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Energy Systems, Management and Security

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SSE plc
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Dear Eleanor,

Regulatory Arrangements for Independent Distribution Network Operators

On behalf of SSE plc¹, I welcome the opportunity to respond to the [Ofgem Open letter](#) on regulatory arrangements for Independent Distribution Network Operators (IDNOs).

In summary, our views are:

1. A general review of the IDNO regulatory framework is overdue, as Ofgem also notes in the Open letter. Such a review should ensure that all users of the system pay their fair share of network charges. We recognise that this is not a straightforward task and it competes with Ofgem's many other priorities.
2. Decarbonisation of the power system and the transition to Net Zero is driving the electrification of industry increasing demand for new connections and requiring large amounts of new network infrastructure at high voltages and Extra High Voltage (EHV). EHV connections is likely a growing segment.
3. Ideally, EHV customers should connect to the distribution networks. However, the connections queue is a factor and some EHV demand are 'large strategic demand customers' meaning that in practice, some EHV customers will be connected to the transmission system which creates the potential for arbitrage. Thus, clarity is needed on market structures to prevent any misuse.
4. As a key priority, Ofgem should provide clarity on market arrangements for EHV customers. This is urgent and we suggest it can happen ahead of a general review of the IDNO regulatory framework. With a growing market segment, more EHV customers will be connected and whilst regulatory clarity is lacking, issues around grandfathering for projects connected in the meantime will arise and grow to only make subsequent regulatory intervention more difficult.

¹ SSE is a FTSE100 energy company, developing and operating electricity infrastructure and generation assets across GB. Within the SSE group, we own and operate a wide range of generation assets, the North of Scotland Transmission network, as well as two Distribution Networks Operators (DNOs) and an IDNO.

The IDNO model was introduced to open the electricity connections market to competition, to improve the quality of service received by connection consumers, reduce the cost of connections and encourage the development of innovative connection services. IDNOs have been operating for approximately 20 years without a review of their regulatory framework. During this period, the energy system has changed significantly and it continues to evolve as we move towards Net Zero. IDNOs are well-positioned to work with developers nationwide to help provide the infrastructure required to serve new consumers. Independent Connections Providers (ICPs) also play a key role in helping resolve the major connections challenge. A wider review of the IDNO framework must now be carried out to ensure that the future IDNO model adapts to the needs of the changing energy system. In our view, the current set-up, whilst providing some benefits, has also led to unintended economic consequences. This we believe is a key factor in expediting the requirement for a wider review of the IDNO regulatory framework.

Currently, there are two charging methodologies for IDNO Distribution Use of System (DUoS) charges: The Relative Price Control (RPC), which has been most used to date, and EHV IDNO site-specific. Under the RPC, IDNOs may charge their domestic customers no more than the equivalent (host) DNO tariff. Although only domestic charges are regulated by this licence condition, in practice IDNOs tend to mirror the host DNO's charges for all Low Voltage (LV) and High Voltage (HV) customers. IDNOs typically adopt newer networks built by ICPs, where the annual running costs are lower than the host DNO's overall average costs. This enables IDNOs to make network investment payments to developers and ICPs, allowing financial leakages from the system. These cause the host DNO's DUoS charges (to all consumers) to rise. The combination of being able to select projects and fund the upfront cost of a specific project, whilst annual charges are capped at the average DNO charge, provides an incentive for 'cherry picking' where the DNO's wider cost base sees average network costs increase. Although the RPC is simple for market participants and provides transparency, the appropriateness of this model needs to be considered as part of the wider review.

EHV-connected customers pay site-specific charges which are not covered by the RPC. These charges do not have the same level of oversight from Ofgem as they are agreed between the customer and the IDNO at the time of network development. Ofgem's open letter raised its concerns about the current regulatory framework for EHV-connected customers. We agree that this area needs to be reviewed. As the EHV market is a fast-growing segment, clarity on the regulatory framework for these customers is required from Ofgem as a priority. Any delays could create issues with market fragmentation and the potential need to consider grandfathering arrangements.

It is our view that EHV customers should ideally connect to the distribution system, either with the DNO directly or another provider such as an IDNO assuming that regulatory framework is reviewed to remove distortions. However, should EHV customers use the IDNO model to connect to the transmission network, this could lead to unintended economic consequences. Connecting

EHV customers at this level could mean that the distribution system will not see the benefits through DUoS payments and the socialisation of network costs.

However, in practice, some large EHV customers may want to connect to the transmission system. This may be due to a range of factors including the speed, size, requirements, and location of the connection. The current long waiting times for a connection caused by reactive investment in network build-out is a factor too. Some large-scale-demand customers, who would have traditionally connected to the DNO, can have high opportunity costs of waiting for a later connection and may pragmatically connect at transmission rather than at distribution if it enables a faster connection. Such customers also require agility and flexibility in their needs, which DNOs, owing to their obligations as Universal Service Providers, may not be able to provide.

