

# Independent Transmission User Group Report

SP Energy Networks RIIO-T2 Business Plan 2021-2026

December 2019

# Contents

Executive Summary .....	2
TOUG Chair’s message .....	5
Governance and remit of the User Group .....	7
SPT Business Plan .....	8
Track Record .....	8
Building the Plan .....	9
Co-creating the plan with Stakeholders .....	9
Innovation Built-in .....	12
Benchmarking Efficiency .....	15
An Environmentally Sustainable Network .....	16
Health and Safety .....	19
Whole System Planning .....	21
Proposed Expenditure and Outputs .....	23
Load Related Expenditure .....	23
Non-load Related Expenditure .....	26
Supporting and Securing our Network .....	29
Implementing Plan .....	31
Continuing to Engage with Stakeholders .....	31
Managing Uncertainty .....	33
Output Delivery Incentive Proposals .....	35
Delivering the Plan .....	38
Financing the Plan Efficiently .....	40
Assuring the quality of the Plan .....	42
Governance and Assurance .....	42
TOUG Recommendations .....	43

## Executive Summary

The purpose of the User Group is to ensure that the views and needs of those businesses that are SP Transmission's (SPT's) customers (as electricity generators or in the further distribution of electricity) have been taken into account in the development of SPT's Business Plan for the T2 period.

It is also to ensure that the needs of end-consumers have been considered, including vulnerable customers. This is inevitably a challenging process, given how far removed the end-consumer is from electricity transmission. It is compounded by the fact that the grid and transmission charges only account for a small part of the overall consumer bill, so the end-consumer only has limited interest in the activities that are undertaken.

The User Group was especially asked to consider the Consumer Value Proposition (CVP). SPT has set out the CVP for each section of the Plan. In our view the projects and initiatives they have set out predominantly make evident sense and show a strong consumer benefit at a reasonable price to consumers.

It is our view that the primary interest of SPT's customers is for a reliable system. They want grid connections to work consistently; they want timely connections; and they want the charges for this service to be reasonable and affordable.

In our view, the Business Plan achieves this.

The T2 period covers a five-year timescale when we need, as a country, to make some fundamental changes if we are to deliver on the stated Net Zero ambition. Furthermore, we expect that there will be constant pressure to bring forward the timescale for delivering the Net Zero state.

The Transmission and Distribution companies will be integral to the success of a system which will see new models of electricity generation and consumption. However, at this time there are many uncertainties and details are unclear on what will constitute the future energy market model. Of necessity, this has required more elements to be included under an 'Uncertainty Mechanism' than might otherwise have been the case, or been considered desirable.

For the User Group, one of recurring issues is the balance between reliability and new ambition. We have pressed SPT hard on how their Business Plan could have been more ambitious. It has been made clear to us, in response to our questions to the company's leadership team, that they consider (not unreasonably) that they are trusted by consumers and users because they deliver what they say they will deliver.

This inevitably places a constraint on ambition. It is not the User Group's role to make recommendations on the company's chosen path in this regard, but it is our responsibility to explore the consequences of this approach, which we have done. In particular, we would like to have seen greater ambition in getting connection offers 'right first time' and in delivering projects on time.

A further challenge for SPT was potentially that there are different decarbonisation goals being set by the UK and Scottish Governments. We have been clear that the company must be able to reflect the ‘ambitions’ of the Scottish Government, as well as the more legally-enforceable targets from the UK Government, and we are pleased that this has also been accepted by Ofgem.

In addition, SPT faces some further uncertainty, compared to either National Grid and SHE-Transmission, in that it is physically positioned between the areas operated by the other two businesses. The generation of significant new wind-powered electricity in the northern part of Scotland, means that electricity must then be transmitted across the area of SPT’s jurisdiction to the areas of higher demand in the rest of Great Britain. This means that SPT needs to manage additional elements of uncertainty than would otherwise be the case, which is reflected in the scale of the Uncertainty Mechanism.

The User Group has engaged with SPT in a constructive and collegiate manner. We have been able to hear from, and cross-question, all relevant senior staff and have been provided with information in a timely way. We have been able to conclude that the proposals in the Business Plan have been signed off by the company’s board. We have seen no evidence of any heavy-handed engagement in the development of the plan from SP’s parent company, Iberdrola. We have conducted Deep Dives in a number of targeted areas, to check more precisely whether the figures seem accurate, and have found them to be so.

