

14th February 2019

ESO Response to Performance Panel questions on the draft Forward Plan 2019-21

Dear Performance Panel Members,

We apologise for not being able to attend today in person today to respond to your questions; we welcome further opportunities to discuss our Forward Plan with you. In our absence, we would like to direct you to podcasts of our leadership team providing an overview of our Plan which can be found here:

https://soundcloud.com/eso_strategy_regulation

Please find enclosed the responses to your questions on our draft 2019-21 Forward Plan; in addition, we would like to use this opportunity to provide an overview of how we will deliver value through this plan, respond to some of your overarching questions and outline the changes that we will be making to the Final Forward Plan.

Our 2019-21 Forward Plan

In developing our draft Forward Plan for consultation with stakeholders, we heard your feedback, and Ofgem's, that we needed to be clearer on what we are going to deliver and the benefits this brings for consumers. We feel that this Forward Plan shows a step-change in how we present our plans and our articulation of how we deliver benefits for consumers. We hope that you have found the Plan more accessible whilst providing you with sufficient detail to track our performance as we deliver.

As of January 2019, this plan set out our known commitments for the next two years. On 25th March, we will publish our final Forward Plan, taking on-board your feedback alongside stakeholders and Ofgem feedback to ensure we are targeting the activities that will deliver most value for consumers. Against the backdrop of the transition to a decentralised, low carbon energy landscape, we will continue to review our plan. New opportunities may arise for us to take actions to unlock consumer benefits that were not identified within this Forward Plan and/or we may need to adapt our plans within the performance year as industry developments result in significant changes to our planned activities.

Any changes that are made will be shared with stakeholders through our standard reporting. In line with the ESORI (ESO Reporting and Incentives Guidance), we will publish an updated Forward Plan for FY20/21 in January 2020 for consultation with stakeholders on our long-term vision, deliverables and performance metrics. As part of this, we will update the benchmarks for our performance metrics for 2020-21.

Demonstrating delivered outcomes

We heard your feedback at the Panel event in November 2018 that we need to be clearer on the outcomes that we have delivered, providing supporting evidence on benefit we deliver for consumers. As part of this Forward Plan, we have been clearer on the five consumer benefit outcomes we are delivering through our long-term vision. These are improved safety and reliability, lower bills than otherwise the case, reduced environmental damage, improved quality of service and benefits for society as a whole. We believe that the long-term visions that we have set out in our Forward Plan, looking out to 2030, will deliver substantial benefits for consumers for years to come; the actions that we are taking under the 2018-21 Incentives Framework are shaped by this vision unlocking benefit through the transition to a low-carbon, decentralised system.

We continue to work on a consumer benefit framework, which we will share when we publish the final Forward Plan 2019-21, End of Year Report 2018-19 and RIIO-2 Ambition documents. This framework allows us to articulate how delivering activities in our Forward Plan, will unlock value for consumers today and in the future. We will provide tangible examples, with supporting evidence, explaining how our actions have delivered consumer value. Where possible we will seek to quantify that value. As part of the development of the framework, we will be engaging with Ofgem and in due course would like the opportunity to discuss this with you.

Performance Metrics

Since publishing our draft 2019-21 Forward Plan, we have continued to assess how we can best present the outcomes that we will deliver through our performance metrics. In the enclosed responses to your questions, we have tried to provide greater clarity on the benchmarks that we have set. On a number of our metrics we are asked for stakeholder feedback as part of our consultation and will use this as part of the final design process of the metrics; we will provide greater detail on the performance benchmarks in our Final Forward Plan.

Our Final Forward Plan Publication

We would like to take the opportunity to share with you the changes that we will be making to our Forward Plan as we progress toward final publication in March; we will make the following changes:

- We will be clearer on how our activities are exceeding baseline expectations.
- We will provide an overview of the consumer benefit framework to demonstrate delivered outcomes, sharing our consumer benefit framework.
- We will be clear on the activities that have been funded by innovation.

