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Ofgem

Patrick Cassels, Head of Electricity Network Access

Future Charging and Access Team

(sent by email to) FutureChargingandAccess@ofgem.gov.uk

Dear Ofgem,

Access and forward-looking charges significant code review: consultation on minded to positions

The Greenspan Agency Limited consultation response

The Greenspan Agency Limited writes on behalf of its sister companies in the Greenspan Energy Limited group to respond to your consultation above. I refer to the Group henceforth as “Greenspan”.

Greenspan is headquartered in Edinburgh and has been operating since 2006. Greenspan plans, engineers, constructs, and operates electricity generating stations across Great Britain. Greenspan also carries out these works on a consulting basis for their clients. Generating technologies include wind turbines, solar parks, run-of-river hydroelectric turbines, anaerobic digestion CHP, gas reciprocating engines and battery energy storage.

We generate electricity and we provide system flexibility.

We must achieve and maintain economic connections to the electricity networks to do this.

While the importance of the matters at hand no doubt warrants the volume of materials supporting this consultation (a mighty 281 pages), unfortunately, we do not have the resources to thoroughly examine all of them. Notwithstanding, we hope this submission is still valued and reflected on. This letter focuses on Questions 5g and 7 of your consultation.

The methodologies according to which Small Distributed Generators (SDG) are charged for their use of the electricity networks are numerous, confusing, and opaque. Changes to electricity regulation are proposed almost daily by industry code review groups, Ofgem and Government. It is practically impossible for operators of SDG to track and engage with these methodologies in a meaningful way.

Operators of SDG do however understand the *effects* of regulatory change, particularly sites connected in Scotland, which are the focus of Greenspan's consultation response. SDG has suffered the following notable impacts:

1. Removal of Levy Exemption Certificates.
2. Closure of Feed-in Tariff and Renewables Obligation support schemes.
3. Removal of 'Triad' (TNUoS demand residual) embedded benefit, subsequently renamed as the Embedded Export Tariff (EET)
 - EET benefit remains for SDG connected in England and Wales.
 - The EET is "capped" at zero, otherwise many SDG generating during peak demand periods would be charged EET for doing so. I observe this consultation moots removing this cap. This would be completely illogical and harmful, particularly for SDG operating in the Capacity Market who are duty-bound to contribute to security of supply.
4. Changes to transmission loss calculation methodology following CMA investigation. Losses now calculated on a seasonal and geographical basis. This has negatively impacted Scottish SDG, particularly wind.
5. Although not the result of regulatory change, for some time Scottish SDG has been subject to BSUoS charges when total embedded generation in a GSP Group exceeded demand. It has been a common refrain to say there has not been a level playing field between transmission and distribution connected generators because of the BSUoS embedded benefit. However, this is not accurate and Scottish SDG, particularly wind, has paid BSUoS for years.
6. The BSUoS embedded benefit has been removed.

However, the changes above totally pale in comparison to those proposed by Ofgem in this consultation. The impacts of levying the proposed TNUoS generation charges on embedded generators will be hugely damaging and these impacts almost exclusively affect Scotland. This will cause significant harm to the Scottish Small Distributed Generator community and will unnerve investors.

Table 5.2 of the CEPA-TNEI quantitative analysis report illustrates the potential new charges. For Intermittent generators (e.g. wind and solar) in Distribution Zone 1 (i.e. SHEPD DNO area) the TNUoS charge could be £22.37/kW. For a 6MW wind farm this **new and additional charge** would be c.£134,220 per year.

Assuming a wholesale power price (after imbalance, transmission loss, etc) of £50/MWh and load factor of 27%, the same wind farm might generate £700,000 in gross electricity sales. The TNUoS charge alone wipes out almost 20% of electricity sales, before DUoS, operating and maintenance costs are applied. This is totally disproportionate. Incredibly, CEPA-TNEI forecast the TNUoS charge could increase to £54.46/kW by 2040, or £326,760 per year.

