NATIONAL GRID RESPONSE TO OFGEM CONSULTATION – ELECTRICITY TRANSMISSION

National Grid's response to Ofgem's RIIO-2 sector-specific methodology consultation - Electricity Transmission

Overview

This is National Grid's response to Ofgem's RIIO-2 sector specific methodology electricity transmission annex. In this overview, we provide our key comments on the ET annex. We answer the 70 ET questions in the appendix below.

The consequences of your proposed ET incentive package

You are leaving many options open in the electricity transmission (ET) annex. However, your current direction of travel makes clear that your proposed overall package of RIIO-ET2 (T2) output incentives for electricity transmission owners (TOs) will be narrower in scope, weaker and more downside-skewed than in RIIO-ET1.

By **reducing the scope of and weakening the overall incentives package** there will be less incentive for TOs to improve their performance, which will lead to worse outcomes for consumers. A narrowed and weakened incentive package is particularly inappropriate for the T2 period when the energy system will be changing extensively. During this period of change it is important that TOs engage with and meet their stakeholders' expectations, maintain the reliability of the network, support the transition to a low carbon energy system and optimise across the whole energy system to benefit consumers.

In the cross-sector consultation document you consider the use of relative and dynamic incentives. Relative incentives do not work for TOs because there are too few of them, they are different sizes and they carry out different activities. Dynamic incentives act to weaken TOs' incentive to deliver for consumers because if a TO improves its performance one year its target will become tougher in the following years.

Your move away from symmetrical incentives towards **more penalties and fewer rewards** for outputs will drive the sector towards a risk averse, compliance culture with TOs focussed on doing just enough to avoid penalties. This will increase the regulatory burden for Ofgem because it will have to clarify what TOs must deliver and TOs will seek further guidance to avoid penalties. When David Gray (Ofgem's former chairman) reviewed Ofwat in 2011 he recognised the link between positive incentives and reducing the regulatory burden: "There is clear scope to link a reduction of the burden to positive incentives for behavioural change and innovation." (page 30).

Improvements you should make to the proposed ET incentive package

In your RIIO-2 framework, you should be strengthening the existing incentives, taking a balanced view of risk and reward and seeking to find new ways to incentivise companies to deliver further value for consumers in the future. You would improve outcomes for consumers if you took the following approach to the ET incentive package:

1. You should retain a strong incentive on TOs to improve how they **engage with their customers and stakeholders**, focused on this engagement becoming deeper and more systematic. This is particularly important in the T2 period as the energy system changes

because there will be new types of stakeholders, business models, technologies and challenges emerging. This will require TOs to engage in new and different ways to understand their stakeholders' views and how they can be translated into their activities.

2. You should retain a strong symmetrical incentive on TOs to improve **customer and stakeholder satisfaction**. The incentive should apply to all our customers and stakeholders, not just a subset as you propose. This is because, although we have made progress in becoming more customer-focussed in the T1 period, our customers tell us there is still much room for improvement and customer expectations generally increase over time. A strong incentive that drives us to deliver better service for our customers and stakeholders is in their interest, but also consumers' interest.
3. You should retain strong incentives, with upside opportunity and downside risk, for TOs to reduce the amount of **energy not supplied (ENS)**. Willingness to pay evidence shows that consumers value lower levels of energy not supplied all the way to zero. An ENS incentive is a cost-effective and proportionate way of encouraging TOs to reduce energy not supplied. The energy not supplied target should be based on a long-run average of energy not supplied to reflect the nature of these low-probability, high-impact events.
4. Your proposed **environmental package** should focus on incentivising outputs we can deliver to benefit the environment rather than focus on our activities or inputs. An outputs approach will stimulate TOs to innovate and respond to changing circumstances in the future. The environmental package should encourage TOs to propose bespoke environmental outputs, including those that go wider than de-carbonisation e.g. natural environment and natural resources improvements.
5. You should retain the current incentive on TOs to reduce **SF_6 emissions** because it is designed to ensure TOs make efficient trade-offs between the costs of repairing leaks (or replacing leaking equipment) and the cost of carbon emissions. It is a way of pricing in the cost of carbon to TOs' decisions rather than a reward or penalty scheme. The SF_6 incentive is not the right way to stimulate TOs to look for alternative insulation technologies because the cost to achieve such a change in the global supply chain is too large. A much better approach to stimulating the development of alternatives to SF_6 is long-term innovation funding.
6. You should encourage a **broader scope of incentives for TOs** to drive a range of outcomes that are in the broader public interest, either through the cross-sector framework or the development of company-specific ODIs. We suggested some options for community, social value and trust outputs in our Forward-looking outputs discussion paper in December 2018.
7. You should continue to **support TOs working with the ESO and DNOs to promote whole system solutions** that deliver better outcomes for consumers. We have been discussing with you through the ET policy working group some ideas to encourage SO:TO optimisation.

Other key points of our response

There are some other key points to highlight from our responses to the ET annex questions.

Delivering large capital projects – We did not discuss the proposals for downside-only incentives to deliver large capital projects on time in any depth at the ET policy working groups.

In the consultation, you discuss some potentially large and unpredictable penalties for delivery delays based on actual constraint costs (page 64). We explain in our detailed response below that you need to strike a balance between discouraging late delivery and avoiding perverse incentives for TOs to incur increased costs for consumers across all projects by procuring contractual mitigations e.g. liquidated damages with its supply chain to offset potential liabilities. It is not normal commercial practice for penalties to be based on the consequences of service failure. Your approach should be based on standard commercial practices that would apply in competitive markets.

Sulphur hexafluoride (SF_6) - You are not asking a direct consultation question about one of the biggest proposed changes to the SF_6 incentive for RIIO-T2. You are consulting on only increasing our SF_6 target for new assets installed on the network that contain an IIG with a low global warming potential. This is a change to the T1 approach where if we install a new asset that uses SF_6 the incentive target increases to account for the new inventory. You need to consider the possible perverse effects of this approach. For example, when a TO connects a low-carbon generator, such as an offshore windfarm, to its network it might use SF_6 assets as the best value option for consumers. The overall impact for the energy system of making this connection might be lower whole-system carbon emissions, but the TO would be penalised for increasing its SF_6 asset inventory.

Cost assessment - We agree with your intention to evolve the RIIO-ET1 approach to cost assessment for RIIO-ET2. However, in practice in many areas you have based your detailed approach to cost assessment for ET2 on RIIO-ED1, which has resulted in a very large change in approach rather than an evolution from ET1. For example, you have based your draft business plan data templates (BPDTs) on ED1 without paying sufficient attention to the differences between the sectors resulting in a very large data request with much of the information being of limited value for electricity transmission. We have been feeding in our detailed views and proposals through the ET costs working group to help us all reach workable BPDTs for the ET sector that reflect what you want to achieve in a practical and efficient way. We do not yet feel we have reached a workable set of BPDTs for ET2 and this urgently needs to be resolved.

Uncertainty mechanisms - We consider uncertainty mechanisms (UMs) are vitally important to ensuring our allowances adjust for the outputs our customers want, thus protecting consumers and companies from changes that occur during the price control period. We consider all NGET RIIO-ET1 uncertainty mechanisms should continue for ET2 because they are still needed to protect customers. We are also developing new uncertainty mechanisms for T2, including in relation to pre-construction costs and embedded generation.

Appendix

In the attached appendix, we set out our response to the 70 ET annex questions in Ofgem’s RIIO-2 sector-specific methodology consultation.

Appendix – responses to the ET annex consultation questions

This is National Grid's (NGET and NGG) response to the 70 ET annex questions in Ofgem's RIIO-2 sector-specific methodology consultation.

Chapter 3 questions – Meet the needs of consumers and network users

General consumer output questions

ETQ1. What are your views on the overall outputs package considered for this output category?
The outputs package you are proposing for the "Meet the needs of consumers and network users" output category is too weak and too skewed to the downside.

You would improve outcomes for consumers if you took the following approach to the incentive package for the "Meet the needs of consumers and network users" output category:

- You should retain a strong incentive on TOs to improve how they **engage with their customers and stakeholders**, focused on this engagement becoming deeper and more systematic. This is particularly important in the T2 period as the energy system changes because there will be new types of stakeholders, business models, technologies and challenges emerging. This will require TOs to engage in new and different ways to understand their stakeholders' views and how they can be translated into their activities.

