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Enabling the competitive deployment of storage in a flexible energy system: Changes to the electricity distribution licence

Summary

Element Power supports Ofgem's proposed changes to the current license arrangements to prevent DNOs (and IDNOs and DNOs acting out of area) from owning and operating energy storage plant and deriving a competitive advantage against independent energy storage project developers from exploiting their monopoly position.

About

Element Power (EP) was one of the successful tenderers for National Grid's Enhanced Frequency Response (EFR) tender securing a contract for 25MW. The project SPV has been sold construction ready to ENEL¹ and EP are assisting in its construction and development. Element Power is a successful international renewables developer², for example in the Republic of Ireland where we have developed and operate 123 MW of wind assets for our investors with 188MW under construction. EP has recently reached financial close for windfarms in Sweden and Scotland.

EP is developing the Greenlink interconnector between Wales and the Republic of Ireland which has achieved Ofgem's cap and floor IPA and European Project of Common Interest (PCI) status and received Connecting Europe Facility Funding.

Questions and Responses

Section 2 – Proposed new condition in the electricity distribution licence

Question 1: Do you agree that the proposed new condition will ensure legal unbundling of DNOs from the operation of storage that benefits from an exemption to hold a generation licence?

Response 1: We agree that the amount of energy storage connected to the distribution network in GB is likely to increase in the future. Energy storage can be used to provide a wide range of services, including: frequency response; short-term operating reserve; price arbitrage; peak lopping to reduce the stress on network assets and defer or avoid network infrastructure upgrades; and to enable faster connections, for intermittent generation in

¹ <https://www.enel.com/en/media/press/d201705-enel-buys-a-stand-alone-battery-energy-storage-project-in-uk.html>

² <https://www.elpower.com/>

particular. There is a potential conflict of interest between some of these requirements and the distribution network operator's role. We agree that the new licence condition clarifies the regime and will be ultimately beneficial to consumers in ensuring competition to provide these services.

Further, we believe it would be beneficial to clarify that the Transmission Owners and the System Operator are not permitted to own and operate energy storage technologies, at any size but particularly (in terms of clarifying the position) for storage that benefits from an exemption to hold a generation licence.

Question 2: Do you agree that the same principles of unbundling should apply to IDNOs? Do you have any views on the application of the specific new condition proposed here applying to IDNOs?

Response 2: We consider that the same rules that apply to DNOs should apply to IDNOs and, for the avoidance of doubt, this should also apply to out of area DNOs. In the case of IDNOs operated by companies who may also own and operate energy storage projects, we believe that legal separation of the IDNO entity from the energy storage operating entity is likely to be required anyway so this is likely to be a clarification rather than a major change.

Question 3: Do you agree that DNOs should be able to directly own and operate small-scale storage for the purposes of providing uninterruptible power supplies (UPS) at substations? Do you agree that DNOs should be able to directly own and operate small-scale storage for the time-limited purposes of emergency restoration and maintenance?

Do you think DNOs should be able to directly own and operate storage for any other specific applications?

Response 3: We consider that DNOs owning small scale storage in substation UPS is acceptable, as long as the energy from the storage is used only to support plant at the substation and is not exported onto the network.

We consider that if energy storage is to be used for emergency restoration that it would be reasonable for the DNO to own and operate this. However, we consider that the DNO could tender for this service and others could own / operate.

The DNO should also be able to use small scale storage at its own office premises for the purposes of supporting its own IT network, again provided this energy is not intended to be exported from the premises.

There have been a number of funded or part-funded development projects for energy storage connected to the distribution network. Element Power have actively engaged in industry awareness events for these projects. We welcomed such projects and consider that these projects have led to increase industry awareness of the possible services offered by energy storage and have been successful. However, the commercial arrangements for these sites are not clear. We consider that, after completing their trial phase, these projects should either:

- be owned and operated by a commercial entity (i.e. not owned and operated by the DNO) and that this commercial entity should be competitively assessed; or

- the DNO should have to apply to Ofgem to obtain permission to own / operate as proposed for situations where a market solution cannot be brought forward, as discussed below.

Question 4: Do you have any views on the treatment of existing islanded system generation currently owned by DNOs?

Do you have any views on the treatment of future use of DNO owned and operated generation of storage in similar island situations?

Response 4: We consider that islands present a unique opportunity to develop competition and, because of the high costs of providing energy on islands, such competition can deliver high economic benefits to consumers. National Grid's EFR tender is a talisman for the benefits that competition can deliver. At privatisation DNOs were the only organisations that could realistically own and operate generation on islands, however, with the massive development of the electricity market and ancillary services market that has taken place over the last four decades, it is now time to open up island generation to competition. In the same way, if energy storage is to be used for island systems, this should be delivered by a competitive market process and it is not reasonable for the DNO to own and operate island storage or generation.

Section 3 – Guidance Document

Question 1: What are your views on the three high-level criteria proposed as the basis for assessing applications for consent?

Do think there are other criteria which should also be included?

Response 1: We consider that, in practice, DNOs applying for consent to operate energy storage schemes are likely to be rare but understand the need for Ofgem to allow this to happen but to carefully limit the scope of this. We consider that the proposed high level criteria are what are required.

Question 2: Do you have any other views on the scope or content of the proposed guidance document?

Response 2: We think it would be useful if the network operator were to make clear in their submission to Ofgem the expected power (MW), the energy storage (MWh) and the technology that they are expecting to use. This would allow the industry as a whole to track the fraction of energy storage projects which are being operated by network operators which would be one measure of how well the proposed changes are working.

We also consider it necessary for the network operator to include the duration that they intend to operate the energy storage scheme and that this should be time limited so that a market solution can be utilised when appropriate, with perhaps a commercial operator taking over operation of the assets from the network operator.

Question 3: Do you have any views on the process that should apply to the assessment of applications?

Response 3: We consider that as experience with energy storage projects connected at distribution level grows, the industry as a whole will have greater awareness of circumstances, if any, when it is appropriate for network operators to operate energy storage and so it may be appropriate to consider further guidance on the three high level criteria in the future. We request that when the application is submitted to Ofgem by the network operator, there should be an opportunity for developers to submit an expression of interest so that if a market solution is available, it can be developed at this time.

Section 4 – Reporting and Monitoring

Question 1: Do you have any views on reporting requirements for DNOs that own/operate storage assets?

Response 1: We consider that to avoid the perceived risk of a conflict of interests, DNOs should be required to publish the rate of payments which are made to the energy storage project, i.e. although it is operated by the DNO it should operate financially as a stand-alone entity. These rate of payments should give full traceability for the values involved i.e. traceable back to the DNO's use of system charges and time of day tariffs etc. The energy import and export figures (MWh) should also be published.

Question 2: Are there any particular types of data that, if published, could facilitate entry of competitive parties?

Is there any other information or data that you think DNOs hold about the deployment of storage on their networks that they could usefully make public?

Response 2: We also think it would be useful for DNOs to indicate the cost of capital that they are using in the project; effectively, if less than the market rate, this is a cross-subsidy from the DNO's asset base and monopoly position.