

ESO RII0-2 Business Plan 2 Stakeholder engagement

Annex 3

29 April 2022

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Introduction

We are operating within the heart of the energy transition, working with a network of organisations to realise a shared ambition of achieving a net zero carbon electricity system by 2035. The interconnected nature of the energy industry means we will need to realise our Trusted Partner ambition and bring stakeholders with us as we work to facilitate decarbonisation. We also believe that making decisions alongside our stakeholders and factoring in their diversity of views should lead to better outcomes for customers and consumers. Therefore, our plans for BP2 are influenced by feedback from discussions and engagement across our many forums and touchpoints with stakeholders.

The challenge of meeting net zero however, is just part of the story. As the Covid-19 pandemic has unfolded, consumers are now facing higher cost of living and exceptionally high energy prices. Our direct engagement with consumers is limited, our role is to support those stakeholders who do have these relationships. It's therefore as important as ever that we work alongside these organisations to understand how the energy system can transition both rapidly and affordably to meet consumers needs.

The wider industry context means our stakeholders are busier than ever, and their time is a limited resource. We also recognise the broad scope of activities within our second Business Plan (BP2) and the complexity of communicating a plan where some areas have changed significantly, whilst others were consulted on broadly as part of our BP1 process.

Our engagement strategy has therefore taken a blended approach. We recognise that much of the new and materially changed activities have well established engagement processes which will feed into our business planning as part of our ongoing 'always listening' approach. We have and will continue to draw from a range of engagement activity already taking place across the business to reduce engagement fatigue. Where appropriate, we have and will compliment this activity with specific BP2 engagement opportunities.

As part of our business planning process we have also decided to reconvene the ESO RIIO-2 Stakeholder Group (ERSG), a group of senior leaders representative across the ESO's roles and wider industry, who challenge and scrutinise the content and direction of our business plans. Members are selected based on their expertise across a broad range of energy issues and their ability to provide constructive challenge.

We have structured the report in to three parts:

1. **Engagement for a second Business Plan (BP2)** – Our engagement approach for an updated plan, including our objectives, who we are engaging with and what areas of the plan are we prioritising engaging with stakeholders around.
2. **How we have and are continuing to engage** – This chapter describes in detail the different methods we are using to engage with stakeholders.
3. **What are our stakeholders telling us?** – Broken down in a structure aligning to the delivery schedule within the Business Plan, this is a report of the key themes of stakeholder feedback and how these have been fed into the planning process.

Consultation

The consultation on BP2 will run from 29th April 2022 for 6 weeks closing on 10th June 2022. We will be running a mix of events for our stakeholders to get involved and providing a suite of opportunities for organisations to provide feedback across the entire plan.

Development of this Annex

The first draft of this Annex has been developed in preparation for a consultation, which will continue our BP2 stakeholder engagement. We will further develop this Annex, reflecting stakeholder feedback as we now go through our formal consultation phase.

Engaging for the second Business Plan (BP2)

Stakeholder Annex for a Business Plan update

Our original BP2 Stakeholder Annex¹ evidenced broad engagement developing our priorities across the RIIO-2 period. This Annex provides an update on this evidence for BP2.

As set out by the RIIO-2 Business Planning guidance published by Ofgem in September 2021² we provide stakeholder feedback received from engagement, where we have used this feedback within the Business Plan, and where we have not been able to accommodate the feedback along with the rationale.

Engagement objectives

Our engagement objective for the BP2 remains unchanged from the first – 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 this value.

The key objective of our BP2 engagement has been to ensure that we continue to listen and take on board feedback from stakeholders into our updated commitments. To ensure we are still meeting the objective of obtaining sufficient feedback to inform our commitments whilst preparing BP2, we have been:

- Testing with stakeholders that our proposals within BP2 are well justified, particularly those undergoing material change from BP1, using existing events where possible to minimise stakeholder fatigue.
- Clearly communicating our proposals and demonstrating how any stakeholder feedback already received has shaped our proposals in the Business Plan.
- Continuing to run the ESO RIIO-2 Stakeholder Group (ERSG) - who provide feedback on our BP2 proposals as well as scrutinise our stakeholder engagement and delivery capabilities.

Who are we engaging?

Stakeholder segmentation

It's important for us to understand which stakeholders are impacted by our business activities. To manage, plan and deliver effective stakeholder engagement we categorise/segment stakeholders into groups which we then analyse to understand how we can effectively engage around specific proposals.

We have a broad range of stakeholders across industry and beyond and we have categorised these into the groups and sub-groups as shown in Figure 1.

¹ <https://www.nationalgrideso.com/document/158066/download>

² [Microsoft Word - 06 ESO RIIO-2 Annex 3 - Stakeholder report V1.1 051219 \(nationalgrideso.com\)](#)

Figure 1 - ESO's stakeholder segments for BP2



Stakeholder analysis for BP2

Because the activities we're undertaking in Business Plan 2 are far reaching and diverse, we have sought to understand how different segmented stakeholder groups are impacted to differing extents across each of our Business Plan activities..

Having a granular understanding of how our Business Plan is impacting stakeholders allows us to tailor our engagement. As we develop our plans, we have a clear understanding of where we need to be efficiently seeking feedback in order to create plans which work for industry.

To enable us to track and monitor feedback and engagement, we use specific analysis tools coupled with our Customer Relationship Management system Salesforce.

Engagement principles

Developing our approach from BP1

For the original RIIO-2 Business Plan, our stakeholder engagement strategy enabled us to develop and refine our activities that featured in the plan. We were inclusive in our engagement approach, and worked with a broad range of stakeholders across many sectors.

During the BP1 period we have evolved our engagement strategy to an 'always on' approach that has increased the opportunities for all customers to engage through robust business as usual (BAU) routes. We now have many forums and touchpoints to engage with stakeholders as part of this BAU engagement. We have utilised these as much as possible to develop our BP2 proposals, rather than adding additional engagement activities to an already complex and congested area.

Engaging stakeholders on a developing plan

Our Business Plan operations are broken down into activities, sub activities and deliverables. These are contained within our RIIO-2 delivery schedule. The BP2 submission revises this schedule, and there are now a number of new and materially changed activities as described in BP2. Drivers for new and materially changed activities from BP1 are varied. Some change is driven by evolving internal processes, others are triggered by government policy in partnership with Ofgem and BEIS, with other changes being in direct response to stakeholder feedback.

- Regardless of their origin, we endeavour to develop our proposals using the many forums and touchpoints we have developed with stakeholders. Where it's been appropriate to do so, we've set up specific engagement events to gain further feedback or inform stakeholders of the developments.
- We understand that our stakeholders are working hard to deliver the scale of change needed to ensure the energy system of the future. We are therefore prioritising our BP2 specific engagement activities on new and materially changed activities from BP1. How we plan to approach engagement for each area of change is set out below.

New activities for BP2

We have taken on new activities during BP1 that will continue in BP2 following direction from Ofgem and BEIS. As new activities, these typically involve significant stakeholder

engagement as we seek a view from industry of how to best develop and deliver these. Some examples of these activities include: Offshore Coordination, Network Planning Review, Early Competition and Net Zero Market Reform. Dedicated programmes of engagement have been set up for these activities including specific consultation. We will use this Annex to signpost to relevant materials, highlight key themes and link feedback to what we intend to deliver in these new areas within BP2.

Material change from BP1

Some of the existing activities within the BP1 delivery schedule are undergoing a 'material change'. Where appropriate to do so, we have been seeking opportunities to liaise with customers and stakeholders to ensure that we can meet the needs of industry in the development of these activities. These sub-activities generally have an intrinsic stakeholder engagement component within their project development, we will again report on the key themes of stakeholder feedback and how these are driving our BP2 delivery.

Minimal change to BP1

As BP2 is an update from BP1, there are parts of the delivery schedule which will remain the same as BP1. As BP1 was already deemed ambitious by Ofgem, it is reasonable to expect that much of this ambitious plan is still relevant in order to deliver the changes required by our stakeholders and customers. Many areas of the plan which remain as business as usual (BAU) still require stakeholder engagement in order to develop processes. This is largely already reported on in the RIIO-2 incentives reporting, and we signpost to the relevant reports from this Annex as appropriate. Information gathered from BAU and BP2 specific engagement is included where it provides context to how the plan has evolved.

Facilitating a consumer centred energy transition

To understand and scope out the ESO's role in enabling consumers to participate in a decarbonised energy system, we have completed work during BP1 to better understand the consumer experience of the energy ecosystem. This has provided us with a consistent framework for describing the consumer experience. We identified key macro journeys, within which there are multiple touchpoints with various energy ecosystem participants. This framework is easy to understand and enables ESO employees to have a greater understanding of energy consumer experiences, and the relationships that consumers will have with different parties in the energy system.

Consumer personas

We have carried out consumer research to explore the societal transformation that is needed to deliver net zero, as described in our Future Energy Scenarios. This explored consumer perceptions of climate change, attitudes towards net zero, appetite for and ability to change and who consumers look to for support in behaviour change. This identified a set of personas which were also used to inform our work in understanding the consumers experience of the energy system. Building on this we completed further research to gain deeper insights into consumers' ability and willingness to support demand side flexibility. These insights have been used to enhance the Bridging the Gap publication³.

³ [Bridging the Gap to net zero | National Grid ESO](#)

We completed journey mapping for the different consumer personas that we have identified through our research and this analysis of consumers' energy ecosystem interactions has revealed the diversity in how different segments are likely to change behaviour. We looked at how they each experience the ecosystem now and used the FES scenarios to consider the future state and how will that look different in 2035. This has enabled us to understand how consumer experiences and the touchpoints in the ecosystem will potentially evolve over the next decade. The extent of the changes in the ecosystem touchpoints differs by consumer persona, but in all cases consumers will have a new set of touchpoints and relationships to navigate. We will see new participants in the energy ecosystem that we may need to engage with to understand how the products and services they offer will support consumers and impact how we operate the system.

Levers of change

To help us understand what actions the ESO can take to ensure consumers are best placed to take advantage of the energy transition we've identified a series of levers that the ESO and others will need to action to drive behaviour change or to make the process simpler for consumers. These are based on where we believe there are currently gaps that would prevent the full potential of consumer flexibility being realised across the ecosystem. These are shown in figure 2 below.

Figure 2 - The five levers to drive change in consumer behaviour



Data & Insight: Providing information and analysis to participants in the energy ecosystem



Policy & Standards: Writing and updating energy policy to ensure an equitable, sustainable and functional system



Energy & Financial Markets: Setting rules of market engagement to guide participants towards better outcomes for the consumer



Engagement: Supporting energy consumers towards more sustainable consumption



Awareness: Improving consumer understanding of the impact of their consumption and options available

We recognise we don't own these entirely but need to understand our role within each of these areas, our focus will now be to expand the descriptions and seek stakeholder support to validate the ESO consumer role.

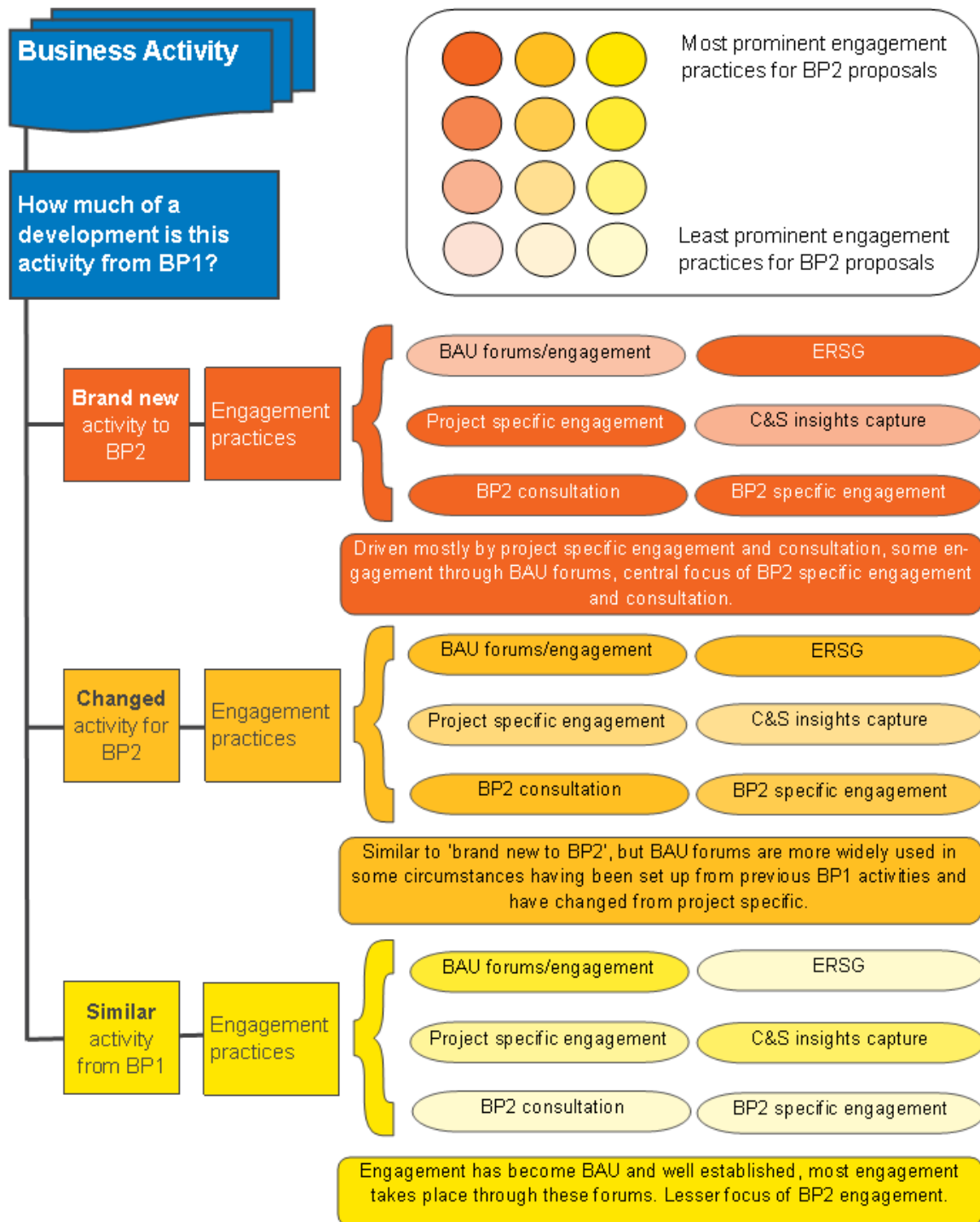
Next steps

We need to do more work in the coming months. To develop our understanding of consumer priorities we have identified and initiated relationships with consumer groups including Citizens Advice to deliver better consumer outcomes. We will continue to develop these relationships and work with other organisations that have direct consumer relationships, particularly energy suppliers. This will support us to validate and define the ESO consumer role.

How are we engaging with stakeholders?

We have been gathering feedback on our activities through different engagement practices run across the business. The core practices include our BAU forums / engagement, project specific engagement, ERSG, customer and stakeholders' insights capture and BP2 specific engagement. Feedback from these areas were collated by our teams to feed into the proposals. Figure 3 indicates how each of these areas has shaped our new, materially changed, and remaining parts of the plan. This chapter will describe each of these practices in more detail.

Figure 3 - engagement practices which are shaping our plan



Capturing insights on a continuous basis

A key part of our ESO BAU engagement with customers and stakeholders is gathering meaningful insights that enable us to act and improve on the customer experience. We do this by ensuring we measure the right things (e.g. against our Trusted Partner ambition) and being flexible in how we measure them (considering our different customers). We also measure them in a consistent way across the business, and respond to customers in a timely manner so they know they have been listened to and understand what is happening with their feedback.

When we do this well, our customers will feel that we are being transparent with information, that we are collaborative, and that we are working with them as partners as we make progress together through the energy transition.

Our approach to gathering is one where we utilise different tools for our different customers and stakeholders. These different tools include:

Centrally managed user groups

Purpose: to engage stakeholders on a range of issues within a specifically defined area. Examples of this include Transmission Charging Methodology Forum, ESO RIIO-2 Stakeholder Group etc.

Target stakeholder groups: Stakeholders at a range of levels dependent on specifically defined area.

SATs / Roles survey

Purpose: Used in looking at how we are delivering against our ESO Roles and Trusted Partner ambition, using the feedback to help us support any strategic changes in direction and prioritisation. The Roles feedback is used specifically as evidence for our mid/end of year incentives report

Target stakeholder groups: Strategic senior level relationships and key decision makers

Qualtrics survey tool

Purpose: To improve day-to-day / operational processes and experiences, looking for specific feedback in these areas allowing us to act on customer insights quickly

Target stakeholder groups: Operational level contacts

Salesforce CRM

Purpose: Capturing everyday interactions (phone calls, emails, meetings) and tracking timely response to these and resolution. This allows us to deep dive root causes and tackle “query avoidance” by reviewing data on regular basis with ESO teams.

We also use Behavioural Indicators, a score on a scale of 1-10 in Salesforce where ESO staff can record how well they feel interactions have gone with customers. This gives us a measure of the strength of our individual relationships with customers and stakeholders that we can track and act on.

Target stakeholder groups: All contacts

Webinars / Consultations

Purpose: Obtain project based feedback on specific topics at different stages throughout the project life cycle. This enables collaboration and transparency on the work we are doing

Target stakeholder groups: Any contacts (targeted customer segments for specific projects)

Capturing specific BP2 feedback

Whilst we capture BAU insights in the ESO through a number of mechanisms outlined in the section above, we are seeking to capture specific feedback to shape our BP2 proposals. These are predominantly done through 4 routes.

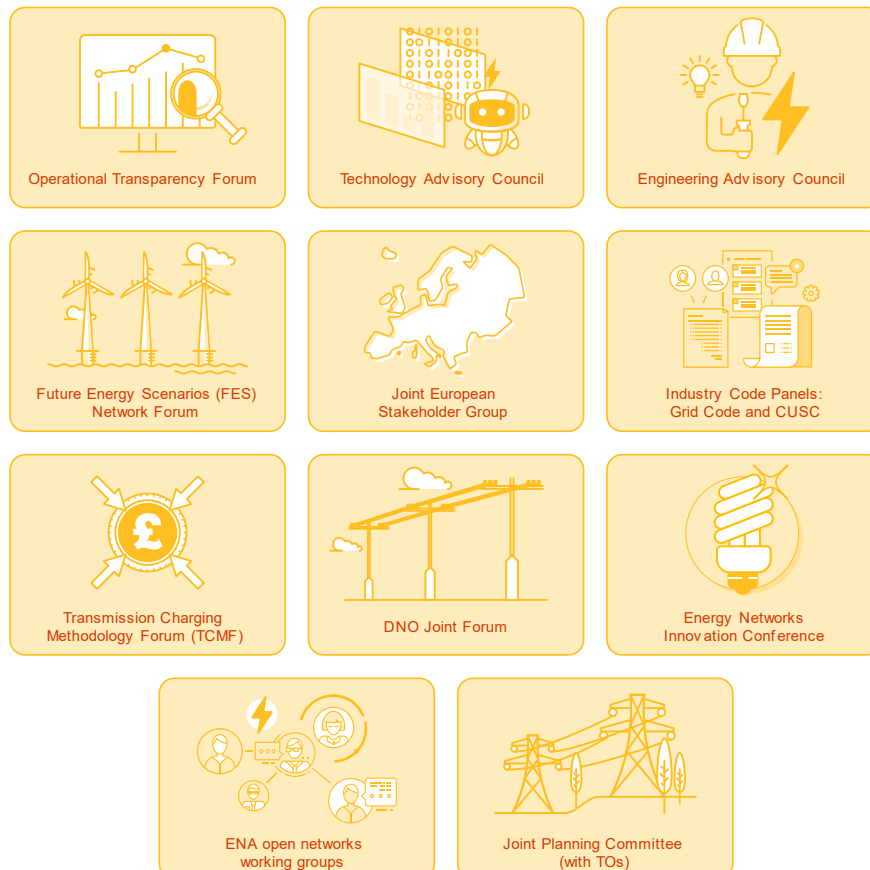
- Utilising BAU routes for BP2 engagement
- New Project Specific Engagement
- ESO RIIO-2 Stakeholder Group (ERSG)
- BP2 specific engagement

Utilising BAU routes for BP2 engagement

Drivers for new and materially changed activities from BP1 are varied. Some change is driven by evolving internal processes, others are triggered by government policy in partnership with Ofgem and BEIS, and other changes are in direct response to stakeholder feedback. Regardless of its origin, we endeavour to develop our proposals using the many ESO forums and touchpoints we already have in place with stakeholders to test and fine tune these proposals.

We're proud of the regular engagement that we've established with our stakeholders, we also understand that with so much change taking place across the industry, there is a big expectation on stakeholders' time. That's why the majority of our engagement for these proposals has been developed by listening to stakeholder feedback via our existing channels. These existing channels include:

Figure 4 - Stakeholder forums where we're engaging regularly



Project specific Engagement

New activity engagement

For some activities, it is more appropriate to undertake more detailed stakeholder engagement. Where business activities are new or have become established since the creation of BP1, we have undertaken comprehensive engagement during the development of BP2. In developing these activities, we've sought the views of industry and have created ways of working which will influence the way these activities are delivered throughout BP2. Stakeholder engagement activities for these areas are included below.