- You should retain a strong symmetrical incentive on TOs to improve **customer and stakeholder satisfaction**. The incentive should apply to all our customers and stakeholders, not just a subset as you propose. This is because, although we have made progress in becoming more customer-focussed in the T1 period, our customers tell us there is still much room for improvement and customer expectations generally increase over time. A strong incentive that drives us to deliver better service for our customers and stakeholders is in their interest, but also consumers' interest.

- Reconsider the need for a **timely connections** output incentive because our customers are more focussed on the quality of the connection and communications about it than with the timing. The customer satisfaction survey incentive already covers connection customers' views on their connection. We are concerned that having two incentives on connections risks double penalties on TOs. The timely connections output also duplicates your proposals for incentives for delivering large capital projects on time.

- You should retain strong incentives, with upside opportunity and downside risk, for TOs to reduce the amount of **energy not supplied (ENS)**. Willingness to pay evidence shows that consumers value lower levels of energy not supplied all the way to zero. An ENS incentive is a cost-effective and proportionate way of encouraging TOs to reduce energy not supplied. The energy not supplied target should be based on a long-run average of energy not supplied to reflect the nature of these low-probability, high-impact events.

- You should encourage a **broader scope of incentives for TOs** to drive a range of outcomes that are in the broader public interest, either through the cross-sector framework or the development of company specific ODIs, We suggested some options for community, social value and trust outputs in our Forward-looking outputs discussion paper in December 2018.

We provide more detail in our answers to the specific output questions below.

ETQ2. For each potential output considered (where relevant):
a) Is it of benefit to consumers, and why?
We give our views in our answers to the specific output questions below.

b) How, and at what level should we set targets? (e.g. should these be relative/absolute)
We give our views in our answers to the specific output questions below.

c) What are your views on the design of the incentive? (e.g. reward/penalty/size of allowance)
We give our views in our answers to the specific output questions below.

d) Where we set out options, what are your views on them and please explain whether there are further options we should consider?
We give our views in our answers to the specific output questions below.

ETQ3. What other outputs should we be considering, if any?
We suggested some options for community, social value and trust outputs in our Forward-looking outputs discussion paper in December 2018. We are continuing to work on these, including engaging with Ofgem and the other two TOs to see if any would be suitable for the RIIO-ET2 period.

ETQ4. What are your views on the RIIO-ET1 outputs that we propose to remove? In addition to the above questions, where relevant, please the see the supplementary output specific questions below.
We give our views in our responses to the specific output questions below.

Supplementary output specific questions

Stakeholder Satisfaction Output: Stakeholder Engagement Incentive

ETQ5. We welcome views on whether a specific incentive for stakeholder engagement is appropriate in RIIO-ET2, and if so, whether this should [be] reputational or financial.
We propose you retain the Stakeholder Engagement Incentive (SEI) with a strong incentive for RIIO-ET2. SEI should be focused on making engagement deeper and more systematic during the T2 period. Stakeholder engagement involves effort and expenditure by network companies and there needs to be the prospect of a financial reward to encourage and fund it. For 2018/19, we currently estimate our expenditure on engagement will be in the region of £3m.

Engaging with stakeholders will be particularly important in the T2 period as the energy system changes as there are new types of stakeholders, business models, technologies and challenges emerging which are likely to require TOs to engage in new and different ways to understand and translate into action. Stakeholder engagement will also be important in the T2 period because we will be split from the ESO on 1 April 2019 and will be establishing new NGET stakeholder relationships.

To ensure network companies only earn rewards from SEI that reflect genuine performance improvement you could increase the current target of 5/10 to something higher to reflect network companies' improved performance in the T1 period.

In the RIIO-ET1 period, the SEI has driven a change in behaviour across our business, bringing benefits to customers, stakeholders and consumers. We estimate our engagement activities during 2017/18 generated considerable cost savings for our customers, including a potential £100 million savings for HS2 on its electrical infrastructure. This compares with an incentive reward for that year of £1.8m.

You are proposing elsewhere in this consultation to remove the Environmental Discretionary Reward (EDR). One of EDR's benefits was that it involved collaboration and engagement with other parties. We think retaining the SEI could avoid these benefits being lost.

We do not think the Business Plan Incentive (BPI) will sufficiently encourage TOs to carry out stakeholder engagement because:

- the BPI covers many issues and will not incentivise stakeholder engagement sufficiently;
- we do not have clarity on how the BPI will operate or the size of any rewards, making the incentive relatively weak; and
- the BPI will weakly incentivise companies to submit good-quality plans for stakeholder engagement in their business plans, not good-quality ongoing stakeholder engagement during the T2 period.

ETQ6. Do you think individual components of the SSO should be combined into a single incentive mechanism in RIIO-ET2, should the SEI and components of the SSO be retained?

We do not think the individual components of the SSO should be combined into a single incentive mechanism. You are proposing to remove the KPIs and external assurance part of the SSO for RIIO-ET2. This leaves three elements of the SSO: (1) stakeholder engagement; (2) stakeholder satisfaction; and (3) customer satisfaction. We consider these three elements should remain separate because:

1. Stakeholder engagement, stakeholder satisfaction and customer satisfaction are all important outputs that stakeholders and customers value. There are fewer transmission outputs than for distribution because we do not deal directly with end-consumers so we should not reduce the number of transmission outputs unnecessarily.

2. Stakeholder engagement, stakeholder satisfaction and customer satisfaction are separate outputs. A TO could be good at engaging with its stakeholders, but not good at satisfying them and vice versa. A TO could be good at satisfying its stakeholders (such as government bodies) but not its customers and vice versa. As a result, there is value to having three separate incentives to encourage TOs to deliver in all three areas.

3. It is more transparent for external stakeholders if they can see TOs' performance on stakeholder engagement, stakeholder satisfaction and customer satisfaction separately. Having separate incentives will enhance the transparency further as the TOs will have to report on each output individually.

ETQ7. We invite views on types of Business Plan commitments that would be appropriate for stakeholder engagement.

Your question assumes a change in how SEI works. We do not support your proposal to change the SEI from: (1) an annual assessment of a TO's approach to stakeholder engagement to; (2) a one-off assessment of whether a TO has delivered against its business plan commitments at the end of the price control period.

We agree that TOs should set out in their business plans how they plan to engage with stakeholders during the T2 period. This could include TOs' expectations of what a stretching programme of engagement would look like in the T2 period. However, the problem with you assessing companies at your next price review (in 2025) against their T2 business plan proposals on engagement is what you refer to as "the rate and pace of change in the energy industry" (paragraph 3.24 of the ET annex). Our ideas for excellent stakeholder engagement in our T2 plan could quickly become outdated if our stakeholders' expectations change, new tools of engagement emerge or best practice changes.

One of the benefits of the current Stakeholder Engagement Incentive is that is operates annually. This allows for the SEI assessment to change as our stakeholders' expectations change, new tools of engagement emerge or best practice changes. During T1 you have operated SEI on a continual improvement basis – requiring us to demonstrate improvements each year. You and we have also been able to learn from best practice from other network companies through your annual assessments. Therefore, an annual assessment results in better stakeholder engagement than a one-off assessment at the end of the T2 period.

We support you using transmission companies' User Groups in the SEI assessment process because they are both independent and have a detailed understanding of TOs' activities and capabilities. You would need to set clear criteria for the User Groups' assessment and potentially carry out a moderation process to ensure the assessments were similar across the TOs.

ETQ8. We welcome views on the potential approaches to setting a financial incentive for the SSO in RIIO-ET2, if retained. Are there any other considerations we should take into account if we move to a fixed reward pot that network companies compete for?

You should retain a strong financial incentive, with an upside incentive for outperformance, for all three elements of the SSO for TOs i.e.:

- stakeholder engagement
- stakeholder satisfaction survey
- customer satisfaction survey

Setting financial incentives for stakeholder and customer engagement and satisfaction is difficult because attaching a precise financial value to improvements is hard. We suggest you retain the existing financial incentives for the SEI, stakeholder survey and customer survey as set out in the table below. You should update the incentive targets to reflect network companies' improved performance in T1, which will mean network companies have to deliver more to earn rewards in the T2 period.

