

Energy Saving Trust response to the Cost of Energy Review: Call for Evidence

Introduction

This response focuses on the content of the Cost of Energy Review as follows:

- Commentary and proposals on the Energy Company Obligation energy efficiency scheme (pages 182-187 of the Review)
- Proposals for replacement of current arrangements for supporting renewable generation through “the development of a carbon price” and “the creation of a single unified capacity auction on an EFP basis” – in particular the suggestion that, by so doing, suppliers of renewable energy will bear the costs of intermittency. (particularly pages 110-117 of the Review)

The below can be understood as responding to the following questions raised in the Call for Evidence on the Review:

- What matters should the Government take into account in considering the policy framework for electricity generation?
- What additional evidence should the Government consider to reduce the cost of electricity networks in the longer term?
- What matters should the Government take into account in considering the longer term operation of the retail market?
- What matters should the Government take into account in considering the wider recommendations of the Review?

The Energy Saving Trust

The Energy Saving Trust is the leading, impartial sustainable energy organisation, focused on changing the way we use energy in homes, communities and road transport. We provide advice on sustainable energy to millions of citizens each year, work on behalf of governments and businesses to administer energy saving programmes, and carry out research. We work principally in the UK but also in partnership with other energy agencies across Europe and globally.

We seek to influence government to develop a positive and effective policy framework for sustainable energy. We provide policy insight to governments from our work with individual householders, community groups, businesses, local authorities and other stakeholders, and from our international insight.

The Helm Review focuses on “big picture” issues of regulatory economics for the energy supply market. It covers many areas that go beyond the Energy Saving Trust’s focus on issues of energy demand primarily at household/community level. Nonetheless, we wish to submit a response to the

Consultation because we are concerned about the implications of the Review's proposals particularly for energy efficiency policy and for the development of renewable energy in the UK as part of the required transition to a decentralised, decarbonised energy system.

We focus in the below on two areas of our work relevant to the review: home energy efficiency and community energy. EST is the leading organisation working with householders on energy efficiency. We run the Energy Saving Advice Service for BEIS and support energy suppliers in the delivery of their ECO obligations. In Scotland we are the Scottish Government's main delivery partner in home energy efficiency programmes. The Energy Saving Trust also plays major part in supporting the development of community energy programmes. In Wales, Energy Saving Trust delivers the Welsh Government's Local Energy/Ynni Lleol community renewable energy scheme and in Scotland EST manages the national CARES programme. More broadly across the UK we provide online advice to community groups and carry out research about community energy.

Energy Efficiency

The benefits of improved home energy efficiency for customers' energy bills are recognised in the Review and have been widely discussed and analysed elsewhere. In particular we would highlight the Committee on Climate Change's 2017 *Energy Prices and Bills* report¹ which states, "Household bills in 2016 were below 2008 levels as higher prices resulting from low-carbon policies and network costs were more than offset by reductions in energy use."

Discussing ECO, the energy supplier energy efficiency obligation, Prof. Helm writes,

"In the long-term framework, if energy policy is to be used as a means for distributional ends it should be made transparent. I recommend in the default tariff that the ECO is clearly identified on customers' bills.... The overall problem with energy efficiency issues is that they confuse market failures, and the appropriate market failure interventions, with levies, and they confuse energy efficiency with fuel poverty."

"The general principles should be: those who benefit should pay; and distributional policies should be directed through general welfare payments, not energy-specific subsidies."

The separation here of "energy efficiency" and "fuel poverty" as two distinct problems is oversimplistic: as earlier government reviews and strategies have recognised², energy efficiency is the best long term solution to fuel poverty.

We would only support the inclusion of specific information about ECO costs on bills if this is accompanied by equally prominent information (based on CCC analysis) which shows the benefit of ECO funded energy efficiency measures on customers' bills.

¹ Page 7 <https://www.theccc.org.uk/wp-content/uploads/2017/03/Energy-Prices-and-Bills-Committee-on-Climate-Change-March-2017.pdf>

² See, for example, *Cutting the cost of keeping warm: A fuel poverty strategy for England*, DECC, 2015, Para. 2.3

Nonetheless, the Energy Saving Trust agrees with Prof. Helm's analysis that the current ECO programme, in particular with its growing focus on fuel poverty, causes major problems in the distribution of its impacts. Our concern is particularly for the large numbers of fuel poor households who do not benefit from ECO but who are paying for the programme through their energy bill. One good example is fuel poor tenants in private rented tenure: fuel poverty is most prevalent among private renter households, but ECO has consistently failed to have any significant impact in this tenure.

