



Making a positive difference
for energy consumers

Electricity distribution licensees
and other interested parties

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Date: 20 December 2018

Dear stakeholders,

**Enabling the competitive deployment of storage in a flexible energy system:
decision on changes to the electricity distribution licence**

In September 2018 we¹ conducted a statutory consultation² on proposed changes to the electricity distribution licence which, if implemented, will clarify that distribution licensees must ensure that they³ are legally separate from the operation of generation assets, even where such assets are licence exempt.

The new standard licence condition (LC) 31D and LC 43B will prohibit independent distribution network operators (IDNOs) and distribution network operators (DNOs) respectively, from carrying out any generation activities (including storage), unless the activity is captured by an exception or the licensee has been issued with a direction.

Alongside the proposed changes to the licence conditions, we also consulted on the Prohibition of Generating Guidance (POGG). The guidance provides detail on the exceptional circumstances in which operation of generating assets may be permissible for relevant licensees and the criteria against which applications for a direction to operate generation will be assessed.

Following consideration of the responses to our consultation, we have decided to implement these licence modifications. Notice of the licence modifications is published alongside this decision. Our decision to make these licence changes will take effect from April 1st 2019. The POGG will take effect the day after publication of our decision.

Background

In our *Smart Systems and Flexibility Plan*⁴, we set out our vision for a smarter and more flexible system that offers significant benefits for consumers. The share of intermittent generation connected to the electricity grid is growing and is expected to continue to do so.

¹ The terms "Authority", "we" and "us" are used interchangeably in this document.

² <https://www.ofgem.gov.uk/publications-and-updates/enabling-competitive-deployment-storage-flexible-energy-system-statutory-consultation-changes-electricity-distribution-licence>

³ Unless stated otherwise, the term "licensee" refers to an electricity distribution licence holder throughout this document.

⁴ <https://www.ofgem.gov.uk/publications-and-updates/upgrading-our-energy-system-smart-systems-and-flexibility-plan>

To manage the system, the network companies and system operators will increasingly need to use flexible resources as alternatives to traditional network reinforcement and operation.

Electricity storage can be a valuable source of flexibility. It can offer an alternative solution to avoid or defer the need for traditional reinforcement, support cheaper and faster network connections, and provide balancing and other ancillary services to the system operator. By removing barriers to technologies like storage, we can enable more participants to provide flexibility for managing the system. This will help deliver cost savings and security of supply for current and future energy consumers by creating greater competition for grid services.

We set out our views that the operation of storage assets by network licensees could present risks to the competitive deployment of storage and so inhibit the uptake of flexibility in the electricity system⁵ in our 2016 *Call for Evidence for a smart, flexible energy system*⁶. Almost all stakeholders responding to the Call for Evidence have agreed with this view.

Taking into consideration stakeholders' responses, we have further developed our thinking in the *Smart Systems and Flexibility Plan*, where we noted that there were extensive issues relating to the absence of effective price signals for valuing flexibility particularly at distribution level. The development of effective price signals has been identified as necessary for achieving a smarter, more flexible system that delivers efficient overall outcomes. Alongside demand-side response (DSR) and flexible generation, storage operators are one of the participants in these new markets⁷.

We identified two types of flexibility in the *Smart System and Flexibility Plan*:

- Price Flexibility - occurring when any party varies its demand or generation in response to the price of energy or other service, and network use at a particular time and/or location
- Contracted Flexibility - where parties trade and directly contract with one another to procure flexibility

We believe that there is a risk that markets for flexibility at distribution level could be stifled if monopoly entities are able to participate as they have competitive advantages as compared to third-party storage providers.

For example, because network companies control the network infrastructure needed to trade energy and flexibility services, they have the ability to restrict the activities of market participants by denying (or otherwise impeding) their network access. If a network company is also participating in the competitive market, it may have a strong incentive to use this ability to gain an unfair advantage over its rivals. The network companies' incentives to invest efficiently in the network can also be affected, if decisions are driven by shorter-term market signals, rather than longer-term investment signals. Finally, there can also be circumstances where the network company has information not available to the wider market, which might give it an undue advantage in competitive activities.

