Summary Paper

The Future for Small-Scale Low-Carbon Generation: A Call For Evidence

July 2018

This document offers a summary of the themes and questions set out in the call for evidence.

1. Objectives

Government wishes to receive views and feedback on:

- The contribution small-scale low-carbon generation can make to the electricity system & the benefits to the whole system in delivering government targets?
- How much deployment of Small-Scale generation will happen without the intervention from government?
- Is there need for government intervention to allow for a competitive market?
- Views on preferred solutions – e.g. guaranteed route to market.

Need to consider:

- The closure of FiT Scheme
- Control for Low Carbon Levies
- Call for evidence concerns **ALL** small scale low carbon technologies, not just those covered by FiT

2. Themes

<u>Creating an Environment for Competitive Markets</u>

- Control for Low Carbon Levies, Autumn budget 2017 – Government will not introduce new levies until burden of costs has fallen.
- State Aid, EU Law – Government subsidy must comply with rules on provision of state aid. Must ensure government interventions don't distort competitions in market.

<u>Innovative Market-led Solutions</u>

- Innovative approaches to how technologies can work together – viability of multi-sector, integrated systems.
- Government could leave future deployment to be driven by market – sector may bring innovative solutions without government intervention.
- Smart Meters & Half-hourly settlements for suppliers to offer innovative solutions – time of export/time of use tariffs – this would mean the market would be able to support continued deployment

Government Position on Subsidy

Government states that it has always been clear that industry shouldn't expect support indefinitely and that as the costs fall so should subsidies.
However, they also state their understanding of differing project economics: that those developments that are unsupported are usually very large and realise their economies of scale or that they are located in sites with favourable characteristics – such as easy access to existing grid connections.

Regulatory/Government-led Intervention

- Access to market – more access to revenue streams that aren't yet available, regulatory change
- Development of local energy markets
- Providing/improving access to alternative markets for small scale generation – capacity markets, balancing, settlement market

Planning & Regulatory Requirements

- Consider how small-scale generation contributes to achieving Clean Growth Strategy and what intervention may be needed.
- Network charging – Ofgem developing new network charging methodologies – aim to be more cost reflective & provide revenue opportunities for generators who can reduce network costs.

Other Investment Considerations

- Structure of charges for electricity supply, building regulations, local planning rules & impact on business costs
- Need for evidence on relative importance of these factors in a decision to invest in small-scale

Decarbonising Heat Infrastructure

- Not clear what will work best, test different approaches to heat decarbonisation

Potential Solutions for a Guaranteed Route to Market

- Need evidence of some deployment of small-scale without any export tariff – PPA Market
- Exports of small-scale to be metered
- Route to market needs to incentivise behaviours to promote efficient grid management.
- Action could be targeted at areas where there are currently limited/no routes to market.

Call for Evidence Questions

1) Have we accurately captured all the opportunities and benefits that small-scale low-carbon generation can provide to the UK energy system over the short, medium and longer-term? Are there any that we have missed?

2) How can government help consumers benefit from small-scale low-carbon generation such as local communities, local authorities, and those in fuel poverty?

3) The introduction of enabling technology and systems such as the roll out of smart meters, and half-hourly settlement, will provide commercial incentives on energy suppliers to develop and offer tariffs. Will smart tariffs provide a viable route to market for small-scale low-carbon generation? If so over what time frame, and what are the possible barriers to these smart tariffs?

4) Do you agree with the challenges we have identified? Are there any challenges small-scale low-carbon generation presents that you think we have missed?

5) How would you propose the small-scale low-carbon sector, suppliers, off-takers, network/system operators, and/or government can overcome the challenges presented?

6) What are possible ways to track and monitor behind the meter installations (we would appreciate specific suggestions in relation to how information can be sourced (e.g. direct from businesses and households) and the method for sourcing it (e.g. an annual survey)?

7) What are the special consideration that should be made when attempting to track different kinds of behind the meter activity?

8) How do we develop our tools to model and evaluate the system (including system costs and resilience) as decentralised generation and storage develop, specifically approaches to system modelling, data capture, forecasting demand and evaluation of value for money?

9) Are off-takers, suppliers, and aggregators able to lead the deployment of small-scale low-carbon generation currently? If so how will this occur, over what timescales, and what are the implications of deployment levels? How would deployment be supported by the capacity and ancillary services markets as well as the emerging corporate PPA market?

10) What would be the impact on jobs, deployment, and the supply chain, if deployment were left to market forces beyond 2019?

11) In your view, are small-scale low-carbon generators currently able to deploy independent of subsidy e.g. through the PPA market? Does this vary for differing technologies and capacities of small-scale low-carbon generation e.g. domestic vs. commercial scale? If not, can you explain how long it will take for this market to emerge and if government intervention is required?

12) What factors, including financial, affect your decisions to invest in small-scale low-carbon generation?

13) Does government need to take regulatory interventions(s) to enable the development of competitive markets for small-scale low-carbon generation? If so, what and why? If these actions were taken, what benefits would this provide to consumers and the electricity system?

14) How can we encourage and unlock private sector finance to enable market-led deployment

15) How would a guaranteed route to market operating at a discount to the market price impact the transition of small-scale low-carbon generation to competitive markets?

16) What innovative solutions would be required in the PPA market to bring forward small-scale low-carbon generation?

17) A guaranteed route to market would require costs to be robustly controlled for consumers, as outlined in the Control for Low-Carbon Levies. How could this best be achieved, without creating 'boom and bust' cycles for the small-scale low-carbon generation sector?

18) What would be the general challenges (including technical challenges) of designing a guaranteed route to market that offers a time of export tariff to support the aim of developing a smart and flexible network?

19) How long would a guaranteed route to market need to run for to help the development of competitive markets?