2018-19 End of Year Performance Panel Event

We look forward to discussing our 2018-19 performance with you at the Panel event planned for the w/c 3rd June. We are working collaboratively with Ofgem to design the day and welcome any suggestions from you. In addition, we would like to invite you to our Electricity National Control Centre in Wokingham in the w/c 20th May to provide you with an opportunity to meet with our teams to bring to life the detail presented within our End of Year Report ahead of the Panel event. Louise Schmitz, our ESO Regulation Senior Manager (Louise.Schmitz@nationalgrid.com), will contact you directly to confirm your availability for this.

In the interests of transparency, we have published this letter on our website.

Yours sincerely

Kayte O'Neill
Head of Strategy and Regulation

Principle 1

Open data

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| <p>1. There is a commitment to provide open data that users can manipulate. What exactly is meant by this? There are many different models such as those where third parties take data and develop platforms (eg such as google maps). Some clarification of the scope</p> | <p>We have reviewed different approaches to making data open, and have spoken with experts and stakeholders from our industry and others to understand the merits of each model. Our proposed direction draws inspiration from the model of open data employed by Transport for London (TfL), where data is shared publicly wherever possible for third party users to access and analyse for their own purposes. While explanatory notes are generally needed to accompany data sets, data will otherwise have minimal additional processing applied to it - or its underlying systems - so that we can make the data available as soon as possible. This is in contrast with other models seen both in the UK and overseas, where significant development effort is invested in a complex data platform and underlying systems before any data is shared. We believe that our own data should be shared first; if there is significant consumer benefit</p> |
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and ambition would be helpful.

to be realised from investing in enhanced data quality or granularity this will be communicated through engagement with the community of data users.

This approach aligns with, and is informed by, our engagement to date with the BEIS Energy Data Task Force, where we have identified quick wins (such as enabling third party process automation by sharing data in a machine-readable format where relevant) and longer term delivery of consumer benefit (such as enabling unforeseen innovation by providing large volumes of raw data for 3rd parties to analyse and combine for novel solutions). We have worked with the Task Force to understand pragmatic approaches to defining “shareable data”, as well as understanding approaches to the governing principles of open data.

Our ambition is to pursue this programme of open data provision in an agile and iterative manner. We will work with stakeholders and data users to understand their data needs and then share our data giving priority to those data sets which can provide greatest consumer benefit. Progress during the Forward Plan 2019-21 will be limited but this work is part of a longer-term plan for which additional funding will be required for our RIIO2 period.

2. Why does the ESO believe it is the best party to develop such an open data platform?

Building on the above response, we do not intend to build a data “platform” which might incur significant IT investment before delivering data or consumer benefit. Our approach will be to make the most beneficial data open as quickly as possible through a relatively light touch data portal, utilising comparatively low levels of investment in Application Programming Interfaces (APIs) or similar solutions.

Metric 1

3. What is this metric trying to demonstrate? Is it successful delivery of baseline commitments?

This is seeking to demonstrate on-time-in-full information publication performance in relation to our activity to overcome our first & second barriers (range of information; frequency & accuracy of information); a number of these commitments are required by our licence.

Principle 2

Metric 4 (balancing costs)

4. Why has the methodology for Metric 4 been selected against others? Can further clarification be provided about the different choices that were considered and discounted and why.

The methodology is unchanged from that agreed with Ofgem for 2018-19. Pages 10 – 12 of the Forward Plan Performance Metric Definition 2018-19 provides the methodology: <https://www.nationalgrideso.com/sites/eso/files/documents/Performance%20Metrics%20Definition.pdf>

In addition to this, please see the attached file, a note considering the development of a benchmark for SO balancing costs which we shared and discussed with Ofgem in November 2017.

5. What is Metric 4 trying to demonstrate (baseline / exceeding performance?) How ambitious is it?

The metric compares our current balancing spend against historic trend following adjustments for significant cost drivers. The benchmark only includes cost drivers that were identified at the beginning of the year. In 2018-19 there have been a number of unforeseen step changes in costs that were not present in the historical rolling average, or the forward-looking cost adjusters. In our monthly performance reporting, we will explain any differences between the forecast, metric 4, and actual balancing

spend highlighting additional unforeseen cost drivers, and the balancing costs savings delivered.

