

nationalgridESO

**ESO RIIO-2 Business Plan
Stakeholder Report**

1 July 2019

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Introduction

As we embark on this unprecedented opportunity to develop a new regulatory framework and business plan for the ESO, the insight and support of our customers and stakeholders remains critical to ensure that we focus on the right areas. Our plan must reflect stakeholders' needs and ultimately drive value for consumers. Our stakeholders have played a vital role in the production of our draft business plan, and will continue to do so as we look to produce our final plan.

In the main document, we have a stakeholder chapter which explains our overall stakeholder engagement strategy. This is reproduced here, to allow you to read this stakeholder report without referring back to the main business plan. In each chapter of the business plan, we have also demonstrated how stakeholder feedback has shaped our proposals.

This stakeholder report is a separate document to our draft business plan. It provides further comprehensive detail on our engagement approach, and stakeholder feedback we have received in support or challenge of what is within the main document. We have split this into five sections:

1. **A plan informed by our stakeholders** – This details our approach to engagement and how we have understood a broad range of views, this is a repeat of the what is within the main document.
2. **Our independent ESO RIIO-2 Stakeholder Group** – This details the set-up of our stakeholder group and chair, the role of the group and how their feedback helps shape the development of our business plan.
3. **RIIO-2 Challenge Group** - This provides further information on our interaction with Ofgem's Challenge Group and what we presented and submitted.
4. **A summary of our engagement activity** – This details the different types of channels we have used for engagement, the topics they covered and the representation of different stakeholder groups at each interaction.
5. **How stakeholder feedback has shaped our plan** – This provides a detailed summary of stakeholder feedback we have received in developing our plan, structured by topic, channel, the feedback we received and how it shaped our plan.

1. A plan informed by our stakeholders

1.1 The importance of stakeholder views

As we embark on this unprecedented opportunity to develop a new regulatory framework and business plan for the ESO, we need the insight and support of our customers and stakeholders so we can make sure we focus on the right areas. It is critical that we produce a plan that reflects stakeholders' needs and ultimately provides value for consumers. This document has been produced in collaboration with stakeholders, with proposals constantly tested and refined. We will continue to work collaboratively with our stakeholders as we look to produce our final plan in Q4 2019.

Here we set out our key takeaways from our engagement and how we have structured our stakeholder engagement programme. The ESO continuously engages stakeholders and our RIIO-2 specific engagement is a natural extension of this. Details about how stakeholders' views have shaped our proposals are set out in the theme chapters and in more detail in the supporting Stakeholder Report.

In the creation of this plan we have used stakeholder and consumer insight from a variety of sources, including:

- academic research
- webinars
- workshops
- bilateral meetings
- surveys.

Alongside all these activities we have also, where possible, sought to use existing engagement channels in place across the ESO and utilise this stakeholder insight in the development of our plans such as Power Responsive and the *Future Energy Scenarios (FES)*¹. The *FES* has engaged with over 600 individual stakeholders in the last year and their views on the future of energy and the constructive challenge they provide in developing our future scenarios are critical to understanding the landscape we will be operating in and therefore actives we propose.

Our engagement objective

We are committed to working with our customers and stakeholders to help shape the future of the energy market and understand how best the ESO can deliver value for our customers and consumers. Enhanced stakeholder engagement will enable us to create a plan that reflects their needs.

¹ <http://fes.nationalgrid.com/>

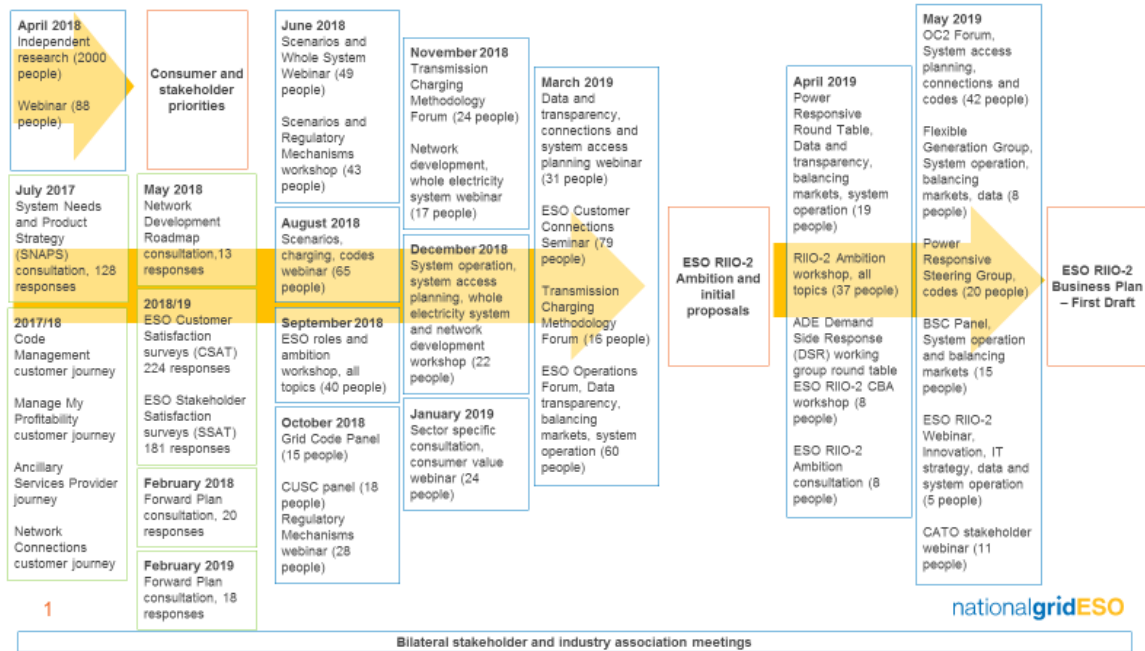


Figure 1 Stakeholder engagement overview

We have also embraced an enhanced engagement approach through the introduction of our ESO RIIO-2 Stakeholder Group (ERSG). Comprising members from across the industry, its role is to scrutinise the production of our plan and how effective we have been at engaging with stakeholders. As we develop our more detailed business plan the ESG will produce a report that sets out their views on our engagement activity and business plan.

1.1.1 Engagement key themes

Feedback from stakeholders has encouraged, supported, challenged and guided us towards the ambitious business plan presented here. Similarly, the deep knowledge and experience of our Stakeholder Group – ESG -has created an environment of robust challenge and strong support to elevate the level of ambition in our plan, building on our role and capabilities today to reflect the evolving role we can play as system operator in the future. Our key takeaways are that we need to:

- be ambitious and proactive - driving value for consumers and delivering a high-quality service in all that we do.
- set ourselves up strongly to deliver against the plan, including establishing the right culture through all levels of the organisation.
- adopt a principle of open data to help facilitate open and efficient markets
- advise and make recommendations across the electricity industry, potentially including enhanced engagement with consumers
- transform our engagement approach – introducing a ‘design authority’ to involve stakeholders throughout RIIO-2 in the development and execution of our major deliverables
- ensure our funding model drives us to be ambitious and enables us to respond flexibly to new challenges as they arise, with strong incentives to deliver benefits for consumers over and above our day-to-day role.

We received valuable feedback during the development of *Our RIIO-2 ambition* and in the months since it was published. From the 11 written responses we received, and the face-to-face engagement we have carried out since the document was published, the overarching feedback themes are as follows:

- Stakeholders are excited to see the level of ambition and activities we set out, in particular around carbon free system operation.
- We need to ensure though that we don't forget the basics and maintain focus on improving our current performance.
- We need to set out further detail and clarity on our proposals to enhance stakeholders' ability to feedback.
- We need to provide clarity on how our RIIO-2 ambition goes beyond our *2019-21 Forward Plan* commitments.
- A joined-up approach across electricity transmission and distribution is vital as well as greater evidence of coordination with wider industry change activities.

You can find a fuller summary of the written feedback to the consultation in the Stakeholder Report.

As a result of stakeholder feedback, we have changed our proposals in this business plan and:

- provided clarity on the intention of our ambition on operating a carbon free electricity system
- included delivery roadmaps to achieve our ambitions
- are taking an agile, modular approach to the development of our new balancing and control capabilities, including building them offline
- are transforming engagement in delivering all of our IT capabilities through fully involving stakeholders in its development via a design authority
- are further developing our resourcing and training proposals through engagement with universities and network companies
- are making participation in our markets easier through delivering a single integrated platform for both balancing service markets and the capacity market
- have adopted a principle of open data – committing to sharing our data (in machine readable format) whilst ensuring that we are protecting data confidentiality and security
- will ensure our code review activity is aligned with the Energy Codes Review to avoid duplication and resourcing issues with other organisations
- will investigate if there is a role for the ESO to support network planning processes and consistency across the whole electricity network.

We also set out more detailed changes throughout the business plan and the feedback that has informed this in our Stakeholder Report.

1.1.2 Understanding consumer views

As our engagement programme has developed, we have enhanced our approach to incorporating consumers' views. In the early phases, we took a dual approach to understanding consumers' views; 1) engaging directly with domestic and non-domestic consumer organisations and 2) including such organisations as members on the ESO RIIO-2 Stakeholder Group. In building on *Our RIIO-2 Ambition*, we want to go further so we can make sure we understand a sufficiently broad range of stakeholders' views. We have carried out an initial review of available consumer and community stakeholder views. From this, we have understood the following further priorities in relation to our proposals and their costs to consumers:

Non-domestic

- New routes to market should be developed for community energy schemes. System operators should include community energy projects in their flexibility and capacity procurement strategies.

- Community energy groups should be invited and supported to participate in local trials for flexibility, demand management, peer-peer trading and other specific services to the grid, like network costs avoidance.
- Data from heat maps and grid data is intimidating for communities to use - is it possible to make data more accessible and easier to navigate?

Domestic

- Through their New-Pin project, Sustainability First developed and tested a set of desired long-term public interest outcomes:
 - value for money – low prices, efficient
 - quality of service – modern, digital, accessible
 - clean – environmentally sustainable, low carbon, healthy
 - resilient – secure, financeable, safe
 - place – localism, inclusivity, well-being
 - fair - inter and intra generational, societal benefits, customer / taxpayer
- A significant proportion of people already struggle to pay their energy and water bills. In 2015 10% of households in England, 30% in Wales and 39% in Scotland were estimated to be in fuel poverty. In March 2019, 30% of those surveyed across the UK were worried about paying their energy bills.
- In March 2019, the public were most likely to be concerned about steep rises in energy prices in the future (75%), the UK not investing fast enough in alternative sources of energy (69%) and the UK becoming too dependent on energy from other countries (65%). 84% support the use of renewable energy.

This feedback has helped steer the proposals in this business plan. We will continue to build on this understanding as we go through the remainder of the business planning process, with additional feedback included in later submissions. We will also enhance the approach we take during the RIIO-2 period, which is set out in the business support section of this plan, ESRG will produce a report providing their own views on our engagement activities and business plan.

1.2 Our stakeholder engagement strategy

Our stakeholder engagement strategy takes a dynamic approach, in which a continuous Our stakeholder engagement strategy takes a dynamic approach. It includes continuous feedback, which enables us to develop and refine our thinking into the prioritised activities that feature in this and subsequent business plans. We are inclusive in our engagement approach and work with a broad range of stakeholders of different sizes and across a number of sectors. We have evolved our engagement strategy to an 'always on' approach that removes linear time driven barriers and adopts a permanent invitation to engage.

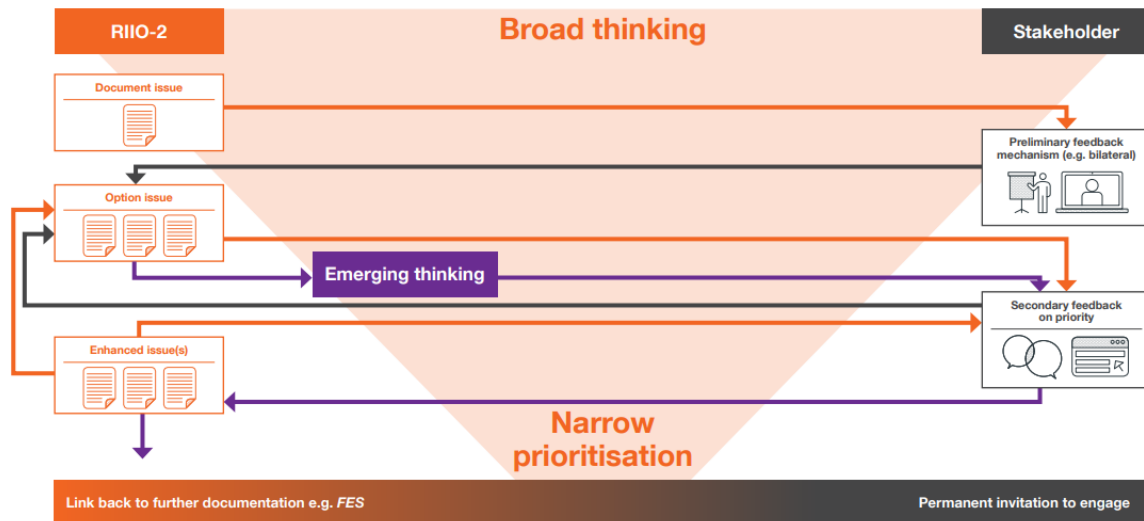


Figure 2: RIIO-2 stakeholder engagement strategy²

We seek to use the principles of the AA1000 Stakeholder Engagement Standard (SES) in our engagement approach to establish a benchmark. It means that we plan, prepare, implement and improve engagement activity, to ensure that we maximise the value of our engagement and be respectful of stakeholders' time.

1.3 Dynamic engagement through the business plan process

We have evolved our approach from the three phases set out in *Our RIIO-2 ambition* to one of continuous story creation. We are demonstrating the practical application of our stakeholders' feedback within our strategy and approach, which has been gained through a less linear engagement model, and is supportive of our stakeholder groups and their requirements.

"RIIO-2 is leading the pack in terms of proactive engagement. Process isn't finished but so far, so good."

Generator / supplier

² Please increase page zoom to 200% to view this diagram

1.3.1 Broad thinking

Consumers and stakeholders are at the heart of our preparations for RIIO-2. We began by understanding our consumer and stakeholder priorities to steer what we should deliver. These form the fundamental cornerstone of our plan.

We brought together the outputs of our day-to-day engagement activities from across the ESO and created additional activities as part of a coordinated programme of engagement for RIIO-2 to test and refine the priorities. This included an independent research study, reaching stakeholders, Members of Parliament and 2,000 members of the public. It also included regular direct conversations and an online stakeholder webinar with 88 attendees from 68 organisations. You can find out more about how they were created on our website³.

Our Consumer and Stakeholder priorities are used throughout this document to assess how our activities will deliver value. We have indicated in each chapter how the activities contribute to meeting them.



Figure 3: Our consumer and stakeholder priorities

1.3.2 Developing our proposals

We have continued to build on the priorities of consumers and stakeholders. Their views have informed the details of our business plan proposals. We have used a variety of engagement channels to maximise the range of stakeholders we reach and have effective conversations with, such as stakeholder workshops with roundtables, direct engagement, webinars and email bulletins.

1.3.3 Testing our proposals

We are sharing how stakeholder views have shaped our proposals, so we can seek further feedback. We will continue to work with our stakeholders to develop these proposals ahead of our final submission to Ofgem in December 2019. The engagement channels will be similar to those we have used up to now but with greater opportunity for stakeholders to select the topics to discuss. We will also go further in using existing groups, such as trade association meetings and Power Responsive, and consider if there are further digital platforms we can use to enable easier engagement for those who find attending meetings in person more difficult. As you will see in this business plan, the proposals we engage on have been developed further to focus on the detailed activities and their associated costs and benefits.

“Whenever there are changes they listen – they will set up a meeting quickly, they are easy to engage. Set up is perfect.”

Consumer interest organisation

³<https://www.nationalgrideso.com/about-us/business-plans/future-planning-2021-onwards/have-your-say-on-our-future-plans>

1.3.4 Our engagement activity

Engaging with a representative group of stakeholders gives us confidence we have co-created the business plan proposals with an appropriate breadth of stakeholder views. We have mapped our stakeholders according to their interest in our themes and activities, and the level of impact that changes to our role may have on their businesses. This remains under continuous review as we develop the business plan. We used this approach to plan the most effective engagement channels for individual stakeholders across a range of sectors.

“Strongly welcome the ESO’s efforts to put forward an ambitious plan that sets clear goals and reflects stakeholder feedback.”

Trade association

We aim to be accessible in our engagement and where possible, look to use and build upon the existing engagement opportunities that we have in place, such as our customer connections seminars, charging forums, FES workshops and electricity operational forums to make sure we use every opportunity to engage. Additionally, collaboration with other bodies will give us access to wider and more specialist views in a way that is more efficient for the ESO and our stakeholders. We’ve created further channels to make sure we reach a broad range of stakeholders for each theme and over-arching topics such as whole electricity system. The most appropriate engagement method is chosen based on the level of content and area of interest for the audience.

We have engaged with more than 360 individual stakeholders, many at multiple events. Below is a summary of how we have engaged over and above our existing engagement channels. Throughout this report, we demonstrate how stakeholder feedback has been used to develop our thinking.

Interactive engagement, including: <ul style="list-style-type: none"> • Bilateral meetings • Workshops • Webinars 	To date we have held: <ul style="list-style-type: none"> • 84 bilateral meetings • 6 workshops • 9 webinars 	Which have resulted in engagement with: <ul style="list-style-type: none"> • Over 360 individuals from • Over 180 organisations
ESO RIIO-2 Stakeholder Group	To date we have held: <ul style="list-style-type: none"> • 5 meetings • 1 workshop • 1 electricity control centre visit 	This has involved: <ul style="list-style-type: none"> • 19 of our key stakeholders
Published communications, including: <ul style="list-style-type: none"> • Bi-monthly bulletins • Website • Thought pieces • Podcasts 	To date we have published: <ul style="list-style-type: none"> • 6 bulletins • 2 stakeholder reports • 3 thought pieces • 1 podcasts 	These have reached: <ul style="list-style-type: none"> • An average of 900 individuals through our bulletins • 198 plays of the podcast

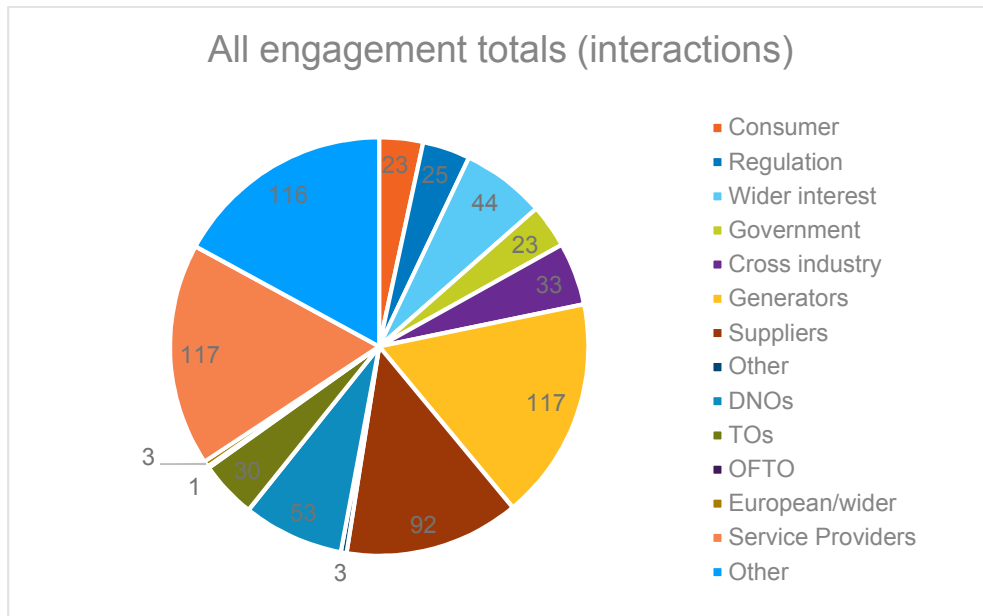
Figure 4: Summary of our RIIO-2 engagements

Stakeholder engagement numbers by segment

We have met with more than 360 individuals from over 180 organisations through some 600 interactions. Generators, service providers and suppliers were the groups most commonly represented. It is worth noting that in the figures below many stakeholders have been assumed to be representing more than one stakeholder segment. For example, one person may be classed as both a generator and a supplier, which will appear to inflate the numbers for these groups. The ‘other’ category includes non-domestic consumers, consultants, charities and technology suppliers.

“ESO are giving a good level of access to people and events. It’s all positive in terms of ability to contact and engage.”

Distribution Network Operator



Accessible ESO RIIO-2 engagement

This range of engagement channels and our ‘always on’ approach to engagement have resulted in stakeholders telling us that they find the ESO RIIO-2 programme to be very accessible, and feel well engaged and consulted. All of the stakeholders we asked find it easy or very easy to engage with the ESO and 93% were satisfied or very satisfied with the process. We will continue to utilise this broad range of engagement channels and to look for additional appropriate channels / engagement opportunities to ensure we remain open to new approaches.

Stakeholders have also given us some useful pointers on how we can improve our engagement. We hope this business plan and the Stakeholder Report alongside it go some way to addressing the desire to see more detail on costs and benefits and also for us to play back the range of views we’ve received and how we’ve responded to them. As the year progresses we will continue to refine and further improve our engagement, for example by making our email communications more targeted to help stakeholders prioritise the importance of the content, engaging as much as possible through trade associations, and investigating enhancements to make the RIIO-2 parts of our website more accessible.

“All the transmission companies are going through the price control so prompts are useful and an importance level indicator would be useful too.”

Network company

1.3.7 Let’s keep talking

We know that we have more to do, and are very much still listening to what our stakeholders and customers want from the ESO in RIIO-2. We recently commissioned an independent review of our stakeholder engagement approach, to ensure we are taking a best practice approach in developing the business plan. The review was largely positive, based on stakeholder feedback and comparison with best practice organisations. Some enhancements to evolve our approach were recommended, and we will further embed many of these as we go through the year.

1.3.8 How we will engage going forward

Stakeholder input and feedback has been incredibly important in helping us to develop our RIIO-2 Business Plan to this point. It will be equally important as we build further detail and

refine our plans looking out to our second draft business plan in October and final plan in December.

What we want to talk about

In advance of submitting our second draft business plan in October we will be seeking stakeholder input across a number of key areas:

1. Firming up our portfolio of activities

There has been a very positive consensus in support for our proposed activities. However, in a number of areas we have heard mixed views on what our role should be in certain activities. In advance of submitting our second draft plan in October we would like to better understand the divergent views of different parties to inform our decision on what to include in our business plan submission. We are also keen to share our initial view of the costs and benefits associated with our proposed activities to inform stakeholder views. We will consider the views of stakeholders alongside our own CBA analysis and commercial judgement.

2. How we measure success

We need to be able to be able to assess whether or not we have achieved the ambitions that, together with stakeholders, we have set for ourselves. We have already received a number of suggestions from different stakeholders for metrics that we could use to measure our performance. We want to build on these suggestions as well as our own initial thinking in working sessions with interested parties.

3. How we will approach engagement

In our approach to engagement going forward we will continue with an “always open” philosophy, happy to meet with stakeholders to discuss any aspects of our business plan or associated arrangements. In addition, we will be organising a series of co-ordinated events at the Electricity National Control Centre facilitating discussion of the above topics in focus groups.

We are also acutely aware of the intense engagement burden that the current rate of industry change is putting on our stakeholders. We will continue to seek engagement approaches that minimise this burden whilst maximising the opportunity to provide input.

Our engagement with industry associations to date has proven to be a highly valuable source of insight, both in the representative nature of the views of the associations as well as a gateway to a wider stakeholder audience. As we further develop our business plan we would like to build on this approach to ensure we are providing every available opportunity for associations and their members to tell us what they think. In order to maximise the efficient use of stakeholders’ time we will also continue to use existing engagement channels, such as code panels and other fora.

2. Our independent stakeholder group

We established the ESO RIIO-2 Stakeholder Group (ERSG) to ensure that stakeholders have a credible voice in how we develop our business plan for the next RIIO regulatory price control period. The group provides a focused review of our approach and conclusions, but does not replace the wide-ranging engagement we need to undertake as we develop our business plan proposals.

As well as providing scrutiny and challenge of our business plan priorities, the group assesses how we have engaged with stakeholders during the plan's development and will report to the regulator Ofgem with its findings. Ultimately, the aim is to ensure that the business plan delivers value for consumers, and that it fairly represents the priorities of our stakeholders.

2.1 Role of the group

The ERSG acts in an advisory capacity and is not a decision-making body. The role of the group is to challenge and test the ESO's business plan, and the way we have engaged with stakeholders and incorporated their feedback into our plan. Are we being ambitious enough with our plans? Are we properly reflecting the needs of the wider stakeholder community? Is our risk profile appropriate? The group looks at areas such as our total spend and efficiency targets, the focus of our innovation strategy and whether we are being truly representative of consumer and stakeholder views.

"I believe the ERSG has such an important role to play in delivering the RIIO-2 framework and, ultimately, driving value for end consumers."

Charlotte Morgan,
ERSG Chair⁴

Following the final business plan submission in December 2019, the chair of the ERSG will produce a report for Ofgem on behalf of the members, summarising the parts of our plan it agrees with, and any areas of concern. The report will also assess the scope and quality of our stakeholder engagement.

The report will then act as a reference point for Ofgem on any areas of our business plan that might require further scrutiny by them, or the challenge group.

