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Dear Andrew,

Vattenfall Networks Limited is an independent distribution network operator launched in Great Britain in 2017. We are an unbundled subsidiary of Swedish state-owned energy company Vattenfall AB.

Vattenfall Networks is part of Vattenfall's existing Business Area Distribution, an experienced European electricity distributor with a history stretching back over one hundred years. Almost half of Sweden's electricity consumption passes through Vattenfall's networks and we own and operate electricity distribution for the city of Berlin. Vattenfall supplies electricity to more than 3 million homes through enough wires to wrap around the world four times.


Vattenfall Networks Limited is in the establishment phase and does not currently have any connected customers. However, it is our vision to provide the latest climate-smart electricity network solutions to British customers at highly competitive prices, trialled and tested successful in European markets from 2018 onwards.

Ofgem's consultation on the ownership and operation of storage and small-scale generation by distribution network operators (DNOS) is of great interest to Vattenfall Networks, and the broader industry, as we move to ever smarter networks embracing the latest technologies.

It is right that Ofgem considers the competition implications of (I)DNO ownership of storage and generation to ensure that there is a level-playing field in the market to make the most cost-effective offer for consumers. It is Vattenfall's view that storage should be a market-led service in limited circumstances similar to those already identified by Ofgem. In creating the right market conditions for storage to thrive, it is also important that Ofgem does not accidentally stifle innovation in an emerging sector as DNOs transform into DSOs.

With this in mind, we offer our views on the questions posed in the consultation below. Vattenfall Networks would welcome the opportunity to discuss any of the issues raised in this consultation if this would be of interest to Ofgem.

Yours sincerely,



Stewart Dawson

Managing Director

Vattenfall Networks Limited

Chapter 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?

Vattenfall Networks agrees.

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?

Vattenfall Networks agrees.

Question 3: Do you agree that the DNOs should be able to own and operate small-scale storage for the purposes of providing uninterruptible power supplies at substations, for the time-limited purposes of emergency restoration and maintenance, or for any other specific applications?

We ask that Ofgem is precise in defining its terminology when it is referring to 'IDNOs', 'DNOs' as a distinct class, or 'DNOs' as a catch-all phrase covering both IDNOs and DNOs. We assume that IDNOs will benefit from the same exemption on small-scale storage as DNOs but ask for clarification in the consultation response.

Vattenfall Networks agrees that (I)DNOs should be able to own and operate small-scale storage to provide uninterruptible power supplies at substations and for time-limited emergency restoration and maintenance.

In both instances, there are immediate, local consumer benefits in the use of small-scale storage over traditional diesel generators. Diesel generators can be a nuisance to the public in terms of noise and air pollution, which can be distressing to local residents when deployed in built-up areas. Use of small-scale battery storage to deliver the same ends will help to mitigate these negative impacts and open up more procurement options for (I)DNOs.

In terms of any areas missed by Ofgem, we believe there is a further case for (I)DNOs to own and operate storage as temporary new-build site supply until the permanent distribution connection can be made. As with emergency restoration, clearly guidance on what is temporary would be useful to guard against abuse.

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?

Vattenfall Networks believes the terminology employed here needs further definition, particularly what is meant by the term 'islanded', as there may be some confusion over the natural meaning (i.e. islands, as Ofgem refers to in the case of Scottish islands) and also 'islanded' in terms of a distinct 'private wire' network either connected or not connected to a local (I)DNO.

We ask for clarity around how Ofgem intend to approach networks operated under a distribution licence exemption (commonly because they serve large non-domestic customers only). We ask for

clarity here as the proposal may otherwise create tension and confusion where distribution licence exempt networks are caught by certain aspects of the distribution licence.

Chapter 3: Guidance document

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

We believe it is crucially important that the guidance document defines what Ofgem means by 'operation'. This is particularly pertinent to paragraphs 3.5 and 3.6 of Ofgem's consultation document, especially the following:

While it would be for the DNO to put in place appropriate commercial arrangements with third parties, we would not expect contracts to provide the DNO with a greater level of control over the operation of the asset than it would have over another third party's asset. Equally, the DNO would need to ensure that those running the asset would not have access to confidential information about the network that other participants would not have access to.

Vattenfall Networks wants to be able to offer customers the smartest and most efficient network system we can, which might involve the integration of storage into that network to optimise flows and manage network loads. This will become increasingly important with the increasing rise of onsite generation and changing in network usage patterns associated with vehicle charging.

To solve this, DNOs may wish to competitively tender for storage services to meet specific network needs. Those storage assets would be owned by third parties but there is some potential semantic confusion over the meaning of 'operate'.

In order to use these smart network assets, DNOs may need to give instructions to third party asset owners to charge or discharge their storage and this may need to happen almost instantaneously, which could be construed as 'operation' of that asset and may be contrary to Ofgem's statement quoted above regarding 'contract control'. This is an analogous situation to how National Grid does not 'own' storage providing frequency response services but does, in effect, 'operate' it under contractual terms.

Furthermore, the quote above as currently construed may lead to a Catch-22 situation, where DNOs cannot use assets because Ofgem does not deem the commercial arrangements to be 'appropriate' but where it cannot ask a third party to operate the asset, either because of technical constraints over timing or because doing so would make the third party owner a party to 'confidential information'. We believe Ofgem's guidance document should consider a definition of 'operation' which allows for the kinds of smart use of storage described above, via contracts, where it has been competitively tendered.

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

Vattenfall Networks' only comment here is with regards to Ofgem's statement that a DNO must demonstrate that the market is 'not able to provide an efficient solution' in order to justify an exemption.

We believe that 'efficiency' should not always equate to 'lowest cost' and we would appreciate Ofgem's views on this. Storage is an embryonic market with a diverse range of players and we believe that (I)DNOs will have to take into account a variety of different considerations in what they believe is 'efficient', including an assessment of delivery risks, track record, and perceptions of quality of product.

Finally, we believe it is important that Ofgem recognises that the DNOs themselves, through a subsidiary, should be able to present their own solutions to a network offer as part of a transparent and competitive process, and this might be the most efficient outcome approvable by Ofgem.

Chapter 4: Reporting and monitoring

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

Vattenfall Networks agrees with Ofgem on the importance of DNOs creating and stimulating markets for smart services by advertising their network needs. These need to be in as coherent and predictable a fashion as possible and could be a yardstick against measurement of performance under the next iteration of RIIO.

We believe National Grid's emerging *System Needs and Products Strategy* could serve as a useful model for DNOs to base their own network needs and products on.