electricity generation and heavy industry, and which has the potential to be a least-cost approach, as firms with the lowest cost of carbon emissions reductions can make these changes, trading permits with firms who face higher costs of carbon emissions reductions. The quantity of permits in existence is reduced over time so that total emissions fall. The non-EU EEA countries are members of EU ETS, so perhaps the UK will not leave this organisation upon Brexit. If it were to leave EU ETS, then the UK could of course set up its own emissions trading scheme, but its reduced geographical scope would limit the universe of possibilities for low cost emissions reductions to be made by trading with players who face higher cost reductions. Additionally, setting up its own scheme will entail setup, administration and regulatory costs. On the other hand, the EU ETS has been subject to criticism, especially for over-allocation of permits and consequent low prices (which provide minimal incentives for emissions reductions), and an alternative UK scheme could learn from the mistakes of the EU ETS.

The White Paper notes that the UK benefits through lower prices and improved security of supply from “coordinated energy trading arrangements” with EU member states through its current membership of the IEM. These arrangements consist of e.g. arbitrage opportunities for trading, a larger grid to support the balance of power flows, and the opening and extending of liberalised energy markets. A report for National Grid calculated that exclusion from the IEM could cost consumers up to £500 million per year (Vivid Economics, 2016).

Recent figures show that net imports equate 40% of the UK’s energy supply, making it the twelve most import-dependent of the 28 EU member states (Eurostat, 2016), so physical connection to the IEM is vital for the UK energy needs and security of supply. Although currently a net importer of electricity through the existing interconnectors, the UK also has some of the best resources in Europe for variable renewables capacity. The viability of projects to develop these resources is enhanced the more the UK is able to export surplus electricity in periods of high generation. The EU’s IEM is a basis for such an export market, and the EU is actively helping in the creation of the trans-continental infrastructure required (see e.g. BBC, 2017). The White Paper does state that the UK government “is considering all the options for the UK’s future relationship with the EU on energy” (UK Government, 2017, p. 43), but fundamentally, the economic benefits from interconnection between the UK and the EU may be weaker when there is uncertainty about the ability of generators and consumers on each side to trade via such links.

In summary, whilst energy has yet to feature heavily in the Brexit debate thus far, the implications for investment, energy security and the future challenges and opportunities in operating outside existing EU regulatory structures mean that it is only a matter of time before some big decisions – with significant consequences – are likely to be required.

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