Overall, we consider that they have taken a robust approach to engaging stakeholders, which has been thorough and comprehensive. This has evolved very significantly during the development of the Plan, and they have responded positively to input from the User Group.

We have also seen considerable progress in the chapter on Innovation, although we would have liked to see a greater distinction between the day-to-day innovation which is simply part of Business-as-Usual, and genuinely new innovation. Similarly, we would have liked to have seen more ambition in setting some targets, such as the elimination of work-place injuries rather than vague statements to keep them as low as possible. We are encouraged by the development of new ‘bespoke’ incentives to address the issue of ‘generation not accepted’ and ‘outage optimisation’.

Our remit, as set out by Ofgem, did not expect us to analyse the many thousands of pages of additional documentation provided in the annexes to the Business Plan, so there may be detail in these that we have overlooked.

Specifically, we were told that the issues raised regarding “Financeability” are outside our remit. This goes to the heart of the question about whether the Business Plan can actually be delivered and it is clear that there is no common ground between Ofgem and the companies on the appropriate rate of return on equity. It is self-evident that there will be a direct correlation between the allowed rate of return and the level of risk a company is prepared to accept.

We have had a constructive relationship with the Ofgem Challenge Group. The advantage of the structure as developed by Ofgem is that it has allowed the User Group to focus in on the details of a company’s Business Plan in isolation, whilst the Challenge Group has been able to make comparison across all the TOs.

In conclusion, the development of SPT's Business Plan has been an iterative process, which has evolved at each stage and draft. SPT have sought to "do the right thing" and deliver a Plan which will deliver what is required. We have been encouraged to see many of the User Group's comments and challenges reflected in the later drafts and consider that the Plan, as now submitted, is significantly more robust and clearer than would have been the case, had the User Group and SPT not worked together on the co-creation of it.

## Message from the User Group Chair

The creation of the Business Plans of the electricity Transmission Operators for the RIIO-T2 period is a task of critical significance.

The Transmission Operators provide the back-bone of our electricity network. As we move towards Net Zero, with a further highly significant growth in low-carbon generation and a rapidly changing pattern of consumption (often requiring greater use of electricity), the TOs must themselves invest in a system which permits those new connections and yet does so at the lowest achievable cost to consumers.

There is a delicate balance to be struck between the TOs investing in assets which will be available when required and not investing unnecessarily in assets that will not be adequately utilised. Consumers expect the grid to operate reliably and effectively at all times, and even though it only accounts for a relatively small part of consumers' bills, they also expect the work to be done in the most cost-effective manner.

The decision to require User Groups to work alongside the teams and utilise their knowledge and expertise in developing the Business Plans is intended to give consumers as much assurance as possible that the proposals being advanced are necessary and sensible and will be carried out as efficiently as possible.

In assessing the Business Plan for SPT, we have assembled a team of people who each bring an expertise in their own areas of the process - as major customers and generators, as engineers or consumer experts, or in understanding the technical and regulatory challenges involved. I am very grateful to each of them for the time they have given to this process and the thoughtful approach they have taken to assessing the challenges involved.

I cannot fault the way in which SPT have engaged with us. From the outset, they have embraced the concept of the User Group's scrutiny of their Business Plan and engaged with us in a constructive and collegiate manner. They have responded positively to the questions we have asked and the challenges we have made.

We all believe that the Business Plan is better having had this engagement and their team working on it has shown great commitment and dedication, throughout an immense and taxing work programme. I have no doubt that they want to achieve the best outcome both in terms of investments made and reflecting the interests of consumers.

The TOs were required to produce an initial draft of their Business Plan in June, a further draft in October and the final Plan in December. We have worked alongside them throughout that process. There has been some frustration that the details of what has been required by Ofgem has evolved in the course of the year and some of the details have been provided relatively late in the process.

However, we are more than satisfied that the Business Plan provided by SPT will deliver sufficient investment to keep the system at its exceptional levels of reliability, whilst also undertaking a significant part of the work required to deliver Net Zero.

We recognise that a choice needs to be made about the level of risk that should be taken and SPT has made it clear that it deliberately errs on the side of reliability rather than taking a higher level of risk in innovation. Whilst we advance a case for a higher level of ambition, we recognise that the choice SPT has made reflects the priorities of the customers.

Inevitably, our Report focusses on areas where we have some residual questions and doubts, but these should be read against the background that we believe the overall plan is sound and will deliver what is required. It will also be the case that the responses to some of the issues we have raised will be in the Annexes, and it has not been in our remit to assess these.

