

Grendon Thompson
Head of Electricity SO Regulation
Ofgem
10 South Colonnade,
Canary Wharf,
London E14 4PU.

18 October 2019.

Sent by email to: ESOperformance@ofgem.gov.uk

Dear Grendon,

Mid-year call for evidence on Electricity System Operator performance

Thank you for the opportunity to respond to the above call for evidence. This is a non-confidential response on behalf of the Centrica Group.

We believe the Electricity System Operator (ESO) continues to respond positively to the current incentive regime. We recognise good delivery and improvements in a number of areas, such as the administration of the BSUoS Taskforce, engagement with stakeholders via *Power Responsive* and the increase in the level of detail available in monthly balancing services reports. Also, we acknowledge the ESO's efforts in facilitating us registering new technologies such as using smart residential hot water tanks to provide system management services.

Progress towards facilitating the ESO's ambition for RIIO-2:

In its recent consultation on its ambition for the RIIO-2 price control, the ESO proposed to implement key reforms to facilitate the develop of liquid, competitive markets for system balancing services. An example is the implementation of a single day-ahead auction for response and reserve products. We support the ESO's ambition for RIIO-2 and believe it should enable the transformation to a sustainable energy system.

The 2019-21 Forward Plan contains a portfolio of activities which, if successfully completed, lays the foundation for delivering against its RIIO-2 ambition and would be evidence of good performance. The trialling of frequency response auctions is an intermediate step to implementing a single day-ahead auction for response and reserve products and experience gained from the trial will be valuable for implementation. The likelihood of the ESO implementing reform to balancing markets in RIIO-2, thereby achieving its ambition, is heavily dependent on how well it delivers against the 2019-21 Plan.

We would expect good performance to involve regular engagement with market participants about the design of, and insight gained from, the trial as it progresses and about progress towards implementing day-ahead auctions. The ESO has set up a dedicated section on its website that contains information relevant to the trials, such as post-tender reports, auction results and a tool to assess dynamic FFR test results. Industry engagement could be improved by convening working groups open to industry stakeholders, to discuss the detailed technical aspects of the trials - to review the design and operation of the trial and to explore other areas to be investigated as the trials proceed. We believe this should maximise the lessons of and the experience to be gained from the trial, ultimately leading to better consumer outcomes. An ambitious implementation roadmap, with progress tracked against clearly-defined milestones, would be useful for market participants.

Transparency and communication:

We stress the importance of transparency and effective communication, particularly about current and future system requirements, and the drivers of and justification for operational decisions. Clarity on these factors can provide broad investment signals to market participants. The ESO has improved its engagement with market participants and taken steps to increase transparency since the current incentive regime was introduced. However, we believe further improvements are needed. In some instances, procurement of balancing services is opaque and obtaining clarification of some procurement decisions is not yet seamless. As an example, our analysis of the results of tender round TR115 for firm frequency response services would suggest that consumers may be required to fund more expenditure than needed. We have sought clarification from the ESO, and we await its response. We are happy to share our analysis with you confidentially.

The regulatory framework encourages the ESO to deviate from the Forward Plan, to focus on those outputs that deliver the greatest consumer value. We support the ESO 'flexing' its delivery programme when it is consumers' interests to do so. The ESO should proactively engage with market participants when deviations are being or should be considered. The ESO should communicate the possibility of a deviation (ahead of it occurring) at the earliest feasible opportunity. The ESO should also explain why the deviation is optimal from the consumer perspective. Where appropriate, the ESO should seek views from stakeholders if the deviation could lead to consequential impacts on other deliverables. The ESO's engagement in relation to Project TERRE is an example of good communication.

Performance tracking:

We have been unable to find the information needed to track the ESO's progress against some elements of the 2019-21 Plan and to assess whether performance is improving. Performance against some metrics is not updated regularly. For example, the Information Provision Scorecard (metric 2) has been published once in this scheme year despite all but one of its 10 components relating to daily or monthly performance¹. We have not been able to locate evidence to assess whether some deliverables were completed. An example is communicating reactive power requirements and historic spend, which was due in the first half of the scheme year.