As stated in our *Smart Systems and Flexibility Plan*, we are committed to ensuring consumers benefit from flexibility provided by a vibrant and competitive market. So, in line with existing EU unbundling rules, set out in Article 26 of the Electricity Directive we intend to clarify that distribution network operators must ensure there is operational separation between the networks activities and generation assets (including storage), even where the asset is licence exempt.

⁵ For clarity, competitive flexibility services are procured for the distribution network in the ancillary services market.

⁶ <https://www.ofgem.gov.uk/publications-and-updates/smart-flexible-energy-system-call-evidence>

⁷ In the *Smart System and Flexibility Plan*

The intention of the proposed modifications to the electricity distribution licence is to make it clear that IDNOs and DNOs licensees must not engage in generation – including storage – of electricity, unless exceptions apply. The prohibition extends to assets that are licence exempt.

In accordance with the unbundling requirements of Article 26 of the EU Directive 2009/72/EC (the Directive) therefore:

1. IDNOs and DNOs would be required to separate the organisational, legal and decision-making activities of the distribution business and the generation business. Storage is considered to be part of the generation business.
2. While under the Directive legal separation of the ownership of storage assets is not required, IDNOs and DNOs are required to put in place compliance arrangements to ensure no confidential information, which is all sensitive information obtained in the course of carrying out IDNO and DNO activities, is exchanged between the licensee and any of its affiliates or related undertakings that may own and/or operate generating assets.

While the Directive does not explicitly prohibit ownership of generating assets - including storage assets - by network operators, we support CEER's paper on the future role of the DSO that sets out the view that, "[the requirements of Article 26] need to be seen as a minimum standard for unbundling rules across Europe."⁸

Our view is that over time – as the potential value of flexibility services continues to increase and the potential for conflicts of interests consequently increases – there may be a need for the unbundling regime to be strengthened to include separate ownership of storage.

This is consistent with the direction of potential future European rules on storage ownership. In its Clean Energy for all Europeans package⁹, the European Commission is proposing to prohibit DNOs from owning, managing or operating storage facilities – except in very limited circumstances.

We see clarifying the existing regime as an important first step, while we consider whether further changes are needed to give effect to our longer term policy position. The changes implemented to the electricity distribution licence will ensure that licensees apply effective operational unbundling to all storage, including licence exempt generation (including storage). This will guarantee that minimum protections are in place to manage potential DNO and IDNO conflicts of interest as markets for flexibility develop.

Therefore, while these changes are consistent with the unbundling principles set out in the Directive, we intend to closely monitor deployment of storage assets by network operators in the context of the evolving role of flexibility. Among other things, we will continue to assess DNOs' needs and how these are met by flexibility providers including storage, the types and volumes of applications for exceptions put forward to us (if any), the commercial agreements between licensees and third parties operating DNO/IDNO-owned storage, as well as the economics of storage ownership vs storage operation. We will use this and other relevant evidence to understand whether and how to implement ownership unbundling if necessary.

Storage as a subset of generation

In the *Smart System and Flexibility Plan*, we have also indicated that we will work to clarify the regulatory framework for electricity storage.

⁸ <https://www.ceer.eu/documents/104400/-/-/60e13689-9416-047e-873a-2644a74c9640>

⁹ The Commission's proposals can be found in their entirety [here](#).

Our policy view is that storage should be treated as a form of generation within the existing framework. This is because generation and storage share similar characteristics and perform similar functions in terms of generating and exporting electricity onto the grid. Government will define storage as a distinct subset of generation in the Electricity Act when parliamentary time allows. In the meantime, we are committed to clarifying the licensing regime for electricity storage.

In this context, we consulted¹⁰ last year on introducing a definition of 'electricity storage' and 'electricity storage facility' in the electricity generation licence. We will publish next steps of this work shortly.

Our decision making process

In our 2017-2018 forward work program¹¹, we committed to setting out a plan of action for removing regulatory barriers to storage. Specific actions were announced in the *Smart Systems and Flexibility Plan* in July 2017.

As mentioned above, on the unbundling framework for storage, we set out our view that, if a network company owns or operates storage it could impede the development of a competitive market for flexibility services, including storage. To prevent distortions to this market, we considered that as a first step we should work to implement operational unbundling requirements for storage.

To implement this policy view we published our initial consultation entitled 'Enabling the competitive deployment of storage in a flexible energy system: changes to the electricity distribution licence' in September 2017¹².

