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9 November 2022

Dear Mike

### **DSO Incentive Governance Document Consultation**

Thank you for the opportunity to provide feedback on the DSO Incentive Governance document. This response is on behalf of UK Power Networks' three distribution licence holding companies: Eastern Power Networks plc, London Power Networks plc, and South Eastern Power Networks plc.

UK Power Networks welcomes the inclusion of a new DSO Incentive in RII0-ED2. The separate DSO function we are creating is expected to unlock over £1bn of value to our customers over the next five years. This will also play a fundamental part in reaching the Government's stated objective of realising £6bn of benefits per year by 2050 in GB through system flexibility<sup>1</sup>. The DSO incentive will be crucial to driving this progress and delivering net zero at least cost. As a result, we consider that the proposed size of the DSO incentive, which is 0.2% of RoRE, is significantly under-powered. This would equate to £5.5m for UK Power Networks per annum which is disconnected from the scale of the challenge for industry and far from being proportionate to the benefits that the DSO can deliver.

### **We strongly urge Ofgem to consider setting the reward value of the DSO incentive at 2% of RoRE to drive change and deliver value to customers.**

Establishing DSO functions will require a considerable change in culture and mindset from DNOs. DNOs will need, among other things, to learn to take a "flexibility and energy efficiency first" approach over capital-based solutions (i.e. reinforcement), harness data to better inform and target their investment decisions, and look beyond the electricity sector to inform business planning and investment decisions to achieve whole system outcomes.

Triggering this culture change and delivering real benefits to customers will require strong management and operational focus from the DNOs. UK Power Networks is wholly committed to this culture change, and this is why we proposed the most ambitious DSO strategy, which demonstrably provides customer value by:

- Deferring up to £450 million of reinforcement on our primary and secondary networks through the use of flexibility;
- Taking a "flexibility first" approach that will create a market opportunity that is over twice the amount of all of the other DNOs' planned flexibility markets put together;
- Deferring £185 million of reinforcement that would have been required to connect distributed generation;

<sup>1</sup> [Smart systems and flexibility plan 2021: Appendix I - Electricity system flexibility modelling \(publishing.service.gov.uk\)](https://publishing.service.gov.uk)



- Offsetting £747 million of baseline load-related investment that would have been required if we had used conventional forecasting methods instead of starting with the lowest cost path to Net Zero; and
- Saving c.£200 million at whole system level by undertaking Regional Development Programmes, increasing competition in national balancing markets, and avoiding the need for peak generation.

It is imperative that Ofgem increases the value of the DSO incentive to ensure that all DNOs are appropriately rewarded for delivering on the scale of the challenge. We think that the DSO incentive should be on a par with the Interruption Incentive Scheme (IIS) incentive (at a minimum) to reflect the critical role that DSOs will play in the transition to net zero strategic context. **We recommend setting the reward value of the DSO incentive at 2% of RoRE.**

In support of this, we make two further points:

- **First, we note that Ofgem introduced an asymmetric positive incentive for the ESO, valued at £30 million to -£12 million over two years.** In its RIIO2 Final Determinations for the ESO, Ofgem stated the rationale for the asymmetric ESO incentive *“recognises that the arrangements are relatively novel and there may be some uncertainty in how they are implemented. This will mean the ESO has more to potentially gain than potentially lose from stretching itself in more novel areas. We consider this is a beneficial incentive to create at this point in time when we need the ESO to be proactive and ambitious”*<sup>2</sup>. We believe the same arguments apply to the DSO and should be reflected in the DSO incentive to ensure it drives effective and ambitious DSO behaviour.
- **Second, we understand Ofgem’s desire to design an incentive package that provides sharp signals while protecting customers from higher than necessary costs.** We have conducted analysis to understand how likely DNOs are to hit the Return Adjustment Mechanism (RAM) threshold given different levels of totex outperformance and ODI outperformance. We analysed two scenarios:
  - A central scenario, where totex outperformance is based on average performance in RIIO-ED1 across all DNOs (using seven years of actuals) – which is unlikely in RIIO-ED2 given Ofgem’s introduction of UMs and tougher benchmarking, and ODI outperformance is based on UK Power Networks’ RIIO-ED1 performance as it is the leading industry performer; and
  - A high scenario, where totex outperformance is similarly based on average performance in RIIO-ED1 across all DNOs to date and ODI outperformance is set at 50% of maximum incentive revenue in RIIO-ED2 (based on the proposed incentive package in Ofgem’s Draft Determinations).

