Energy UK response to Call for Evidence on the Cost of Energy Review

January 2018

About Energy UK

Energy UK is the trade association for the GB energy industry with a membership of over 100 suppliers, generators, and stakeholders with a business interest in the production and supply of electricity and gas for domestic and business consumers. Our membership encompasses the truly diverse nature of the UK’s energy industry from established FTSE 100 companies’ right through to new, growing suppliers and generators, which now make up over half of our membership.

Our members turn renewable energy sources as well as nuclear, gas and coal into electricity for over 27 million homes and every business in Britain. Over 730,000 people in every corner of the country rely on the sector for their jobs, with many of our members providing long-term employment as well as quality apprenticeships and training for those starting their careers. The energy industry invests £12bn annually, delivers £88bn in economic activity through its supply chain and interaction with other sectors, and pays £6bn in tax to HMT.

Executive Summary

We welcome the opportunity to respond to the Call for Evidence following the publication of Professor Helm’s Cost of Energy Review.

Professor Helm’s proposals have encouraged great debate within the industry on the issues faced by the energy sector in a period of significant transition. Energy UK has already begun a full strategic review of the future energy system which will continue throughout 2018. This will build on some of the concepts introduced by Professor Helm, among others, and develop proposals to deliver a lower carbon economy that delivers, at lowest cost, for future customers. We will be seeking to work with government, and importantly other stakeholders such as consumer groups, to deliver an energy system fit for the future.

Energy UK considers that the following points are significant:

- To recognise that the energy retail market is changing. The market share of the Six Largest Energy Firms (SLEF) has fallen from 99.3% in 2011, to 82%¹ in Q2 2017, and there are now over 60 suppliers in the domestic retail market for consumers to choose from. This is not to say that more cannot be done to further facilitate retail competition. Nor is it to say that the market should not continue to evolve to support a smarter more flexible energy system. In doing so it is important that we ensure we provide a level-playing field for consumers and market participants.

- When considering the cost of electricity supply in the future, it is vitally important that government provides a clear policy in relation to our energy efficiency requirements and those of the SMART low carbon home. The current market for energy efficiency measures is overly reliant on funding through supplier obligations like the Energy Company Obligation (ECO), which distorts the market and is of itself insufficient to deliver the scale of improvements required.

- Energy UK believes that the Electricity Market Reform (EMR) package introduced by government has been successful in bringing forward investment at lowest cost when delivered in competitive auctions. Any significant change to the current arrangements would need to demonstrate significant improvements for customers.

¹ Ofgem retail market indicators, https://www.ofgem.gov.uk/data-portal/retail-market-indicators
Energy UK would be pleased to discuss any of the comments in this submission in further detail and look forward to working with government to develop an energy system that meets the needs of current and future customers.

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Detailed response

1. Generation
   a) What are the longer-term challenges for electricity generation?
   b) What matters should the Government take into account in considering the policy framework for electricity generation?
   c) What additional evidence should the Government consider to reduce the cost of electricity generation in the longer term?

1.1. Energy UK is fully supportive of the Government’s ambitions to encourage the delivery of affordable energy, together with meeting the requirements of the Climate Change Act 2008 whilst maintaining security of supply.

1.2. To deliver these objectives the energy industry will require a policy framework which can support the scale of investment required to simultaneously decarbonise and provide security of supply. The current framework of capacity auctions and low carbon support schemes introduced through the EMR programme to address market failures inherent in the energy-only market are currently delivering successfully at competitive prices.

1.3. Recent auction results demonstrate the success of the current policy package. The last Contract for Difference (CfD) auction saw significant cost reductions for offshore wind. This clearly demonstrates the success of competitive auctions that provide clear market signals and stable revenue streams. Energy UK believes that to deliver lowest cost generation for customers, all technologies must have an accessible route to market.

1.4. Industry welcomes the £557m committed expenditure for further CfD awards during the term of this Parliament, as confirmed in the Clean Growth Strategy, and the broader commitment by government to continue to decarbonise the power sector. Energy UK has concerns following the announcement that, based on current forecasts, there will be no new low carbon levies until 2025. This could have an impact on developing supply chains and emerging technologies over that period which could have contributed towards the UKs decarbonisation objectives and security of supply post-2025.