Net Zero Market Reform (NZMR)

We are acutely aware that any reforms could have significant impacts, both positive and negative, on different types of current and future market participants. Therefore, we have spent a significant amount of time engaging and co-creating with stakeholders. Over the course of phases one to three of our NZMR project we have engaged with over 1,000 stakeholders across 15 workshops and events. We have also undertaken dozens of in-depth bilateral meetings with market players, academics, think tanks and trade associations.

These events have included:

- “The road to net zero electricity markets launch” in March 2021, where we launched Phase 2 of the net zero market reform project, shared key insights from Phase 1, and outlined our high-level plans to progress our review of GB electricity market design for net zero throughout the rest of the year.
- In June 2021 we provided an update of our net zero market reform project and the plan for tackling the case for market reform (“case for change”).
- In July 2021 we hosted three net zero market reform workshops looking at the case for market reform (“case for change”). Each workshop focused on a different package of work, investment, flexibility, and location. We asked stakeholders to share their views on whether current market design drive the right signals to achieve the requirements for a net zero energy system.
- In September 2021 we hosted one of our net zero market reform workshops looking at the range of possible market design options consistent with achieving net zero. The objective of the workshop was to develop a long list of possible options and discuss what assessment criteria should be used to assess the relative merits of the different options. We captured stakeholders’ ideas and thoughts on both topics.
- In November 2021 we published an update on our net zero market reform project which presents our conclusions from Phase two.
- In January 2022 we hosted our first two net zero market reform events of Phase 3. The objective of these sessions was to share the refined market design options for each of the key market design elements identified in Phase 2. We also shared our thinking and gathered feedback on the proposed approach for assessing each option in Phase 3.
- We have also held events in February and March 2022, the outputs of which will be fed into our final Business Plan.

We only expect this level of engagement on this area to increase over BP2 as the profile of our work increases and our stakeholder community grows.

Early competition

The Early Competition Plan (ECP) was co-created with stakeholders. During this 18-month period we held 37 webinars, workshops, industry forum updates, and 4 ENA working group meetings. We also ran two formal consultations, and a bespoke consultation on roles and responsibilities. This enabled us to include stakeholder views in the creation of our proposals. During the creation of the ECP, we established the Energy Networks Stakeholder Group (ENSG), which was used to ensure stakeholder engagement was robust. The ENSG's role was to help ensure that the ESO developed fair and transparent early competition proposals that incorporated balanced feedback from affected stakeholders.

The group was made up of experts from the technology supply industry, investor groups, representatives from transmission owners, generators, all experts within their fields to ensure a wide range of interests were considered. In their final report, ENSG confirmed their view that the ESO had considered stakeholder views in developing the ECP. Their report is available on our website, detailing membership of the group along with papers from each meeting.⁴

DSO transition

We held a webinar on 6 May 2021 to allow stakeholders to hear from ESO colleagues around the ten coordinating functions we proposed. The Association for Decentralised Energy (ADE) and Energy Networks Association (ENA) also presented their views on the importance of, and priorities for the DSO transition. Over 100 stakeholders attended the webinar to hear more on our approach and ask questions. We published responses to all questions raised and the webinar recording is available on our website.⁵ We then launched a consultation in Summer 2021 and received 15 stakeholder responses⁶ including network organisations and service providers. We used stakeholder feedback from these activities to start developing our thoughts for future developments needed in BP2.

Offshore Coordination

Since January 2021, the Offshore Coordination project has facilitated many engagement opportunities which lay the foundations for activities in BP2 timescales.

We have held ongoing engagement with BEIS, Ofgem, onshore TOs, offshore wind developers, The Crown Estate, Crown Estate Scotland, Offshore Transmission Owners (OFTOs), interconnector developers, MPs, the Welsh and Scottish Governments, Academia, Consultancies, Planning Authority/Inspectorate, Local Authorities, environmental groups, and other industry stakeholders (through over 300 touch points).

This engagement has involved:

- Project-wide updates to all stakeholders through email communication, website updates, webinars, and the Offshore Coordination Autumn Progress Publication.
- Updates provided at Offshore Transmission Network Review (OTNR) governance groups.
- Regular meetings with stakeholders involved in the development of the Holistic Network Design (HND), including a Central Design Group (CDG) and a series of CDG subgroups (on topics such as environmental and commercial impacts), as well

⁴ [ESO Network Stakeholder Group's Report on the NGESO's Early Competition Project](#)

⁵ [Enabling the Distributed System Operation \(DSO\) transition Webinar Q+A](#)

⁶ [Enabling the DSO transition consultation document](#)

as bilateral meetings to seek technical input that is helping to inform various elements of the HND.

- Six stakeholder workshops relating to potential code modifications and the electrification of oil and gas platforms; and
- Multiple stakeholder surveys to help shape the project's engagement approach and identify stakeholders' priorities.

Section 5 of the Offshore Coordination Autumn Progress Publication⁷ provides a forward view of engagement activities over coming months, grouped by category of stakeholders and covering each of the project workstreams.

Network Planning Review (NPR)

For the NPR, we are currently planning the engagement we believe to be necessary to support the development of proposals. We anticipate taking a two-stage approach, which will involve engagement on both the key stages of the NPR (development of the end-to-end strategic planning methodology, and the more general review of network development and planning processes), followed by further engagement as part of Ofgem's ETNPR.

ESO RIIO-2 Stakeholder Group (ERSG)

We originally set up the ESO RIIO-2 Stakeholder Group (ERSG) in July 2018 to provide formal, independent scrutiny as part of an enhanced engagement approach during the development of our Business Plan. The group met regularly between July 2018 until December 2020, providing an important consumer and stakeholder lens to ensure their priorities were reflected in all our proposed activities.

Ofgem did not mandate that the ERSG should be continued in their Business Planning Guidance document⁸. It was clear, however, that not reforming this group would have been a missed opportunity as these meetings provided great value to the Business Plan development for the five year plan. We therefore re-established a new ESO RIIO-2 Stakeholder Group with refreshed membership and a new chair in September 2021.

As with the previous group, this ERSG is representative of the ESO's role and the wider industry. Members were selected based on their expertise across a broad range of energy issues and their ability to provide constructive challenge.

Purpose

The ESO RIIO-2 Stakeholder Group continue to provide independent challenge as we developed BP2 for April 2023 onwards. They scrutinised the ESO's approach to engagement and challenged whether we have considered stakeholder and consumer priorities in our Business Plan proposals.

Due to the amount of time we have had to develop BP2, we have engaged the ERSG frequently throughout the business planning process.

⁷ [ESO Offshore Coordination project Autumn progress publication](#)

⁸ [ESO Business Plan: Guidance Document](#)

Table 1 - ERSG event dates

ERSG	Date
1	22 nd September 2021 (afternoon)
2	2 nd December 2021 (afternoon)
3	12 th January 2022 (all day)
4	9 th February 2022 (all day)
5	16 th March 2022 (afternoon)

During the first two ERSG meetings in September and December 2021, we used some time in these meetings to discuss how the group could run as we progress through the Business Plan development. We suggested a programme of content, terms of reference and listened to the feedback from the ERSG which included where they felt they could add the most value. As a result of this feedback we agreed with the ERSG that we would shape our ERSG terms of reference for each meeting to focus on:

- ESO Stakeholder and consumer approach
- Material changes from our RIIO-2 plan
- The strategic context and ambition in which BP2 operates
- The ability of the ESO to deliver BP2

More information about this pivot of meeting focus can be found in the section ‘*ERSG feedback across the Business Plan*’.

The ERSG’s main areas of focus to date have been to:

- Constructively challenge and input into the ESO’s approach to stakeholder engagement throughout the development of the RIIO2 BP2.
- Provide the ESO with feedback from a stakeholder perspective on the ambition and proposals for the upcoming Business Plan.
- As the ESO begins to deliver BP2, periodically check in to help critique whether plan changes and course corrections are in line with stakeholder and customer expectations of the ESO. However, the group should remain predominantly forward looking and will not be expected to replicate the role of the Performance Panel.
- Provide views on alignment of ESO priorities to the stated ambition and interests of consumers. As appropriate, share expertise and critically review the development of the ESO’s position on new policy areas and legislation.

Business Plan 2 specific engagement

Introduction and the purpose of the BP2 specific stakeholder engagement

Whilst much feedback has been received through BAU engagement, project specific engagement and ERSG, we have also set up specific BP2 engagement events to gain further feedback or inform stakeholders of developments. This gives all stakeholders an equal opportunity to provide feedback on our plans.

We ran a series of BP2 specific webinars during January and February 2022, which covered the majority of ESO delivery areas.

The purpose of these webinars was to share with stakeholders our initial thoughts for what could be new or materially changed from BP1 (submitted to Ofgem at the end of 2019). We chose webinars as an engagement method because specific co-creation with relevant stakeholders had already been done by individual ESO teams when scoping out their new and materially changed activities for BP2. Therefore, the webinars provided an opportunity to share how these plans had developed at high-level and with a wider group of stakeholders. Whilst predominantly an informing exercise, stakeholders were able to provide feedback and ask questions.

The webinar series theme was “*enabling the transformation to a sustainable energy system – looking ahead to 2023 and beyond*”. This was then split up into the following topics across the webinars/forums:

- Webinar 1: Enabling the transformation to a sustainable energy system
- Webinar 2: Control centre operations
- Webinar 3: Market development, transactions, and our role in Europe since Brexit
- Webinar 4: Our innovation priorities
- Webinar 5: Our commitment to providing open data and transparency
- Webinar 6: Enhancing our regional capability to meet net zero
- Webinar 7: Network development
- Joint Planning Committee (break-out session): Network Development

Raising Awareness of the BP2 Webinars

The target audience for these webinars was any stakeholders who were interested in our plans. We therefore we took a far-reaching approach when it came to raising awareness of the events. We utilised communication channels already established across the business as stakeholders are familiar with receiving regular updates and correspondence from these sources. Further details are given in table 2 below:

Table 2 - The communication channels used to raise awareness of the BP2 webinars, and the approximate stakeholder reach of each

Communication channel	Number of times utilised	Stakeholder reach
Newsletter – RIIO-2 mailing list	2	2150+
Newsletter – National Grid ESO Plugged In	3	~ 1200
Newsletter – Future Energy Scenarios	1	~ 6200

Newsletter – Markets Forum mailing list	1	900+
Operational Transparency Forum	3	150+
Shared details with the ERSG members	1	20

BP2 Webinar Sign-ups

In total over 260 stakeholders from 80 different organisations, signed up to attend. Table 3 shows the break-down of the individual sign-ups across the eight events.

Table 3 - The number of stakeholder sign-ups across the BP2 specific stakeholder engagement events.

Engagement Event	Number of sign-ups
Webinar 1: Enabling the transformation to a sustainable energy system	50
Webinar 2: Control centre operations	24
Webinar 3: Market development, transactions, and our role in Europe since Brexit	42
Webinar 4: Our innovation priorities	39
Webinar 5: Our commitment to providing open data and transparency	30
Webinar 6: Enhancing our regional capability to meet net zero	49
Webinar 7: Network development	27
Joint Planning Committee (break-out session): Network Development	Not applicable – engagement with an existing committee

The Joint Planning Committee break-out session was attended by TOs only and was organised through our already established JPC meeting which is a regular meeting between the ESO and TOs. This was a targeted engagement session for a specific group of stakeholders and hence the number of sign-ups wasn't applicable at this event.

As figure 5 shows, the largest number of sign-ups came from stakeholders within the energy industry split across the various sub-groups as shown. This was followed by stakeholders from the UK network companies, especially electricity distribution network operators and gas and electricity transmission.

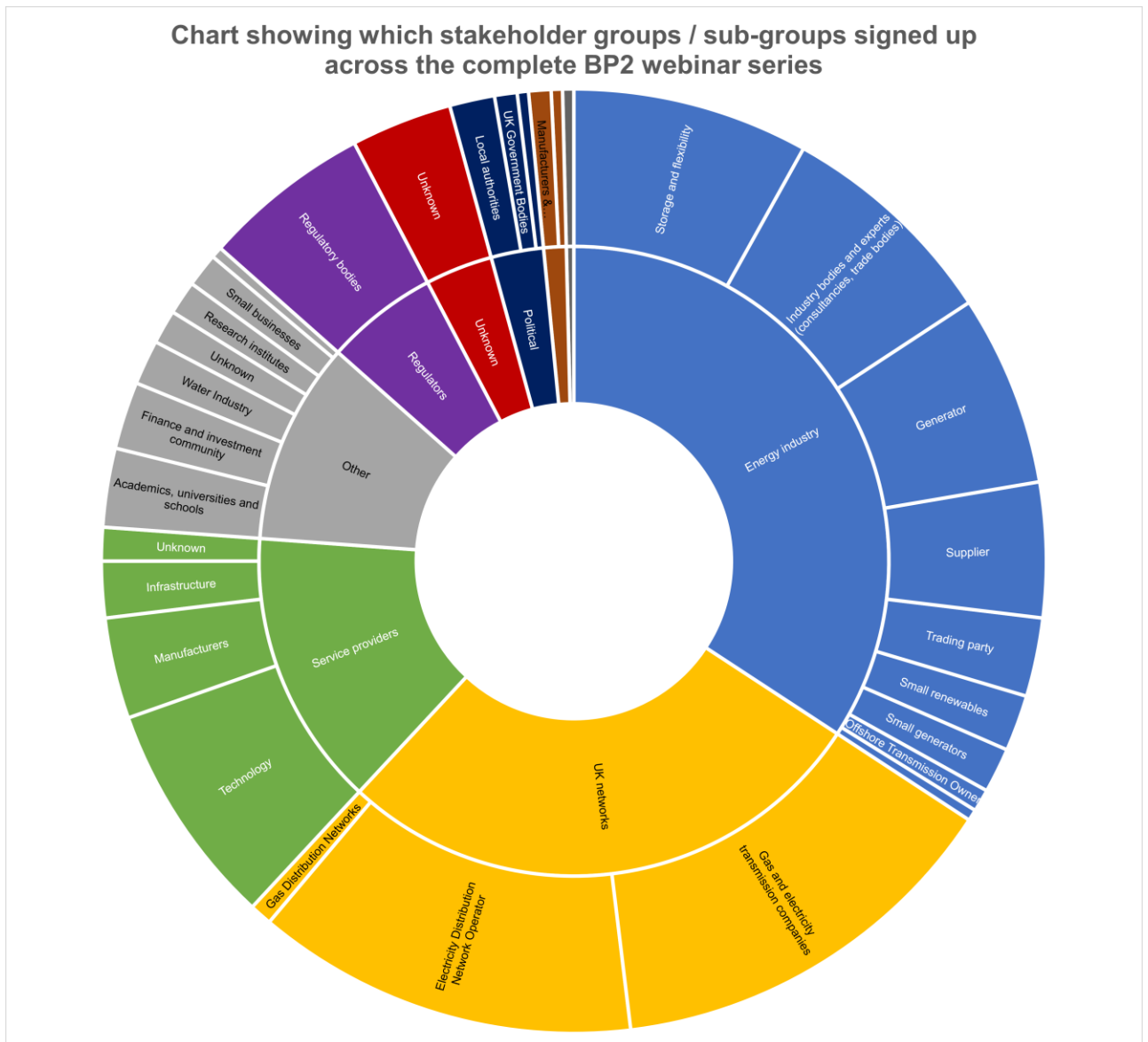


Figure 5 - Chart showing the sign-ups across the BP2 specific stakeholder engagement events split by stakeholder group, sub-group, and the respective weighting of each.

Delivery and content of the BP2 specific engagement events

All these engagement events were hosted virtually and were recorded to enable all stakeholders to attend. The recordings can be found on our ESO web pages⁹.

Most of these events were held to inform stakeholders of what to expect in the BP2, ahead of our formal consultation and submission of the draft BP2 Plan at the end of April 2022. However, we were also keen to offer stakeholders the opportunity to ask any questions and leave feedback.

⁹ <https://www.nationalgrideso.com/our-strategy/riio/get-involved>

Webinar 1: Enabling the transformation to a sustainable energy system

The topics featured in this webinar allowed us to introduce the concept of BP2 and our corresponding stakeholder engagement, point towards our refreshed strategy for the ESO in line with our 2025 ambitions and look briefly at what new activities we are proposing across our 3 key roles for BP2.

Stakeholder attendance:

	No. of individuals	No. of organisations
Sign-ups	50	35
Attendees	34	21

Table 4 - The number of stakeholder sign-ups vs. attendees on the day, for webinar 1.

As figure 6 shows, the largest number of attendees at Webinar 1 came from UK network companies, followed by various groups across the energy industry.

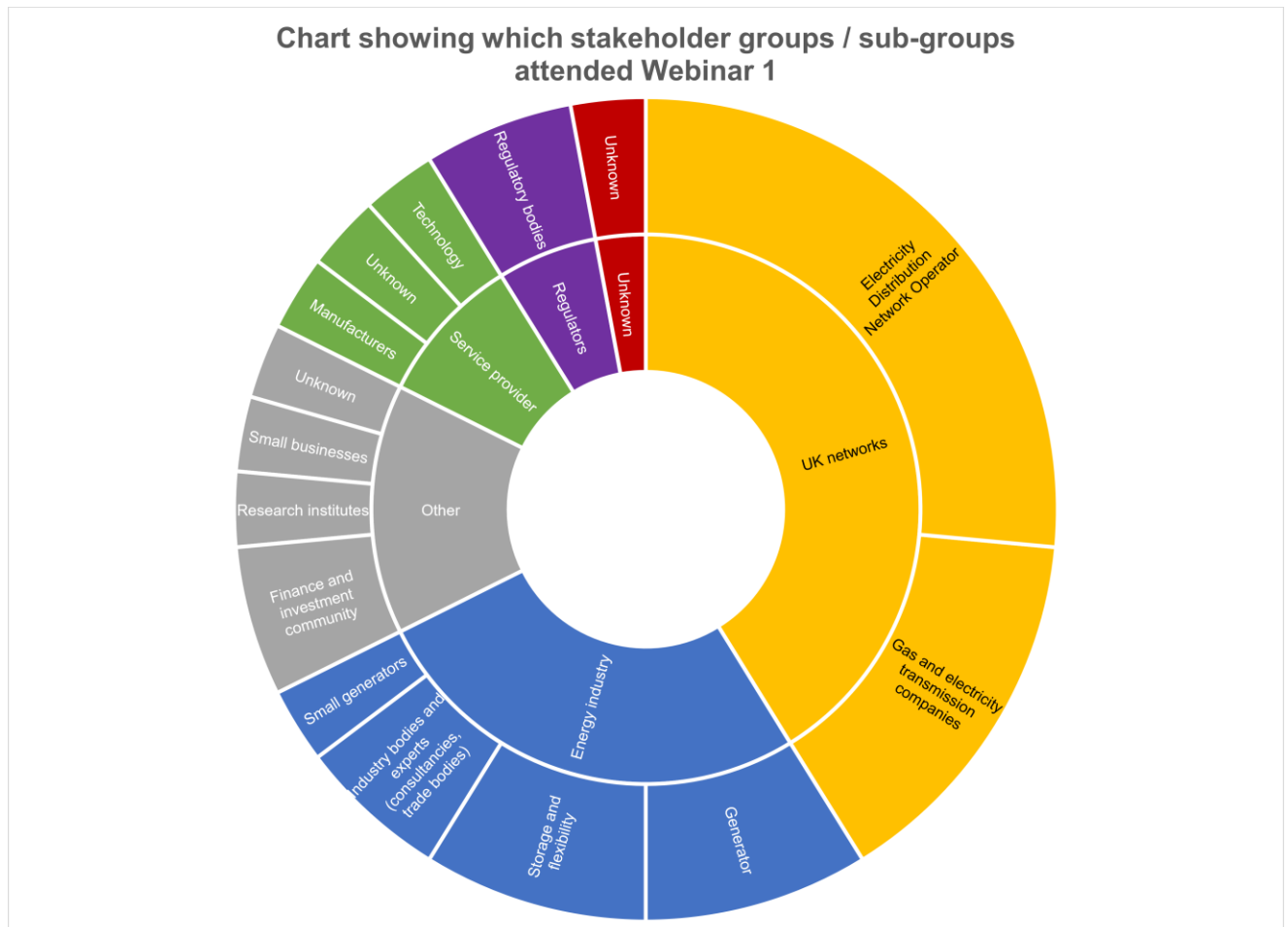


Figure 6- Chart showing the attendees at Webinar 1, split by stakeholder group, sub-group and the respective weighting of each.

Webinar 2: Control centre operations

Purpose:

We shared an update with stakeholders on our activities within our control centre operations area, including control centre architecture and systems, control centre training and simulation, restoration and market monitoring. For each, we reminded stakeholders of what we are delivering for BP2 (as stated in BP1) and introduced any proposed new / materially changed deliverables within those.

Stakeholder attendance:

	No. of individuals	No. of organisations
Sign-ups	24	17
Attendees	10	8

Table 5 - The number of stakeholder sign-ups vs. attendees on the day, for webinar 2.

As figure 7 shows, the largest number of attendees at Webinar 2 came from UK network companies, especially electricity distribution network operators.

