Centrica plc
Regulatory Affairs
Ground Floor, Lakeside West
30 The Causeway
Staines
Middlesex
TW18 3BY
www.centrica.com

Fintan Slye
National Grid Electricity System Operator
Faraday House,
Warwick Technology Park,
Gallows Hill,
Warwick CV34 6DA.

31 January 2020.

Sent by email to: box.soincentives.electricity@nationalgrideso.com

Dear Fintan,

Draft Forward Plan 2020-21

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

This draft Forward Plan is an update on the 2019-21 Forward Plan. We recognise progress has been made against the commitments in the 2019-21 Forward Plan. Also, we welcome the improved presentation of the Plan including the identification of deliverables that have been delayed and the high-level explanations of the delays.

We continue to believe developing and implementing competitive market mechanisms, and ensuring those markets operate efficiently and transparently, is necessary to stimulate investment in the provision of system management services. Our review of the draft Plan focusses primarily on two key areas in which the Plan should be improved, to enable consumer value being realised from market mechanisms.

Outputs to facilitate competitive procurement of system management services:
Some deliverables, particularly under Role 2, need to be delivered in a timely manner for the Electricity System Operator (ESO) to meet its stated ambition for the RIIO-2 price control in the context of competitively procuring system management services. The ESO should ensure that there are no delays to deliverables, such as occurred with the design of future frequency response products[1]. We look forward to working with the ESO on the design of future products.

Though there are a number of deliverables that support the ESO's RIIO-2 ambition, it is important that the ESO continues to improve competitive arrangements in the short-term i.e. before the

[1] For example, the 'Report on development of new frequency response product suite' should have been delivered during the 2018-19 scheme year but was delayed to Q3 2019-20.

RIIO-2 price control starts. For example, we support priority being placed on the ESO's capability for dispatching large numbers of small Balancing Mechanism Units. This will enable a greater number of market participants of offer services. The resultant competitive pressure should reduce overall system balancing costs. It is also necessary for the ESO to develop arrangements that are compliant with the European Clean Energy Package so that the suspension of the monthly tenders for reserve services can be lifted as soon as possible.

We have proposed improvements to metrics that allow the progression to the full procurement of system management services via market-based methods to be tracked.

Greater transparency about system needs, procurement processes and operational decision-making:

We have proposed changes to some deliverables e.g. to increase the transparency of how real-time operational decisions are made. Increased transparency should facilitate market participants offering services that more closely align with system needs and provide confidence that real-time operational decisions are efficient. This should increase overall market efficiency.

We have proposed additional deliverables to provide greater transparency of system needs, how procurement decisions are made and the drivers of system balancing costs.

General observations:

Along with the specific recommendations in the attached appendices, we include some general observations:

- Full historic and current performance should be included in Forward Plans. This would help us to understand the trends in performance and to form a view on the level of ambition of the proposed Plan.
- Direct or indirect consumer benefits associated with each of the deliverables, and how those benefits have been estimated, should be included in Forward Plans. This would help us to better assess whether the proposals are focussed on the areas from which the greatest benefit could accrue the relative merits of the deliverables and the overall consumer value that could be delivered.
- Narrative on why performance benchmarks have been chosen according to historic and current performance and consumer benefit should be included in Forward Plans. This would help us to determine whether the proposed Plan represents levels of performance that are both good and improving.

We hope you find these comments helpful. Please contact me if you have any questions.

Yours sincerely,

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

Role 1: Control Centre Operations

Deliverable:	More clarity of operational decision making
Due:	Q4 2020-21

Commentary:

We welcome priority being placed on this deliverable. Greater transparency about how operational decisions are made should better enable market participants to offer balancing services that satisfy system requirements, thereby improving market efficiency. Market participants should have confidence that assets will be dispatched 'in merit' i.e. based on being cheaper or selection of an 'out of merit' asset is robustly justifiable. We propose the following:

Publication of 'skip' rates:

The ESO should publish 'skip' rates – the frequency of assets being selected 'out of merit' in the Balancing Mechanism (BM) and the factors that contribute to assets being selected 'out of merit' (e.g. technical or network constraints). This information should provide market participants with a greater understanding of operational decision-making and should provide evidence that decision-making process result in efficient asset selection.