RIIO-ET1 stakeholder and customer financial incentives for NGET

	Maximum penalty	Maximum reward
SEI	Not applicable	0.5% of base revenue
Stakeholder survey	1% of base revenue	1% of base revenue
Customer survey		

We note that in the water sector Ofwat is proposing to increase the upside of its customer satisfaction incentive as it moves from the Service Incentive Mechanism (SIM) to the Customer Measure of Experience (C-MeX) as set out in the table below. Ofwat's rationale for this change is to "incentivise the water sector to catch up with the higher levels of customer service found in many other sectors" (page 9, Ofwat's PR19 methodology, Appendix 3)

Ofwat consumer satisfaction incentives

	Maximum penalty	Maximum reward
SIM (2015-16 to 2019-20)	2.4% of residential retail revenues per year*	1.2% of residential retail revenues per year*
C-MeX (2020-21 to 2024-25)	2.4% of residential retail revenues per year	2.4% of residential retail revenues per year

*For 2015-16 to 2019-20 Ofwat will apply the penalties and rewards once at the end of the five-year period.

Stakeholder Satisfaction Output: Satisfaction Survey, KPIs, and External Assurance components

ETQ9. Do you have any views on whether we should retain a TO User Survey, targeted at a number of key areas as identified in this document? Are there any alternative mechanisms to address potential issues in these areas we should be considering?
You should retain a strong symmetrical incentive on TOs to improve customer and stakeholder satisfaction. Although we have made progress in becoming more customer and stakeholder focussed in the T1 period, our customers tell us there is still room for improvement and customer expectations generally increase over time.

You should keep two separate survey incentives, one for customers and one for stakeholders. These two groups want different outputs from us. For example, our customers want a good quality service and efficient price, whereas many of our stakeholders are focussed on end-consumers' interests and environmental and social improvements.

The financial upside incentives provide us with an incentive to continually invest in improving our customers' and stakeholders' experiences. They mean we are only rewarded when our investments deliver improved customer and stakeholder satisfaction. This ensures that we produce high-quality business cases and track the delivery and outcomes of those investments to drive better value for our customers and stakeholders. A penalty-only incentive would cause us to focus on delivering only those minimal improvements needed to avoid a penalty which does not seem appropriate given the changes expected in the energy sector in the 2020s.

Satisfying our customers and stakeholders will be particularly important in the T2 period as the energy system changes and new types of stakeholders, business models, technologies and challenges arise. Also, during the T2 period we will have just been separated from the independent ESO and it is vital that we continue to satisfy our customers and stakeholders as our relationship with them changes.

The current customer and stakeholder survey incentives have driven an accelerated customer programme that has delivered (amongst other things):

- our customer experience set of principles and standards, which we generated through customer insight. These have helped to drive consistent best-practice into our performance across our business;
- a customer experience governance board and Net Promoter Score programme to drive cultural changes at all levels of our organisation; and
- the development of a customer relationship management system that will enable a consistent customer experience, drive efficiency and support our goal of delivering a personalised customer experience.

These, along with our many other initiatives, are collectively having a positive impact on our customer satisfaction scores.

We strongly disagree with your proposal to target the customer satisfaction survey on a limited number of customer groups as we explain in our response to question ETQ10 below.

ETQ10. Are there any other areas, beyond those identified in this consultation document, which we should consider targeting through a potential survey?

We strongly disagree with your proposal to target the customer and stakeholder satisfaction survey at only those affected by the connections process or new transmission projects. TOs should be incentivised to satisfy all their customers and stakeholders, including new ones that might emerge during the T2 period.

Our current customer survey covers areas such as the Transmission Network Control Centre (TNCC), outages, specific engagement such as RIIO-2 and general enquiries.

Our current stakeholder survey covers areas such as pre-connection application enquiries, de-carbonisation consultation, specific engagement such as T2, outages and general enquiries.

We consider all these customer and stakeholder groups are important and that we should be incentivised to improve their satisfaction with us.

If you do make significant changes to the focus of the customer and stakeholder surveys compared with T1 you will need to re-baseline the incentives.

ETQ11. Do you have any views on our proposal to retain one question on overall satisfaction from which the scores will be collated?
We support you keeping a single survey question to calculate the scores from. This provides a clear and objective measure of satisfaction.

ETQ12. Do you agree that we should use RIIO-ET1 performance as a starting point for setting a RIIO-ET2 baseline? What alternative approach(es) should we consider?
We agree that you should re-baseline the customer and stakeholder satisfaction survey targets for RIIO-ET2 based on a network company's own past performance. In doing so you should consider at least three years of recent T1 data to avoid basing a target on a one-off observation.

We do not support setting the starting point based on other TOs' T1 performance. The TOs have different customers and stakeholders and so their scores are not comparable.

ETQ13. Do you agree that the User Groups could provide guidance on the stakeholders that should be included in the survey sample? Are there any specific stakeholders that you think must be surveyed to improve the validity of the scores?
We agree that User Groups could provide guidance on the stakeholders that should be included in the survey sample. We would prefer the customer survey to cover as many of our customers as it can. We would prefer the stakeholder survey to cover as many of our stakeholders as it can.

ETQ14. Do you agree with our proposals to remove the financial incentive associated with the KPI and EA components? Should the EA component be retained as a minimum requirement/ licence obligation?
We do not currently have stakeholder KPIs and we recognise that you are proposing to remove any financial incentive around KPIs for the Scottish TOs. However, if you did propose to retain the KPIs with a financial incentive for the Scottish TOs and extended them to NGET we could see some merit in that approach. It would enable us to set KPIs that target weaker areas of our customer and stakeholder processes to drive improvements. We think the KPIs would need to be individual to each TO to reflect their particular process weaknesses. Our User Groups could review our approach to identifying appropriate KPIs and the KPIs we propose.

There is no need for a new minimum requirement / licence obligation around external assurance of our stakeholder satisfaction output. This would duplicate the business plan guidance where you are considering assurance as part of the business plan commitment section. An independent third party already carries out our customer and stakeholder satisfaction surveys.

Timely Connections Output (Connections Offer stage)

ETQ15. Do you have any views on whether we should retain the RIIO-ET1 Timely Connections Output (which applies to the connection offer stage) for RIIO-ET2, including the penalty rate, and extend it to NGET?

We do not think you should retain the timely connections output penalty incentive for T2 or extend it to NGET. Our customers are telling us that the quality, tailoring and efficiency of the connections service we provide are very important. This is increasingly the case as new and smaller generators want to connect to our network who need more advice.

The customer survey incentive captures the quality of the connections service we provide and will also capture if a customer is dissatisfied by the timeliness of its connection. If you retain the timely connections output penalty incentive alongside the customer survey you risk TOs being penalised twice for providing a connection late.

The timely connections output penalty also duplicates your proposals for incentives for delivering large capital projects on time. If you take the timely connections output penalty forward for TOs you should not also apply the incentive for delivering large capital projects on time to connections.

You provide very little detail about the calculation of the late connection penalty in this consultation or the RIIO-ET1 decision document, except that it can be up to 0.5% of allowed base revenue. If you apply the timely connections output to NGET we would expect you to provide clear guidance on what factors determine the scale of any penalty that you would apply to us. Please also refer to our answer to ETQ60 below where we explain some of the consequences of setting penalty rates too high such as: discouraging TOs from taking innovative approaches; contractors increasing their prices to reflect the TO seeking liquidated damages in the event of delays; and encouraging TOs to reduce risk by using conservative delivery timescales.

ETQ16. Do you have any views on options for capturing the quality of the overall connections process through our stakeholder engagement proposals, for example through the use of a survey?

Our preference is for you to cover the quality of the overall connections process through the customer survey incentive. We want this incentive to cover all our customers, but connection customers form a large share of the customers we survey so we will be strongly incentivised to deliver a good-quality and timely connections service.

It is useful to be aware that the connections process can last for years from application to commissioning. Therefore, there are many important points in the connections process which could be measured to capture the quality of the end-to-end connections process for each customer. We consider that surveying customers following an important trigger or event during the connections process would be the best way of measuring the quality of the connections offer.

ETQ17. Are there any alternative options for capturing the quality of the overall connection process, not identified in this consultation document, which we should be considering?
We consider the customer survey incentive is the most appropriate way to capture the quality of the overall connection process.

ETQ18. How do you think we can ensure that transmission operators are not rewarded and/or penalised for actions actually undertaken by the System Operator?
The survey should make clear that it relates to the role of the TO in connections. An independent, expert company carries out our customer and stakeholder surveys and uses best practice to ensure the responses relate to us as a transmission owner as far as is possible.