2.2 Appointing the Chair

The chair has a critical role in leading the ERSG, so we developed a rigorous process for their selection and worked closely with Ofgem. We shared with Ofgem a long list of potential candidates and followed the below process.

⁴ <https://www.nationalgrideso.com/news/eso-prepares-first-legally-separate-price-control>

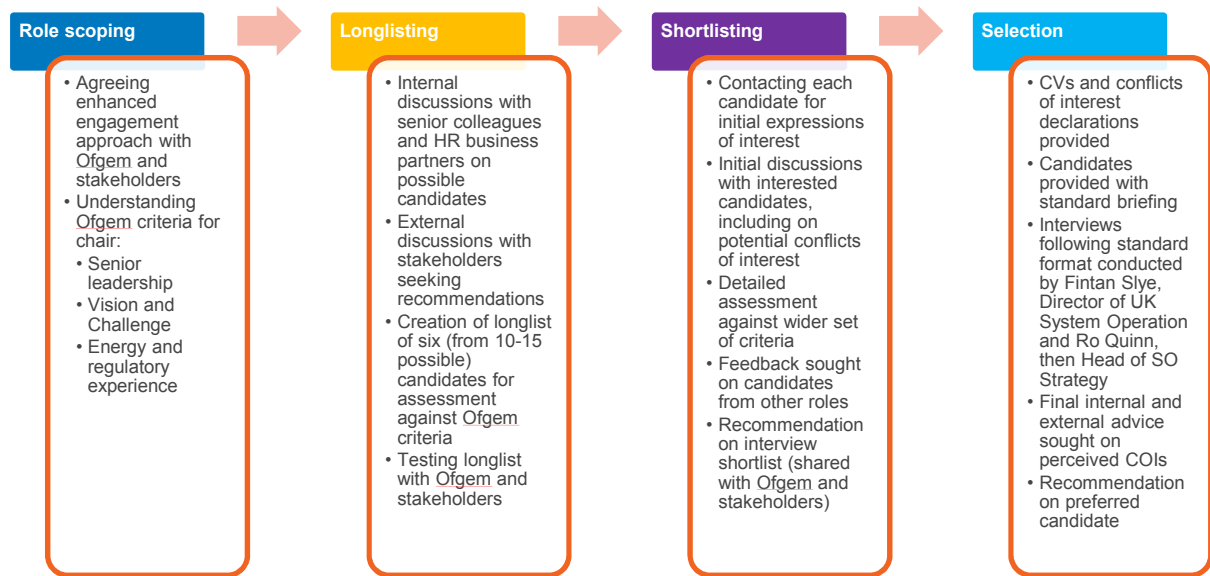


Figure 5: Process for appointing the Chair

Following this robust process and in agreement with Ofgem, we appointed Charlotte Morgan⁵ as our Independent Chair.

2.3 Appointment of members

We wanted to ensure our members⁶ were representative of our role and the wider industry across Great Britain. Members sit on the group in a personal capacity, rather than representing any particular organisation or industry sector. Our group includes members with expertise across the breadth of the energy industry, from larger and smaller generators, network owners, energy suppliers, customers, service providers and consumer bodies amongst others. Their membership was proposed by the ESO and discussed with the chair prior to their appointment. Members of the group are:

Charlotte Morgan (Independent Chair)	Simon Roberts – Centre for Sustainable Energy
Stuart Cotten – Drax	Jamie Stewart – Citizens Advice Scotland
Peter Emery – Electricity North West	Nina Skorupska – Renewable Energy Association
Toby Ferenczi – Ovo	Nigel Turvey – Western Power Distribution
Stew Horne – Citizens Advice	Chris Veal – Transmission Investment
Jo-Jo Hubbard – Electron	Barbara Vest – Energy UK
Greg Jackson – Octopus Energy	Mathew Wright – Ørsted
Alan Kelly – Scottish Power Transmission	Fintan Slye – National Grid ESO
Andy Manning – Centrica	Kayte O’Neill – National Grid ESO

⁵ <https://www.nationalgrideso.com/about-us/riio-regulatory-framework/riio-2-price-control-2021/our-riio-2-stakeholder-group/charlotte>

⁶ <https://www.nationalgrideso.com/about-us/business-plans/future-planning-2021-onwards/our-riio-2-stakeholder-group/stakeholder-group-members>

Catherine Mitchell – University of Exeter Angelita Bradney – National Grid ESO

Nick Molho – Aldersgate Group Sophie Hind (Technical Secretary) –
National Grid ESO

Eddie Proffitt – Major Energy Users Council

2.4 Managing conflicts of interest

We used a range of measures to manage perceived conflicts of interest, in respect of individuals, appointed to our stakeholder group. These included:

- Under the terms of reference⁷ of the stakeholder group, we made clear that appointments were based on their knowledge, expertise and experience as individuals, not as representatives for their organisations or sectors.
- Each member of the group was required to sign a form of non-disclosure agreement, that prohibits use of information that they obtain in their role on the group, for any other purpose (including commercial purposes).
- Each member was also required to complete a declaration of business interests form, that requires them to disclose any business interests (such as shares, consultancy arrangements, directorships etc.) that they, or their partner or spouse have in National Grid. We then considered any interests disclosed, before making a final decision on the individual's appointment to the panel and/or to share any information with them.
- Where individuals had an increased risk of a perceived conflict (such as individuals who work for an organisation that supplies services to the ESO), we assessed on a case by case basis, whether it is appropriate for that individual to be excluded from forming part of the team that bids for or supplies services to the ESO during the term of their membership.
- During the start of each meeting, the chair asks the group to disclose whether they may have perceived, or have actual conflicts of interest in any topics being discussed at the meeting. The group then assesses whether that individual should leave the room during the discussion of that topic.

2.5 Induction of group members to the ESO

To enable effective discussion on our ESO proposals, we wanted the group to adequately understand our business, teams, as well as our challenges and opportunities. To support this, the group's induction included:

- a visit to the Electricity National Control Centre, to see how we operate the system around the clock, and the chance to speak to the team about their roles
- an introduction to the National Grid business, and how the UK business is regulated
- an introduction and overview of the ESO's regulatory framework, and incentives arrangement pre-and post-legal separation
- an overview of our performance to date during RIIO-T1
- information about legal separation
- a review of Ofgem's framework consultation and the ESO's response
- the development of the RIIO-2 programme plan, proposals and engagement prior to the formation of the group.

⁷ <https://www.nationalgrideso.com/document/137541/download>

2.6 Running the group

To ensure the successful running of the group we needed it to be appropriately resourced. We provided the group with necessary secretariat support as advised by Ofgem⁸. The Technical Secretary is an ESO employee, but on a day to day basis, works in a role outside the RIIO-2 team. They act as independent support to the chair and is the main point of contact for the group. Their main responsibilities include: keeping minutes for each meeting, managing the action and challenge logs, supporting the chair and group in writing their report, and helping the chair with any other administrative duties as necessary.

The chair and wider group also have contact with members of the ESO RIIO-2 team, who provide support for the group meetings, pre-read, papers and contents for the day. They also help link in members with relevant subject matter experts within the business where required. The group also has three senior ESO members who provide the strategic view of the ESO business and detailed input into the discussions.

As set out in the ERSG Terms of Reference, the chair will also 'attend NGESO's Board meetings at least once a year to provide an update on the stakeholder group. The chair and the Board will be free to discuss suitable topics. In addition, the chair will attend occasional meetings with Ofgem and the chairs of equivalent groups, to discuss the progress of the group and to share any challenges or best practice examples. The chair is scheduled to meet the ESO Board in July 2019.

2.7 Group meeting dates

The group had initially been set up to meet quarterly for half a day. After the initial meeting in July 2018, the group decided that to be most effective in providing scrutiny and challenge, and to cover the broad range of topics needed, it would be more efficient to schedule further meetings and for a full day. Prior to this draft business plan being submitted, the group met on the following dates:

- 25 July 2018
- 14 November 2018
- 30 January 2019
- 3 April 2019
- 4 June 2019

All information relating to these meetings can be found on our website⁹. The group is scheduled to meet roughly every other month until the end of 2019.

2.8 Group Feedback

The tables below show the information we presented to the group and the feedback they provided on those specific areas. Many actions came out of these meetings for the ESO, to help us drive and deliver our business plan, to best demonstrate sufficient engagement, consumer benefit and industry feedback. All the group's feedback was taken into account at the appropriate time in development process.

⁸ https://www.ofgem.gov.uk/system/files/docs/2018/04/riio-2_enhanced_stakeholder_engagement_guidance_v13_final.pdf

⁹ <https://www.nationalgrideso.com/about-us/business-plans/future-planning-2021-onwards/have-your-say-on-our-future-plans/eso-riio2-stakeholder-group>

2.9 Meetings

25/07/2018

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
Scenarios	<ul style="list-style-type: none"> The ESO presented options on how to analyse the future energy landscape, by either using <i>FES</i>, or scenarios developed by an industry party. This would form the basis of the business plan proposals. The ESO's preference was to use <i>FES</i>. They also presented the stakeholder feedback they heard to date, on the proposals and the areas of uncertainty/commonality agreed across the scenarios. 	<p>The group believed that:</p> <ul style="list-style-type: none"> using <i>FES</i> provided the right starting point, particularly as it went through a rigorous stakeholder engagement cycle. They noted however, there was a range of scenarios, and questioned if it would be more beneficial to have a 'best' view, or if multiple views should be formed for whichever scenario used, there needed to be sufficient flexibility to grow with the pace of change. 	<p>ESO to provide information on the following for the next meeting:</p> <ul style="list-style-type: none"> Description of the commonalities across the scenarios. Description of the underlying analysis undertaken to this point and how it will be developed. Description of key dependencies (with a focus on those areas that the ESO can influence). Updated list of areas of change and uncertainty.
ESO vision to outputs	<ul style="list-style-type: none"> The ESO presented the current roles and principles which were defined as part of the <i>Forward Plan</i> and asked whether it should be built upon for RIIO-2. 	<ul style="list-style-type: none"> The group agreed with the proposed ordering of the priorities with a strong focus on consumer. Some suggestions were made to enhance the priorities. 	<ul style="list-style-type: none"> ESO to provide further thought to the wording of the priorities and the trade-offs between different stakeholder types.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
	<ul style="list-style-type: none"> The ESO wanted to ensure this fitted with the consumer and stakeholder priorities that they had shared, to produce outputs. They presented a variety of options to be taken forward. 	<ul style="list-style-type: none"> They also asked for further clarification on the definition of consumers, noting that this may not just be end users, and of stakeholders. Also discussed was the importance of the ESO's role in providing thought leadership around the trade-offs between the priorities of these groups. They agreed to the proposed approach of incorporating customer and stakeholder priorities with the roles and principles. 	
Regulatory mechanism	<p>The ESO:</p> <ul style="list-style-type: none"> will have its own regulatory structure, and due to its unique role in industry, a new model is likely required presented five potential funding models that had been explored with stakeholders and of these "performance" and "layered" were favoured proposed to take forward these two models to develop in more detail, noting they would publish a thought piece in October. 	<ul style="list-style-type: none"> The group were interested in what these models might mean for the financeability of the organisation. The also noted that it would be hard to calibrate a completely performance-based structure, without understanding the baseline and the potential for risk of unintended consequences. Feedback from the members in the room and in written correspondence prior to the meeting, indicated that a layered model may be appropriate to start, but with a view to move to performance in the longer term once 	<ul style="list-style-type: none"> ESO to consider how to further engage with the group in advance of publishing the thought piece on regulatory mechanisms and provide further detail of developed thinking.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>baseline expectations are established.</p> <ul style="list-style-type: none"> It was also suggested by one member, that a mix of models may be appropriate as in some parts of the US. 	

14/11/2018

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
SO Mission and the consumer and stakeholder priorities	<ul style="list-style-type: none"> ESO presented its new SO Mission, informed by stakeholder engagement and shared the updated consumer and stakeholder priorities. 	<ul style="list-style-type: none"> The group reacted positively to the update and felt that these were an improvement. There was however, a discussion around whether an additional stakeholder priority should be added, around being flexible and adaptive, driving innovation and through that, improving competition. 	<ul style="list-style-type: none"> ESO to draft an additional stakeholder priority to include flexibility, innovation and competition.
Using scenarios	<ul style="list-style-type: none"> ESO presented further work they had developed on what the future energy landscape could look like. Key areas of uncertainty were identified in a commonality scorecard, and an eight-step approach to develop options and manage uncertainty were presented. 	<ul style="list-style-type: none"> The group discussed that Ofgem was considering the use of a single scenario across all RIIO-2 business plans, and how these pieces of work may interact. This is being considered by the challenge group. The group fed back views on the scenarios posed, and some members felt, that the ESO was being more passive than directive in terms of picking preferences. Some questioned 	<p>ESO to report back to group:</p> <ul style="list-style-type: none"> The outcome of challenge group discussions around use of scenarios. Any future views on how we work with DSOs around regional scenarios.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>if the ESO should favour scenarios that met decarbonisation targets.</p> <ul style="list-style-type: none"> The use of scenarios was also discussed in terms of regional differences and whether it was appropriate to feed this in. Some members also sought clarification around whether the ESO was positioning itself as a top-down (command and control, national markets), or bottom-up (leave to markets, regional focus) organisation in terms of how it interacts with wider industry, and how this might affect consumer costs. The ESO representative, explained that the key difference between these models was complexity. In some cases, it made sense for consumers to have national, centralised markets and other more regional versions driven by system needs. 	<ul style="list-style-type: none"> Interplay between managing longer term-costs and length of price control. Potential impact of 1.5 degrees target on scenarios and ESO plans. Views on ESO role as top down vs. bottom up.
ESO ambition and strategy	<ul style="list-style-type: none"> The ESO presented the forward strategy to test the key enablers, and the seven principles it had developed, to inform their business plan proposals out to a 2030 vision. 	<ul style="list-style-type: none"> Following specific discussions on the enablers, there was a broader discussion around how the principles might develop further as the ESO's role becomes more defined. The ESO's role in articulating, informing and implementing policy outcomes was discussed and it was 	<ul style="list-style-type: none"> Follow up with Greg Jackson as to how the ESO could learn from other companies that use automated platforms. Articulate three models of data

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>suggested that this could be brought out more.</p> <ul style="list-style-type: none"> The question around how these align with the vision of the SO across gas and electricity was raised and the ESO agreed to provide more clarity on this when discussing principles in future. 	<p>management (slider on controlling/not, what regulatory framework might be, segment customers, range of information, etc.)</p> <p>Consider:</p> <ul style="list-style-type: none"> how innovation and digitisation captured in principle 2 ambition drafting an additional enabler (theme 2). around market design rewording enabler to replace “driving competition” with phrases like “in order to ensure competitive markets” or “in order to enhance competition” how the link with gas articulated fully when

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
Whole electricity system	<ul style="list-style-type: none"> The ESO presented a paper identifying six key topics around driving efficient whole system outcomes. A set of sliders on where the ESO's thinking was were produced, and the group debated these. 	<ol style="list-style-type: none"> Market and information provision. <ul style="list-style-type: none"> Discussion in this area focused around how data should be provided and how it could be used. The predominant view was that although data granularity was important, some analysis may also be useful for the market so the ESO may want to consider a move towards B on the slider. Governance – framework accessibility and alignment. <ul style="list-style-type: none"> It was felt that the ESO's positioning in this area was about right. Members expressed views about the importance of working with other code administrators and DSOs. One member felt that open code governance should be replaced with direct ESO changes as directed by government policy. Technology – facilitating new routes to market. <ul style="list-style-type: none"> It was felt that the ESO's positioning in this area was about right and that the ESO are well 	<p>discussing principles.</p> <ul style="list-style-type: none"> ESO to provide information on the types of platforms that would be covered under topic 3 (whole system – technology – facilitating new routes to market).

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>placed to set out views on what platforms for facilitating routes to markets could be.</p> <ul style="list-style-type: none">• However, a member expressed a view about why the ESO is not currently doing this now, and questioned whether the capability existed within the ESO? The ESO agreed to come back to the group on examples of the types of platforms it was considering would fall into this space. <p>4. Options development – clarifying responsibilities across the T-D interface.</p> <ul style="list-style-type: none">• The group were split about the positions in this space and recognised that there was a broader debate taking place around the T-D interface including ongoing work with Open Networks. There was debate around local vs. national markets, and the role for regional congestion markets managed by DSOs.• ERSG members fed back on the importance of making it clear to stakeholders how these markets interacted and opportunities to participate.	

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>5. In a highly-distributed world, what is the ESO's role in system event preparedness and response?</p> <ul style="list-style-type: none"> Members agreed that the ESO's positioning more to A (working with DSOs) would help manage security of supply better. <p>6. To what extent should the ESO tailor its approaches to regional differences in innovation and framework development?</p> <ul style="list-style-type: none"> The group were broadly aligned in a view that there is some value in consistency and common approaches but recognising that regional differences may need to be recognised in some cases. 	

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
Network planning	<p>ESO explained how further work is taking place as to how network planning can drive more value in RIIO-2. The following four options were presented to the group. One or more could be taken forward, they are not alternatives:</p> <ol style="list-style-type: none"> Expand the <i>Network Options assessment (NOA)</i> to include a 	<p>The discussions are captured per option below:</p> <ol style="list-style-type: none"> It was felt that the <i>NOA</i> giving visibility to reinforcements that might be needed, was useful, but it was questioned whether it would be suitable to fit alongside the connection offers process. <i>NOA</i> providing views on alternatives to end 	<ul style="list-style-type: none"> ESO to undertake further engagement on expanding the <i>NOA</i> to assess more voltage levels.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
	<p>wider range of transmission network needs.</p> <ol style="list-style-type: none"> 2. Expand the <i>NOA</i> to assess more voltage levels. 3. Fundamentally review the SQSS. 4. Define the role of the ESO in facilitating competition in the build of onshore transmission networks. 	<p>of life asset replacement was also seen to be positive.</p> <ol style="list-style-type: none"> 2. There was some surprise that this had been discounted as an option by the ESO, particularly because the ESO is independent in this space. There was broad agreement that more engagement should take place with stakeholders to consider this option further. 3. ERSG felt that the ESO's position that a fundamental review was likely to be required was sensible given that it has been updated an improved on an incremental basis over the year. 4. There were some strong views expressed that this was an area which the ESO should pursue vigorously. 	
Codes	<p>ESO presented four options that could be considered for its role in codes during RIIO-2. These included:</p> <ol style="list-style-type: none"> 1. Continue as Code Administrator for the codes we administer today. 2. Step up to a new role as Code Manager for the codes we administer today. 3. Step away from our current Code Administration role. 	<ol style="list-style-type: none"> 1. A number of members expressed views that current code governance arrangements were not fit for purpose however, there were different views on how these issues could be addressed. Some ERSG members felt there was some mileage and potential efficiency to be gained in bringing some of the network codes and associated work together. Funding of the Code Administration function was also discussed, and 	<ul style="list-style-type: none"> • ESO to take feedback on board in further development of their options.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
	<p>4. Grow our Code Administration role, actively seeking codes to manage.</p>	<p>whether this should be pulled out as a separate layer in the regulatory settlement. There was broad agreement that changes were needed in this space, and the transition to Code Manager was welcomed, with some members feeding back that this was required now rather than in RIIO-2</p> <p>2. There was a broad conversation around this topic, and what the group felt the role of Code Manager should entail, with some participants feeling it was unclear how Code Manager was different to Code Administrator.</p> <p>3. This was not seen to be a credible option given the ESO's role in delivering a few the codes.</p> <p>4. Some members felt this to be a risky prospect, given sensitivities that there are several existing Code Administrators.</p>	
<p>A forward look</p>	<ul style="list-style-type: none"> The ESO representative presented a forward look up to the final submission, including ERSG meetings and business plan milestones. 	<ul style="list-style-type: none"> The group felt that there was a great deal of material to cover in the meetings and debated whether any of the meetings should be either lengthened or additional dates added. A member who sat on another RIIO-2 group, suggested there might be more focus on 	<p>ESO to:</p> <ul style="list-style-type: none"> Communicate future additional ERSG dates asap so that the group can add to diaries. Consider improvements

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>challenging the stakeholder engagement that had been undertaken, as this will need to be covered in the final report.</p> <ul style="list-style-type: none"> • They also suggested some ways in which the agenda could be improved to ensure that more material could be covered, and this was also picked up in the closed session. • In terms of future content, a member suggested that they would like more information on workforce capability, and another asked to see more information on ESO costs. 	<p>suggested in terms of how the meeting is run.</p>

30/01/2019

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
ESO RIIO-2 ambitions	<ul style="list-style-type: none"> • ESO presented emerging thoughts on the ambitions for RIIO-2 ahead of the March document publication. 	<ul style="list-style-type: none"> • The group believe stakeholders are looking for an ambitious ESO and they don't believe it has been identified what that is. As a result, there was strong feedback that the ambition statements are not really 'ambitious' – they describe what the ESO should be doing anyway. • The ESO also needs to better articulate what we're doing that's 	<ul style="list-style-type: none"> • ESO to consider how to incorporate this feedback within the document for publication.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>new. The statements need to be worded in a simple and compelling way and need to be part of an engaging and exciting portrayal of the opportunity we're embracing.</p> <ul style="list-style-type: none"> • To achieve some of these ambitions, the ESO may need changes in licence obligations (either for them or other parties). • The ESO needs to be clearer when we talk about whole system ambitions, and whether the ESO means system or sector. 	
Stakeholder engagement	<ul style="list-style-type: none"> • ESO presented their approach to stakeholder engagement, what had been done and planned. 	<ul style="list-style-type: none"> • The group thought we should use our engagement activities to provide views and evidence from stakeholders as to what kind of company they want the ESO to be (ambitious, leader, market provider, etc.). • They felt the ESO could learn from other sectors such as water on how to demonstrate good robust engagement. • They understood the ESO had undertaken a vast amount of engagement, but did not see how this was as result of a clear strategy 	<ul style="list-style-type: none"> • ESO to consider how to better demonstrate the programme of engagement and thread throughout the development of the business plan.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>or programme. They thought the ESO needed to:</p> <ul style="list-style-type: none"> • be really clear on who they are engaging with and why • have a clear strategy and process of engagement activities • better document the outcome of engagement and how it's going to get them what they need. 	
Ofgem's sector specific methodology	<p>The ESO presented their initial assessment of Ofgem's consultation proposals and summarised where further clarification is needed as well as the two main areas of concern for the ESO. These are:</p> <ul style="list-style-type: none"> • length of price control • funding model and incentives. 	<ol style="list-style-type: none"> 1. Overarching <ul style="list-style-type: none"> • The group felt the ESO needs to understand and address Ofgem's concerns, when we're proposing something different. 2. Funding model <ul style="list-style-type: none"> • Members said the ESO needs to consider what pass-through looks like without an excessive cost disallowance and audits etc., and whether it becomes acceptable at any point. If not, the ESO will need to explain that we've considered a middle way. 3. Length 	<ul style="list-style-type: none"> • ESO to develop their views, and further engage with stakeholders as they build the detail to formally respond to Ofgem.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<ul style="list-style-type: none">• The ESO need to consider which of DNOs or TOs it makes most sense for the ESO to align to, and whether they could accept and want to propose some sort of hybrid model, including uncertainty mechanisms.• The group expect the ESO to clearly set out what they are planning to invest in over 5+ years in the March ambition document.	
		4. Competition	
		<ul style="list-style-type: none">• The ESO is fully supportive of the extension of competition in transmission build.• There was however, a question of who takes on the additional roles involved? If we don't think that should be the ESO, we should propose who we think should carry out those roles.	