We found that in both scenarios, there is significant headroom to increase the value of the DSO incentive without risking DNOs reaching the RAM threshold. In a central scenario, there would still be at least 2% RoRE headroom available. Even in a high scenario, a DSO Incentive of 1.6% of RoRE would be possible without risking the RAM threshold being triggered.

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<sup>2</sup> RIIO2 - Final Determinations, ESO Annex, paragraph 2.58

Our analysis, which is summarised in Figure 1, demonstrates that there is significant headroom to increase the maximum value of the DSO incentive to drive innovative behaviours while containing the overall cost to consumers within reasonable parameters.

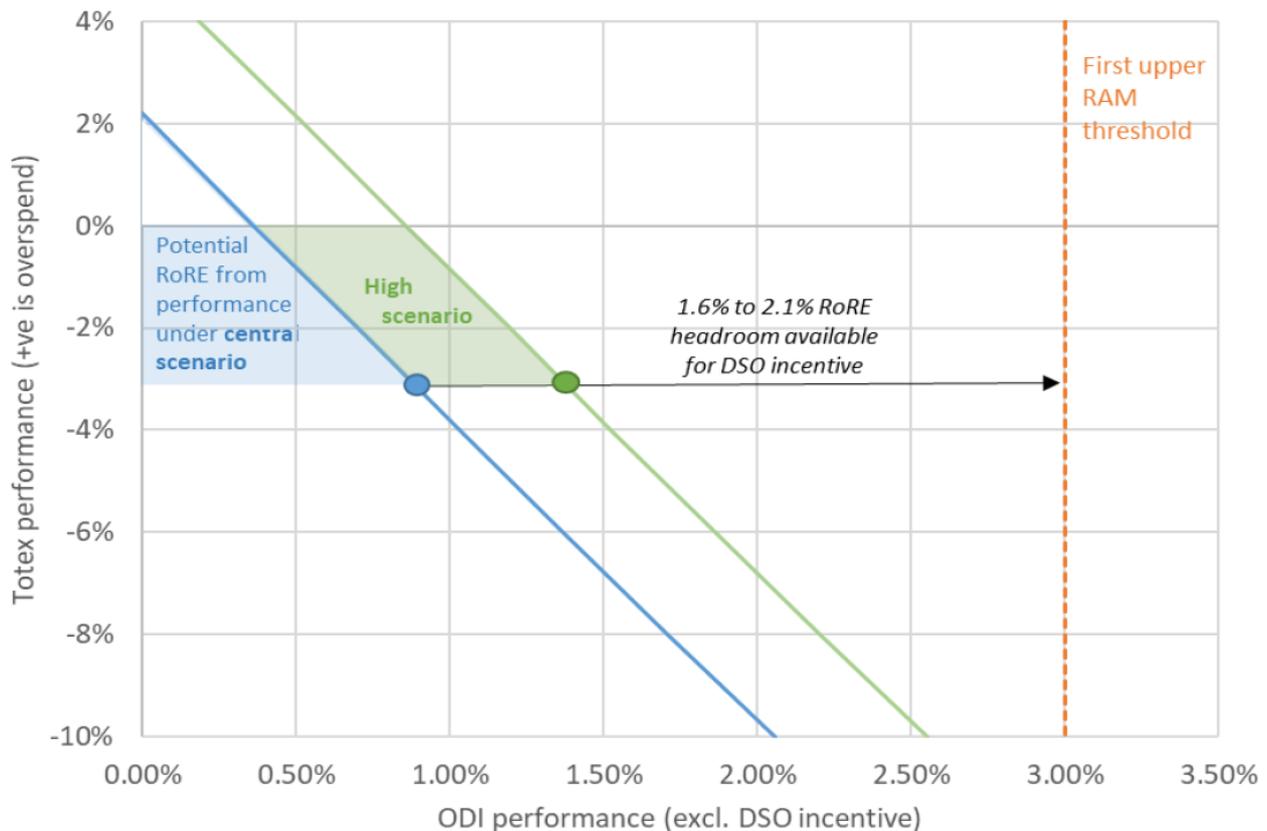


Figure 1: Schematic showing the headroom available for the DSO Incentive reward in terms of avoiding any trigger to the RAM threshold