From a personal perspective, I have found it a fascinating and insightful process and I am immensely grateful to each member of the team for their work and commitment, as well as to Kankana Dubey, PHD student from the University of Strathclyde, who has given the Group invaluable support. I hope it is an approach which has brought real benefits to SPT in delivering a strong and robust Business Plan and thereby to all users and consumers alike.

Rt Hon Charles Hendry CBE

December 2019

## Governance and remit of the User Group

The User Group was assembled in Autumn 2018, with a view to providing an independent and authoritative challenge to proposals being developed by SPT for the RIIO-T2 period. The intention was to secure a balance of perspectives, from people working across the energy sector, with a sufficient combined depth of knowledge with the capability to comment on each element of the Business Plan.

From the outset, SPT committed to adopting an “access all areas” approach, with the User Group being able to request whatever information and evidence it considered necessary. In broad terms, that approach has been adhered to throughout the process.

SPT approached former UK Energy Minister, Charles Hendry, to be the independent chair of the Group, which consists of the following members:

Rob Cormie	Director, Edinburgh Advisers
Martin Kearns	Chief Electrical Engineer, Nuclear Generation, EdF Energy
Julian Leslie	Head of National Control, National Grid
Angela Love	Director of Strategy & Communications, ELEXON and owner of Love Energy Consulting
David Ritchie	Technical Director, Environment & Planning, AECOM
Andrew Robertson	Head of Operational Technology, Scottish & Southern Electricity Networks
Dan Thomas	Operations & Grid Director, Banks Group
Professor Karen Turner	Director, Centre for Energy Policy, University of Strathclyde

All members of the Group have signed confidentiality agreements and undertaken to advise SPT of any potential conflicts of interest.

The User Group has met for one/two days per month since its inception. These have mostly been meetings held with SPT, but has also included visits to relevant sites (Windy Hill sub-station and the Western HVDC Link converter station at Hunterston). During the initial stages, external evidence was sought from other relevant perspectives, such as the Scottish Government and the Scottish Citizens Advice.

The group has worked in a productive and cooperative manner with SPT, with the objective of delivering the best achievable Business Plan. A summary of each meeting’s presentations and discussion points has been published online on the SPT website.

The Group has sought to make recommendations by consensus. In most cases, this has been achieved but on occasion, different perspectives have been set out for clarity.

# SPT Business Plan

## Track Record

### Overview

The Track Record section of SPT's business plan is an overview section, primarily summarising SPT's achievements in the T1 period, from the company's perspective. The User Group has the overall impression that the track record section is fair and reasonable, and a factual representation of what has been achieved, without being unnecessarily self-aggrandising. It is clear, from discussions with SPT's CEO, that the company is very proud of its track record of delivery. From the feedback from the power generators on the User Group, this reflects what they wish to see from a TO, although more attention should be given to making sure new connections are delivered on time.

This section has evolved significantly since the first draft in June. The customer satisfaction levels presented in this section are certainly impressive and demonstrates that SPT's customer base seems broadly content with the work they have been doing - maintaining supply and connecting new suppliers. SPT is well within the targets set by the government and Ofgem.

There is some helpful coverage of the efficiencies that have been achieved, although, as with all statistics, we can assume they have used the figures that show them in the most favourable light. Few of these give an indication of where more improvement is required/desirable, as they are given in isolation, but these are covered elsewhere in the Business Plan.

The increase in carbon footprint (mostly due to SF6) is a matter for concern, and is addressed in more detail later in the document.

There are no issues here which need to be addressed at the Open Hearing.

# Building the Plan

## Co-creating the plan with Stakeholders

### Overview

SPT adopted a strategic approach to engagement with stakeholders, using the feedback in developing the Business Plan. Their approach to identifying stakeholders and mapping them to each specific RIIO-T2 section provided both input and challenges to develop an evidence-based, cost-effective Business Plan.

### Introduction

In the Business Plan, SPT documented the manner in which they have carried out extensive stakeholder engagement. Within the context of the User Group's role, they have not only engaged with us, but also proposed and arranged meetings for us with key stakeholders, such as Scottish Government and Citizens Advice.

Additionally, SPT involved individual User Group members both in participation at, and in the organisation of, external stakeholder engagement activities. Examples include the workshop at All-Energy 2019 and the 'Energy Conversation' at the University of Strathclyde's Centre for Energy Policy.