We think some metrics should be redesigned, to better enable stakeholders to assess whether performance is improving. For example, Metric 5 Part 2 is meant to measure the direction of travel

¹ At the time of preparing this document, performance reports for April - August were published.

away from bilateral arrangements. However, the metric is based only on expenditure. This metric should be revised and extended to include volumes alongside expenditure since, in isolation, reporting on expenditure does not illustrate the increase in the extent to services are procured competitively. Comparisons to previous years should also be included. Historical data should also be presented.

We include our evidence of performance according to Roles in the attached appendices. I hope you find these comments helpful. Please contact me if you would like to discuss any aspect of our response.

Yours sincerely,

Andy Manning
Head of Network Regulation, Industry Transformation, Investigations and Governance
Centrica Regulatory Affairs, UK & Ireland

Appendix A: Role 1 - Managing system balance and operability

Deliverable:	Future of the ENCC: Publish information on 5 operational challenges.
Due:	Q1 2019-20
Commentary:	The document was published in July 2019 and was meant to explain the current real-time operational decisions the ESO's Electricity National Control Centre (ENCC) faces and how these are likely to change in the future ² . The document does not contain enough detail to help us understand how real-time operational decisions are made and how those operational challenges will change over time. We note the ESO has confirmed it would publish a series of documents over the next few months to consider in more depth each of the challenges ³ . Those documents may contain the information we expected to be included in the July publication. We look forward to their publication.

Deliverable:	Insight on balancing decisions taken: Improvements to the Daily Balancing Costs report and Monthly Balancing Services Summary (MBSS). This will include more detail on voltage, constraint and mandatory frequency response.
Due:	Q3 2019-20
Commentary:	<p>The ESO has planned to deliver these improvements in Q3. In addition to the proposed changes to be delivered, the following improvements should be made to both reports, as we highlighted in our response to the consultation on the 2019-21 Forward Plan:</p> <p>Daily Balancing Costs reports:</p> <ul style="list-style-type: none"> Balancing Mechanism (BM) units should be identified, rather than simply tagging actions as 'BM actions' and similar. This would increase competition amongst service providers. The ESO should clearly identify when generation units that have contracts to operate are requested to do so. <p>Monthly Balancing Services Summary (MBSS) reports:</p> <ul style="list-style-type: none"> Commentary on the broad driver(s) of the level of expenditure in each category should be published. This will help stakeholders to understand the extent of the system issues that were managed and the decisions that were made about how those issues were managed. We recognise summary commentary on extraordinary drivers of expenditure e.g. unavailability of the Western HVDC Link is included in the monthly performance reports and BSUoS forecasts when applicable. This commentary should also be included in the MBSS reports. ESO should identify the MWs procured in the different frequency response services (EFR, FFR, MFR). If possible. this should also be done in other services too, namely reserve services.

² Forward Plan page 6.

³ Forward Plan page 12.

Deliverable:	Roll out of Loss of Mains protection settings: Publish a methodology for how we intend to procure balancing services from Distribution Network Owners (DNOs) to enable RoCoF and vector shift changes.
Due:	Q1 2019-20
Commentary:	
<p>We recognise the ESO's efforts to accelerate the programme to update Loss of Mains protection settings for embedded generators. Particularly, the ESO is currently engaging with the industry through various means, such the portal on the Energy Networks Association website⁴, to encourage early adoption of the updated settings.</p> <p>In the 2019-21 Forward Plan, the ESO estimated the accelerated Loss of Mains project would cost £60m and was expected to result in a reduction in expenditure of £110m in 2021-22 relative to 2020-21⁵. However, we note the ESO now intends to recover £100m over the next 24 months for the accelerated programme⁶. This suggests the expected net benefits have reduced significantly, from £50m to £10m. We recommend the costs and the benefits of the project are kept under review and expenditure should be stopped if it expected the costs will exceed the benefits.</p>	