When choosing between a distribution or a transmission connection under the current regime, individual EHV customers and their providers choose a route with reference to two parallel charging systems, leading to the potential for arbitrage by the providers to fulfil customer needs. Ofgem must consider the incentives that are presented not only to individual EHV customers but also to the network providers who serve these customers. Providing clarity on the charging systems can promote confidence in demand connections by providing transparency and ease of access.

We agree with Ofgem's concern that the current regulatory framework needs to be reviewed for EHV-connected customers. We note that Ofgem plans to review network charging for such customers. This review should take into consideration connections at the Distribution and Transmission level.

We recommend that Ofgem take a two-pronged approach to a review of the regulatory arrangement for IDNOs. As an immediate priority, the market seeks clarity around EHV customers connecting to the transmission network. We believe we can serve customer needs with private network propositions. However, it is difficult to do so when other providers offer both IDNO and private network solutions. Should Ofgem determine that IDNOs should be able to connect at the transmission level, it should ensure that IDNOs and their contractors have the required skills, knowledge, experience, and financial resources to be able to connect to transmission assets. Consideration should also be given to how HV and LV customers who connect to the network would be treated.

As part of the wider review of the IDNO market, we expect Ofgem to include licence conditions around the charging methodology for both, IDNO EHV-connected customers which includes site-specific charging and RPC. This should ensure customer groups are treated fairly and connecting EHV customers are not exposed to undue risk where long-term contracts are agreed under these arrangements. Additionally, the wider review should ensure that IDNOs plan for the longer term and that their networks are factored into Ofgem's thinking on Regional Energy System Planning (RESP).

To help ensure market order and mitigate against market distortion, we recommend Ofgem keeps the framework simple. SSE would welcome the opportunity to work with Ofgem on a wider IDNO market review.

Yours sincerely,

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SSE plc

Annex 1

Question 1) What do you consider to be the pros/cons of IDNOs connecting EHV customers embedded within distribution networks?

There is a growing segment of customers, e.g. data centres, seeking EHV connections. From a customer perspective, what matters to these connections in getting a connection are generally:

- Speed of connection: delay in getting a connection can lead to significant financial loss;
- Agility of connection provider: how flexible the connection provider can be in terms of working with the customer, attend to their needs and adapt the offer;
- Risk: reputation of the connection provider, clarity and stability of the regulatory regime under which the connection provider operates.

Since IDNOs are not constricted by being Universal Service Providers or bound by specific non-discrimination provisions, the benefits for an EHV customer from an IDNO providing their connection include that IDNOs are generally able to build new networks and provide connections with agility and adaptability. IDNOs can dedicate additional resources to serving a large customer and they can adapt their approach to needs of each individual customer. IDNOs also have the benefits of commercial flexibility in offering to invest in upfront connection costs associated with a new network on behalf of the customer (asset adoption value payment) against ongoing network charges, which a DNO is not allowed to provide. However, since IDNOs are not required to adhere to the EHV Distribution Charging Methodology (EDCM), there is a lack of transparency in the way EHV customers are charged. Generally, the regulatory scrutiny of DNOs means that an EHV customer would probably find there is less risk associated with a connection being provided by a DNO rather than an IDNO.

From a network perspective, the benefit of having IDNOs operate in the market allows further investment into the network from parties other than DNOs. The disadvantages include fragmentation in network ownership and operation, which can cause service resilience issues. The flexibility around adoption payments offered, whilst good from a customer perspective, can lead to financial leakages from the system, which could have an impact on investment in the wider network and potentially increase the average cost for DNO customers.

Question 2. What do you consider to be the pros/cons of IDNOs connecting directly to the transmission network?

At present, owing to high demand and previous policies of network investment mainly being reactive leading to long waiting times for new connections, IDNOs may be able to offer quicker connections for customers to transmission than distribution networks. Customers would choose an IDNO if they could connect them quicker. Similar to connecting at distribution, IDNOs can provide flexibility to balance upfront network costs against ongoing network charges to customers connecting at transmission.

Since IDNOs have statutory provisions, they are often able to connect customers quicker than Private Networks which require planning applications for roadworks. However, at current connection times, the time required to achieve planning permission is less likely to provide a delay to the energisation of projects. Compared to Private Networks, IDNO customers are also protected under standards of service covered by licence obligations. Private Network customers have to negotiate this in their contracts. This should be manageable for EHV customers who are often large corporates.

There is a lack of clarity around the regulatory framework under which IDNOs connect at transmission. Ofgem believes the IDNO framework was not intended for transmission connections, but some market participants disagree. This lack of clarity is unhelpful for customers and for fair competition in the market.