6. Please can the ESO provide the data behind the rolling average calculation?

Balancing costs used to calculate the rolling average are:

Year	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total balancing spend (£m)	662.3	540.5	796.5	786	851.1	824.8	849.2	873	940

7. The ESO states the South-East Reinforcement work (Page 26) will cause additional BSUoS of £60m. However, presumably this project has a positive whole-life cost for the ESO? What are the expected reductions in ESO costs associated with this upgrade and when do they occur?

The South-East reinforcement is critical to alleviate a major network constraint between the interconnectors on the South coast and London. I.e. without this reinforcement we need to pay interconnectors to not import which is very expensive.

As a result of this reinforcement we see a reduction of constraint costs of between £1.4bn and £3.7b over the total lifetime of this project. Taking the middle of this range gives a saving of ~£60m a year for 40 years. It's challenging to say specifically when these savings will occur, however our initial thoughts suggest they would occur mainly between 2020 – 2030 as that is when GB is a net importer.

8. Similarly, with regard to the RoCoF and Vector Shift work, what is the expected profile of the impact on the balancing spend costs over the 2019-21 period as the issue is gradually addressed?

If no action is taken, we forecast a steady increase in balancing spend on Loss of Mains risks. This will continue as the contribution of traditional synchronous generation to meeting electricity demand decreases and larger infeed loss risks connect. Our latest forecast of costs is shown in the 'do-nothing' line below. Please note that there is some additional uncertainty in this forecast which will remain until we fully understand the market characteristics we observed during this financial year.

We have developed a plan to address Loss of Mains risks working on a whole system basis with the Distribution Network Owners. The main driver of activity in the plan is an offer of payment to distributed generators in return for making and certifying they have made the necessary changes. This lies alongside a mandated requirement to make the change by March 2022. The plan will increase balancing costs in the short term. However, we have designed a process which will encourage early changes to loss of mains protection settings which will reduce operational costs in the long term. This process is designed to ensure that the change is successful. The plan is built around a quarterly cycle of performance reporting, review and ultimately a decision to stop if the value of continuing is less than the benefit. Experience of previous similar changes suggest that relying on the mandated requirement alone is likely to result in either significant overruns or at worst failure to deliver. The forecast costs shown in the table below will be updated on a quarterly basis in line with plan performance and the latest information available.

£m		19/20	20/21	21/22	22/23	23/24	24/25
Do Nothing	Forecast Balancing Costs	130	150	150	170	190	290
	Cumulative	130	280	430	600	790	1080
Implement Change Programme	Forecast Balancing Costs	130	150	40			
	Forecast Change Costs	20	30	10			
	Total Balancing Costs	150	180	50			
	Cumulative	150	330	380			

Principle 3

Vision and deliverables

9. This section sets out that a number of IT improvements are planned to improve processes. Can further clarification be provided on how these will be achieved. Is a major change programme required? How will ongoing process change be dealt with?
- Each IT project will be progressed in a way appropriate to its aims. In general, we will use an agile process whereby incremental changes are designed and deployed through a number of sequential 'sprints'. All IT projects are coordinated between our subject matter experts and our IS function to ensure that resources are appropriately distributed and rollouts are coordinated to minimise industry disruption. The specific projects highlighted under Principle 3 do not require major change programmes in themselves.

Metric 5

10. It's not clear what the metric is here. There are 7 survey questions, not all of which get scores. Could the ESO provide an exact description of the proposed metric.
- The metric will measure feedback on how Providers and Potential Providers feel at the four key moments of the Provider Journey. Onboarding feedback will measure how easy it is to find the information and how this could be improved. We will include a 1-5 scale on these questions to ensure consistency. Tendering feedback will measure ease of understanding of our results, usefulness of the webinars and how we can improve.
- The specific questions are still being written; Contracting and Query Management feedback sections will be developed using stakeholder feedback as part of our Final Forward Plan publication.