Deliverable:	Ancillary Services Dispatch Platform: Moving dispatch of Short-term Operating Reserve (STOR) to ASDP.
Due:	Q2 2019-20
Commentary:	
<p>We welcome STOR dispatch being moved to ASDP, which was completed at the end of Q2. We are unable to assess whether it is fully operational since this was only very recently completed.</p>	

Deliverable:	Operability Strategy Report: Provide a view of current and future operability challenges, to help inform stakeholders' investment strategies, and commercial and operational plans.
Due:	Q1 and Q3 2019-20 & 2020-21
Commentary:	
<p>The report was published in Q1. We look forward to the Q3 update.</p>	

Deliverable:	Publish Forecasting Strategy Project Roadmap: High level plan of the new forecasting strategy project deliverables.
Due:	Q1 2019-20
Commentary:	
<p>The Roadmap was published.</p>	

⁴ See: <http://www.energynetworks.org/electricity/engineering/accelerated-loss-of-mains-change-programme.html>.

⁵ Data obtained from table 2 on page 23 in the Forward Plan.

⁶ See: <https://www.nationalgrideso.com/document/152616/download>

Metric 1 – Balancing cost management:

In our response to the consultation on the 2019-21 Forward Plan, we raised concerns about the 2019-20 cost benchmark, including:

- It was higher than the cost benchmark for 2018-19, in the absence of an explanation of any technical or operational reasons why it should be higher. Additionally, the benchmark is meant to reflect a broad range of operational situations and adjustments were proposed.
- The data used to produce the linear trend is dominated by the years with the highest observed costs.

We also raised concerns about the adjustments to the benchmark, including:

- Adjustments for factors such as network reinforcement did not seem to represent a step-change in expenditure as it is a continual activity.
- Generator outages in Scotland and the suspension of the Capacity Market were identified as factors that could affect the cost benchmark but their potential impacts on expenditure were not quantified.
- The governance arrangements for applying adjustments to the cost benchmarks were unclear.

We recommended the cost benchmark is a simple average of expenditure over the past five years.

We are unable to assess the extent to which the ESO has been effective in managing expenditure during 2019-20 given the concerns we raised ahead of the start of the scheme year, and without sufficient evidence the cost benchmark is robust.

In the 2019-21 Forward Plan, the ESO estimated the accelerated Loss of Mains project would cost £60m and was expected to result in a reduction in expenditure of £110m in 2021-22 relative to 2020-21⁷. However, we note the ESO now intends to recover £100m over the next 24 months for the accelerated programme⁸. This suggests the expected net benefits have reduced significantly, from £50m to £10m. We recommend the costs and the benefits of the project are kept under review and expenditure should be stopped if it expected the costs will exceed the benefits.

Metric 2 – Information provision scorecard:

In our response to the consultation on the 2019-21 Forward Plan, we stated that accuracy of forecasts is more important than simply providing forecasts. We proposed the accuracy of the daily BSUoS forecasts should be measured and we proposed performance benchmarks. We continue to believe the ESO should be measured on forecasting accuracy, to drive the right behaviours that will deliver consumer value. We do not believe that simply providing forecasts is evidence of a high-performing ESO.

The performance metrics captured in the scorecard relate to activities undertaken on a daily on monthly basis. As such, it is reasonable for the scorecard to be updated and published monthly. The scorecard has been published on only one occasion during the current scheme year. We

⁷ Data obtained from table 2 on page 23 in the Forward Plan.

⁸ See: <https://www.nationalgrideso.com/document/152616/download>.

recommend the scorecard is published monthly, to allow stakeholders to how well the ESO is delivering information meant to increase transparency. In the June performance report, the ESO highlighted it discounted performance failures, which it states were due to unforeseen IT issues⁹. It is unclear whether that approach is justified.