03/04/2019

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
Towards 2030: <i>Our ESO RIIO-2 Ambition</i>	<ul style="list-style-type: none"> • ESO presented the content for the <i>ESO RIIO-2 ambition</i>. 	<ul style="list-style-type: none"> • Generally good feedback with acknowledgement our level of ambition has greatly improved and is more in line with their expectations of an ambitious ESO. • Some confusion over all the documents and how they fit together. • Question asked if the ESO has the capability, knowledge and resource to deliver the ambitious activities as articulated. • Some thought it was missing the ESO-DSO relationship and transition. • The group challenged the consumer engagement we had done to date and how they thought it was lacking in the ambition document and how it should be more of a focus. • The group also thought the additional cost would need to be well justified to Ofgem in a price control they are looking to cut costs. • A member commented that the CBA could be strengthened for the July document, and be more specific. 	<ul style="list-style-type: none"> • All feedback will be reviewed in the development of the business plan, and the proposals for consumer engagement will be brought back to group at a future meeting.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
Network competition	<ul style="list-style-type: none"> • ESO presented a summary of what was in the paper provided for pre-read. The ESO is a strong believer in competition in all its forms. They have been actively supporting Ofgem with the work on Competitively Appointed Transmission Owner (CATO)s, but had questions on if there more that could be done? • Should we be resourcing in RIIO-2 to help launch the regime, and should the ESO be putting their name forward to run the tender process? 	<ul style="list-style-type: none"> • The group thought it was difficult to reach interested stakeholders through our generic engagement, and needed to do something more targeted to get a range of views for this area • One member questioned whether the ESO should run the tenders given it is still part of the National Grid Group, others thought we were best placed and could manage potential conflicts of interest. • The group thought the potential options were too high-level to understand the ESO’s activities in this area and more development and detail is required. • The chair would like an update when further engagement with the right parties has taken place. 	<ul style="list-style-type: none"> • Further development of ESO’s position needed, and more targeted engagement with interested parties need to take place.
Connections	<ul style="list-style-type: none"> • ESO presented a summary of the paper which was shared as part of the pre-read. There is now a need for visibility across the whole system (transmission and distribution). This process needs to be improved to provide greater transparency. 	<ul style="list-style-type: none"> • Members asked if DNOs were willing to adopt a “central hub” approach which we were proposing, ESO confirmed they were supportive. • One member questioned if having a single hub would be less useful than having open protocols for interfacing, with straightforward 	<ul style="list-style-type: none"> • The ESO was challenged on who should be paying the brunt of the costs for this change and are asked to better articulate the value. An update is to be provided when item returns to ERSG.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>Application Planning Interfaces (APIs).</p> <ul style="list-style-type: none"> ERSG would like more detail on the magnitude of costs and how much value this proposal would generate. There was also a question on who would be paying the brunt of the costs and whether it should be consumers or those connecting to the system. Most agreed it would be useful to make it easier to connect to the system, and it would be attractive for things like data centres who may move overseas if we can't cope with their requests. 	
<p>System access planning</p>	<ul style="list-style-type: none"> ESO summarised that the nature of the system is changing, and more time needs to be spent on the impacts of outages across the system. This will require more resource than it currently has today. Proposals include increased transparency and immediacy of information and working with TOs and DNOs on system access requirements. 	<ul style="list-style-type: none"> There was general support for our proposal as outlined in the ambition document. The chair asked how costs are assessed, just for the ESO or across the whole system? We confirmed that we are looking to minimise costs from a whole system perspective. The group asked if this was just a transmission level proposal, or would expand to the distribution level? We confirmed it was just transmission for now but could look to expand it to distribution too. 	<ul style="list-style-type: none"> No actions from this session.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
Innovation	<ul style="list-style-type: none"> • ESO presented a summary of the paper that was shared as part of the pre-read materials. It discussed funding available for innovation as part of business as usual vs the ring-fenced innovation and the ESO's preference. 	<ul style="list-style-type: none"> • The group felt like the outlined approach to innovation feels like a regulated approach and is constrained. • They felt it was more about the funding proposals rather than an innovation strategy, and they would like to see more on the strategy. • The group agreed innovation was important and stakeholders want the ESO to be innovative, but don't see the proposal shows how ESO is being driven by innovation. • The group asked how innovation was fostered at a board level and how "disruptive innovation" was enabled in the business. • It was suggested that as part of the business demonstrating what they will do and how the culture will change there needs to be a chapter on company culture and how this kind of organisation is created. 	<ul style="list-style-type: none"> • The chair asked that the ESO comes back to a later session with more information on the strategy and examples of innovation work underway or planned, to demonstrate what funding will go towards.
Reliable and secure system operation	<ul style="list-style-type: none"> • ESO presented a summary of the paper that was shared as part of pre-read. There were two options to operate the system in a very different way to how its currently done. The proposals included to start again and 	<ul style="list-style-type: none"> • The group asked out of which two options that were presented would be best meet the ambition, and what the difference in cost was? They also asked how the ESO intends to involve stakeholders in the new system and how the cost impact on 	<ul style="list-style-type: none"> • The ESO to consider how it will involve stakeholders in the development of new system(s).

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
	<p>build a new control room or to build on top of what we already have.</p>	<p>users would be assessed? We confirmed this was currently being considered.</p> <ul style="list-style-type: none"> • Concerns were expressed that it wasn't clear from the paper what will be developed and what the proposed money will be spent on. • One member of the ERSG advised that the ESO should be looking to the tech industry to input into these plans, not just the electricity industry. It will require openness around specifications and plans. • Resource and expertise required to deliver this was also highlighted as a concern. Capability should be built in house rather than using contractors so there is internal expertise. 	<ul style="list-style-type: none"> • ESO to engage with the tech industry on how such a project could be delivered and use their expertise. • ESO to confirm their resourcing and retention of skills and capability in this area. • ESO to bring this back to a future meeting with more detail.
<p>IT strategy and cyber</p>	<ul style="list-style-type: none"> • ESO presented the paper which was included as part of the pre-read material. Proposals included enhancements in a more modular way, and increased collaboration with stakeholders. • A clearer way to communicate and a "one stop shop" for market participants to access data, policies and codes. • Other key points included, facilitation of a level playing field, and 	<ul style="list-style-type: none"> • There was concern over the detail on the level of change required for IT and systems throughout other papers. They felt there was no overarching strategy in this paper about what will be done. • The group felt it was more focused on engagement than on the specifics of how technology will be used. • They questioned the costs and capability needed to become a technology-based company, and 	<ul style="list-style-type: none"> • ESO to ensure they include how they expect to achieve the cultural change required for the future, to deliver IT proposals and wider ambitions in the business plan. • ESO to include IT strategy and cyber as an item at a future

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
	investment in response to cyber threats.	clearly communicating how we will meet this challenge.	meeting and ensure that there is more detail included.
Open and transparent markets	<ul style="list-style-type: none"> • ESO presented a summary of the paper it provided for pre-read and asked the group a number of questions. 	<ul style="list-style-type: none"> • Members questioned the 1MW figure and how we had arrived at that? They asked if we had considered the IT implications associated with this. • In terms of data, the group suggested it would be useful to understand what level of asset information is needed vs what is available? • When they were asked about the design of balancing markets, they said it ultimately came down to the cost of IT and benefits gained to redesign it with all other changes happening. Throughout they acknowledged that the ESO has a role in ensuring it is appropriate for a low carbon future. • The ESO needs to be careful in trade-offs between implementing things too quickly with the current pace of change but also staying ahead of the curve. 	<ul style="list-style-type: none"> • No actions from this session.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<ul style="list-style-type: none"> In terms of codes, the group were supportive of the ambition, but we need to be mindful of the current code review that is ongoing. 	

04/06/2019

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
Stakeholder and consumer engagement	<ul style="list-style-type: none"> The ESO presented enhancements which had been made to the stakeholder strategy since the January meeting, following internal and external reviews. 	<ul style="list-style-type: none"> The group felt the ESO have taken positive steps to address feedback from stakeholders and consumers. But that greater clarity is needed on the source of feedback in the main body of the report. More evidence of where academic work has been consulted and incorporated into the plan, and how it has informed our understanding. They also felt it would be good to have further clarity what feedback we are and aren't taking on board. And being clear when feedback is not agreed with. 	<ul style="list-style-type: none"> The ESO to better reference the types of stakeholders that gave feedback in the main part of the report. The ESO to provide a further segmentation of types of stakeholders engaged with. The ESO to further engage with academics on consumer research.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
Ofgem's sector specific strategy decision	<ul style="list-style-type: none"> The ESO presented an overview of Ofgem's decision for the ESO 	<ul style="list-style-type: none"> One member asked if it was still possible to disagree with both models that Ofgem had set out, or whether these were now finalised as the only possible options. Some members agreed that this seemed like an oversimplification and that a margin for risk should be allowed. One member commented that by looking at the difference in prices of IT projects that have a fixed price vs variable price, it would be clear why it's better to hold margin. It was questioned whether Ofgem were trying to push the ESO towards something other than what has been set out in the business plan. The chair raised her concerns about a lack of clear communication between the company and Ofgem. 	<ul style="list-style-type: none"> ESO to set out what the two options mean for the business plan, and what impacts they have for consumers for the July meeting.
Business plan overview	<ul style="list-style-type: none"> The ESO presented an overview of the business and the type of company that ESO are trying to become. 	<ul style="list-style-type: none"> The group commented that it was quite difficult to see what the overall value is against the cost, and that it would be helpful to have a summary table bringing all of this together. Some of the group felt that the benefits were subjective and fluffy, 	<ul style="list-style-type: none"> ESO to include summary table of costs and benefits in October Business plan, and to provide a demonstration of impacts to existing costs.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>and more info was needed on how these figures were arrived at.</p>	
<p>Theme 1: Ensure reliable, secure system operation to deliver electricity when consumers need it</p>	<ul style="list-style-type: none"> The ESO presented and summarised theme 1 of the business plan. 	<ul style="list-style-type: none"> There were some questions from the group about the digital twin concept included in this section of the plan. A member of the group highlighted the challenge that market participants are going to have, in the different ways which they wish to interact. How can the ESO strive to ensure that what's being delivered, is fit for purpose for as many people as possible, which may entail more traditional providers needing to change their ways? There was a general consensus from the group that this seemed like the right solution given the small additional cost vs large potential consumer and security benefit. Although, some needed further clarity on what the digital twin solution involves, including to what level will be twinned. 	<ul style="list-style-type: none"> ESO to engage further with universities and educational institutions. ESO to be clearer on what the digital twin will be.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
IT strategy and cyber	<ul style="list-style-type: none"> The ESO presented an overview of the IT strategy section of the business plan, along with how feedback from previous meetings had been incorporated. 	<ul style="list-style-type: none"> The group felt that people and capability is the biggest delivery challenge facing the ESO. The presenters were asked where the design authority would sit – would it be a senior, budget level group or more detailed? A concern was raised about the resource implications that this could put on market participants. The kind of resources needed by these groups is very expensive, and small businesses may not be able to spare this. The chair summarised that there had been a major step forward in this area since previous discussions, but more depth is needed in terms of demonstrating understanding of the cultural and operational change required. 	<ul style="list-style-type: none"> ESO to provide further detail around the design authority and their terms of reference.
Theme 2: transforming participation in smart and sustainable markets	<ul style="list-style-type: none"> The ESO presented and summarised theme 2 of the business plan. 	<ul style="list-style-type: none"> One member commented that they didn't get the sense that much would be changed through the Ofgem codes review, more just a case of digitising the codes. The costs and benefits relating to this section were discussed. The group 	<ul style="list-style-type: none"> ESO to consider how we phrase these ambitions and make clear that we see them as stepping stones to markets as close to real time as possible.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<p>felt that the accuracy in the figures was not helpful and that it would better to have a range.</p> <ul style="list-style-type: none"> The group said there was real opportunity in this area to demonstrate the benefit, and so it needs to be well supported and move Ofgem’s focus from the cost to the magnitude of benefits that can be achieved. 	
<p>Open data and unlocking zero-carbon system operation and markets</p>	<ul style="list-style-type: none"> ESO presented an overview of proposals to make our data open and accessible and provide a clear route to services. 	<ul style="list-style-type: none"> The group asked who will have access to the data and whether this approach would cause any security issues. The chair asked what type of data will be held back? A member asked why this wasn’t being done before 2021. Overall there was a general view this was a good idea. 	<ul style="list-style-type: none"> The ESO to better articulate what we’re doing before RII0-2 and what we’ll do after.
<p>Theme 3: unlocking consumer value through competition</p>	<ul style="list-style-type: none"> The ESO presented and summarised theme 3 of the business plan. 	<ul style="list-style-type: none"> In reviewing the costs and benefits for this section, the ESO were asked where the capex cost comes from. The chair summarised that the group are broadly in favour of the proposals, although there are details to be worked out around how the funding works when plans change. 	<ul style="list-style-type: none"> There is a need for us to explain our approach and action plan for better recognising other parties’ costs within our calculations.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		<ul style="list-style-type: none"> • There are impacts on the business plans of other entities that also need to be considered here. • Concerning the CATO regime, it was noted that the ESO have moved from reluctant to active participant in the proposals. The group are broadly in favour of the expansion of the NOA. 	<ul style="list-style-type: none"> • The ESO to better explain the range of scenarios in calculating the benefit.
<p>Theme 4: Driving towards a sustainable whole energy future</p>	<ul style="list-style-type: none"> • The ESO presented and summarised theme 4 of the business plan. 	<ul style="list-style-type: none"> • The group asked for some further clarity on what the company is proposing to do here, particularly around the connections portal which was discussed at the previous meeting. • The group felt that the capex cost figure in this section (£70m) was quite high compared to what is being proposed. • The group commented that they would like to see more clarity between the ongoing and the transformational activities in the report. 	<ul style="list-style-type: none"> • ESO to provide further justification and clarification of costs in this theme. • ESO to make it clear what is business as usual and what are transformational activities.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
Innovation	<ul style="list-style-type: none"> The ESO presented further information on their approach to Innovation in RIIO-2 and examples of projects. 	<ul style="list-style-type: none"> The group had a conversation around at what point does an innovation project become business as usual and how it is funded. One member felt that innovation is presented in the business plan as a standalone element, and it needs to be demonstrated that it is integrated into the culture of the business. The group thought that the fact that the innovation team don't deliver the projects was positive in demonstrating that innovation is being built into the business. Most other companies have a different structure where the innovation team do deliver the change, and it's harder to embed as BAU in this way. 	<ul style="list-style-type: none"> ESO to further develop thinking on how it would like to be funded for Innovation. ESO to sharpen its narrative around company culture for Innovation and how we foster it in others.
People and capability	<ul style="list-style-type: none"> The ESO presented an overview of the ESO's strategy for resourcing effectively across the four themes in the business plan. 	<ul style="list-style-type: none"> The group asked whether there's potential for competition for resource between the ESO and DNOs who will be looking for similar people The group highlighted the importance of flexible working and other benefits in attracting a good workforce. They also highlighted a moral responsibility of how you 	<ul style="list-style-type: none"> ESO to continue developing its resource strategy.

Topic Presented	Summary of detail presented	ERSG Feedback	Actions
		behave in this space, in attracting people from other countries etc.	

3. RIIO-2 Challenge Group

As part of Ofgem's enhanced stakeholder engagement approach, they have set up an independent RIIO-2 Challenge Group whose purpose is to assess, scrutinise and challenge companies' business plans in parallel to the companies' user groups. The group has a role in provide challenge to both the regulated companies and Ofgem.

3.1 Engagement with the RIIO-2 Challenge Group

Date	Purpose
29 November 2018	<p>Introductory meeting for the ENA consistent view of the future group, to present on their work to date and specifically:</p> <ul style="list-style-type: none"> • a breakdown of changes across time (e.g. what is likely to happen within RIIO-2, RIIO-3 and beyond) • an explanation of changes in demand overtime and how this relates to current forecasts, and • how the companies will forecast the impacts of the energy transition.
30 November 2018	<p>Introductory meeting for ESO business representatives and the chair of our stakeholder group. We presented on the following topics:</p> <ul style="list-style-type: none"> • our role as the ESO • the changing energy landscape • ESO performance in RIIO-T1 • the incentive framework for 2018-21 • ESO in RIIO-2 • working with network companies.
4 December 2018	<p>The consistent view of the future working group received a formal request for further information, and gave clear timelines as to when it expected to see further developed work. This included:</p> <ul style="list-style-type: none"> • key drivers that could materially affect business plans • an updated range of scenarios and assumptions to obtain a consistent view of the future • how scenarios and assumptions feed into the proposed common view of business plans • a common view of the future with a set of scenarios and assumptions, together with an independent commentary by the SO on how these fit with the latest <i>FES</i> analysis.
22 January 2019	<ul style="list-style-type: none"> • The ESO received a formal request from the chair of the RIIO-2 Challenge Group to provide information on historic expenditure trends, which included actual data and original price control forecasts since 1 April 2007 and the key reasons for differences. • They requested a 30-page limit submission by 25 March which we adhered to.

12 February 2019	<ul style="list-style-type: none">• The consistent view of the future working group was invited to present to the RIIO-2 Challenge Group and discuss further how the key drivers identified feed into the proposed common view for business plans, and the range of scenarios for which we will plan.
15 April 2019	<ul style="list-style-type: none">• Further to the submitted report to the RIIO-2 Challenge Group on 25th March on historical expenditure, the ESO was formally requested to provide answers to supplementary questions.• Responses to the majority of the questions were requested by 24 April, with responses to the two final questions by 15 May, which we adhered to.
30 April 2019	<ul style="list-style-type: none">• The ESO met the RIIO-2 Challenge Group and answered questions on topics included in the 25 March and 24 April submissions.

We will continue to engage with the RIIO-2 Challenge Group as we develop our business plan submissions for October and December, in line with their work plan published by Ofgem in February 2019.

4. A summary of our engagement activity – who and how

9 webinars, 6 workshops and 12 other (forums, seminars etc.)

We have carried out a range of stakeholder engagement as we have developed the business plan. This has provided us with a wealth of feedback that has directly shaped the proposals in this document. These RIIO-2 specific engagement events build on the engagement that takes place as part of delivering our day to day responsibilities.

Channel	Date	No. of attendees	Topic(s)	Purpose of discussion
RIIO-2 webinar	26 April 2018	88 individuals, 68 organisations	Development of consumer and stakeholder priorities for RIIO-2	<ul style="list-style-type: none"> To test with stakeholders whether we have identified the right stakeholder and consumer priorities.
RIIO-2 workshop	22 June 2018	43 individuals, 43 organisations	Scenarios, regulatory mechanisms	<ul style="list-style-type: none"> To engage stakeholders on using the <i>FES</i> scenarios and how we should account for the changing energy landscape. To engage stakeholders on our initial thinking on the ESO's regulatory framework and possible funding models.
RIIO-2 webinar	28 June 2018	49 individuals, 37 organisations	Scenarios, whole system	<ul style="list-style-type: none"> To engage stakeholders on the use of <i>FES</i> 2018 as a basis for the business plan, and test with them which changes in the energy landscape will have the biggest impact on consumers and the industry. To test with stakeholders their top three focus areas for whole energy and whole electricity.
RIIO-2 webinar	30 August 2018	65 individuals, 47 organisations, 11 unknown	Scenarios, charging, codes	<ul style="list-style-type: none"> To engage stakeholders on our approach to using a commonality scorecard. To engage stakeholders on our code manager role and areas of charging identified for potential change.

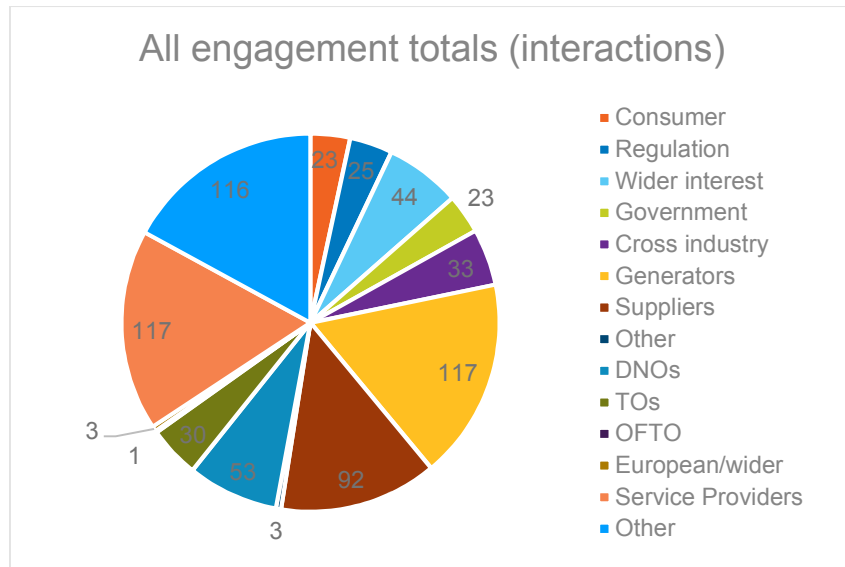
RIIO-2 workshop	28 September 2018	ERSG members	Funding models	<ul style="list-style-type: none"> To share our updated thinking on the ESO's funding model and incentives, with ERSG and give them an opportunity to further input and shape our thinking.
ESO 2030 ambition workshop	28 September 2018	40 individuals, 36 organisations	ESO roles and ambition	<ul style="list-style-type: none"> To engage with stakeholders on the ESO's roles in managing system balancing and operability, facilitating competitive markets, facilitating whole system outcomes, supporting competition in network solutions.
Grid Code Panel meeting	17 October 2018	15 individuals	Codes	<ul style="list-style-type: none"> The ESO's role in code administration and associated funding.
CUSC Panel meeting	26 October 2018	18 individuals	Codes	<ul style="list-style-type: none"> The ESO's role in code administration and associated funding.
RIIO-2 webinar	17 October 2018	28 individuals, 21 organisations	Thought piece on regulatory mechanisms	<ul style="list-style-type: none"> To engage stakeholders on the thought piece we published and encourage them to respond to the consultation questions.
Transmission Charging Methodology Forum	14 November 2018	24 individuals, 22 organisations	Charging	<ul style="list-style-type: none"> To engage stakeholders on the future of charging in RIIO-2.
RIIO-2 webinar	11 November 2018	17 individuals, 15 organisations	Network development, whole electricity system	<ul style="list-style-type: none"> Seek views on initial thinking on proposals.
RIIO-2 workshop	17 December 2018	22 stakeholders, 20 organisations	System operation, system access planning, whole electricity system and network development	<ul style="list-style-type: none"> Explore stakeholder views on some of the more technical aspects of the ESO role.

RIIO-2 webinar	28 January 2019	24 stakeholders, 16 organisations, 5 unknown	Sector specific consultation, key messages, December workshop, consumer value	<ul style="list-style-type: none"> To engage stakeholders on our key messages to Ofgem's sector specific consultation, what we heard at the December workshop and consumer benefit.
RIIO-2 webinar	21 March 2019	31 individuals, 19 organisations, 7 unknown	Data and transparency, connections and system access planning	<ul style="list-style-type: none"> To engage with stakeholders on what they have told us so far and how this has shaped our ambition.
ESO Customer seminars	5 and 7 March 2019	79 individuals, 54 organisations	Connections	<ul style="list-style-type: none"> To test our proposed activities with stakeholders who have or are going through the connections process.
Transmission Charging Methodology Forum	13 March 2019	16 individuals, 13 organisations	Charging	<ul style="list-style-type: none"> To give stakeholders and update on the development of our RIIO-2 proposals.
ESO Operations Forum	26 March 2019	60 stakeholders, 45 organisations	Data and transparency, balancing markets, system operation	<ul style="list-style-type: none"> To engage stakeholders on our proposals for system operation, balancing markets and data.
Power Responsive Round Table	10 April 2019	19 individuals, 18 organisations	Data and transparency, balancing markets and system operation	<ul style="list-style-type: none"> To seek stakeholder views on our ambition for each topic and proposed activities for the development of our July business plan.
RIIO-2 workshop	11 April 2019	37 individuals, 28 organisations, 2 unknown	All RIIO-2 ambition and proposed activities	<ul style="list-style-type: none"> To seek stakeholder views on our ambition and proposed activities for the development of our July business plan.
ADE Demand Side Response (DSR) working group round table	23 April 2019	8 individuals, 7 organisations	System operation, capacity market, whole electricity system and data and transparency	<ul style="list-style-type: none"> To engage the working group on our ambition and proposed activities.

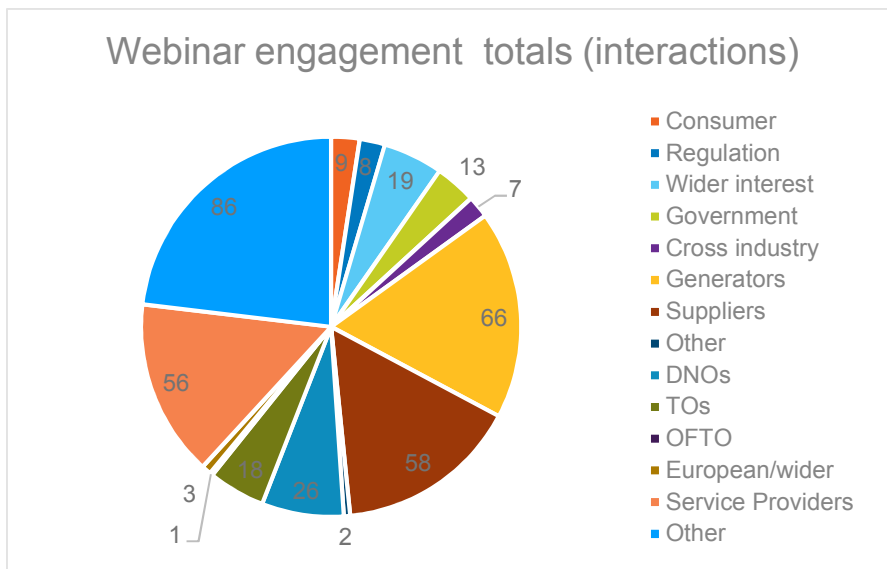
CBA workshop	25 April 2019	8 individuals, 8 organisations	Cost benefit analysis	<ul style="list-style-type: none"> To engage stakeholders on our proposed methodology for undertaking cost-benefit analysis
OC2 Forum	1 May 2019	42 individuals, 26 organisations	System access planning, connections and codes	<ul style="list-style-type: none"> To engage stakeholders on our ambition, system access planning, connections and codes.
Flexible Generation Group	3 May 2019	8 individuals, 6 organisations	System operation, balancing markets, data	<ul style="list-style-type: none"> To seek stakeholder views on our ambition for each topic and proposed activities for the development of our July business plan.
Power Responsive Steering Group	3 May 2019	20 individuals, 19 organisations	Codes	<ul style="list-style-type: none"> To seek views on our codes proposals.
BSC Panel	9 May 2019	15 individuals	System operation and balancing markets	<ul style="list-style-type: none"> To seek stakeholder views on our ambition for each topic and proposed activities for the development of our July business plan.
RIIO-2 webinar	21 May 2019	5 individuals, 5 organisations	Innovation, IT strategy, data and system operation	<ul style="list-style-type: none"> To provide and update and seek views on our further developed proposals.
Onshore competition stakeholder webinar	22 May 2019	11 individuals, 11 organisations	Onshore competition	<ul style="list-style-type: none"> To seek further and more expert views on onshore competition models and the ESO's role in the process.

