Targeted Charging Review
Ofgem
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5 May 2017

Dear Ofgem,

Re: Target Charging Review

Thank you for this opportunity to comment on Ofgem's Targeted Charging Review Consultation.

The electricity system is rapidly shifting towards a more decentralised and flexible energy. Regen's regular review of renewable energy progress shows there are over 700,000 individual generators in England and Wales. There is also a pipeline of over 500 MWs of battery storage assets and demand side response markets are developing.

Given the scale of change it is clear a review of the network charging regime is required. The way access to the network is charged sends critical signals to investors. Regen's paper 'Network Charging for Flexible Future' sets out this case in more detail.

Regen, therefore, welcomes this broad review of network charging. However, any review introduces risks for investors. It is important that a clear timescale and scope is established to minimise uncertainty.

We have set out our comments and recommendations below.

Summary of Recommendations

- Drop the embedded benefit proposals pending the wider charging review.
- Reform the process for modifying charging to remove any perception of vested interests.
- Widen the proposed principles to include: aligning with wider government objectives; enabling innovation and incentivising reductions in long term network costs.
- Increase the sophistication of network charging to value "what, where and when" electricity is generated and consumed.
- Implement the proposed changes to storage charging.

1. **Embedded Benefits**

Rather than waiting for a full review of charging Ofgem has indicated it is 'minded' to reduce embedded benefits. This is counter-productive. The UK energy system needs more, not less flexibility. There is also an imperative to reduce peak demand and encourage demand side response. The effect of changing the system in a piecemeal manner will be to increase peak demand and reduce available flexible capacity.

Recommendation: the embedded benefit proposals should be dropped pending the wider review.

2. **Charging modification process**

An urgent priority is to reform the process of modifying charging. The Connection and Use of System Code (CUSC) panel is made up of industry insiders with vested interests. It is not seen as independent by market participants and is, therefore, not fit for purpose.

The papers used to document charging modifications are almost impossible to read and understand by anyone outside the sanctum of network charging. In the past, with only a few generators and supply companies, this may not have been an issue, but now with the democratisation of energy generation and the direct engagement of many high-energy users through demand side response, a more transparent engagement is needed.

The current process has been described as "Mafia like" by one industry participant. A more appropriate metaphor might be the 'conclave' used to select the next Pope, at which smoke signals are used to communicate progress.

It is important that confidence is restored in the process through transparency and diversity, in particular, in the proposed Charging Coordination Group.

Recommendation: reform the process for modifying charging to remove any perception of vested interests.

3. Storage

Regen welcomes the proposals to make changes to the way storage is charged to remove 'double charging.

In Regen's 2016 paper: Energy Storage – Towards a Commercial Model the analogy of a not-quite-solved Rubik's cube is used to describe a market with many technologies, applications, customers, revenue sources and value streams in a complex regulatory environment.

Removal of double charging is a positive step, but shouldn't be treated/seen as a silver bullet, there's a lot of other areas that need stability.

We note that the highest network charges for demand users are currently made during peak demand periods (i.e. during Triads or Distribution Use of System "red band" times). During these periods, it is very likely that storage systems will be discharging electricity to the network. The value of removing demand residual charges for storage may, therefore, provide a relatively small cost saving

Recommendation: Implement the proposed changes to storage charging.

4. Proposed Principles

Regen considers the proposed principles are too narrow and should be widened to include:

Align with wider government objectives

Charging cannot be separate from government policy goals. It will encourage or discourage future investment decisions that could help meet the energy trilemma of keeping the lights on, at an affordable price, while decarbonising the power system.

Enable innovation

Ofgem has committed to developing a regulatory framework that enables innovation. The current rapid change in the electricity sector has altered the magnitude of costs and benefits and to whom they accrue. Most commentators expect this pace to accelerate due to the high rate of technological and social change. Charging should provide clarity for market participants but also to allow for

innovative tariffs to be tried with contract periods that are sufficiently long to allow innovators to make a financially feasible business cases. A holistic review of the charging regime may take time and it is important that there is sufficient flexibility in the regulatory system that this does not prevent innovation. Mechanisms such as derogations for trials should be available and innovators should be able to get swift and transparent decisions from Ofgem on such mechanisms

Incentivise long term reductions in network costs
Many network costs are not, in fact, sunk over a longer time horizon. Network charging should recognise that decentralised generation and storage reduces demand on the network in the longer term and, therefore, avoids network costs.

Recommendation: widen the proposed principles to include: aligning with wider government objectives; enabling innovation and incentivising reductions in long term network costs.

5. Options

To enable a flexible network, that makes best use of increasing distributed generation and smarter communication technology, requires charging to become more sophisticated.

The Rocky Mountain Institute (RMI) identifies three 'continuums' that they describe as "the what, when, and where of electricity generation and consumption":

- Attribute Continuum—the unbundling of charges to specifically price energy, capacity, ancillary services, etc.
- Temporal Continuum—moving from volumetric block charges, towards highly time-differentiated prices that vary in response to marginal prices or other market signals
- Locational Continuum—delivering price signals that more accurately reflect unique, site-specific value.

The RMI argues that breaking down charges into these distinct value streams is a valuable tool to direct investment decisions that optimise value to all customers as well as to the grid. The RMI propose increased charging sophistication along all three 'continuums'.

Recommendation: increase the sophistication of network charging to value "what, where and when" electricity is generated and consumed.

Kind regards,

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