Identification of those products most likely to be procured via the BM:

The ESO should identify and clearly define those services it is most likely to procure via the BM. Services should be defined according to relevant features such as technical characteristics (such as start of reaction and minimal/maximal duration of activation), location, etc. This information will provide broad investment signals and should better enable market participants to offer balancing services that satisfy system requirements.

Clarification of the interaction between the BM and other markets for system management services:

The ESO should clarify how it will select assets via the BM given the utilisation of short-term operating reserve (STOR) and fast reserve (FR) services can now be priced dynamically. The resulting changes from the Electricity Balancing Guideline and the Clean Energy Package may mean that the distinction between the BM and reserve services is no longer clear from the perspective of the control room when selecting assets.

BM and non-BM ancillary services dispatch:

The ESO currently procures ancillary services both via the BM and outside of the BM, on the basis the selection represents the lowest overall cost. We are concerned there may be instances in which ancillary services are procured via the BM even though it would be cheaper to procure those services outside the BM. The ESO should explore this further and provide rationale where an asset that is 'out-of-merit' in the BM asset is selected instead of procuring that service outside the BM.

In the final version of the Forward Plan, the ESO should set out how and when it intends to engage with market participants.

Deliverable:	Improve dispatch facility to handle a large number of small Balancing Mechanism Units (priority
Due:	Q4 2020-21

Commentary:

We welcome priority being placed on this deliverable. Modernisation of the infrastructure to allow a larger number of assets to participate in the BM should increase competition in the provision of system management services.

In the final version of the Forward Plan, the ESO should more clearly describe this deliverable. For example, the ESO should define what is a 'large number' and should specify actions it will take and deliverables to be completed during 2020/21 to achieve this outcome.

Deliverable:	Roll out of Loss of Mains protection settings
Due:	Q4 2020-21

Commentary:

We recommend this deliverable is expanded to include the relevant actions recommended by the Energy Emergencies Executive Committee[2], in the report on its investigation into the GB power system disruption that occurred on 9 August 2019.

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 2020-21[3]. The ESO started recover £100m over the 24 months from October 2019 for the accelerated programme[4]. 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.

Proposed Deliverable:	Improve information in the Monthly Balancing Services Summary reports
Due:	Q2 2020-21

Commentary:

In our response to the 2019-21 Forward Plan, we recommended commentary on the broad driver(s) of the level of expenditure in each category should be published in the Monthly Balancing Services Summary (MBSS) reports. We continue to believe 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.

[2] See: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/855767/e3c-gb-power-disruption-9-august-2019-final-report.pdf.

[3] 'Our Forward Plan 2019-21', page 23: https://www.nationalgrideso.com/document/140736/download.

[4] 'BSUoS Report October 2019', page 2: https://www.nationalgrideso.com/document/154541/download.

Proposed Deliverable:	Publish information on incidents that are likely to have a material impact on system balancing costs
Due:	Q1 2020-21
Commentary: The ESO should develop and implement a formal process by which the industry is notified as soon as possible (e.g. within 24 hours) of incidents that are likely to have a material impact on system balancing costs. An example of such an incident is an outage on the Western HVDC Link.	

Proposed Deliverable:	Clarify remaining requirements in Market Information Reports
Due:	Q2 2020-21
Commentary: We propose the information included in the Market Information Reports is enhanced so outstanding requirements for any given period are presented more clearly. This will better enable market participants to plan to deliver the volumes of services required. The ESO should develop a performance indicator that compares forecast volumes against those procured and the ESO should provide detailed explanations as to why any differences exist. This will help provide market participants with the confidence that ESO procures volumes in line with the Market Information requirements unless there is a material change in factors that drive forecast volumes. The ESO should also clearly specify how it determines the volumes to be procured in each tender round, as set out in the Market Information Reports, and how those volumes align with system needs presented elsewhere (such as the Operability Strategy and the Future Energy Scenarios).	

Metric 1: Balancing cost management

We agree this performance metric should be retained. Previously, we recommended the cost benchmark should be a simple average of expenditure over the past five years – this captures expenditure caused by a broad range of operating situations but without placing disproportionate weight on any set of circumstances.