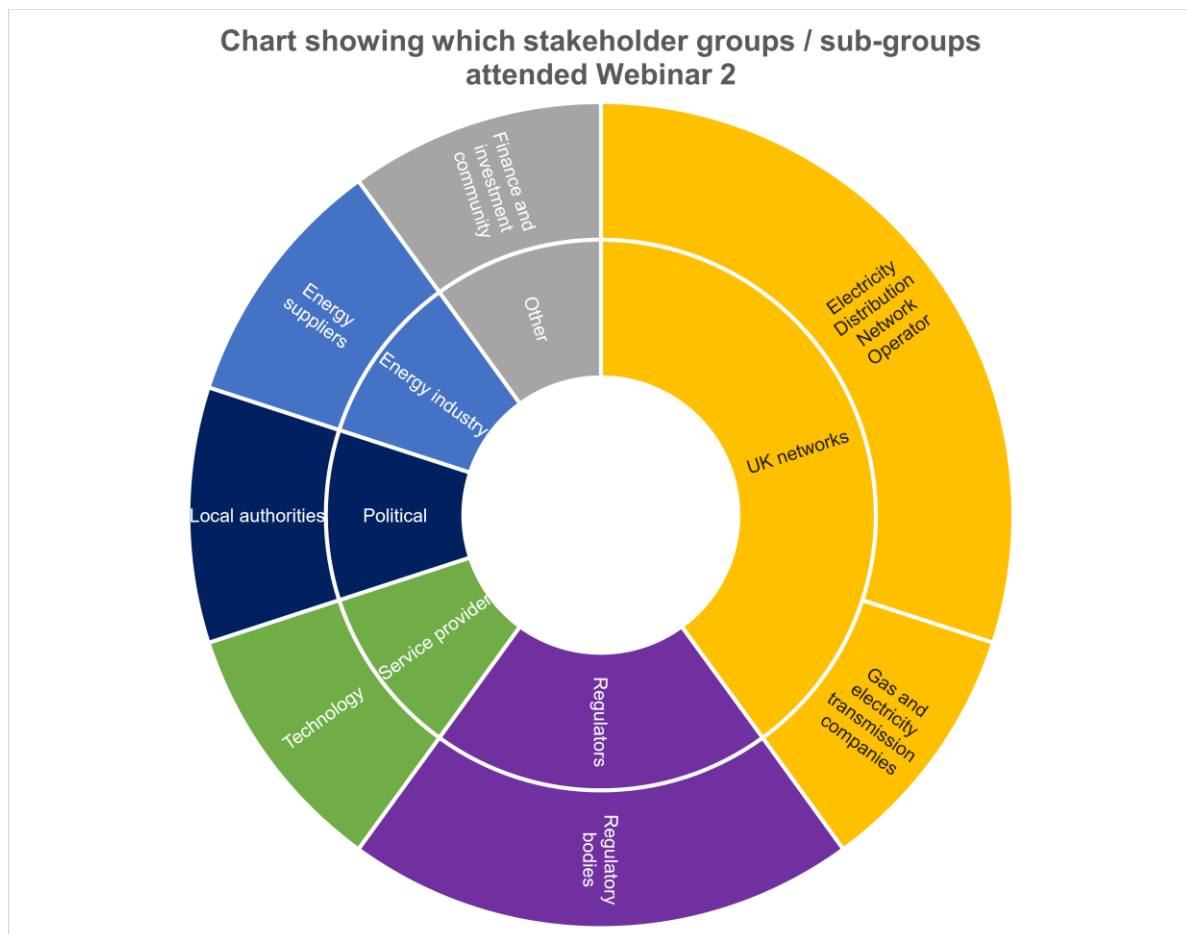


Figure 7- Chart showing the attendees at Webinar 2, split by stakeholder group, sub-group and the respective weighting of each.

Webinar 3: Market development, transactions and our role in Europe since Brexit

Purpose:

We shared an update with stakeholders on our activities within our market development and transactions area, including building the future balancing service markets, transforming access to the Capacity Market, developing code and charging arrangements that are fit for the future, net zero market reform and our role in Europe since Brexit. For each, we reminded stakeholders of what we are delivering for BP2 (as stated in our BP1) and introduced any proposed new / materially changed deliverables within those.

Stakeholder attendance:

	No. of individuals	No. of organisations
Sign-ups	42	30
Attendees	20	15

Table 6 - The number of stakeholder sign-ups vs. attendees on the day, for webinar 3.

As figure 8 shows, the largest number of attendees at Webinar 3 came from UK network companies and from various groups across the energy industry.

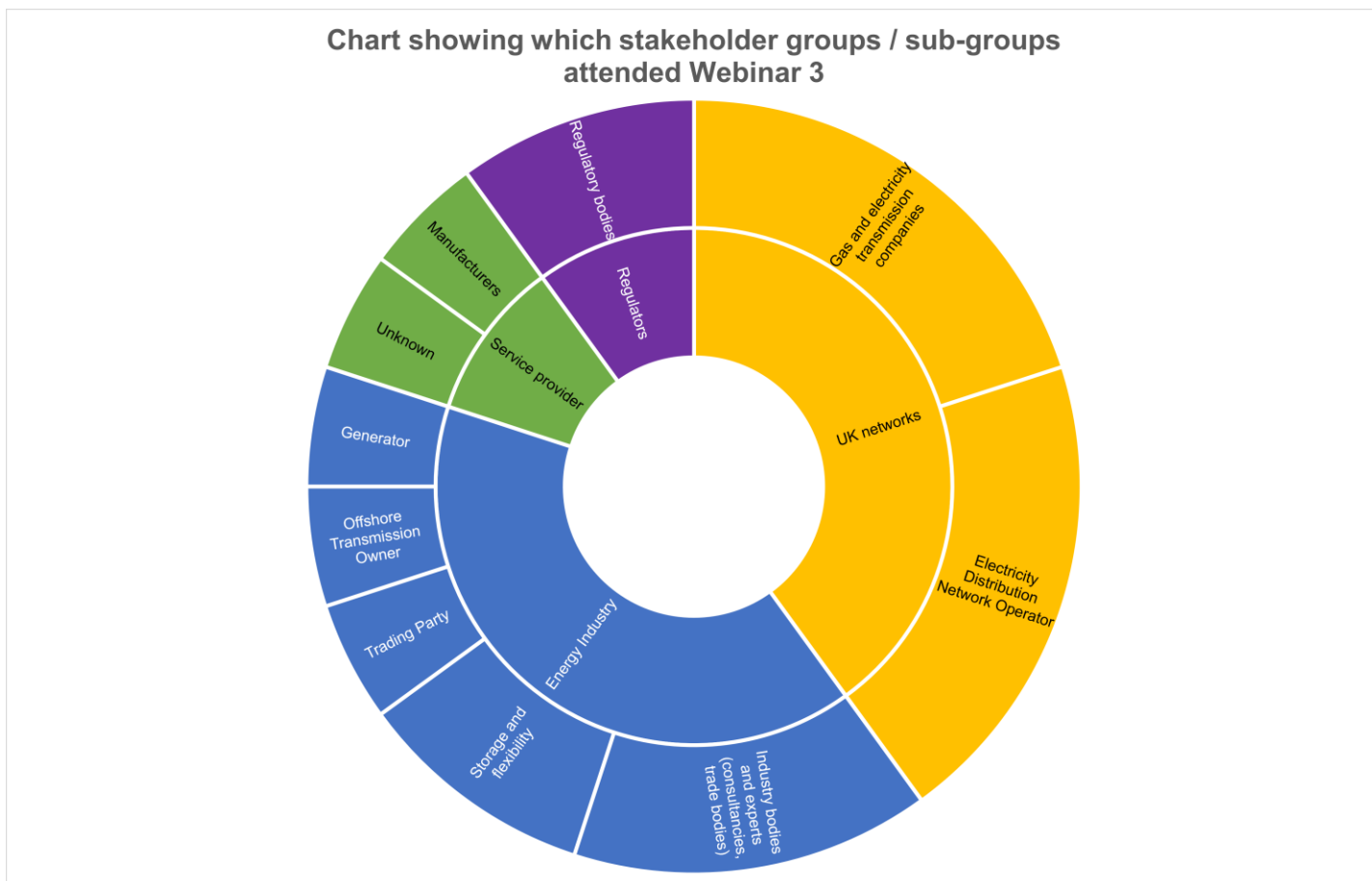


Figure 8- Chart showing the attendees at Webinar 3, split by stakeholder group, sub-group and the respective weighting of each.

Webinar 4: Our innovation priorities

Purpose:

The purpose of this webinar was to share our initial thoughts with stakeholders regarding the innovation activities we are likely to be delivering as part of BP2.

We shared an update with stakeholders on our innovation strategy and strategic priority areas, as well as current innovation projects which will continue into BP2. We spoke around enabling future innovation, expanding on the three mega-trends which are shaping the energy landscape – the 3 D’s of decarbonisation of the energy system, democratisation / decentralisation (rise of the consumer) and digitalisation. Then we introduced the Virtual Energy System (VES).

Stakeholder attendance:

	No. of individuals	No. of organisations
Sign-ups	39	32
Attendees	18	14

Table 7 - The number of stakeholder sign-ups vs. attendees on the day, for webinar 4.

As figure 9 shows, the largest number of attendees at Webinar 4 came from UK network companies, followed by various groups across the energy industry.

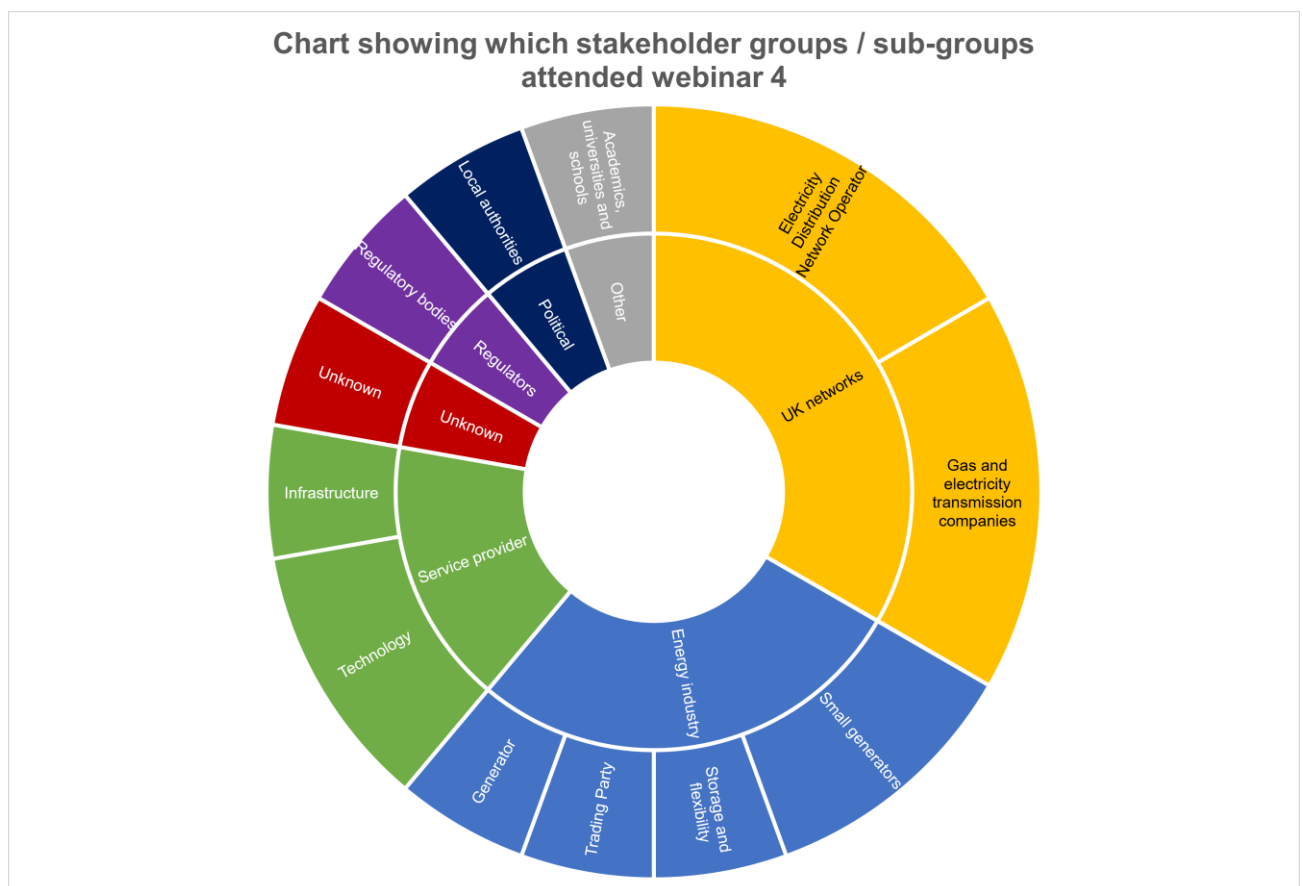


Figure 9 - Chart showing the attendees at Webinar 4, split by stakeholder group, sub-group and the respective weighting of each.

Webinar 5: Our commitment to providing open data and transparency

Purpose:

The purpose of this webinar was to share with stakeholders our initial thoughts on likely BP2 activities regarding our commitment to providing open data and transparency.

We shared an update with stakeholders on the ESO’s commitment to open data and transparency which included what have we done so far in BP1 and what’s next. We shared the anticipated customer experience for BP2, based on the progress we have made during BP1, which included details of our digital engagement platform, data and analytics platform, open data catalogue and triage, and the transparency roadmap and forum.

Stakeholder attendance:

	No. of individuals	No. of organisations
Sign-ups	30	23
Attendees	16	11

Table 8 - The number of stakeholder sign-ups vs. attendees on the day, for webinar 5.

As figure 10 shows, the largest number of attendees at Webinar 5 came from UK network companies, particularly those from electricity distribution network operators.

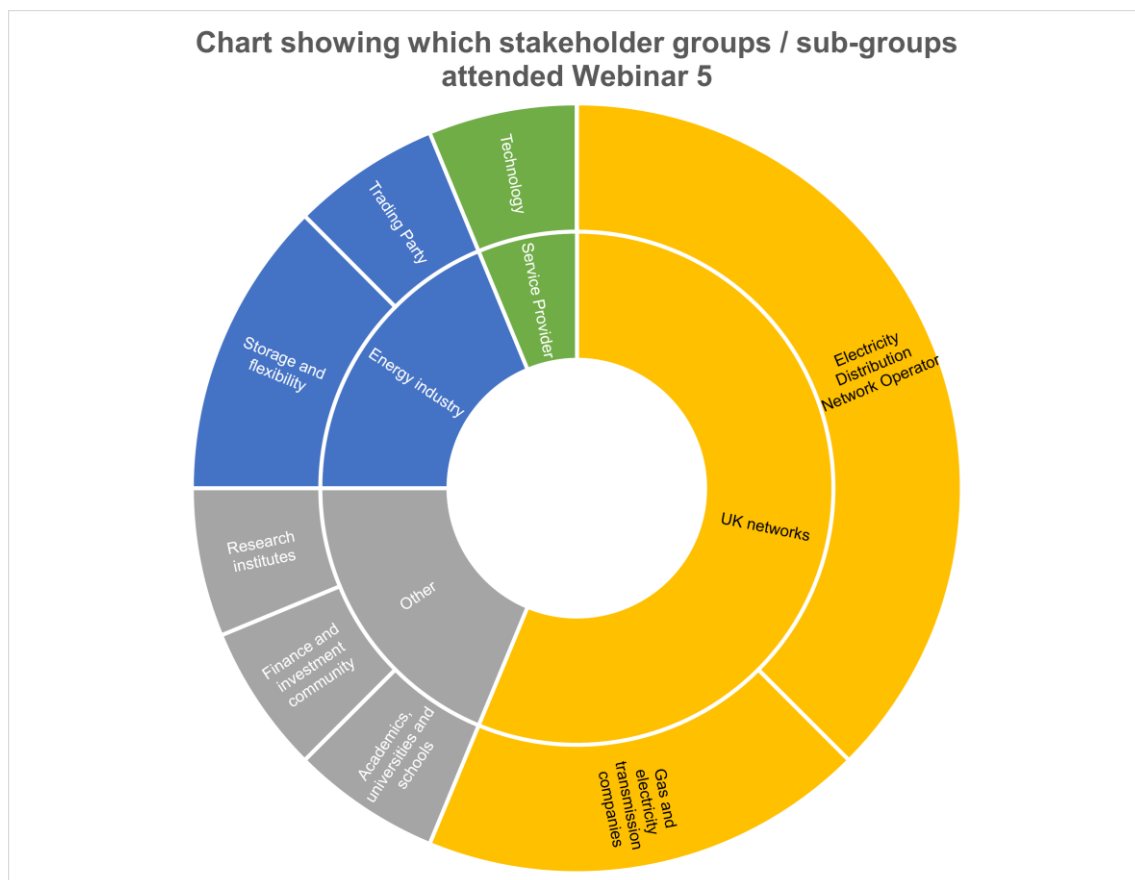


Figure 10 - Chart showing the attendees at Webinar 5, split by stakeholder group, sub-group and the respective weighting of each.

Joint Planning Committee (JPC) Break-out Session: Network Development

Purpose:

This session was attended by TOs only and was advertised through our already established JPC meeting which is a regular meeting between the ESO and TOs. Within this session we presented a suite of network development activities that were brand new, developing from BP1 and remaining the same.

The general purpose was to make the TOs aware of our plans and invite preliminary feedback before the activities went to consultation and large newer projects began their engagement project.

Webinar 6: Enhancing our regional capability to meet net zero

Purpose:

This session was advertised to our RIIO-2 wide stakeholders and was intended to give stakeholders an overview of how key local level projects have been progressing, including those which are materially changing and developing from BP1 . These included: Activity 14 Customer connections, Activity 13.5 Regional FES and the cross role activity DSO Transition. We also gave stakeholders an opportunity to ask questions and voice concerns they may have on the development and pace of these projects.

Stakeholder attendance:

	No. of individuals	No. of organisations
Sign-ups	49	45
Attendees	22	22

Table 9 - The number of stakeholder sign-ups vs. attendees on the day, for Webinar 6.

As figure 11 shows, the largest number of attendees at Webinar 6 came from various groups across the energy industry.

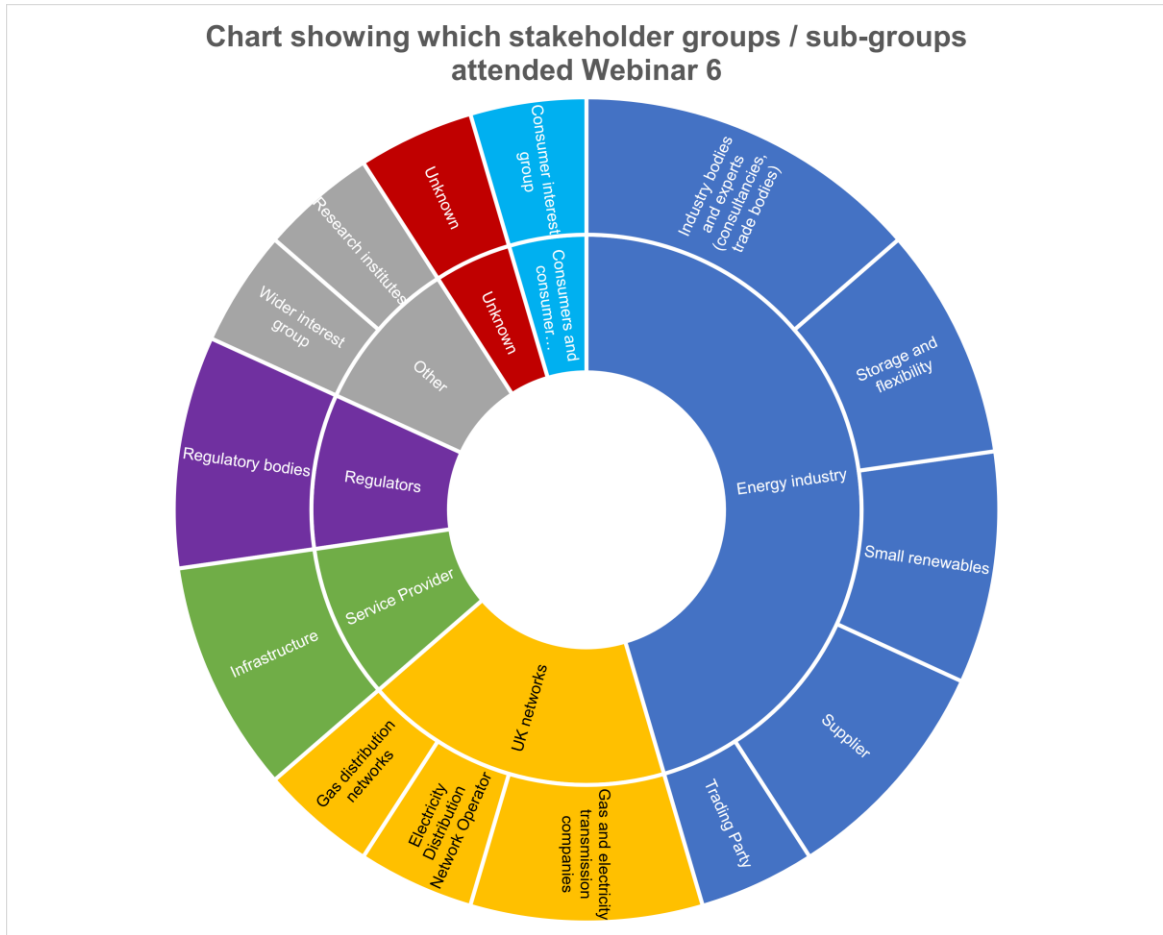


Figure 11 - Chart showing the attendees at Webinar 6, split by stakeholder group, sub-group and the respective weighting of each.