In general, we suggest that fuel poverty focused energy efficiency programmes should be provided by government and should be funded through general taxation. We do not accept the Review's implicit argument that it should be left to fuel poor households to choose to prioritise spending on energy efficiency out of slightly increased welfare benefits. This fails to take into account the fact that fuel poverty does map simply to general poverty³ and the many barriers (linked to the broader market failure around energy efficiency) that make it difficult for people to choose and install energy efficiency measures.

While taxpayer funded programmes should play the lead role in delivering energy efficiency measures for fuel poor households, we also suggest that government should look harder at the potential role of Distribution Network Operators (DNOs) in delivering home energy efficiency programmes (for all types of household). For DNOs, energy efficiency programmes can align with business objectives in helping to manage patterns of local demand (reducing network pressures), and align with the support they have to provide to vulnerable customers. Requiring DNOs to play a greater role in delivering energy efficiency programmes would this align better with Prof. Helm's principle that "those who benefit should pay."

Renewable Energy Policy (with a particular focus on community energy)

Our evidence: Renewable generation through community energy

Community Energy initiatives in the UK have particularly developed since the introduction of the Feed in Tariffs, which, temporarily, provided a stable business model for these groups to develop. Similarly it has incentivised consumer and other private sector investment in distributed renewable energy generation.

The benefits of community renewable energy initiatives extend well beyond increasing deployment of renewable energy and the resulting carbon emission reductions. These projects promote entrepreneurship, enable investment from local people, reinvest funds in local projects and engage the public in action to deliver on our commitments under the Paris agreement.

Community Energy England's (CEE) "State of the sector" survey identified 121MW of community renewables across 191 projects in England and Wales. These projects generated £190m of investment (inc £63.5m community shares and £25.1m bonds/debentures) and delivered over £620,000 of community benefit funds last year. Given that these projects will typically run for around 20 years and, in many cases the community funds increase as capital is paid off, this is a significant return. The study found that these community funds support a diverse range of activities

³ See the detailed analyses about why fuel poverty is a distinct problem in Prof. Hills reviews for government of fuel poverty, the problem and its measurement.

including, action on fuel poverty and reducing fuel bills, job creation, education, community assets, advice services, further energy projects and loans.

Whilst the sector has grown very quickly it is highly vulnerable to sudden changes in policy that effect the business model for community renewables. This has been clearly demonstrated by the impact of the sudden, very significant cuts in Feed-in-Tariff. Community Energy England carried out a survey on the impact of FiT reductions in 2015, 90% of respondents said that their developing projects were completely (67%) or partially (23%) at risk due to the FITs review.

In practice this has been reflected in a substantial drop in new installations of community energy projects and renewable energy more widely. This is reflected in our own experience from supporting community renewable energy projects in Wales and Scotland. We support those projects in developing their business plans, using a common-format business model and current FiT rates have rendered most projects unviable.

The sector has, however, responded to this by seeking new business models and is actively participating in innovation programmes around local energy supply and smart grid solutions as well as seeking to re-finance existing commercial renewables projects as community owned ones.

The Industrial Strategy is committed to a smart and decentralised energy future for the UK. This approach, encompasses initiatives such as embedded storage, demand-side management and interconnection with other countries that will enable the management of the intermittent renewables throughout the energy system. This approach also has many wider benefits to UK citizens and bill-payers:

- It can enable the decarbonisation of UK energy through private sector investment as the cost of renewables falls, delivering against our commitments under the Paris agreement, whilst also reducing the cost of energy through using the cheapest energy sources and enabling self-supply.
- It can enable greater economic benefit to the UK through more UK-owned energy generation and other assets (such as embedded storage) and a far broader ownership of energy assets.
- It can provide an energy system that is flexible and responsive to changing energy demand patterns as new technologies emerge (such as EVs, automation and AI).
- The distributed nature of such an energy system could also be more resilient to external threats such as climate change, natural disasters and terrorism as more energy assets are spread around the country at multiple locations rather than concentrated at single stations.

The Solar Trade Association has estimated that 12,500 jobs were lost in the solar industry following the last round of cuts to the Feed in Tariff following a survey of 238 companies in 2016 by PWC (“Seeing through the Gloom” 2016 PWC for STA) that also suggested that 25,500 jobs (from a total of 35,000 jobs in the industry) in the industry had either been lost or were at risk and 40% of companies were considering exiting the UK solar industry.

