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The UK's Levy Control Framework for renewable electricity support: Effects and significance

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HIGHLIGHTS

- Gives an description of the Levy Control Framework.
- Analyses the effects of the LCF on UK renewable policy.
- Reviews possible purposes of the LCF.
- Evaluates the effects of the LCF on consumers and investors.
- Places the LCF in context of greater cost control over renewables across the EU.

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ABSTRACT

There is a long-standing debate over price vs. quantity approaches to supporting the deployment of renewable electricity technologies. In the context of a recent shift from quantity to price-based support, the UK has also introduced a new form of budgetary framework, the Levy Control Framework (LCF). The introduction of the LCF has been very important for investors but has received relatively little attention in the academic literature. The paper gives an overview of the LCF, explores its effects on renewables policy, on consumers and on investor confidence arguing that an unintended consequence of its introduction has been to increase uncertainty, through interactions with underlying support mechanisms. A number of problems with the current scope and design of the LCF are noted. It is argued that the LCF is best understood as aimed at avoiding a political backlash against renewable support policy in a context where the benefits of such policy are concentrated economically and socially. The paper concludes by placing the LCF within a wider context of a shift towards greater budgetary control over renewable energy support policy across European countries.

1. Introduction

Over the last decade, Europe has been making progress on the expansion of renewable energy, while also bringing down greenhouse gas emissions (EEA, 2015). The fastest expansion has come in the electricity sector, with electricity from renewable sources in EU countries increasing from 14.8% in 2005 to an estimated 27.1% in 2014 (ibid: 43) and 29% in 2015 (Sandbag, 2016). The expansion of renewable energy has been arguably the most successful element in Europe's climate policy, since carbon pricing through the Emissions Trading Scheme has not had a major effect on fuel switching or investment decisions to date (Grubb et al., 2012).

However, at the level of individual countries, the expansion of renewable energy has not been entirely smooth. Belgium, Bulgaria, the Czech Republic, Greece, Italy and Spain have recently made retrospective changes (i.e. that affect future returns on existing investments) or retroactive changes (i.e. that affect future *and past* returns on existing investments) to renewable support policies, or introduced moratoria on new investments, all of which have had significant negative effects on investment (Keep on Track; Del Río and Mir-Artigues 2012, 2014; Behn and Fauchald 2015; Fouquet and Nysten, 2015; Gatzert and Kosub, 2016). [1]

Until recently, the government in the UK has largely avoided

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[1] See Fouquet and Nysten (2015) for full definitions of retrospective and retroactive measures.

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any retrospective actions or sudden changes in the framework for renewable energy. However, in 2015, a number of changes were made, including a large and sudden reduction in support for solar PV and the bringing forward of removal of some technologies from support schemes, that have had a significant impact on investor confidence (HoC ECCC, 2016a, 2016b). One result has been that in 2015 the UK slipped outside the top 10 on the Ernst and Young Renewables Attractiveness Index for the first time since its inception. These events were driven in the first instance by a framework for renewable energy policy costs that was introduced in 2011, called the Levy Control Framework (LCF), which sets a cap on the total amount of support. In response to an anticipated breaching of the LCF, the government has attempted to use different policy levers, i.e. points of intervention varying across the different programmes covered by the Framework, to contain expected future costs.

The LCF is a significant development because it imposes a budgetary-based mechanism on top of existing quantity and price-based support schemes. It has the potential effect of subordinating renewable energy policy to budgetary policy, which could have implications for long term policy credibility. The LCF should be seen within the context of renewable investment 'bubbles' followed by damaging policy reversals in some other countries, as mentioned above, and can be seen as an attempt to avoid such problems. However, while the intention may have been to reduce policy risk, one of the immediate effects of the LCF has been to increase uncertainty for potential investors in renewables. A major reason for this is that the LCF interacts with a number of varying factors, including the wholesale power price and small scale renewable technology growth, the government's assumptions about which have not been made clear.