Webinar 7: Network Development

Purpose:

This session was attended advertised to our RIIO-2 wide stakeholders. This contained the same content as was presented in the JPC breakout meeting. The general purpose was to invite preliminary feedback before the activities went to consultation and large newer projects began their engagement.

Stakeholder attendance:

	No. of individuals	No. of organisations
Sign-ups	27	21
Attendees	9	8

Table 10 - The number of stakeholder sign-ups vs. attendees on the day, for Webinar 7.

As figure 12 shows, the largest number of attendees at Webinar 7 came from various groups across the energy industry, closely followed by gas and electricity transmission companies.

Chart showing which stakeholder groups / sub-groups attended Webinar 7



Figure 12 - Chart showing the attendees at Webinar 7, split by stakeholder group, sub-group and the respective weighting of each.

What have we heard and what have we done?

Introduction to the evidence section

This section describes the feedback which we have gathered over the different engagement practices that we run across the ESO which have fed into our BP2 development. These practices are feedback from the BAU forums, project specific engagement, ERSG, BP2 specific, BP2 consultation and our C&S insights capture. The section is laid out in a 'you said, we did' format, where stakeholder comments and our response/how we have used this feedback are documented side by side.

This chapter starts with feedback received from our ESO RIIO-2 Stakeholder Group (ERSG). It moves on to general BP1 feedback, then general themes within the business. The rest of the chapter is laid out in similar order to the BP2 delivery schedule, with feedback described in activities across Role's 1, 2 and 3 of the business and then cross-role areas. This is designed to make this section more easily navigable when reviewing feedback relating to a specific business activity.

ERSG feedback across the Business Plan

Throughout the two opening ESG sessions in September and December 2021, we gathered feedback from the group around how they could add the most value to the BP2 development process. Based on what we heard, we decided that it was important to pivot the focus of the content in ESG meetings to get the maximum value from members in helping us develop BP2. The diagram below describes the merging of both the ESO's and ESG's requirements, developing a meeting framework where content discussed in the ESG sits under the four focus areas described in the light blue box. We have set out ESG feedback in the rest of this part of the Annex against these four focus areas.

Figure 13 - ESG and ESO expectations combining to create a new framework for ESG meetings content



ERSG 1 – 22 September 2021

Main agenda items

- Terms of reference for the ERSG and the group’s ongoing role
- BP2 guidance and stakeholder approach
- ERSG look ahead
- Energy Future System Operator consultation

Theme	ERSG feedback	How this feedback has been addressed
ESO stakeholder and consumer approach	<ul style="list-style-type: none"> • The ESO should consider how to coordinate engagement activities. There is already a significant volume of information and forums that the ESO uses to engage. As a result, participants across the energy industry may find it difficult to know which elements will be most relevant to them. • The ESO should think carefully about how BP2 engagement is promoted externally to make sure there is a clear differentiation between engagement being conducted by other teams within the ESO. • In addition, when considering their engagement approach the ESO should: <ul style="list-style-type: none"> • Use existing forums and engagement opportunities where appropriate. • Coordinate across all ESO communication platforms. • Ensure information is accessible. • As the ESO continues to evolve, consider whether forums need to change as well to reflect this. 	<ul style="list-style-type: none"> • We have worked in coordination with teams across the ESO to gather evidence which relates to the development of BP2. Recognising the need to minimise stakeholder fatigue, we have utilised BAU opportunities for our BP2 engagement as much as possible when developing our proposals. • We have defined six engagement practices in this Annex where we have gathered feedback via BAU activities, and actively engaging specifically for BP2 (see ‘How are we engaging with stakeholders?’ chapter). • This blended approach has allowed us to efficiently understand what our stakeholders want us to deliver, while at the same time not overburdening stakeholders with unfair demands on their time.

Theme	ERSG feedback	How this feedback has been addressed
Material changes from our RIIO-2 plan	<ul style="list-style-type: none"> • Be aware of the possible risks of self-selecting groups for engagement. • Suppliers already have a wealth of consumer data which can provide useful insights. The ESO should consider if further research is required, as direct engagement with suppliers may be able to provide an existing rich database. 	<ul style="list-style-type: none"> • We have ongoing projects which are using data from suppliers; however, this is noted more broadly.
The strategic context in which BP2 operates	<p data-bbox="490 563 1738 590">Feedback from ESG on areas of material change can be found under each activity section in this Annex.</p> <ul style="list-style-type: none"> • The ESO should consider how they can keep BP2 current, particularly noting the likely developments as a result of COP26 and the future system operator consultation. 	<ul style="list-style-type: none"> • We have undertaken horizon scanning and a strategy refresh including refreshed ambitions. We also shared our best view of which activities may impact the Business Planning process. • In relation to the potential impacts of FSO, please see Annex 5 of our Business Plan.

ERSG 2 – 2 December 2021

Main agenda items

- Overview of key changes per Role
- Overview of cross role activities
- BP2 IT guidance update

Theme	ERSG feedback	How this feedback has been addressed
ESO stakeholder and consumer approach	<ul style="list-style-type: none"> • In relation to stakeholder engagement, the ESO should consider what constitutes a material change that could trigger further engagement, and how that would happen in practice. <p>Given the volume of consultations and requests for feedback across the industry, the ESO should be mindful of the possibility of survey fatigue. It will be important to identify which other consultation outcomes (such as from BEIS or Ofgem) the ESO is dependent on and how shifts or delays to expected timelines may impact the business planning process. The ESO should also consider if it would be possible to facilitate some coordination between the various industry parties for future consultations.</p> <p>The ESO needs to consider what it can do to make sure that smaller stakeholders and new entrants are able to participate in consultations, recognising that these organisations may have limited resources.</p> <p>The ESO should consider which activities would benefit from co-creation with stakeholders, and which may involve a level of technicality that means co-creation is not a good use of time. The ESO should assess where stakeholder engagement and co-</p>	<ul style="list-style-type: none"> • In response to this feedback, we summarised our approach to identifying material changes to the plan and the discussions we have held on this topic with Ofgem. It will be important to continually test our approach, recognising that a change in benefits (not just cost) may constitute a material change, and considering whether changes to the wider context could impact our Business Plan focus. <p>We have worked in coordination with teams across the ESO to gather evidence which relates to the development of BP2. Recognising the need to minimise stakeholder fatigue, we have utilised BAU opportunities for our BP2 engagement as much as possible when developing our proposals.</p> <p>We have defined six engagement practices where we both gathering feedback via BAU activities, and actively engaging specifically for BP2. This blended approach has allowed us to efficiently understand what our stakeholders want us to deliver, while at the same time not overburdening stakeholders with unfair demands on their time.</p> <p>We recognise that it is important to be able to clearly articulate why we have engaged, where we haven't and why that is appropriate, rather than defaulting to engaging to ensure we meet regulatory expectations.</p>

Theme	ERSG feedback	How this feedback has been addressed
Material changes from our RIIO-2 plan	<p>creation really adds value and where it may be being undertaken simply to meet regulatory obligations.</p> <ul style="list-style-type: none"> The ESO should consider possible bias in engagement activities where more focus is given to stakeholder groups that are easier to engage with, noting that some issues may be complex and therefore harder for some groups to understand. The ESO needs to have a good understanding of consumers and how their behaviour is changing. The organisation needs a net zero strategy that brings consumers along on the journey and where, as a result, risks can be managed with consumer buy-in and support. The ESO should consider what effect cross role activities may have on role specific activities, as well as what to do when priorities in one role may impact delivery in another. <p>Cross role activities could move very quickly. To support successful delivery of activities, the ESO should have a view of near-term vs longer-term activities, including the assumptions driving the timelines.</p> <ul style="list-style-type: none"> The ESO needs a strategic narrative throughout the plan. 	<ul style="list-style-type: none"> This has been noted. We have spent the draft business planning process further working with specific ERSG members in a separately formed ERSG consumer sub-group to review the developments we have been making in this area. Our Consumer Team have been developing a strategy which works to bring several activities of the business together such as net zero market reform, net zero operations and facilitating distributed flexibility work to ensure we are enablers for a Consumer transition by providing the organisations in the industry who have a direct relationships with consumers the tools needed from a systems and markets perspective to empower that change. During the business planning process, in collaboration with the deliverable owners, we have mapped dependencies between activities. For some activities, there is a dependency on the outcome of the Energy Future System Operator process. <p>We expect to have greater clarity to help address these dependencies for our final Business Plan submission in August 2022.</p> <ul style="list-style-type: none"> To address this feedback, we updated the group on a draft strategic narrative and the strategy refresh that will frame BP2.

Theme	ERSG feedback	How this feedback has been addressed
The strategic context in which BP2 operates	<p>The ESO should consider how to navigate uncertainty and what assumptions may need to be made in order to do this.</p> <ul style="list-style-type: none"> The ESO should consider what they should be working on now to create consumer value, even if they won't be delivered in this business planning period. A neatly defined plan won't in itself be enough, and the ESO needs to be able to navigate through a complex environment where many circumstances are outside of its control. The ESO should review and learn from the extreme events in Texas. 	<p>This included continued delivery of our commitments but will also describe how we are preparing for the 2035-2050 timeline, what our role might look like in that horizon and how that may change what needs to be delivered in BP2.</p> <ul style="list-style-type: none"> The ERSG had further opportunity to engage on the strategic direction of the plan in future meetings. We have reviewed the events in Texas and have been informed by lessons learned in the aftermath.
The ability of the ESO to deliver BP2	<ul style="list-style-type: none"> The ESO's people are a key stakeholder group, and it is important to make sure employee feedback is a part of our processes. In a move to more agile ways of working, it is possible that costs will become harder to forecast. The ESO should consider how best to manage this, ensuring that there is sufficient resilience build into the plan to be able to accommodate urgent and unexpected activities. It is important to recognise that some activities will not deliver outcomes within this business planning period but may facilitate necessary changes/optionality that will deliver outcomes in the future. The ESO should consider new ways of working and how the success of these can be demonstrated. A metric to measure this may be helpful but there is no obvious counterfactual. The ESO will need to consider whether new ways of working are an 	<ul style="list-style-type: none"> We regularly conduct colleague surveys and have high levels of engagement. Actions plans are then set up to address any specific issues which arise. We have engaged with Ofgem to understand how agile delivery can best be represented in the Business Plan. Although we can only prepare for events we can reasonably foresee, the RIIO-2 framework enables the ESO to have the agility and flexibility to respond to changing priorities. Through our new Digital Ways of Working programme, we are implementing a technology operations model which is customer centric and agile. To do this, we are concentrating on internal alignment to manage change, as well as adapting how we work

Theme	ERSG feedback	How this feedback has been addressed
	improvement compared to what they have done before, or an improvement compared to what they need to do.	externally to make sure new products for the control room deliver benefit.

ERSG 3 – 7 January 2022

Main agenda items

- Pivoting ESG terms of reference to focus on four key themes
- Current challenges, horizon scanning and strategy update
- Stakeholder engagement approach
- Deep dives on DSO, early competition, BP1 performance and ways of working

Theme	ERSG feedback	How this feedback has been addressed
ESO stakeholder and consumer approach	<ul style="list-style-type: none"> • When presented with an in-depth report of stakeholder segmentation across all activities within role 3, the ESG commented that they were satisfied that the ESO was undertaking rigorous engagement and the ESO performs well in this field. They would like the focus within the ESG 	<ul style="list-style-type: none"> • This feedback has been noted. We have been presenting at ESG where feedback has shaped proposals. Similarly how stakeholder feedback has shaped proposals is set out both in the main Business Plan narrative and within this Annex.

Theme	ERSG feedback	How this feedback has been addressed
Material changes from our RIIO-2 plan	<p>sessions, not on stakeholder approach, but more on customer and stakeholder feedback and how this is taken on board.</p> <ul style="list-style-type: none"> The ESO should clarify its role and ambition with regards to consumers, and what it hopes to achieve through its consumer work. Aims could include how to unlock demand side potential to reduce the cost of a zero-carbon grid, or the impact of changing consumer demand and patterns on network planning, forecasting and scenarios. 	<ul style="list-style-type: none"> We have set up a sub-group of ERSG members to further discuss consumer topics during the business planning process. We will continue to update this group on our progress in this space, describing our position and how we will deliver. <p>Our current plans in the Consumer space are currently described within this Annex.</p>
The strategic context in which BP2 operates	<p>Feedback from ERSG on DSO and early competition can be found alongside the feedback by role and activity later in this Annex.</p> <ul style="list-style-type: none"> With regards to strategy, the ESO should: <ul style="list-style-type: none"> Provide further clarity on how the ESO would change as a result of the strategy and what priorities this would drive for BP2. Think about how the cost-of-living fits into the themes. Highlight any areas with a high degree of urgency, compared to elements requiring policy decisions that might take several years. 	<ul style="list-style-type: none"> The ERSG in this meeting was presented with a horizon scanning presentation detailing what the ESO perceives to be challenges facing the industry and the ESO. We have since worked on prioritising the key areas of concern and have been back to the ERSG as further reported in 'you said we did' tables for ERSG 4 and 5.
The ability of the ESO to deliver BP2	<ul style="list-style-type: none"> The ESO should consider strategic secondments as an alternative method to gaining a fuller understanding of experiences in other industry organisations. 	<ul style="list-style-type: none"> We will reflect on how strategic secondments could help build our capability and a better understanding of our customers. We will also consider whether seconding our people to technology companies may help to build our own IT capability.

Theme	ERSG feedback	How this feedback has been addressed
		<p>We are also developing our external secondments process to welcome individuals into the ESO. Roles suitable for secondment will be identified as part of the yearly strategic workforce planning activity and presented to companies in which we have secondment partnerships with. Roles will range depending on the business requirement; for example, new services where ESO has limited capability, short term projects and collaborative cross industry projects.</p>
		<p>We are hoping to trial our external secondment process with industry partner BEIS and conversations have begun to determine business interest and formalise a process. Should this prove a success we will begin to engage with other customer and stakeholder groups.</p>

ERSG 4 – 9 February 2022

Main agenda items

- Priorities to 2025
- BP1 performance – key challenges
- Customer and stakeholder CSAT/SSAT highlights
- New and materially changed overview
- Deep dives on customer connections, offshore coordination / network planning review and net zero market reform

Theme	ERSG feedback	How this feedback has been addressed
ESO stakeholder and consumer approach	<ul style="list-style-type: none"> • The ESO should develop a deep understanding of who their customers are, noting the wide variety of customers the ESO interacts with. • The ESO should learn from best practice in other organisations, such as giving autonomy to individuals to interact with customers and real time visibility for leaders on customer dialogue. A lack of resourcing and knowledge seems to be a key theme. 	<ul style="list-style-type: none"> • We have been delivering relationship management training to colleagues to ensure good understanding across the business. • Resourcing is reviewed as part of the Business Plan submission, with some areas having specific ‘account manager’ roles to build successful, targeted relationships.
Material changes from our RIIO-2 plan	Feedback from ESG on the deep dive agenda items (customer connections, offshore coordination / network planning review, net zero market reform) can be found alongside the feedback by role and activity later in this Annex.	

Theme	ERSG feedback	How this feedback has been addressed
<p>The strategic context in which BP2 operates</p>	<ul style="list-style-type: none"> ERSG gave the following feedback on the ESO’s refreshed strategy: The simplicity of the phrase “Competition Everywhere” was liked, if perhaps an oversimplification, but the mindset/approach it drives is the right one. There should be clarity on whether the ESO is targeting a “sustainable”, “low” or “zero-carbon” electricity system in its next mission. The strategy needs to have a longer-term focus, beyond 2025 (to 2035), but without losing the 2025 operability ambition “Trusted partner” is important but consider if “trusted partner” should be BAU rather than an ambition” Bring the new theme of ‘reliability’ to the forefront of the strategy. This operability focus, alongside market reform and innovation, should be the main drivers and areas of accountability for the ESO. 	<ul style="list-style-type: none"> We amended this ambition to “Driving competition for the benefit of consumers”. Having an ambition in this space continues to highlight the scale of the requirement regarding competition. Our refreshed Mission specifically mentions the 2035 target set by government in its Oct 2021 publication, and aligns with the “decarbonised” wording with this document. One of our ambitions is now specifically tied to the 2025 operability goal; we therefore show the long-term mission and the shorter – term goals to reach it. As our role evolves, our level of trusted partnership and engagement across the whole industry is critical to achieve the national targets. This ambition had been modified to highlight the ongoing action of ‘engaging’ in addition to the ‘principle’ of being trusted Our simplified and clarified refreshed Mission ensures that “reliability” is still our principal responsibility in operating the electricity system. We have also added “innovation” into a new ambition, highlighting its critical role in how we transform our business, energy markets and operations.
<p>The ability of the ESO to deliver BP2</p>	<ul style="list-style-type: none"> The ESO needs to clarify whether challenges faced in BP1 will have a knock-on impact on BP2 deliverables. 	<ul style="list-style-type: none"> We have learned lessons from the challenges of BP1. We have incorporated additional activities and complexities into the baseline plan to ensure we deliver on our commitments during BP2, as well as improving our prioritisation and ways of working.

ERSG 5 – 16 March 2022

Main agenda items

- Finalised strategy refresh
- Consumer update
- Data
- Codes
- Deliverability/tracking our planned deliverables

Theme	ERSG feedback	How this feedback has been addressed
The strategic context in which BP2 operates	<ul style="list-style-type: none"> ● A member questioned whether challenges associated with rising balancing costs needed to be highlighted in BP2. ● Another member asked whether further detail is required to show the full range of areas that are anticipated to increase resource and thus cost in BP2. ● The group were pleased to see the ESOs strategy refresh had taken on board feedback from ERSG 4 and were generally positive about the new mission and ambitions. ● A member asserted that they'd like to see more in the strategy around the ESO's expanding reach and role in future i.e., extending into consumers' homes as numbers of EVs and heat pumps increase. The member stated that this is implied to an extent in the trusted partner and data components of the ambition. 	<ul style="list-style-type: none"> ● During BP1 we have started a balancing costs review to address this challenge in the immediate term. Any new BP2 deliverables associated with this review will be included in our final Business Plan submission in August. ● We are striking the right balance between adding in areas to BP2 where there is certainty around the need and utilising the pass-through mechanism in areas where further certainty is required. ● This has been noted ● These themes are being strongly picked up in the emerging and evolving 'consumer strategy' which is a key pillar underneath our refreshed Mission and Ambitions, and part of ongoing work defining the ESO's role in the consumer space

Theme	ERSG feedback	How this feedback has been addressed
	<p>Another member reinforced that the need for every consumer to change their behaviour to achieve net zero needs to come through strongly in the strategy, rather than its current framing which is engineering orientated</p> <ul style="list-style-type: none"> Concerning the refreshed strategy and how this mapped to BP2 activities, members agreed that this did not go far enough in terms of showing the critical areas which require prioritisation and thus more resource. Another member asked whether the strategy refresh articulated well enough the difference between 2035 and 2050 target states. They questioned the distribution of asset sizes in the future and how much aggregation and digitalisation would be required, particularly for the smaller assets. Regarding the strategic ambition of 'engaging as a trusted partner,' a member stated the need for the ESO to work with others in a collaborative manner and for stakeholders to trust in the ESO and demonstrate a whole system view. They queried whether the tone of the ambition needed to change to capture the need for the ESO to work and collaborate with everyone in the energy system. Members further discussed the trusted partner ambition in relation to DNOs. Whilst one member noted that the RIIO-ED2 framework is designed to create more alignment – particularly on DSO – another member stated that there were gaps in the regulatory framework that the ESO could potentially show thought leadership in to encourage greater regulatory clarity 	<ul style="list-style-type: none"> Prioritisation, Portfolio Management and Resource management are topics being actively looked at ahead of the launch of BP2 in April 2023 This is addressed to an extent in the recently published 'Bridging the Gap to Net Zero' report which looks at a challenging day on the electricity system in 2035. The ESO is also currently working to facilitate arrangements for market entry for smaller assets and the associated visibility that would be required operationally. Our refreshed mission includes the phrasing 'all', which helps to highlight that we do see our work and collaboration reaching across all the industry. A whole system approach is described in the narrative of our plans, that is changing how we think about all current and future topics and challenges. We know the relationship with the DNOs will evolve over the coming years; this includes working with DNOs being a key element of our facilitating distributed flexibility BP2 proposals.