Metric 6

11. Could further explanation be given to this metric in
- Discussions with stakeholders throughout the SNAPS process (consultation and roadmap commitments), have identified the transformational activities required to address barriers to entry and limitations in our products and markets, which inhibit the

general. E.g. >75% of what deliverables?

growth of new technologies and business models. We believe that the activities we have committed to within the Forward Plan 2018-21 will deliver most benefits for consumers by increasing competition and reducing barriers to entry. The aim of this metric is to track our success in delivering this benefit.

The deliverables aim to change market behaviour; these changes take time to filter through into demonstrable effects. We are therefore proposing a simple measure that monitors whether we are achieving the deliverables listed in each service section by the proposed timeframes. For example, there are three deliverables described for frequency response, and therefore to achieve the >75% 'Exceeds Benchmark' score would require that all three are delivered to plan. We believe this metric is ambitious as in the majority services this requires delivery of planned transformational activities to deliver benefits for consumers.

This metric is in response to the suggested metric discussed at the November Performance Panel event. Therefore, as part of this Forward Plan consultation, we have asked stakeholders for their feedback on this metric and how it could be improved to better reflect the changes seen in the market. In our final publication, we intend to share the feedback from stakeholders and provide more clarity on how we will use this metric.

Principle 4

Vision and deliverables

12. This section proposes a leadership role for the ESO in fundamental code reform. Can further clarification be provided on what fundamental reform will look like and how this will be achieved?

Our views on what fundamental reform will look like and how this will be achieved is still in development. However, we believe the governance process should efficiently deliver strategic change and work for the large number of participants. In addition, end value for consumers must be a central driver of change.

We are taking a leadership role in the Ofgem/BEIS Energy Codes Review. We will be significantly engaged in the process and will leverage our experience, stakeholder relationships and our more independent view to contribute to the debate on the future of the energy codes. To date, we have presented some thoughts at the Forward Plan stakeholder event on 22nd January 2019 for this review in respect of open governance arrangements. We also plan to publish a thought piece in Q1 2019-20.

Metric 7

13. How exactly will the CACoP survey results be used to demonstrate outperformance? (i.e. how will 'overall improvement' be calculated from the multiple surveys and what degree of 'overall improvement' is targeted?)

There is a single CACoP survey each year. We will use this to demonstrate our performance across the three codes that we administer (CUSC, STC & Grid Code).

We are proposing to demonstrate 'overall improvement' for the 19-20 performance year if the 19-20 CACoP survey results for each one of these codes is improved against a baseline of the 18-19 CACoP survey results. Only an improvement in each of these codes will demonstrate 'overall improvement'.

Metric improvement

At present, there is currently a disconnect between the publication of CACoP survey results and the performance year. Through discussions with Ofgem and CACoP, we intend to investigate whether the timing of the CACoP survey results can be aligned with the financial year. We are investigating whether the CACoP can be supplemented by additional surveys to help further quantify performance however we are mindful of survey fatigue. We will provide further details in our final Forward Plan publication in March 2019.

Metric 8

14. When does the ESO plan to do the baseline survey for this metric and how often will it resurvey during the year?
- Charging Futures regularly seeks feedback from stakeholders after forums and webinars. We have included these results in our 2018-19 Incentives Framework reporting. We will average the results across 18-19 to produce a baseline and will publish this in our final Forward Plan in March.

Metric 9 and 10

15. Please could the ESO provide the back-calculated values of what this measure would be for the three previous years (i.e. APE for forecast versus out-turn)?
- A collection of historic data can be found on our website here - <https://www.nationalgrideso.com/balancing-data/forecast-volumes-and-costs>

Metric 9: Year ahead forecast vs actual:

	Year ahead forecast	Outturn	APE
13/14	1.50	1.72	0.13
14/15	1.51	1.91	0.21
15/16	1.71	2.00	0.15
16/17	1.63	2.47	0.34
17/18	1.73	2.31	0.25

16. Please could the ESO provide the underlying data on past performance.

Metric 10 we only publish back dated data to Jan 18. However, please find the additional data published below. Month ahead forecast Absolute Percentage Error (APE):

$APE = \text{abs}((\text{Actual} - \text{forecast}) / \text{actual})$. APE calculates the difference between actual and forecast divided by the actual to give a percentage error, the absolute value is take to account for positive and negative errors.