Energy Not Supplied

ETQ19. Do you have any views on whether we should retain the ENS incentive, and whether we should retain it as a positive reward mechanism, or move towards a penalty-only scheme? What impact could the move to a penalty-only mechanism have on TO decision-making and behaviours? Please evidence.
You should retain Energy Not Supplied (ENS) for the T2 price control period. This is because:

1. It incentivises TOs to take actions to reduce instances of energy not supplied that consumers value.
2. It is flexible and allows TOs to change the activities they carry out as the electricity transmission network changes and evolves.
3. It is a cost-effective and proportionate way of reduce instances of energy not supplied.

You should retain a reward as part of ENS for the T2 price control period. This is because:

1. The reward element of ENS incentivises TOs to put in additional effort and take risks to identify ways of reducing instances of energy not supplied.
2. A penalty-only incentive would encourage TOs to take a compliance approach, seeking to minimise the risk of missing their targets. This could involve TOs building extra redundancy into their systems, at additional cost to customers, to avoid ENS penalties.
3. ENS is already a very asymmetric incentive with rewards for NGET of up to £3.7m and penalties of up to £48m per year.

You asked us to provide examples of the activities we carry out because of the ENS incentive. We have provided them in a slide pack accompanying our response.

ETQ20. Do you have any views on how Ofgem should take into account issues other than past performance when determining baseline targets? For example, processes adopted as BAU, increased TO experience and expertise on fault mitigation and management, future modernisation projects, etc. What adjustment mechanisms are appropriate?

We agree our target should be adjusted to reflect our good T1 performance. Using the existing formula our target will be 12% tougher than in T1. You need to use a long historical time series when calculating the target because ENS events are low probability and high impact. Using a short historical time series could lead to a high target if a TO has a large ENS event in the last few years of T1.

The ENS target should be based on past performance rather than on our processes because it is performance that matters to consumers. The incentive rate for ENS is based on consumers' valuations of losing energy supplies. It is not based on asking consumers how they value the different activities we carry out.

We agree a rolling target would be inappropriate for ENS because it would reduce a TO's incentive to improve if it knew its target would be made harder the following year. It would also mean that if a TO had a large ENS event its target would be relaxed the following year.

We agree a deadband is not appropriate because it will lead to TOs not being incentivised to improve at some levels of performance. However, if you adopt a penalty-only version of ENS you will need to have a deadband for performance that is better than the target.

We agree an absolute target is better than a dynamic or relative one as you discuss in paragraphs 3.84 and 3.85. This is because it is difficult to compare TOs' performance on ENS due to differences in network size, network configuration and weather.

ETQ21. Is the introduction of an improvement factor appropriate within the context of the electricity transmission system? What other mechanisms are appropriate?
We do not support an improvement factor for the ENS target. This is because it implies a degree of precise control over ENS levels that TOs do not have. As your Figure 7.1 on page 82 of the ET annex shows, TOs' performance on ENS jumps from year to year. Therefore, we consider it is better to use the same annual target for the whole period.

The way to ensure consumers benefit from TOs' past improvements is to adjust our target between price reviews. We calculate that applying the existing ENS formula will lead to a 12% toughening in our ENS target for the T2 period.

ETQ22.We welcome views on additional considerations we should take into account when setting baseline targets?
You suggest in paragraph 3.116 including embedded generation of 50MW and above in the calculation of ENS. If you decide on this approach you will need to adjust the T1 data to include these effects so that you can set a target based on the correct historical data series.

ETQ23. Do you agree with our proposals to base the ENS incentive rate in RIIO-ET2 on an updated, agreed VoLL?
We agree the ENS incentive rate should reflect consumers' value of lost load (VoLL) and should be updated.

As you know we are working with the Scottish TOs on a joint willingness to pay survey that will include updated values for VoLL. We expect to share the results with you in April.

ETQ24. Do you agree with our proposals to retain the financial collar for the ENS incentive in RIIO-ET2?
We agree you should retain the financial collar for the ENS incentive in RIIO-ET2. It is vital that you do not increase the financial collar beyond 3% of revenue. 3% of revenue already represents a very significant potential penalty for us of £48m per year and is a large incentive for us to avoid allowing our performance to deteriorate.

ETQ25. We welcome views on approaches to estimating embedded generation at GSP points.
We do not think adjusting ENS for embedded generation is appropriate because it would be complex and expensive. There are many different types of embedded generation ranging from 50MW+ generators to a house with a solar panel on its roof. To adjust ENS for embedded generation you need real time information on all the embedded generators so that you know precisely how much energy they were supplying at the time the ENS event happened. We will need Ofgem to require DNOs to collect and provide us with this data. In the case of NGET we will need to receive this data from six DNOs, none of which we own, unlike the case for the Scottish TOs who only need the data from one DNO that they own.

If you include embedded generation in the calculation of ENS you will need to recalculate the T1 data to include embedded generation to be able to set an appropriate target for the T2 period.

ETQ26. What measures need to be in place to facilitate the collection of data on embedded generations and other real time information? How do you propose to approximate embedded generation data?
We will need Ofgem to require the six DNOs to collect and provide us with real time data on embedded generation at the time of ENS events.

Instead of measuring embedded generation at the time of ENS events we could adjust our target and measured performance proportionately for the average level of embedded generation. This would result in proportionately larger penalties and rewards for the same underlying level of performance.

ETQ27. We invite views on changing the metrics used to measure reliability on the transmission system from MWh lost to CI/CML? What measures and processes (e.g. data sharing frameworks) need to be in place to facilitate the collection of CI/CML data?
We do <u>not</u> consider the DNOs' "customers interrupted per 100 customers" (CI) and "the number of customer minutes lost" (CML) are appropriate metrics. This is because CI and CML are affected by DNO performance as well as TO performance. For example, a TO could have a significant ENS event, but incur only a small CI/CML penalty if the DNO carried out very good network management to minimise the impact on end customers. This is a particular issue for NGET because we do not own DNOs.

ETQ28. Do you have any views on whether all loss of supply events should be incentivised? Do you have any views on amending the scope of the definition of events excluded as 'loss of supply events' and/or 'exceptional events'?
We consider the existing exemptions represent reasonable protections to avoid TOs being penalised for events that are not TOs' fault such as vandalism or a shortage of available generation. As you state there have only been a few instances of TOs submitting claims for exceptional events.

We think it would be helpful to update the guidance to explicitly mention cyber-attacks, which are a form of terrorism or vandalism, but which are not explicitly covered in the existing guidance because it is several years old.

Chapter 4 questions – Deliver an environmentally sustainable network

General environment output questions

ETQ29. What are your views on the overall outputs package considered for this output category?
We provide detailed comments on the outputs for "Deliver an environmentally sustainable network" in our answers to the specific output questions below.

We support many elements of your proposed environmental package such as:
- Ensuring that network companies' decisions on network investment and related business activities take into account their environmental impact.
- Making the environmental impacts of networks more transparent by publishing an annual environmental impact report that will detail the progress made in implementing an environmental action plan.
- Ensuring TOs play a full role in the low-carbon energy transition.

Our suggestions for improvements to the package are:
- You need to focus the environmental package more on the outputs we can deliver to benefit the environment and consumers rather than our activities or inputs.
- You need to provide encouragement for TOs to propose bespoke environmental outputs that go wider than de-carbonisation e.g. natural environment improvements and natural resources. We suggested some outputs on our Forward-looking outputs discussion paper in December 2018.

ETQ30. For each potential output considered (where relevant):
a) Is it of benefit to consumers, and why?
We give our views on each potential output in our answers to the specific output questions below.

b) How, and at what level should we set targets? (e.g. should these be relative/absolute)
We give our views on each potential output in our answers to the specific output questions below.
We give our view on relative and absolute targets in our responses to the cross-sector question CSQ5.

c) What are your views on the design of the incentive? (e.g. reward/penalty/size of allowance)
We give our views in our answers to the specific output questions below.

d) Where we set out options, what are your views on them and please explain whether there are further options we should consider?
We give our views in our answers to the specific output questions below.

ETQ31. What other outputs should we be considering, if any?

We published our ideas for low carbon, environmental and sustainable procurement outputs in our Forward-looking outputs discussion paper in December 2018.

Our ideas included: sulphur hexafluoride; insulating gases; controllable carbon; embedded carbon; business carbon footprint; losses; natural environment improvements; cable fluid leaks; natural resources; educating the public about the environment; and educating businesses about electric vehicles.

ETQ32. What are your views on the RIIO-ET1 outputs that we propose to remove?
We support your decision not to continue with the Environment Discretionary Reward (EDR) incentive in the T2 period. Although the EDR has been beneficial in encouraging network companies to think about their role in achieving the low-carbon transition, it has been largely focussed on input measures rather than outputs.