SPT has clearly identified innovative ways to engage with stakeholders, conscious of the wider context that involves some stakeholders engaging with multiple network companies and others. They have explained their customer relationship management system and pulled excerpts from this to demonstrate specific engagement work.

They have also responded openly and effectively to issues raised by the User Group. Most notably, we raised issues around the focus and conduct of the 'willingness to pay' research (required by Ofgem). SPT responded actively to this and, indeed, changed the specific focus of the work to 'willingness to accept' price changes, and adopted methodological changes advised by an expert member of the User Group.

### The User Group's engagement with SPT

SPT have clearly taken into account the User Group's feedback on stakeholder engagement and co-creation of the business plan. The User Group's input ranged from more fundamental issues - for example on how the level and diversity of engagement should not be seen as just a 'numbers game', with the Business Plan needing to demonstrate targeted and meaningful engagement - to more substantive interaction around the approaches adopted by SPT.

The key outcome of the User Group's interaction with SPT on stakeholder engagement and co-creation of the plan emerged from the Group's questions at a relatively early stage around just how, to what purpose, and with what focus and methodology the required 'willingness to pay' research was being carried out. Ultimately, this took the form of more informed advisory input on how this could be more effectively and usefully conducted, including a shift to consider stakeholder's willingness to accept changes in energy bills (given that the initial willingness to pay research suggested unrealistically high values) and different framings of cost impacts linked to different investment plans and outcomes.

SPT's response demonstrated creativity, innovation, and flexibility as they redesigned and conducted new research, which they also 'tested' with the User Group member involved and continued to consult throughout the process of the research and the development of the Business Plan. SPT's activity and ambition to go 'above and beyond' Ofgem requirements in this particular regard is evidence of, and reflected in, what the User Group regarded more generally as a robust and high-quality approach to stakeholder engagement.

In the context of the Business Plan itself, SPT engaged and responded extensively to the User Group's critical analysis, comments and further questions arising on the 'Co-creating the plan with our Stakeholders' section once the first full draft of the Business Plan was shared with the Group.

A series of very specific issues and suggestions were raised around this section and the User Group confirms that all changes to the draft – and related actions – can be tracked and are judged more than satisfactory. The content of this section is substantive in terms of genuine and thorough engagement with a diverse range of stakeholders to ensure, as much as is possible, that the investment proposals contained in the Business Plan do reflect what their customers actually want and need, and that the impacts on customer bills are acceptable.

It is worth emphasising that SPT's engagement with the User Group has in itself been a form of stakeholder engagement (given the composition of the group). They adopted a very positive approach to interacting with us, receiving and responding to feedback, requests for further information, and accepting advice on the development of their plan. We regard this as further evidence of genuine co-creation.

For example, SPT arranged for focussed and bespoke presentations to explain and discuss key areas subject to formal challenge and / or questions raised. This was in the context of both the whole group, and working with individual members on the basis of expertise (for example, to clarify the application of the Ofgem social cost-benefit analysis method).

This in-depth interaction with User Group members set solid foundations to better enable our critical engagement with SPT regarding the approaches taken and methods applied across the wider stakeholder engagement required to constitute a meaningful co-creation of the Business Plan.

## Conclusions

The User Group is satisfied that SPT has extensively engaged with stakeholders and used a structured approach for doing so. In addition, the selection of the User Group itself has been valuable, including diverse interests and knowledge, and the range of experience required to work productively with SPT. We would note that the User Group also includes representation from connected customers, which has helped the User Group understand the challenges faced by SPT's customers and what their expectations are.

This customer perspective mixed usefully with a range of expertise relevant to both the nature of the investment activity that is the focus of the Business Plan, and to how SPT must approach the assessment of different investment options and the manner in which these impact consumers. In the context of the stakeholder engagement which is the focus of this section, a commendable example of SPT's responsive and ambitious approach is reflected in the discussion above regarding the willingness to pay / accept research.

## Open Hearings/Recommendations to Ofgem

On the basis of the User Group's experience in working with SPT throughout the Business Plan development process, we would make a specific recommendation to Ofgem to enable and underpin more effective stakeholder engagement and co-creation in the future. This recommendation is that more specific and explicit direction needs to be given to the requirements and implications of the type of 'green energy system' required to meet the UK's Net Zero commitments. This links to what SPT refers to in their Business Plan as a sustainable Net Zero future. However, the Net Zero ambitions (set by the UK and Scottish Government after the Business Plan process was initiated) have implications not only in terms of the costs of generating and transmitting zero carbon energy, but also in terms of regulation requirements and costs, and will interact with conditions in the wider economy. In addition to direct energy bill effects, the outcomes will impact consumers' well-being through a wider range of prices, household incomes, and other factors. Thus, a broader Net Zero perspective needs to enter Ofgem guidance to Network Operators (and other system actors) in preparing their Business Plans.