Following our review of consultation responses and extensive engagement with stakeholders, we published the statutory consultation to fully implement our proposals in September 2018¹³. Alongside the statutory consultation, we also published the Prohibition on Generating Guidance (POGG)¹⁴.

Review of Industry Responses

We received fifteen responses to the statutory consultation. We have published them on our website alongside this decision. We have set out below the key themes that emerged from the responses and provide our view.

The consultation does not clearly confirm these conditions apply in the same way to IDNOs

Some DNOs requested we confirm the proposed licence modifications apply to IDNOs in the same way as they apply to DNOs.

Our Views

¹⁰ The consultation can be found <https://www.ofgem.gov.uk/publications-and-updates/clarifying-regulatory-framework-electricity-storage-licensing>

¹¹ <https://www.ofgem.gov.uk/publications-and-updates/forward-work-programme-2017-18>

¹² <https://www.ofgem.gov.uk/publications-and-updates/enabling-competitive-deployment-storage-flexible-energy-system-changes-electricity-distribution-licence>

¹³ [here](#)

¹⁴ https://www.ofgem.gov.uk/system/files/docs/2018/09/storage_ownership_publications_guidance_v2_0.pdf

The new LC 31D will prohibit IDNOs from carrying out any generation activities, which includes the operation of storage assets, unless the activity is captured by an exception or the licensee has been issued with a direction. Also, the proposed modifications to LC 31B and LC 31C, which address the independence of the distribution business, restrict the use of confidential information and require the appointment of a Compliance Officer, are specifically addressed to IDNO activities.

The consultation should extend beyond operational unbundling

Some stakeholders responded stating they supported the intention of the consultation but believed the proposed changes should extend beyond the operational unbundling of storage to include unbundling of storage ownership.

Our Views

We see aligning the current regime with Art 26 of the 2009/72/EC Directive as a minimum first step. In the context of the current legislative framework set out in the Directive, operational unbundling of storage will put protections in place to manage potential DNO and IDNO conflicts of interest and enable a competitive market for third-party storage providers and other providers of flexibility. In addition to prohibiting generation, we are imposing strict compliance requirements on information sharing as set out in LC 31B and LC 42 in the IDNO and DNO distribution licence respectively.

We have been signalling to IDNOs, DNOs and the market our views on the direction of travel in the regulatory framework of these technologies. We are also mindful of the direction of potential future European rules on storage - in particular on ownership of assets with generation capability, as spelled out in the proposals of the 'Clean Energy for all Europeans'¹⁵ package.

Should we find - through monitoring current and future DNO/IDNO uses of storage - that ownership of generating assets is likely to hinder the competitive deployment of storage, we will act to address this barrier, as supported by any new EU regulation or other developments.

Exception processes and storage ownership and operation by network operators must be made transparent

None of the respondents were concerned with the reporting process proposed in the POGG. Stakeholders broadly supported the intention of the POGG to promote transparency for market participants on licensee generation. Some advocated for a public register to capture the following information: IDNO and DNO owned storage, IDNO and DNO operated storage, IDNO and DNO owned and operated storage and the IDNOs and DNOs who have applied for an exception, irrespective of whether or not the exception was granted.

Our Views

As stated in the POGG we believe it is in the interest of market parties and licensees alike that information is available in the public domain about generation assets owned by distribution licensees irrespective of who operates the asset. We have modified the POGG to reflect the view that licensees should take all reasonable steps to proactively publish information on all generation assets owned, either operated by a third party or by an affiliate undertaking, as well as those assets operated by licensees under LC 31D and LC 43B (excluding those assets operated under a category A or B exception). Similarly, we will

¹⁵ <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/clean-energy-all-europeans>

maintain a register of all directions we have issued or refused under LC 31D.2 for IDNOs or LC 43B.2 for DNOs.

We have clearly set out in the guidance the steps we intend to take when assessing an exception application under Category C. In addition to the requirement for IDNOs and DNOs to demonstrate they sought a market-based solution and engaged effectively with third parties, this process may involve us requesting information from and/or consulting any other interested and/or affected party to ensure that issuing a direction does not have unintended consequences.

Operational unbundling of storage will stifle whole system innovation

Some DNOs stated that the operational unbundling of storage assets would introduce a barrier to whole system innovation because it precludes a licensee from including storage as part of an approved innovation project.