We support the EDR being replaced by:

1. New incentives that focus on outputs such as reducing our controllable carbon emissions.
2. New incentives that broaden the environmental focus beyond de-carbonisation.

We suggested some options for low carbon, environmental and sustainable procurement outputs in our Forward-looking outputs discussion paper in December 2018.

One of the benefits of the EDR was that it involved collaboration and engagement with other parties. We think retaining the stakeholder engagement incentive (SEI) could avoid these benefits being lost.

Supplementary output specific questions

Environmental framework - Business Plans and annual monitoring

ETQ33. Do you have any views on the extent to which company activities relating to environmental impacts should be embedded in Business Plans?
We agree that we should be clearly explaining our approach to the environment in our business plan. We understand we must provide an environmental action plan (paragraph 4.7) as a short annex to our business plan (paragraph 4.17).

Our main concern with your proposed approach is that you are focussing on our planned activities rather than the environmental outputs we intend to deliver in the T2 period. It is the outputs that we deliver that matter most for the environment. We are concerned that your focus on us delivering our business plan activities might discourage us from searching for and pursuing innovative ways of delivering our environmental outputs during the T2 period.

ETQ34. We invite views on whether the proposed environmental impact categories are appropriate areas to focus on. Are there any areas that should be excluded and/ or other areas that should be covered? We also invite views on the potential indicators and/ or metrics that are appropriate for each environmental impact category.

We support the environmental impact categories you propose. We agree with including transmission losses, but that it should be reported separately from our business carbon footprint because the relationship between losses and carbon emissions is affected by the proportion of low-carbon generation.

We support including broader environmental impacts such as resource use, waste management, biodiversity and natural capital.

We are working with the other TOs to suggest some metrics for each environmental impact category.

ETQ35. We welcome views on the option of an annual reporting framework to increase transparency of the transmission networks' impact on the environment.
We support your proposal that TOs should "publish an annual environmental impact report that will detail the progress made in implementing the environmental action plan and performance against their environmental impact reduction targets" (paragraph 4.7). This is in line with our proposals for increasing transparency around our performance in our consultation "Shaping the electricity transmission system of the future".

We support your proposals for the TOs to develop a common approach to annual reporting and to test this with stakeholders (paragraph 4.23). We also support your proposal for our User Group to review our annual report each year (paragraph 4.24).

Our main concern with your proposed approach is that the annual reports might focus on whether we have delivered the activities we set out in our business plans rather than the environmental outputs we delivered that year. We suggest the annual reports focus on environmental outputs.

Potential for bespoke ODIs around the low carbon transition

ETQ36. We welcome views on whether we should introduce an option for the TOs to develop bespoke ODIs with stakeholders for delivering an additional contribution to the low carbon transition.
We welcome your guidance that you would welcome bespoke ODIs related to delivering an additional contribution to the low carbon transition. We were not clear what else this section of the consultation added to the general approach to bespoke outputs. We will propose several low-carbon and environmental outputs based on the standard criteria for bespoke outputs. We will work with you, the other TOs, our stakeholders and User Group in developing these bespoke outputs.

ETQ37. We invite views on the kind of activities, not captured elsewhere, that could be captured through such ODIs.
We published our ideas for low carbon, environmental and sustainable procurement outputs in our Forward-looking outputs discussion paper in December 2018.

Our ideas included: sulphur hexafluoride; insulating gases; controllable carbon; embedded carbon; business carbon footprint; losses; natural environment improvements; cable fluid leaks; natural resources; educating the public about the environment; and educating businesses about electric vehicles.

ETQ38. We invite views on how such an ODI might operate, and any other factors we should take into account in considering bespoke ODI for the low carbon transition.
You have set out your criteria for bespoke ODIs at paragraphs 4.36 to 4.40 of the cross-sector consultation document. As this is a bespoke ODI it should be up to TOs to make their proposals within your criteria and then consult with you as they develop them further.

SF6 and other insulation and interruption gases (IIG) leakage

ETQ39. We welcome views on whether we should retain a financial reward and penalty incentive for the leakage of SF_6 in RIIO-ET2, or move to a penalty only or reputational incentive.
We support retaining a strong financial incentive on SF_6 emissions in RIIO-ET2. SF_6 is potent greenhouse gas, but for which there is no commercially-viable alternative for many of our assets. A financial incentive is needed to ensure TOs make efficient trade-offs between the costs of repairing leaks (or replacing leaking equipment) and the cost of carbon emissions.

A financial reward is necessary to stimulate TOs to look for new approaches to reduce SF_6 leaks beyond their targets. A penalty-only approach would cause TOs to focus on low-risk, less innovative approaches to merely achieve compliance with the target.

We do not think the SF_6 incentive is the right way to stimulate TOs to look for alternative insulation technologies because the cost to achieve such a change in the global supply chain is too large. A much better approach to stimulating the development of alternatives to SF_6 is long-term innovation funding.

You are not asking a direct consultation question about one of the biggest proposed changes to the SF_6 incentive for RIIO-T2. You are consulting on only increasing our SF_6 target for new assets installed on the network that contain an IIG with a low global warming potential. This is a change to the T1 approach where if we install a new asset that uses SF_6 we are allowed to increase our SF_6 target assuming a leakage rate of 0.5% (where we decommission pre-T1 assets we must use a higher leakage rate of 1.65%).

You need to consider the possible perverse effects of this change. For example, when a TO connects a low-carbon generator, such as an offshore windfarm, to its network it might use SF_6 assets as the best value option for consumers. The overall impact for the energy system of making this connection might be lower carbon emissions, but the TO would be penalised for increasing its SF_6 asset inventory because there was no commercially viable alternative to SF_6 for high voltage assets at the time.

ETQ40. We welcome views on the potential impact of a move away from a financial incentive (or move to penalty-only) on TO behaviours.

Please see our answer to ETQ39 above.

ETQ41. We invite views on whether leakage from other IIGs should also be captured in the incentive measure.

The technically correct answer is to include leakage from all insulation and interruption gases (IIGs) in the incentive measure with the incentive rate for each gas reflecting its global warming potential and the cost of carbon. As TOs start to use other IIGs to replace SF_6 we should still be incentivised to reduce our emissions of them.

However, we recognise that if you want to keep the SF_6 incentive simple for the T2 period and want to have a stronger incentive on TOs to reduce SF_6 emissions you might want to continue to exclude other IIGs from the incentive measure in the T2 period.

ETQ42. We welcome views on whether some leakage events should continue to be excluded from the incentive.

We see no need to change the approach to exclusions from the SF_6 incentive. These are restricted to cases where the event is beyond the TO's control and where, for example, we are required to prioritise the health and safety of the public ahead of fixing the SF_6 leak quickly. Removing this exclusion would penalise TOs unfairly for prioritising the safety of the public and their employees.

Electricity losses from the transmission network

ETQ43. Do you have any views on the proposed approach for integrating any losses reporting requirements into the proposed Business Plan and annual public reporting framework?

We agree with including losses reporting in the new annual environmental impact report. It would simplify reporting if this was aligned with the annual Regulatory Reporting Pack (RRP) process. We also support including our losses strategy in our business plan.

For clarity when we talk about losses reporting we mean the percentage of electricity lost from our transmission system as a proportion of the total we transmit. This is different from the carbon emissions from these losses, which are tending to reduce over time as the proportion of low-carbon generation increases.

When the ESO legally separates from NGET we will need to request the system losses data from the ESO in the same way that the Scottish TOs currently do. Therefore, it might be most efficient for the ESO to report annually on losses. TOs could still report on the implementation of their losses strategies.

ETQ44. Do you have any views on the introduction of a target or measure for improving metering at and the energy efficiency of substations? How could this work in practice? Visual amenity impacts of transmission infrastructure

We understand Scottish Power Transmission has been carrying out a trial on improving metering at and the energy efficiency of substations. We would be interested to see the outcome of this work before forming a view on whether we should introduce a target or measure.

Visual amenity

ETQ45. We welcome views on incentivising the TOs' engagement with stakeholders on the development of new transmission projects through our stakeholder engagement proposals, for example through the use of a survey.
We include stakeholders linked to major projects in our stakeholder satisfaction survey. However, we do not include all affected parties, such as communities.

We do not support further incentives linked to stakeholder satisfaction with TOs' engagement on new transmission projects because the planning process already mandates that we carry out high-quality consultation. You would risk rewarding TOs for good-quality engagement that we are already required to carry out or incentivising additional costly and unnecessary consultation activities.

