

03 November 2017

## OFGEM'S CONSULTATION ON THE PROPOSED DEFINITION OF ENERGY STORAGE

### Introduction

Ofgem are consulting on the legal definition of “energy storage” and the introduction of a new condition in the electricity distribution licence designed to ensure that distribution system operators, also known as distribution network operators or DNOs, cannot operate energy storage assets. (<https://www.ofgem.gov.uk/publications-and-updates/clarifying-regulatory-framework-electricity-storage-licensing>) The Ofgem consultations both close on 27 November 2017.

The UK has eight distribution network operators (DNOs). They operate the regional networks that deliver electricity to consumers after it has been transmitted on the UK's national high voltage transmission network. As natural monopoly service providers, DNOs are arguably well placed to develop energy storage facilities. Indeed, several DNOs are already actively developing energy storage projects, including Western Power Distribution and UK Power Networks ([http://innovation.ukpowernetworks.co.uk/innovation/en/Projects/tier-2-projects/Smarter-Network-Storage-\(SNS\)/Smarter%20Network%20Storage%20FAQs.pdf](http://innovation.ukpowernetworks.co.uk/innovation/en/Projects/tier-2-projects/Smarter-Network-Storage-(SNS)/Smarter%20Network%20Storage%20FAQs.pdf))

### Proposed change to EU law

Ofgem's position appears to be influenced by proposed changes to EU law. The European Commission's recast of the Electricity Directive recognises the need for consumers to actively participate in electricity markets, including storage, it provides:

*“The electricity market of the next decade will be characterised by more variable and decentralised electricity production, an increased interdependence between Member States and new technological opportunities for consumers to reduce their bills and actively participate in electricity markets through demand response, self-consumption or storage.*

*The present electricity market design initiative thus aims to adapt the current market rules to new market realities, by allowing electricity to move freely to where it is most needed when it is most needed via undistorted price signals, whilst empowering consumers, reaping maximum benefits for society from cross-border competition and providing the right signals and incentives to drive the necessary investments to decarbonise our energy system. It will also give priority to energy efficiency solutions, and contribute to the goal of becoming a world leader in energy production from renewable energy sources, thus contributing to the Union's target to create jobs, growth and attract investments.”* (<http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52016PC0864&from=EN>)

In terms of specific detail, Article 36 of the recast for the Electricity Directive proposes a general prohibition on DNOs owning, operating or managing energy storage facilities:

03 November 2017

Article 36  
Ownership of storage facilities

1. *Distribution system operators shall not be allowed to own, develop, manage or operate energy storage facilities.*
2. *By way of derogation from paragraph 1, Member States may allow distribution system operators to own, develop, manage or operate storage facilities only if the following conditions are fulfilled:*
  - (a) *other parties, following an open and transparent tendering procedure, have not expressed their interest to own, develop, manage or operate storage facilities;*
  - (b) *such facilities are necessary for the distribution system operators to fulfil its obligations under this regulation for the efficient, reliable and secure operation of the distribution system; and*
  - (c) *the regulatory authority has assessed the necessity of such derogation taking into account the conditions under points (a) and (b) of this paragraph and has granted its approval.*
3. *Articles 35 and Article 56 shall apply to distribution system operators engaged in ownership, development, operation or management of energy storage facilities.*
4. *Regulatory authorities shall perform at regular intervals or at least every five years a public consultation in order to re-assess the potential interest of market parties to invest, develop, operate or manage energy storage facilities. In case the public consultation indicates that third parties are able to own, develop, operate or manage such facilities, Member States shall ensure that distribution system operators' activities in this regard are phased-out. (<http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52016PC0864&from=EN>)*

The prohibition on DNOs owning energy storage in paragraph 1 of the proposed Article 36 is subject to a derogation in paragraph 2 that provides that DNOs can own, develop, manage and operate energy storage facilities if they are needed to ensure that a distribution network is efficient, reliable and operates securely. Paragraph 2(c) provides that it is for the regulatory authority of a Member State to assess the necessity of a derogation.