## Innovation Built-in

### Overview

The Innovation section of the Business Plan explains how SPT approaches innovation and the strategic focus that they take to it. SPT explains that they were at the forefront of innovation under the RIIO T1 regime, compared with the other Transmission Operators and are keen to continue with a programme of innovation. There is a well-structured approach to innovation, which centres around clusters and key themes, which are in line with the industry-wide innovation strategy developed with the Energy Networks Association and the ENTSO-E (European Network of Transmission System Operators for Electricity) Research and Innovation framework. The clusters focus on decentralisation, decarbonisation and digitalisation, whilst the themes are network flexibility, digitisation of power networks, system security and stability and network modernisation.

The plan provides details of major projects undertaken in RIIO T1 with the innovation funding that was provided and then goes on to explain how SPT are looking to learn from these projects in their approach to RIIO T2.

In respect of the Customer Value Proposition for innovation SPT note that they are expecting a return on investment of £73m. The User Group were pleased with this level of benefit, in particular when compared to the level of investment required to attain it (£18.65m).

### Introduction

The innovation section of the Business Plan has evolved significantly since the first draft which the User Group reviewed. We believe that this is mainly due to further development of Ofgem's perspective on how innovation would feature under RIIO-T2. In addition, SPT took into account all the feedback, comments, and suggestions the User Group provided. The User Group believes that the innovation section, in its current shape, is detailed and well-documented.

We believe that innovation was initially not well-considered in early drafts of SPT's Business Plan, but we believe that this may have been partially due to the ambiguity around what innovation funding could be expected from Ofgem. During the engagement period, SPT received clarity on the process and expectations from Ofgem, which significantly helped SPT develop the innovation section of the plan further and engage more effectively with the User Group and their suggestions. SPT has put a considerable amount of effort into the innovation plan and strategies on applying governance to stimulate innovation across their business.

One tangible result of this effort is the newly created "Innovation Hub", which is being promoted extensively within SPT's business and was evident to the User Group during their engagement with SPT. The promotions are highly visible throughout SPT's head office building in Glasgow.

## The User Group's engagement with SPT

The User Group received the first draft of the plan in May of 2019. Since then, we have worked with SPT on the direction in which the innovation section of the business plan has been developed. During the process of engagement, the User Group shared their own views and urged SPT to understand that the topic of innovation expands far beyond network reliability.

The User Group held extensive discussions with SPT regarding the difference between business-as-usual and innovation, as well as planning and implementation of innovation funding. We also provided guidance to SPT on how to incorporate third-party innovation ideas in addition to their own. SPT's understanding of innovation has matured into a thoroughly-considered process, helped mainly by more information and certainty from Ofgem, but also through discussions with the User Group. This is now reflected in the innovation section of the Business Plan. To demonstrate the maturity of the new approach, the User Group has urged SPT to highlight the differences between the innovation plans in RIIO-T1 and RIIO-T2.

## Conclusions

Along the journey from the first draft to the final draft, the Business Plan has evolved considerably, largely due to SPT gaining certainty from Ofgem and through their appetite to continue to lead on innovation projects (as they have done in RIIO-T1). SPT has consistently acknowledged and included comments from the User Group, and taken to heart the challenges which we raised through the engagement process. SPT's technical innovation plan will provide real consumer benefit as technical innovation is implemented over this and future price control periods.

The User Group has expressed concerns that SPT appears to be limiting their ambition. We are apprehensive that this could hinder and constrain the appetite for innovation, which is typically where we would wish SPT to be more proactive and demonstrate a willingness to take informed risks. The User Group would have liked to see SPT be more speculative in their approach to innovation, however we understand that SPT's ambition has been tempered by the requirements being put in place by Ofgem, in that most projects are expected to generate benefits or reduce costs for consumers and be justified with cost benefit analysis.

Practically, this would entail assessing and adopting new technologies more quickly and decisively. Technical innovation should be about collaborating with scientists and entrepreneurs who are willing and able to develop products needed to meet the challenges of climate change and the energy transition. It is to be seen whether SPT can innovate sufficiently to revive projects that have developed more fraught risk profiles, or are not delivering as per their expectations.