We carry out extensive consultation with communities and other stakeholders affected by new transmission projects, in accordance with our duties under the relevant planning legislation. For example, for a large project such as the North West Coast Connection, involving 119km of overhead line and 45.4km of underground cable, we engaged with 512 statutory bodies, 7,500 people with an interest in land and thousands of local residents along the route.

We agree with Ofgem's view, in its recent report on its RIIO-ET1 price control visual amenity policies, that "there is an inherent tension between the desire of some stakeholders to preserve visual amenity (usually at greater cost), [and] a transmission owner's statutory duty to develop new transmission projects in an economical and efficient way and to meet national planning policy requirements". The appropriate means of resolving this tension is the development consent order (DCO) process that Nationally Significant Infrastructure Projects (NSIP) – including major overhead line connections in England and Wales – must pass through under the Planning Act 2008.

The planning process places a statutory duty on us to: agree a scheme of community consultation with local authorities; to consult in accordance with the scheme; and to take account of the feedback in formulating our proposals. The Planning Inspectorate will not accept applications for consideration if we cannot demonstrate 'adequate' consultation. In all cases to date, our electricity transmission schemes (Kings Lynn B Connection, North London Reinforcement, Hinkley Point C Connection, Richborough Connection, North Wales Connection) have passed this test and the Planning Inspectorate has accepted them for examination.

The Planning Act 2008 process acknowledges that NSIP projects will generally result in adverse impacts, and the test the Secretary of State must apply in determining applications is whether such impacts would be outweighed by the acknowledged benefits of the new transmission infrastructure.

The least-cost option that will successfully balance the impacts against the benefits to gain consent is unlikely to satisfy all those stakeholders who either object in principle, or desire a greater extent of mitigation than proposed. A survey of such stakeholders would be unlikely to result in positive feedback and would cut across a well-established process for balancing the benefits of the new transmission infrastructure with the local impacts.

We therefore have significant concerns about any survey intended to measure the satisfaction of those stakeholders about the outcome of the planning process. Even if the survey was about the quality of our consultation rather than the outcome, we consider that some stakeholders are likely to find separating the two issues very difficult. There would also be practical difficulties in identifying a genuinely representative sample of stakeholders because, generally, those who engage with the planning process tend to be those who object to a project.

ETQ46. Do you have views on the retaining the existing scheme to mitigate the visual impact of pre-existing transmission infrastructure in designated areas? Do you agree that any decision to implement new funding arrangements should be subject to updated analysis around willingness to pay?

We strongly support you retaining the existing scheme to mitigate the visual impact of pre-existing transmission infrastructure in designated areas. We have worked collaboratively and intensively with you and our stakeholders to develop the scheme during the T1 period and now have a robust process in place. Our national Stakeholder Advisory Group is keen for us to continue with our Visual Impact Provision (VIP) project in the T2 period and has started to look at potential candidates to take forward in the next regulatory period.

We agree there should be updated willingness to pay evidence to determine the level of funding for mitigating visual impacts in the T2 period. As you know, we are currently working with the other two TOs to carry out a willingness to pay survey, which includes mitigating the visual impact of pre-existing transmission infrastructure.

When a visual impact project is close to being implemented, and its costs are more certain, we can see the case for checking with consumers whether they still accept that the costs of the project should be socialised via household bills.

ETQ47. Do you agree with our proposals to modify the implementation process by which funding requests for mitigation projects are submitted and approved?

New mitigation projects

We do not agree that we should include proposals for specific visual impact mitigation projects as part of our T2 business plan submissions. Although the national Stakeholder Advisory Group are prioritising candidates for the T2 period, we have not yet begun the local stakeholder engagement necessary to refine the scope, programme and cost of these projects (or indeed to confirm whether they are desired).

We are therefore using generic costs and outcomes for the updated willingness to pay study. This should provide sufficient transparency of our plan to you, our User Group and our stakeholders.

You also state that you will retain your assessment of efficient costs during the price control period once a project is fully specified. Therefore, you do not need to include our VIP schemes within your RIIO-T2 cost assessment process.

<u>New mitigation projects involving low cost solutions</u>
We agree with the proposal to report annually on project delivery and expenditure to develop low-cost mitigation projects. We suggest that we could include this in our annual performance report.

We support the proposal to cap the Landscape Enhancement Initiative (LEI) to a small proportion of the final willingness to pay figure. During the T1 period, the Stakeholder Advisory Group decided on a 5% limit for the Landscape Enhancement Initiative (LEI), which equalled £25m. To date, we have submitted LEI funding requests totalling approximately £5m.

ETQ48. We welcome stakeholders' views on any other considerations they think are relevant to policy development for visual amenity issues in RIIO-ET2.
We will need to incur costs for local stakeholder consultation and project scoping for visual amenity projects prior to the start of the T2 price control period to ensure timely delivery of new projects. (The major undergrounding projects are complex and typically span five or more years so we will not deliver any in a five-year price control period if we are not allowed to undertake this preliminary work in advance.)

Under T1, these were termed preliminary works. We received a letter of comfort from you in 2016 that allowed the recovery of these efficient costs. We would welcome clarity from you on how we will be able to recover preliminary works for T2 projects; will you provide us with a similar letter of comfort for T2 projects ahead of the regulatory deal being agreed?

Chapter 5 questions – Maintain a safe and resilient network

General output questions

ETQ49. What are your views on the overall outputs package considered for this output category?
There are not many outputs attached to the "Maintain a safe and resilient network" output category. You are consulting on: safety, where there will be no outputs; Network Access Policy (NAP), where there will be no outputs; and the successful delivery of large capital projects, where you are proposing penalty-only ODIs with potentially large and unpredictable penalties.

We propose that the NAP is supplemented with an SO:TO optimisation approach to encourage TOs to identify and carry out activities that can reduce whole system costs for consumers. We have been discussing with you through the ET policy working group and bilaterally some ideas to encourage SO:TO optimisation.

ETQ50. For each potential output considered (where relevant):
a) Is it of benefit to consumers, and why?
We discuss our views on safety, NAP and large capital projects under the questions later in this section.

b) How, and at what level should we set targets? (e.g. should these be relative/absolute)
You are not considering targets for safety or NAP. For large capital projects, you acknowledge that any targets or milestones will be specific to the particular large capital projects.

c) What are your views on the design of the incentive? (e.g. reward/penalty/size of allowance)
You are not proposing incentives for safety or NAP. For large capital projects we provide our views in response to questions ETQ57 to ETQ62.

d) Where we set out options, what are your views on them and please explain whether there are further options we should consider?
We discuss our views on safety, NAP and large capital projects under the questions later in this section.

ETQ51. What other outputs should we be considering, if any?
We propose an SO:TO optimisation approach to encourage TOs to identify and carry out activities that can reduce whole system costs for consumers. We have been discussing with you through the ET policy working group and bilaterally some ideas to encourage SO:TO optimisation.

ETQ52. What are your views on the RIIO-ET1 outputs that we propose to remove?
For the "Maintain a safe and resilient network" output you are not proposing to remove any outputs.

In addition to the above questions, where relevant, please the see the supplementary output specific questions below.

Supplementary output specific questions

Safety

ETQ53. Do you agree with our proposed approach to safety?
We agree with you retaining the RIIO-ET1 approach to safety i.e. that it is not appropriate to attach additional outputs to safety given existing HSE legislation requiring TOs to design and operate their networks to ensure the safety of the public and their employees.

Network Access Policy (NAP)

ETQ54. Do you agree with our proposal to retain the NAP as a licence obligation?
We agree the NAP should remain a licence obligation. The licence obligation needs to provide sufficient flexibility for the NAP to evolve as the electricity sector evolves.

