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10 May 2019

Dear Grendon

Call for evidence on ESO performance over the 2018-19 regulatory period

SSE welcomes the opportunity to respond to Ofgem's Call for evidence on ESO performance over the 2018-19 regulatory period. Please note that this response outlines the views of SSE's wholesale energy market-facing businesses¹ only, which are referred to in this consultation response as 'SSE'.

While SSE recognises that some improvements in the ESO's performance have likely been achieved throughout the 2018-19 regulatory period, this response primarily highlights the areas of further improvement where the ESO can add further value to the market and improve its performance.

SSE notes that Ofgem's Mid-Year Report of the ESO's Performance² published in December 2018 allocated a score of either 2 ('poor') or 3 ('baseline expectations') to each of the principles within the ESO's incentive framework. Overall, based on SSE's observations as a wholesale energy market participant the ESO has not exceeded the baseline expectations in any of the principles in the 2018/19 regulatory period. Specific areas of concern are raised in detail further in this response. In particular, SSE remains dissatisfied about interactivity of the ESO's engagement sessions, accuracy of the published data forecasts, transparency of monthly balancing reports and the ESO's ability to utilise the most cost-efficient resources available to it in the Balancing Market.

¹ SSE Renewables, Thermal Energy and Energy Portfolio Management and Investments (EPMI)

² https://www.ofgem.gov.uk/system/files/docs/2018/12/2018-19_my_r_report.pdf



SSE is looking forward to the Full-Year Report of the ESO's performance and the details of and the basis for any incentive moneys that could be allocated to the ESO for its performance in the 2018/19 regulatory period.

SSE raised specific issues in relation to each of the principles within the ESO's regulatory framework further in this response. However, if Ofgem requires additional details on specific points raised, SSE would be happy to engage with Ofgem on the subject as required.

This response is non-confidential and can be shared with the ESO and the ESO Performance Panel as required.

Kind regards,

Polina Kharchenko

Regulation Manager

SSE's views on ESO performance over the 2018-19 regulatory period

Principle 1: Support market participants to make informed decisions by providing user-friendly, comprehensive and accurate information.

ESO's engagement

Broadly speaking SSE has found the ESO's webinars on various topics useful, however interactivity of these webinars could be improved as there is usually a lack of opportunities to raise questions prior or during these engagement sessions. In addition, we have experienced a situation where less than half of the questions posed in a webinar³ were answered, post event, by the ESO (whilst they indicated that 'all' questions posed had been answered). Despite raising this with the ESO offline on several occasions⁴, some 13 of the 25 questions asked during the webinar have still to be answered by the ESO. SSE hopes this is an isolated incident and will not be repeated.

Separately, SSE also notes that on occasion Capacity Market (CM) webinars have either failed to go ahead as planned or provided limited or no interaction opportunities to raise questions or concerns. In addition, these webinars are targeted to a generic audience and fail to differentiate between the level of knowledge and information required by different groups of market participants. SSE encourages the Delivery Body (DB) to consider "Basic" and "Advanced" formats of CM engagement events to address this issue. That being said, the online training that took place on the CM auction system recently was useful and well-coordinated. And, in the past, the mock auctions (and the auctions themselves) have also passed off without incident.

Finally, SSE would like to take this opportunity to highlight the poor quality of audio-conferencing facilities at the newly constructed Faraday House. Whilst a seemingly minor issue it severely impacts the ability to have fruitful discussions on conference calls, requiring participants to travel long distances to attend in person. Many organisations have moved to using Skype or Webex over the Internet whereas the ESO is still using traditional dial-in methods. The cost of improving the facilities is likely to be recovered by the increased productivity from a single meeting.

Data transparency

SSE notes that the rapid transformation of generation mix in recent years has not been matched by a proportionate change to the level of detail offered in the Monthly Balancing Services Summary (MBSS) reports. Specifically, there is a lack of detail regarding the causes of constraint costs which are routinely lumped into a single 'constraints' category rather than being separately identified. There is also a lack of detail on the true cost of managing low inertia and low fault level (interconnector ROCOF constraint costs are believed to be only half

³ On 22nd October 2019, on Article 16(6) of the Electricity Balancing Guideline.

⁴ Such as via email on 20th November 2018 and 10th March 2019.

the true picture and do not reflect the further rebalancing that is required). The MBSS would benefit greatly from a brief monthly commentary to explain the topical issues affecting system operation and their strategy for addressing these issues.

This lack of transparency prevents the creation of business cases to create market-led solutions to resolve these issues and potentially leads the ESO down the routes to resolve issues that are not cost-optimal. This is demonstrated by the historic unwillingness of the ESO to consider a market for inertia and fault infeed services, yet both of those system needs are now inflicting high costs on system operation.

SSE also notes that forward-looking guidance provided by the ESO on costs projections, in particular on constraint costs, is limited. There is also a lack of transparency in relation to the costs associated with transmission system outages, specifically, in relation to constraint costs associated with recent failures of the Western Link.

Small issues such as making all data available in Excel files rather than pdf format would greatly facilitate analysis by market participants.