Stakeholder engagement numbers by segment

We have met with over 360 individuals, from over 180 organisations, through over 600 interactions. Generators, service providers and suppliers were the groups most commonly represented. It is worth noting that in the figures below many stakeholders have been assumed to be representing more than one stakeholder segment. For example, one person may be classed as both a generator and a supplier, which will appear to inflate the numbers for these groups. The “other” category includes non-domestic consumers, consultants, charities and technology suppliers.



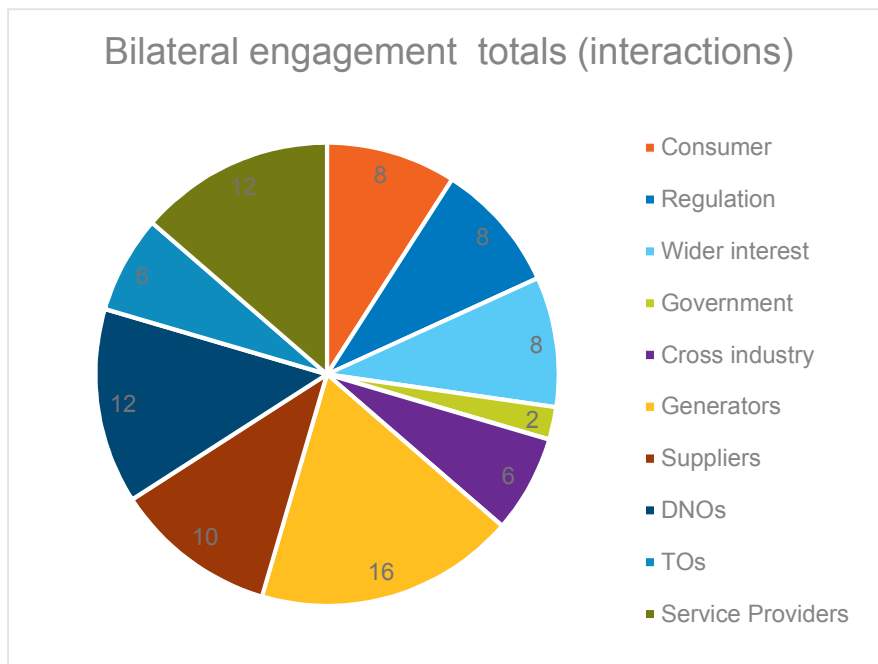
Webinars: We saw over 360 interactions through our webinars with similar representation from stakeholder segments as our overall engagement. The main difference is that we saw a higher proportion from the “other” category, demonstrating that this channel is valued by parties less directly connected to the future development of the energy industry such as consultants or construction firms.



Workshops: We saw over 270 interactions at our stakeholder workshops. Service providers were the most represented group at our workshops followed by generators and “other”. Our workshops also saw a higher proportion of stakeholders from “cross-industry” bodies such as industry associations and “wider interest” including academics.



Bilateral meetings: We have had an open offer to arrange bilateral discussions on our RII0-2 priorities, vision and proposals with interested parties and have held over 80 bilateral meetings through 2018 and 2019. Our bilateral engagement shows a more even distribution across our stakeholder segments than other engagement channels with consumer bodies, and wider interest parties well represented.



5 How stakeholder feedback has shaped our plan

We have recorded here a summary of all our stakeholder engagement, and how we have looked to use stakeholder feedback to inform and shape our plan. We have structured these tables by discussion area (e.g. regulatory mechanisms) or by role and then by the sub-topics that sit in the main body of our plan. As we set out, our engagement has evolved throughout the business plan development process, so we show here what engagement we have done as the process develops.

5.1 Regulatory Framework

Phase 1 Broad thinking

Channel	Aim of Event	Feedback we received	How this has shaped our plan
Ofgem framework consultation responses 02 May 2018 11 Responses	<ul style="list-style-type: none"> Ofgem to seek views on their proposed RIIO-2 framework We used this to understand stakeholders' views at that point. 	<ul style="list-style-type: none"> Stakeholders are generally supportive of the ESO having a separate price control to the TO. It was recognised that a Regulatory Asset Value (RAV)-based model would not be appropriate given the nature of the ESO business, and with a small asset base alternative remuneration models needed to be considered. One stakeholder suggested a model based on remuneration of reasonable costs with a profit margin, and another cautioned against the ex-post model used for the Data Communications Company (DCC). Some stakeholders agreed that the funding model should be supplemented with appropriate incentives. 	<ul style="list-style-type: none"> We took this feedback into account as we explored and assessed different potential funding model for the ESO.

Phase 2 developing our ambition and activities

Channel	Aim of Event	Feedback we received	How this is shaping our plan
<p>ESO RIIO-2 workshop 22 June 2018</p> <p>43 attendees</p>	<ul style="list-style-type: none"> To develop a set of principles for a successful ESO regulatory framework. 	<ul style="list-style-type: none"> An industry trade body pointed out the importance of avoiding windfall profits. 	<ul style="list-style-type: none"> We added the principle that the framework should ‘prevent windfall gains and losses that are not justified by underlying performance’
		<ul style="list-style-type: none"> A consumer body suggested that transparency would be important to include in the principles. 	<ul style="list-style-type: none"> We added the principle that the framework ‘is sufficiently simple and transparent for the ESO, Ofgem and industry stakeholders to understand.’
		<ul style="list-style-type: none"> In our stakeholder workshop, an additional principle was suggested around delivering carbon and cost reductions. 	<ul style="list-style-type: none"> We did not include an additional principle. We considered that carbon reduction is included in the fourth principle. Additionally, the first principle of encouraging the ESO to deliver value, covers cost reduction as well as recognising the potential for necessary short-term cost increases, to drive longer term savings, and the importance of meeting customer and consumer needs.
	<ul style="list-style-type: none"> To provide an overview and gain feedback on five possible funding models for the ESO: RAV, margin, layered, 	<ul style="list-style-type: none"> Some stakeholders suggested looking elsewhere for examples of models: National Air Traffic Services for an example of a performance model; Independent System Operators (ISOs), such as those in the USA. 	<ul style="list-style-type: none"> We looked at the funding models for these suggested organisations to identify where we could pull out appropriate features. We also met Gatwick Airport to understand this further.

How stakeholder feedback has shaped our plan

Channel	Aim of Event	Feedback we received	How this is shaping our plan
	performance, commitments.	<ul style="list-style-type: none"> Stakeholders pointed that the activities the ESO undertakes, and the risks we hold, must inform the ESO's final funding model. 	<ul style="list-style-type: none"> We agreed with stakeholders that the activities the ESO undertakes and the risks we hold must inform the ESO's final funding model. We planned engagement with them over the following months, to understand the outcomes stakeholders wanted from us to identify how to deliver these. We built this into our development of proposals for a funding model. We also undertook to provide a clearer explanation of the risks the ESO holds, given feedback that many stakeholders do not understand this.
<p>ESO RIIO-2 webinar 28 February 2018 49 Attendees</p>	<ul style="list-style-type: none"> To provide an overview of the information we presented at the event, on our principles and potential funding models 	<ul style="list-style-type: none"> There was very little, or no qualitative or poll support, for the RAV and margin models, or the ESO/customer contract approach in the commitments model. 	<ul style="list-style-type: none"> In the workshop, we had originally proposed the commitments model as one of the models we would continue to develop. We continued to focus on understanding the outcomes that stakeholders wanted, and developed a strong focus on outcomes in the funding model. We did not pursue the commitments model any further due to concerns around the ESO/customer contract approach.

How stakeholder feedback has shaped our plan

Channel	Aim of Event	Feedback we received	How this is shaping our plan
<i>ESO RIIO-2 Thought Piece</i> 15 October 2018	<ul style="list-style-type: none"> To provide an overview of a suitable regulatory framework for the ESO, and seek feedback on our thinking around incentives, financeability, risks and options for a funding model 	<ul style="list-style-type: none"> Stakeholders generally supported the layered model and its principles. 	<ul style="list-style-type: none"> We continued to develop our view that a two-year price control is not ideal for the ESO, which is a message we heard from multiple stakeholders, both in response to our <i>Thought Piece</i> and in bilateral meetings. On the funding model, we took into account the messages in responses to the <i>Thought Piece</i> that the ESO's framework should enable us to deliver on decarbonisation, provide value to consumers and be transparent. We also heard in responses to the <i>Thought Piece</i> that incentives need to be complementary to the funding model and work to drive additional behaviours. This has influenced our position that the funding model and incentives need to be designed in parallel to ensure they each incentivise different behaviours
Podcast 16 October 2018 200 plays		<ul style="list-style-type: none"> Stakeholders agreed with the pros and cons of each potential funding model. 	
Webinar 17 October 2018 28 Attendees		<ul style="list-style-type: none"> Stakeholders had views on whether asymmetric incentives would be appropriate for the ESO. 	

Phase 3 testing our ambition and activities

Channel	Aim of Events	Feedback we received	How this is shaping our plan
Various	<ul style="list-style-type: none"> To engage with stakeholders on the 	<ul style="list-style-type: none"> Some stakeholders believe a pass-through funding model would not work, as it would not 	<ul style="list-style-type: none"> We took this feedback into account in our response to Ofgem's Sector

How stakeholder feedback has shaped our plan

Channel	Aim of Events	Feedback we received	How this is shaping our plan
Bilateral meetings December 2019 - March 2019	ongoing development of our proposals for a funding model.	<p>mimic a competitive environment, or give the ESO incentive to focus on the priorities for industry. They also believed it would not provide incentive for the ESO to be more efficient.</p> <ul style="list-style-type: none"> • A smaller number could see the benefits of a pass-through approach. • Stakeholders believe if the ESO is best placed to do something and hold the risk, the ESO should have a funding model that remunerates us for that. <hr/> <ul style="list-style-type: none"> • Most stakeholders were supportive of a layered funding model. <hr/> <ul style="list-style-type: none"> • Stakeholders had mixed views on introducing a cost disallowance – a few were supportive, with one saying it should only be used in extreme circumstances where other stakeholders disagreed with the proposal. • All agreed that an uncapped, unknown disallowance poses too much risk to the ESO. <hr/> <ul style="list-style-type: none"> • One stakeholder thought the sharing factor incentivised the ESO not to spend in order to get the efficiency incentive benefits, whereas others thought removing it wouldn't create additional consumer benefits. • They acknowledged if it was removed there would need to be some way to drive efficiency. 	<p>Specific Methodology consultation on 14 March 2019.</p> <ul style="list-style-type: none"> • We proposed: <ul style="list-style-type: none"> • A layered model approach to enable transparency and tailored remuneration to each of the ESO's varied activities. • A model that we believed would achieve stakeholders' expectations of us to be more agile and ambitious, while remaining efficient – this included a flexibility mechanism to enable us to respond to rapid changes in the energy landscape, and the retention of a sharing factor to encourage efficiency. • A softer sharing factor on underperformance to avoid the risk of spending less to receive additional benefits. • Two-yearly proportionate reviews within a longer price control, to provide a balance between flexibility and certainty.

How stakeholder feedback has shaped our plan

Channel	Aim of Events	Feedback we received	How this is shaping our plan
		<ul style="list-style-type: none">• Stakeholders strongly supported the ESO having strong incentives, although there were mixed views on how they should be applied.• Some stakeholders would like to see asymmetrical incentives where others thought positively skewed incentives would drive better behaviours.• Many stakeholders thought consumer benefit should be at the heart of incentives. <hr/> <ul style="list-style-type: none">• Stakeholders have consistently said they want us to be agile, ambitious, innovative and strongly incentivised.	<ul style="list-style-type: none">• Improvements to strengthen the incentive scheme, in order to more effectively drive the ESO deliver additional benefits for consumers.

5.2 The Changing Energy Landscape: Scenarios

We have talked to stakeholders about the changing energy landscape at the following events:

Phase 1 Broad thinking

Channel	Feedback we received	How this is shaping our plan
<i>FES</i> conference and workshops during 2017	<ul style="list-style-type: none"> Scenarios needed to better reflect the changing energy landscape and rate of change. This included elements of specific topics such as: heat, transport, power demand and flexibility, gas supply and electricity supply. 	<ul style="list-style-type: none"> For 2018, the four scenarios were updated on new axes to include, two levels of decentralisation and two levels of decarbonisation. Updates were made to modelling processes to ensure it captured some of the changes identified under specific topics. All this means that the scenarios we are using to base the business plan on, are robust and endorsed by stakeholders. More information can be found here.¹⁰

¹⁰ <http://fes.nationalgrid.com/media/1346/future-energy-scenarios-2018-stakeholder-feedback-document-published-feb-2018.pdf>

Phase 2 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
<p>ESO RIIO-2 workshop 22 June 2018</p>	<ul style="list-style-type: none"> • Stakeholders did not see the creation of a single ‘best-view’ of the future energy landscape as credible, due to the level of change and uncertainty facing the industry. • Most stakeholders agreed that we should seek to understand the commonalities across the four <i>FES</i> 2018 scenarios and asked that we provide more detail on these as we develop our thinking. 	<ul style="list-style-type: none"> • We would continue to use <i>FES</i> 2018 as the foundation of our plan. We carried out more detailed analysis of the areas of change/ uncertainty when <i>FES</i> 2018 had been published and more information was available. • We created a commonality ‘scorecard’ and a process in which it will be used.
	<ul style="list-style-type: none"> • We should focus further analysis on the possible technical and policy changes, that could significantly affect industry processes or consumer value 	<ul style="list-style-type: none"> • We reduced and consolidated some of the technology topics e.g. specific generation technologies into broad categories e.g. renewable technologies. We balanced the lists between the technology and policy, and market categories
	<ul style="list-style-type: none"> • In terms of the challenges and uncertainties, stakeholders felt the area of digitisation and big data needed to be considered further and asked for more of a balance between the technical changes, the policy and market changes, with some saying our original list was “too technocratic”. • Top areas of change and uncertainty highlighted by stakeholders: <ul style="list-style-type: none"> • Digitisation of the energy system • Electrification and decarbonisation of transport 	<ul style="list-style-type: none"> • We refined our areas of change/ uncertainty to specifically include digitisation, and will incorporate this into our work on IT as part of our business plan development.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> • Change in Government energy policy • Local generation and storage 	
<p>ESO RIIO-2 webinar 28 June 2018</p>	<ul style="list-style-type: none"> • Stakeholders broadly supported using <i>FES</i> and didn't have any alternative suggestions • There are a few key changes stakeholders believe we need to be wary of when basing our future business plan on scenarios. • There is also a broad range of other changes that could impact the landscape. The top three being: <ul style="list-style-type: none"> • Increasing renewable generation capacity • Increased decarbonisation of transport • Increased digitisation across the energy sector 	<ul style="list-style-type: none"> • As above
<p>ESO RIIO-2 webinar 28 August 2018</p>	<ul style="list-style-type: none"> • Over a two-thirds of stakeholders agreed or somewhat agreed the process created for using the scorecard and the scorecard itself was a good approach to establishing the commonalities between scenarios per activity. 	<ul style="list-style-type: none"> • The process was further developed and refined to test with stakeholders at a future event with working examples.
<p>Establishment of 'consistent view of the future' networks working group.</p>	<ul style="list-style-type: none"> • Ofgem and the RIIO-2 Challenge Group, requested that all the network companies should agree a set of common factors and assumptions for developing their core view of the future for the next price control period. 	<ul style="list-style-type: none"> • The consistent view is based on <i>FES</i> 2018, again this supports our plan to use this as the basis of our business plan analysis (see above).

Channel	Feedback we received	How this is shaping our plan
		<ul style="list-style-type: none"> • We have received additional scrutiny from Ofgem’s RIIO-2 Challenge Group, which has provided guidance, for example around central assumptions and ensuring whole energy system thinking is fully embedded within the business plan. • We will continue to build on this, with our expectation that this work is referenced in our July business plan and fully incorporated in October and December business plans

Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
<p><i>FES</i> workshops October 2018</p>	<ul style="list-style-type: none"> • Scenarios process: Stakeholders were broadly supportive of the proposed approach, however some stakeholders challenged if three levels of uncertainty were required. • It was suggested that the eight-step process should start with “outcomes” rather than activities. The options we develop, and subsequent activities, will be developed around meeting out 2030 ambition. • Some stakeholders were concerned that the ESO could categorise much of the uncertainty as level 2 due to its place as a middle ground. 	<ul style="list-style-type: none"> • We will continue with the proposed approach whilst ensuring each step of the process is sufficiently documented. • We confirmed that level 2 should be used for genuine binary choices as indicated by <i>FES</i> or, for example, where a policy decision may reasonably go one of a few ways.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> There were discussions around regionalisation of the key drivers. This will be picked up by our regional stakeholder engagement plan. 	
	<ul style="list-style-type: none"> Uncertainty mechanisms: Stakeholders felt that a shorter price control can help manage uncertainty, but had concerns this could lead to price signals changing too often, which could hinder investment decisions. Incremental smaller changes on a regular basis are better than making big changes on a less regular basis. Stakeholders questioned how we would deal with big uncertainties. A specific example on renationalisation was given. There was a lack of support for mechanistic trigger points (e.g. on the number of EVs or installed wind capacity). There were suggestions to structure the business plan for different timeframes e.g. short, medium and long term for different investment types. There was varied feedback as to what trigger points should look like, and how to ultimately manage uncertainty, with several stakeholders questioning how a more mechanistic approach would work for the ESO. 	<ul style="list-style-type: none"> We will continue to develop our thinking on managing uncertainty through our regulatory frameworks work stream. We explained the commonality scorecard is designed to ensure the ESO is proactive in looking at specific regulatory and/or policy decisions that may arise. On renationalisation, we stated that we would be proceeding in the manner set out in Ofgem's Framework Decision document. We confirmed that this was being picked up by the regulatory mechanism work.

5.3 Theme 1: Ensure reliable, secure system operation to deliver electricity when consumers need it

A summary of the key themes from our engagement activity:

- Stakeholders asked for clarity on our 2025 carbon-free ambition. Some asked if the ESO would be forcing the system to be carbon-free, while others wondered if it meant operating a no-transmission or no-synchronous generation system
- Some stakeholders said they would like to see a roadmap out to 2025 to understand how key milestones would be delivered.
- Although many stakeholders were supportive of the proposal to develop new balancing and control capabilities, due to the challenges the operating environment brings to the system, some had concerns over the scale and deliverability of big IT projects.
- Most stakeholder were in favour of us setting up a design group as we look to develop a 'digital twin' for our control room infrastructure. Stakeholders want us to be transparent with how the system is created and how decisions are made.

Phase 1 Broad thinking

Channel	Feedback we received	How this is shaping our plan
Customer and market provider feedback	<ul style="list-style-type: none"> • We heard that we need to deliver more effective systems, to be able to adapt more quickly and to have a more proactive role in supporting the markets to deliver what we need from a system operation perspective. 	<ul style="list-style-type: none"> • We have used this feedback to propose a set of activities that will provide the control and dispatch capability required by us and our stakeholders. • We have proposed to deliver new capability in a more agile way with stakeholders at the heart of the design and testing processes.

Phase 2 developing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
ESO 2030 ambition workshop, 28 September 2018	We talked to stakeholders at workshops about our system operation role. The key themes	<p>In response to each of the key themes:</p> <ul style="list-style-type: none"> • We have proposed to provide clarity in the ESO and DSO roles as part of our RIIO-2

Channel	Feedback we received	How this is shaping our plan
RIIO-2 stakeholder workshop, 17 December 2018	<p>consistent across all round table discussions from these events were:</p> <ul style="list-style-type: none"> • We need to be clear on the respective roles and responsibilities between the ESO and DSOs. • Stakeholders, particularly service providers, want more transparency around the decisions that are made in the control room to understand the value of services to us. • We need to get better at delivering large IT programmes and be clear on the risks / delays to projects. • If the ESO is going to promote long term solutions to operability challenges, then we need to look at long term contracts. • A different control architecture is required as we move to a digital platform where the world is connected more peer to peer with parties contracting with a central organisation, with a distribution network or with each other. 	<p>activities, and we will need to make sure that consistent arrangements develop across transmission and distribution that allow services providers to appropriately stack revenue streams.</p> <ul style="list-style-type: none"> • As part of our smart data and transparency activities, we are proposing to develop a data portal which will provide the platform to share operational decisions and outcomes. • We know that we must build our capability around delivery of IT projects and the trust of stakeholders in this respect – this has been built into our IT strategy. Our proposal to use a cross-industry design authority to develop new system operation capability also looks to address this concern from stakeholders on IT delivery. • We will continue to assess the role of longer-term contracts within our balancing services markets. • We propose to refresh our system operation capabilities as part of our RIIO-2 activities.

Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
Our zero-carbon ambition		
<p>Operational forum, trade association round tables, bilateral meetings and flexible generator group.</p> <p>Across March, April and May 2019</p>	<ul style="list-style-type: none"> • We presented our ambition to ‘transform the operation of the electricity system so that, by 2025, it can operate carbon free’ at several forums and groups. • The ambition has been very positively received by most of the stakeholders. As a next step, people want to understand the cost of and the milestones to, achieving the ambition to understand if it is achievable. • More widely stakeholders asked us to clarify what the ambition means and whether we intended to drive zero carbon market solutions. We have been asked for this clarification across several engagement forums particularly by service providers and generator companies. • A few stakeholders at the operational forum, at our RIIO-2 event in April and at the OC2 Forum, thought it may be too ambitious and that we shouldn’t underplay the challenges around operating a zero-carbon network e.g. inertia. 	<ul style="list-style-type: none"> • Further detail around how we will meet our ambition will be developed as we build our business plan and through further stakeholder engagement. • We have clarified what we mean by the ambition within this plan and that this is ability to run a carbon-free system if that’s what the market provides.
Transforming our balancing and control capabilities for a zero-carbon system		
<p>ESO operational forum, 26 March 2019</p>	<p>We presented our ambition and hosted a lunchtime stand to discuss our proposed activities:</p>	<ul style="list-style-type: none"> • We need to think further about how the cross-industry design authority will work in practice and how we involve stakeholders to assess

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> We discussed our proposal to upgrade control capability and the options to achieve it with two service providers, a consultancy and a generator company. All but the generator company were supportive of the offline build option. The generator company was concerned that a cross-design group could become a 'talking shop'. 	<p>the impact of system development to their businesses.</p>
<p>RIIO-2 stakeholder event, 11 April 2019</p>	<p>At our round table event, we talked through the proposals set out in our ambition document and heard:</p> <ul style="list-style-type: none"> Stakeholders want us to avoid 'big bang' IT projects because they always fail in the energy (and other) sectors and were supportive of a more modular / agile build approach to new control capability. They agreed with the concept of the cross-industry design authority to involve end users in defining capability requirements although emphasised that all market participants will be able to get involved – it needs to be representative. The National Infrastructure Commission is proposing a 'digital twin' and the ESO could get involved with that. 	<ul style="list-style-type: none"> We agree that further 'big bang' IT projects are to be avoided and that is why we propose to undertake modular development of systems in a more agile delivery approach. We will engage further with stakeholders as to how we can most effectively set up the design authority and make it representative. We will see how we could get involved with this initiative.
<p>Power Responsive and ADE round tables, April 2019</p>	<p>We had the opportunity to speak to stakeholders in more detail about our system operation proposals at Power Responsive and ADE round tables.</p>	<ul style="list-style-type: none"> We have developed a high-level roadmap for replacing our control and balancing capability in this plan, but we will test and develop this further with stakeholders to ensure that it is

Channel	Feedback we received	How this is shaping our plan
	<p>The key themes from these engagement activities were:</p> <ul style="list-style-type: none"> • Stakeholders want to see a roadmap of the key milestones to achieve the ambition / activities and want to know that these will be fixed (with consequences for non-delivery). • The agile development approach used recently by the ESO for the PAS system worked well. • We need to benchmark across other sectors and other countries. • In terms of our resourcing proposal, it was generally agreed a mix of power system and computer science knowledge is needed for control engineers, but with increasing focus on the latter. We need to look at what other sectors are doing to plug data skills gaps. • We had recommendations from stakeholders as to who we should engage with further for our system operation proposals. 	<p>achievable before submitting our final plan in December. We will also start to discuss how to measure our performance.</p> <ul style="list-style-type: none"> • We will be adopting an agile development approach for new system capability and this will be modular in nature. • We will undertake benchmarking activity and further stakeholder engagement in line with stakeholder suggestions.
IS change forum, 30 April 2019	<p>We hosted a stand at the forum to talk about our IT strategy and system operation proposals:</p> <ul style="list-style-type: none"> • Stakeholders were supportive of our proposal to replace control capability. 	<ul style="list-style-type: none"> • This echoes what we heard at previous engagement sessions. • We will continue to take the proposal forward. • We have taken note of these expressions of interest but would undertake a more formal

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> All those we spoke to supported and were enthused by our design authority proposal for capability development and implementation, some remarking that recent PAS system development had been positive. We received expressions of interest to be part of the cross-industry design authority from two market participants. We identified two further opportunities for engagement; one on adoption of AI, the other was the idea of an IT hackathon that should include energy and non-energy industries. 	<ul style="list-style-type: none"> process, to determine design authority representation. We will engage further on IT development as suggested by stakeholders.
Flexible Generation Group, 3 May 2019	<ul style="list-style-type: none"> There was general agreement that control capability requires upgrading, but stakeholders said that we needed to learn from previous projects, and ensure transparency around progress along with prioritised and agile delivery. We need to make it clear what systems market participants will need to interface with and don't change requirements once they have been set (so that market participants don't waste money). We also need to learn the lessons from EBS. The group wanted to see a roadmap of deliverables. 	<ul style="list-style-type: none"> Our proposal to use a cross-industry design authority intends to address this concern. It is absolutely our intention to make system interface requirements transparent to the industry and that our cross-industry design authority approach should deliver that. We have provided a roadmap within this plan and we will develop this further with stakeholders.