Views on the review proposals regarding renewable energy

The Review suggests a radically simplified approach to allocating the costs of energy, including the costs of decarbonisation and security of supply, which is summarised, in regard to renewables, as:

“The carbon price should be internalised, the other externalities internalised, and the sunk and fixed costs should be securitised, once the project is completed.

There are therefore two obvious and complementary ways forward to reduce the costs of energy while meeting the carbon budgets:

- the development of a carbon price;*
- the creation of a single unified capacity auction on an EFP basis.”*

It continues,

“The FiTs and other low-carbon CfDs should be gradually phased out, and merged into a unified equivalent firm power (EFP) capacity auction. The costs of intermittency will then rest with those who cause them, and there will be a major incentive for the intermittent generators to contract with invest in the demand side, storage and back-up plants.”

We recognise the simplicity of Prof. Helm’s proposals and accept some of his criticisms of current policy complexity. Nonetheless, we are deeply concerned that the proposals carry a huge risk of:- (a) destabilising UK progress towards our 2050 target and commitments under the Paris agreement; and (b) stalling progress to a decentralised, smart energy system with extensive wider benefits for individuals, communities and the country as a whole.

Our concerns consist of two linked points:

- 1) The proposed carbon price will simply not be high enough to drive a sufficient market for renewables to meet our commitments under the Paris Agreement, 2050 Carbon Target, and to enjoy the wider benefits of a decentralised energy system. Also, as we highlight above, renewable energy in the built environment delivers many wider benefits beyond simply carbon saving. Obviously, a carbon price will not reflect those wider benefits.
- 2) We do not believe that “the costs of intermittency.. [should] ... rest with those who cause them.” That is because:
 - i) The “level playing field” issue – such an approach unfairly favours fossil fuel generators who are benefiting from many decades of sunk investment in infrastructure built to support their mode of generation.
 - ii) The cost of intermittency is difficult to quantify and highly variable depending on the approach taken to managing it. A UKERC study in February 2017⁴ stated “*The data for very high variable renewable penetration levels such as 50% suggests costs between £15 and £45/MWh, with the lower values being based on integrating intermittent renewables into a flexible electricity system and the higher values resulting from assumptions of relatively inflexible systems.*” Given the difficulty of estimating the cost of intermittency accurately and the likely cost reductions possible from managing this at a system-wide scale it seems unwise to attempt to impose those costs on single projects.

⁴ “The costs and impact of intermittency – 2016 update” Heptonstall, Gross and Steiner, UKERC, 2017

- iii) We believe that such an allocation of costs risks undermining the emerging renewable energy and community energy sectors in the UK. As our evidence above shows, these sectors need clarity on the future direction of policy and, ideally, a policy regime that helps to manage the transition to a subsidy-free future.

We should be rewarding early investors in renewable energy in communities and in homes. We should not be adding a new risk of substantially increased network costs. Renewables are one of the UK's biggest success stories on carbon emissions reduction and if the UK is serious about commitments in the Paris agreement we need to accelerate their deployment not put up new barriers. It is noticeable that Prof. Helm accepts that government decisions about nuclear power need to be made outside the market framework applying to other technologies, because of the very long term nature of the risks, costs and opportunities associated with that technology. Yet the social and political risks and opportunities around the transition (or not) to renewables are far greater even than those associated with nuclear power.

We suggest as an alternative approach that government should ensure that new renewables installations are integrated into local energy systems that are robust in the first place. Government, regulators and network operators should provide guidance and help to shape the market to enable renewable energy combined with smart systems and storage to compete and deliver a private sector-led approach to building a flexible energy system.

We highlight again (see *Energy Efficiency* above) the potential for DNOs to play a greater role. We would encourage the Government to facilitate working group to review how network operators can work with community developers and other key stakeholders to transition to flexible energy systems and a fair mechanism to pay for this. EST would welcome the opportunity to facilitate such a working group.

Fulfilling our commitments under the Paris agreement will require broad participation from households, businesses and public sector organisations across the UK. The rapid deployment of renewable energy, the growth of the community energy sector and even BEIS own opinion survey's all suggest that the commitment and will to act are widespread across the UK. It is crucial that government policy (and the actions of regulators) should be an enabler of that action and the approach outlined in the Cost of Energy Review risks it becoming a significant barrier at a crucial point for the UK energy sector.

In short, we need an effective, cost effective set of market interventions consisting of a number of instruments, even if there is a wider need for some simplification of the energy policy mix.