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Energy and Climate Change Committee  
14 Tothill Street  
London, SW1H 9NB.

## **Fuelling the debate: ECC Committee successes and future challenges**

### **Response by the Energy Policy Group<sup>1</sup>, University of Exeter**

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### **Introduction**

The global energy system is in a state of flux, in large part because of changing energy economics as a result of the falling costs of energy technologies – both for generation but also I.T. for the operation and management of systems<sup>2</sup>. Significant investment is required in the UK energy system in order to replace retiring and ageing assets and to deliver lower carbon infrastructure in line with the UK's legal commitments under the Climate Change Act.

However, we support an energy system focussed on demand management, using as little total energy as possible; using the energy we do use as efficiently as possible i.e. within appliances or industrial uses; and treating the demand side equally with supply within markets, and maximising load shifting<sup>3</sup>.

This implies involving new actors, including local authorities; a different balance and interplay between organisations, a new role for utilities, customers and the regulator; new market and network rules; and new business models.

Clarity and leadership is required to join up the UK's approach to energy policy and regulation in order to change the 'rules of the game' and the institutions which oversee them. This includes joining up areas such as such as fossil fuel futures, housing policy<sup>4</sup> and welfare<sup>5</sup>.

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<sup>1</sup> The Energy Policy Group at the University of Exeter provides an academic hub for the interdisciplinary study of energy policy. We place sustainability and change at the heart of debates about energy policy and governance. We work collaboratively with stakeholders and researchers on the economics and politics of energy to find new and innovative approaches for enabling the transition to a low carbon, sustainable and affordable energy system. Find out more about our [team, vision and work here](#)

<sup>2</sup> See our thinking on the [CMA investigation](#); [decentralising energy regulation](#); and [centralised utility models](#)

<sup>3</sup> Analysis of the 2013/2014 RPM Base Residual Auction ([The Independent Market Monitor for PJM Sept. 2010](#)) at p.52

## What are the greatest challenges in UK energy and climate change policy over the next Parliament (2015-2020)?

As mentioned above, DECC has to rethink and then implement an institutional regime capable of moving to a sustainable, secure and affordable energy system. Having changed the 'rules of the game' and the institutions which oversee them, there are 3 key areas to focus on, demand, electricity and heat.

**Demand:** Demand reduction and response must be placed at the centre of energy policy. The level of peak demand dictates the size of the future energy system and therefore has a significant bearing on the costs and speed of transition. Fostering lower levels of demand also has substantial benefits for both affordability and energy security.

**Electricity:** The Electricity Market Reform Package is a combination of 4 measures which are not those we would have chosen to put in place, and are by no means guaranteed to deliver the necessary generation or demand reduction capacity. Whilst there should be ongoing analysis of whether the scheme is delivering capacity at value for money for consumers; the risk of windfalls for incumbent firms; and accelerating transition to a low-carbon, secure energy system; it seems to us that if an efficient energy system were the focus of energy policy, then policies would focus on the demand side, and any payments for capacity would be related more to their capabilities in support of an efficient energy system<sup>6</sup>.

As the level of capacity under the feed in tariff grows<sup>7</sup>, which is clearly a positive development, wider impacts on the energy system need to be considered such as, whether the electricity market, with so much price regulated generation (through CFD, RO and FiT) is still working efficiently.

**Heat:** The momentum behind heat policy must be maintained. The RHI, while delivering significant growth has delivered mostly biomass heat and other more novel technologies such as heat pumps have seen very low growth. The Government's Heat Strategy contains some clear messages which must be followed namely delivering district heat in urban areas and protecting the fuel poor by developing distributed low-carbon heat including heat pumps in off-gas areas. Both of these things require significant changes in approaches to market regulation and wider policy and Government must be ready to meet these challenges.

## What would a UK energy system, that successfully tackles the energy trilemma, look like by 2030 and beyond?

The 2030 energy system needs to be a smart system<sup>8</sup> focussed on demand-side flexibility. By 2030 customers should be engaged in the energy system through a range of ownership, tariff and demand response offerings (including rapid DSR, time-of-use tariffs and local balancing services through half-hourly settlement). This will involve dramatic changes to market structures, business models and regulation.

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<sup>4</sup> The zero carbon homes policy and building regulations are areas where policy intent has been significantly watered down by another department. Leadership is required in areas such as this.

<sup>5</sup> See our thinking on [welfare and sustainable energy transitions](#)

<sup>6</sup> See our thinking on the [US capacity markets and DSR](#); and the [UK capacity market](#)

<sup>7</sup> Now over 2.5GWp <https://www.ofgem.gov.uk/ofgem-publications/90468/es895fitupdatesep14issue17web.pdf>

<sup>8</sup> A smart system can be considered as a system which uses I.T. and communications to ensure the most efficient running of the system in order to reduce consumer costs and emissions