Our Views

The intention of the innovation grants is to help network companies understand how they can facilitate the transition to a low carbon economy while delivering value for money to GB consumers while ensuring security of supply in a changing energy system. We agree that such innovation projects have delivered benefits to both licensees and consumers.

However, we remain of the view that there is limited insight to be gained from innovation projects where the business models or structures are not reflective of the emerging policy landscape. This is because network operators should act as neutral market facilitators in the provision of flexibility and that the competitive provision of flexibility can best support innovation.

We think network operators can enable whole system innovation – and benefit from it – by signalling to the market their flexibility needs, for example by publishing future network requirements and by engaging extensively with stakeholders when planning future investments in their networks. For example, we are consulting on proposed changes to the electricity transmission and distribution licences to clarify licensees' responsibilities in delivering whole system outcomes. This includes our expectations that they consider the impacts of their actions on other parts of the network, coordinate with others to identify solutions and collect and share relevant information and data where this can support whole system outcomes¹⁶.

We believe network operators do not need to operate storage in order to benefit from the services that storage can provide. However, in instances where the market cannot provide a storage solution, licensees may seek an exception (Category C exception), which enables licensees to operate generation, including storage, pursuant to a direction by the Authority.

We also note that a number of DNOs own and operate storage facilities built under Low Carbon Network Fund (LCNF) innovation funding. We are working with each relevant DNO to find the most appropriate treatment of these existing storage assets on an enduring basis. We are conscious that customers' money has already been spent on these projects and will seek to ensure that they continue to get the best value for money from these assets until they reach the end of their use. We will find the best solutions on a case-by-case basis according to the arrangements currently in place. However, any enduring arrangements for these storage assets will not give precedence for the treatment of future storage projects by DNOs, which will have to follow the operational unbundling rules.

¹⁶ <https://www.ofgem.gov.uk/publications-and-updates/consultation-licence-conditions-and-guidance-network-operators-support-efficient-coordinated-and-economical-whole-system>

Clarity on licensee-owned site generation per 2.13.3 in the POGG

Some DNOs raised concerns around paragraph 2.13.3 in the POGG: 'Energy Management at Licensee-Owned Sites' which states on-site generation must match on-site demand. The guidance explains that, should on-site generation exceed on-site demand, excess generation shall not, at any point in time, be exported to the grid or be used to provide flexibility services for the grid. Some noted that the restriction of on-site generation to exclusively match demand would prevent the licensee's ability to meet its environmental targets due to unnecessary curtailment of renewable energy generation.

Our Views

We do not believe the requirement set out in the guidance will limit a licensee's ability to meet their environmental targets.

Should IDNOs and DNOs want to own their renewable on-site generation for energy management at licensee-owned sites, they need to ensure any generation is never exported to the grid or used to provide flexibility services to the grid. Alternatively, they could also consider having on-site renewable generation provided by a third-party.

This condition is consistent with our policy intent to separate generation activities, which include operating storage, from IDNOs and DNOs' distribution activities. We have concluded that on-site generation by IDNOs and DNOs is allowed as long as it exclusively serves on-site demand needs and any accidental excess generation is not exported to the grid or used in flexibility markets. This is because any export of electricity by network operators to the grid has the risk to distort the provision of flexibility by other market participants thereby undermining our policy intent.

Our Decision

Having considered the responses received to our statutory consultation, we have decided to proceed with the proposed modifications to the electricity distribution licence, as set out below:

A new licence condition will be added as LC 31D in Chapter 7, relevant for IDNOs, and LC 43B in Chapter 11, relevant for DNOs, which will prohibit IDNOs and DNOs from carrying out any generation activities, which include the operation of storage assets, unless the activity is captured by an exception or the licensee has been issued with a direction. The intention of these changes is to give effect to the operational unbundling of generating assets (including storage), enabling the competitive market for storage and other flexibility services.

Next Steps

We have published our decision notice on our website, alongside a revised version of the POGG. Should we receive no formal representation within 56 days from the date of publication of our decision, the new licence conditions will come into effect on April 1st 2019. The POGG will come into effect the day after the publication of our decision.

Yours faithfully,

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Interim Deputy Director, SO and Whole System, Systems and Networks