Theme	ERSG feedback	How this feedback has been addressed
ESO stakeholder and consumer approach	<ul style="list-style-type: none"> Members highlighted that the Consumer strategy should be centred around the ESO enabling consumers to change to facilitate a net zero energy system – moving away from the utility style view of consumers. A member also noted the need for a culture shift within the ESO to make this a reality. An ESO representative asked the group about its role in providing the right price signals to consumers and how the organisation should engage with suppliers to build consumer awareness. A member stated that they'd like to see the ESO as the consumer champion in the future energy system. They also stated that there need to be clearer routes to engage with the ESO from a supplier perspective. Another member reinforced the need for the ESO's consumer strategy to encapsulate both what needs to be done to the energy system to achieve net zero alongside the consumer change that is required. A member noted the varying orders of magnitude of consumer flexibility that will be available in a net zero energy system. They commented on the fact that small numbers of large consumers will be easy to flex to balance the electricity system, whilst the opposite will be more difficult. Another member reinforced the point that from a consumer perspective, the challenge is how to turn the avoided cost into an investment signal. A member highlighted that it was positive to see the ESO's restructuring of committees and appreciated the importance of dedicated portfolio management tools. 	<ul style="list-style-type: none"> Set up recently, the Consumer team have been working across teams within the ESO to coordinate and develop ways of working to start bringing about cultural change. We recognise there is further work to do on our role in the consumer space ahead of our August submission and beyond. We will be engaging on this area further during the BP2 consultation period and with ERSG in the coming months ahead of our final Business Plan submission. As a result of this ERSG feedback, the Business Plan proposals have been updated to provide further clarity on the ambition in this area and our role in facilitating distributed flexibility. We will facilitate aggregator and supplier models to allow consumers to reduce their energy bills through a broad range of our services and markets. We believe all kinds of flexibility will be required in a zero-carbon energy system, highlighting that there are many competing technologies, and we are actively looking into long duration storage and potential changes to markets and regulation in order for it to operate across our BP2 plans. This is noted; we agree on the importance of having the right incentives for consumers. During BP1 we are rolling out our product focussed model and agile ways of working and will be continuing to investigate other mechanisms for all types of change in the business into BP2.

Theme	ERSG feedback	How this feedback has been addressed
<p>The ability of the ESO to deliver BP2</p>	<ul style="list-style-type: none"> • However, they underlined the need to create a culture that is going to drive even greater performance, and continuing engagement with staff who are carrying out the work. The member also noted that it was important to get the right balance of governance as too much of this could slow progress. • A member asked whether new portfolio management tools would be used to strengthen the ESO's argument to the regulator about doing more or being able to do more with less resource. 	<ul style="list-style-type: none"> • We agree that within the ESO need to be at a level at which it is necessary to coordinate, and not to overly govern projects. The organisation's agility – both in culture and mindset – will be key. • The tool provides the ESO with the opportunity to produce an informed assessment of its current state. In terms of doing more, if the ESO has a better picture of what change is happening and when, it will be easier to understand resource requirements for delivery

General customer insights feedback during BP1

General feedback from our customer insights surveys

This section describes the feedback we have been receiving through our BAU stakeholder and customer satisfaction surveys and the resultant actions we have taken to address the key themes.

Key emergent themes from financial year 21/22

Whilst we are addressing customer specific insights as they come in, we have also taken the time to do a more holistic review of what customers have been telling us during 2021, using the feedback from our September Stakeholder Satisfaction (SATs)/Roles/Trust survey as a starting point.

Using customer insights from across the business and our own internal reflections on what current customer issues are we have been able to identify three main themes where we need to improve.

The good news is that customers are generally happy with the amount of engagement and feel we have never engaged with them as much, but we need to do more in these areas:

- We need to consistently deliver on our commitments (e.g. meeting deadlines; running accurate, efficient processes)
- Be more transparent with our project plans, our organisation and structures, our decision-making or our data
- Show we are listening and being flexible where we can, in order to understand and improve the impact we have on their businesses

How we are working to address these themes during BP1

The next stage of the process, was to start reviewing what solutions might be to improving these issues and prioritising them based on impact and effort.

In summary we undertook a root cause analysis of themes arising from a number of different interactions and identified ideas for potential solutions. We then, working with our senior leadership team prioritised, and grouped these outputs to produce a tangible set of actions to deliver during the 21/22 financial year.

The resultant actions have been grouped into four main categories, to tackle the original three themes.

Leadership

- Bringing Customers into Executive meetings and more team meetings
- Introduce more structure to how we manage relationships specifically across our main customer facing teams to help us better understand their needs in a more timely manner.
- Leadership to drive use of Salesforce, ensuring that we have a consistent approach to our customer data management
- Build a TO relationship management plan to help customers understand the relationship and our roles and responsibilities

Culture

- Formalise customer stars policy to celebrate successes around the business and show that customer centricity is important
- Relationship management training (using interactive training provider EnACT) to upskill all customer facing teams in this regard and their understanding of the impact of their decisions on their customers
- Review of staff objectives, hub KPIs and incentivising customer to ensure we embed and track customer deliverables in everyone's jobs
- Analysis of Salesforce data as leading indicator for customer issues and using it more proactively to identify where we need to improve

Operational Model/Ways of Working

- Customer team, prioritisation of our activities and support we offer to the business teams to ensure we are focusing on the activities that will have the most impact on improving the customer experience
- Customer journey work, review and prioritise the journeys so that the ones that will deal with known customer pain points in customer facing teams are front and centre

- Refresh ESO Customer hub, where the Executive team get early sight of current customer issues/hot topics to enable prompt action

Business Change

- Roll out and embed updated impact assessment work to ensure we are considering customer at the start in all our processes and projects
- Build and embed customer into Business Change processes to ensure that we consider customer throughout our projects and process and have clear and consistent engagement plans

These activities will form the starting point for building our ESO Customer and Stakeholder Strategy for 2022/23 and building blocks for BP2. Ensuring that teams around the business are being supported to help deliver improvements that will impact on the original three customer issues.

We will be able to review our progress during the year with the insights we gather and specifically in September 2022 and March 2023 when we run our bi-annual SATs/Roles/Trust survey. We will similarly undertake this cycle of review and improvement activities throughout the Business Plan 2 period

Stakeholder feedback across the general Business Plan

Cross-Business Plan feedback

Source: BP2 specific engagement – BP2 introductory webinar 1 January 2022

What we heard

- Multiple stakeholders were keen to understand more about how the ESO can demonstrate success against our ambition to be able to operate the system carbon free by 2025. Particularly how we can evidence this should there be insufficient renewable generation and supporting technologies to allow secure operation through at least a full load cycle, e.g., a day
- One stakeholder set out that they were keen to engage further on ESO: DSO: DNO interface requirements to help deliver whole system in relation to BP2
- A small business highlighted that it was *“Good to see the policy of engaging stakeholders”*
- Another small business set out *“It was interesting to note the amount of change since 2019 that would have an impact on the plan. There remain huge uncertainties related to Policy decisions.”*

How this has shaped our plan

- We set out that we do not expect to be operating the network carbon free for a whole day in 2025. Success for us in this time frame is that we can manage the network carbon free for short periods of time and only if the market delivers this. It is making sure that we have the right tools and products in place to do this, with requirements driven through network modelling.
 - We published a DSO transition consultation during BP1, setting out the support and potential role we will play in enabling the DSO transition going forward. We will continue to engage with stakeholders in this space. Please see the facilitating distributed flexibility section of our Business Plan for more information.
 - We will continue to provide opportunities to engaged broadly across the stakeholder spectrum
 - We have set out in the plan both where activities are new and materially changed since 2019 and where there are policy uncertainties
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Role 1 feedback

Activity 1 - Control centre architecture and systems (materially changed)

(A1.1 - A1.4) We have shared plans relating to our Balancing and Network control programmes with the Technology Advisory Council (TAC). This included the current technology suite, our goals for 2025 and the five-year delivery roadmaps - the feedback has shaped how we have worked in BP1 and will continue to deliver in BP2 and is show in the table below.

(A1.5) Please see section cross-role activities section – facilitating distributed flexibility for further information.

Source: Technology Advisory Council – March 2021

What we heard	How this has shaped our plan
<ul style="list-style-type: none">Technology and Operations collaboration -Having technology and operations teams collaborate very closely leads to continuous improvement and feature development as well as an understanding of each other's challenges. It may not be possible to achieve this if technology build is outsourced	<ul style="list-style-type: none">The ESO Ways of Working (WoW) initiative has been in the pipeline since February and was launched in mid-March. The initiative is designed to implement a new way of working and create TechOps (technology and business operations) teams that are focussed on the customer to deliver products that are of value to them. The WoW initiative will accelerate the ESO's journey to adopting a digital and product model. <p>In addition, we are embracing the Scaled Agile Framework (SAFe) approach and tools to ensure that the delivery of products is exactly in line with the customer's expectations through constant feedback loops.</p>
<ul style="list-style-type: none">Collaborative Transformation -Transformations in other sectors, such as telecommunications and digital television, highlights the need to fully involve all operational teams from the start to get buy in. These programmes must be seen as transformation approaches rather than technology programmes	<ul style="list-style-type: none">We are engaged with National Grid Digital Hub to run several Hack-a-Future sessions which embodies design thinking. These events will be fast, purpose driven events focussed on the future (the art of the possible) that will use, observe, ideate and review loops to continuously improve on our previous best.
<ul style="list-style-type: none">Start-up mentality - Having a start-up mentality means being prepared to fail. Is this something the ESO is really empowered to do?	<ul style="list-style-type: none">We will be running such events across the ESO for all roles in order to ensure that the start-up mentality is entrenched. For example, within the Future Balancing Programme and Electricity Market Reform (EMR) workstreams, we have worked, and are working, with the end-users to understand their needs and wants, plotting the user journey and prototyping solutions to provide tangible value-add outcomes.

Source: Technology Advisory Council – Control room of the future subgroup November 2021

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• Consider the people side in terms of roles and responsibilities in the design of the new tools for 2025, particularly what can be learnt from other companies who have undergone or are undergoing similar large-scale transformation	<ul style="list-style-type: none">• We confirmed the Balancing and Network Control programme are being managed with product lines with associated workshops being run with customer / user groups to capture and properly understand the user requirements. In addition, a business change team has been setup to manage the transition to new processes and tools and how change is implemented. We have also visited other companies who have undergone similar transformations to feed into our BP2 plans.
<ul style="list-style-type: none">• A stakeholder asked the ESO to consider how it addresses the challenge that requirements are being set now for the control room of the future when there is such a rapid change of pace and uncertainty of what the future challenges are going to be	<ul style="list-style-type: none">• For our BP2 plans a flexible agile approach has been adopted which should make it easier to adapt to changing requirements and from experience it should not be a concern not to be able to identify all the requirements as an agile approach is the preferred way to mitigate against an elevated level of uncertainty. ESO has a change map drawn up to show how change will flow to 2025.
<ul style="list-style-type: none">• The TAC was keen to understand the role that machine learning (ML), and Artificial Intelligence (AI) could play for the ESO and provided a series of questions the ESO could explore to progress their thinking further.	<ul style="list-style-type: none">• In BP2 whilst ML / AI will potentially be solutions to meet customer requirements, the ESO are thinking AI and ML in the broadest meaning of the terms as the programmes are still in the early stages, ML & AI will be defined further as the programme progresses and the ESO will continue to work with stakeholders and Technology Advisory Council on this new area further.
<ul style="list-style-type: none">• The group reinforced that both industry and research should be pushing for code changes in addition to the ESO and all parties in the industry should be prepared to change to be able to meet the requirements of the system of the future. It was suggested that the ESO make sure to engage in the Energy Data Taskforce as different parties all have different priorities and engaging in task forces is the way to influence change.	<ul style="list-style-type: none">• This has been noted and we will seek to engage as appropriate.
<ul style="list-style-type: none">• It was advised that the benefit from the ESO explaining to industry how provided data is used, would add value to the data and the industry would respond quickly to data requests once the value is understood.	<ul style="list-style-type: none">• This has been noted

Activity 2 - Control centre training and simulation

(A2.1) Whilst this area is not materially changed, stakeholder feedback has influenced how we approach this as set out in the feedback from the Operational Transparency forum and DNO Operability Forum below.

(A2.2-A2.4) We have not received any stakeholder feedback in these areas that have resulted in significant changes to BAU activities.

Source: Operational transparency forum (August 2021) and DNO operability forum (October 2021)

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• We are committed to being proactive in sharing learnings across the ESO and industry during BP2 when it comes to incident analysis and investigation of abnormal events.• During BP1 we have been sharing lessons learnt from significant events through the Operational Transparency Forum and other relevant forums, such as the Grid Code Review Panel and the DNO Operability Forum. An example of sharing information in the way we are proposing for BP2, related to a major incident around Heysham on 22nd July 2021. We shared details of our investigation to the Operational Transparency Forum at the beginning of August 2021, which initiated questions from stakeholders. Furthermore, we shared details at the DNO Operability forum in mid-October where positive feedback on the findings were provided by most stakeholders at the forum.	<ul style="list-style-type: none">• We intend to continue with this transparency in BP2

Activity 3 – Restoration (materially changed)

(A3.1-3) We have undertaken a significant amount of engagement in the last six months relating to the implementation of the Electricity System Restoration Standard (ESRS). This includes hosting several webinars, formation of new industry working groups, and establishment of a Coordination Committee and a Steering Committee. Feedback received as part of these engagements has fed into our development approach for ESRS. We also publicly consulted on several areas of ESRS implementation. Feedback is summarised in the table below.

Additionally, the new ESRS webpage was launched in December 2021¹⁰. Since the web page has been launched stakeholders have provided feedback that they would like a standard set of FAQ's –we are currently in the process of composing these.

¹⁰ <https://www.nationalgrideso.com/industry-information/balancing-services/electricity-system-restoration-standard>

Source: ESRS consultation – November 2021

What we heard	How this has shaped our plan
<p>The ESRS consultation asked for views on many areas of ESRS implementation, including how codes and/or licence obligations will need to be changed, suggestions for how industry could provide visibility of its capability to meet the ESRS and ideas for how we can continue to deliver a secure and resilient communication infrastructure across the industry.</p> <p>Overall, there were 7 responses to the consultation and the headline feedback was:</p> <ul style="list-style-type: none">• Networks will need to be upgraded (technical requirements shared with working group)• Generators and network operators will need to work together to find joint solutions to bring distributed generation into restoration• Automation: general support for automation to support quicker restoration but there will always be significant manual input requiring knowledge and training.• For providers: general support for competitive markets but a different approach may be needed to bring new technologies into restoration initially• For networks: agreement that network costs associated with ESRS implementation should be recovered through price controls• Code changes need to be in place as soon as possible (but differing views on backstop ranging from Dec 2022 to Dec 2024.)• Network resilience: need to ensure transmission, GSPs and primary (33/11kV) substation have resilience for 72 hrs• Support for regular capability testing	<p>Results of the consultation are being fed through to the new industry working groups set up to focus on different areas, ahead of implementation of the ESRS. These working groups are:</p> <ul style="list-style-type: none">• Future networks• Technologies and locational diversity• Markets and funding mechanisms• Regulatory frameworks• Compliance• Communication infrastructure• Modelling and restoration tools

Activity 17 – Open data and transparency

Whilst this area is not materially changed from a financial perspective, we are building on the foundations laid in the BP1 period, we will continue to deliver on our commitments to open data and transparency. Stakeholder feedback is an important part of this.

We have conducted a number of rounds of user research interviews with a wide range of individuals who access our data and content. The headline stakeholder feedback remains consistent with pre-BP1 stakeholder engagement insights. A wide range of stakeholders want ESO data to be accessible and usable in a variety of formats. Publication of our data catalogue and triage process in the BP1 period will provide further opportunity to understand stakeholder priorities for specific data sets to be made accessible in BP2.

With the operational challenges brought on by the onset of COVID-19, the ESO set up the Operational Transparency Forum to engage with industry-wide stakeholders and provide them with guidance on the operational decisions being made to manage through this period of uncertainty and low demand. Feedback from OTF is summarised in this section.

We have also engaged with our Technology Advisory Council, which is summarised in the table below.

Source: Technology Advisory Council – June 2021

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• Don't try to build a perfect end to end solution that does many things poorly. Build core functionality that does limited things well and build from there.	<ul style="list-style-type: none">• For BP2, we will introduce the new continuous deliverable D17.8 Digital Engagement Platform (DEP) with a continued phased deployment. We will deliver incremental build out of the physical platform via a use-case led approach. In this way, the deployment of new capabilities is always aligned with business priorities and value creation for stakeholders
<ul style="list-style-type: none">• Human interaction will continue to be important due to the complexity of the energy industry. Great platforms enable specialists in a company to do end-to-end customer journey management. The ESO needs people, and the associated technology, that guide users through the whole process.	<ul style="list-style-type: none">• The DEP will adopt an approach that frees up specialists to provide more value-add support to customers.
<ul style="list-style-type: none">• The ESO should link up with industry initiatives such as Modernising Energy Data (MED) and Energy Data Visibility (EDVP) being coordinated by BEIS and IUK	<ul style="list-style-type: none">• We are engaging with the Modernising Energy Data (MED) and Energy Data Visibility (EDVP) initiatives.

- DEP and eso.com should be one. Data and information provided by the ESO is valuable in one place and alongside the systems that facilitate market participation.
- We are scoping the DEP solution to replace the capability currently provided by the eso.com website.

Source: Operational Transparency Forum (OTF) – various

What we heard

Since the OTF has been running, stakeholders have asked ~ 1450 questions, of which we have answered over 1400 to date. Below details some stakeholder feedback on specific deep dives the ESO has held at various OTF sessions. (Please note, the upvotes represent how many other stakeholders agreed with the comment):

- Carbon intensity deep dive: 27th October 2021 – *“Thanks for what may be the best Deep Dive special guest slot so far - against stiff competition - and for tackling complicated but important technical questions”* (6 upvotes)
- BSUoS forecasting: 19th January 2022 – *“Nice overview on the BSUoS, but it would be good to go through this in detail around forecasting”* (4 upvotes). 26th January – *“Thank you very much for the overview of new BSUoS forecast methodology. Very useful.”* (4 upvotes)
- Forecasting methodology: 12th January 2022 – *“Thanks for update on DF modelling and my gut feeling is that it has improved from a few years ago.”* (8 upvotes)
- Constraint management: 9th February 2022 – *“Thank you for taking our feedback into account and changing Thermal Constraint costs to Network Congestion costs to better reflect exactly what they are.”* (5 upvotes)

Some more general feedback from stakeholders with regards to the OTF is detailed below:

- 17th November 2021 – *“I for one thank you for taking the hard questions especially with limited time to plan for them”*
- 15th December 2021 – *“More a general comment. These webinars are always useful, and I appreciate the efforts of the team to answer as many of the questions as possible at short notice.”*

How this has shaped our plan

- The positive feedback relating to the Operational Transparency Forum means that this is something we will continue to resource and provide during the BP2 period.

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> 23rd February 2022 – <i>“It’s very interesting seeing the weekly constraint costs incurred. Similar to the presentation of constraint capabilities could we also see how constraint costs are tracking against predicted costs? This would give a view of longer-term performance.”</i> 	

Source: BP2 specific engagement – webinar 5 February 2022

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> A stakeholder raised a transparency request (noting this had also been raised at previous ESO performance Panel stakeholder meetings) of adopting the Ofgem approach with daily email of everything published by ESO that day A stakeholder fed back that the open data transparency principle does not seem to extend, in practice, to real-time data (see the ESO’s approach to the changes GC0109 and GC0133 as examples of this) being made available to stakeholders by the ESO References to “bad actors” were challenged, with a stakeholder feeding back that the ESO should not be holding back information on the basis someone “might” act badly. The stakeholder also questioned how potential “bad actor” controls extend to teams within the ESO itself who could trade on this inside information when the rest of the market cannot (which can distort the market) 	<ul style="list-style-type: none"> As far as publishing data on the ESO Data Portal, there is a feature / facility on the portal which would let stakeholders register to receive notifications for any new dataset that has been added and if they have subscribed to any existing datasets, they will get an alert come through for any updates made to those datasets. Where we can, we have datasets on the Data Portal which provide near enough real time data i.e., refreshed every 10 minutes¹¹. We fed back that real time data can be sensitive and also requires a degree of backend system integration which we are stepping towards with the Data and Analytics Platform (DAP) . It was explained that the intent of our plans in this area are to avoid inadvertent oversharing of data that might lead to a negative outcome for consumers or other market participants. This requires a considered approach in respect to open data sharing. In terms of ESO colleagues robust compliance process/functions are set up to safeguard against that.

Activity 18 – Market Monitoring (New)

A18 is a new activity. Our engagement relating to setting this up is summarised below.

¹¹ <https://data.nationalgrideso.com/trade-data/balancing-services-contract-enactment>

Source: Operational Transparency Forum – November 2021

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• We carried out initial stakeholder engagement on the creation of the market monitoring function. Questions and feedback from attendees centred around wanting to know more about this new role, and the mechanisms we have in place for reporting to Ofgem.	<ul style="list-style-type: none">• Taking on board this feedback, in December 2021, we held a follow up open invitation workshop with market participants to support with the setting up of the Market Monitoring Team. We spoke with stakeholders about how they would submit data, described the processes the ESO will be using and addressing any concerns. Stakeholders told us that they support the creation of this function by the ESO and feel that the role is appropriate given the ESO's position in the market. Overall, participants are keen to engage and cooperate on the findings of our monitoring processes, however, the team will remain mindful of our confidentiality.

