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By email:
ESOPerformance@ofgem.gov.uk

Dear James,

Call for Evidence – Review of the arrangements for electricity ancillary services

SSE Plc (SSE, we) is the leading generator of renewable electricity in the UK and Ireland, providing the energy needed today while building a better world of energy for tomorrow. We develop and operate low carbon infrastructure supporting the net zero transition, including onshore and offshore wind, hydro power, electricity transmission and distribution grids, efficient gas and energy from waste, alongside providing energy products and services for businesses. We supply energy to around 500,000 non-domestic sites under the 'SSE Energy Solutions' brand. This response represents our views across the transmission, distribution and generation businesses of SSE Group.

We welcome Ofgem's review of the regulatory and licensing treatment of assets dedicated to provision of ancillary services. We consider this review is long overdue and the precedents set by recent pathfinder outcomes, particularly the award of an Electricity Transmission Licence to Mersey Reactive Power Limited have brought these issues to the fore. We provide detailed answers to each of Ofgem's questions in appendix 1 of this letter.

**Delivering consumer value**
This review is critical for understanding whether the current approach in the provision of ancillary services is delivering value for consumers. This includes the use of National Grid Electricity System Operator's (NGESO, ESO) pathfinder initiatives where third parties are now permitted to bid for a solution without clarity on their responsibilities, the implications and interactions with existing licensing and codes or the method by which relative consumer value of solutions might be assessed.

We therefore request that Ofgem widens the scope of its review to consider whether pathfinders are delivering value for consumers. This should consider the costs and benefits of pathfinders to date, including those now in operation and whether the expected benefits for consumers have materialised. This extended scope could also include lessons learned from running the competition and subsequent third-party involvement within the ancillary services market. It is our view that pathfinders have now been in place for a reasonable length of time such that a full review of their use, as a policy, should be undertaken.

Ofgem's review must also consider whether, in seeking to achieve the lowest possible cost via pathfinder, NGESO is reducing the potential for whole system options. Transmission Network Owners (TOs),

Distribution Network Operators (DNOs) and NGESO are well placed to deliver whole system solutions which, while they may have a greater upfront cost, actually provide greater benefits to consumers (i.e., the cost benefit ratio of TO/whole system solutions could be higher than commercially procured solutions). We see little evidence that NGESO's assessments under the "learning by doing" pathfinder regime properly considers these wider issues and instead there is a "race to the bottom" to achieve the lowest possible cost associated with the provision of a specific service without considering other options available to address the requirement for such a service. Ofgem must also ensure that the relevant assessments are either properly scrutinised through industry consultation or by consideration being given to derogations from the necessary licence conditions or industry codes.

**Delivering a safe and secure network**

Ofgem's review must also consider the roles and responsibilities between all parties involved in the safe and secure operation of the transmission system should NG ESO continue pathfinder procurement. SSE's networks business, as a licensed TO, has a responsibility to develop and maintain an economic, efficient, and coordinated transmission network. The introduction of competitive procurement for ancillary services poses a challenge for TOs when considering compliance with requirements under the National Electricity Transmission System Security and Quality of Supply Standards (NETS SQSS) and System Operator Transmission Owner Code (STC). The narrow focus of the pathfinder tenders, to meet one particular network need, such as stability or voltage control, is inconsistent with transmission licensees' collective obligations to plan and operate an economic, efficient and co-ordinated electricity system.

Although we are less concerned by the specific licensing arrangements that Ofgem chooses to implement for ancillary services, we remain concerned that there exists an electricity transmission "lite" licence, as currently held by Mersey Reactive Power Limited. Regardless of the agreed licensing treatment, we feel all parties need to be held to the same high standards and obligations as set out in the STC, SQSS and grid codes. Otherwise, there is a significant risk that parties with less onerous obligations impact on the ability of other parties to fulfil their obligations under a "full" licence.

It is also vitally important that Distribution Network Operators (DNO) retain the ability to own and operate assets such as synchronous condensers as standard network tools without additional regulatory hurdles, to allow them to ensure the stability of the network. This is particularly the case in islanded areas of our licensed network. Where it is determined through market testing that a commercial provider offers overall the best solution for consumers, issues such as the long-term requirement for the assets as well as the fulfilment of obligations relating to security of supply must be fully considered.

Finally, in the generation space it is imperative that service providers are working off a truly level playing field. Existing assets must be recognised for their ability to provide services to the system and should not be disadvantaged by a lack of flexibility in the existing regulatory framework and increased regulatory flexibility afforded to new market participants.

We would welcome the opportunity to discuss our views in more detail with Ofgem at your earliest convenience. Please do not hesitate to contact me should you have any questions in the meantime.