ETQ55. Do you have any views on the potential risks and benefits of introducing a single, consolidated NAP, and of expanding the NAP to cover interactions with third parties?
<u>A single, consolidated NAP</u>
We do not support a single, consolidated NAP across all the TOs for the following reasons:

1. The NAP is a published policy document that describes how each TO will implement a common licence condition. All the TOs and NGESO follow the same System Operator-Transmission Owner Code (STC) and STC procedures (STCPs) which drives consistency in terms of process. However, our company-specific NAP allows us to implement the licence requirements in ways that are most appropriate for consumers given our particular network. For example, the two Scottish TOs are in groups with DNOs and have different relationships to those we have with DNOs in England and Wales. We may also have a different perspective on what is in the best interests of consumers compared with the other TOs, for example, prioritising reduced cost over storm resilience at the margin or security of supply to key strategic areas of demand. We may also be able to offer solutions that other TOs may not, for example enhanced equipment ratings, as detailed in our current NAP.
2. If there is a single NAP we will have to introduce governance and change procedures that are likely to make it difficult to adapt the NAP as the electricity sector evolves. This will be exacerbated if the single NAP also covers OFTOs (who would potentially have very different interface priorities) and new TOs resulting from competitive processes.
3. As a TO, particularly newly independent from NGESO, we are keen to ensure that our corporate identity is established on public-facing policy documents and that we continue to manage the relationship with our stakeholders effectively through our publications. We consider that the stakeholder engagement we do ourselves before submitting our NAP to Ofgem and the formal Ofgem consultation arrangements for revisions of the NAP give stakeholders plenty of input into our NAP document.

4. If a single NAP becomes a requirement, you need to consider whether it should also include OFTOs and any new onshore TOs that result from competitive processes and how you would manage this. You would need to take into account that we could be in direct competition with such new entrants.

Expanding the NAP to cover interactions with third parties

We do not support the NAP covering interactions with third parties for the following reasons:

1. The STC and STCPs are very prescriptive about what are TO and NGESO responsibilities. The responsibilities for liaising with other Network Users for whole system planning and operation issues clearly sit with NGESO. Expanding a TO's NAP to cover third party interactions would be in contrast with the direction of recent industry changes. The benefits of more interaction across the sector would be more appropriately included in a new NAP for the legally-separate NGESO and aligned with the STC, the STCPs, the Grid Code and other code accountabilities.
2. We would need to be careful that any formal engagement with third parties written into the NAP does not infringe the legal independence between NGESO and NGET that starts on 1 April 2019. In particular, that it does not infringe the requirements on data confidentiality such as for user data and System Operator Functional Information that we have just implemented for legal separation.

ETQ56. We welcome views on these proposals, and on any potential interactions and/ or duplications between these proposals, the NAP and the STC.

Additional activities

There are additional activities or services that TOs can and do carry out to help NGESO to reduce constraint costs and reduce overall costs for consumers, but these require additional expenditure by TOs. Such activities and services include:

- Responding to outage changes at short notice and incurring costs as a result.
- Using different construction techniques such as offline builds, shorter emergency return to service (ERTS) times and avoiding double circuit overhead line refurbishments.
- Providing enhanced services (such as enhanced ratings on overhead lines).
- Making investments not covered by the Network Options Assessment (NOA).

In England and Wales these activities and services are not funded through the STCPs now and are only partially funded in Scotland. For TOs to fully optimise such activities there would need to be an incentive to encourage TOs to proactively identify and provide these services. We have been discussing with you, through the ET policy working group and bilaterally, some ideas to encourage this SO:TO optimisation.

Metrics

The ideal metric for the success of the NAP is the overall benefit to the end consumer, which mostly consists of the net change in constraint costs for NGESO and asset-related costs for TOs. Estimating and measuring these cost savings is difficult. We have been trying to monetise some of our asset-related decision making in to improve our NAP decision making. Once we are legally separate from NGESO we will start to record all the decisions we take under the NAP and will start to collect data on the costs and benefits of these decisions where either a TO or NGESO incurs additional costs as a result.

Successful delivery of large capital investment projects

ETQ57. Do you agree with our proposed approach for ensuring TOs do not benefit financially from delays in delivering large capital investment projects?
We agree that TOs should not benefit financially from delays in delivery. However, you should be aware that there can sometimes be reasons why a project delay is the right thing for consumers. These include that it leads to lower costs being passed onto consumers or that it allows TOs to improve the service quality during delivery (e.g. increase the amount of community engagement).

We agree that our allowances should be automatically reprofiled to reflect any delays and match the actual spend profile.

We propose that any re-profiling of TOs' allowances should be carried out month-by-month to avoid perverse incentives. These include:

- as an annual deadline approached we would be incentivised to incur high costs to avoid triggering a whole year's deferral of allowance – this behaviour might not be in the best interests of customers.
- if you postponed our allowance for a whole year then we would have a limited financial incentive to complete the project before the end of the following year.

ETQ58. We invite views on the suitability of the milestone approach, the types of milestones or delivery criteria we should be considering and any potential challenges associated with implementing such an arrangement.
We need more clarity on Ofgem's proposal about milestones. For this to be effective it will be necessary for the milestones to be defined clearly so that TOs can organise themselves and their contracts to reflect the milestones.

It might be difficult to define clear milestones in our licence at the start of a price control relating to projects that may not be fully developed and may not commence for several years. This runs the risk that either the milestones must be set at a relatively high level or that changes to the project result in the milestones ceasing to be accurate or relevant. This could lead to a lack of clarity about whether a milestone had been delivered or not. One approach to address this difficulty would be to define the milestones much closer to the start of the project when there is clarity over the key stages and not to define them in the Transmission Licence. The Licence could provide a framework under which Ofgem and the TO can agree, and if necessary subsequently amend, an appropriate set of milestones, but the milestones themselves would not be written into the Licence.

ETQ59. Are there any alternatives which we should also consider?
You should consider rewards for early delivery where a TO can show this provides benefits to consumers. Otherwise you risk TOs diverting resources to other projects if there is no benefit to a TO of delivering early when there could be benefits to consumers from delivering early.

ETQ60. We invite views on the circumstances we should consider options for minimising consumer detriment and / or sharing consumer detriment with consumers.
We agree there is a case for some form of consumer detriment sharing for late delivery in addition to removing any benefits of late delivery.

You need to be careful to strike a balance between, on the one hand, the size of the incentive to deliver on time and, on the other hand, the potential benefits of delay to consumers in some cases and the risk of creating perverse effects when penalties are too high.

You could allow for there sometimes being benefits to consumers from delay. A TO could present evidence about why consumer detriment sharing for delay was not appropriate because it was in consumers' best interests. A TO would have to prove that the delay led to lower costs being passed onto consumers and/or that it allowed TOs to improve the service quality during delivery (e.g. increase the amount of community engagement).

When setting the level of consumer detriment sharing you need to take account of the possible perverse effects, which could be detrimental to consumers, of a sharing factor for TOs which is too high. Requiring TOs to pay too high a level of consumer detriment sharing could:

- discourage TOs from taking innovative approaches that are lower cost or deliver better service quality because they are new and subject to a greater risk of delay;
- result in contractors increasing their prices to reflect TOs seeking liquidated damages in the event of delays;
- encourage TOs to reduce risk and keep down insurance costs by using conservative delivery timescales;
- increase the cost of capital as the sector is perceived by investors to have become riskier; and
- encourage TOs to spend inefficiently to achieve the deadline with consumers picking up a share of these costs through the TIM sharing factor (especially if the TIM sharing factor for consumers is higher in the T2 period).

Any consumer detriment sharing should apply day-by-day or month-by-month, not annually, to avoid perverse incentives. For example, once a TO has incurred an annual payment it has no financial incentive to deliver for a whole year because that is when the TO will next incur an additional payment.

ETQ61. We are seeking views on these two options, including ways in which we could measure and reflect consumer detriment.
We set out our views on the need to calibrate carefully any consumer detriment sharing in our response question ETQ60. Our views on the three specific options you propose are:

1a) Forecast constraint costs – under this option TOs will know their potential exposure to consumer detriment sharing in advance and can build these into their operations and contracts. However, as we explain in response to ETQ60 the impact could be higher costs and/or longer timescales for project delivery. There is a balance to be struck that will vary project by project depending on the potential costs to consumers of the project being delayed. It might be best for the TO, working with the ESO, to propose consumer detriment payments to Ofgem at the same time it proposes milestones, close to the start of the project.

1b) Actual constraint costs – these are unacceptable because they are unpredictable, uncontrollable and potentially very large. This will increase insurance costs for TOs and/or their contractors or cause them to reduce risk by increasing their project delivery times. In addition, passing all the actual constraint costs onto the TO means the SO will have no incentive to minimise the costs that are being passed on to the TO. As a result, investors in TOs might require a higher cost of capital.

2) Day rate – the "day rate" is similar to option 1a and our comments in relation to option 1a apply here too. We suggest in our response to ETQ62 that an option for calculating the day rate could be the benefits identified in the original cost benefit analysis for the scheme. It will not always be the case that the cost of a delay is the same at all times of the year, e.g. the costs may be higher under high demand winter conditions and lower in the summer. A further refinement may therefore be to have more than one day rate depending on circumstances. So long as this is clearly defined in advance it should help ensure that the contractual arrangements and mitigation of risk are structured as efficiently as possible.