### **The DSO incentive places inappropriate reliance on qualitative assessment**

**We have compared the success of incentives used in RIIO-ED1 and we have found that incentives which rely on clear and robust performance metrics have led to significant performance improvements, whereas qualitative metrics deliver lower levels of performance.** For example, as shown in Table 1 below, incentives based on quantitative measures such as the Interruption Incentive Scheme (IIS) and Broad Measure of Customer Satisfaction (BMoCS), have secured greater improvements for customers than incentives relying more on qualitative indicators, such as the Stakeholder Engagement and Consumer Vulnerability (SECV) incentive. We believe that the explanation for this is the ambiguity of the qualitative metrics used in the SECV, which make it harder to determine what is needed to deliver a good outcome and to make investment decisions.

Table 1 – Comparison of average industry performance on IIS, BMoCS and SECV in RIIO-ED1

	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	% Output improvement
CI (volume)	46	45	45	44	41	42	10%
CML (minutes)	39	34	35	35.5	35	33	15%
BMoCS (score from 10)	8.6	8.7	8.7	8.9	9	9.1	7%
<b>SECV</b>	<b>7</b>	<b>6.7</b>	<b>6.8</b>	<b>6.4</b>	<b>5.6</b>	<b>5.5</b>	<b>-22%</b>

Our analysis contrasts with Ofgem’s current approach which proposes that the subjective views of the performance panel should amount to 40% of the assessment, with 30% coming from the objective outturn performance metrics and 30% for the stakeholder satisfaction survey.

**Based on the evidence from RIIO-ED1, we believe that a greater emphasis on quantitative metrics for the DSO incentive will drive better outcomes for customers** – especially given the scale of change needed with regards to DSO functions. The weighting of the outturn performance metrics should be revised as set out in Table 2 below.

Table 2 – Proposed weightings for the DSO incentive

	Stakeholder survey	Performance Panel	KPIs
Ofgem proposed	40%	40%	20%
<b>UK Power Networks’ proposal</b>	<b>30%</b>	<b>40%</b>	<b>30%</b>

### **Our views on the stakeholder survey and performance panel component of the incentive**

We strongly recommend that all DSO components are switched on from the start of RIIO-ED2 and that licensees are exposed to the full range of any reward and penalty set by Ofgem in year one. This will ensure that licensees are fully encouraged to progress on DSO and there is no dilution that risks creating a delay in effort. We recognise that on the Secondary Network Visibility Outturn and the Curtailment Efficiency Outturn Performance Metrics, Ofgem needs to have sufficient data to set targets that they have sufficient confidence over. We believe the data we have provided alongside this letter should help provide such confidence.

There are notable precedents involving other ODIs that can be applied to these metrics, such as in the case of BMoCS, where it was possible for Ofgem to set targets for the first year of RIIO-ED1 for DNOs that were able to submit data by certain dates. If Ofgem ultimately decides to switch off the financial rewards and penalties associated with the outturn metrics then Ofgem should double the reward on the metrics in year two. This means metrics would be worth 40% with the other elements staying the same so that the total DSO incentive reward/penalty would be 120% in year two and 80% in year one.

In Table 3 we show how we think the different elements of the DSO incentive combine to form a penalty or reward. As Ofgem has defined two elements that are either upside or downside only, we

have scaled the outturn metrics to ensure the total upside/downside is +/-100%. For the Performance Panel and Stakeholder Satisfaction components we have put side by side Ofgem's proposals with our recommendations. **We believe it is crucial that Ofgem reduces the “break even” (i.e. the score that would result in zero reward or penalty) scores from where they are currently are pitched, as they are unjustifiably high.** This is a new incentive with a focus on evaluative assessment in a complex area, therefore it does not make sense to expect licensees to reach scores of over 7/10 to start earning a reward. Doing so would risk creating reputational damage if all licensees are being seen to be underperforming and a lack of motivation on licensees to improve as the potential for reward by doing so would remain low.

We also recommend that Ofgem clarifies in its guidance document that licensees are unable to score each other as part of any survey as this would otherwise create a perverse incentive. Ofgem should also set minimum sample sizes that licensees need to reach for each of the five stakeholder satisfaction survey questions. Doing so would avoid any small sample advantage that a licensee could gain from and would make results comparable.