Yours sincerely,

**Fiona Morrison**
Regulation Manager

## Appendix 1 Questions

Objective and scope of our review

1. *Do you agree with the objective and scope of our review? Are there any other relevant issues we should consider?*

While SSE welcomes Ofgem's review of the arrangements for assets providing ancillary services, we feel this objective is too narrow and focuses solely on the future arrangements for dedicated ancillary services providers. Incumbent service providers including generators, DNO's and TO's, who currently provide a variety of services to customers, are also able to provide these services. We agree that roles and responsibilities are a critical area that must be resolved, however we consider these issues arise as a result of the policy of introducing dedicated ancillary services providers

It is clear that the ongoing fundamental changes in the market as a result of the commitment to Net Zero drive a requirement for new grid and ancillary services solutions. However, it is essential to note that these services can be provided not only by new dedicated assets, but also existing generation assets subject to minor adjustments and conversions. In the latter instance, it will be important to ensure that these existing assets can provide services to the system operator on a competitive basis and are not disadvantaged by *both* a lack of flexibility in the existing regulatory framework *and* the increased regulatory flexibility afforded only to new market participants. A market in which every participant is highly specialised in providing one service and doing so at a particular price will be much more expensive than having one generator who can provide multiple services.

Additionally, SSE request that Ofgem should consider widening its scope to review whether the current approach to competition within the ancillary services market delivers value for consumers. It is our view that Pathfinders as a policy tool have been in place, and competitions run, for a number of years now and best practice policy development would be undertaking a full review as to whether the policy is delivering for consumers as intended. The review should consider the costs and benefits associated with the programme and include lessons learned from running the competition and subsequent third-party involvement within the ancillary services market.

We understand and support the ESO's objectives of the pathfinder initiative, as set out in the Network Development Roadmap, to explore further opportunities for non-network and distribution-voltage alternatives to conventional transmission investment. We welcome the continuous improvement to plan, develop and operate the electricity transmission system in the most economic, efficient, sustainable, and coordinated manner. However, we are concerned that this initiative is being progressed in an informal manner without due consultation or consideration of necessary derogation from licence conditions or industry codes.

We continue to believe that any benefits arising from the role competition will play in the future UK energy system (including ancillary services) must outweigh the negative impacts of fragmentation, most notably increased costs to consumers. Piecemeal development and management of the network limits the scope of projects addressing one network issue at one point in time, in one area of the network and limits the opportunity to consider co-ordination of works, longevity of assets costs and longer-term network need.

The probability of risk materialising only increases as more commercial providers begin to operate in the GB system. The electricity system requires complex co-ordination between the ESO, generators, OFTOs, TOs, DNOs and third-party ancillary services providers. This complexity is growing as we transition to a net zero network with different types of demand and supply signals than those seen under a fossil fuel driven grid. We strongly encourage Ofgem to ensure that issues around security of supply and safety are considered, taken forward and resolved as part of this review.

2. *Table 1 summarises the key dedicated ancillary service technologies and the ancillary services that they provide. Do you consider other technologies as capable of providing dedicated ancillary services? If so, please indicate what services they can provide.*

Table 1: Ancillary service technologies matrix

| | Synchronous condenser (including modified generator equipment) | Shunt reactor | **Static Synchronous Compensator (STATCOM)** | **Static VAR Compensator (SVC)** | **Mechanically Switched Capacitor with Damping Network (MSCDN)** |
|---|---|---|---|---|---|
| System stability | C | N | **N** | **N** | **N** |
| Voltage management | C | C | **C** | **C** | **C** |
| Other | | | | | |

*C – capable of service provision; N – not capable of service provision

- Static Synchronous Compensators (STATCOMS) are used on AC transmission networks and are part of the Flexible AC Transmission System (FACTS) family of devices. They are dynamic plant that provide control over system parameters to enhance controllability and increase power transfer capability. It is used to reduce voltage fluctuations and promote voltage stability.
- Static VAR Compensator (SVC) is also a FACTS device and can be used to regulate voltage similar to STATCOMS, however need complicated filter arrangements and are not as fast in dynamic voltage support as STATCOMS.
- Mechanically Switched Capacitor with Damping Network (MSCDN) provide static voltage stability during high power transfers across the network.

3. *What are the barriers to commercial dedicated provision of ancillary services?*

    a. *Are there specific barriers for dedicated stability service providers? If so, what are they?*
    b. *Are there specific barriers for dedicated voltage service providers? If so, what are they?*
    c. *Are there specific barriers for other types of assets dedicated to providing ancillary services? If so, what are they?*

A lack of upfront regulatory clarity results in an unequal playing field for different market participants. The lack of clarity presents significant risk to providers which is unlikely to be overcome.

