

# High-powered reforms to EU energy policy

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The achievement of efficient and secure energy supply and a clean environment do not have to be conflicting objectives. However, meeting both goals will require meaningful market-oriented reform of energy policy at the EU level.

Despite successive attempts at liberalisation, national electricity markets remain highly concentrated. Retail prices are still regulated in 13 Member States, preventing supply and demand from being efficiently managed. Resistance to reform comes mainly from the lobbying of national governments by incumbents.

Two measures in particular should be at the heart of EU energy reform: the substitution of myriad emissions reduction schemes and targets, and their substitution by a comprehensive Emissions Trading System; and the phasing-out of renewables subsidies at EU and national levels.

## Introduction

Despite lying nominally outside the areas of competence of the EU, energy policy has increasingly become a European issue. This is due to its cross-border nature, the prevalence of extensive state intervention in national energy markets – which makes the sector of relevance to EU competition and State Aid policy – and the decarbonisation agenda undertaken as a response to evidence of man-made climate change (Stagnaro 2015: 35-41).

During the 1990s and early 2000s, the EU was a liberalising force in energy markets. Building on the British model of network unbundling, price liberalisation and privatisation, the EU encouraged Member States to introduce greater competition into a sector which in many countries had until then been dominated by a single state-owned player. The success of the British experience, which saw lower retail prices as well as a less carbon-intensive economy, persuaded policymakers elsewhere to replicate the UK model.

However, implementation of this liberalising agenda has lagged because of opposition from vested interests at the national level. Furthermore, the pursuit of an aggressive environmental programme since the early 2000s has meant that market forces have seen their role in price formation and supply-and-demand management diminished by government intervention. Through a mixture of subsidies, decarbonisation targets, industrial policy and other measures, administrations at the EU, national and lower levels of government have often set about mitigating climate change in a less-than-efficient manner.

This briefing sets out a number of policy reforms which would more efficiently achieve the twin objectives of cheap and reliable energy, on one hand, and gradual decarbonisation and environmentally friendly generation, on the other hand. The efficiency gains to be had from reform mean that neither of the two goals have to be sacrificed to the other, given Europe's current position.

## Liberalisation: the British and EU experiences contrasted

From the mid-1990s, EU energy policy had as its blueprint the British model designed by the Thatcher government in the 1980s. At the time, the UK pursued three distinct objectives: Ownership unbundling and price-cap regulation, deregulated wholesale and retail markets, and privatisation (Joskow 2008: 16). The termination of monopolies, including an obligation to grant third-party access, and the encouragement of consumer choice enabled the formation of competitive markets which dramatically reduced prices, as well as lowering generator operating costs and improving availability (Stagnaro 2015; Joskow 2008). In other words, the UK became richer, cleaner and its electricity users paid lower prices over the course of the decade.

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Inspired by British success, from the mid-1990s the European Commission adopted liberalisation as a central objective of its energy directives. As in the British case, the EU path to freer electricity markets focused on reducing state-owned monopolies' market power and increasing consumers' ability to freely choose their supplier (Serrales 2006).

However, the Commission's directives to that end have been only partially successful because national interests have resisted efforts at liberalisation. The energy sector is particularly sensitive to capture by special interests because of the existence of large incumbents, often formerly state-owned and with extensive political connections. Moreover, the importance of cheap and secure supply makes the energy sector ripe for rent extraction as a national security affair.

Thus, whilst the OECD indicator of electricity regulation has dropped from 5.86 in 1975 to 2.05 in 2013 (Koske et al. 2015) and the average market share of the largest generator in each of the Member States of the EU has decreased from 63.88% in 2003 to 53.72% in 2013, sixteen Member States still have a state incumbent with more than 50% of the market. In some countries, such as France, Estonia and Greece, state incumbents retain market shares of 86.8%, 84.8% and 71.5% respectively (Eurostat 2016a).

Two policy areas in particular stand out as still in need of substantial reform. They are the privatisation of electricity generators and suppliers, and the liberalisation of retail markets. The first EU energy directive sought to introduce the principle that vertically integrated state monopolies should be broken up (European Commission 2007). However, this attempt was only a partial success because of a lack of pressure towards privatisation. In fact, contrary to the experience of privatisation in Britain, the U.S. and New Zealand, the first two EU liberalisation packages neither introduced any specific measure to break the market dominance of state-owned companies, nor did it make ownership unbundling the rule (Heddenhausen 2007).

Subsequent directives have sought to address this shortcoming, but each time the aim of liberalisation has been superseded by compromise between the theoretical goal of breaking up monopolies and powerful lobbying by those monopolies (Stagnaro, 2015). Likewise, as of 2014, in Member States such as Estonia, France, Greece, Hungary, Latvia and Spain, the cumulative market share of the 2-3 main electricity retailers was close to or even exceeded 80% (Eurostat 2016b).

### **The damage wrought by national regulations**

Due to an increase in non-contestable charges, such as network tariffs, taxes, subsidies and the like, average annual mark-ups in the electricity household segment across the EU trended upwards in 2015 compared to 2014 and, overall, they increased over the last 5-6 years. In 2015, the average electricity mark-up – the difference between the current price and the price which would prevail in a competitive market – in the EU was around €20/MWh (ACER/CEER, 2016: 43).

At the same time, in 2016 13 Member States (ACER 2016: 80) still applied regulated end-user prices in retail electricity markets in either or both of the domestic and industrial segments. Finally, the freedom of consumers to switch rates differs widely among EU countries, with the vast majority of Member States showing levels of switching as low as 3% (Stagnaro, 2015: 49-56).