1.5. Energy UK notes that new levies may still be considered where they have a net reduction effect on bills and are consistent with the government’s energy strategy. A “subsidy-free” CfD, which stabilises revenues for generators with no additional cost to consumers over the lifetime of the CfD, meets these criteria and should be considered in light of the anticipated costs of established and even less established technologies.

1.6. Regarding Professor Helm’s proposals:

   1.6.1. **To set a Universal Carbon Price**: Energy UK is a strong believer in the ‘polluter pays’ principle of carbon pricing and believe that it has been a key instrument in bringing forward low carbon generation. In theory, a universal carbon price could be the most economically efficient way of promoting decarbonisation. If adopted however, this approach could have a number of potentially complex impacts, for example with regards to space heating and the imposition of a carbon tax on domestic customers, and be challenging to implement across non-energy sectors.

   1.6.2. **Carbon-based Border Tax Adjustment**: Energy UK believes that carbon pricing is the most progressive way to tackle climate change and this should be implemented
internationally. A strong European or ultimately global carbon price would negate the requirement for a unilateral country carbon price or a border tax adjustment. Following the UK’s decision to exit the European Union (EU), the opportunity for future membership of the EU Emission Trading Scheme (EU ETS) is currently an unknown. Energy UK members’ preference is for the UK to remain within the EU ETS until end of Phase 3 and then potentially beyond dependent on agreed governance arrangements.

1.6.3. Equivalent Firm Power Capacity Auction: Energy UK does not yet hold a position on the principle of an Equivalent Firm Power (EFP) capacity auction as proposed by Professor Helm and will be carrying out further work on this during 2018. Although we see merit in valuing firm power, there are broader questions around the practical implications of an EFP, as well as what it would mean in terms of risk and costs for capacity providers. There is also a question around how the lack of foresight and certainty of current carbon pricing mechanisms would affect technology outcomes in the auction. As noted above, the current framework is working well and it is unclear from the review what the potential scale of any benefit would be. Energy UK considers that a full review would need to be carried out in conjunction with the energy sector to judge the impact on all technology types, the incentives and impact to the current EMR regime.

A fit for purpose charging regime will also be key to delivering the right results through a level playing field.

1.6.4. CfD financing: The review also recommends that, in the interim the CfD should be split into three parts to provide for plant construction, operation and decommissioning in order to enable consumers to benefit from refinancing. It is not clear why these benefits will not be realised through the existing competitive process within the CfD framework. The market should be allowed to innovate and discover the most efficient financing structure as we suspect that a controlled or regulated process could end up increasing costs overall.

1.7. Energy UK agrees that a simplified set of industry codes and regulations is needed to meet the pace of change. It is important that positive disruptive technology can be deployed to help the market, but at the same time it must be regulated and coordinated to ensure security of supply.

1.8. As Professor Helm’s review outlines, the energy system is changing as it experiences increasing levels of zero marginal cost generating plant. The opportunity to make greater use of storage to utilise low-cost power for future consumption has the potential to rapidly change the market place. Whilst technology developments are allowing customers to shift demand to lower cost suppliers, it is vital that the GB’s Balancing Market (BM) and Ancillary Services market are reflective of the speed of change by establishing a level playing field for all technologies, thus allowing for the market to develop the optimal solution(s).

2. Electricity transmission and distribution

a) What are the longer-term challenges for electricity transmission and distribution?

b) What matters should the Government take in account in considering the framework for network regulation, and its associated institutional framework?

c) What additional evidence should the Government consider to reduce the cost of electricity networks in the longer term?

2.1. Recent research suggests that upgrading our electricity system in GB could provide £17-40bn in savings to 20502. These benefits would come from avoided or deferred network reinforcements, unnecessary generation build, the curtailment of low carbon generation and more efficient operation of the system. The review of network price controls and innovation incentive schemes for the Distribution Network Operators (DNOs), Transmission Operators (TOs) and the System Operator (SO) need to be robust to ensure the upgrades to networks, or flexibility-based alternatives, are delivered while minimising the costs to the consumer. This should be reflected

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3 Carbon Trust, An analysis of electricity system flexibility for Great Britain, Nov 2016
in the design of Distribution System Operators (DSOs) in the creation of consistent connection agreements and charging regimes across different territories.