We are also concerned about a lack of transparency and governance. For example, we are aware of an occasion when further discussions were held after a competitive tender closed between a selected bidder and NGESO resulting in an ex-post bid adjustment. This led to an increased availability fee and the inclusion of a utilisation fee, to cushion the costs unaccounted for by the bidder at the start of the tender process. This seems to be counterintuitive to the competitive nature of the tender process and yet again puts into question the equal playing field afforded to all market participants.

### Level playing field issues

The market needs to be balanced and proportionate, an uneven market will lead to higher costs for consumers. Seeking to bring new entrants to the market by offering different contractual terms will not achieve lower costs. Historically, many ancillary services have been provided by generation assets as a consequence of their primary function. Although NGESO now recognises that more flexibility around maintaining system stability is necessary, creating a niche market to the exclusion of incumbent generators will not work and raises concerns that existing generation will exit the market and leave behind a gap that cannot be filled by dedicated ancillary service providers.

4. *Should assets dedicated to providing ancillary services receive regulatory funding, be commercially provided, or should there be a combination of the two?*

Regardless of the approach adopted for dedicated ancillary service providers, SSE continues to believe that similar services should receive regulatory funding via the price control where the need for such services is demonstrated. For example, TOs are well placed to deliver ancillary services as they understand and experience the system issues that ancillary services also seek to resolve. TOs are well placed to consider the best solution to voltage management and system stability issues consistent with existing obligations. TOs, in conjunction with the ESO, help to and are obligated to under SQSS, identify where there is a need for a solution that ancillary services can provide.

Where DNOs require assets to provide ancillary services, such as synchronous condensers, regulatory funding is appropriate. This will allow the DNO to identify the best solution for consumers, whether that is a commercial provider or the DNO, and to fund this accordingly.

### Regulatory framework protects customers

The current regulatory framework under RIIO provides significant protections for customers and TOs. The regulatory framework imposes significant obligations on TO's, and, in return they receive allowed revenue and returns to deliver services to customers. TO's are also appropriately incentivised to achieve outcomes for customers, including under those that would be delivered under ancillary services. It also ensures that TO's are appropriately financed to be able to deliver their duties.

**Commercial participants are not subject to the same rigour**

Third parties who participate in a competition through the pathfinder regime are not subject to the same obligations and therefore customers are not protected in the same was as under the TO regulatory and licensing framework. Additionally, those third parties who provide commercial solutions through a contractual arrangement with the ESO could face very different investment risks and costs to those that provide solutions via a standard Electricity Transmission Licence under the RIIO framework.

We strongly encourage Ofgem to consider ensuring future third parties who are awarded contracts through the ESO are subject to the same obligations and duties as TO's under their licences, the STC and SQSS.

The current precedent set by the award of a "electricity transmission lite" licence to Mersey Reactive Power Limited is not acceptable and does not fully protect customers from the failure of third parties. The TO counterfactual approach continues to protect customers

We continue to believe that the ability for TO's to develop solutions in parallel to pathfinder competitions, and for these solutions to be assessed alongside third parties is critical to ensuring customers are fully protected from unattended adverse outcomes or third-party failure. It also ensures that whole system issues can be considered and an appropriate assessment of the right outcome for consumers can be assessed against the TO counterfactual.

5. *On an enduring basis, should electricity consumed solely to provide an ancillary service be exposed to the costs, charges and levies that consumption of electricity in general (such as final demand) is exposed to? Please provide details to support your position, such as the magnitude of the impact to your business, and the impacts on competition and energy consumers more widely.*

Yes, charges should be applicable to some extent. While, in the case of storage for example, charges should not be levied on both demand and generation volumes it is appropriate that they are levied on one side. We suggest that costs and charges should be assessed on a project-by-project basis but should in all cases be applicable, not least to reflect the use of network.

These charges should be considered the cost of doing business, however a flawed overview of costs by new entrants to the market could, in the medium to long term, lead to these parties exiting the market.

6. *Are any other changes to the licensing and charging regime needed which could better enable competition that drives down prices for the dedicated provision of ancillary services and why?*

SSE has no comment to make.

7. *Are there any other existing disadvantages between different providers of ancillary services that need to be addressed and why?*

The current pathfinder process does not align with the requirements of SLC D5 of the TO Licence: Condition D5: Prohibition on engaging in preferential or discriminatory behaviour. The Pathfinder process has resulted in some participants applying for connection and others not. Early applicants can benefit from less extensive enabling works, and hence earlier connection dates, than later applicants. This causes us concern about the potential distortion to competition.