Metric 3 – Energy forecasting accuracy metric:

In our response to the consultation on the 2019-21 Forward Plan, we raised concerns about the proposed performance benchmarks, for both demand and wind forecasting accuracy. The ESO considers it will satisfy baseline expectations if it meets targets, based on historic averages, in six to eight months of the year. Across the year, that could represent a worsening relative to previous performance. Further, the proposed metric may not be effective in encouraging focus across the entire year. We recommended forecasting accuracy is measured based on the mean absolute percentage error (MAPE) across the year for both demand and wind forecasting. We continue to believe the performance benchmarks are inappropriate and should be based on the MAPE.

At this stage, we are unable to assess whether the out-turn forecasting accuracy is both good and is an improvement upon historic performance. We do not think measuring accuracy based on absolute volumes can always demonstrate underlying performance as the approach does not take account of materiality. Further, it is unclear whether performance benchmarks based on the average of the previous three years represents a robust baseline.

Appendix B: Role 2 - Facilitating Competitive Markets

Deliverable:	Rollout of full functionality in frequency response auction trial – Second stage of auction trial, introducing dynamic primary & secondary products, linked bids and conversion factors.
Due:	Q3 2019-20
Commentary:	
<p>This deliverable appears to be progressing according to schedule.</p> <p>The ESO that been responsive to concerns about the design of some products. During the Phase 1 trial, the ESO introduced a locational requirement. This was not expected as frequency response is usually not tendered on a locational basis. We raised our concerns with the ESO about why this requirement was inappropriate and it was removed.</p> <p>We continue to encourage proactive and early engagement from the ESO. In September 2019, two months before go-live, the ESO introduced a 20 MW cap eligibility, which excluded volumes we intended to participate in this auction with. This had not been communicated previously, for example in the July 2019 update¹⁰ and therefore it was unexpected that this optionality for our assets was not retained. Further, we do not believe the ESO has yet sufficiently justified why the cap is needed even though it appears to unnecessarily limit participation of a range of assets in the auction trial and the ESO has yet to indicate how those assets excluded can be accommodated in the trial. This demonstrates that engagement should be encouraged with industry in advance of the publication auction details. This is especially critical for big reform areas such as the reform of balancing services It is crucial that reform changes improve competition and provide further opportunities to all assets.</p> <p>In order to meet the RIIO-2 deliverable of daily auctions (which is much more important than weekly to unlock new flexibility), there needs to be a clear and ambitious roadmap to implementing daily auctions. The implementation of daily auctions is an important output for Centrica as moving to daily frequency auctions will allow frequency response to be procured from more resources than currently.</p>	

¹⁰ See: <https://www.nationalgrideso.com/document/152221/download>.
Page 8 of 15

Deliverable:	Report on development of new frequency response product suite – Update on product development following modelling, analysis and stakeholder feedback.
Due:	Q3 2019-20
Commentary:	<p>We accept that this is a complex area of balancing services reform and, as such, delivering reforms may take longer than previously envisaged. We recognise this deliverable can still be delivered on time. However, engagement with market participants on progress and consultation on product development has been below our expectations. We are unaware of an update further to that published in February 2019.</p> <p>Given this significance of these reforms, we do not think publishing a report is sufficient. The ESO should formally consult market participants on proposed technical specifications, commercial procurement and any interactions with other frequency products. In addition, we would welcome specific working groups, perhaps facilitated by trade associations, to discuss and agree less substantive changes. This is an area of importance to Centrica and, therefore, we encourage enhanced engagement in H2.</p>

Deliverable:	Report on auction trial – Status update on the success of trial, learnings from the first six months and how these are informing future developments.
Due:	Q2 2020-21
Commentary:	<p>We believe that a status update will be useful. However, it is important that a roadmap for moving towards daily auctions, with progress tracked against clearly-defined milestones, is developed. We would like to see progress and draft roadmaps well in advance of Q2 2020/21</p>