Any consumer detriment payments for late delivery should apply to all TOs, including any new companies appointed through competitive approaches such as CATO. This will ensure fair competition between bidders and to ensure consumers receive the same compensation for late delivery no matter which organisation delivers it.

ETQ62. Are there any alternatives not identified here which you think we should be considering?

An alternative approach would be to base the late delivery payments on the benefits identified in the cost benefit analysis for the scheme. The consumer detriment payments would be known in advance and consistent with the business case for the scheme.

There should be rewards for delivering early where it can be shown it is likely to provide benefits for consumers. Delivering early should certainly not be penalised.

Chapter 6 questions – Cost assessment

ETQ63. Do you agree with our intention to evolve the RIIO-ET1 approach for RIIO-ET2?
We agree with your intention to evolve the RIIO-ET1 approach to cost assessment for RIIO-ET2. However, in practice in many areas you have based your detailed approach to cost assessment for ET2 on RIIO-ED1, which has resulted in a very large change in approach rather than an evolution from ET1. For example, you have based your draft business plan data templates (BPDTs) on ED1 without paying sufficient attention to the differences between the sectors resulting in a very large data request with much of the information being of limited value for electricity transmission. We have been feeding in our detailed views and proposals through the ET costs working group to help us all reach workable BPDTs for the ET sector that reflect what you want to achieve in a practical and efficient way. We do not yet feel we have reached a workable set of BPDTs for ET2 and this urgently needs to be resolved.

ETQ64. Do you have any comments on appropriate cost categories, cost drivers or approaches to cost assessment?
We comment on the cost categories in our answer to question ETQ65 below.
We comment on the cost drivers in our answer to question ETQ66 below.

In relation to cost assessment you mention the following techniques:
- historical incurred costs;
- DNO data on 132kV installations;
- European cost benchmarking;
- cross-sector evidence on business support costs;
- individual cost assessment on particular projects;
- bespoke engineering assessments;
- leaving the cost assessment until the needs case is more certain or developing uncertainty mechanisms; and
- qualitative information such as stakeholder and policy-maker views.

You explain that you will make appropriate use of the information and techniques available.

We think you should include under “individual cost assessment on particular projects” the following three areas: (i) engineering justification reports; (ii) cost-benefit analysis; and (iii) stakeholder engagement evidence. In the ET costs working group you have considered these to be the three main pieces of evidence you are looking for to justify our projects.

We understand that you will consult on your proposed approach to cost assessment in the autumn. We will work with you through the ET costs working group to inform your approach.

You explain that with only three, differently-sized TOs in the sector top-down benchmarking might be of limited effectiveness. We agree. The current draft BPDTs do not provide useful unit costs that can be compared between the three TOs. In addition, we need clear definitions for the new BPDTs very soon if the TOs are to produce any comparable data for the T2 cost assessment.

You mention the TIM blended sharing factor proposals. We would welcome guidance on what evidence you will be looking for to categorise costs as "high-confidence" and "low-confidence" for T2 so that we can provide the evidence you need to have more confidence in our costs. This will help achieve your objective for the blended sharing factor proposal of having more confidence in our costs.

We would welcome any guidance you can provide on how you will take account of your "native competition" proposals in your approach to cost assessment. We are not sure how the approach will work in the ET sector where we tender most of our work competitively already.

ETQ65. We invite views on the appropriateness of our proposed cost categories for RIIO-ET2.

We agree with your proposed cost categories of:

- load related expenditure
- non-load related expenditure
- indirect and non-operational expenditure.

We have been working with you, through the ET costs working group, on the detailed BPDTs for these cost categories.

ETQ66. We invite views on the principles of a good cost driver and our approach to identifying suitable RIIO-ET2 cost drivers is appropriate.

Your principles for good cost drivers look broadly appropriate to us. We welcome that TOs can provide their own views of cost drivers in their business plans.

We will work with you and stakeholders constructively to identify suitable ET2 cost drivers.

ETQ67. We welcome any early views on how we can combine the analysis in order to ensure ex ante allowances reflect efficient costs.

At this early stage, we agree that bottom-up benchmarking and engineering judgement will be prominent in your approach to cost assessment at T2.

We understand that you will consult on your proposed approach to cost assessment in the autumn. We will work with you through the ET costs working group to inform your approach.

We agree that you will need to be mindful to set allowances at a level that will enable an efficient company to deliver its outputs.

Chapter 7 questions – Uncertainty mechanisms

General uncertainty mechanism questions

ETQ68. We would welcome views on the design and suitability of existing uncertainty mechanisms for RIIO-ET2, and whether any of these should be removed.
We consider the RIIO-ET1 uncertainty mechanisms have worked well to adjust our allowances to the work we have carried out. They have protected consumers from paying for work that we have not needed to carry out.

We consider all the ET1 uncertainty mechanisms should continue for ET2 because of continuing, and increasing, uncertainty in the T2 period e.g. around the number and scope of large network reinforcements we will need to carry out and the volume and type of generation we will need to connect to our network.

There is scope for enhancing the general design and operation of our existing load-related volume drivers. Some features of the current design have meant our allowance has been unnecessarily volatile, which in turn has impacted on the stability of our charges to customers. We consider our allowance could be made more stable by:
1. re-designing existing unit cost allowances (UCAs) to improve their cost reflectivity; and,
2. by reviewing “lags” and “smoothing” arrangements so that existing volume drivers (and new ones too) would work on a “foresight” basis. Our response to ETQ69 provide more details of these foresight arrangements.

ETQ69. Are there any additional mechanisms that we should consider across the sector and if so, how should these be designed?
We expect increased uncertainty in several areas of expenditure including:
- pre-construction costs;
- voltage control;
- power quality; and
- embedded generation.

We believe additional volume drivers will be required to prevent windfall gains and losses.

We are working up detailed designs for these uncertainty mechanism that we will share with you bilaterally and through the ET costs working group.

ETQ70. We would welcome views from respondents on the continuing relevance of these mechanisms and any changes to the way that they operate if they are to continue.
We consider uncertainty mechanisms are increasingly relevant for the ET sector. In ET2, we expect the energy system to continue to evolve and the conventional way of delivering transmission investments to be challenged by structural changes, including increased competition and whole system solutions, which are taking place across the sector. We expect forecasting the volumes of transmission investments and who does the work to become increasingly difficult in ET2.

We envisage existing ET1 and new ET2 uncertainty mechanisms should be designed to ensure the mechanisms:

- **Operate on a foresight basis.** A foresight basis involves TOs adjusting their allowances based on their most up-to-date forecasts of their delivery of outputs rather than when outputs are actually delivered. This could make TOs' allowances more stable. With the current "lags" and "smoothing" arrangements, our volume drivers adjust our allowance several years after the output has or has not been delivered. The adjustment is also spread over 3 to 4 years. These features have made movements in our allowance more predictable, increasing the predictability of charges. However, they have also made the variations more pronounced, as effects have accumulated over time, ultimately making our charges more volatile. A foresight approach would strike a better balance between the predictability and stability of our charges, providing benefits for our customers.

- **Cater for whole system solutions.** In ET2, we expect DNOs to be able to provide solutions to address certain issues (e.g. voltage control) on the transmission network. Uncertainty mechanisms for both transmission and distribution companies should exist to cater for an increased number of these solutions, to ensure network services can be delivered at a lower cost to consumers.

- **Work under different scenarios.** As the energy system continues to evolve there is a risk network companies will receive windfall gains or losses when background conditions turn out to be different from what we envisaged at the beginning of the period.

- **Support innovation.** The uncertainty mechanisms for ET2 should continue to adjust our allowance when an agreed "output" has or has not been delivered. You should avoid linking the operation of uncertainty mechanisms to specific "inputs" because it will reduce the ability of network companies to deliver innovative solutions for the benefit of consumers.

We also expect that additional mechanisms will be required in ET2 to address problems associated with "terminations". With competition, the party that starts a project might differ from the one that finishes it. We therefore expect the number of projects that will not deliver any final "outputs" in ET2 to increase. This will have significant cash flow implications for TOs because when a project is started but then is taken over by a third party, there will be no assets left to be capitalised. It is therefore essential that Ofgem implements a proper mechanism across the sector to ensure the right capitalisation rates are in place to mitigate against the additional financial risks network companies will be exposed to.