Channel	Feedback we received	How this is shaping our plan
RIIO-2 ambition consultation, April 2019 – 11 responses received	<p>A summary of the views we received:</p> <ul style="list-style-type: none"> • More information is required on the activities that we are proposing for stakeholders to assess whether we can meet our ambition. • There appears to be some overlap between our forward plan and RIIO-2 proposals e.g. the introduction of real-time inertia monitoring. • For the new tools that we are proposing to implement, it must be clear (through trials and impact assessments) that they will add benefit e.g. AI reduces balancing costs. • As we had heard in our face to face engagement, respondents want to see a roadmap or programme of deliverables that will meet the 2025 zero-carbon ambition. 	<ul style="list-style-type: none"> • This business plan intends to provide further detail on how we intend to meet the ambitions we have set, and we will engage stakeholders on this detail further so that we can refine proposals for our final plan in December. • We have tried to clarify in this plan exactly what will be delivered and in what timescales. • We have provided information in this plan around the benefit of our proposals, but we want to discuss this further with stakeholders to ensure that we are explaining the rationale of our proposals sufficiently clearly. • We set out a roadmap and more detail in this plan for how we intend to meet our ambition.
Enhancing our resourcing, talent acquisition, training and simulation capability¹¹		
RIIO-2 stakeholder event, 11 April 2019	<p>We asked stakeholders at our round table event about our resourcing proposals, particularly our proposals on training control engineers:</p> <ul style="list-style-type: none"> • It was generally agreed that our control engineers of the future require a mix of power system and computer science 	<ul style="list-style-type: none"> • We think we need to engage with stakeholders more specifically on the proposals on resourcing, particularly once stakeholders have seen the cost and benefit information within this plan. • We will undertake some research in this area in parallel with wider benchmarking activity.

¹¹ Resourcing, talent and training are covered in chapter 13 People and capability in the main business plan document.

Channel	Feedback we received	How this is shaping our plan
	<p>knowledge, but with increasing focus on the latter.</p> <ul style="list-style-type: none"> • We need to look at what other sectors are doing to plug data skills gaps. • One stakeholder expressed that we don't necessarily need control engineers to have market knowledge and that it's not the ESO's job to solve market wide recruitment issues. • Stakeholders questioned whether universities were running programmes already e.g. Strathclyde and Bath. 	<ul style="list-style-type: none"> • We will engage further on this proposal to determine what skill sets. • We already have links with the mentioned universities, and we intend to engage further with these and other institutions on possible future partnerships.
RIIO-2 ambition consultation, April 2019 - 11 responses received	<p>We had two comments on our resourcing proposals:</p> <ul style="list-style-type: none"> • Ensuring that people as well as systems are 'upgraded' for the new world is vital and often missed. • There appears to be little mention of talent retention within our resourcing proposals. 	<ul style="list-style-type: none"> • We will continue to develop our proposals and agree that having the right people with the right capability will be key to our future success as system operator. • We agree that retention is an essential element of a resourcing strategy and we will look to develop our proposals further in this area.
Restoration		
RIIO-2 stakeholder event, 11 April 2019	<p>Here is a summary of the round table discussions on restoration:</p> <ul style="list-style-type: none"> • We heard support for our proposals particularly from service providers. • Mixed views on what role different technologies (renewables) and demand 	<ul style="list-style-type: none"> • We will engage stakeholders further on cost and benefit information following submission of our July plan. • We will continue to develop restoration services and reduce barriers to entry.

Channel	Feedback we received	How this is shaping our plan
	<p>side can actually play in providing restoration services.</p> <ul style="list-style-type: none"> The ESO should do more to bring creativity to Black Start solutions and bring down the cost. 	
<p>RIIO-2 ambition consultation, April 2019 - 11 responses received</p>	<p>A summary of views from respondents are as follows:</p> <ul style="list-style-type: none"> Stakeholders support using learnings from innovation projects, taking these into BAU and extended into future scenarios such as cold and stationary Black Starts. A renewable developer and generator commented that there was a lot of mention of DER participation in restoration, but that large-scale transmission connected renewables could offer service provision. To encourage participation, the ESO should provide a view of requirement early on in the build process. 	<ul style="list-style-type: none"> Our restoration proposals look to take the output from the Black Start NIC project and implement the findings. While Black Start provision from DER is the focus of the NIC innovation project, we will continue to develop restoration markets to reduce barriers to entry for all market participants.

5.4 Theme 2: Transforming participation in smart and sustainable markets

A summary of the key themes from our engagement activity:

- Stakeholders have told us that having a single, integrated portal for ESO markets will transform the experience and significantly improve the efficiency of market participation for service providers.
- The sandbox environment was welcomed by stakeholders who are sometimes frustrated by our ability to move quickly enough in response to changing market conditions.
- A minority of stakeholders questioned our role in reforming wholesale and balancing markets, suggesting BEIS or Ofgem were better placed to lead this activity. They were more comfortable with when it is framed in the context of reducing the role of the residual balancer by facilitating more efficient markets.
- Stakeholders have consistently told us codes are not fit for purpose and would welcome significant improvement in this area, but would like us to be mindful of the ongoing review by BEIS and Ofgem.

5.4.1 Transforming Participation in Balancing and Capacity Markets

Phase 1 Broad thinking

Channel	Feedback we received	How this is shaping our plan
Ancillary services customer journey - We conducted deep dive provider experience sessions with a representative sample of small, medium and large service providers in June and July 2018.	<ul style="list-style-type: none"> • Newer providers struggle with workload and capacity as they often work extremely hard to secure funds, a contract etc. leaving them little time to build and set up. • Information doesn't always flow between teams and manual data entry is common. • The ESO needs to be able to move at pace to respond to the changing market • There is a thirst for transparency. Providers want to understand the decision-making processes behind the 	<ul style="list-style-type: none"> • Key focus areas for our proposed activities include: <ul style="list-style-type: none"> • transforming the service provider experience to make it easier to offer services to the ESO • enhance transparency of both our processes and data • and to adopt tools and approaches that will allow us to respond to market change in a more agile manner. • In particular, our market portal proposal was developed explicitly to address the pain points

	scenes, for example, across payments and dispatch.	identified by service providers in terms of the level of effort required to participate in our markets and to enhance overall transparency of the process and our decision making.
System Needs and Product Strategy (SNAPS) consultation in July 2017 – over 100 responses from a wide range of stakeholders	<ul style="list-style-type: none"> • Standardisation is the way forward for future products. Standardised products may lead to secondary trading and to more efficient stacking of services. • A mix of short-term markets and long-term contracts is the preferred option. • Potential to trial alternative procurement approaches such as auctions was well received. 	<ul style="list-style-type: none"> • We are building the need for standardised products, the ability to use short and long-term contracts as well as test new approaches into our proposals. • Our 'Day Ahead' auction for response and reserve and sandbox approach will enable us to respond to this feedback.

Phase 2 developing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
ESO 2030 ambition workshop, 28 September 2018 RIIO-2 stakeholder workshop, 17 December 2018	<ul style="list-style-type: none"> • Balancing services markets should be shorter-term, technology neutral and operating closer to real-time, at least in day ahead timescales, greater insight is required in to the future needs for these markets. • Transparency was identified as the key principle both to stimulate markets and provide foresight in to future ancillary services requirements. • Participants need better information on market structure and liquidity to decide which markets they should be investing in. 	<ul style="list-style-type: none"> • Our proposal to move to Day Ahead auction for response and reserve products aims to directly address this point, moving procurement closer to real time. • Our market platform proposes to give access to both historical and forecast data to support investment cases and decision-making.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> Market arrangements need to be flexible and delivery of change should be agile. 	<ul style="list-style-type: none"> Our sandbox proposal will address stakeholder calls for us to respond more quickly to the changing market, allowing us to trial new services in an agile manner.
	<ul style="list-style-type: none"> Whilst change should be delivered incrementally, it is important to set out a clear strategic direction of intent. 	<ul style="list-style-type: none"> <i>Our RIIO-2 Ambition</i> document was designed to provide a clear strategic direction of intent.
	<ul style="list-style-type: none"> The ESO was considered well placed to take a leading role in defining future markets. 	<ul style="list-style-type: none"> We have proposed an activity to review wholesale and balancing markets.
<p>Power Responsive Steering Group –January, April and October 2018</p> <p>This group consists of balancing services providers, including aggregators as well as networks, and wider interest groups.</p>	<ul style="list-style-type: none"> Demand Side Flexibility (DSF) providers need to see a ‘whole pot’ of opportunity. Customers want to know which DSF services are stackable to access multiple revenue streams. This can be beneficial when prices are less certain or reducing due to increased liquidity or to wider industry changes. 	<ul style="list-style-type: none"> In our proposal for the market portal we have included the ability for providers to register an asset and see what ESO services the asset can qualify for across our markets.
<p>Power Responsive Steering Group notes can be found here</p>	<ul style="list-style-type: none"> DSF providers need to understand when future balancing problems may arise for the system and what problem needs solving by when. 	<ul style="list-style-type: none"> Our proposed data platform, integrated with the market portal, will provide information on current and future balancing issues.
	<ul style="list-style-type: none"> Steering Group members suggested that including information on longer term requirements and price trends, would help demand side providers to understand their cost-benefit proposition and returns on investment. 	
	<ul style="list-style-type: none"> Most mature markets (e.g. frequency) are solving national issues. But some system 	<ul style="list-style-type: none"> In <i>Our RIIO-2 Ambition</i> document, we have committed to working collaboratively

Channel	Feedback we received	How this is shaping our plan
	<p>operability issues are becoming more regional. So, it is important to understand the interplay between ESO and DNOs.</p> <ul style="list-style-type: none"> Conflict between transmission and distribution requirements can create a confusing landscape to the demand side provider, and limit a provider's ability to move between markets, particularly if different markets/services don't align. Regular auctions – there was a general preference for market-based mechanisms to facilitate competitive prices and regular procurement exercises to build a track record. 	<p>with the Distribution Network Operators (DNOs), sharing necessary data and accelerate development of markets at distribution level.</p> <ul style="list-style-type: none"> We will design our systems to integrate this data into our electricity control room processes, and the cost signals that these markets provide will allow the ESO to take a whole system view when making decisions. A key pillar of our proposed approach to market development is the Day Ahead auction for response and reserve, providing a stable market with regular and predictable procurement timescales.
Bilateral meetings and BAU engagement with market participants	<ul style="list-style-type: none"> Many of our stakeholders participate in both the balancing services markets and the capacity market. From analysis of their feedback on the separate markets, we recognised that they experienced similar pain points with both, and that there is significant duplication of effort in managing their participation in both markets. 	<ul style="list-style-type: none"> We therefore moved away from our original proposal of a new platform for balancing alongside an improved capacity market portal, and instead we will deliver a single integrated platform, to participate in balancing service markets and the capacity market. This approach has the added advantage that it will be simpler to build and maintain than two separate systems.

Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
<p>We tested the proposals in <i>Our RIIO-2 Ambition</i> document with in-depth discussion at two interactive forums in April 2019:</p> <ol style="list-style-type: none"> 1. Power Responsive Steering Group round table, attended by 19 stakeholders 2. ESO RIIO-2 stakeholder workshop attended by 30 organisations including wider interest representatives, aggregators, generators, suppliers, networks and academics. 	<p>Overall comments</p> <ul style="list-style-type: none"> • Our ambitions in this area were widely welcomed. However, we were cautioned not to try to be all things to all people. • We were asked to provide more clarity on when activities would be delivered. What are the key milestones to be achieved at what point? • There was some confusion about how the proposed activities relate to ongoing activities such as our System Needs and Product Strategy (SNAPS) work and the Platform for Ancillary Services (PAS). 	<ul style="list-style-type: none"> • We have sought to clarify this point specifically to the activities below. • We have provided an initial view in our business plan. • In our business plan, we have sought to be much clearer on what we are delivering in the current regulatory period compared to what we are doing in RIIO-2.
<p>We also had the opportunity to test our proposals at group meetings of the ADE and Renewable UK as well as through bilateral meetings with several interested stakeholders.</p>	<p>Build the future balancing service and wholesale markets</p> <ul style="list-style-type: none"> • The proposed concept and functionality of the market platform was very well received by a wide range of stakeholders. • However, we need to provide clarity on what the platform is and is not. 	<ul style="list-style-type: none"> • In our business plan, we have made it very clear as to what markets we anticipate the platform will cover. • We have also clarified that the purpose of our platform is to make it easier for people to sell services to the ESO rather than for all flexibility services on all networks.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> The “platform” sounds like a potentially problematic large IT system. We shouldn’t be talking about one platform but rather a “federated IT architecture” (FIA); supporting semi-autonomous independent systems ESO-DSO-aggregator-supplier. Several stakeholders expressed concern about our capacity to deliver large IT projects. 	<ul style="list-style-type: none"> We emphasised that the ESO market platform will interface with other relevant systems and processes. We see the platform as part of an integrated ecosystem that includes ESO-DSO-aggregator-supplier etc. rather than a monolithic system covering all markets and networks. In our IT strategy chapter, we outline how we will transform our IT capability and delivery approach to support our proposed RIIO-2 activities.
	<ul style="list-style-type: none"> Strong support across all stakeholder segments for the move to procurement closer to real time. However, many large and small market participants highlighted need for longer term price signals. 	<ul style="list-style-type: none"> We will work with stakeholders to ensure the objectives and scope of the wholesale and balancing markets review address issues regarding longer term price signals as appropriate.
A design for the markets of the future		
	<ul style="list-style-type: none"> Based on the views provided by those we have engaged, there is a general agreement on need to reform wholesale and balancing markets with a focus on efficient price discovery. Of those expressing a view, a large majority of parties (including all the smaller market participants) were in favour of the ESO leading this activity, but a minority did not agree, and felt others should be involved or 	<ul style="list-style-type: none"> Our intention would be to work with key stakeholders to scope the project and define the desired outcome, to ensure that the project is collaborative and meeting stakeholder needs and expectations from the start. Especially noting some of the above stakeholder concerns about our role.

Channel	Feedback we received	How this is shaping our plan
	<p>that this activity was broader than our core responsibilities.</p> <ul style="list-style-type: none"> Several stakeholders also called for greater clarity on the scope and the desired outcome. <hr/> <ul style="list-style-type: none"> It was widely suggested that the review should join up with the long-term future of the capacity market, as well as other industry transformations, such as charging and access SCR, as well as code reform and decarbonisation of heat and transport. It was suggested that the review should be framed in terms of “how do you enable sharp enough signals to drive value?” 	<ul style="list-style-type: none"> In the business plan, we have provided greater clarity on the scope and desired outcome of this activity. <hr/> <ul style="list-style-type: none"> We share this view and will scope the exercise to ensure that dependencies with other strategic programmes of work are accounted for. This is reflected in our business plan.
We received 11 responses to <i>Our RIIO-2 Ambition</i> consultation	Build the future balancing service and wholesale markets	
	<ul style="list-style-type: none"> A broad range of stakeholders including industry associations, generators and suppliers, were overwhelmingly supportive of our ambition to transform access to ESO markets and associated activities, including the market platform and Day Ahead auction for response and reserve. However, there was also a call for further detail on the proposals. 	<ul style="list-style-type: none"> We have continued to develop these proposals, building on the aspects highlighted as desirable by stakeholders. We have included significantly more detail on the proposals in our July business plan.
	<ul style="list-style-type: none"> We have been asked to provide more clarity on how our work to transform balancing markets at the transmission level, is aligned with the development of flexibility markets at the distribution level. 	<ul style="list-style-type: none"> As an active member of the ENA Open Networks project, we are at the heart of emerging thinking on future markets for flexibility. Through this project, we are developing co-ordinated thinking and

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> • One stakeholder commented on the need for more detail on how the ESO market portal would be aligned with the ENA Open Networks project, and other potential market designs. • Some stakeholders proposed that the ESO should take a more proactive leadership role in operating the whole electricity system and coordinating national and local markets for flexibility. 	<p>processes, which will feed into the development of our portal.</p> <ul style="list-style-type: none"> • We recognise the need for more proactive leadership in this space and have recently indicated that we believe an approach consistent with Future Worlds 'World B' (co-ordinated procurement and dispatch) is a pragmatic least regrets way forward building on our existing ways of working. • We will be developing our RIIO-2 business plan in alignment with this ethos. • We will continue to work with a wide range of stakeholders, including DNOs, to shape our thinking as we further iterate our RIIO-2 business plan
	<ul style="list-style-type: none"> • One industry association has proposed several further activities that they believe we should be committing to in our RIIO-2 business plan. 	<ul style="list-style-type: none"> • Whilst we have no plans to include these activities in our July business plan, we will discuss the proposals with this organisation and engage a wider group of stakeholders on any proposals that we may wish to take forward.
	<ul style="list-style-type: none"> • A large generator/supplier raised the concern that sandboxes can promote niche markets, with the risk that this will not deliver the most efficient procurement from the market as a whole. 	<ul style="list-style-type: none"> • The intention of the sandbox is not to develop niche markets, but to rapidly test developments to existing markets, new markets and new products before rolling them out fully in our market environment. It will ensure that IT systems integration doesn't slow down market development.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> A number of stakeholders have expressed concern about the ESO's capability to deliver complex IT projects. There is a general concern about delays to project delivery. 	<ul style="list-style-type: none"> In our IT Strategy chapter, we outline how we will transform our IT capability and delivery approach to support our proposed RIIO-2 activities.
A design for the markets for the future		
	<ul style="list-style-type: none"> A large generator/supplier commented that they did not think there was justification for the ESO leading a review of wholesale markets, and that we should focus on well-functioning markets for system operation and balancing. A majority of stakeholders have expressed support for this activity, noting more strongly that this needs to take into account wider developments in the industry such as the capacity market review and the ongoing SCR for charging and access. 	<ul style="list-style-type: none"> Well-functioning markets for system operation and balancing are at the heart of our proposals to design the markets of the future. However, we believe that this activity cannot be conducted in isolation from other elements of the market such as a wholesale and capacity due to the interactivity of the different markets. We will therefore continue to develop this proposal in our business plan.
	<ul style="list-style-type: none"> It is important that all of the major changes in the industry (such as charging and access SCR) are coordinated to avoid unnecessary cost. 	<ul style="list-style-type: none"> We share this view and will factor it into our plan for delivery of this activity.
Build the future balancing service and wholesale markets		
<p>As part of our open invitation to have bilateral sessions, we have also we have also engaged a range of stakeholders including two wider interest groups,</p>	<ul style="list-style-type: none"> Stakeholders were broadly supportive of the move to Day Ahead auctions and encouraged us to do so as quickly as possible. 	<ul style="list-style-type: none"> In our business plan, we have proposed to deliver the Day Ahead auction for response and reserve against a timeline that we think is very aggressive.

Channel	Feedback we received	How this is shaping our plan
service providers, generators and suppliers	<ul style="list-style-type: none"> We need to be clearer about the relationship between our proposals and the ENA Open Networks project. A wider interest group and a generator also expressed thought that we should take a leading role in the DSO transition, setting the standards for DNOs or providing a platform for all markets. A wider interest group and a generator also the opinion that there should be one larger market rather than many inefficient local markets. 	<ul style="list-style-type: none"> As set out above, as an active member of the ENA Open Networks project, we are at the heart of emerging thinking on future markets for flexibility. Through this project, we are developing co-ordinated thinking and processes which will feed into the development of our portal. We recognise the need for more proactive leadership in this space and have recently indicated that we believe an approach consistent with Future Worlds 'World B' (co-ordinated procurement and dispatch) is a pragmatic least regrets way forward building on our existing ways of working. We will be developing our RIIO-2 business plan in alignment with this ethos. We will continue to work with a wide range of stakeholders, including DNOs, to shape our thinking as we further iterate our RIIO-2 business plan.
	<ul style="list-style-type: none"> We need to be a lot clearer on the relationship between our RIIO-2 proposals and our ongoing work under SNAPS and other related work such as the development of other platforms. 	<ul style="list-style-type: none"> In our Business Plan, we have articulated how our RIIO-2 proposals build on the progress made against SNAPS commitments.
	A design for the markets of the future	
	<ul style="list-style-type: none"> A number of stakeholders including a large generator and wider interest groups, expressed 	<ul style="list-style-type: none"> We are clear in our proposals that the scope of this work does not go beyond making recommendations and that we will

Channel	Feedback we received	How this is shaping our plan
	support for us to lead the discuss for reviewing markets in a holistic way but also noted the important role for BEIS and Ofgem in driving legislative change.	approach this work as an industry wide collaboration process.

5.4.2 Develop Code and Charging Arrangements that are Fit for the Future

Phase 1 Broad thinking

Channel	Feedback we received	How this is shaping our plan
Our current code administration role		
As part of our customer journey work which started in March 2017, we have engaged via bilateral meetings with stakeholders from various sectors across the industry (generators, suppliers, interconnectors, industry bodies, DNOs, interconnectors)	<p>We gained considerable insight, including:</p> <ul style="list-style-type: none"> • Current code change is tactical rather than strategic; • Code change and the process can be opaque for new entrants; • Questions on the independence of parties involved in the process; and • Lack of upfront work on code change means that motives and drivers for the change are unclear. 	<ul style="list-style-type: none"> • We have started and will continue to make changes to our current service provision. • We have ensured that our list of possible characteristics for the Code Manager role reflects this feedback and we therefore think that many of the issues identified can potentially be addressed by a Code Manager e.g. requirement for a 'critical friend' and more strategic code modification.
2017 and 2018 Code Administrators Code of Practice (CACoP) survey results.	<ul style="list-style-type: none"> • Poor results reflected the discussions we have had in our customer journey discussions e.g. feedback received on information on our website, frustrations with the modification process and greater support required for smaller players / new entrants. 	<ul style="list-style-type: none"> • As above, we are making changes prior to RIIO-2 and feedback in the latest survey shows, for example, that we have improved our service provision for smaller companies. Our RIIO-2 proposals to be a Code manager and

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> Significantly improved scores in 2018 reflect our focus on addressing the issues that stakeholders have raised with us. 	<p>to reform the governance process will enable us to improve further.</p> <ul style="list-style-type: none"> This feedback has also led us to discount our Option 1 which is to simply continue our role as a code administrator as this option will not meet the needs of our stakeholders.
Bilateral meeting with a wider interest organisation in November 2018	<ul style="list-style-type: none"> Across our engagement on codes, we have heard from only one 'wider interest' stakeholder that we should potentially step away from our current codes role. When we discussed this further, their concern was around perceptions of the independence of the ESO and making decisions in the right interests. This stakeholder also agreed with others' frustrations around the number of mods and some mods taking a long time to progress. This stakeholder also, however, recognised that other code administrators have more flexible funding arrangements that could make mod processes more responsive to stakeholder needs. 	<ul style="list-style-type: none"> We have taken on board the concerns surrounding independence and have received positive feedback on our level of independence since separation of the ESO from NGET. We think possible enhancement of code objectives under a Code Manager role to better represent the interests of consumers will be important. We will also further consider what funding arrangements could facilitate a more effective code management service. In its sector, specific consultation published in December 2018, Ofgem confirmed that it does not currently intend to remove our role as code administrator from the ESO.

Phase 2 developing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
Role of a Code Manager		
<p>We sought to engage stakeholders about the role of a Code Manager at our RIIO-2 webinar, at the October 2018 Customer Connections Seminars, and at a Grid Code and a CUSC panel meeting.</p>	<ul style="list-style-type: none"> • Building on the feedback that parties require more support in the code modification process, in our RIIO-2 webinar we asked a poll question on the potential characteristics of a Code Manager. Most respondents agreed that the characteristics we had presented were appropriate. The following comments were provided by those who responded we had ‘mostly’ described the right characteristics provided: <ul style="list-style-type: none"> • Something needs to be done about the dominance of the big 6 on the CUSC panel. • Needs to be independent. • What about facilitating greater competition with codes (wherever there are benefits to the consumer of doing so). 	<ul style="list-style-type: none"> • We looked to further explore the characteristics of a Code Manager with additional stakeholders, and presented to code panel members (see below). In these discussions, we heard more about what resource requirements a Code Manager might need. • We have adopted the characteristics as endorsed by stakeholders as we develop our thinking on the transition to Code Manager.
<p>Customer (Connections) Seminars in October 2018</p>	<ul style="list-style-type: none"> • We offered a round table discussion on this topic at the seminar but there was limited uptake by stakeholders. 	<ul style="list-style-type: none"> • The customer seminar wasn’t the right forum for this discussion. As a next step, we decided that engaging with the code panel members directly at panel meetings would be beneficial.

Channel	Feedback we received	How this is shaping our plan
CUSC panel meeting, 26 October 2018 and Grid Code panel, 17 October 2018	<ul style="list-style-type: none"> • There is a perceived conflict between the ability to raise modifications and be a good 'critical friend'. • A Code Manager role will require modelling / analysis resource and legal resource to do the legal text. 	<ul style="list-style-type: none"> • We will look to address any potential conflicts in the Code Manager role in future detailed design work and test this further with stakeholders. • We have factored additional legal and modelling resource into our plan
Funding the Code Manager activity		
ESO RIIO-2 Stakeholder Group workshop, 24 September 2018	<ul style="list-style-type: none"> • An example of the layered funding model was shared with the ERSG members and there was a consensus that it was right to pull out code administration as a layer in the model. 	<ul style="list-style-type: none"> • We will further develop our work to look at funding models across other code administrators and engage stakeholders on the relative merits of each.
Bilateral meeting, consumer interest organisation in November 2018	<ul style="list-style-type: none"> • In a bilateral meeting, a consumer interest organisation also agreed that a code administration funding layer was appropriate, and allows for better benchmarking between different code administrators and introduces competitive pressures. 	<ul style="list-style-type: none"> • We recognise that the ability to benchmark across code service providers is important for stakeholders. This provides support for a proposal to have a discrete funding layer for our code activity in RIIO-2 which will increase transparency for stakeholders. • We will benchmark our activity against the cost of other service providers.
Grid Code panel meeting, 17 October 2018	<ul style="list-style-type: none"> • A panel member suggested that an allowance should be put in place to fund the ESO for developing the legal text associated with code change. • We also heard this from CUSC panel members on 26 October. 	<ul style="list-style-type: none"> • This is something that we will consider in more detail when developing the funding model for this activity.

