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UK energy policy – Stuck in ideological limbo?

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HIGHLIGHTS

- UK energy policy has undergone a partial paradigm change.
- Electricity has been the main focus of intervention to date, leading to distortions.
- The way forward in other sectors is uncertain.
- Key energy policy goals are at risk.
- The Government needs to develop a clearer strategy.

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ABSTRACT

Energy policy in the UK has undergone a paradigm change over recent decades – from the free market stance of the 1990s to the more interventionist measures of the 21st century. However, the two approaches have not been reconciled – even as the Government intervenes, it reaffirms its goal of creating more competitive markets. The contradictions are most apparent with electricity, which has been the main focus of intervention to date, in line with decarbonisation strategy. Investment is dependent on Government support, which changes in response to circumstances, creating uncertainty and undermining the basis of market operation – so leading to the need for more intervention. The future for other sources – natural gas, nuclear power and carbon capture and storage in particular – remains unclear. The Government risks getting the worst of both worlds – without the coordination and direction which could come from a centralised approach or the efficiencies and innovation which might emerge from a more consistent market based policy. Unless a fuller policy statement, expected later this year, can clarify matters, UK energy policy will not be fit for purpose and will fail to meet its key goals, of economic effectiveness, environmental protection and energy security.

1. Introduction

In formulating their energy strategies all countries face much the same challenge – addressing what has been variously described as the 'trilemma', the 3 'A's[2] or the 3 'E's,[3] that is, seeking to achieve energy security, environmental protection and economic efficiency at the same time. Furthermore, nearly all OECD countries have adopted the same overall market-based approach and the more detailed objectives in the International Energy Agency's 'Shared Goals'.[4] In addition, they are all parties to the Paris Agreement[5] on climate change and, for those countries in the European Union (EU), all are involved in the development of an increasingly European approach to energy policy and moves towards an energy union (Buchan and Keay, 2016). So, at first sight, it might be expected that OECD countries would be following much the same energy policies.

But of course that is far from the case. There are two main reasons for the differences:

- The first is that all countries have different resource bases,

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[1] The views expressed in the article are the author's and do not necessarily reflect the views of the Oxford Institute for Energy Studies, or any other institution for which the author has worked in the past.

[2] Both formulations are used by the World Energy Council. The 3 'A's are accessibility, availability and acceptability and the trilemma is about finding the right balance between them.

[3] A formulation used by the International Energy Agency (IEA), where the 3 'E's are energy security, environmental growth and environmental protection.

[4] https://www.iea.org/aboutus/whatwedo/sharedgoals/Disclaimer – the author, when Head of Energy Diversification Division at the IEA, had a hand in drafting these goals.

[5] https://unfccc.int/resource/docs/2015/cop21/eng/l09.pdf.

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geographies, national priorities etc. This is reflected in different attitudes to particular sources – for instance, nuclear or coal, which are important in some countries but rejected in others.
- Less obvious perhaps, but there is a further dimension to the trilemma – that the factors above, and the balance between them, change over time, yet energy policy is to a large extent about the long term and about an integrated – holistic – overall approach. Energy investments (like power stations, pipelines, terminals and grids) are very long-lived (which increases the risk of 'stranding' when policy changes); furthermore, developments in one part of the energy sector affect other parts (e.g. the growth in renewable generation affects gas and coal markets directly by displacing those fuels but also has significant indirect effects, as discussed below). At any particular moment, a country is in many ways a prisoner of its past, with an energy asset base which may not be optimal for current energy policy objectives, and policies which are responding either to past challenges or (increasingly frequently) to the unintended consequences of earlier interventions.

The central argument of this paper is that the UK is, in energy terms the prisoner of its ideological past – unable to find an effective way of reconciling the 3'E's because it is stuck in an uncomfortable half-way house between markets and central control, without a clear way forward, at any rate at the time of writing (Spring, 2016). It is not alone in this, but it is facing the challenges in particularly acute form – on the one hand, it has been more strongly committed to liberalisation, over a longer period of time, than most other countries; on the other, it has created a particularly rigorous environmental straitjacket for itself via the Climate Change Act, as explained below.