Month	Actual	Month ahead forecast	APE
Dec-15	2.65	1.56	0.41
Jan-16	2.05	1.53	0.25
Feb-16	1.53	1.54	0.01
Mar-16	1.37	1.60	0.17
Apr-16	1.54	1.41	0.08
May-16	2.10	2.32	0.10
Jun-16	2.14	2.09	0.03
Jul-16	2.70	2.00	0.26
Aug-16	2.89	1.99	0.31

Sep-16	3.18	1.56	0.51
Oct-16	2.36	1.54	0.35
Nov-16	3.61	1.97	0.45
Dec-16	2.61	2.47	0.05
Jan-17	2.14	2.13	0.00
Feb-17	2.37	1.99	0.16
Mar-17	1.96	1.26	0.36
Apr-17	1.96	1.54	0.21
May-17	2.28	1.55	0.32
Jun-17	3.70	1.91	0.48
Jul-17	2.64	2.60	0.02
Aug-17	2.86	2.69	0.06
Sep-17	2.32	3.17	0.37
Oct-17	3.11	2.23	0.28
Nov-17	2.07	2.88	0.39
Dec-17	2.20	2.07	0.06
Jan-18	1.93	1.51	0.22
Feb-18	1.51	1.59	0.05
Mar-18	1.96	1.52	0.22
Apr-18	1.89	1.86	0.02
May-18	2.18	2.36	0.08
Jun-18	2.96	2.43	0.18
Jul-18	2.75	2.90	0.06
Aug-18	2.56	2.96	0.16
Sep-18	4.45	2.75	0.38
Oct-18	4.25	2.49	0.42
Nov-18	2.86	2.33	0.19
Dec-18	2.53	2.57	0.01

Principle 5

Vision and deliverables

17. The coordination of planning and operation across system boundaries appear to focus on coordination with DNO's and seem to major on work through the open networks project. However, these areas do not appear to recognise the wider elements of the energy transition where consumer engagement will be a key driver through new digital platforms and devices. How will these increasingly important aspects be recognised in the coordination initiatives?

This will manifest through flexibility markets and therefore will inherently be part of the whole system market facilitation role.

Metric 11.

18. What are the targets proposed in terms of the increase from the baseline for the MW of DER contracted?

Our target is greater than 0MW. This metric is measuring the success of the regime we are implementing, and ultimately the environment that allows further embedded connections to flourish, through the Forward Plan 2018-2021

Principle 7

Vision and deliverables

19. The process for defining new network or non-network solutions is proposed. However, the provision of these solutions will be open to third parties who will need to satisfy their investment criteria including certainty of such projects going ahead. Can clarification be given about how the

We feel that Ofgem may wish to respond to this question on this question regarding the regulatory framework of Competition in Onshore Transmission (CATO).

With regards to how we take on the views of the investment community, we act in an open and transparent manner taking on-board the feedback of all stakeholders.

views of the investment community will be taken into account in the development of these solutions?

Metric 15

20. What target is proposed for the number of reduced build options taken forward?	As part of the consultation, we have asked stakeholders for feedback so this metric remains under development. We will include the performance from this year in setting targets for 2019/20. We are also evaluating the metric as a whole to see if it can be improved to better reflect the activities and value that the ESO drives through network planning processes involving cost benefit analysis.
21. Why does the metric only relate to ESO initiated reduced-build options?	Our initial proposal for the metric in 2018/19 included all reduced build options. This then included options proposed by the TOs and which they felt it would be unfair for the ESO to be rewarded for. Therefore, the metric was amended to be ESO initiated options to identify the options which the ESO has either requested the TO to include following submission of their options or options which the ESO has developed independently.