The removal of national barriers to entry would enable new suppliers to enter, forcing incumbent firms to become more efficient and fostering new investments and more innovative long-term strategies.

These poor results should come as little surprise. National regulatory frameworks diminish consumer power and competition and lead to price distortions. They also prevent greater integration of electricity networks across borders. In fact, the removal of national barriers to entry would enable new suppliers to enter, forcing incumbent firms to become more efficient and fostering new investments and more innovative long-term strategies (CEER, 2016). It is welcome news that the latest European Commission Winter Package acknowledges the need to strengthen the internal electricity market by proposing the abolition of retail price regulation – putting consumers first – and calling for greater reliance on market-based approaches in Renewable Energy Source (RES) support schemes and market integration.

### **Efficient decarbonisation: extending the ETS**

EU policymakers should expand the current ETS. In fact, an efficient scheme to limit carbon pollution would encompass all sources of CO<sub>2</sub> and treat all CO<sub>2</sub> emissions equally from an economic viewpoint.

In order to combat climate change and reduce greenhouse gas (GHG) emissions cost-effectively, in 2003 the EU adopted a system of tradable pollution permits (European Council: 2004). Currently the EU Emissions Trading System covers about 45% of total CO<sub>2</sub> emissions in all 31 EEA Member States and under the latest Commission proposal emissions from sectors covered by the system would be 43% lower by 2030 compared to 2005.

Most of the remaining carbon emissions are covered by the Effort Sharing Decision (ESD), with binding targets for each of the Member States. For the EU as a whole, the current ESD target is 10%. Together with a 21% cut in emissions covered by the EU ETS, this is intended to

accomplish the overall emissions reduction goal of the climate and energy package, namely a 20% cut below 1990 levels by 2020.

Instead of relying on a variety of schemes and targets to meet decarbonisation objectives, EU policymakers should expand the current ETS. In fact, an efficient scheme to limit carbon pollution would encompass all sources of CO<sub>2</sub> and treat all CO<sub>2</sub> emissions equally from an economic viewpoint, since the marginal social cost of an additional unit of carbon is the same regardless of its source.

Yet, as of 2017, key sectors such as transport, buildings, agriculture and waste management are not covered by the ETS. This is despite the fact that the road transport sector alone is responsible for around 20% of GHG emissions. Instead, inefficient policies such as crude emissions targets and interventionist industrial policies are the norm in these sectors (Nader and Reichert, 2015: 15).

### **Renewable energy subsidies: a form of industrial, not climate-change policy**

Results of the British liberalisation experience from 1990 to 2000: significant price drops for consumers; 7-8% fall in carbon emission; 30% drop in CO<sub>2</sub> emissions per unit of GDP.

Since the introduction of the first renewable energy sources (RES) directive in 2001, the European Commission and most Member States have fostered the growth of renewables through privileges such as guaranteed access to the grid and significant financial subsidies. These measures have created market and price distortions, not least weakening the link between market prices and the prices paid by the end consumer (Stagnaro 2015). Such decoupling is inefficient because it prevents prices from playing the key social role of allocating scarce resources to where they are most needed, and shifting less urgent consumption to times of greater abundance.

If the Commission had followed the UK model more closely, the results would have yielded a similar reduction in carbon emissions and an increase in energy efficiency, all the while saving European taxpayers the burden of subsidies and price distortions. In fact, looking back at the British liberalisation experience, from 1990 to 2000, price drops were accompanied by significant carbon emissions reductions despite rapid economic growth: carbon emissions fell by 7-8% and the amount of emissions per unit of GDP dropped by 30% (Stagnaro, 2015: 124).

The epitome of the ineffectiveness of industrial policy has been the disproportionate allocation of subsidies among different renewable sources. With Member States free to choose how they would achieve emissions cuts, over the years, photovoltaics have received the most generous incentives and subsidies out of all renewables (ECOFYS, 2014). On the other hand, more cost-effective sources such as hydroelectric or wind power received less funding because of political expediency (Stagnaro 2015: 67). This heterogeneity suggests that the incentives were set with little or no regard for their environmental benefit (Stagnaro 2015: 81).

Beyond the discussion of selecting individual renewable sources, energy subsidies also increase costs to taxpayers and reduce competition. Consequently, a paradox of subsidies arises, where subsidies result in lower prices when demand peaks, and higher prices when demand falls (Stagnaro 2015: 93). These distortions militate against economic and energy efficiency, and the rational allocation of scarce resources. Moreover, if the energy market had truly been liberalised, arguably the right incentives to invest in sustainable energy would have been in place.

The EC Winter Package takes some steps towards fixing the discrepancies between energy and environmental policy. Notably, it eliminates the rules on priority grid access for renewables (European Commission 2016). The mandate for renewable energy to have permanent access and priority dispatch guaranteed that their energy would always be sold, and subsequently created price distortions by insulating them from any changes in demand (Stagnaro 2015: 69).

### **Conclusion**

The achievement of efficient and secure energy supply and a clean environment do not have to be conflicting objectives. As the British experience shows, energy liberalisation can lead to monetary benefits for consumers and better environmental outcomes. The European Commission should act decisively to empower consumer choice at the national level, broaden the ETS to encompass all carbon emitters, and reduce inefficient policies such as the subsidisation of renewables and the statutory regulation of electricity prices.

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