ESO's information dissemination accuracy

- BSUoS forecasts

SSE found that BSUoS forecasts published by the ESO are inaccurate. As an example, ESO's daily BSUoS forecasts over the period from 1 April 2019 to 25 April 2019 had a downward bias as in most instances the ESO's estimates were c.100%-200% lower than actual BSUoS outturns. SSE also notes that there is a significant difference between the ESO's short-term BSUoS forecasts and its annual BSUoS forecast expectation.

Separately, SSE notes ongoing discussions around BSUoS as part of the Balancing Services Task Force. While challenges around the ESO's and industry's ability to forecast accurate BSUoS have been widely recognised, the scale of inaccuracy in the ESO's forecasts is surprising given the range of tools and information available to it in its role as the ESO. While the ESO is currently incentivised to publish these forecasts, given significant inaccuracy, these forecasts are of no or very limited benefit to the market.

- Demand forecasts

Historically SSE observed meaningful discrepancies between the ESO's demand forecasts and actual outturns. While demand forecasts are publicly available to the market, the inaccuracy of this data means that it is only partially considered in commercial decision-making by SSE and is supplemented by third-party demand forecasts which appear to be more accurate, especially in the short term.

The ESO appears to have recognised that embedded generation is one of the important factors which results in the published demand forecasts being inaccurate. However, it appears the ESO is not taking steps to resolve the issue even though the European Network Codes

permit the ESO to obtain real-time data from all generators above 1 MW. It appears that this provision was not fully explored by the ESO when implementing the European Network Codes.

Related to the matter of demand forecast accuracy, SSE notes the ESO's recently⁵ proposed legal text within its GC0096 'Energy Storage' Grid Code modification, which sets out that national demand on the national electricity transmission system, includes electricity storage and recognises that circa 1.8GW of storage is currently⁶ connected to the distribution system (with far more storage capacity reputedly seeking to connect, at distribution, in the short to medium term). However, SSE has not seen enough evidence in 2018/19 of the steps needing to be taken by the ESO to recognise the impact, on its demand forecast accuracy, that embedded storage brings.

SSE are aware that the ESO uses a demand forecast for within-day balancing that is more accurate than the published version. SSE would like to encourage the ESO to publish their most accurate view of demand forecasts given the importance of these forecasts to the market and ESO's balancing market activity and the clear benefit more accurate demand forecasts would have on reducing system balancing costs.

- Wind and solar forecasts

While this data is being published by the ESO, given inaccuracies in the published forecasts, the data is generally of limited use to market participants, such as SSE.

Principle 2: Drive overall efficiency and transparency in balancing, taking into account impacts of ESO actions across time horizons.

SSE notes that the ESO's engagement with the wind industry via Renewable UK to address the 'Power Available' accuracy issues has been positive. However, despite the significant progress being made to establish good practice and support to generators it is not clear whether sufficient resources are being deployed to update the ESO's internal IT systems to enable them to calculate in real time the levels of reserve or margin that could be provided from constrained wind.

SSE also acknowledges the excellent support provided in relation to continued generation from two windfarms (SSE's Bhlariadh and Octopus Energy's Beinnuen) at a reduced export level during planned transmission reinforcement works. It is unfortunate that such efforts are not quantified and acknowledged, and SSE believe that the ESO should be incentivised to record either 'MWHR lost' from intermittent generation or 'MWHR recovered' from facilitating options during planned network outages. Without this metric it is not possible to measure the planning efficiency of Transmission Owners under the Operation Code 2 (OC2) process. Arguably, provision of this data would be relatively easy to implement given that each

⁵ 30th April 2019.

⁶ According to analysis provided by DNOs on 25th April 2019

power stations' load factors are available and being used by the ESO in its annual TNUoS calculations.

However, SSE notes there is no transparency in relation to the costs of failure by the ESO to deliver / implement the Electricity Balancing System (EBS) and the consequential impact on the Balancing Market and on market participants.

Principle 3: Ensure the rules and processes for procuring balancing services maximise competition where possible and are simple, fair and transparent.

A recent tender by the ESO for reactive power services in Scotland to unlock a potential of the windfarms is a welcome development.

However, it was disappointing that the planned ESO Reactive Power workshop planned for Q4 2018/19 did not go ahead (and as of the date of writing a date has still to be set).

Separately, it has been disappointing that the terms and conditions related to balancing⁷ proposed by the ESO have not, to date, been simple, fair or transparent – this has, in SSE's view, meant that the rules and process for procuring balancing services by the ESO are not maximising competition where possible.

Principle 4: Promote competition in the wholesale and capacity markets.

Capacity Market – General views

SSE supports the role of the ESO as the Delivery Body (DB) of the Capacity Market and believes that transferring responsibility for this work to an alternative body would be unlikely to result in any material benefit in the short term. However, SSE also recognises that the DB has been resourced for a much smaller Capacity Market than the one which exists e.g. in terms of the volume of applications and it is likely that this has affected the DB ability to deliver a better service in some instances.

SSE has observed a number of issues, which seem to have arisen as a result of resource constraints at the DB and which have affected its ability to deliver the expected level of service to market participants. For example, SSE found that the performance of the (DB) IT system supporting functionality of the Capacity Mechanism was poor, which is surprising given the importance of this mechanism.