2.2. Network charging should be fit for purpose as we transition to a low carbon, smart, flexible energy system. Energy UK encourages government to input into Ofgem’s Targeted Charging Review which is currently ongoing (where they have not already) to ensure that the direction of work has the combined support of government, regulator, and industry stakeholders. Network Charging should also be future proofed as far as possible as new developing markets and interactions are likely to increase the speed of change in the future. For further information on Energy UK’s position regarding network charging please refer to our submission to the Ofgem Targeted Charging Review⁴.

2.3. The ongoing review of National Grid Ancillary Service products to optimise activities on a smart and flexible energy is a positive development. Lessons learned during the process should be reflected across markets to allow revenue stacking as well as having consistency across SO/TO/DNO product procurement. The implementation of accessible markets and reflective pricing will be a key factor to the availability of flexibility services to networks.

2.4. There are clear concerns for Energy UK in what is recommended by the review. Energy UK provides its views on how we envisage the electricity networks should evolve as follows:

2.4.1. Energy UK sees that the current existing RIIO framework must be used as a learning experience and that the RIIO-2 framework should attempt to offer more flexibility to allow for the rapid pace of change across the energy industry including changes to consumer’s typical usage.

2.4.2. It is important for suppliers and customers, particularly with multi-year supply contracts to have clear visibility about the RIIO-2 price controls in good time before the end of the current price control. Given that the framework for RIIO-2 price controls will be designed soon, Energy UK members require some degree of certainty from Ofgem.

2.4.3. Energy UK considers that network companies should not own generation, storage or Demand Side Response (DSR) assets which has already been confirmed by Ofgem through licence conditions. Network operators should act as neutral market facilitators and therefore shouldn’t be competing directly with market participants or distorting markets.

2.4.4. Energy UK supports National Grid’s move to a more independent SO which this review alludes to and supports any move which will reduce conflicts of interest, perceived or otherwise.

2.4.5. With the changes due to take place on the distribution system, Energy UK considers that a review into roles and responsibilities of future DSOs also needs to be carried out to address conflicts of interest, perceived or otherwise, as they have been for National Grid. We consider that the ENA’s work in this area is important in identifying roles and responsibilities for DSOs with Government and Ofgem ultimately responsible for deciding the right framework to deliver the best results for the consumer.

2.4.6. Energy UK is supportive of competition across a range of segments of the energy industry, as is the Cost of Energy review. It is unclear however without further evidence whether removing licences to run networks would be in customers’ interests, reduce costs and/or support greater competition.

2.4.7. Energy UK strongly believes that the SO must retain overall responsibility for whole system balancing. Energy UK currently would not support the creation of regional System Operators (RSOs), or DSOs as set out by the review. We do, however, see there being a potential role for DSOs in the energy system. Work being taken forward by the ENA through the Open Networks Project is aiding in gathering information on some options for a DSO model. There are also a range of ongoing consultations and work streams from DNOs exploring how a DSO could be rolled out across their network. Any transition to DSO must however be carefully nationally orchestrated as to avoid unintended consequences and inconsistencies across networks. Standardisation would be key. We therefore welcome close engagement from Ofgem, the ENA and those DNOs engaging in a DSO strategy.

⁴ https://www.energy-uk.org.uk/publication.html?task=file.download&id=6265
3. Electricity supply
a) What are the longer-term challenges for electricity supply?
b) What matters should the Government take into account in considering the longer-term operation of the retail market?
c) What additional evidence should the Government consider to reduce the cost of electricity supply in the longer term?

3.1. The energy retail market is changing. The electricity supply market share of the six largest energy firms has fallen from 99.3% in 2011, to 82.5% in Q2 2017. Since market opening, each of these largest firms has lost around two-thirds of their original customer base, as well as having gained customers from other suppliers - last year over five million domestic consumers switched energy supplier. There are now over 60 suppliers in the domestic retail market for consumers to choose from with more companies entering the market each month. There have long been a similar number in the non-domestic sector.

3.2. The impact of such developments should not be underestimated by government or stakeholders.

3.3. This however is not to say that more cannot be done to further facilitate retail competition. This is why last year Energy UK launched the Energy Switch Guarantee and it is also why we continue to support ongoing major industry change initiatives, such as faster and more reliable switching, the rollout of smart meters, and the introduction of mandatory Half-Hourly Settlement. The market must continue to evolve in order to enable a smarter more flexible energy system and should build on these developments.