**Licensing arrangements:**

8. *Should the dedicated provision of ancillary services be a licensed activity?*

As noted above, Ofgem's review must consider the roles and responsibilities of different parties operating within ancillary services before determining whether ancillary service providers are licenced. The widening of scope of recent pathfinder tenders brings us to a situation where transmission infrastructure is now being permitted to bid for a solution absent any clarity on its responsibilities under licence (see following section), the implication for and interaction with existing licensees and codes, or the method by which relative consumer value of solutions might be assessed. This creates confusion and uncertainty for existing licensees, potential market entrants, consumers, and wider stakeholders such as the supply chain and planning authorities.

However, we do strongly urge that either ancillary services are fully licenced, or they are not; meaning that if assets providing only ancillary services are not required to hold a licence, existing generators should be allowed to participate in the ancillary services market without reference to their generation licence.

The requirements of the generation licence can obligate licensees to provide services which unlicensed generators are able to seek a benefit for providing. We are also concerned that providers of ancillary services may be aggregators, collating smaller volumes which amount to the same volume as assets operating under the burden of licence conditions, thereby creating an uneven playing field.

Similarly, DNOs should not be subject to additional regulatory hurdles (such as the prohibition of generation licence conditions) under the electricity distribution licence to allow them to own and operate assets to provide ancillary services.

a. *What are the benefits and risks for consumers and other stakeholders of assets dedicated to providing ancillary services being provided solely through Transmission Owner (TO) ownership?*

**TO ownership ensures a coordinated, efficient, safe network for the benefit of consumers**

Under a TO ownership model, we believe that, given the significant obligations placed on TO's to deliver a co-ordinated, efficient, and safe network for the benefit of customers, it is likely that the benefits would outweigh any risk and lead to better outcomes than under a commercial ownership model.

**Maintaining Security of supply and complying with quality standards**

As TO's need to comply with the SQSS and STC in full, as well as additional obligations under our licence, the best way to maintain security of supply for consumers is through a transmission ownership model. This model is well established, and all activities consider the impact on security of supply as a result of the strong incentive scheme established within the RIIO framework. It is clear to us that those powerful incentives are not in place under a commercial model, as any incentives are defined in contracts with the ESO and may only consider the delivery of one specific asset rather than overall operation and maintenance of the system.

**Whole system thinking – delivering solution for multiple issues – future proofing**

Under the TO ownership model, TOs are well placed to deliver solutions which consider whole system issues. This can lead to significant benefits to consumers than procuring individual assets to specific solutions. It is clear to us, from our experience of the pathfinder process to date, that these potential benefits are not always considered when assessing bids.

**Low risk of failure**

As TO's are regulated through the RIIO framework, where sufficiency of finance is considered as part of the price control settlement, there is a low risk of TO failure. Ofgem has a duty to ensure licence holders "*are able to finance activities which are subject of obligations on them*".[1] This duty also helps ensure TOs are sufficiently financed to be able to deliver services to customers throughout the current price control period.

**Cost savings through a co-ordinated portfolio of works**

As TOs have oversight of works within our regions we work with NGESO to coordinate the development of the transmission network efficiently for the long-term in the best interests of GB consumers. We avoid fragmentation and short-term solutions by implementing synergies across our portfolio of load and non-load and ancillary service-related works. We deliver up front, as well as long-term efficiencies across our portfolio and invest strategically to avoid repeated disruption or duplication of works to a community and environment.

**Economies of scale and scope in operational expenditure**

The layering of operation and maintenance costs as the network fragments as a result of increased competition in ancillary services, could result in any short-term construction benefit being lost in operational inefficiency over the medium to long-term, particularly where there is post-award contract change control mechanisms proposed – i.e., the outturn cost could be significantly higher than the original successful bid cost.

[1] Our powers and duties | Ofgem

**TO's are well placed to provide wider benefits than commercial third parties**

In the current regulatory regime, TOs are well placed and well trusted network bodies that are highly accountable to their stakeholders, including environmental and statutory bodies, to not only ensure cost efficiency but also that our business practices are of high quality and standard through sustainability commitments and accreditations. We have long standing relationships with local communities and stakeholders in the north of Scotland and wider GB energy industry which have been built over decades to effectively and efficiently deliver projects whilst ensuring they are acceptable to the environment and local communities.