Channel	Feedback we received	How this is shaping our plan
CUSC Panel meeting, 26 October 2018	<p>One panel member, a TO, talked about the following attributes for a potential Code manager funding arrangement:</p> <ul style="list-style-type: none"> • There is benefit in an agile funding model that unlocks the right value of funding at the right time. • Needs to be transparency in the process and level of funding. • Even with a short-term funding duration, such as an annual process there needs to be an element of certainty for the Code Administrator to control OPEX resources etc. So, a funding model with an element of baseline and a process that provides additional top up against workload / outputs could work. 	<ul style="list-style-type: none"> • We will take these requirements and build upon them to determine a set of principles that an effective funding mechanism should have for the Code Manager role.
Code reform		
2030 Ambition workshop on 28 September 2018	<ul style="list-style-type: none"> • In our 2030 Ambition workshop on 28 September, stakeholders raised common concerns on the existing market frameworks in terms of too much complexity, the slow pace of change and limited opportunity for smaller / new players to participate in modifications. 	<ul style="list-style-type: none"> • This has shaped and formed our ambition to remove code governance as a perceived barrier to change and to transform the code amendment process.
CUSC Code Panel discussion, 26 October 2018	<ul style="list-style-type: none"> • In our CUSC Code Panel discussions, one stakeholder set out that we need to align the obligations of driving towards consumer value outcomes with the objectives that sit within the code and we have also heard this through our customer journey work. 	<ul style="list-style-type: none"> • A ‘stronger consumer value objective’ sits within our understanding of possible characteristics of a Code Manager.

Phase 3 testing our ambition and activities

Channel	Feedback we received	How this has shaped our plan
RIIO-2 Stakeholder event, 11 April 2019	Transform the process to amend our codes	
	<ul style="list-style-type: none"> Stakeholders at the round table sessions supported the ambition to remove code governance as a barrier to entry. Recognition that the codes can also be a barrier to flexibility and innovative projects. 	<ul style="list-style-type: none"> We have continued to develop our proposals for a more agile and accessible code change process in our business plan.
	<ul style="list-style-type: none"> The stretching level of ambition was noted in code reform and a couple of stakeholders were concerned that we would not have the appropriate level of resource to deliver this activity effectively. 	<ul style="list-style-type: none"> In our business plan, we have laid out a delivery and resourcing plan that we think will set us up for success.
	<ul style="list-style-type: none"> There were divided views as to whether we should be a proactive Code Manager, or remain as a Code Administrator to improve our service provision. Many stakeholders, including large and small market participants, were in favour of us taking a proactive role in this area. 	<ul style="list-style-type: none"> We have started to, and will continue to, improve our Code Administration service provision, but consider that we can add significantly more value through a Code Manager role.
	Work with all stakeholders to create a fully digitised Grid Code by 2025	
	<ul style="list-style-type: none"> Stakeholders were generally supportive of the proposal but, as above, a small number of 	<ul style="list-style-type: none"> In our business plan, we have laid out a delivery and resourcing plan that we

Channel	Feedback we received	How this has shaped our plan
	<p>stakeholders noted the ambitious nature of the proposals and questioned our ability to deliver.</p> <ul style="list-style-type: none"> • A plain English “lite” version of the code was proposed as a possible alternative to a fully digitalised version. 	<p>think will set us up for success. To facilitate a level playing field for all parties, being able to access, understand and use the relevant parts of the code are very important.</p> <ul style="list-style-type: none"> • We will therefore continue to develop our full proposal in this area.
	<ul style="list-style-type: none"> • A number of stakeholders, whilst supportive overall, highlighted that we need to ensure that market participants still understand the obligations on them if you simplify the Grid Code. The obligation will still be on individual parties to ensure that they are compliant with the code. 	<ul style="list-style-type: none"> • We agree with this point and will reflect this in our Business Plan going forward.
<p>ADE DSR working group meeting, 23 April 2019</p>	<ul style="list-style-type: none"> • More clarity was requested on what the ‘principles based’ Grid Code actually means? And what are the principles to be applied? • There was a suggestion to start simple with principles and then bolt on / add to those for the exceptions or what you need over and above the minimum. 	<ul style="list-style-type: none"> • The Energy Code review, happening now, is driving the principles based approach and we will soon know more about this and the direction of travel.
<p>We received 11 responses to <i>Our RIIO-2 Ambition</i> consultation</p>	<p>Transform the process to amend our codes</p> <ul style="list-style-type: none"> • Whilst support was expressed for our proposals in this area, one party cautioned that we should not try to pre-empt the work of the ongoing codes review. 	<ul style="list-style-type: none"> • We fully support the Energy Codes Review and have set out the changes that we believe should be made to our codes based on industry engagement to date.

Channel	Feedback we received	How this has shaped our plan
		<ul style="list-style-type: none"> We recognise that our RII0-2 proposals will require amendment, should they not align with the outcomes of the Energy Codes Review.
	<p data-bbox="613 432 1827 475">Work with all stakeholders to create a fully digitalised whole system Grid Code by 2025</p> <ul style="list-style-type: none"> Further information was requested on Grid Code and SQSS revision, as well as further information on coordination between these pieces of work. There was general support for creating one integrated Grid Code. One stakeholder expressed the need to ensure that in addition to enhancing the accessibility of the code we should also reappraise the content. 	<ul style="list-style-type: none"> Further detail on creation of digitalised Grid Code and the rationale for it are provided in this business plan. We will be engaging a wide range of stakeholders on this work. The scope of our engagement will include testing the appetite for reappraising the content of the code in addition to simplification and making it more accessible.
<p>As part of our open invitation to have bilateral sessions, we have also we have also engaged a range of stakeholders including two wider interest groups, service providers, generators and suppliers</p>		<p data-bbox="613 919 1827 962">Work with all stakeholders to create a fully digitalised whole system Grid Code by 2025</p> <ul style="list-style-type: none"> Support the proposal to move to a streamlined, digitised Grid Code, but cautioned that if we are directing parties to the part of the code that applies to them, liabilities are appropriately managed.

Channel	Feedback we received	How this has shaped our plan
	<ul style="list-style-type: none"> It was also noted that this is a huge undertaking and questioned the deliverability by 2025 	

5.4.3 Look at fully or partially fixing one or more components of Balancing Services Use of System (BSUoS) charges

Phase 1 Broad thinking

Channel	Feedback we received	How this is shaping our plan
RIIO-2 webinar, 30 August 2018; Charging Futures, September 2018; Charging Forum, October 2018,	<ul style="list-style-type: none"> At each of these forums we asked stakeholders the same question: 'How significant an issue [within the current charging arrangements] is: <ol style="list-style-type: none"> volatility predictability whole system signals the lack of a level playing field? Typically, the highest scoring options in terms of the biggest perceived issues for charging were the predictability and volatility of charges. 	<ul style="list-style-type: none"> This feedback has directly informed our proposed activity to fix one or more elements of the BSUoS charge if it is deemed appropriate to do so. The BSUoS task group has since been established to consider this.
Transmission Charging Methodology Forum (TCMF), 14 November 2018	<ul style="list-style-type: none"> We asked the group to make recommendations as to how the perceived issues of volatility / predictability could be addressed. Many of these responses were suggestions to flatten or fix BSUoS or to improve forecasting of the components of charges. Members also thought that greater transparency of information and access to data that can impact charges would be useful so that industry parties can take their own view on cost drivers. 	

Phase 2 developing our ambition and activities and Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
Transmission Charging Methodology Forum (TCMF), 13 March 2019	<ul style="list-style-type: none"> The group agreed that the proposal was a positive step and there was consensus that people wanted us to take it forward. It was also noted that we need to understand the financing costs of this proposal and that information from suppliers on risk premia would also be needed. 	<ul style="list-style-type: none"> We will continue to take this proposal forward, in accordance with the work that the BSUoS task force is doing, and look at the potential financing costs associated with fixing elements of the charge.
RIIO-2 stakeholder event, 11 April 2019	<ul style="list-style-type: none"> Increasing stability of the charge will improve forecastability, particularly for smaller players. <p>The ground work for this activity will be undertaken by the BSUoS task force.</p>	
We received 11 responses to <i>Our RIIO-2 Ambition</i> consultation	<ul style="list-style-type: none"> One stakeholder did not support this activity in isolation given the ongoing charging and access review. 	<ul style="list-style-type: none"> This activity is not being progressed in isolation from wider industry developments. We would only seek to proceed with this activity if it aligns with any ongoing industry review processes, including SCRs relating to charging and access, and it is demonstrated to be in the interests of consumers.

5.4.4 Capacity Market

Phase 1 broad thinking

Channel	Feedback we received	How this is shaping our plan
Customer satisfaction surveys and customer feedback	<ul style="list-style-type: none"> There are continued frustrations with the EMR portal which, if improved, could help to provide 	<ul style="list-style-type: none"> This has shaped our <i>Forward Plan</i> proposals to improve / replace the CM portal, and our RIIO-2 proposed activity

the level of support through the CM process that stakeholders desire.

- We have also heard that the overall process and rules are complex particularly for new entrants.

to develop a common platform for balancing service and the CM.

- It has also shaped our proposal to take on the development of CM rules.

Phase 2 developing our ambition and activities and Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
RIO-2 Stakeholder engagement event, 11 April 2019	<ul style="list-style-type: none"> • General agreement that there is frustration about the EMR rules and regulations and the change process. Agreement that the process needs to be improved and that the rules should be simplified. • There were varying views on what role the ESO should have in this area. Some argued that this is ultimately about changes to regulations and rules which are seen as the government's responsibility, but the ESO could help to shape the vision for regulation. Others considered that the ESO could take a stronger role in driving the regulatory change process. 	<ul style="list-style-type: none"> • The CM rules are currently the only industry 'rules' that are administered by Ofgem. • Through taking on responsibility for the development and management of the Capacity Market Rules, we can align the change process for the CM with our other code functions that delivery change to industry framework. We can ensure there is joined up thinking across different frameworks, supporting the reform of the CM. • This change will also drive industry efficiencies given our role in administering the CM rules. • It is also important to remember that our role in management of the CM rules is underpinned by government policy.
	<ul style="list-style-type: none"> • Stakeholders at two out of the three round table sessions questioned the EMR ringfence and whether this was still required following legal separation of the ESO. 	<ul style="list-style-type: none"> • We believe that the separation of the ESO removes any conflict of interest and Ofgem has consulted on this in its five-year review in April 2019. The conclusion to this

Channel	Feedback we received	How this is shaping our plan
ADE DSR working group meeting, 23 April 2019	<ul style="list-style-type: none"> The group questioned why the ESO was better placed to manage the rules than Ofgem 	<p>consultation will inform the direction of the removal of the ringfence.</p> <ul style="list-style-type: none"> Through taking on responsibility for the development and management of the Capacity Market Rules, we can align the change process for the CM with our other code functions that delivery change to industry framework. We can ensure there is joined up thinking across different frameworks, supporting the reform of the CM. This change will also drive industry efficiencies given our role in administering the CM rules.
We received 11 responses to <i>Our RIIO-2 Ambition</i> consultation	<p>CM Portal</p> <ul style="list-style-type: none"> It was felt that the change process was only really required due to the complexity of the rules and that if they were written more simply it would clarify requirements for participants. 	<ul style="list-style-type: none"> As with any industry code there will always an expected level of change.
	<ul style="list-style-type: none"> There was general support for developing a new enhanced CM Portal and combining with the Balancing Services portal. 	<ul style="list-style-type: none"> We will continue to develop our proposals for the Market Platform.
	<ul style="list-style-type: none"> There is general support for reforming the CM rules but mixed views about transferring responsibility for the ESO. Some parties believe our proposals will lead to a more efficient process. One generator expressed 	<ul style="list-style-type: none"> Through taking on responsibility for the development and management of the Capacity Market Rules, we can align the change process for the CM with our other

Channel	Feedback we received	How this is shaping our plan
	<p>the opinion that Ofgem should continue to administer the rules.</p> <ul style="list-style-type: none"> Stakeholders requested further information on our proposals in this area as well as further explanation for the transfer of responsibility. 	<p>code functions that delivery change to industry framework.</p> <ul style="list-style-type: none"> We can ensure there is joined up thinking across different frameworks, supporting the reform of the CM.
<p>As part of our open invitation to have bilateral sessions, we have also we have also engaged a range of stakeholders including two wider interest groups, service providers, generators and suppliers</p>	<ul style="list-style-type: none"> Members of a wider interest group confirmed that current arrangements for managing the CM rules were not satisfactory but asked for further explanation of why we thought we were better placed to take them on. 	<ul style="list-style-type: none"> This change will also drive industry efficiencies given our role in administering the CM rules.

5.5 Theme 3: Unlock consumer value through competition

A summary of the key themes from our engagement activity:

- Stakeholders have told us they would like us to introduce competition in solutions to meet transmission network needs and supported our proposals to expand our approach to seek both network and non-network solutions
- Most stakeholder supported our proposals to extend *NOA* to other areas of development however some wanted clarification on how this would complement work undertaken already by the TOs.
- Stakeholders had mixed views on whether a fundamental review of SQSS was required or necessary
- Stakeholders have expressed different views regarding our role in future competitive processes for transmission assets. Some feel the potential for conflicts of interest whereas others thought it could be managed.

5.5.1 Expand and enhance network planning to facilitate effective competition

Phase 1 Broad thinking

Channel	Feedback we received	How this is shaping our plan
<i>Network Development Roadmap</i> consultation, May 2018 – we sought industry feedback on our thoughts and approach to developing our network planning processes	<p>We received 13 responses to this consultation from network companies, potential market participants and academics:</p> <ul style="list-style-type: none"> • Many respondents saw value in expanding the <i>NOA</i> process such that network and non-network providers can compete to meet transmission system needs. • Respondents thought that we could apply a <i>NOA</i> type approach to other needs including solutions that meet both transmission and distribution needs and wider works in connection offers. 	<ul style="list-style-type: none"> • We are taking this development forward in <i>Forward Plan</i> timescales but as a continuation of this work, our RIIO-2 proposal is to fully embed the extensions to this process to facilitate competition. • We have proposed to extend the <i>NOA</i> approach to planning currently covered by TOs in connection agreements and end-of-life asset replacement, if the case exists to do so. • We are also proposing to improve coordination across transmission and distribution network boundaries, through facilitating consistency across lower voltage levels.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> Respondents generally wanted to understand in more detail how a probabilistic approach to analysis might be applied. 	<ul style="list-style-type: none"> Since the consultation, in our <i>Network Development Roadmap</i>, we have sought to clarify this and have taken forward work in <i>Forward Plan</i> timescales, to adopt probabilistic modelling. In RIIO-2 we propose to continue to invest in this area further.

Phase 2 developing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
RIIO-2 webinar, 1 November 2018	<p>Again, we presented our initial thinking on how the <i>NOA</i> process could be extended and sought views, via a poll, on which areas it could be extended to:</p> <ul style="list-style-type: none"> A Yes – connection wider works (13%) B Yes – end of life asset replacement (13%) C Yes – lower voltage levels (9%) D Yes – all of the above (13%) E Yes – but it's not on your list (0%) F No – none of the above (13%) 	<ul style="list-style-type: none"> There were mixed views from the poll. The majority of voters thought we should extend the process in some form, so we needed to undertake further engagement with more stakeholders to understand what we should take forward in our RIIO-2 proposals. The December RIIO-2 stakeholder workshop provided that opportunity for further engagement.
	<ul style="list-style-type: none"> We also asked whether there would be merit in us carrying out a fundamental review of the SQSS in RIIO-2, 6 stakeholders supported a review whereas 2 were unsure. 	<ul style="list-style-type: none"> Again, and recognising that this is a fairly technical subject, we would explore this question further with stakeholders at our December event.

Channel	Feedback we received	How this is shaping our plan
RIIO-2 Stakeholder workshop, 17 December 2018	<p>We talked to stakeholders in a series of round table sessions about extending the <i>NOA</i> process and a possible SQSS review. The key messages we heard from stakeholders are:</p> <ul style="list-style-type: none"> • General support for looking at extending a <i>NOA</i> type approach into additional areas in terms of a consistent methodology or co-ordination role. • Less appetite for ESO doing the assessments, particularly lower voltage given it's a very different network. • General interest in seeing more specific proposals on what extending the <i>NOA</i> would look like so that a more informed view can be formed. E.g. how would it affect timeframes for connections. <hr/> <ul style="list-style-type: none"> • Agreement that revisions are needed to the SQSS. However, no clear agreement on whether that should involve fundamental review or continuation of existing processes. 	<ul style="list-style-type: none"> • We have taken forward proposals to extend the <i>NOA</i> process. • Given stakeholder feedback around whether we should be doing the assessment we were minded to remove any proposal to undertake assessments at lower voltages but sought to engage further on this point. • We noted stakeholder requests to provide more detail on how extending the <i>NOA</i> could work in practice and sought to engage further with network companies on this. <hr/> <ul style="list-style-type: none"> • We have taken forward the proposal to review the SQSS but needed to explore further with stakeholders as to what the review should entail.

Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
RIIO-2 stakeholder event, 11 April 2019	<p>At round table sessions, we discussed our network development proposals as set out in our ambition document. We heard:</p> <ul style="list-style-type: none"> • All stakeholders agreed that we should be looking to embed competition in network planning. 	<ul style="list-style-type: none"> • We will continue to take forward our proposals for extending the <i>NOA</i> process to our July business plan. • As we develop the detail of our proposals further we will ensure that we are transparent and provide fair and open

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> Stakeholders also supported the ESO in expanding its network planning approach to a wider set of transmission network needs. However, two generator companies raised that we should be careful of the impact that approach could have on the energy market, in terms of contracting with providers in particular locations. 	<p>opportunity for all to avoid negative impacts to the energy market.</p>
	<p>We asked if stakeholders agreed that the ESO is not best placed to assess lower voltage networks, but should provide support and consistency.</p> <ul style="list-style-type: none"> Stakeholders generally agreed that the ESO is not best placed to undertake the assessments at lower voltages, but were supportive of the ESO having a role in providing support and a consistent analytical approach to network planning at lower voltage levels. However, one generation stakeholder considered that we could undertake these assessments depending on the respective future roles of DSOs and the ESO and that these still need to be clarified. 	<ul style="list-style-type: none"> We have heard general stakeholder support and therefore plan to take forward our proposal to improve coordination across transmission and distribution network boundaries, through facilitating consistency across lower voltage levels. We recognise that roles are still unclear and we have proposed elsewhere in our plan to facilitate clarification of roles between DSOs and the ESO.
	<p>We asked if stakeholders thought that the SQSS should be reviewed and whether it would be a light touch review or a fundamental review:</p> <ul style="list-style-type: none"> Of the 7 stakeholders that had a view, the majority were supportive of a review of the SQSS One stakeholder questioned if you needed a standard at all and pointed to approaches used in other countries There were no definitive views as to whether it should be a light touch or wholesale review but stakeholders thought 	<ul style="list-style-type: none"> We agree with stakeholders in that we believe that a review of the SQSS is required. We discuss in this plan how a more proportionate review of the standard may be appropriate.

Channel	Feedback we received	How this is shaping our plan
	that a full review could take a long time and would need a timetable associated with it.	
Meeting with the three onshore TOs, 29 April 2019	<ul style="list-style-type: none"> We discussed possible options for how to review the SQSS with TOs. All contributors agreed that a fundamental review would not be helpful, but that some form of review beyond the usual update processes is required 	<ul style="list-style-type: none"> We have proposed to lead a focussed and targeted review of the SQSS within theme 3.
ESO RIIO-2 Ambition document consultation, April 2019	<ul style="list-style-type: none"> Three of the responses to our consultation have highlighted areas within our ambition document that appear to have overlap with activities in our 2019-21 Forward Plan particularly around expansion of the NOA and modelling developments. 	<ul style="list-style-type: none"> We have clarified in our plan exactly what will be delivered and in what timescales across Forward Plan and RIIO-2 deliverables.

5.5.2 Support competition in delivery of onshore transmission infrastructure

Phase 1 Broad thinking

Channel	Feedback we received	How this is shaping our plan
ESO 2030 Ambition workshop, September 2018	<p>We discussed our role in supporting competition in network solutions at our round table event where we heard:</p> <ul style="list-style-type: none"> The earlier in the network development process competition is introduced the more opportunity for innovation and cost reduction. There was a call for clarity on where the risk lies, particularly for consenting, under the CATO model. In order for a developer to add value in the CATO model they would need to be involved before the need is defined. 	<ul style="list-style-type: none"> We sought to engage stakeholders further on preference for an early or late model for CATO and the role that the ESO might take in terms of consenting.

Channel	Feedback we received	How this is shaping our plan
RIIO-2 webinar, 1 November 2018	<ul style="list-style-type: none"> We looked to test what role the ESO should play in facilitating competition in advance of legislation to enable CATOs and sought views, via a poll, on whether we were asking the right questions (what role should the ESO play pre and post legislation and what was the preferred model for competition). 6 out of 8 stakeholders confirmed that, yes, we were asking the right questions. 	<ul style="list-style-type: none"> We looked to take our initial thinking and test it further with a wider group of stakeholders.

Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
RIIO-2 stakeholder event, 11 April 2019	<p>At round table sessions, we discussed the proposals set out in our ambition document. We heard:</p> <ul style="list-style-type: none"> Stakeholders generally preferred the early model due to the greater potential for innovation and cost savings for consumers. Some however, did see merit in the late model and the argument for keeping different options available – using the appropriate model in each circumstance. 	<ul style="list-style-type: none"> We agree that flexibility in which model to apply may hold merit.
	<ul style="list-style-type: none"> There are a range of different industry bodies who could carry out the tender process for onshore competition 	<ul style="list-style-type: none"> We have looked to identify other parties who have the skills to carry out the tender process
	<ul style="list-style-type: none"> If the ESO was responsible for tendering we would be likely to consider the benefits to the system and the more technical considerations, but we may not have the appropriate resource and capability post-legal separation 	<ul style="list-style-type: none"> We will continue to work with Ofgem on the detail of respective roles and capabilities.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> You were also concerned that we may not be sufficiently independent from National Grid Electricity Transmission (NGET). 	<ul style="list-style-type: none"> We understand that stakeholders may have this concern but we are now legally separate from the National Grid TO, and have a number of strong measures in place to prevent the transfer of information and conflicts in our governance.
<p>ESO <i>Our RIIO-2 Ambition</i> document consultation, April 2019</p> <p>11 Responses received</p>	<ul style="list-style-type: none"> One respondent commented that while they could see the logic for a larger role for the ESO to support Ofgem in running the competitive tenders for delivery of onshore transmission it would create potential conflicts of interest due to the implications for National Grid's TO business. Another respondent said that they would like to see more details of the process for the ESO achieving the ambition of considering all viable options to solve network challenges, including opening the Strategic Wider Works¹² process to market participation and associated tender processes. 	<ul style="list-style-type: none"> We note the risk that an enhanced role for the SO could be seen as being at odds with the aims of National Grid's TO business. This is one of the key reasons behind the legal separation of the electricity SO within the National Grid Group, such that it can better demonstrate independence of thought and operation. Until we have further detail from Ofgem regarding their preferred model for competition in onshore transmission, it is difficult for us to get into the detail of exactly how we will work with them to achieve their aims. However, we would anticipate any tender process to involve a clear articulation of requirements, and a full engagement process to maximise the

¹² <https://www.ofgem.gov.uk/electricity/transmission-networks/critical-investments/strategic-wider-works>

Channel	Feedback we received	How this is shaping our plan
Bilateral meetings, May 2019 – we have spoken to transmission owners, a consultancy and a developer	<p>We talked about our ambition document and asked stakeholders for their reflections. In summary, we heard:</p> <ul style="list-style-type: none"> On whether the early or late model is more appropriate, two stakeholders thought that the early model is better in the long term for savings for consumers but because the process is very new for the UK it may be a good idea to start off with the late model which should be easier to implement. 	<p>potential for submission of solutions to system needs.</p> <ul style="list-style-type: none"> We note that Ofgem have stated they will consider their interim Competition Proxy Model¹³ (CPM) and Special Purpose Vehicle models for SWW¹⁴ within RIIO-T1, pending clarity on the legislative approach for CATO. For how we will seek to meet other network challenges, please refer to our plans for enhancing the NOA process.
	<ul style="list-style-type: none"> A stakeholder thought it would be useful to see the pros and cons of the early and late models to be able to compare. 	<ul style="list-style-type: none"> We note these views and agree that further consideration of the type of model to apply may be required We commented on some of the costs and benefits of the late model in our response to Ofgem’s Sector Specific Consultation ¹⁵
	<ul style="list-style-type: none"> One stakeholder disagreed with our rationale for not undertaking a consenting role if a late model were to be 	<ul style="list-style-type: none"> This will be explored further when we know more about Ofgem’s preferred approach.