Source: ERSG

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• A member fed back on the need to be mindful of the remit of this role – <i>“it will erode trust if you're using this data for other purposes”</i>• A member suggested the ESO could establish a "confessor" role - a trusted advisor, enabling market participants to report behaviour they are concerned about, and others to check whether their behaviour is appropriate• A member suggested in terms of guidance on data requirements – the ESO need to be crystal clear on what it is we are looking at. Is more guidance needed to ensure the data being asked for delivers that goal? Onerous requirements or (seemingly) pointless reporting will not be welcomed by stakeholders.	<ul style="list-style-type: none">• The data and output of the team is confidential and is kept on systems with restricted access to the Market Monitoring team. Data and teams' activities are not shared with other parts of the company or used for any other purposes. We take confidentiality seriously and want to ensure that our stakeholders' trust in the ESO is not compromised• We want to encourage the market to communicate with us on these matters, and we reach out to discuss data issues with market participants bi-laterally where we can. We have an external email address we publicise for any participants to report any behaviours which they would appreciate investigated further. We strive to answer questions we receive as well as we can. Reports can also made directly to Ofgem.• We would like to add value where data requirements on Market Participants are concerned, and we are working to find a way of doing this that Ofgem are comfortable with. We would look to provide more clarification on what is required from a data perspective rather than add

What we heard	How this has shaped our plan
	to existing requirements (although there may at times be code changes etc that require this).

Activity 19 – Data and Analytics Operating Model (New)

(A19) is a new area for BP2 and we would value further feedback on this area as part of the BP2 consultation. The Hub & Spoke Operating Model was shared at a meeting with the TAC in February 2022 and a few key areas of feedback are below.

Source: Technology Advisory Council Control Room of the Future Subgroup (February 2022)

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Encouragement was given for the ESO to recognise the data journey in that quite often data owners aren't always the consumers of the data which can have unintended consequences of groups of data becoming disconnected and uncontrolled. 	<ul style="list-style-type: none"> As we progress our plans ESO is going to ensure to understand the full flow of data from the source to the consumer and engage with all the parties affected as part of the data journey work.
<ul style="list-style-type: none"> One member gave some positive feedback on the current approach and recommended to minimise the distance between decision makers and data producers. 	<ul style="list-style-type: none"> In our plans, data stewards are going to be embedded within business teams that encompass data analysis and data management skillsets.
<ul style="list-style-type: none"> Emphasis was given to the challenges involved in bringing people across to new platforms. 	<ul style="list-style-type: none"> Our strategy in BP2 is to show users the benefits of a new platform to help get them on board.
<ul style="list-style-type: none"> It was highlighted how critical trust in data sources is and that the trust is always focused on the documentation but also gained through checking and validating the data regularly. One potential pitfall with a Hub and Spoke is around the cultural challenges for people that are confined to working in certain areas. The benefits of having one team that combines data science and data analysis skills was re-enforced. 	<ul style="list-style-type: none"> We are going to explore bringing the expertise within a central team during BP2.
<ul style="list-style-type: none"> A question was posed to the group specifically around how to scale Machine Learning (ML) into processes and how to build confidence on ML based decision making. It was mentioned that ML operations is different for every organisation, a good starting point is to work out where ML ops sits within the ESO. 	<ul style="list-style-type: none"> Advanced machine learning techniques and automation will continue to be investigated as the way to help the ENCC be future-ready for new challenges from the energy system transition. This includes the ability to forecast increasingly uncertain supply and demand patterns and re-think

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> An observation was provided on the people side of a data transformation in that trust is very important to maintain as if it is lost it can be very difficult to regain. Very good communication with key workers ensures building trust and an incremental approach instead of a big bang approach will enable people to evolve with the transformation. 	<p>how the ESO continues to operate the system in real time and maintain a secure, reliable system, at lowest cost and environmental impact.</p> <ul style="list-style-type: none"> We want to explore and identify some applications for new platforms and work with key users and capture user stories to share with the wider ESO to show them the benefits of moving their data and applications to a new platform.

Source: ERSG meeting 5 – Data deep dive

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> A member challenged the presenter on defining what good looks like for the ESO's data strategy, and how the ESO would determine whether its practices were best in class. They noted that the presentation featured a data triage which was of a concern, as this can suggest that data won't all be open and accessible. The member followed up by asking about ESO data capabilities, and how much is within the organisation versus what is brought in externally via consultants. 	<ul style="list-style-type: none"> Data triage is an important part of the data strategy, as whilst the ESO is committed to transparency it needs to ensure that the ESO is not inadvertently sharing sensitive data. In terms of what best in class would look like, the ESO is working with a data and analytics external partner. The ESO is bringing in an implementation partner to help with key design aspects of the data strategy. The ESO also need to bring in new competencies, especially in terms of operating large scale machine learning products. There will be an incremental, upskilling and training staff as technology develops.
<ul style="list-style-type: none"> Another member questioned the presenter on the obstacles the ESO is expecting to see in the future in relation to its data strategy deliverables. They also sought to clarify how the ESO was developing use cases 	<ul style="list-style-type: none"> The biggest risk to delivery is finding the right talent, which is being addressed to an extent by bringing in an external implementation partner in the short term but this also features in our People and Capability proposals. Regarding the use cases, we noted that the next milestone is developing a minimum viable product. We have a number of different use cases from within the ESO, including end-user applications which they can 're-platform' if required.

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• A member with experience in developing data strategies shared the following learnings:<ol style="list-style-type: none">1. Choose and commit to one platform or tool2. Ensure that there are adequate change management and documentation practices in place3. Data ownership is key (i.e. it is easy to create dependencies without knowing)4. Host monthly village halls with hub and spoke employees to share best practice5. Upskill employees who are new to analytics to embed this across the whole organisation6. Ensure consistency in data science and analyst job fields particularly during performance reviews with the spoke model7. Develop a skills matrix to capture both technical knowledge and industry understanding8. Establish clear measures of success and ensure these are displayed in an accessible format to industry9. Define the source of the truth10. Develop a mentoring system11. Concerning use cases, this will need a common thread of architecture running through each12. Develop measures of success for employees e.g. retention of staff, progressing people through the skills matrix.• Another member liked the approach and structure the ESO proposes to put in place. They questioned implementation and technology choices the ESO would need to make. The member also asked about the use of the ESO's technology committee and whether this was purely to provide a sounding board for big decisions. Additionally, the member asked how the ESO plans to bring the rest of the business along on the data journey, and noted that, with regards to attracting and retaining talent, it could be an exciting place to work for a data analyst.	<ul style="list-style-type: none">• We have noted this feedback and will provide a further update for the final version of BP2 in August• We have noted this feedback and will provide a further update for the final version of BP2 in August. In terms of attracting and retaining talent this has fed into our people and capability proposals.

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• A member queried the process diagram presented, and whether there were plans for data clarification or variation. They noted that, where there is a milestone change or update of data, these need to be correctly aligned.	<ul style="list-style-type: none">• We have noted this feedback and will provide a further update for the final version of BP2 in August

Role 2 feedback

Activity 4 – Build the future balancing services markets (materially changed)

(A4.1-A4.2) We have not received any specific feedback in these areas that have resulted in significant changes to BAU activities.

(A4.3) Technical workshops were hosted focused on product design for reserve products and frequency response. Feedback from these workshops is set out in the tables below.

(A4.4) Throughout the latest phases of the development of the Single Markets Platform (SMP) which will continue to develop throughout BP2, we have made changes to the platform design based on stakeholder feedback, these are set out in the tables below. We have also received feedback on our plans for SMP at the TAC on specific points relating to our digital design principles which we have taken on board.

(A4.5) Please see section cross-role feedback – facilitating distributed flexibility for further information.

(A4.6) In June 2021, we approached stakeholders for feedback on our Markets Roadmap 2025, this is summarised in the tables below.

(A4.6) Since the reactive power market project commenced in October 2021 we have engaged with industry, gathering feedback from providers which has been used to support the project, in particular the key market design element. Feedback is summarised in the tables below.

Source: Reserve Reform Webinars – Product and service design

Activity 4.3 Deliver a single day-ahead response and reserve market

What we heard	How this has shaped our plan
<ul style="list-style-type: none">Technical workshops were hosted focused on reserve products. The purpose of the workshops was to co-create with industry on product and service design elements for the new Reserve products. Where applicable, we set out the ESO's 'red lines' for specific service criteria and invited industry to raise concerns and proposals for the new products. Stakeholders told us that they agreed with some of our proposals, and we should consider the impact on certain technology types when defining particular criteria (e.g., ramping limits and service duration).	<ul style="list-style-type: none">We will continue to build on this feedback as we implement new Reserve products.

Source: Product design for frequency response webinars & consultation

Activity 4.3 Deliver a single day-ahead response and reserve market

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• Webinars were hosted focused on product design for frequency response. The purpose of these webinars was to co-create on the product and service design with industry. We shared our proposed design for the services and gathered feedback on what providers agreed or disagreed with and why. Generally, stakeholders told us they had concerns around bundling procurement of the services and previously had mentioned concerns around Grid Supply Point (GSP) vs. GSP group aggregation for services.	<ul style="list-style-type: none">• We took on board this feedback and plan to launch with an unbundled service at GSP group level. They also said they would like to be able to stack the services and optimise procurement. This will be considered as part of the Enduring Auction Capability.¹²

Source: Single Markets Platform (SMP) Show and Listen Industry working groups (various)

Activity A4.4 Single Market Platform

What we heard	How this has shaped our plan
<p>Course corrections that came out of direct engagement with future users in the Show and Listen events:</p> <ul style="list-style-type: none">• Number of users - we suggested 3, stakeholders requested more.• Stakeholders fed back that the Market Participant needs a Super User role profile that had role access to everything due to time saving rationale.• Stakeholders fed back that that the Authorised Signatory won't ever log into SMP and therefore the Super Users of a Registered Service Provider will have to get a wet signature from the Authorised Signatory.	<ul style="list-style-type: none">• This feedback has been taken on board and we plan to course correct our plans accordingly.

¹² <https://www.nationalgrideso.com/document/198266/download>

Source: Technology Advisory Council – June 2021

Activity A4.4. Single Market Platform

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• Don't try to build a perfect end to end solution that does many things poorly. Build core functionality that does limited things well and build from there.• Human interaction will continue to be important due to the complexity of the energy industry. Great platforms enable specialists in a company to do end-to-end customer journey management. The ESO needs people, and the associated technology, that guide users through the whole process.• Link up with industry initiatives such as Modernising Energy Data (MED) and Energy Data Visibility (EDVP) being coordinated by BEIS and IUK	<ul style="list-style-type: none">• The foundational release for SMP is being built on a core functionality to facilitate registration (provider and asset), accede to specific service terms and pre-qualify units. This will be for new and enduring Response and Reserve products initially prior to integration with downstream capabilities (such as auction capabilities) in the future and extension to wider balancing services markets.• SMP will adopt an approach that frees up specialists to provide more value-add support to customers.• We are engaging with the Modernising Energy Data (MED) and Energy Data Visibility (EDVP).

Activity A4.6. Balancing and ancillary services market reform

Source: Markets Roadmap 2025 Feedback Survey June 2021

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• Stakeholders would like the publication in report and webinar format• Stakeholders want to see more data for service providers / participants, market value and market interactions• Stakeholders want to see more on the operational need and how it will evolve over the years, and key drivers for change	<ul style="list-style-type: none">• We aim to publish an annual report and host webinar(s) post publication• We aim to have a larger focus across all these areas, drawing out benefits to providers and what changes to reforms would mean for them, more detailed analysis around market insights and what ESO reforms may mean for wider market interactions.• The ESO operational needs and requirements will all be published in the ESO Operability Strategy Report (OSR)

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Stakeholders want more detailed timelines of the ESO delivery plans 	<ul style="list-style-type: none"> Each of our markets will have a detailed delivery plan. We have an ambition to update these bi-annually on our ESO webpage
<ul style="list-style-type: none"> Stakeholders want to have a longer-term view of markets beyond 2025 	<ul style="list-style-type: none"> Our delivery plans (found in our Markets Roadmap) will give a 5-year view (2022-2026) of market reforms and activities. We will also explore market trends, where we aim to indicate the direction of travel for some of our markets out to 2030
<ul style="list-style-type: none"> Stakeholders want the ESO to provide clear market value signals and volume of products 	<ul style="list-style-type: none"> We have ambitions to provide future visions of how this will evolve. We will use the outputs from the OSR in terms of volumes in each product market and the growth and change in providers to estimate the impact on market prices for those products for which this is possible
<ul style="list-style-type: none"> Stakeholders want more information on DSO and ESO interactions and whole system thinking 	<ul style="list-style-type: none"> We aim to share wider our electricity whole systems thinking, which may potentially include what stacking across ESO and DSO products would look like

Activity A4.6. Balancing and ancillary services market reform

Source: Reactive power webinars and workshops

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Both long-term and short-term market are needed. There should be a right balance between short term and long-term procurement process 	<ul style="list-style-type: none"> We confirmed a hybrid short-term and long-term approach is proposed.
<ul style="list-style-type: none"> ESO should look to hedge a proportion of its reactive requirement sufficiently ahead of delivery. 	<ul style="list-style-type: none"> We confirmed that in the current design, we are aiming to send clearer requirement signal at different procurement stages such as four year ahead, year ahead, and day ahead.
<ul style="list-style-type: none"> T-3 lead time is not long enough. 	<ul style="list-style-type: none"> We confirmed that we are proposing T-4 now.
<ul style="list-style-type: none"> ESO should look to hedge a proportion of its reactive requirement sufficiently ahead of delivery 	<ul style="list-style-type: none"> In the current design, we are aiming to send clearer requirement signal at different procurement stages such as four year ahead, year ahead, and day ahead

Activity 5 – Transform access to the Capacity Market (materially changed)

(A5.1-A5.2) In delivering our activities for A5.1, we have implemented several improvements to our processes and systems as a result of stakeholder feedback. This is summarised in the tables below.

(A5.3) We have not received any specific feedback in this area that has resulted in significant change to BAU activities.

(A5.4) This is a new area for BP2, and we would value further feedback on this area as part of the BP2 consultation.

Activity A5.1. EMR delivery body

Source: Customer survey & direct customer feedback

What we heard	How this has shaped our plan
<p>We received a variety of feedback on this area. Some specific points were</p> <ul style="list-style-type: none">• Our customers told us that they wanted more support in meeting deadlines• Customers also told us that they would like their queries answered where possible at first point of contact• Moreover, our customers told us that want us to play a wider role in simplifying and clarifying the Capacity Market and CfD rules.	<p>In delivering our activities for A5.1, we have implemented several improvements to our processes and systems. We have actively involved customers in the process of co-creating guidance material as well as the creation of other new supporting material such as “how to” videos. We have taken their comments and suggestions into account to ensure it meets their needs.</p> <p>We also ran events through which we provided existing and new participants information on how to participate in the Capacity Market and CfD schemes. This was supported, among other things, by the creation of a dedicated website for CfD Allocation Round 4 through which we, and other delivery partners, provided vital information and guidance.</p> <p>The following is being implemented in BP1 and will continue into BP2.</p> <ul style="list-style-type: none">• Among other things, we have sought more direct communication and increasingly notified and called our customers ahead of key milestones.• We have provided further training and support to our customer facing teams.• We have increasingly captured, developed and promoted improvement ideas.

Activity A5.2. Deliver an enhanced platform for the Capacity Market within the single, integrated ESO markets platform

Source: Customer survey & direct customer feedback

What we heard	How this has shaped our plan
<p>Based on customer feedback, our overarching objectives for the new EMR portal are to deliver a step change in user experience and to deliver change faster and more efficiently.</p> <p>In designing the new portal, we have engaged with customers and taken their feedback on board.</p> <ul style="list-style-type: none">• Our customers told us that they would like more guidance in our portal when preparing applications• Customers also told us that they wanted our communication with them to be more targeted• Finally, our customers have told us that they want to be able to reuse information they previously provided.	<p>The following is being implemented in BP1 and will continue into BP2.</p> <ul style="list-style-type: none">• We therefore integrated helper text in our EMR portal.• Among other things, we designed our new portal to adopt a more targeted approach.• We have worked with customers and Ofgem to amend the Capacity Market rules and implemented improvements to our portal to facilitate this.

Activity 6 – Develop code and charging arrangements that are fit for the future (materially changed)

(A6.2) Change in this area is not predominantly driven by stakeholder feedback.

(A6.3) Change in this area is not predominantly driven by stakeholder feedback.

(A6.1, A6.4-9) Feedback on specific elements of this materially changed area are shown in the tables below

Activity A6.1. Code management / market development and change - stability

Source: GC0137 working group

What we heard	How this has shaped our plan
<p>We are aiming to deliver code modifications and guidance to set the specification for equipment to provide stability support to the system and to participate in any markets that will be set up for this. Delivery of an initial Grid Code modification (GC0137) to set out the specification through which converter connected technologies (renewables, interconnectors) can participate in the provision of stability services was progressed in BP1. Work continues to engage with stakeholders on this and to produce more detailed guidance to facilitate participation.</p> <p>This is being carried out through an expert group, including representatives of manufacturers and developers, that the ESO is leading.</p> <ul style="list-style-type: none">Stakeholder feedback to date is that GC0137 has unlocked their ability to design compliant equipment but they now want further information on how future stability markets will operate.	<ul style="list-style-type: none">The GC0137 solution was formed through an industry workgroup and the solution has taken full account of stakeholder feedback through this and an official consultation process; stakeholders also continue to be involved in setting out more detailed guidance through their participation in the expert group. The Stability Pathfinders that the ESO has set up to explore and test the procurement approaches for long term stability requirements have also been developed using a phased approach taking stakeholder feedback into account at each stage.

Activity A6.1. Code management / market development and change – D6.1.6 Support Market Wide Half Hourly Settlement

Source: Industry Group for Market Wide Half Hourly Settlement

What we heard	How this has shaped our plan
<ul style="list-style-type: none">From the industry groups so far, stakeholders have told us that Market Wide Half Hourly Settlement is a key piece of work, however it is only one element of change in the electricity industry at the moment, with the same resource also supporting other reforms.	<ul style="list-style-type: none">We will consider this throughout BP2, particularly when providing our views on modification prioritisation / planning.

Activity A6.4. Deliver a single, integrated platform for ESO markets

Source: Code Administrators Code of Practice Survey

What we heard	How this has shaped our plan
<ul style="list-style-type: none">During the RII02 period, a wide range of stakeholders have told us, via the Code Administrators' Code of Practice Survey, that the process to change a code is too cumbersome and slow.The ESO Code Administrator has recently evidenced in the 2021 Code Administrators Code of Practice (CACoP) survey, run by Ofgem, that the provision of service across all its codes has significantly improved. Some of the scores were the highest scores ever received by the ESO Code Administrator. However, the need for larger scale reform to existing governance processes for all industry codes continues to be important to industry.Some work is on hold until the outcome of the Energy Codes Review (ECR). Stakeholders have also told us that it would be pragmatic to await this outcome, rather than pushing forward with code consolidation to ensure that prioritisation to the right focus areas are given. It was also noted that stakeholders feel that code alignment, simplification and rationalisation are 'no regret's actions and should continue to be progressed, ahead of the outcome of the ECR.	<ul style="list-style-type: none">We are continuing to progress forwards with the work on code alignment, simplification and rationalisation ahead of the ECR outcome.

Activity A6.5 - Work with all stakeholders to create a fully digitalised, Whole System Technical Code (WSTC) by 2025

This project has centred on engaging with a broad range of stakeholders, including trade associations, Ofgem, government bodies, academia, wider industry players, consumer groups and network operators. This took place via events such as electricity industry forums and specific WSTC webinars. To date, we have engaged with 360+ participants.

Furthermore, we have set up a Steering Group that has representatives from across industry and the group have been meeting monthly since December.

Source: BP2 specific engagement – webinar 5 February 2022

What we heard	How this has shaped our plan
<ul style="list-style-type: none">A stakeholder commented in relation to the “Single source of the truth” stated on the slide and asked if this related to digitalisation of the codes - if it’s the case that this is the truth, why wouldn’t the ESO provide indemnity to users if this turns out not to be the case and that as a result of an ESO error in digitisation of the codes the User does (or does not) do something required by the ‘true’ code?	<ul style="list-style-type: none">It was clarified that the “Single source of truth” being referred to in the case of the presentation was referring to data not codes. However, the digitalisation of codes project under role 2 will look at the relationship between digitalised content and the true code and the obligations and associated liabilities.

Source: Whole System Technical Code Consultation

What we heard	How this has shaped our plan
<ul style="list-style-type: none">Consultation responses indicated that we should set up a Steering Group that could represent the breadth of industry to provide the project with overall oversight, strategic direction and decision making in the best interest of industry. Feedback has been given as to the makeup of the steering group.	<ul style="list-style-type: none">We have set up the Steering Group and it has been meeting monthly since December 2021. Feedback on the composition of the steering group has been taken on board.
<ul style="list-style-type: none">Stakeholders proposed potential solutions to resolve some of the challenges that they are currently facing with the technical codes. The Steering Group’s vote provided a Go decision for 21 of the 25 solutions.	<ul style="list-style-type: none">The solutions voted for by stakeholders are the ones being taken forward.
<ul style="list-style-type: none">Consultation responses have told us that subject matter experts within industry are heavily constrained at the moment due to a large amount of ongoing industry change	<ul style="list-style-type: none">We have proposed a plan that makes efficient use of these resources.