The ESO proposes to derive the cost benchmark from the linear trend through five-year moving averages covering 2010/11to 2014/15 to 2014/15 to 2018/19. The data points will be normalised to account for the expenditure reduction due to the operation of the Western HVDC Link in later years[5]. Also, adjustments for specific factors will be applied to the normalised, 'fitted' benchmark for "…*foreseeable fundamental drivers that might impact balancing costs*…"[6]. Based on the information presented in the consultation, we do not think the proposed approach has been robustly justified. We raise concerns about the following factors:

A linear trend through five-year moving averages:

The 'fitted' benchmark derived by this approach is dominated by expenditure in 2013/14, 2014/15 and 2015/16. The ESO has not explained why the range of operating situations that occurred in

[5] Draft Forward Plan 2020-21 page 10.
[6] Draft Forward Plan 2020-21 page 10.

those years are expected to more representative of operating situations expected to occur during 2020/21 than the other years from which the benchmark will be derived. As an example, the ESO has not explained why the operating situations that occurred in the years in which the Western Link was under construction would be more representative of the operating situations expected to occur during 2020/21.

Data range:
The ESO proposes the most recent out-turn cost to be used in the derivation of the cost benchmark will be for 2018/19. The ESO has not explained why out-turn expenditure for 2019-20 should not be used for deriving the benchmark. Excluding out-turn expenditure for 2019-20 would need to be robustly justified since the range of operating situations occurring during the current scheme year may more closely align to that expected to occur during 2020/21. Otherwise, it should be included.

We recognise using out-turn expenditure for 2019-20 in the derivation of the cost benchmark means the benchmark cannot be finalised ahead of the scheme year. A provisional benchmark could be derived using the latest out-turn expenditure[7] along with a forecast of expenditure over the remainder of the year[8], which would then be finalised once out-turn expenditure for 2019-20 is available. We do not think this should be problematic since the cost benchmarks for the 2018/19 and 2019/20 scheme years were revised during the relevant years[9] and the ESO proposes to finalise targets for some performance metrics once out-turn data are available[10]. We note the National Audit Office stated a key reason why consumer value has been lost in the current (RIIO-1) price controls is due to insufficient weight being placed on the most recent data when setting targets for incentive mechanisms[11].

Normalisation for the effect of the Western HVDC Link:
When deriving the cost benchmark, the ESO proposes to adjust the out-turn data from 2017/18 onwards to account for the effect of the Western HVDC Link, to increase those costs in line with the pre-Western Link costs. We would expect the ESO make a downward adjustment to the normalised, 'fitted' benchmark to account for the fact that the Western HVDC Link has been commissioned and has been formally adopted by the relevant onshore transmission operators. However, it is unclear from the commentary in the draft Plan whether this downward adjustment has been made. If a downward adjustment will not be applied, the ESO should robustly justify why the 2020/21 cost benchmark should implicitly assume the unavailability of the Western HVDC Link.

We encourage the ESO to publish a spreadsheet of how balancing cost benchmarks are calculated, to increase stakeholders' visibility.

---

[7] For example, the 'Quarterly Report: October- December' contains out-turn expenditure for April to December 2019. See page 10 of https://www.nationalgrideso.com/document/161531/download.
[8] Forecast expenditure for the remainder of the year for which out-turn data are not available can be found in the 'BSUoS Report January 2020'.
[9] For example, cost benchmarks were adjusted during the 2018-19 and 2019-20 scheme years to account for the unavailability of the Western HVDC Link.
[10] The ESO proposes to finalise demand and wind forecasting targets once out-turn data for 2019-20 are available.
[11] See: https://www.nao.org.uk/wp-content/uploads/2020/01/Electricity-networks.pdf.

Metric 3: Energy forecasting accuracy

We welcome the energy forecasting accuracy metric being retained since market participants may respond to those forecasts, and accurate forecasts can result in fewer residual balancing actions[12]. Although we support the use of this metric, we continue to believe the performance benchmarks for both demand and wind generation forecasting are not appropriate.