SSE also maintains a Responsible Procurement Charter, which sets out key principles and international best practice to ensure our business is conducted ethically, sustainably, within the law, and requires the same from our supply chain. This includes but is not limited to being:

- a **Living Wage** accredited employer since 2013 (including applying Living Wage across its supply chain, where applicable).
- accredited as a **Living Hours** employer.
- the only FTSE 100 company with the **Fair Tax Mark** independent accreditation; and
- a signatory to the **UN Global Compact (UNGC)**, the world's largest corporate sustainability initiative, committed to applying the UNGC's ten principles focused on the environment, human rights, labour and anti-corruption.

And having:

- developed an industry-leading and award-winning Biodiversity Net Gain (BNG) approach to improve the environmental impact of our projects.
- worked with our local communities including £0.5m contributed from the community resilience fund. We provided much needed Covid-19 support to over 115 communities across the north of Scotland.
- achieved leadership in Ofgem's Environmental Discretionary Reward scheme for the last three years and have been recognised by Ofgem for our RIIO-T2 sustainability initiatives through the consumer value proposition.
- our annual sustainability report[2] highlights our contribution to society in a more detailed manner, including that we supported 3900 jobs in 2019/20. We also contributed over £550m to the UK economy, of which £330m was in Scotland.

These examples show the wider benefits that a regulated monopoly can bring, which should be considered as the alternative would involve commercial third parties who may only be focused on providing one specific asset and not consider the wider impacts their organisation has on society.

We believe the risks of a TO ownership model to be low relative to the commercial model.

*b. What are the benefits and risks for consumers and other stakeholders of assets dedicated to providing ancillary services being provided only through commercial ownership?*

*c. Would different licensing treatment for assets dedicated to providing ancillary services present any challenges? For example, with TO-owned assets licensed under their*

[2] sustainability-report-2020.pdf (ssen-transmission.co.uk)

*electricity transmission licence and commercially owned assets under a different (or no) licence.*

d. *What would be the impact of each of these options on competition?*

9. *Do you think that the dedicated provision of ancillary services should fit within an existing licence category as an enduring solution? If not, how should this activity be best categorised within the licensing framework?*

Commercial third parties who provide ancillary services should be subject to the same obligations as generators, DNOs and TOs within their licence. We do not have a view on how this should be structured within the licensing framework, but as mentioned previously, the current situation where alternative licences, such as the electricity transmission "lite" licences, are being issued to third party commercial participants is not acceptable. We strongly encourage Ofgem to consider ways to ensure third parties are subject to the same obligations as incumbent generators and network operators to ensure the network and security of supply is maintained for the benefit of customers.

## Roles and responsibilities:

10. *Do you think there is enough clarity around existing roles and responsibilities in the provision of ancillary services?*

SSE does not believe that there is enough clarity around existing roles and responsibilities in the provision of ancillary services. As noted in Ofgem's call for evidence, the ESO and TOs share responsibilities under the SQSS to ensure the system is planned in line with security standards. It is not acceptable that both the ESO and TO have responsibilities for the same area as this creates confusion and situations where the TO may be liable for the failure of third parties.

### TO's and ESO joint obligation

TO's have a duty in regard of integrity of operation of owned assets and therefore are a key participant within the electricity system. Chapter 4 of the SQSS required that the system is planned such that there will not be any system instability or unacceptable sub-synchronous oscillations both for intact conditions and credible fault outages. We note Ofgem's view that this is a joint obligation between ESO and TOs, and that they should work together to meet these requirements.

### No clear boundaries between parties

However, we feel that the result of this is no clear boundaries between parties and no clear measures in place to check whether each party is fulfilling their responsibilities. As this is a joint obligation, each party is reliant on the others to ensure the overall obligation is fulfilled. If one party fails in its obligations, the other parties are impacted unfairly and could be subject to joint enforcement action.

### Third party involvement increases confusion

Furthermore, third party involvement in ancillary services increases the risk of existing TOs and ESO being able to fulfil their obligations under the SQSS as the pathfinder process allows third parties to propose solutions to voltage management and system stability issues. It is unclear to us who then is responsible if an issue with a third-party asset procured through a commercially competitive process

occurs. Would the existing TOs be liable under the SQSS as a result of the failure of a third party to provide an asset or ancillary service that a pathfinder was seeking to resolve?

11. *Are changes to arrangements needed to clarify responsibilities? If so, what changes are needed?*

Yes, changes are required to clarify responsibilities. In the absence of a proposal to remove the joint responsibilities from the ESO/TOs, there are a number of additional quick win actions that could be taken. A clear responsible, accountable, consulted, and informed matrix for ancillary services provision and voltage management and system stability issues should be established. This should include all parties involved in ancillary services as it currently stands, including Ofgem and commercial third parties procured through pathfinders. To provide clarity around responsibilities, clear processes and ways of working should be implemented and monitored through STC and grid code panels.