¹³ <https://www.ofgem.gov.uk/publications-and-updates/update-competition-proxy-delivery-model>

¹⁴ <https://www.ofgem.gov.uk/ofgem-publications/138794>

¹⁵ <https://www.nationalgrideso.com/document/139766/download>

Channel	Feedback we received	How this is shaping our plan
	<p>adopted. However, another commented that this work could be contracted out to third parties.</p>	
	<ul style="list-style-type: none"> A TO and a developer expressed concern about the ESO's role in onshore tenders given our position within the National Grid Group. 	<ul style="list-style-type: none"> As above, we are now legally separate from the TO and have a number of strong measures in place to prevent the transfer of information and conflicts in our governance.
Dedicated webinar, 22 May 2019	<p>Following feedback from our RIIO-2 stakeholder group we held a webinar with 11 expert attendees to discuss the detail of onshore competition. We heard similar feedback to our earlier engagement sessions but also:</p>	<ul style="list-style-type: none"> There is further work required to determine specific roles and arrangements.
	<ul style="list-style-type: none"> Mixed views as to whether an incumbent TO should be able to participate in a tender if it has undertaken the preliminary works under a late model (a TO thought that they were best placed as they know their network and stakeholders). 	
	<ul style="list-style-type: none"> A TO thought that there could be more work undertaken to develop the early model in advance of legislation. A developer recognised that the ESO's work on the NOA is valuable and should continue to give visibility of potential opportunity ahead of the CATO regime being implemented. 	<ul style="list-style-type: none"> We will have further conversations with Ofgem on this.

5.6 Theme 4: Drive the whole energy transition

A summary of the key themes from our engagement activity:

- Stakeholders have told us whole energy system solutions are essential to transformation of the energy landscape and highlighted the importance of working with other network companies to ensure consistent processes, efficient and appropriate exchange of data and information, and coordinated standardised experiences that work for customers.
- Stakeholders have shown broad support for us to develop policy recommendations as there is a widespread recognition that we could use our unique perspective, particularly on the system operability and network costs of different pathways, to provide more support to policy makers and help to drive the energy system transition.
- Our proposal to create a connections portal which guides customers through the process was welcomed by stakeholders who could also see merit in having access to connection and delay charges, user liabilities and construction progress through the portal.

5.6.1 Transforming the connections process

Phase 1 Broad thinking

Channel	Feedback we received	How this is shaping our plan
<p>Via our satisfaction survey process, we have interviewed a total of 57 customers across networks, large and small customers, and different fuel types in 2018/19.</p> <p>Customers scored us an average of 7.96 / 10 for connections and generally</p>	<p>The areas for improvement that customers have fed back to us are:</p> <ul style="list-style-type: none"> • They have seen improvement in the level of collaboration to achieve mutually beneficial results between the ESO and customer but there is more to do. • More timely responses to queries – a question was raised as to whether this should be achieved through more staff. <hr/> <ul style="list-style-type: none"> • Customers want us to challenge the TOs more and to not just be a ‘post box’ in the process. 	<ul style="list-style-type: none"> • This feedback, coupled with the recent growth in connection applications to the ESO, has led us to propose activities in RIIO-2 that will help us to provide a more flexible customer account and contract management service. • Our proposals will provide easier access to connection and contract information from the ESO and a central place to access TO and DNO information. <hr/> <ul style="list-style-type: none"> • As part of our engagement programme, we are talking to the TOs about our

Channel	Feedback we received	How this is shaping our plan
provided positive feedback on our current connections service level.	<ul style="list-style-type: none"> Customers would appreciate more consistency across T and D processes (quality of process too). 	<p>respective RIIO-2 proposals but also about our day-to-day service provision to customers.</p> <ul style="list-style-type: none"> This feedback has directly informed our proposals. Where our RIIO-2 proposals have the potential to interact with other network companies, we will drive consistency in look and feel where possible.
Customer journey work, 2018/19 - we interviewed a number of customers to understand their experiences from our connections process	<p>The main themes of feedback were:</p> <ul style="list-style-type: none"> Lack of timely responses to queries Lack of transparency and customers expect a more collaborative approach Lack of efficiency 	<ul style="list-style-type: none"> We have used these key themes to build upon our <i>Forward Plan</i> proposals with our RIIO-2 proposals. The central hub and online customer portal proposals will provide a central place for prospective and contracted customers to find information about the connection process and about their connection agreements. We think that these 'self-serve' tools will allow customers and stakeholders to more efficiently navigate the connections process, with support from the ESO.

Phase 2 developing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
Customer connections seminars, March 2019	<ul style="list-style-type: none"> We asked attendees of the seminars, via a poll, whether they had any views on four possible activities that we could propose for RIIO-2. 23 stakeholders voted and 	<ul style="list-style-type: none"> We have continued to develop and take forward all our proposals for further

Channel	Feedback we received	How this is shaping our plan
– presentation and round table discussion	<p>many votes were in support of proposal 1 (the central hub) with 12 votes, closely followed by proposals 2 and 4 with 11 votes. Proposal 3 received 8 votes.</p> <p>We also asked whether we were missing anything (again via the poll) and we received these views:</p> <ul style="list-style-type: none"> Some focus on accuracy of information in TEC / EG¹⁶ register would be of assistance. 	<p>stakeholder engagement given that we received equal support from stakeholders.</p> <ul style="list-style-type: none"> This is something that we will continue to work on in <i>Forward Plan</i> timescales
	<ul style="list-style-type: none"> Shorter lead time to procurement (for example, your week-ahead trial, for more items, and shorter). 	<ul style="list-style-type: none"> We believe that this feedback relates to our balancing services proposals.
	<ul style="list-style-type: none"> Do what you already do 100% right before adding new stuff. 	<ul style="list-style-type: none"> We don't think we have the option to stand still, particularly with the pace of change of the energy industry. But we recognise that we still need to get the basics right for our customers and that our RIIO-2 proposals will support this.
	<ul style="list-style-type: none"> Continue focus on wider access to Balancing Mechanism (or Distributed Energy Resource - DER) 	<ul style="list-style-type: none"> This is a reference to proposals elsewhere in our business plan but enhancements to our connections process will facilitate connection of greater DER volumes.
	<ul style="list-style-type: none"> Transparency of connection charges including use of system, application fees and securities. 	<ul style="list-style-type: none"> This is something we have taken forward as information we will include in the online customer portal.

¹⁶ <https://www.nationalgrideso.com/connections/registers-reports-and-guidance>

Channel	Feedback we received	How this is shaping our plan
	<p>In the afternoon of the customer seminar we hosted round table discussions on RIIO-2 to understand further views and requirements. Four stakeholders from a TO, a DNO, and two renewable energy developers attended:</p> <p>These stakeholders were generally supportive of all proposals particularly around the following:</p> <ul style="list-style-type: none"> • There are a lot of processes and information gathering involved across different parties so streamlining these and having access to information in one place is useful. • If TOs are producing heatmaps then these should be in a common format and companies should share best practice. • Some standardisation across Transmission and Distribution connection processes would be beneficial. • The ESO is best placed to look across transmission and distribution and take a balanced view. • The ESO could be able to provide additional information and alternative connections approaches at the time of application. 	<ul style="list-style-type: none"> • These stakeholders were positive about our proposals and so we will continue to develop them. • We will also continue to engage with transmission and distribution network companies to ensure that our 'Central Connections hub' proposal will bring value for customers in an efficient way.

Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
RIIO-2 webinar, 21 March 2019	We asked our webinar attendees for their reflections on our RIIO-2 proposals and to prioritise them according to their own business requirements. Generally, our proposal to provide improved access for DER to available headroom across T/D	<ul style="list-style-type: none"> • In terms of overlap with <i>Forward Plan</i> activities, building on our earlier customer journey work, we intend to scope out the functionality of our proposed Customer

Channel	Feedback we received	How this is shaping our plan
	<p>interfaces came out as the highest priority, closely followed by 'working with network organisations'. In addition, we heard:</p> <ul style="list-style-type: none"> One stakeholder highlighted that there was some overlap between these proposals and those commitments in our <i>Forward Plan</i>. A generator company fed back that the online portal (proposal 3) was a 'nice to have' and that if the connection experience is positive, they are not concerned if it is online. <p>Webinar attendees also provided some ideas in terms of what information the customer connections portal could provide:</p> <ul style="list-style-type: none"> delay costs and user liabilities charging statements and methodologies. 	<p>Connections portal during the remainder of the RIIO-T1 period.</p> <ul style="list-style-type: none"> This will enable us to efficiently plan and deliver the portal within a two-year period at the start of RIIO-2. We will ensure this pathway is clearly communicated to stakeholders. Other stakeholders during our engagement have been positive about an online portal but we will seek further views on this when we engage on detailed costs and benefits. We will incorporate stakeholder ideas for portal content into the scoping phase of the project.
RIIO-2 stakeholder event, 11 April 2019	<p>At round table discussions with small and large generation companies and network companies, we heard:</p> <ul style="list-style-type: none"> majority stakeholders welcomed our proposals, and smaller companies valued the proposals to provide more information online and in one place for multiple network companies. DNOs and one generation company questioned the value of a central hub if customers were simply signposted elsewhere. However, this was countered by views that a central hub would be beneficial specifically for location-neutral 	<ul style="list-style-type: none"> We will continue to take forward all proposals to our July business plan and incorporate further detail for stakeholders. We will continue to seek views on what information and therefore value the central hub proposal will provide.

Channel	Feedback we received	How this is shaping our plan
	<p>projects, particularly if we could provide guidance on the most efficient connection voltage.</p> <ul style="list-style-type: none"> DNOs were keen to understand more about our proposals to facilitate connection of DER and could see benefit in the ESO expanding the Appendix G process further. One large generation company did not think that our proposals were ambitious and sounded like ‘business as usual’ for the ESO. They reflected that we should be proposing to look at areas such as queue management and capacity hoarding. We asked whether it should be customers or consumers that pay for these proposals given that customers will directly get the benefit but stakeholders wanted to see further cost / benefit analysis before taking a view. 	<ul style="list-style-type: none"> We will seek to engage with DNO companies further on our whole electricity system proposals to ensure that create benefit for our customers and for consumers. We will continue to monitor feedback, but currently we understand that most stakeholders believe our proposals to be ambitious. We believe that both suggested areas for focus are already being considered through Ofgem’s work on Access and Forward looking charges as well as the ENA’s Open Networks project. We will engage stakeholders on this question further during our next phase of engagement on cost / benefit.
We received 11 responses to <i>Our RIIO-2 Ambition</i> consultation	<p>We received the following views in respect of our connections proposals:</p> <ul style="list-style-type: none"> One network company fed back that they did not think that the ESO is best placed to give guidance on where to connect, or to provide dedicated connections account managers for DER. They also thought that we should be careful not to create unnecessary duplication in the process. 	<ul style="list-style-type: none"> We agree that we should not duplicate activity undertaken by other parties. We have heard from some of our stakeholders, for example at our event in April, that they would welcome a central hub for connection information and guidance on where to connect especially where a project is location-neutral.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> A trade association welcomed our ambition in this area and thought that a number of the activities would help to deliver it. They welcomed clarity on whether the ESO intends to act as the connection account managers for DER or to coordinate with current connection account managers within the DNOs. 	<ul style="list-style-type: none"> It is our intention to co-ordinate where there may be issues across the transmission and distribution boundary and ultimately facilitate a smoother application process for DER customers.
	<ul style="list-style-type: none"> A consumer interest organisation expressed concern that our ambition to 'reduce friction for participants in their interactions anywhere on the electricity network' lacked substance and was not necessarily within the control of the ESO. 	<ul style="list-style-type: none"> We will seek to understand the views of this stakeholder in more detail to be able to address the concern.
	<ul style="list-style-type: none"> A supplier said that they supported the activities and welcomed the intent to work with DNOs to take a whole electricity system view. They set out that they had encountered difficulties when distribution connections have an impact on the transmission network. They also raised that there is ongoing ENA work to standardise connection procedures across DNO's, and that where appropriate this could be extended to the ESO and TO approaches if it is seen beneficial but that the DNO standardisation should be achieved first. Dedicated connections account managers are encouraged however it is unclear if these should sit in the ESO or DNO. 	<ul style="list-style-type: none"> We will ensure that we learn from the approach that the ENA is taking on standardisation but we want to ensure that where value can be derived sooner, that we facilitate delivery of that value.

5.6.2 System Access Planning

Phase 1 Broad thinking

Channel	Feedback we received	How this is shaping our plan
Customer satisfaction surveys, 2018 – we surveyed generator companies, DNOs and Transmission Owners	<p>Customers were generally positive about our outage planning process and service but we have sought to improve our processes in RIIO-T1. Some of the other customer comments we received are:</p> <ul style="list-style-type: none"> • Want to see better coordination between National Grid and DNOs to better align outages with all parties involved. • Transmission outages and changes to those outages can have impacts on DNOs networks that the ESO does not understand. 	<ul style="list-style-type: none"> • This is feedback that has directly influenced our proposals to work more closely with DNOs and to assess the whole system impact of outages on the transmission system. • Again, this is something that we want to address and looked to explore further in subsequent stakeholder engagement sessions.

Phase 2 developing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
RIIO-2 stakeholder event, 17 December 2018	<p>The key themes from these discussions were:</p> <p>In terms of the ESO's role, we need to</p> <ul style="list-style-type: none"> • Increase transparency of outage constraint costs for industry parties, otherwise how can they act to reduce their impact on them • Undertake a cost / benefit analysis to understand the value of work to reduce short notice outage churn <p>In terms of possible incentives in this area, stakeholders agreed that there is merit at looking at incentives. However, network companies thought we should consider:</p>	<ul style="list-style-type: none"> • This is something that we will engage more stakeholders, particularly network companies about • We will look to understand the value that could be delivered by reducing short notice outage changes. • We sought further views on incentivising network parties at our stakeholder event on 11th April (see

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> • What is the baseline against which good or poor performance could be measured • Need to avoid unintended consequences e.g. TOs putting in long outage requests just so that they can do some simple things to perform well under an incentive • TOs need flexibility on outage planning to be efficient 	<p>below). We have also engaged with TOs on this subject.</p>
	<ul style="list-style-type: none"> • In terms of whole system thinking, some stakeholders fed back that transmission outages and system access can have consequences for distribution networks. 	<ul style="list-style-type: none"> • We have developed a proposal to manage deeper outage co-ordination across the T/D interface and to better understand the whole system cost of outages. • We also propose to notify more parties, connected to distribution networks, of transmission outages that may impact them.

Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
RIIO-2 webinar, 21 March 2019	We asked attendees whether they would support further develop of our proposals. There was support for different proposals across different stakeholders. We also heard:	

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> One stakeholder asked, in relation to our Proposal 2 - What is the lowest voltage being considered for outage notifications? 	<ul style="list-style-type: none"> We are proposing to notify affected parties connected to distribution networks of transmission outages that could materially affect them. We are not intending to directly notify parties of distribution network outages but welcome views on this point.
	<ul style="list-style-type: none"> A generator company pointed out that there are some parallels between our Proposal 1 and Ofgem's Sector Specific Consultation content where Ofgem has proposed to implement a single NAP and to apply it to DNOs. 	<ul style="list-style-type: none"> We support Ofgem's proposal to implement a single Network Access Policy and that this could be applied to DNOs / other parties. We think that our proposals are complementary to Ofgem's.
	<ul style="list-style-type: none"> Need to have common compensation tools across T and D if you are trying to coordinate. There must also be a common view as to how much embedded generation / DSR is connected - ESO and DNOs need to sort this out, so support "deeper coordination " if it delivers on these points above. 	<ul style="list-style-type: none"> We agree with the comments made by this stakeholder and it is for such reasons that we have proposed to work more closely with DNOs to co-ordinate and communicate outage notifications.
RIIO-2 stakeholder event, 11 April 2019	We shared our proposals with stakeholders and we heard the following:	<ul style="list-style-type: none"> At our December event, we heard that transmission outages can have cost impacts to distribution connected parties so we want to ensure that they have information on forthcoming outages as a first step.
	<ul style="list-style-type: none"> Transparency of information about outages (for distribution connected parties) is an important first step for more bespoke constraint management services, and that our proposal to introduce text alerts from the TOGA system are only useful if parties can respond in some way. 	

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> Stakeholders agreed that there could be benefit in greater collaboration across transmission and distribution on the impact of outage plans. However, there were differing views as to whether the ESO should notify distribution connected parties directly of outage impacts or whether the ESO should interface with the relevant DNO. 	<ul style="list-style-type: none"> Longer term, we think that information on outages could be incorporated into the customer portal we are proposing in our connections proposals. We agree that the potential exists for constraint management services across the T_D interface and see deeper outage co-ordination as a step towards facilitating this.
	<p>We asked stakeholders if they thought there was merit in incentivising network companies to minimise costs associated with short notice outage changes:</p> <ul style="list-style-type: none"> There were mixed views on this with network parties being unclear as to the benefit an incentive would provide over and above the existing obligations. One network company also thought that the ESO should be assessing TO outage plans before RIIO-2 to ensure that they are efficient. 	<ul style="list-style-type: none"> Our outage system - TOGA, is already accessed by some distribution parties and we believe that extending this functionality to smaller parties can drive consumer benefit. We are aware that many relevant stakeholders operate across GB and value consistency.
We received 11 responses to <i>Our</i>	<ul style="list-style-type: none"> One network company commented specifically on our system access proposals saying they will require wider 	<ul style="list-style-type: none"> We will continue to talk to network companies about the merits of an incentive and how that incentive could be designed. We are currently not expecting to undertake a review of the TO outage plans for the RIIO-2 period outside of normal code processes.
	<ul style="list-style-type: none"> One network company commented specifically on our system access proposals saying they will require wider 	<ul style="list-style-type: none"> We agree that we will require further and more detailed engagement on

Channel	Feedback we received	How this is shaping our plan
<i>RIIO-2 Ambition</i> consultation	industry agreement before being taken forward and we need to be mindful of the existing obligations of parties to notify system outages.	these proposals as we head towards submission of our final business plan.

5.6.3 Whole System and Operability

Phase 1 broad thinking

Channel	Feedback we received	How this is shaping our plan
The ENA's 'Future Worlds' consultation, July 2018 – this considered how a range of relevant industry functions and activities (such as system design and operation) will change to meet the challenges of the future energy landscape.	<p>From the 47 responses received by the ENA to this consultation, we learned the following in respect of the ESO role specifically:</p> <ul style="list-style-type: none"> • The strongest consensus, supported by analysis, is for the co-ordinated and collaborative future provided through 'World B'. • Highlighted the importance of working with other network companies to ensure consistent processes, efficient and appropriate exchange of data and information, and coordinated standardised experiences that work for customers. • Indicated a need for aligned codes and frameworks to support the energy transition. • Highlighted that the ESO should continue to play a role in overall management of the national electricity system, including in times of system stress and emergencies. 	<p>We developed five key areas of focus for our Whole Electricity System work which informed our stakeholder engagement. We looked to explore the potential RIIO-2 business impacts and role for the ESO across these five areas:</p> <ul style="list-style-type: none"> • information provision • framework accessibility and alignment • facilitating routes to market • clarifying responsibilities across the T-D interface • system event preparedness and restoration.

Phase 2 developing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
ESO Ambition stakeholder workshop, 28 September 2018	<p>We discussed ‘Aligned commercial, technical and regulatory arrangements across transmission and distribution’ and we heard:</p> <ul style="list-style-type: none"> <li data-bbox="472 467 1256 600">• Codes need to move from a predictable engineering environment to one that can manage risk in a data driven system whilst maintaining a robust engineering standard. They need to accommodate innovation. <li data-bbox="472 632 1256 764">• There is a risk that an uncoordinated approach to the future ESO/DSO model means that industry cannot effectively engage with and respond to the change. A lot of frustration was expressed on this topic. <li data-bbox="472 860 1256 992">• There was a call to simplify and unify governance to drive alignment across transmission and distribution. We need to look at the synergies across the two models and pull it all together under one governance structure. <li data-bbox="472 1024 1256 1123">• The ESO has visibility of the impact of code changes and that there is an opportunity for the ESO to promote alignment across the codes. 	<ul style="list-style-type: none"> <li data-bbox="1317 467 1886 600">• Our proposals for transforming Code governance and to employ a principles-based approach in our Grid Code proposal seek to address this. <li data-bbox="1317 632 1886 828">• We intend to work closely with DNOs on the activities that we have proposed for RIIO-2 but we also intend to continue to work closely with parties through the ENA to support DSO transition. <li data-bbox="1317 860 1886 927">• We have sought to directly address this in our Grid Code and SQSS proposals. <li data-bbox="1317 1024 1886 1123">• Through our proposal to step up to a Code Manager, we will take a more co-ordinated view across the codes.
	<p>We also discussed ‘Provision of information and tools to enable efficient whole system decisions across operational and investment timescales’ and we heard:</p>	

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> All data on transmission and distribution network costs and constraints needs to be available together. We need to be brave and publish the data. <hr/> <ul style="list-style-type: none"> Markets should facilitate a common understanding on costs for all decisions across transmission and distribution including a clear articulation of the needs required. <hr/> <ul style="list-style-type: none"> There is currently no one party in place to facilitate the “new world”, the ESO could play a “facilitate and connect” role inclusive of large and small. 	<ul style="list-style-type: none"> Our proposals on the data portal and working more collaboratively with network parties aim to address this request. <hr/> <ul style="list-style-type: none"> We will work with DNOs to ensure consistent articulation of needs, costs and decisions. <hr/> <ul style="list-style-type: none"> Our proposals for a central connections hub look to provide a single point where parties can find information about different networks.
RIIO-2 webinar, 1 November 2018	<ul style="list-style-type: none"> We asked attendees of the webinar whether our 5 identified areas of work were the right areas to focus on. Stakeholders broadly agreed that they were the right areas. We also asked if stakeholders could prioritise across the five areas – the key area of priority was the ‘clarifying responsibilities across the T-D¹⁷ interface’, closely followed by ‘Information provision’ and ‘Facilitating routes to market’. 	<ul style="list-style-type: none"> The five areas have all been taken forward into our RIIO-2 proposals. We have engaged further with stakeholders on the detail around their priority areas to further shape those proposals.
We explored the five areas with stakeholders in more detail via an ESO whole electricity system consultation in December 2018(to	<p>Across these channels, we heard:</p> <p>Information provision</p> <ul style="list-style-type: none"> We need to be brave about publishing data but be clear on parties’ roles and who should publish what information. 	<ul style="list-style-type: none"> We have carried out further engagement on what data stakeholders want access to and how they want to use it to inform our data portal proposal.

¹⁷ Transmission / Distribution

Channel	Feedback we received	How this is shaping our plan
which we received 7 responses) and a RIIO-2 workshop 17 December 2018	<p>Aligned and accessible frameworks</p> <ul style="list-style-type: none"> We need a regulatory framework that defines what we should be doing at whole electricity system level – clarity on how parties work together. Review of the code governance process is required. 	<ul style="list-style-type: none"> Our proposals to review the code governance process and the Grid Code seek to address this feedback.
	<p>Consistent and Transparent Flexibility Markets</p> <ul style="list-style-type: none"> Links in with data and someone is required to coordinate across networks. Markets need to work on a regional, local and national level. Need to design solutions to fix the problem with appropriate lengths of contracts. Consistent and transparent markets are required. 	<ul style="list-style-type: none"> Our market platform proposal (under theme 2) seeks to address this feedback but we will seek further views on this.
	<p>Clear coordinated roles and responsibilities</p> <ul style="list-style-type: none"> We need clarity of roles – what is the difference between ESO and DSO? Need a process to define roles and to include stakeholders (who should be leading this e.g. ENA, ESO, Ofgem). 	<ul style="list-style-type: none"> In our work on whole system operability we set out how we intend to ensure there are clear roles and responsibilities for system operators. This will be particularly evident in the run up to RIIO-ED2 in April 2023.
	<p>System risk and resilience</p> <ul style="list-style-type: none"> We need to understand the risk and how digitalisation and decentralisation will impact – how could automation help. We need to define our role and the roles of others. How could the ESO report better on system security on a longer-term basis. Could we provide more information on future system operability? 	<ul style="list-style-type: none"> Our restoration proposals within this plan (under theme 1), seek to build upon the work being undertaken by the Black Start Task Force and the NIC project to bring a whole system solution for restoration.