2. Background

To explain how the UK got into this limbo a little history is in order. As is well known, the UK was a pioneer in liberalisation, in particular in energy. The strongest expression of this view came in the early 1980s when Nigel Lawson, then Secretary of State for Energy described his role in the following terms: 'I do *not* see the Government's task as being to try to plan the future shape of energy production and consumption …. rather to set a framework which will ensure that the market operates in the energy sector with a minimum of distortion' (Lawson, 1982) The timing was propitious for such an approach. For most of the 1980s and 1990s, energy markets were well supplied, prices were low, and the growth of gas meant that environmental objectives were being met more or less automatically. In short, 'there was little or no energy policy to make in the 1990s'. (Helm, 2003, 124).

But this golden age could not last. With the turn of the 21st century, problems started appearing – markets got tighter; the UK moved from being an energy exporter to energy importer; rigorous emissions restrictions started to bite. All this led to what many have seen as a 'paradigm change' in UK energy policy making (Rutledge and Wright, 2010; Kern et al., 2014) as the emphasis moved back to intervention. By 2011 the word 'planning' had come back into the official lexicon (Keay, 2011a, 2011b). Even the *Economist* newspaper, normally a firm believer in free markets, argued that the UK faced a power crisis as a result of an 'almost criminal planning failure' (Economist, 2009).

3. Electricity

The starting point for the more interventionist approach, particularly for electricity, was the growing significance of greenhouse gas emissions targets. In 2000 the Royal Commission on Environmental Pollution Report *Energy - the Changing Climate* recommended a target of a 60% reduction in CO_2 emissions by 2050. This led to the publication in 2003 of the White Paper *Our Energy Future* (HMG, 2015) – the first attempt at an energy policy for some 20 years. It recognised that environmental concerns were henceforth going to be a major driver of energy policy; nonetheless it continued to rely mainly on market-led measures, plus a little support for renewables and carbon trading, which it thought would be enough to deliver the reductions envisaged.

Energy policies then started coming thick and fast. In 2006 the Government had a new go at a long term policy in its report *The Energy Challenge* (HMG, 2015), having recognised the need to clarify the role of nuclear. The small print of the document noted that the 'gap' – the level of emissions reduction needed by 2020 – had actually increased (nearly doubling) since 2003; in other words, even if the policies introduced in 2003 had any positive effect, they had been swamped by the impact of market forces. However, the 2006 report also proved something of a false start – the Government still claimed to be neutral about what plants investors chose to build, and did not set out a full case for nuclear. Greenpeace challenged the Government on the grounds that it had showed bias and failed to offer the 'fullest possible information'.[6] It had to rerun a consultation on nuclear, resulting both in a new policy White Paper (*Meeting the Energy Challenge* – HMG (2007)) and one on nuclear specifically (HMG, 2008). This said the case for nuclear was compelling – but still left it to investors whether they chose to build or not, leaving open the question of what happened if they chose not to.

Momentum built up yet again with the Climate Change Act of 2008, which set a target of an 80% reduction for greenhouse emissions by 2050 and required the Government to come up with substantive plans to meet the goal and a series of interim targets. They would clearly require a rapid ramping up of low carbon power generation – the advice of the Climate Change Committee (set up under the 2008 Act to advise Government) was that: 'any path to an 80% reduction by 2050 requires that electricity generation is almost totally decarbonised by 2030' (CCC, 2008, 173).

This concentrated the Government's mind wonderfully. One realisation was that markets alone would probably not be enough to address what had been described as the 'greatest and most wide-ranging market failure the world has seen' (Stern, 2006) and that additional support for renewable plants would be needed. However, intervening in markets has consequences. Investing in low carbon generation is not just a matter of slotting in one sort of plant for another – the new sources have their own economic, technical and operational characteristics and they change the whole dynamic of the electricity system. A number of reports – from Ofgem (Ofgem, 2009, 42), the Climate Change Committee (CCC, 2009, 9) and consultants (e.g. Poyry (2009), 27) – pointed to the problems. So even before the General Election of 2010 the need for market reform was being discussed.

The result of the Election – leading to the necessity of forming a coalition policy at short notice – was a bout of surprisingly rapid decision-making. Fortunately, energy and climate were then relatively non-partisan issues and the Coalition Government was able to agree on a package of Electricity Market Reforms (EMR), three of whose elements stemmed directly from the Coalition Agreement (CA, 2010, 16–17) – Feed-In Tariffs (FiTs)[7] for renewables to replace

[6] This was a bit odd – the Government's position was that it was for investors, not the Government, to decide whether to build plants or not. No-one was suggesting that 'the fullest possible information' was needed for other sources, like gas

[7] The term could be misleading – they are not tariffs in the technical sense of published price lists available to all comers. In practice, they take the form of long term contracts for differences which offer guaranteed prices by making up the