Separately, having reviewed Ofgem's proposals in relation to the ESO's CM incentives (as part of Ofgem's Five-Year Review of the CM Rules), SSE agrees that further improvements to the CM incentives framework are likely to enhance the ESO's role in the CM. SSE will submit its detailed views in relation to this aspect as part of the response to Ofgem's Five-Year Review consultation.

⁷ Which are legally required by Article 18 of the Electricity Balancing Guideline.

Capacity Market – Customer support

SSE notes that the staff rotation at the DB has impacted negatively the quality of interaction experienced by SSE. SSE acknowledges that the ESO has a number of skilled staff who are both customer-focussed and possess the knowledge to help when queries are raised. However, the experience that these people possess is rarely adequately replaced following a rotation of staff taking place making the interaction with the DB much poorer than it should be. For example, the DB seems to have recently adopted a policy whereby it provides a link to guidance as an initial response to a specific query. Receiving this feedback from the ESO is not particularly helpful as, in most cases, SSE have already read the guidance and found the information in the document either irrelevant or incomplete hence why a query was raised with the DB. In addition, in the past, the ESO seems to have adopted the approach of not answering the phone during key times in the auction process. While SSE recognises that this is likely to be due to resourcing constraints, this certainly does not provide the required support to a market participant.

That being said, there are also examples of the Capacity Market team providing excellent customer service. For instance, last year, members of the team at ESO travelled to Edinburgh to address in person some of the issues which SSE had highlighted with the Portal.

Capacity Market – the Portal

SSE notes a lack of user-friendly functionality within the DB's CM Portal and considers that this system is not fit for purpose. SSE also would like to highlight that in a number of instances it has not received adequate (DB) IT support from the relevant DB team as this team's knowledge of the Portal and its functionality sometimes seems limited and can be disconnected from how the user experiences the system.

Separately, SSE has experienced slow performance of the Portal which, given the number of applications SSE makes, means that it can take a significant amount of time to successfully complete the process. In SSE's view the Portal is difficult to navigate, for example, it has been challenging to find recent updates and relevant guidance once they have "fallen off" the list of recent news items; in addition, messaging and notifications from the Portal can also be inconsistent.

To be clear, the criticism of the IT employed by the ESO does not extend to the auction system that has been implemented. Whilst it is not perfect, SSE believes that the auction system provides a satisfactory user experience.

Principle 5: Coordinate across system boundaries to deliver efficient network planning and development and Principle 7: Facilitate timely, efficient and competitive network investments

SSE welcomes recent public Requests for Information for provision of short-term Reactive Power Service by large-scale storage as a cost-effective alternative to network reinforcement.

However, there appears to be a lack of coordination with DNOs in relation to embedded generators in the Balancing Market and a lack of prioritisation between local distribution markets and the Balancing Market.

SSE considers that the ESO's Networks Options Assessment (NOA) team provides effective communication updates and seminars. However, it is unclear why large-scale storage is not considered in the NOA while, for example, optimal locations of interconnectors is being explored in detail.

SSE's strong view is that the ESO should be unbiased towards technical solutions for dealing with transmission constraints on the national electricity transmission system. Solutions such as large-scale storage could be very cost effective at relieving boundary constraints by avoiding reinforcement across several downstream system boundaries whilst providing higher reliability than new subsea cables as well as other ancillary services. Currently boundary constraint costs are not made public preventing the creation of business cases to support such solutions.

Principle 6: Coordinate effectively to ensure efficient whole system operation and optimal use of resources

The ESO's Enhanced Frequency Control Capability (EFCC) project appears to have reached a conclusion after several years however there are no apparent plans to rollout or what the opportunities will be for future market participants.

In addition, there is a lack of support from the ESO to update anachronisms in the Grid Code that prevent a level playing field in the market. For example, a common threshold for 'large' generators across the UK remains despite a complete change in the mix of generation connected and reinforcement of the transmission systems in Scotland and the South of England. There is now a much stronger transmission system in Scotland than in the less populated parts of England and Wales yet the variation across the country in MW threshold for Large generators established 15 years ago still prevails. This leads to an unfair disparity within the GB market regarding the need for provision of real-time monitoring of MW output which Small generators avoid.

Establishing a common threshold at 10 MW across the country would provide the ESO with real-time MW output of many more embedded generators throughout the South of Scotland, England and Wales in the 10 – 50 MW range, permitting fine-tuning of regional embedded generation forecasts which would lead to far greater demand forecasting and consequently lower balancing costs. Given such data will be needed anyway for DNOs to function as effective DSOs, such a change would not be seen as a significant incremental cost in the long term.

The ESO is not focused on developing the 'least regret' solutions approach that supports the 'whole system' principle that would provide benefit across multiple future energy scenarios. Such examples of 'whole system' least-regret solutions include Pump Storage assets and Synchronous Compensators whose development is stymied from a transmission charging



methodology that does not allow for negative charges for large scale controllable demand and the lack of recognition of the value of system services such as inertia and fault infeed which are now dropping to levels which require the SO to take costly remedial actions.