Deliverable:	Market design for reformed reserve products – Deliver a proposal for reformed reserve products, including detail of how they will interact with both new frequency response products, spin gen and pan-European Standard products (TERRE/MARI), and a plan for implementation.
Due:	H1 2019-20
Commentary:	
<p>This proposal has not been delivered and we have not had any communications from the ESO in H1 regarding this. Recently in October, the ESO informed us that there will be an update on this topic, but we still have not seen the update. We encourage the ESO to proactively engage with market participants on the development of these proposals and we encourage the ESO to keep industry updated on developments ahead of deliverable due dates.</p> <p>The inter-relationships between response and reserve products means the development of reserve products should necessarily be based on the design of future response products, which is ongoing. The development of reserve products should also be considered in light of how the new pan-European Standard product TERRE will be used, and what the impact of wider access on the makeup of the Balancing Mechanism will be.</p> <p>This is an area of importance for Centrica since we currently participate in STOR and Fast Reserve markets; with some assets specifically designed for these markets.</p>	

Deliverable:	Report on our plan for retaining specific products – Paper outlining which specific products we are retaining, supported by cost benefit analysis.
Due:	Q1 2019-20
Commentary:	
<p>We acknowledge the report was submitted to the Authority in Q1. However, engagement with market participants has not met our expectations. Market participants were only recently been made aware of the potential options, as described in the October consultation¹¹. Also, the ESO has not made it clear whether certain products such as STOR and Fast Reserve are likely to remain in the portfolio of balancing services. Given the significance of the proposals, we believe the ESO should have proactively engaged and sought feedback ahead of the report being submitted to the Authority.</p>	

Deliverable:	Implementation of pan-European replacement reserve standard products – Support development and implementation of Pan-European standard products (TERRE and MARI) to allow Great Britain parties to participate.
Due:	Delivery throughout 2019-21
Commentary:	<p>The delay in implementing project TERRE was beyond the ESO's control. The ESO provided an update ahead of this. This is an example of good engagement with market participants.</p> <p>Any delays (or likely delays) to platforms and APIs should be communicated as soon as possible.</p>

Deliverable:	Alternative Approaches to Restoration – Undertake a Network Innovation Allowance (NIA) project to understand the capability of 'non-traditional technologies', such as wind, solar, battery storage, EVs, industrial and commercial DSR to contribute to a Black Start.
Due:	Q1 2019-20
Commentary:	<p>The final report for the NIA project on black start from non-traditional sources was due in Q1. We are aware external reviews have been completed but we have not been able to identify whether the final report has been published.</p>

Deliverable:	Deliver innovation projects to unlock demand flexibility – Work with industry stakeholders through collaborative projects to understand the role of smaller scale assets and technology innovation in unlocking greater flexibility, to identify and unlock barriers to entry and maximise opportunities for accessible, competitive markets.
Due:	Q1-Q4 2019-20
Commentary:	<p>We acknowledge the ESO has investigated innovate ways to unlock demand flexibility. We welcome the ESO's efforts in facilitating us registering new technologies such as using smart residential hot water tanks to provide system management services.</p> <p>Whilst the ESO's engagement on the administrative aspects of our proposals to find innovative means of unlocking residential demand flexibility is welcome, its engagement relating to the technical aspects has not met our expectations. For example, in early 2019, we approached the ESO, to investigate another way of unlocking residential demand flexibility (partial 10Hz sampling on residential flexibility). There has been little engagement on the technical aspects of our proposal.</p>

Deliverable:	Power Responsive Stakeholder Engagement – Promote industry developments for demand side flexibility and facilitate feedback to shape ESO deliverables through a range of engagement activities. These will include conferences, working groups, webinars, consultations, editorials, training sessions and reports.
Due:	Q1 2019-20 – Q4 2020-21
Commentary: We believe the ESO’s approach to engagement in this area has been good.	

Deliverable:	Use better technology/systems to improve efficiency of installing communications with BM providers and optimising BMU dispatch – Improved and clearer communications system requirements: <ul style="list-style-type: none"> • Testing and improvements of IS solutions, to include web-based platforms, • Final IT user specifications available to industry, • Wider access go live.
Due:	Delivery throughout 2019-20
Commentary: Progress on those elements relating to the BM is positive. A separate webpage has been set up, which has made it easier to identify whether updates have been published. The ESO has not indicated whether wider access (via VLP and the API), which we expected to go live in December 2019, will be completed on schedule. If the ESO anticipates this will be delayed, we encourage the ESO to communicate this to market participants.	