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> We have been told that the risk associated with continuing to progress with the Consolidation workstream before the Energy Codes Reform outcome has been delivered is high. Stakeholders have suggested that the digitalisation solutions should be based on their interaction with the codes. 	<ul style="list-style-type: none"> We have put the consolidation workstream on hold until after the ECR outcome is known. We have also included Ofgem and BEIS on the Steering Group to ensure that the project work and the ECR work remain aligned. We have engaged a code user to share their user journey with the WSTC Digitalisation team and will use this input towards development of the solution.

Activity A6.8 – Digitalisation of codes

Source: Whole System Technical Code working group

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> We have received support from the Whole System Technical Code steering group for our proposed way forward for digitalisation and allowing consideration of the Energy Code Reform work before taking further action on wider consolidation. 	<ul style="list-style-type: none"> We will wait for the Energy Code Reform work to progress before proceeding further in this area

Activity A6.9 – Whole system code reform

Source: Transmission Charging Methodology Forum (TCMF)

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Stakeholders see benefits in the whole system code reform work although some concern was expressed over whether the ESO is the correct entity to carry this out. 	<ul style="list-style-type: none"> We have made adjustments to capture that we should be clearer that the role is electricity only and at this stage doesn't cover any other aspect of whole system thinking.

Source: ERSG meeting 5 – Codes deep dive

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• A member agreed with the ESO's proposal to use AI in codes but asked for further clarity on what the future training set would look like.• Members were in agreement that the approach presented (i.e. to start with digitalisation) seemed correct given the wider context (e.g. awaiting the outcome of the Energy Codes Review). A member highlighted that potential concerns around producing a very large document once digitalised would not be relevant if digitalisation is carried out in the right manner. They also highlighted that the ESO could extract data from various users to understand the benefits and areas that required further improvements.• Some members also agreed that improving the accessibility of the codes is much needed, especially for those with disabilities or where English is not their first language.• A member noted that, whilst they agreed with the ESO's general approach for BP2, they acknowledged the vast amount of work required in the codes space and highlighted that, the more the ESO can act like a code manager the better to deliver the necessary pace of change. They also stated that, in terms of actual delivery, the ESO will need to be forward thinking around the force of their delivery in a challenging and potentially controversial area, noting the TNUOS task force as an example.	<ul style="list-style-type: none">• We have noted these areas of feedback. At the time of writing and its proximity to plan publication how we address this feedback is still being considered. We will provide a further update on the response to this feedback for the final version of BP2 in August
<ul style="list-style-type: none">• A member sought further clarification from the presenter on the user personas displayed in the pre-read material.	<ul style="list-style-type: none">• We confirmed the intent is to think about specific code users and that we are currently thinking through the level of granularity required. An alternative approach we are looking into is the creation of personas going through the codes process.• We confirmed that this would be the case.

- The member followed up by asking about the presence of the newly formed codes steering group, and whether this will be in place throughout the end-to-end process
-

Activity 20 – Net Zero Market Reform (New)

Since the establishment of net zero market reform (NZMR), the ESO Market Strategy have hosted 10 large-scale (>50 attendees) events with over 1,000 stakeholders in attendance. In parallel there have been dozens of bilateral discussions with interested organisations and groups

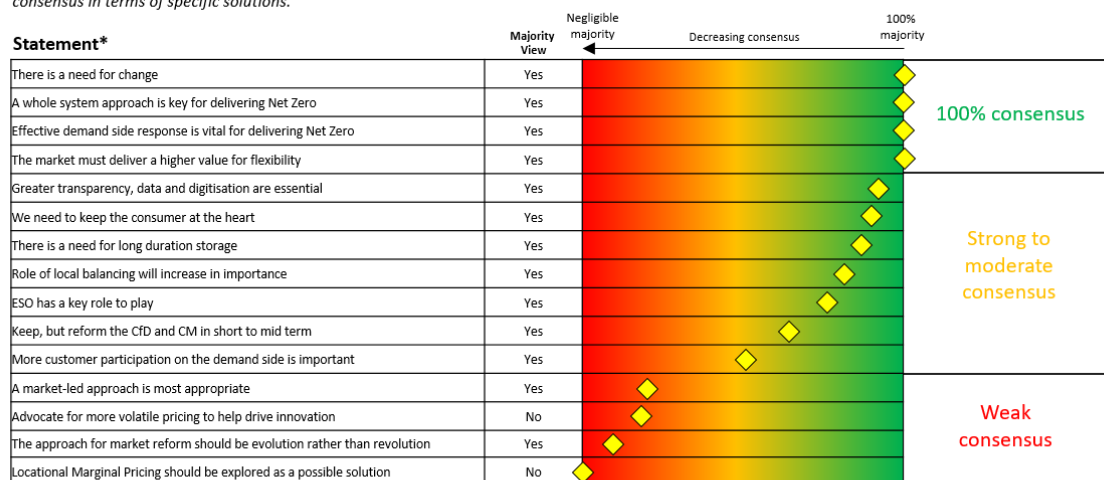
Source: Multiple project specific engagement events March 21 – present

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> The role of the ESO – Although we have received some feedback questioning why ESO are leading on this work, this has been outweighed by positive feedback which we have received throughout Stakeholders have fed back that the working relationship between ESO, Ofgem and BEIS appears to be working well. 	<ul style="list-style-type: none"> We will continue driving forward work in this area We will continue to work closely with Ofgem and BEIS as this project progresses.

Feedback on areas of market reform is summarised below

External stakeholder responses – Phase 1 interviews

As part of Phase 1 we asked 23 external stakeholders their standpoint on a number of statements related to current market design and possible future solutions. There was strong consensus and agreement in relation to the overall need for change, flexibility and a whole system approach, however less of a consensus in terms of specific solutions.



*25 statements were presented to the stakeholders. 10 statements have been removed from the above where less than 50% provided a response. Responses were with either Yes, No or Not Sure.

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • Across all stakeholder engagement there has been strong consensus and agreement in relation to the overall need for market reform, however weak consensus on specific options/solutions 	<ul style="list-style-type: none"> • Due to weak consensus across the industry on the right market design solutions it is inevitable that conclusions are not going align to some stakeholder's beliefs. Therefore, it is critical we are transparent in our methodology and thinking and provide the opportunity for all stakeholders to input their own views and evidence into the process

Source: ERSG meeting 4

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • At an ERSG deep dive, members showed interest in the content of the Net Zero Market reform work. • Members noted that they were pleased to see the ESO carrying out this work, driving change. One member stated that perhaps the success of this project is gaining BEIS and Ofgem's attention on the matter. The member highlighted the need to get to a coherent approach between wholesale market design and network charging and look at the big picture. • There was some discussion about investment signals, locational pricing and interactions with connection arrangements. • Some members noted that there will be 'losers' in the market reform process; effective stakeholder management and an understanding of political relationships will be important. 	<ul style="list-style-type: none"> • Given the detailed feedback members wished to provide, it was decided ERSG would be offered a dedicated session on NZMR. The feedback from this will be shared in our next iteration of the Business Plan. In the meantime, feedback offered so far would be captured by the team working on the net zero market reform team.

Activity 21 – Role in Europe (New)

The main areas of stakeholder engagement within this area have been through the support of Trade and Cooperation Agreement (TCA) negotiations, the implementation of the TCA and long-term system planning. We do not have any specific engagement feedback to inform our plans in this area but would welcome feedback on this as part of our consultation.

Interactions with ENTSO-E on implementing TCA objectives started at the beginning of 2021. ENTSO-E and UK Transmission System Operators have since then engaged in a collaborative manner in both the development of the cost benefit analysis (CBA) for new trading arrangements, which is intended to bridge the gap resulting from the de-coupling of the Day Ahead markets, and in the development of the working arrangements which will provide a future framework for cooperation between UK Transmission System Operators.

As part of these activities, a specific workgroup for Day Ahead Capacity Calculation has been established. Positive feedback has been received from UK TSO interconnectors on the agile approach followed by the ESO team.

We will continue developing solutions following a co-creation approach during BP2, making sure lessons learned are passed on as we increase the number of workstreams.

Role 3 feedback

Activity 7 – Network Development

In summary, this area does not contain any new or materially changed activities. Stakeholder feedback on these proposals have come mainly from BP specific engagement, refreshing stakeholders on areas covered in our original RIIO-2 plan. We have responded to queries and questions from stakeholders as detailed below.

Source: BP2 specific engagement - RIIO-2 Network development webinar – 22 February 2022 & JPC Breakout session 3 February 2022

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> When presenting A7.1 Communicating future network needs (ETYS) a TO representative commented that <i>'giving more insight on year round requirements will be very helpful.'</i> 	<ul style="list-style-type: none"> We welcome this feedback supporting proposals in Activity A7.1.
<ul style="list-style-type: none"> When presenting our BP2 plans for A7.2 Advise on economic efficient ways to address network needs, a TO commented <i>'CBA support for LOTI has been very good and much more will be needed - sufficient ESO resource will be essential.'</i> 	<ul style="list-style-type: none"> The direction of travel, as shown in recent NOAs, is for an increasing number of increasingly complex network schemes to be required to achieve our future net zero targets. We understand that many of these schemes will require LOTI assessments as part of the TOs' regulatory price control arrangements. The ESO works closely with the TOs today to understand and forecast the future need for LOTI assessments in the near term. In the medium term, there are also other interactions to be considered: for example, how the Centralised Strategic Network Plan (CSNP), and the transitional CSNP will interact with LOTI CBA process in future. This issue has been flagged to Ofgem, and the future requirements for LOTI CBAs will continue to be closely monitored.
<ul style="list-style-type: none"> Regarding our activity A7.1 communicating year-round thermal needs a TO commented – <i>"Generally good that ESO are looking forward, however, not totally clear on the 'value case' of what is being proposed or the target audience of the material - e.g., year-round thermal need. Is this for all users? TO's only? competitors bidding in? et"c</i> 	<ul style="list-style-type: none"> Our current view of thermal needs is based on a single snapshot winter peak analysis. With the anticipated changes in the energy landscape, it will become increasingly important to identify if there are additional periods across the year that could drive thermal needs. As part of early competition we expect to identify thermal projects for competition, and we will be communicating these system needs so that a wider range of participants can propose solutions
<ul style="list-style-type: none"> Regarding our activity communicating year-round thermal needs, some stakeholders fed back that there needs to be collective decision making 	<ul style="list-style-type: none"> Engagement with the TOs on our tools and how they can enhance our view of year-round thermal needs is ongoing. A workshop presenting the

What we heard	How this has shaped our plan
across industry parties to determine the best solutions on a level playing field. Some stakeholders also wanted us to be clear about how this activity aligns with network compliance studies the TO is responsible for.	latest results from the ESO POUYA tool was held with the TOs on 17/02/2022 and further engagement planned.

Activity 8 –Enable all solution types to compete to meet transmission needs (materially changed)

(A8.1-A8.3) These areas are not materially changed so have not been an area for feedback specific to our BP2 plans. Regarding Activities A8.1-A8.2 Pathfinder projects are based on “learning by doing” and stakeholder feedback is an inherent part of this process. Whilst we have not significantly changed the scope of our BP2 activities as a direct result of stakeholder feedback, any BP2 projects themselves will continue to be informed and improved by stakeholder feedback from previous projects.

(A8.4) Early competition onshore is a new activity for BP2. During the creation of the Early Competition Plan (ECP) we received many strong and often opposing views from different stakeholders. A stakeholder oversight group known as ENSG (Electricity Networks Stakeholder Group) was formed to ensure the ESO sought input and responded to it appropriately. ENSG confirmed its support for the ESO’s stakeholder engagement during development of the ECP in their final report. Full documentation of this stakeholder engagement is available on the Early Competition Page of our website¹³. A summary of feedback in this area is shown in the tables below.

Source: Summary of feedback received relating to the Early Competition Plan via various stakeholder engagements.

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Some potential bidders questioned whether the ESO is sufficiently independent from National Grid Group to be able to run the tender process. Some TOs felt the proposed implementation timescale is too tight, while some potential bidders felt the timescales are too long 	<ul style="list-style-type: none"> Determining who should run early competition tenders is ultimately a matter for BEIS. Ofgem have indicated their view is that the ESO is likely to be the most appropriate body. This is an important consideration within the Future System Operator work. We discussed appropriate implementation timescales with stakeholders during development of the Early Competition Plan. We have also discussed these timescales with Ofgem. Timescales are driven in particular by the need for primary legislation, which is beyond the ESO’s

¹³ <https://www.nationalgrideso.com/projects/early-competition-plan>

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • TOs questioned whether competition will deliver value for consumers. • Some potential bidders felt TOs should not have a role in network planning if they are providing solutions as part of early competitions and that the ESO should undertake this role instead. TOs however, felt that it is important that they retain a role in planning the networks they own. 	<p>control. Other matters, such as timeframes for changes to industry codes, are also beyond the ESO's direct control. Our implementation timescales have been extended by 6 months from those set out in the Early Competition Plan as a result of corresponding delays to the legislation.</p> <p>In order to facilitate the prompt implementation of early competition where we can, the ESO has been progressing low regrets activity ahead of Ofgem's decision to proceed. We have also been utilising our existing NOA Pathfinder procurement processes to begin introducing some elements of the early competition model. Furthermore, we prepared mobilisation of an implementation team in order to progress as soon as Ofgem made a decision.</p> <ul style="list-style-type: none"> • Ofgem's Cost Benefit Analysis suggests that there is significant value to be gained from early competition. • The TO role in early competitions was debated extensively during the development of the ECP, including with ENSG. Ofgem have been considering roles and responsibilities for network planning as part of their Network Planning Review.

Source: ERSG meeting 3 discussion on Early Competition Plan

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • A member raised whether the ESO is best placed to run the competitions. The group discussed that although there are other possible parties, the ESO is well placed at the centre of the industry, has synergies from being the contracting and payment body, and is without conflicts of interest. • The group discussed the achievability of the proposed timelines, noting the outstanding policy decisions and the maturity of model remaining to be resolved, and how the backdrop will continue to change as the 	<ul style="list-style-type: none"> • These views have been noted. • Given the lack of consensus from the group as to whether timescales are too long or short there are no proposals to change the delivery timescales

What we heard	How this has shaped our plan
<p>development timeline goes on, noting that a number of these enabling factors were owned by other parties/government. There were differing views from the group, some supportive of quicker implementation and ambition. Others questioning whether the timelines are unrealistic and whether necessary policy enablers will be implemented in time.</p> <ul style="list-style-type: none"> A number of members noted their support for early competition and agreed that ESO should include it in BP2 and prepare over the next two-year period. 	<ul style="list-style-type: none"> Early competition is included in the BP2 plans

Activity 9 – Extend NOA approach to end-of-life asset replacement decisions and connections wider works (unchanged)

(A9.1-9.4) This activity is not materially changed so has not been a main focus area for feedback specific to our BP2 plans, although we have received some feedback via BP2 webinars. However, we regularly engage with industry stakeholders around our NOA methodology. We will continue with this approach throughout BP2.

Source: BP2 specific engagement - RIIO-2 Network development webinar – 22 February 2022 & JPC Breakout session 3 February 2022

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Stakeholders are keen to understand what the role of NOA will be post Holistic Network Design, to ensure we make optimal use of our collective capability to plan the future network. Before enhancing NOA, stakeholders need focus on better signalling and information provision. If industry is armed with all of the information, we can look specific boundary issues with you. Commercial solutions are great but could be time limited in a world of significant increase in transfers. Do we really know that no TO solutions are possible in the same timescale? 	<ul style="list-style-type: none"> This has been noted As well as enhancing the NOA, we are keen to improve and enhance the options that are included. The ETYS process defines the future requirements, and we are keen to work with TOs to understand how we can improve this information, to help them to define further options in all timescales. We have also included a number of notional reinforcements for future years, in coordination with the TOs, and these can provide an initial outline for future options. Commercial solutions provide a useful means for managing some of the constraint costs ahead of transmission reinforcements; but we are also keen to receive TO options in these timescales.

Activity 11 – Enhance Analytical Capabilities (materially changed)

(A11.1-A11.4) are not materially changed. We continue to update our stakeholders on how we are progressing with our tools in ad-hoc stakeholder meetings. When holding our BP2 engagement webinars in February 2022, several stakeholders provided feedback in relation to A11.4 as shown below.

Source: BP2 specific engagement - RIIO-2 Network development webinar – 22 February 2022 & JPC Breakout session 3 February 2022

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Given the complexity and risks associated with assessing system stability, and noting our joint responsibilities in this area, will novel methods based on machine learning or other techniques be shared, tested and consulted on before they start to be used by the ESO in anger? Do you expect the TOs or others outside the ESO to be using the Pouya tool in future? It would be good to understand the tools, mutual benefits and any alignment across the industry in terms of adoption/ collaboration to ensure interpret outcomes, aligning to TO study tools (and developments). Are these power factory mods that could benefit more than ESO? If they are ESO exclusive, how are they accommodated down- stream in to TOs analysis/ requirement setting? 	<ul style="list-style-type: none"> We are trying to push the boundaries regarding analytical techniques to gain insights to analyse things more quickly, using lots of data. In terms of working together we will work in collaboration with parties which are impacted. We won't be developing solutions in a vacuum and will be calling on insight from other organisations. We are working with the three TOs directly to communicate our tool developments and solicitate feedback on how any implementation works to be well aligned with studies currently undertaken by the ESO or the TOs. This needs to be a two-way conversation especially with regards to sharing data needed for the effective use of any new tools. The developments we are making are not modifications directly to Power Factory (PF), they utilise data from PF or use PF as a benchmarking tool. Currently the proof-of-concepts of the tools are ESO exclusive, but we are keen to work with the TOs in the first instance to make sure that we can collaborate and benefit across the TOs' and ESO's analysis.

Activity 12 – SQSS review

(A12.1-A12.3) These activities are not new or materially changed for BP2 and therefore feedback has been addressed via BAU improvements. We have held one-to-one discussions with key stakeholders such as TOs, DNOs, Generators and academia representatives. We have also presented the list of potential issues for SQSS review to various forums including SQSS Review Panel, Open Networks Working Stream 1B (WS1B) meeting and Grid Code Development Forum. Within this engagement we have been confirming our understanding of the top priority areas with our stakeholders to develop within the SQSS.

We have also just recently consulted on our SQSS Review Plan which contains these priority areas and have sought further feedback from stakeholders on these. The priority topics include reviewing the limit to loss of power infeed risk of offshore DC converters, revising the design criteria in Section 4 with Network Options Assessment (NOA) interaction and aligning demand connection criteria with the Engineering Recommendation. We are still in the processing this information and will share any relevant feedback in our final Business Plan in August. .

Within our pre-consultation engagement stakeholder's primary concerns were that the amount of effort from the ESO and industry required to facilitate any proposed changes are significant. They asked how the workload would be managed to ensure the project remains on track. We reconfirmed with stakeholders that the prioritisation of the proposed changes would mean we will ensure that the most urgent and important needs of the industry will be satisfied in the early stages, and then more comprehensive review will take place with carefully defined terms of reference. The workgroups will be focused and efficient to tackle the problems.

Activity 13 – Leading the debate (materially changed)

(A13.1-A13.5) Stakeholder feedback has influenced areas across A13 such as including different ways to define regions and fuel interactions, having a whole system focus, and learning lessons from existing cross-fuel collaboration. Feedback is summarised in the tables below.

Source: Comments made are largely from Gas and Electricity, distribution and transmission companies

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• A more granular view of whole system scenarios, and agree it would increase the robustness of FES• There is a need to ensure scenario creation is coordinated	<ul style="list-style-type: none">• For FES 2023 and FES 2024 we plan to provide high quality regional whole system insights alongside the publications in July. For FES 2024 we intend on providing a user configurable FES view available for Electricity / Gas / Hydrogen supply and Demand.• For FES 2023 we intend on forming agreement on the feedback loop and interaction between ESO, DNOS & GDNs and Local Authorities with agreement to be in place by FES 2024.

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • There is a need for transparency of the assumptions driving the regionalisation of the GB FES 	<ul style="list-style-type: none"> • We intend to investigate the development of a set of industry standard consumer archetypes in conjunction with the other energy companies. These will be used to develop a picture of where different types of consumer are across the network and how they may behave with respect to net zero and their energy consumption. This will drive standardisation and transparency of assumptions. The work is due to kick-off during BP1 with outputs delivered during the BP2 period.
<ul style="list-style-type: none"> • There is broad support for closer collaboration on the creation of more granular scenarios 	<ul style="list-style-type: none"> • We will continue to work closely with the network companies through the ENA to continue to simplify and optimise the interface with the more bottom-up scenarios currently developed by gas and electricity network companies such as the DFES.
<ul style="list-style-type: none"> • More interactive tools can make it easier to use FES outputs to generate relevant insights 	<ul style="list-style-type: none"> • For FES 2023 and FES 2024 we plan to enhance our regional visualisation platform. Regional data and visualisations will be added to our Website throughout the year as appropriate and alongside the annual FES launch.
<ul style="list-style-type: none"> • More visibility of upcoming changes can help manage downstream impact. 	<ul style="list-style-type: none"> • We will continue to ensure that this feedback is central to our longer-term strategy for the Regional FES. Some elements will be explored as part of FES 2022, but others will materialise in later publications (e.g. as modelling development and data collection will take time). Stakeholders will have a chance to shape the outcomes through our ongoing engagement programme.

