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OFGEM POLICY REVIEW ON FUTURE REFORM TO ELECTRICITY CONNECTIONS

WRITTEN FEEDBACK SUBMITTED BY INTERGEN

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Executive Summary:

- It is crucial that flexible, dispatchable technologies are prioritised in the queue, as they will safeguard the resilience of the grid against increased intermittency as more renewables come on board.
- Battery storage is a key sector in the UK's decarbonisation journey, with models predicting that the UK will need between 20-30GW of storage by 2035; however, the current queuing system is significantly stalling the sector's progress, particularly compared to the US and the EU.
- Delayed grid connections render planning for projects extremely difficult, thus damaging investor confidence at a time when the UK renewable market critically needs investment.
- Projects which apply for expansion are being pushed further back in the queue, thus discouraging growth and innovation.
- Establishing clearly prioritised assessment criteria at the point of project application would streamline and maximise system efficiency.

We urge Ofgem to consider bringing in queue prioritisation and management provisions at a much earlier stage. We appreciate that a significant system overhaul would be necessary to do this, but this is a crucial step for the UK to viably meet its Net Zero goals.

InterGen has operated flexible gas assets in GB (Great Britain) for 25 years. Our plants combined generate enough power to supply 3 million homes, representing around 5% of GB electricity supply. InterGen is a world class developer of energy assets, including the 300MW Spalding Energy Expansion OCGT (Open Cycle Gas Turbine) completed in 2019, and going forward we have a Capacity Market (CM) award for a 900MWh London Gateway BESS (Battery Energy Storage System) project in Essex, which will be one of the largest battery projects in Europe. We are pursuing a further £2bn pipeline of clean energy investments, including further grid-scale batteries, and are aiming to convert at least one of our gas-fired sites to run using blended hydrogen, supporting the energy transition to net zero.

InterGen welcomes Ofgem's commitment to deliver a fit for the future connections regime, and supports the call for reform ensuring the system is prepared for the UK's net zero transition. Below, we have set out our proposals which centre around **the necessity to prioritise complementary flexible technologies in the queue, to ensure the ongoing resilience of the grid as intermittent forms of renewable generation take an increasing share of capacity.**

It is imperative that our grid system is upgraded to prepare for the significant growth of renewable infrastructure in the years ahead. Net Zero can only be achieved if renewable energies are in fact able to power up Britain; and this cannot be done without a resilient and balanced grid which new technologies are able to connect to in a timely manner. The cumbersome first-come first-served queuing system is causing viable and promising projects to become stuck behind speculative or slow-moving projects; as set out in your letter, over half of generation customers in the queue have a connection offer of at least 5 years away. I**t is inconceivable that the UK's power sector will be decarbonised by 2035, let alone 2030, if the queuing process is not reformed**.

The current queuing system also risks grid resilience. As more renewables at the front of the queue come onto the system, intermittency will increase but there will not be enough flexible assets to provide grid stability, particularly as flexibility from unabated natural gas decreases as the UK decarbonises. **Low-carbon flexible technologies, like battery storage, therefore need to be introduced simultaneously – or even ahead of – renewable generation like offshore wind.** This will be vital in facilitating a functioning net zero grid that is attuned to demand management and flexibility, particularly in areas of high wind and solar generation.

Deploying storage at scale will help to resolve the challenge of the intermittency of renewable generation, with batteries able to store excess power generated and balance supply and demand during periods of low output. The sector is extremely promising, and models show that in 2022, battery storage saved the UK's power sector 615,000 tonnes of CO2 emissions, which is equivalent to nearly 400,000 fewer cars on the road. Most models expect the UK will need between 20 and 30 GW of electricity storage by 2035. InterGen is developing world-leading battery storage projects totalling 3GW, some of the largest in Europe. **However, the issues with the current queuing system are significantly stalling the progress of the battery storage sector.** Even though the UK battery storage market has progressed beyond European markets in terms of installation, **delayed grid connections have hindered planning processes and damaged investor confidence at this imperative time.**

The current queuing system discourages innovation and growth. InterGen's BESS site in Spalding, Lincolnshire, originally had a connection offer of 175MW for 2026-7, which was latterly increased to 550MW after a successful modification application. However, this offer also pushed back the connection date to 2030; a frustrating decision from a planning and investment perspective. As a result we have had to submit a further modification application and revisit our investment priorities. **Generators are now holding back on expanding their projects due to the risk of being pushed further back in the queue; this does not encourage the innovation and expansion which the UK needs to reach Net Zero.**

Lengthy connection dates render planning for projects near-impossible. For example, InterGen's battery storage development site in New Deer, Aberdeenshire, has a connection date of 2033. With such a significant period of time before the project will connect, it is extremely difficult to develop a plan with site owners, therefore affecting our ability to develop a robust investment case. We appreciate Ofgem's proposals to fix the existing queues, but would encourage that this goes further, and that Ofgem reforms the queuing process entirely. Establishing and communicating a clearly prioritised set of assessment criteria for new generation asset connection applications would **deliver better informed decisions on which projects ought to be prioritised at the point of application, and** would streamline and maximise system efficiency.

In terms of the illustrative stages of reform set out in your letter, InterGen welcomes National Grid ESO's decision to remove projects from the queue which are not progressing, in order to make way for those which are set to meet their deadlines. We recommend that this happens soon, and is enforced, as our country is now at a crucial turning point in the path to net zero. We would also urge you to consider **bringing in queue prioritisation and management provisions at a much earlier stage**. The optimum mix of technologies necessary in a particular zone should be determined based on known congestion and other constraints, notably storage. Assessing future storage requirements should be a standard check prior to deciding which type of generation technology to prioritise in the queue. This would be a more efficient way of managing the UK's energy and decarbonisation needs.