Whilst there is a lack of data on DSO performance Ofgem already has the learnings from the ESO incentive to base DSO target decisions on. In Table 3 we have summarised two key takeaways from the ESO Incentive that are highly relevant to the DSO Stakeholder Satisfaction Survey and Performance Panel assessment.

*Table 3: UK Power Networks' interpretation of Ofgem's weightings and the break-even scores required versus our recommendations*

Main element	Sub element	Penalty/ Upside	Current break-even score	Recommended break-even score
<b>Performance Panel 40%</b>	DSO Benefits	+/-12%	5	4
	Data provision	+/-8%	5	4
	Flex Markets	+/-8%	5	4
	Conflict Management	+/-8%	5	4
	DER dispatch	+/-4%	5	4
<b>Stakeholder Survey 40%</b>	Coordination	+/-8%	7.5	5.5
	Data Provision	+/-8%	7.5	5.5
	Flex Markets	+/-8%	7.5	5.5
	Decision making	+/-8%	7.5	5.5
	Network Planning	+/-8%	7.5	5.5
<b>Metrics 20%</b>	Flex market testing	10% (penalty only)	100%	100%
	Curtailment	+10% (upside only)	(TBC)	(TBC)
	LV Visibility	+/-10%	(TBC)	(TBC)
<b>Total</b>		<b>+/-100%</b>		

Firstly, the ESO’s recently published stakeholder satisfaction survey results<sup>3</sup> demonstrate how challenging this area is and why targets need to be set appropriately. Across the three ESO roles only 14% of respondents felt the ESO exceeded baseline expectations. A significantly higher share felt that the ESO were below baseline expectations. Applying the proposed DSO targets to the ESO would have resulted them being in penalty despite the fact they are in their fifth year of incentive arrangements. **We recommend that Ofgem sets a dead band score of between 5.5-5.9 for the Stakeholder Satisfaction Survey.** In Figure 2 we show how the scoring thresholds would work in our proposal more generally.

Secondly, in the first year of the ESO’s Performance Panel assessment the ESO received an average score of 5.7 (this is scaled up from their score of 2.85 out of 5 to make it comparable). Across the seven areas assessed the ESO did not receive a score higher than 7/10. As with the Stakeholder Satisfaction Survey this suggests that Ofgem’s proposed dead band score of 5-6 (i.e. where no reward/penalty applies) is too high. **We instead recommend, that the dead band scores are set to be 4-5, which would infer a break even score of 4 as outlined in Table 3.**

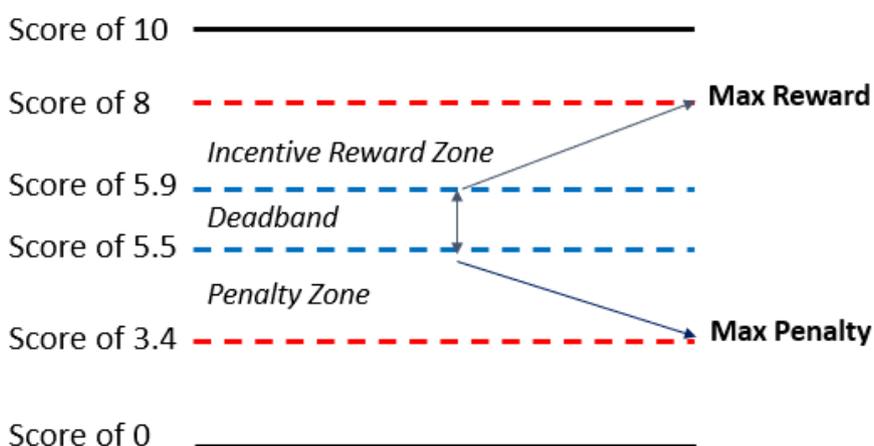


Figure 2: Our proposed thresholds for translating scores into a reward or penalty

**Importantly the Performance Panel must focus the basis of their assessment on quantitative evidence with a clear understanding of what good looks like. Evidence to the panel should be submitted on a consistent basis using industry standards to enable a fair and robust evaluation of performance.**

It is also important that the panel takes into consideration ambition and scope when making their assessment. For example, if a licensee fails to reach a more ambitious, industry leading target, but achieves more than another licensee that has been less ambitious but has reached 100%, the former licensee should fair better. On the other hand, licensees should not be overly penalised nor rewarded if they naturally have less at stake. For example, if they have relatively low Load Related Expenditure requirements then their need for flexibility will be naturally lower than a licensee that is forecasting higher constraint levels.