Activity 14 – Take a whole electricity system approach to connections (materially changed)

(A14.1-A14.4) During the RIIO-2 period we have held regular portfolio discussions with customers and TOs, and setting up a dedicated team to manage connections for Distributed Energy Resources. The Connections Portal concept and design is being developed with focus on the feedback that has been provided by customers on regular surveys. We have also engaged directly with some customers and stakeholders to better understand their feedback. From this engagement, as well as our BP2 specific webinar engagement, we have drawn out some key themes. Much of this feedback is driving the change taking place in this space, so below we set out how feedback themes have impacted our proposals.

Source: Feedback from customers gathered from general engagement by our Customer Connections team through bilateral meetings, surveys, events and webinars.

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Stakeholders have asked us to be more pro-active than re-active. They want us to set up processes to anticipate the work that needs to be undertaken in this space as opposed to just 'reacting' to work that urgently needs to be completed. 	<ul style="list-style-type: none"> We have developed a new Team Structure that enables creation of a Policy & Change Management Team. This team will work alongside the Process and Solution Team, other ESO Teams, BEIS, ENA and Ofgem to ensure the Connections Team are able to manage change proactively whilst also ensuring communication to Customers takes place as early and as clearly as possible.
<ul style="list-style-type: none"> Stakeholders would like the ESO to make a greater level of time and engagement available for each project. Connections and Compliance are particularly busy, and the response times are therefore slow. 	<ul style="list-style-type: none"> Process improvements enable realignment of focus areas for contract managers and ensure relevant admin support is in place. We are introducing automation where possible to remove repetitive tasks and admin tasks. We are also increasing resources to support Connections and Compliance Teams to enable higher volumes of connection applications and projects to be managed. Ahead of BP2 we are also focusing on increasing quality of engagement Customer/Relationship Management Training to be rolled out in 2022.
<ul style="list-style-type: none"> Pre-application calls have too long lead times for stakeholders trying to establish information before applying. Costs to apply are not reasonable so we rely on getting the right people to speak with who know the network. This seems to work better in Scotland. 	<ul style="list-style-type: none"> Work has started in BP1 and will continue into BP2 – a review of the Pre-Application process has been identified as requirement which shall be picked up as part of the Connections process review during 2022 as discussed with Ofgem and TOs with dedicated resources required to support the process,
<ul style="list-style-type: none"> Clarity in responses provided could be improved 	<ul style="list-style-type: none"> Work has started in BP1 and will continue into BP2. The Connections team are organising a Networks seminar for 1st quarter of 2022 that focuses on addressing customer feedback and areas where customers wish to obtain more information and clarification.
<ul style="list-style-type: none"> Respond to emails, deliver on role and remit. 	<ul style="list-style-type: none"> We are undertaking a number of activities to improve in this area including Relationship Management Training;

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • ESO could be more open in what they are trying to do, to assist stakeholders 	<p>Automation process including automated emails to respond to customer enquiries that reach the Connections inbox to provide guidelines on timescales for response;</p> <p>Communication to the Connections Team to reinforce understanding of SLAs for response and resolution of customer queries relating to future plans:</p> <p>Development of communications to share with customers on the role of the Customer Connections Team, the different teams within it and roles.</p> <ul style="list-style-type: none"> • Currently reaching out to customers individually to understand what type of information they would like to receive, what format and how often. We are also developing a new team structure including a policy team and comms roles to ensure we can manage change proactively and find ways of better communicating to customers. We will also create a new stakeholder engagement strategy based on the feedback from customers on how they would like to be engaged.

Source: ERSG meeting 3, discussion on connections

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • A member questioned the level of action proposed by the ESO, requested a more holistic planning process that joins up network planning, access, charging and system operability components, alongside wider market reforms. • Another member asked about the ESO's role in ratifying the correctness of the commercial counterparty to the connecting party and the need to keep this under review. • A member stated that there shouldn't be conflict between counterparties in the connections process if the system worked properly, citing the need for trust, competition and knowing the customer. They noted the 	<ul style="list-style-type: none"> • We recognise this gap and are addressing it. We have established a Connections Policy team to start this strategic process. • The ESO recognises it needs to do more to scrutinise offers that come from the TO. TOs are experiencing workload challenges which don't currently enable ESO/TOs to collaborate in the most effective way. • We are in discussions with Ofgem about this, noting that the current 90-day turnaround required for connections offers does not currently facilitate this type of process change.

What we heard	How this has shaped our plan
<p>complexities relating to Ofgem’s charging regimes and the fact that connections to the transmission system are largely socialised, while connections to distribution are not. This drives certain behaviours that may not be in the interests of consumers. The member suggested a whole system analysis should be rolled out to determine whether connections should be at transmission or distribution level, based on consumer value</p> <ul style="list-style-type: none"> Members discussed the need for the ESO to play more of a leadership role in the connections process, to think more strategically. This will require the ESO to thoroughly test what a ‘reasonable’ connection is. Some members reflected that network planning is currently divorced from the market. One member noted that market reform will take a long time to implement; in the meantime, increased transparency and information sharing about where to cite developments would be beneficial for some. 	<ul style="list-style-type: none"> Currently we are bound by the licensed codes and are required to accept all applications submitted to us providing they submit the relevant connection data. We have to maintain a fair connection process and allow all participants willing to apply the opportunity to connect. We are always looking to improve the process, and during the next year we will begin a review of the connections . We will look to potentially overhaul the current process to a more adaptive / reactive process.

Source: BP2 specific engagement – RIIO-2 Enhancing our regional capability to meet net zero webinar February 2022

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Will the enabling of communications with the DNOs mean that DER gets better visibility of transmission works needed for DER to connect because at the moment information is very opaque? It would be far easier if there was someone we could call directly so we have the latest information. There is a feeling across industry and other stakeholders, that this is a gap currently. Will DER customers be able to talk directly to the DER Analyst - this would be really helpful? Will improvement of connections process / portal help streamline the process for embedded assets behind transmission curtailment schemes 	<ul style="list-style-type: none"> Having visibility of (distributed energy resources) DER is key. We are regularly talking to DNOs and we are looking to communicate strategic network constraints to feed that information back more quickly to give better DER visibility. As we trial the DER role, we can look at how we can be more involved to support customers. This is a brand-new role and we will work with DNOs and whole system team and see how this role develops. One support option being considered is to hold drop-in surgeries, where DNOs can leave feedback and ask questions. We will take this into account whilst developing the role. The customer portal work will aim to simplify the process. We will be conducting further webinars with industry to explain where the

What we heard	How this has shaped our plan
get NGESO approval to enter DC/DM/DR (currently assets behind such schemes have to seek NGESO's ok to play as part of the asset prequalification process - requiring the applicant to undertake facilitation with the DNO and relevant TO).?	improvements will be created. We will use these in understanding what can be done better and expedite the process.

Activity 15– Take a whole electricity system approach to promote zero carbon operability (materially changed)

(A15.1) Stakeholder engagement is an important part of the process in enabling us to develop the SOF, sub activity 15.1 but as this activity is BAU we have not sought specific feedback on this as part of our BP2 planning processes. We will use forums such as the Grid Code review Forum to work through technical challenges in this area and inform our processes which we will continue throughout BP2.

(A15.2) Please see section A14 for stakeholder feedback relating to the connections process.

(A15.3, A15.4) We have not received any specific feedback in these areas that have resulted in significant changes to BAU activities.

(A15.5, A15.8) Our sub-activities A15.5 RDPs and 15.8 Facilitate distributed flexibility and whole electricity system alignment, have significant components dedicated to working with partners and stakeholders as these are materially changed activities impacting a broad group of stakeholders. We have set up the Whole Electricity System Joint Forum with DNOs and TOs, and stakeholders are telling us that they see the ENA Open Networks project as the common forum to facilitate this co-ordination in many key areas, who we engage with regularly in this space. More information on this activity is contained within the Facilitating distributed flexibility Cross Role activity chapter of the plan.

(A15.6) To establish the correct EMT modelling requirements we have been working collaboratively with TOs within our TOTEM NIA project to effectively create the EMT model in partnership along with our model supplier. We have also been discussing with the TOs within this NIA project how the ESO should be making use of the model moving forward.

We have also been regularly engaging with the TOs in the early stages of the Co-Simulation Project. A project which all the TOs are in broad support of. We ultimately intend to establish an NIA Project to create a working regime of both our OLTA and EMT models, both of these projects have impacted our BP2 delivery schedule. The main forum we have been undertaking engagement regarding this project is the Joint Planning Committee Modelling Group. These are collaborative sessions where we are sharing learnings across organisations to develop these tools in the interests of all attendees.

(A15.7) We are taking a multi-channel approach to stakeholder engagement regarding our Activity 15.7 Electromagnetic Frequency Control (EFC). As well as setting up a monthly working group we also presented the project overview at the Technical Advisory Council (TAC). As a result of feedback, we engaged with experts to develop cyber security requirements for the future system, added resources into our BP2 plan to manage the business change capabilities and we are looking at technologies used internationally to shape our work in the future. A full programme of engagement will accompany the development of this project throughout 2022.

(A15.9) The roll out of activity 15.9 will involve a programme of stakeholder engagement as described in the sub-activity section. Bilateral engagement for this activity will commence in spring 2022 and any relevant feedback for this activity to date included in the August 2022 submission.

Activity 16 – Delivering consumer benefits from improved network access planning (contains new activities)

(A16.1, A16.3, A16.4) We have not received any specific feedback in these areas that have resulted in significant changes to BAU activities.

(A16.2) Feedback from customers and stakeholders indicates a desire for the ESO to be more engaged in commercial decision making across the Transmission-Distribution interface and customers have asked us to trial processes which allow more holistic considerations, and for formal procedures to be agreed. How we put this into practice is an area we will continue to engage on during our BP2 consultation and beyond

(A16.5) Change in this area is not predominantly driven by stakeholder feedback.

Cross Role engagement feedback

Facilitating Distributed Flexibility

Source: Feedback from ENA Open Networks Forum meetings and DSO transition consultation responses

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• For DSO a key element is consistent and aligned approaches to DSO and flexibility markets.• Stakeholders are telling us that, for the most part, they see the ENA Open Networks project as the common forum to facilitate the coordination of key areas within the project• We note the suggestion that automated systems may be in place to manage these conflicts (between ESO and DSO requirements) but unless, and until all markets for flexibility are coordinated (or have some form of hierarchical structure), there will remain a risk of conflicting dispatch actions leading to the possibility of one service negating another, and/or over-procurement through multiple parties contracting for services which are likely to overlap in terms of dispatch periods. Market-based mechanisms with clear roles and responsibilities provide price signals that allow transparent decision-making by system operators (for both grid development and operations) and distributed energy resources (DER) service providers (for investment and participation).• <i>“support the views set out around operational liaison and real time transfer of data, including improved real time visibility of DER operations for both transmission and distribution system needs.”</i>• <i>“Coordination of procurement of DSO and ESO markets and stacking across markets are very important factor to allow optimisation of assets.”</i>	<ul style="list-style-type: none">• Regional Development Programmes provide our learning by doing approach to co-ordinated procurement of constraint management services with DNOs and service providers.• We continue to support the ENA Open Networks project which focuses on alignment of flexibility markets.• We will enable whole electricity system operational service coordination through the development of ‘primacy rules’ through the ENA Open Networks project. We will broaden our delivery of operational co-ordination systems to enable the dispatch of services to be influenced by whole system value; this will make sure that the division between market/price-driven actions and the electricity system hierarchy of operations/needs is clear and transparent.• We have a new activity to focus on operational coordination with DER and DSO. This is to facilitate increased visibility of DER in real time operations and to coordinate actions across the whole electricity system.• We will expand our activities to facilitate market access for DER, to enable DER to choose where they can best add value to the whole electricity system. It is key that we align with DNOs to provide DER with a clear, coherent set of markets to participate in.

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • DSO strategies have been published by DNOs indicating further areas to coordinate and support the DSO transition. 	<ul style="list-style-type: none"> • We are building resource into our plan to ensure we continue to support the DSO transition and policy development within ENA Open Networks which will feed into our ESO processes.

Source: ERSG meeting 3 – discussion on DSO transition

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • The group discussed visibility of DER and the need for open data on visibility, not just visibility to the ESO, as well as the need to deliver visibility in the most cost-effective way, for example using electric vehicle data from the DVLA. • The group discussed the need to incorporate the changes in the way the Tx and Dx networks are being used in planning assumptions and assumptions about service provision, and how that impacts other decision making. • Some members confirmed that the plans are supported and should be included in BP2. 	<ul style="list-style-type: none"> • Our work on greater operational visibility of DER recognises in the short term we need to make best use of the data we have today whilst developing further open data requirements needed in the future. • This has been noted for when our work develops in this area. • This has been noted.

Source: ERSG meeting 5 – discussion on consumer

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> • The group provided feedback around DSO/ESO cooperation. Whilst the group felt cooperation was important, it challenged that the ESO to consider its role beyond the traditional utility-focused lens and that it should look at how it can better engage with all parties who play a role in interacting with consumers. 	<ul style="list-style-type: none"> • As a result of this feedback, the Business Plan proposals have been updated to provide further clarity on the ambition in this area and our role in facilitating distributed flexibility. We will facilitate aggregator and supplier models to allow consumers to reduce their energy bills through a broad range of our services and markets.

Source: BP2 specific engagement – RIIO-2 Enhancing our regional capability to meet net zero webinar February 2022

What we heard	How this has shaped our plan
<ul style="list-style-type: none">Stakeholders would like to know more about the impacts on developers such as solar and battery providers, and when information would be available around capacities and new products.	<ul style="list-style-type: none">The Regional Development Programme (RDP) proposals in our plans set out a route to unlock regional capacity, through new services and schemes. RDPs are running to differing timescales as set out in our delivery plans.

Source: Presentation to ADE Flexibility workgroup and aggregator bilaterals March 2022

What we heard	How this has shaped our plan
<ul style="list-style-type: none">Stakeholders told us that existing operational metering requirements didn't work for domestic flexibility assets.	<ul style="list-style-type: none">In BP1 we are reviewing BM operational metering standards. In BP2 we will build on this work to review technical requirements for domestic flexibility assets to facilitate their access to ESO markets.

Network planning review/offshore coordination

To date, stakeholders have provided feedback on this activity through a number of routes. They challenged and reviewed analysis and provided views on the direction of the project through the Phase 1 consultation in October 2020. By engaging 76 organisations through 40 written consultation responses and 11 interactive workshops, this consultation helped ensure the findings of the Phase 1 cost-benefit analysis were robust. Based on feedback received, we conducted a new sensitivity analysis on the impact of commencing coordination in 2030, compared to integration commencing in 2025, as in our original analysis. This confirmed that there is significant benefit in moving quickly to an integrated network and the importance of considering what flexibility there is for coordination between 2025 and 2030.

Source: Consultation on changes intended to bring about greater coordination in the development of offshore energy networks

What we heard	How this has shaped our plan
<ul style="list-style-type: none">In order for stakeholders to proceed with a Multi Purpose Interconnector (MPI), it was important that either asset (Wind farm or Interconnector) is not adversely affected operationally or financially.	<ul style="list-style-type: none">We are utilising this feedback when developing an ESO view on MPIs for the enduring regime. For example, the importance of not adversely affecting an Interconnector or Wind farm will be taken into consideration when we are determining whether the Home Market or Offshore Bidding

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> The primary use of the assets (MPI) would change over time, highlighting the importance of an enduring regime that facilitates flexibility in asset usage over its lifetime, and that we cannot determine L1 usage until market arrangements and regulations are settled upon. With interconnector-led MPIs, primary usage would be dictated by the market at any one point in time because offshore generation would be competing with cross-zonal flows via market mechanisms on a constant basis 	<p>Zone approach is most appropriate. We are also taking into account the implications of the market directing the use of the assets of the MPI.</p> <ul style="list-style-type: none"> More generally the feedback received from an operational, financial, implementation and market perspective will enable these key considerations to be discussed and be highlighted to help plan for enduring regime framework that is fit for purpose.

Source: 5 ESO hosted stakeholder workshops November 2021 related to offshore code changes

What we heard	How this has shaped our plan
<ul style="list-style-type: none"> Whilst stakeholders felt it was a good start to start reviewing code changes, it was recognised that it is a difficult task to identify changes with limited time. At present changes identified are too conceptual and review detailed design understanding and real life examples/scenarios to help with understanding. <p>Other key issues for consideration raised by stakeholders were</p> <ul style="list-style-type: none"> Alignment between technical and commercial codes. For example, the design requirements should complement the financial security and TNUoS charging principles to enable offshore coordination. Consistency with ongoing industry change modifications Governance and suitability of the code modification process for delivering this change. 	<ul style="list-style-type: none"> A Codes and Standards subgroup (to the Expert Advisory Group within the Offshore Transmission Network Review programme) has been created to programme manage the work relating to codes and standards. This subgroup is hosted by the ESO and is open across industry. The first meeting was held in November 2021 and is held monthly. A tracker is being used to capture the list of changes needed to codes and standards across the project.

Source: ERSG deep dive at ERSG 4

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• A member queried the level of stakeholder engagement in the context of supply chain parties in the offshore coordination central design group, alongside other sub-groups. They stated that they had been involved in the dialogue led by government which had not been to the extent that they had anticipated.• Another member asked whether the ESO's Virtual Energy System project could be applicable to the network planning project• A member highlighted that, when discussing growing infrastructure waiting for a perfect solution is not always preferable, early investment is likely to be superseded by larger infrastructure later on.	<ul style="list-style-type: none">• The offshore co-ordination team have taken action to ensure the designs currently in progress (the Holistic Network Design) will be shared for feedback with a range of stakeholders including supply chain representatives, recognising that not all stakeholders have been able to get as involved as they'd like previously in the time available. Enhanced stakeholder involvement will be a key consideration in any future offshore designs.• We confirmed that the two will join up to an extent, highlighting the importance of modelling renewable energy and how this interacts with all areas – from the network through to consumer behaviour.• This feedback does not alter our proposals but is noted.

Innovation

Each year we engage on our innovation strategic priorities with internal and external stakeholders as part of annual innovation strategy refresh. Stakeholders are asked to assess the current priorities, suggest changes to the definitions, and identify any new priority areas for focus over the next year.

The Virtual Energy System (VirtualES) programme will be built around stakeholder engagement, with advisory groups established to ensure this is being led by energy system stakeholders. Stakeholders were asked to shape the programme in an initial input survey, and more in-depth interviews will further refine a roadmap.

We continue to improve our innovation process based on continuous feedback from stakeholders. This includes making our process more transparent and clearer to understand for potential new partners and suppliers. We have refreshed our initial 'pitch pack' for new proposals and our 'How to Innovate with the ESO' document, as well as redesigning our Innovation website to make information easier to find.

We are seeking feedback on our proposals through the BP2 consultation process. We hope to further increase our innovation activities for the benefit of the energy system, and we welcome comments and constructive challenges. Further information will be included on innovation engagement as part of our final August submission.

Source: Various

What we heard	How this has shaped our plan
<ul style="list-style-type: none">• The level of interest in partnering with the ESO on Network Innovation Allowance (NIA) funded projects has only increased over BP1, particularly due to our new Business Partnering process within the ESO (which helps connect more internal experts with external suppliers and other potential partners)• We have heard from stakeholders that there is an increasing need for greater access to data and shared insights, to enable the transition to a future decarbonised energy system• Initial feedback to the VirtualES highlighted the importance of making this a collaboration with all energy stakeholders, to ensure it can provide	<ul style="list-style-type: none">• We are more confident that we will require increased NIA funding to cover the high level of collaborative innovation activities the ESO will need to participate in over RII0-2, particularly with an increasing focus on whole energy system activities and achieving new decarbonisation targets for the GB power system.• We have initiated the VirtualES programme to engage with industry and all energy stakeholders to agree principles and a framework to share data, model and predict scenarios. We have the ambition of creating a shared Digital Twin of the entire GB energy system, which will benefit all stakeholders• To best reflect the whole energy system, the VirtualES programme must look beyond the network and generator forums we already engage with and seek to involve all energy system stakeholders, collaborating to

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<p>shared benefits to all and help drive the transition to Net Zero in a fair and transparent way</p> <ul style="list-style-type: none"> • Calls for proposal ideas as part of the new Strategic Innovation Fund (SIF) saw stakeholders submit more proposals than the ESO could process within a short time-frame (particularly for the ‘whole system’ challenge). For instance, in the final two weeks of our application window, we received 43 proposals, which our existing team had to review, provide feedback on and develop, in addition to progressing existing proposals. • Stakeholder feedback was clear that the procurement and contracting process for new innovation projects at the start of BP1 was “<i>frustratingly slow</i>”. 	<p>develop and agree the standards, processes, and governance for such a critical resource, and ultimately deliver shared benefits and efficiencies for all stakeholders</p> <ul style="list-style-type: none"> • We plan to grow the Innovation team further to support the SIF process better and enable more collaboration with 3rd parties. Particularly as the SIF mechanism expands to include DNOs as part of RIIO-ED2 and new SIF Discovery, Alpha and Beta phases continue to roll-out. • We understand these frustrations and have worked hard to push through contract negotiations while new RIIO-2 NIA and SIF conditions were considered by procurement and legal teams and contract templates produced. For BP2 we have ensured that more procurement and legal support is available to facilitate NIA and SIF contracts, expediting negotiations and the project initiation process with our project partners and suppliers.