Deliverable:	Support industry work on providing and delivering against Physical Notifications (ELEXON led) and also support on work on accurate settlement for behind the meter – Provide a mechanism for aggregated BMUs to submit accurate predicated generation profiles (PNs) and provide a way to accurately determine how much energy an aggregated BMU has delivered at their connection point to the distribution system.
Due:	Q3 2019-20
Commentary: At this stage, we believe this modification may not be implemented in December 2019 as it is still at the workgroup stage and a ‘Request for Information’ was recently published. We suggest the ESO should engage with market participants on the potential impacts of the delay.	

Deliverable:	Improved online resources – Clear signposting to relevant sources of information on our website; interactive guidance document for each balancing service; and checklist of entry requirements for each service to support providers in understanding their eligibility to participate.
Due:	Q1 2019-20
Commentary:	<p>We acknowledge the ESO has improved online resources. The overall appearance has been refined, the interactive balancing service guides are neat and the publication of the slides from services webinars are useful.</p> <p>Further improvements that should be made:</p> <ul style="list-style-type: none"> • The layout of some webpages could be improved e.g. STOR. Many documents are contained as weblinks in the overview pages and not in a proper document library. Additionally, some links are broken. • 'Live' information contained in old slideshows and presentations should be better signposted. • All the relevant information needed by new participants should be better signposted.

Deliverable:	Leadership in the successful transformation of electricity access and charging – Publication of ESO-led Balancing Services Charges Task Force final report.
Due:	Q1 2019-20
Commentary:	<p>The ESO delivered this significant piece of work within the challenging timescales while, at the same time, keeping stakeholders informed. We recognise this as an example of good engagement and communication.</p>

Metric 5 – Reform of balancing services markets

Part 1:

It is not clear what this metric is meant to measure and how performance can be robustly tracked. Also, it is unclear benchmarks represent performance that is both good and improving. We recommend this metric is revised.

Part 2:

We welcome the development of this metric. However, it should be revised and extended. The ESO should make clear whether 'Mandatory Frequency Reserve' includes holding costs. Commercial Reserve should be included, to demonstrate the extent to which the ESO is moving towards competitive procurement. The metric should be expanded to include volumes alongside expenditure since, in isolation, reporting on expenditure does not illustrate the increase in the extent to services are procured competitively. Comparisons to previous years should also be included.

In the 2019-21 Plan, the ESO states setting performance benchmarks for this metric would limit its ability to deliver our balancing services at the lowest cost to consumers. We agree the ESO

should seek to balance the system in ways that maximise value for consumers. However, implementing reforms to markets for balancing services is expected to lower system balancing costs. This metric can be used as a primary indicator of the extent to which the reforms increase procurement via competitive means and, by extension, the extent to which objectives of reforms will have been achieved. We believe this means performance benchmarks should be set.

Appendix C: Role 3 and 4 - Facilitating whole system outcomes and supporting competition in networks

Deliverable:	RDP identification process – An agreed process with DNOs to identify the need for future RDPs.
Due:	Q3 2019-20
Commentary:	We welcome the ESO investigating how consumer value can be realised. It is important the ESO ensures RDPs are implemented in a way that is compatible with the development of competitive flexibility markets and should aim for a standardised approach across DNO areas.

Deliverable:	ENA Open Networks project 2019 ESO input – We will play a proactive role in the ENA Open Networks Project including leading the development of a number of products. AND ENA Open Networks project whole energy system lead – Lead the development of the whole energy system workstream of the Open Networks project.
Due:	Q3 2019-20
Commentary:	We welcome the ESO's continued active involvement in the Open Networks Project, including on Flexibility Procurement.

Deliverable:	TOGA replacement – Develop the TOGA system replacement
Due:	Q4 2019-20
Commentary:	We note this deliverable is due in Q4. However, we are unaware of any industry engagement on the replacement.