While the introduction of the LCF has had a major impact in the investor community – described by the Chair of the Institutional Investors Group on Climate Change as 'hugely' influential in investment decisions (HoC ECCC 2016a: 23) – it has so far attracted little notice in the academic literature. This paper aims to address this gap, and argues that the LCF has quite profound implications for renewable energy policy in the UK looking ahead. The paper also seeks to clarify the purpose of the LCF, and in particular whether it is *primarily* aimed at protecting consumers or at shoring up investor confidence, arguing that the latter is the most plausible. An evaluation of the LCF's design and record to date in meeting these aims is given.

The next section briefly lays out the wider context of the policy and political challenges of setting levels of renewable support, and challenges that have arisen in other countries. Section 3 then gives a brief description of the history of UK renewable energy support policy and the introduction and evolution of the LCF up to 2015. In Section 4, the effects and significance of the LCF for renewable energy policy in the UK are examined. Section 5 assesses various potential interpretations of the LCF, including purely political objectives. It also makes an assessment of the design and record of the LCF from the point of view of protecting consumer welfare and underpinning investor confidence. The paper concludes with some implications for the reform of the LCF, and places it within the wider context of moves towards budgetary control over renewable energy support costs across Europe.

2. Renewable support policy and politics

From a handful of pioneers in the 1970s and 1980s, such as Denmark, California and Germany, the development of support policies for the deployment of renewable energy has now spread globally. At the end of 2015, at least 173 countries had renewable energy targets, and an estimated 146 countries had support policies at the national or sub-national level, or both (REN21, 2016).

Support policies have come in a range of forms, including both price-based support such as fixed Feed-In Tariffs (FITs) and premium Feed-In-Tariffs, which offer a premium over the wholesale electricity market price, and quantity-based mechanisms such as Renewable Portfolio Standards (RPSs) or auctions, as well as investment-related policies such as tax incentives and grants (for a review see Batlle et al., 2012). While all of these approaches have been used across Europe, fixed FITs or premium FITS were the most popular through the 1990s and 2000s, although following pressure from the European Commission, there is now convergence on the use of auctioning. In the US, the RPS has been the more common form. As described below in more detail, the UK began with an RPS, but is now phasing out this approach in favour of a type of FIT which uses auctioning to set the price and requires the recipient to pay the difference if the market price exceeds the fixed price. The UK also added a conventional fixed FIT for small scale renewables in 2010.

The cost of support programmes is most commonly borne by electricity consumers, either by passing the costs of subsidies through via suppliers, or via a levy. For example, amongst 23 European Union countries in 2013/14, 12 used levies on bills to cover these costs, eight allowed the pass-through of costs, and two used both routes (CEER, 2015).

As experience with renewable electricity support programmes has grown, it has become clear that policy makers have to balance a number of aspects of support policy design. One balancing act involves giving existing and potential investors sufficient *certainty* about policy direction to ensure that investment is forthcoming, while also *adapting* support mechanisms in the light of new information, especially about technology costs (Jordan and Matt, 2014).

For FIT approaches, a key challenge has been how to amend support levels when there is asymmetric information between private investors and policy makers about true costs of technologies. It was this problem of asymmetric information that led the UK to reject the FIT approach in the early 2000s in favour of an RPS design that was intended to force private actors to reveal true costs (Mitchell and Connor, 2004), although in practice it has still been possible for rents to be earned (Ragwitz et al., 2007). A closely related balancing act is the need to set *levels* of support sufficiently high to ensure investment, while at the same time ensuring that the resulting costs for consumers and *socially and politically acceptable*.

In practice, these two dynamics run in tandem, producing concurrent policy and political challenges. As Stokes (2013) shows in the example of Ontario, producer coalitions tend to press for high, stable levels of support, while both cost effectiveness and political sustainability concerns imply that subsidy levels should come down over time, but not so rapidly that investment is choked off. Because this balance is hard to get right, support programmes for some technologies and in some countries have been characterised by boom-and-bust cycles, as noted above.

Stokes (2013) concludes that policy needs to be adaptive, with opportunities for degression of support rates at certain points in time or deployment milestones. To do this effectively takes considerable effort and resource. For example in Germany, where degression has been relatively effective but still far from perfect, policy makers have regulated to make cost information available and committed resources to analyse this data as the basis for periodic adjustments.

It is within this context that recent developments in the UK must be seen. As described in more detail in the next section, changes introduced in the Electricity Market Reform process from 2010 onwards sought a particular set of solutions to the balancing