Effectiveness of the performance benchmarks:

The ESO proposes performance is meeting baseline expectations if accuracy meets targets, set by historic averages, in five to seven months of the year. Across the year, this could represent a worsening in previous performance. We do not believe the proposed metric will necessarily be effective in encouraging focus across the entire year. For example, if forecasting accuracy is below the pre-defined threshold in the first eight months of the year, the metric is unlikely to encourage the ESO to improve performance over the remainder of the year since the baseline benchmark can never be met. We note Ofgem commented on this issue in its response to the draft 2019-21 Forward Plan[13] and in its Formal Opinion[14].

Performance during the current scheme year illustrates this concern. Wind generation forecasting accuracy has been below target for five of nine months in the current scheme year[15]. According to the defined performance benchmarks, this level of performance cannot be assessed to exceed baseline expectations. The performance benchmarks are likely to be less effective in encouraging exceptional levels of performance over the remaining four months of the year.

Performance measures:

The proposed performance metric for demand forecasting accuracy is based on absolute volume errors. We disagree with this approach. Performance should be independent of the level of demand on the system and targets based on absolute volume errors distort the underlying level of performance. For example, absolute volume targets based on historic years when demand was higher (primarily due to lower levels of embedded generation) are inappropriate because absolute volume targets would translate into weaker percentage targets.

We recommend forecasting accuracy is measured based on the mean absolute percentage error (MAPE) across the year. We propose the following performance benchmarks for demand, wind and solar generation forecasts:

[12] Draft Forward Plan 2020-21 page 11.
[13] 'Ofgem response to National Grid Electricity System Operator's consultation on the ESO Forward Plan 2019-21', page 7: https://www.ofgem.gov.uk/system/files/docs/2019/03/ofgem_response_to_eso_forward_plan_2019-21_consultation.pdf.
[14] 'Ofgem Formal Opinion on the Electricity System Operator (ESO) Forward Plan 2019-21', page 7: https://www.ofgem.gov.uk/system/files/docs/2019/05/ofgem_formal_opinion_on_eso_forward_plan_2019-21.pdf.
[15] 'Quarterly Report: October- December', page 8.

Exceeds benchmark:	This should represent a significant step-change improvement (e.g. 25%) in benchmark performance
In line with benchmark:	For each month, the MAPE over the past three years (with an appropriate 'dead band') should be used.
Below benchmark:	This should represent a significant step-change worsening (e.g. 25%) in benchmark performance

We note Ofgem recommended the use of the MAPE in its response to the draft 2019-21 Forward Plan[16].

[16] 'Ofgem response to National Grid Electricity System Operator's consultation on the ESO Forward Plan 2019-21', page 8.

Role 2: Market development and transactions

Deliverable:	Implement the first new frequency response product AND Consult on future frequency response products
Due:	Q1 2020-21

Commentary:

We welcome priority being placed on these deliverables, especially since they have been delayed previously. These deliverables, if successfully completed, lay the foundation for delivering against some of the ESO's ambitions for the RIIO-2 price control. As such, the ESO should ensure no further delays occur that cannot be robustly justified.

We acknowledge that the ESO is addressing a specific operability issue with the first new frequency response product and, therefore, needs to accelerate deployment. Nevertheless, the ESO should publish the body of evidence supporting the product design and whether it will allow as many providers as possible to participate.

For the full future frequency response product suite, the ESO must be able to meet its operability needs and should design products accordingly. However, if options to meet operability needs are assessed, the ESO must clearly demonstrate that it has considered the relative current and future costs of each option and has selected the option(s) that provides the greatest consumer value. We recommend the ESO focusses on those designs that encourage competition across a diverse set of providers, as they are likely to result in long-term overall lowest cost to consumers.

If the ESO intends to phase out any existing product, the ESO should develop a roadmap that explains:

- how the product will be phased out,
- the schedule for phasing out,
- any resultant operability challenges that may be encountered,
- how the system need(s) the existing product satisfies will be met.

The ESO should also indicate how it may utilise existing assets that are used to provide the service(s) being phased out.

Deliverable:	Report on auction trial
Due:	Q2 2020-21

Commentary:

We look forward to the findings of the weekly auction trial. We view this as an intermediate step to moving to daily auctions for the procurement of frequency response (FR) services. We recommend the ESO accelerates progression to the daily auction trial, ahead of Q1 2021/22[17].