Phase 3 testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
RIIO-2 stakeholder event, 11 April 2019	<p>We discussed our proposals with stakeholders on operability from our ambition document, and we heard the following:</p> <p>Create a common portal to share network data</p> <ul style="list-style-type: none"> • Open data for all will deliver the most innovation and consumer value, and that investors and technology companies need consistent data from different network companies to give value to their propositions. • Stakeholders could see there being value in seeing transmission, distribution and ESO data in the same format and timescales. <p>Work with DNOs to develop clear roles and responsibilities</p> <ul style="list-style-type: none"> • The ESO and DNOs have complimentary capabilities, which creates a good basis for a future partnership. • We should be looking to use the two-year period between RIIO-2 and ED2, to test ways of working between the ESO and DNOs. We should be starting now to work out where challenges and conflicts may arise, with a view to solving them before the start of RIIO-ED2. • We can help DNOs by defining what is different about being a DSO and what capabilities are required. <p>Review of the SQSS and Grid Code</p>	<ul style="list-style-type: none"> • This is something that we need to test further with network companies in our ongoing engagement with them. • We agree that the ESO and the DNOs working together will be a positive relationship and we continue to work with all network companies through the ENA and our own engagement programme. • We will work with DNOs to develop clear roles and responsibilities ahead of RIIO-ED2.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> The SQSS is no longer fit for purpose and needs a review. We should be however, investing effort to support parties that will be affected by SQSS change. Stakeholders could see value in combining transmission and distribution codes. Perhaps with a first step of harmonising definitions to align them. 	<ul style="list-style-type: none"> We have received wide support for a review of the SQSS but we need to consider exactly how a review could be achieved. Need to recognise the potential impact of framework changes on stakeholders and consider implementation timescales and approaches appropriately.
<p>Develop and deliver arrangements that optimise network operation across the whole electricity system and ensure the system remains operable in a zero-carbon future.</p>		
	<ul style="list-style-type: none"> We don't need to decide what 'world' we want to end up in just yet but in the meantime consistency across DNOs and between transmission and distribution is key. 	<ul style="list-style-type: none"> We will seek to drive consistency across transmission and distribution where our current roles allow.
	<ul style="list-style-type: none"> DNOs tend to be less expert at markets than the ESO and if the ESO is going support the DSO transition then it should be paid for doing so. 	<ul style="list-style-type: none"> DSO transition arrangements are yet to be determined but we continue to be involved through ENA and other engagement.
	<ul style="list-style-type: none"> Stakeholders at one round table agreed that while they were very supportive of our ambition to be able to operate a zero-carbon network by 2025, we shouldn't look to achieve it at any cost. We must think about long term and short term consumer benefit. We shouldn't bake in sub-optimal solutions just to ensure we hit our ambition and must take an agile approach if it looks like we may not achieve it, for example, a year out. 	<ul style="list-style-type: none"> We agree that it would not be optimal for consumers to overspend in order to deliver on the ambition we have set. We will ensure that our plan remains agile throughout the RIIO-2 period and beyond.

Channel	Feedback we received	How this is shaping our plan
	<ul style="list-style-type: none"> A generator representative thought that the zero-carbon system operation ambition would not be met because we need things like inertia markets to be in place now so that there is a business case for change. In response one stakeholder thought that wind could provide a lot more services than it does currently. 	<ul style="list-style-type: none"> We have proposed through our other roles to develop and implement an inertia market but we will seek further views following publication of this plan on whether stakeholders think all of our proposals together as a package will allow us to meet our 2025 ambition.
	<ul style="list-style-type: none"> Incorporate whole electricity system thinking into the network design and development process. 	
	<ul style="list-style-type: none"> One stakeholder questioned whether it would be beneficial to use innovation funding for RDPs which would facilitate the sharing of outputs at the end and there was some agreement on this point. 	<ul style="list-style-type: none"> The RDPs were developed as part of 'BAU innovation' in order to start delivering consumer value sooner. We will endeavour to share outputs as we undertake more RDPs.
	<ul style="list-style-type: none"> RDPs should be applied to more whole system opportunities like heat and transport and should be much larger in nature. 	<ul style="list-style-type: none"> Yes, we agreed that RDPs could be wider in scope in future and that an agile approach and would lend itself to broader issues in future.
	<ul style="list-style-type: none"> RDPs are very network focussed which makes it more difficult for service providers to understand how they can meet a need. 	<ul style="list-style-type: none"> We consider that RDPs are more system operator focussed to meet an operational need but if there is a greater wish to understand information about them then we can facilitate that.
	<ul style="list-style-type: none"> The learning from each RDP will de-risk and lower the cost of applying that solution in a new place, so there should be ongoing benefit. 	<ul style="list-style-type: none"> We agree that this may be the case but we also consider that each RDP may be applied in a different way and to very different system needs.

Channel	Feedback we received	How this is shaping our plan
ADE DSR working group, April 2019	<ul style="list-style-type: none"> Two attendees discussed whether the RDPs were 'sticking plasters' to system issues and whether these issues could be more proactively resolved to avoid the need for RDPs. A stakeholder asked how flexible we are around the adoption of different 'Worlds' (other than World B)? They were concerned that we get along a path of World B but then need to change path – need to look at least regret options. 	<ul style="list-style-type: none"> We are looking to determine a strategy in Forward Plan (RIIO-T1) timescales for possible applications of RDPs into the RIIO-2 period. We have adopted a 'least regret' approach to this and we think that our preferred option of 'deeper relationship with DSOs' under a 'World B' scenario combines the natural evolution of the ESO role with the lowest cost of industry implementation and facilitates a whole system view that will deliver consumer value.
Bilateral meetings, various, April 2019	<p>A renewable generation company fed back that they think:</p> <ul style="list-style-type: none"> The ESO should lead in the DNO to DSO transition and that we should set standard for DSOs. There needs to be a large market formed for all the products being developed - doesn't think local products for local markets would be efficient. <p>Another generator company provided their views on whole system operability. They:</p> <ul style="list-style-type: none"> questioned whether World B was the right world to base our thinking (and IT design) upon disagreed with Baringa's interpretation of world B recognised that the codes and frameworks elements of our proposals will be influenced by Ofgem and BEIS review. 	<ul style="list-style-type: none"> We think we have a role to play in facilitating clarification of roles between the ESO and DNOs rather than set standards. These comments relate to Baringa's assessment of the ENA Future Worlds work. We understand the costs compared relate to network organisations only. We believe broader consideration of overall industry costs need to be considered to understand which future

Channel	Feedback we received	How this is shaping our plan
Responses to <i>Our RII0-2 Ambition</i> consultation, April 2019 - we received 11 responses	<p>We received the following views on our whole system operability proposals. Most stakeholders who commented positively supported our ambition and proposals in this area, with one saying that we should be doing more in this space due to our unique position in the industry.</p>	<p>pathway delivers greatest consumer value.</p>
	<ul style="list-style-type: none"> • One stakeholder said that they recognise a RDP may be efficient in some areas but cannot be assumed it will always deliver the best value for consumers so we do not recommend a wholesale rollout. • Where constraints exist, the proposed RDP should be fully tested against other traditional investment and market solutions to identify the greatest consumer value 	<ul style="list-style-type: none"> • We think that a tactical application of an approach to meet specific regional needs is required and in line with a clear strategy rather than a wholesale rollout. • We will ensure that other methods to meet the need are explored and that the RDP itself explores options.
	<p>On the common portal for sharing data:</p> <ul style="list-style-type: none"> • One stakeholder said they were supportive of improving data sharing between network operators and improving modelling across system boundaries and using a common portal is sensible. • The same stakeholder thought that it could be expanded to provide data to all market participants and could draw upon work by the ENA on the standardisation of data and a common resource register. 	<ul style="list-style-type: none"> • We agree that we should be drawing upon the work being undertaken by the ENA on data. Our work here will also be consistent with Energy Data Taskforce recommendations.

5.6.4 Broader analysis and industry engagement to develop energy policy recommendations

Phase 1 Listen

Channel	Feedback we received	How this is shaping our plan
Each year from October to February we hold a large number of workshops with a wide range of stakeholders to inform the development of <i>FES</i>	<ul style="list-style-type: none"> Stakeholders have commented that our analysis should be more directed at policy makers and that we should be facilitating debate on how the UK can deliver different pathways. 	<ul style="list-style-type: none"> Stakeholders have commented that our analysis should be more directed at policy makers and that we should be facilitating debate on how the UK can deliver different pathways.

Phase 2 - Developing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
RIIO-2 Stakeholder engagement event, 11 April 2019	<ul style="list-style-type: none"> A number of stakeholders wished to clarify that it is government that sets energy policy and it is our role to inform policy development through analysis. 	<ul style="list-style-type: none"> We are developing our proposal based on this understanding.
We received 11 responses to <i>Our RIIO-2 Ambition</i> consultation	<ul style="list-style-type: none"> All stakeholders are supportive of the ESO providing insight and analysis to support government in the formation of energy policy. However, there were mixed views on whether the ESO should be making policy recommendations. One large generator/supplier felt that our proposals to make policy recommendations, went beyond the boundary of our role. In contrast a large renewable generator highlighted that the ESO has a unique position as the interface between multiple market actors, and that we should be offering positions on how to address decarbonisation. 	<ul style="list-style-type: none"> We will continue to work with stakeholders to develop and refine our proposals for how we can apply our skills and insight to drive consumer value.

5.7 Open data and digital enablement

Phase 1 Listen

Channel	Feedback we received	How is this shaping our plan
In 2017 and 2018, as part of our “Manage my profitability customer journey”, we conducted deep dive sessions with a representative sample of the Big 6, large independent and small independent retailers, to understand their experience of being an ESO customer.	<p>We received a lot of insight into user experience of the information that we provide, particularly around charging. Other aspects included:</p> <ul style="list-style-type: none"> Information provided is often incomplete or unreliable. There is no opportunity to question or interrogate the data provided by the ESO and supporting narratives are not provided. Information sharing is not consistent and information is hard to retrieve. Frequency of information sharing does not meet user requirements. 	<ul style="list-style-type: none"> Our ambition and proposals for open data and transparency have been developed explicitly to address these concerns. Our preferred option includes the commitment to share our data management capability and share a much wider range of data, simple insight to explain the data, query functionality and far more accessible and usable data sets.
Ancillary services customer journey - We conducted deep dive provider experience sessions in May and June 2018 with a representative sample of small, medium and large service providers.	<ul style="list-style-type: none"> There is a thirst for transparency. Providers want to understand the decision-making processes behind the scenes, for example, across payments and dispatch. 	
System Needs and Product (SNAPS) strategy consultation in July 2017 – over 100 responses from a wide range of stakeholders	<ul style="list-style-type: none"> Transparency of market information was identified as one of the key enablers of efficient markets in the consultation on reform of balancing services procurement. 	

Phase 2 - Developing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
ESO 2030 Ambition workshop, 28 September 2018; RIIO-2 stakeholder workshop, 17 December 2018	<ul style="list-style-type: none"> • Stakeholders want more data including market dynamics, such as real time market data, and a strong emphasis on “problem statements” such as locations of constraints and how these problems are being solved. • Some stakeholders called for all possible market and operational data to be made available in its rawest form for those who want it. • In addition to the raw data which can be difficult to use, analysis and insight is also required to facilitate a level playing field for all parties to participate equally in markets. • There is a strong desire for “one source of the truth” as multiple platforms could develop adding unnecessary complexity. • We need to be mindful of risks and unintended consequences of sharing more data such as cyber security, data privacy and the potential for market gaming. 	<ul style="list-style-type: none"> • Our proposals for open data have been developed directly in response to the feedback we have received on our ambition, to make as much as our data open and accessible as possible.
	<ul style="list-style-type: none"> • Transparency was identified as the key principle both to stimulate markets and also to provide foresight in to future ancillary services requirements. • Participants need better information on market structure and liquidity to decide which markets they should be investing in. • Greater insight is required in to the future needs for these markets. 	<ul style="list-style-type: none"> • Our ESO platform proposes to give access to both historical and forecast data to support investment cases and decision-making.

Channel	Feedback we received	How this is shaping our plan
<p>Power Responsive Steering Group – January, April and October 2018</p> <p>The Power Responsive Steering Group consists of balancing services providers including aggregators as well as networks and wider interest groups.</p> <p>Power Responsive Steering Group notes can be found here</p>	<ul style="list-style-type: none"> • DSF providers need to understand when future balancing problems may arise for the system – and what problem needs solving by when. • The steering group members suggested that including information on longer term requirements and price trends, would help demand side providers to understand their cost-benefit proposition and returns on investment. 	<ul style="list-style-type: none"> • Our proposed ESO platform, integrated with the market portal, will provide information on current and future balancing issues.

Phase 3 - Testing our ambition and activities

Channel	Feedback we received	How this is shaping our plan
<p>RIO-2 webinar 21 March 2019</p>	<ul style="list-style-type: none"> • We shared our developing thinking on our ambition around data sharing and transparency and asked attendees two survey questions about their data and transparency requirements: <ul style="list-style-type: none"> • We presented the three options documented in our business plan and asked stakeholders which option best met their needs. Option 1 – simply share raw data; Option 2 – share raw data with simple explanation and insight; Option 3 - share 	<ul style="list-style-type: none"> • We have used the feedback received on question one, alongside other feedback document here, to inform our choice of preferred option, option 2. • We will use the feedback on question two to prioritise our work to process and share data and information as we conduct this work.

Channel	Feedback we received	How this is shaping our plan
	<p>raw data and advanced analysis and insight as well as providing greater interaction and tools to allow stakeholders to manipulate the data. Stakeholders told us that they would like the functionality provided in option 3 but that we should focus on delivering the fundamental requirements of Option 1. Some stakeholders also commented that we needed to provide a certain level of insight and explanation to support stakeholders in use of the data that we provide.</p> <ul style="list-style-type: none"> We presented four generic data categories and asked stakeholders to prioritise which data sets were of most value to them. In order of preference stakeholders selected are forward-looking view of system requirements; whole electricity system view of constraints; real-time margins and utilization; and transparency on control room decision making processes. 	
<p>We tested the proposals in our RIIIO-2 Ambition document with in-depth discussion at two interactive forums in April 2019:</p> <ul style="list-style-type: none"> Power Responsive Steering Group 	<ul style="list-style-type: none"> Understanding of future requirements will allow parties to innovate to come up with new solutions to problems. Transparency of control room decision making is essential to foster market confidence and greater participation. We need to look at other developments in this area such as the BEIS data taskforce. 	<ul style="list-style-type: none"> We have factored these requirements in to our proposal in the Business Plan and will scope the delivery plan to meet these priorities. In our Business Plan, we have articulated how we see our work on open data supporting the ambitions of the BEIS data taskforce.

Channel	Feedback we received	How this is shaping our plan
<p>round table, attended by 19 stakeholders</p> <ul style="list-style-type: none"> • ESO RIIO-2 Stakeholder workshop, 11 April 2019, attended by 30 organisations including <p>We also had the opportunity to test our proposals at group meetings of the ADE and Renewable UK as well as through bilateral meetings with several interested stakeholders.</p>	<ul style="list-style-type: none"> • At the workshop, we asked the same survey questions as we asked at the RIIO2 webinar in March 2019. The responses were mostly in favour of options 1 and 2. In addition, we heard that we should not try to provide too much insight and analysis as this may prevent other, better placed, parties from innovating in this space. This is consistent with the comments received in the webinar that we should focus our attention on getting the data out in a usable format with a limited amount of insight sufficient to help stakeholders understand and use the data. 	<ul style="list-style-type: none"> • This feedback has informed our identification of our preferred option in this business plan; Option 2.
<p>We received 11 responses to our RIIO-2 Ambition consultation</p>	<ul style="list-style-type: none"> • Large generator/suppliers as well as an industry body representing smaller parties all strongly supported our ambition and proposed activities for data and transparency. Examples of data that stakeholders would like to see published include: demand; generation; frequency; power flows; system constraints; line outages; balancing actions. • Stakeholders also told us it would be helpful and valuable for the ESO to publish data in range of formats including 	<ul style="list-style-type: none"> • We will reflect these requirements in our work to develop our ESO portal.

Channel	Feedback we received	How this is shaping our plan
	<p>simple reports that allow easy access to information suitable for any user together with downloadable data files and Application Programming Interfaces (APIs) that facilitate access to data for those market participants and other interested parties.</p>	
<p>As part of our open invitation to have bilateral sessions we have also we have also engaged a range of stakeholders including two wider interest groups, service providers, generators and suppliers</p>	<ul style="list-style-type: none"> • Greater transparency around control room decision making was requested. 	<ul style="list-style-type: none"> • These requests are all included in the scope of our ESO platform proposal. • This is included in the scope of our ESO platform proposal.
	<ul style="list-style-type: none"> • The members of a wider interest group told us that they wanted as much data as possible in machine readable format and that we should focus on ESO portal Options 1 – focus on getting the data out. 	
	<ul style="list-style-type: none"> • Future requirements for balancing services was highlighted as a key piece of market intelligence to inform commercial decisions. 	

5.8 Cost Benefit Analysis

We engaged with a small group of stakeholders that cross-represented industry to seek the view on our Cost Benefit Analysis (CBA) approach and whether it was creating credible benefits for the RIIO-2 Ambition. A summary of the feedback can be found below and we will be looking at how we incorporate this feedback after our July Draft Business Plan.

Key Points

- Stakeholders broadly support our process. They acknowledged that this is a challenge for the ESO as we do not directly interact with consumers and our benefits are potentially wider ranging and hard to monetise.
- Stakeholders supported being consistent with the HMRC 'Green Book' and other Network CBA's on spend to ensure consistency and enable Ofgem to easily compare.
- We need to better define the question we are asking when completing a CBA. What are looking to CBA and why?
- We need to clearly define Consumer. Is there a split between residential / I&C, what about regionally?
- Stakeholders felt there were limited areas where a robust CBA could be undertaken, they gave the control room as a good example, but struggled with the Smarter Markets activities and how some activities were enablers or influencers for far larger benefits later e.g. BSUoS review or NOA.
- Around scenarios and sensitives, stakeholders supported *FES* but struggled to see how some activities would vary due to different energy landscapes. They felt there was more value in looking at cost overruns, delays in implementing IT projects or major policy shifts.

Scenarios

Using *FES* scenarios as a basis for CBA was broadly supported however some concerns were raised around:

- Scenarios should be used to feed into the information you have at the time.
- Sensitivities in *FES* should not just be based on the consistency between the scenarios but based on the timings of when things could happen and the benefits against this.
- Policy or commercial decisions can alter the scenarios.
- If using scenarios as base for CBA, how do you justify the cost and could it potentially push an activity in a certain direction?
- Should be tested with stakeholders to ensure no scenario is missed.

Benefits

There is a trade-off between benefits for society versus benefits for safety and security. This must be Ofgem's decision.

Easily defined qualitative benefits could be:

- cost of BSUoS per kwh
- how it impacts different customers
- reduced cost on the bill.

Some benefits are easier to quantify than others. There is acknowledgement that wider system benefits need to be taken into consideration, especially if actions the ESO takes could have an impact on costs for others, and consideration for demonstrating how can influence of these costs.

Model/Process

- Capital expenditure should be fully consistent with the TOs. There should be a distinction between cost types and how they are assessed. For example, opex and capex could have different processes.
- Stakeholders questioned how the CBA demonstrates if we have the capability to deliver the proposed activity and if we would therefore be the right organisation to deliver it.
- Stakeholders wanted to better understand the discount factor and NPV, whether it would change per activity or would be consistent across the CBA.
- We need to ensure we have the right data to carry out a robust CBA, specifically on Whole System outcomes, and take into consideration whole system costs.
- If the CBA is robust enough it should be the primary decision factor for going ahead with proposed activities.
- Stakeholders would like to see more of the detail behind the benefit categories to see how the number has been quantified.

Activities proposed for cost-benefit analysis

- Stakeholders said we needed to identify the definition of the needs case and why we should spend any money on the activity. If there is no needs case, there shouldn't be a CBA for that activity.
- Stakeholders suggested they need to see the baseline cost for the activity and the baseline plus the added cost, to show the additional benefit created from the additional spend.
- Certain decisions for some of the suggested CBA topics are out of the ESO's control. Certain topics should also be led by stakeholder input.
- There needs to be the right critique of the costs for the wider benefits as well as potential negative benefits across the wider system involved.

General

- Stakeholders questioned how we know if the activities that we are currently carrying out as BAU are efficient, and whether there are things we could do better, or whether should we continue doing them. For example, stakeholders questioned the overall cost of *FES* and if it should be included in the CBA. It was also questioned as to whether it is effective to carry on producing the *FES*. This is potentially a decision for Ofgem.
- One stakeholder felt that under this activity it feels like we offer a consultancy and insight service and therefore we should be costing this.
- Stakeholders felt this was a very complicated process we were condensing down to one number. As it covers many parties and timescales it could be dangerous and hide the sub costs that sit underneath it and the different effects on other people.
- There was agreement that lots of activities are chained.

- CBA should not be using a simple tool and blanket approach across multiple activities.
- Many stakeholders felt we should be looking at appropriate benchmarking, they understand it is limited but felt looking historically is not always sufficient.
- Further detail to understand the risk associated with activities and CBA would be welcome.

Overall stakeholders felt this was a positive piece of work and welcomed the opportunity to be involved in the development process and could positively critique and be engaged on the subject.

An alphabetic list of all the stakeholders that we have engaged with to date

Organisation	Sector	Organisation	Sector	Organisation	Sector
ABB	Other	Buccleuch	Other	DNV GL Energy	Consultancy
Air Products	Other	Burns Mcdonnell	Other	Drax	Generator
Aldersgate Group	Wider interest	Cadent	Gas Distribution Network	EA Technology	Consultancy
AMDEA	Wider Interest	Cardiff University	Academic	Ecotricity	Supplier
Anesco	Service Provider	Carlton Power	Other	EcuSol	Other
Arenko	Service Provider	Centre for Sustainable Energy	Wider interest	EDF	Supplier
Arup	Other	Centrica	Supplier	EDF	Generator
Association of Decentralised Energy (ADE)	Public Interest	Centrica	Generator	Edinburgh University	Academic
Atkins	Other	CEPA	Consultancy	Eelpower	Service provider
Aurora Energy	Other	Challenging Ideas	Public Interest	Electric Power Research Institute	Wider Interest
Avon Utilities and Generation	Service Provider	Citizens Advice	Consumer Interest	Electricity North West	DNO
Baringa Partners	Consultancy	Citizens Advice Scotland	Consumer Interest	Electricity Supply Board (ESB)	Generator
Be Storage	Service Provider	Denchi Power	Supplier	Electron	Service provider
British Steel	Customer	Department for Business, Energy and Industrial Strategy (BEIS)	Government	Elexon	Cross industry stakeholder

Cost Benefit Analysis

Organisation	Sector	Organisation	Sector	Organisation	Sector
EnelX	Service Provider	Fred Olsen Renewables	Generator	Karpowership	Other
Energy and Climate Change Intelligence Unit - ECIU	Wider Interest	Gazprom	Supplier	Kings College London	Academic
Energy Bridge	Consultancy	Green Frog Power	Generator	Kiwi Power	Other
Energy Networks Association	Cross industry stakeholder	Greenspan Energy	Service Provider	Kregor	Consultancy
Energy Systems Catapult	Wider interest	Grid Beyond	Service Provider	Levelise	Service Provider
Energy UK	Wider Interest	Harmony Energy	Service Provider	Liberty	Service Provider
Enernoc	Service Provider	Haven Power	Supplier	Lime Jump	Service provider
Engie	Generator	Highview Power	Service Provider	Linklaters	Wider interest
EON	Supplier	Hitachi	Other	London Mayor's Office	Local Authority
EON	Generator	Howard Kennedy LLP	Other	Long Harbour	Consultancy
Exeter Energy Policy Group	Wider interest	Hudson Energy	Supplier	LSTC	Other
Exxon Mobil	Other	IB	Other	Major Energy Users Council (MEUC)	Cross industry stakeholder
Facta NV	Other	Imperial College London	Academia	Manx Utilities	Generator
Formac	Other	Innogy	Generator	Marchwood Power	Generator
Frazer Nash	Consultancy	Jacobs	Other	Mineral Product Association	Cross industry stakeholder

Cost Benefit Analysis

Organisation	Sector	Organisation	Sector	Organisation	Sector
Moixa	Service Provider	Octopus Investments	Service Provider	Reg Power Management	Service Provider
Mott MacDonald	Consultancy	Ofgem	Regulator	Regen SW	Wider Interest
Murphy Group	Other	Opus Energy	Supplier	Renewable Energy Association	Cross industry stakeholder
Mutual Energy	Other	Ørsted	Generator	Renewable UK	Cross industry stakeholder
National Grid Electricity Transmission	TO	Ovo	Supplier	RES Group	Service Provider
National Grid Ventures	Customer, Service provider	PA Consulting	Consultancy	RWE	Supplier
Navigant	Consultancy	Peak Earth	Consultancy	RWE	Generator
Network Rail	Customer	Peakgen	Service Provider	S & C Electric Company	Other
Nokia	Service Provider	Peterborough Environment City Trust	Wider Interest	S6	Other
Norges Bank Investment	Consultants	Piclo (previously Open Utility)	Other	Saint Gobain	Other
Northern Power Grid	DNO	Power and Renewables	Consultancy	Scottish Government	Government
npower	Supplier	PSC Consulting	Consultancy	Scottish Power	Generator
Nuvve	Other	Reactive Technologies	Service Provider	Scottish Power	Supplier

Cost Benefit Analysis

Organisation	Sector	Organisation	Sector	Organisation	Sector
Scottish Power Energy Networks	DNO	Swansea University	Academic	VPI-I	Service provider
Scottish Power Transmission	TO	SWECO	Consultancy	Viridor	Service Provider
Severn Trent	Other	Teal Hippo	Consumer Interest	Welsh Government	Government
Shell	Service provider	Tech UK	Other	Waters Wye	Consultancy
Siemens	Service Provider	Terna	European Grid Operator	Welsh Power	Service Provider
Simec	Service Provider	Tesla	Service provider	Western Power Distribution	DNO
Smartest Energy	Supplier	TNEI Group	Consultancy	Wileys	Other
Solar Trade Association	Service Provider	Transmission Investment	OFTO	Yellow Wood Energy	Consultancy
SSE Enterprise	Supplier	UK Power Networks	DNO		
Stark	Other	UK Power Reserve	Generator		
Statkraft	Service provider	UK Power Reserve	Service provider		
StatoilEquinor	Generator	University of Birmingham	Academic		
Stemy Energy	Service Provider	University of Edinburgh	Academic		
Storelectric	Service Provider	Upside Energy	Generator, Service Provider		
Sustainability First	Consumer Interest	Vattenfall	Generator		
Swan Barton	Consultancy	Vitol	Service Provider		

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