For Low Carbon generators (e.g. hydro) in the same zone, the report suggests the TNUoS charge could be £20.39/kW. For a 1MW hydroelectric plant this new and additional charge would be £20,390 per year, rising to £54,020 per year by 2040.

In many cases these proposed annual TNUoS costs will exceed the original capital cost of the grid connection. It is absurd for SDGs to be required to pay a sum equivalent to their original grid

connection cost, every year, to remain connected. They have already paid for their connection to the system.

In many cases these grid connections and reinforcements have improved the infrastructure for other system users, particularly customers and businesses in remote areas of Scotland, who now experience less frequent grid interruptions, improved security of supply and are better served for the move to greater electrification of everything (particularly heat). This is good for levelling up and good for growth of local businesses.

Meanwhile, TNUoS charges for SDG connected in England and Wales would be mostly **negative**, meaning that windfall payments would be awarded to SDG that happened to have the good fortune of being connected in a favourable DNO area.

The punitively high charges already faced by large power stations connected in Scotland will be introduced to small power stations as well, exacerbating existing inequities across the British generation fleet and further distorting competition between north and south.

This strikes at the spirit of a shared National Grid.

The consultation documents provide cursory discussion on the impacts of the changes proposed. Indeed section 5.8 of the Ofgem Impact Assessment states: “Unintended impacts: We have considered the risk of our reforms having unintended impacts and have not identified any material consequences at this stage.” This statement is plainly ridiculous – the impact on Scottish SDG will be massive and will seriously undermine the case for future projects.

Wind, solar and hydroelectric plants coming to the end of their subsidy support may conclude it is no longer economically viable to generate and will not repower their sites. This risk is acknowledged in Ofgem’s consultation, with implications made that SDG can simply relocate further south to where TNUoS charges will be more favourable. This is extremely alarming and devoid of reality. UK plc has invested billions in renewable energy projects and grid reinforcements with the implicit expectation they will contribute to British supply for many decades ahead. To fundamentally change connection charges to the detriment of these long-term infrastructure investments is short-sighted, reckless, and ignorant of the “relevant economic theory” Ofgem purports to observe.

Moreover, for Ofgem to say they are minded to impose such regressive changes in a Climate Emergency, when every kWh of renewable energy is required for the UK to meet its legally binding Net Zero Greenhouse Gas Emissions targets, is startlingly blinkered.

We must retain our existing renewable fleet and build more capacity – a great deal more according to the Climate Change Committee’s Sixth Carbon Budget – and our greatest renewable fuel source is found in the north of the British Isles.

Government says build more renewables. But TNUoS says don’t.

It is patently obvious the TNUoS charging system is not fit for purpose. The philosophy of using a forward-looking signal to encourage generation to locate close to demand centres (which are predominantly in the Midlands and south-east of England) and discourage generation from connecting and remaining connected in remote locations, is far too reductive and cannot deliver Net Zero. Fundamental reform is required.

SDG is treated as “negative demand” and is not required to pay TNUoS generation charges. It is recognised in some areas (e.g. north of Scotland and south-west England) the total energy generated in a GSP area can exceed the demand, and the transmission system is required for distributed generation to reach demand in other GSPs. As such SDG can be users of the transmission system. Equally, however, large power stations connected to the transmission networks also require use of the distribution systems for the energy they generate to reach their customers. In the parlance of Question 5a I would therefore counter: is there evidence that Large Generation does not contribute to flows in the same way as SDG, and, therefore, should not be charged on a consistent basis?

All generators can be users of the transmission and distribution networks, so it could be argued that all parties should contribute towards the upkeep of all voltage systems. These are fundamental considerations of fairness that must be debated before the industry can form a balanced minded-to position on how to improve charging arrangements for the benefit of all.

Notwithstanding, existing SDG has been funded based on the charging arrangements that existed at the time their final investment decisions were made. It is absolutely essential that the charging arrangements for these sites are grandfathered.

Greenspan would be keen to engage further with Ofgem and would be happy to discuss our response in more detail. Thank you for your consideration.



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