Daily auctions are necessary to enable daily and full market-based procurement of all response services, as required by the Clean Energy Package. Daily auctions provide the ESO with a tool by which response services can be procured instead of utilising Mandatory Frequency Response services, which are not procured via competitive methods. Additionally, daily auctions will better facilitate 'revenue stacking' and will allow a greater range of service providers for these products. Alongside the opportunities for 'revenue stacking' that daily auctions will provide, the ESO (and network operators) should allow providers to easily transition between different services as often as they wish (ideally every settlement period).

Deliverable:	Publish our strategy for moving Optional Fast Reserve products into more competitive procurement
Due:	Q1 2020-21

Commentary:

We acknowledge the ESO has proposed trialling moving Optional Fast Reserve (OFR) products into more competitive procurement (priority). We welcome this development. We recommend the title is updated to reflect our expectation that all OFR volumes will eventually be procured via competitive methods.

The recent announcement that Fast Reserve (FR) and STOR tender rounds have been delayed indefinitely (due to the Clean Energy Package requirements not being implemented)[18] means it not be possible to fully demonstrate the relative cost competitiveness of different service providers. We urge the ESO to ensure that FR volumes that are not procured via market-based methods is competitively procured when tendering for FR services is resumed.

Deliverable:	Produce plan for widening access to API (Application Programming Interface) system
Due:	Q1 2020-21

Commentary:

We welcome priority being placed on this deliverable. However, the deliverable should be extended to stipulate that access to the web-based API will be widened and any associated industry changes that are required are made during 2020/21.

[17] 'Response and Reserve Roadmap', page 10: https://www.nationalgrideso.com/document/157791/download.

[18] See: https://www.nationalgrideso.com/document/162101/download.

Deliverable:	Implement State of Energy signal
Due:	Q3 2020-21
Commentary: We agree this deliverable should be treated as a priority. We recommend a proportionate approach being taken when defining which assets should provide signals. We look forward to engaging with the ESO.	

Deliverable:	Market design for reformed reserve products
Due:	Q4 2020-21
Commentary: Although we would have preferred this deliverable to be completed earlier than Q4 2020-21, we understood delated delivery was pragmatic because it was sensible to focus on the development of frequency response products and implementing Project TERRE. The recent announcement that the FR and STOR tender rounds have been delayed indefinitely (due to the Clean Energy Package requirements not being implemented) means there are fewer market-based methods by which reserve services can be procured. The suspension of the FR and STOR tender rounds should not trigger further delays, especially since it was previously delayed. The market design for reformed reserve products should continue in order to meet the proposed completion date. We propose a new deliverable below, to address the indefinite delay of the STOR and FR tender rounds.	

Proposed Deliverable:	Resume Short Term Operating Reserve and Fast Reserve tender rounds having obtained necessary regulatory authorisation.
Due:	Q1 2020-21
Commentary: As consumer value might be lost due to the indefinite delay of the STOR and FR tender rounds, the ESO should secure the relevant derogation from Ofgem as soon as possible to be able to recommence the STOR and FR tender rounds in Q1 2020/21 at the latest, while maintaining the proposed time for the reformed reserve products (see deliverable above). The ESO should also develop a contingency plan, in case a derogation is not forthcoming by Q1 2020/21. This must provide STOR and Fast Reserve providers as much certainty and as soon as possible Regardless, any regulatory derogation will be time-limited and, therefore, the ESO should continue to proactively develop products that comply with the Clean Energy Package. The ESO should regularly engage with market participants throughout this process.	

Metric 5 – Reform of balancing services markets Part 2

We welcome the improvement of this metric as it better illustrates the degree to which system management services are procured via competitive methods. We recommend the metric is further improved by:

- Expenditure should be reported on a more granular basis (e.g. the categories in the Monthly Balancing Services Summary report) rather than the six categories proposed.
- Volumes should be reported alongside expenditure
- Volumes and numbers of contracts (both absolute number and total MW capacity) held that were not procured via competitive methods should be reported.
- Commentary on the changes in expenditure, volumes and the number of contracts across the categories should be included.

We are unable to comment on the appropriateness of the proposed targets. To do so, we would require the rationale for why targets are based on a single quarter and the relevant historic data. We recommend this is provided in the final Plan.