#### **DNOs as neutral market facilitators and the new reality of the UK's energy market**

The rationale for the proposed prohibition in Article 36 is that DNOs should act as neutral market facilitators. A white paper published by the Agency for the Cooperation of Energy Regulators (ACER) on 15 May 2017 explains the decision to adopt this policy position:

*“European Energy Regulators advocate that DSOs must act as neutral market facilitators performing regulated core activities and not activities that can efficiently and practicably be left to a competitive market. This approach is important because:*

03 November 2017

- *Competitive markets are generally better than regulated markets in delivering outcomes that provide best value for money for consumers;*
- *When DSOs get involved in competitive activities - such as storage - there is a risk that they would favour their service over potentially cheaper services (e.g. storage over demand-side response), thereby raising costs and deterring investment and innovation;*
- *DSOs could unfairly favour different types of consumers if they are direct market participants for these services; and*
- *Confidence in the neutrality of DSOs is a key element of the market."*

In contrast, 10:10, a UK registered charity that focuses on tackling climate change at community level, has argued against the UK adopting a general prohibition on DNOs owning energy storage facilities:

*"If [DNOs] are not permitted to own and operate their own storage assets, this is likely to increase costs for end users as a consequence of increased transaction costs between network and storage operators. Network companies should be allowed to judge where and when to procure storage from a third party, and when and where to own it themselves."*

A recent survey by Energyst, the energy magazine, has also noted National Grid's need for more firms to help it balance the power system (<https://theenergyst.com/20-firms-outline-what-is-stopping-them-providing-demand-side-response/>). According to Energyst:

*"With some 35GW of renewables on the system, more than a third of it solar PV, summer may become as much of a challenge as winter. That equates to a year-round revenue opportunity from National Grid alone. Yet relatively few firms provide balancing services via their onsite generation or ability to shift loads. Why?"*

*According to The Energyst's reader surveys, this is for a few key reasons, mainly fear of technical failure and/or incompatible processes and insufficient financial reward. But lack of understanding and the fact that the most UK firms have not been approached by either aggregators or energy suppliers regarding DSR are also factors...*

*...But these early survey findings suggest there remains a need for better communication and cost effective technology solutions if DSR is genuinely going to trickle down from large power users to the broader market."*

The problem with DNOs acting merely as neutral market facilitators is that a lot of energy storage is likely to be needed in the UK (<http://fes.nationalgrid.com/media/1253/final-fes-2017-updated-interactive-pdf-44-amended.pdf> - see pages 104-105).

Energyst's research suggests that there may not be sufficient interest from third parties to provide energy storage. 10:10 have put forward the argument that DNOs would be well placed to provide storage at the lowest cost. If this is correct, a complete prohibition on DNOs owning energy storage

03 November 2017

facilities would not reflect the “new reality” of the UK’s energy market and would also overlook the derogation in paragraph 2 of the proposed Article 36.

**Conclusion: Are DNO energy storage targets a potential solution?**

Notwithstanding Brexit, Ofgem seem to want to follow the EU’s proposed position on this issue.

A potential solution would be for the UK to set individual targets challenging each DNO to procure a certain level of energy storage facilities. Should a DNO be unable to meet its target through an open and transparent tendering process, then it should need to develop, own, manage and operate the balance to ensure that it has an efficient, reliable and secure distribution system.

It should be possible for the UK to draft a regulatory solution that is compatible with the derogation set out in paragraph 2 of Article 36 of the proposed Electricity Directive. However, whether or not this solution would satisfy Professor Helm’s desire to remove all regulatory interventions from the UK energy market is another question.

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03 November 2017

### About the Author

Prospect Law is a multi-disciplinary practice with specialist expertise in the energy and environmental sectors with particular experience in the low carbon energy sector. The firm is made up of lawyers, engineers, surveyors and finance experts.

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