3.4. In doing so it is vital that we ensure that: consumers, regardless of how they engage in the market, remain protected; that core functions such as balancing and settlement operate effectively for the benefit of consumers; and, that recovery of policy costs and network changes is apportioned fairly across consumers and market participants.

3.5. When considering the cost of electricity supply in the future, it is also vitally important that government provides a clear policy in relation to our energy efficiency requirements and those of the SMART low carbon home. With demand for electricity likely to rise in the future through greater electrification of transport and heat, we must ensure we promote its efficient use in order to manage and reduce costs.

3.6. The current market for energy efficiency measures is overly reliant on funding through supplier obligations like the Energy Company Obligation. This has led to an expectation that energy efficiency should be provided free of charge, undermining the value of energy efficiency to the public. Government should help kick-start a sustainable energy efficiency market via targeted incentives to encourage demand, supported by regulation that sets a clear trajectory of Government’s expectations.

3.7. Regarding Professor Helm’s specific proposals:

3.7.1. A legacy bank to include the liabilities that customers and industry face from outstanding ROCs, FiTs and CfD contracts. Energy UK would require further detail about the legacy bank proposal before commenting further. At first sight, it appears that undertaking this exercise could be costly and complex with limited benefit. Broadly speaking Energy UK is a strong supporter of improving transparency around the costs of energy and customer bills; however Professor Helm’s review does not appear to have recognised many of the benefits and cost reductions that these investments have brought.

3.7.2. A new default tariff focused around a maximum margin that a supplier can charge. Energy UK believes in competitive energy markets to deliver for customers. Energy UK recognise that further support is required for customers in vulnerable situations and has worked with government and Ofgem to implement targeted price caps to protect

prepayment and vulnerable consumers. We will be working with government and the regulator in bringing forward proposals to best deliver for customers in the wider market.

4. Cross-cutting

a) What matters should the Government take into account in considering the wider recommendations of the Review?
b) Are there any other matters that the Government should consider to reduce the cost of energy in the longer term?

4.1. It is no longer possible or advisable to examine in isolation the various systems and industries involved in the delivery of decarbonisation. It is essential that government take a whole system view\(^6\) when considering the recommendations of the review and that government action is reflective of the UK and EU decarbonisation targets. Enabling a move to low carbon transport and heat is a key factor in the future role of the energy system and costs should be considered as a part of wider investment in decarbonisation efforts.

4.2. There is a great deal of uncertainty around the uptake of electric vehicles and low carbon heating solutions, as well as domestic energy assets like solar panels and storage. Such developments will act as an unknown factor for the energy system and have already begun to affect demand and change the nature of consumer interactions with energy. It is important for government to work with a range of industries in understanding the impacts of these technologies and the effect for the consumer. The cost of network reinforcement when compared to the cost of smart charging and Demand Side Response should always be viewed in terms of the consumer.

4.3. The changing nature of energy means that the industry, led by Energy UK, will need to develop proposals to ensure that: investment is delivered; cross-sector impacts of low carbon heat and transport are understood; networks are positioned to utilise flexibility and smarter solutions; customers are empowered to take advantage of future opportunities, technologies, and services; and, that customers are empowered from the transition.

4.4. As we transition to low carbon across a wider range of industries, it is important that the cost of the transition is spread fairly across consumers. For example: the loss of fuel tax revenue as a result of a move to electric vehicles should be recovered via general taxation or an alternative representative charge to avoid additional energy costs for the wider group of consumers.

4.5. In amongst the aspects detailed above, we must not forget the impact digitalisation is and will continue to have on the energy system. Our industry’s digitalisation means we will begin to see technologies such as blockchain, artificial intelligence and the Internet of Things multiply, which will not only require the correct legislative, regulatory and financial support but also, the consumer will need to be more engaged than ever. With such innovations comes the responsibility of ensuring both information and operational technology systems are secure. Cyber security will be a real world challenge for generators and suppliers and the UK is only just beginning this secure, digital energy transformation – something which cannot be missing from conversations on the cost of energy.

\(^6\) See www.energy-uk.org.uk/pathways2030