In separate analysis submitted to Ofgem we provide more detail on how we recommend the DSO Performance Panel assessment is structured to promote objectivity and to ensure scores reflect what is most important to customers.

<sup>3</sup> [download \(nationalgrideso.com\)](https://nationalgrideso.com)

## **Our views on the reporting cycle**

Ofgem’s draft guidance contains a proposed annual reporting cycle that will commence for licensees from 2024. The timings of submissions are a key decision to get right as it will influence the DNOs ability to course correct as well as potentially the scores received from either the performance panel or stakeholders.

We recognise that the formal assessment cycle will start in 2024, however, we think Ofgem has omitted the need for DNOs to submit forecast data as part of the Secondary Network Visibility Outturn Performance Metric in July 2023. This is because Ofgem’s design of the metric requires outturn data to be compared with forecast data from the previous year. A failure to capture forecast data in July 2023 would mean that performance would not be measurable until summer 2025, which is over two and a half years away.

In Table 4 below we recommend changes to the dates of some of the key regulatory milestones. Notably we believe that the Performance Panel report should be submitted alongside RRE and Outturn Metric data to provide a complete view of performance. As this data forms a key part of the Performance Panel’s assessment the corresponding session should happen in either late September or early October. As a result, Ofgem’s final DSO incentive report would be pushed back one month to the end of October.

*Table 4: Ofgem’s proposed reporting cycle versus our recommended cycle*

<b>Reporting milestone</b>	<b>Ofgem proposed deadline</b>	<b>Our recommended deadline</b>
DSO Performance Panel submission	30 April	31 August
Supplementary Questions	June/July	September/October
Performance Panel sessions	June/July	September/October
DSO Stakeholder Satisfaction Survey	31 July	31 July
Outturn Performance Metrics	31 July	31 July
Regulatory Reported Evidence (RRE)	31 July	31 July
Ofgem publishes the DSO Incentive Report	30 September	31 October

## **Our views on the proposed outturn performance metrics**

As noted earlier, quantitative metrics have a proven record of driving increases to performance in network regulation. A key advantage of the DSO incentive over the ESO incentive is that Ofgem will be able to collect and compare data from 14 licensees to benchmark performance and calibrate targets. We are therefore pleased to see the inclusion of outturn metrics. However, in our view there is a missed opportunity with respect to the RRE Ofgem has defined, which could have been made outturn metrics with more formal targets. If this decision is not reversed for Final

Determinations we recommend that at the least Ofgem gives itself scope to switch RRE to outturn metrics during the period.

Our views on the specific outturn performance metrics proposed are presented in the table below.

*Table 5 – UK Power Networks’ views on proposed outturn performance metrics for the DSO incentive*

Proposed KPI	Our view
Curtailment Efficiency	<p><b>We agree with the curtailment efficiency KPI.</b> It will drive licensees to reduce curtailment where it is economical to do so. We agree with Ofgem’s definition of curtailment. It is appropriate for targets to be based on curtailment limits agreed in non-firm contracts with customers. We recommend that data is used from existing non-firm contracts and we do not favour excluding these from the metric. Targets for these existing sites should be based on as-is contracts unless updated terms are offered post the Access SCR implementation date. For new incoming non-firm contracts we agree that the new standardised methodology being used to set curtailment targets should be applied to this metric.</p> <p><b>We have identified one key remaining issue:</b></p> <ul style="list-style-type: none"> <li>• Currently there is no recognition for the volume of MWs that the licensee is managing under non-firm arrangements and thereby what is covered under this metric</li> <li>• This means that in theory a licensee with one non-firm contract will be treated the same as another that is managing one hundred non-firm contracts. As the customer benefit is proportionate to the number of MWs and contracts covered (i.e. MWh of reduced curtailment) it does not make sense to ignore this</li> <li>• We recommend that the incentive pot starts off being distributed based on a licensees percentage of RoRE. For example, a licensee that makes up 5% of the RoRE total equivalent is given that apportioned share of the reward. When actuals are then reported in period Ofgem can factor in the non-firm MWs that each DNO is managing to re-weight the share of incentive revenue between licensees. By way of an example, if the licensee with the 5% initial share achieved 100% of their target but in fact only represented 2.5% of the total MWs being managed by all licensees, they would then receive 50% of the initial maximum incentive revenue set</li> <li>• Our proposed approach would also address any potential perverse incentive for licensees to avoid including non-firm customers to preserve their performance against the metric</li> </ul>
Secondary Network Visibility	<p><b>We support the inclusion of an outturn performance metric on secondary network visibility.</b></p> <p><b>We agree that Ofgem should incentivise DNOs to develop analytics-led approach in combination with traditional monitoring methods to improve visibility of secondary networks at the lowest cost to customers.</b> The DSO can add significant value by making use of analytics to get a more accurate view of network utilisation across all of its assets without always having to deploy physical monitoring universally and regardless of cost.</p>

