Getting more out of our electricity networks by reforming access and forward-looking charging arrangements
Response: Electricity Storage Network

Introduction

The energy sector is fast evolving to adapt to the urgent need for decarbonisation and subsequent decentralisation of the electricity system. In parallel, continuing improvement and uptake of technology which enables smart systems is encouraging growth in many innovative sectors such as storage. In response to this sector evolution, several significant reviews are taking place which have the opportunity to create a favourable environment for new technologies to flourish and will send critical signals for future investment in electricity storage and the energy system more broadly.

However, such significant changes and constant reviews do create uncertainty and investment in evolving sectors such as storage may be hindered whilst the review is ongoing. We would appreciate any efforts to set out key decisions as soon as possible and identify areas where decisions could be implemented at interim points in the review.

Decarbonisation is the primary factor initiating change and prompting reviews such as this, yet we are concerned that little mention is made in the consultation document of the government's carbon targets and support for decarbonisation is not explicit in the objectives. Ofgem should set the objectives of this review to ensure the nation's critical electricity network infrastructure is fit for purpose to deliver the government's Clean Growth Plan and targets within the Climate Change Act.

The storage sector is still in need of regulatory clarity to ensure it is not treated unfavourably. The definition of storage as generation in legislation creates problems further down the chain, for licensing, network codes and planning, amongst others. For example, in the context of network charging, it resulted in double-charging for storage assets and while we welcome the proposed solutions, they have not fully resolved the issue for all types of storage. Given the complexity and confusion surrounding the treatment of storage, it is important that the sector is accurately represented in this review and no additional barriers are created. Network charging is central to the business model of a storage asset and uncertainty will hinder development, but if this review takes into account the broad, ongoing developments around the treatment of storage, this will be opportunity to create a favourable and future-proof environment for storage to operate in.

The Electricity Storage Network has set out key recommendations to address these issues and ensure storage is considered appropriately during this review;

1. a specific group for storage should be created to consider regulatory developments alongside any changes made as part of this review;
2. every effort should be made to set out a timetable for decisions and set interim targets to mitigate uncertainty for investors;

3. we welcome a shift to lower up-front connection costs and higher use of system charges will generally support flexible, distributed energy resources;
4. a “use it or sell it” approach is preferred to the “use it or lose it” approach, but any secondary trading of access rights will need to be carefully controlled;
5. local balancing and the role storage can play should be recognised in the review and local access rights should be considered despite the complexity it may entail;
6. storage and other flexible technologies would be disadvantaged by fixed capacity charges; a flexible approach that contains both fixed and variable elements would be more appropriate.

Electricity Storage Network

The ESN was established in 2008 as the UK industry group dedicated to electricity storage. It represents a broad range of members including electricity storage manufacturers and suppliers, developers of projects, users, electricity network operators, consultants, academic institutions, and research organisations. We strongly support UK companies to deliver solutions for the GB electricity system and beyond.

The ESN works on behalf of its members to respond to and address issues affecting the development and utilisation of electricity storage within the GB electricity system. This response represents the views of the ESN as informed by our members and by our mission to promote a smart, flexible energy system.

The ESN is managed by Regen, a not for profit organisation with a mission to transform our energy system. Regen has submitted a separate response to this consultation.

Background

1. Specific consideration for storage

The treatment of storage is far from ideal and there is still work to be done to improve the regulatory framework for storage and increase its participation in the energy system as a whole. Given that these issues are occurring in parallel with numerous, wide-ranging changes to the energy system, it is vital these current limitations in the regulatory treatment of storage are considered in reviews such as this.

Recommendation: a specific group for storage should be created to consider regulatory developments alongside any changes made as part of this review.

2. Speed of review

The network charging regime is a key factor in the business models of storage investments and we have seen the financial implications of a distorted charging mechanism which resulted in double charging storage assets. The five-year timescale, although understandable, will create uncertainty and

delay investments in electricity storage up until the point that final decisions are implemented. The review should consider carefully what interim decisions can be made before the 2023 deadline and set out a clear timetable for those decisions as soon as possible. Mitigating the extent of uncertainty will have a significant impact on investments in the sector.

Recommendation: every effort should be made to set out a timetable for decisions and set interim targets to mitigate uncertainty for investors

3. Upfront connection charges have a greater impact for storage

A shift from high initial connection charges to ongoing use of system charges will generally tend to improve the business case for flexibility assets. Paying less up front and only paying for reinforcement related to the single-use infrastructure of a project would be more financially viable for storage projects which are able to mitigate higher annual access charges.

Recommendation: we welcome a shift to lower up-front connection costs and higher use of system charges will generally support flexible, distributed energy resources.

4. "Use it or sell it" is the preferred approach

We agree with proposal to improve the reallocation of access rights and agree that customers should have the ability to sell access rights that are not needed, but not be compelled to do so. This secondary trading of access will need to be carefully controlled to avoid unfair competition and ensure that provisions are made for capacity to be re-acquired at a future period where appropriate.

Recommendation: a "use it or sell it" approach is preferred to the "use it or lose it" approach, but any secondary trading of access rights will need to be carefully controlled.

5. Local access rights will provide value to the network and to storage

The consultation discusses the possibility of local access rights, but expresses a preference for forward looking charges alone as developing local access rights could be 'complex'. Balancing at a local level can provide value by deferring or avoiding network infrastructure investment and this is increasingly being recognised by DNOs who are developing local flexibility markets. Storage can play an important role local flexibility networks and balancing and this should be recognised in the charging review.

Recommendation: local balancing and the role storage can play should be recognised in the review and local access rights should be considered despite the complexity it may entail.

6. Time of use charges enable greater flexibility than capacity based charges

Flexible assets, including storage, benefit from variable charges that reflect time of use as well as capacity. Given the flexible nature of storage, having charges that reflect the ability to respond quickly at different times would be more appropriate for many types of storage projects. Fixed capacity charges would remove any incentive to modify network user behaviour and result in low network

asset utilisation factor and increase costs to the end consumer. Considering capacity above time of use will have a direct impact on the value of storage and a flexible approach with fixed and variable elements would be more appropriate.

Recommendation: storage and other flexible technologies would be disadvantaged by fixed capacity charges; a flexible approach that contains both fixed and variable elements would be more appropriate.

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