Proposed KPI	Our view
	<p>We recognise that analytical approaches will have a wider range of accuracy than direct monitoring. We therefore agree with introducing a metric that measures the accuracy of LV network visibility attained through modelling, expressed as 1 – MAPE (the Mean Absolute Percentage Error). Alongside this, we agree that there should be a higher weighting on sites where improved visibility delivers more value (e.g. at transformers with higher utilisation levels and where decisions to intervene will be made).</p> <p>To provide confidence around a licensee’s reported data accuracy, we agree that Ofgem should appoint an independent auditor to verify submitted accuracy data. This will ensure that any modelling approach used is sufficiently robust. We believe this small additional cost is justified by the scale of investment at stake. There is also a precedent for doing this for the IIS mechanism, where auditing helped drive up the initial accurate reporting of reliability.</p> <p>By collecting forecasted transformer utilisation data through the Regulatory Reporting Pack a year ahead Ofgem can evaluate the accuracy with actuals submitted a year later on a site-by-site basis. For sites with monitoring this is straightforward. For unmonitored sites, which currently make up the majority, this is more complex and this is where the independent audit will provide greatest value. Without this, there is a significant risk that output data will not be comparable between licensees and the metric may not drive efficient behaviour.</p> <p>On one hand there are well known issues with using model output to validate model output as would be the case for unmonitored sites. On the other hand excluding these sites would undermine the purpose of this metric in terms of promoting accurate secondary network visibility. We therefore recommend that unmonitored sites are included with a caveat that scrutiny is needed to ensure that accuracy scores are as accurate as possible using the data available.</p>
Flexibility market testing	<p><b>We agree with the inclusion of a metric on flexibility market testing.</b> We do however make the following recommendations to ensure this works as intended:</p> <ul style="list-style-type: none"> <li>• First, the metric should be based on outcomes (i.e. amount of flexibility procured by DSOs), not only intent (i.e. flexibility testing). Ofgem should therefore also include an outturn metric on “Capacity released through flexibility” (currently defined as a RRE) to ensure that the volumes of flexibility procured are directly incentivised;</li> <li>• Second, secondary network level flexibility should be separated out from flexibility procured at the primary network level in terms of target setting. In its current form the combination of the two in one formula will cause issues due to the different network characteristics, as well as the different ways that utilisation, volumes and unit costs are calculated.</li> <li>• Third, it will not always be possible to test requirements for flexibility due to the type of constraint. For example, at the secondary network level there are issues with using flexibility to resolve constraints for PMTs due to the fact only a handful of customers are typically connected and there is no transformer monitoring present. Nevertheless it is important that any such exclusions that are not counted for in this metric are transparent, so that stakeholders and market participants have confidence in licensees’ decision making.</li> </ul>

Attached to this letter is a spreadsheet log of specific issues we have identified with wording in the draft Ofgem guidance document, which should be considered as part of our consultation response.

We look forward to engaging Ofgem further to ensure that the DSO Incentive licence and its associated guidance document are fit for purpose and deliver their intended consequences. If you have any questions regarding our response please get in touch with [daniel.saker@ukpowernetworks.co.uk](mailto:daniel.saker@ukpowernetworks.co.uk) in the first instance.

Yours sincerely



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Appendix 1: UKPN log of feedback to DSO incentive governance document

Appendix 2: DSO incentive Performance Panel: Recommendations on assessment process