SPT could be innovative in their processes in the sense of doing things "better, faster, and more cheaply", which is how they are proposing to approach the delivery of their plan. The User Group noted particularly that it would be beneficial for SPT to have more ambition around innovation of process improvement and how they execute projects, although we understand that there is more detail on this in the Annexes (which we have not seen).

At one point during the engagement, we challenged SPT regarding their sequential gated approach; we believe that more could be done to consider fresh thinking around their processes. We understand that this issue is addressed in Annex 6.

Ultimately, there may be no single, correct solution to the quandaries posed by innovation and risk. There is a fundamental conflict between an organisation that strives for 99.9999% reliability, and one that will be at the forefront of meeting the energy transition. Focusing on the demands required to evolve in answer to the challenges constituted by the upcoming energy system transitions will necessarily detract from such laser-like focus on reliability. Simultaneous management of both foci will be challenging for SPT.

## Open Hearing

We would encourage the Open Hearing forum to consider the broad issue of innovation and how it is assessed, developed and implemented by the transmission companies. Specifically, it could usefully consider the balance between fundamental innovation needed to deliver the energy transition and the continued delivery of a reliable network.

## Benchmarking Efficiency

### Overview

While the Benchmarking Efficiency section of the Business Plan is short, the User Group has challenged SPT across all sections to understand how costs and revenues are benchmarked to ensure the best value for the consumers are realized. The areas we have primarily challenged cover the Load Related and Non-load Related expenditures. We note that SPT had used an external consultant, Arcadis, to evaluate the assumptions of more than half of their capital expenditure plans. The User Group challenged these cost assumptions, and we held constructive discussions with SPT. As a result of this engagement, SPT provided further evidence in support of their claims that the costs were based on market rates.

However, the group still has concerns that the level of benchmarking is insufficient and that a more robust process is needed. The Arcadis report is modest in length and there is no available corroboration from the a more recognised study, such as International Transmission Operations & Maintenance Study (ITOMS), which is used by other transmission companies around the world.

The need to demonstrate efficiencies across the business is fundamental to the RIIO-T2 process. However, it is difficult to obtain a true understanding of how projects are procured and how outcomes are measured, given the individual and complex nature of the projects.

The benchmarking used is difficult to interpret, given that the RIIO-T1 forecast was agreed upon 8 years ago; hence suggesting a built-in 7.5% efficiency gain seems an unusual comparator without further evidence as to the improvements made over the period. Likewise, if 7.5% has been achieved in T1, offering only 2.5% in T2 could be seen as lacking ambition.

An area the User Group would like to have included in the Business Plan is benchmarking for HSE, which should be a core value of the business. The group encouraged the work on mental health, but more could be done in establishing best practice in the market.

The User Group has observed that SPT's Business Plan puts great emphasis on price, but less focus on the potential costs to consumers for implementation delays of project programmes. The User Group strongly believes that the ability to meet the Net Zero goal does not rely solely on cost-effective load and non-load related expenditures / investments. It also depends largely on meeting customers' needs by providing services efficiently and at an effective pace.

There is also room to review the speed with which new technologies are assessed and adopted by the business to ensure that SPT is helping to drive the energy transition, rather than just trying not to be an impediment.

# An Environmentally Sustainable Network

## Overview

This section of the Business Plan sets out SPT's proposals for embedding sustainability in how they plan, operate and maintain the transmission system as well as mitigating their environmental impacts throughout the T2 period. SPT has engaged with a wide range of stakeholders to inform and shape their proposals. This collaborative approach is reflected in the activities and initiatives which are proposed. In combination these will help to mitigate SPT's environmental impacts and support the transition to a Net Zero economy.

Their proposals address a number of areas including climate change, resource waste and biodiversity loss in addition to supporting local communities through a Net Zero Fund. The User Group agrees that SPT's proposals are the right thing to do and are reflective good or best practice, however, in some areas the User Group has challenged SPT to be more ambitious and deliver their proposals more quickly so that the benefits to stakeholders and customers can be realised sooner.

## Introduction

The User Group is of the opinion that the Environmentally Sustainable Network section of the business plan is satisfactory overall. SPT has committed to a range of actions and initiatives to mitigate their environmental impacts including climate change, pollution, resource wastage, and biodiversity loss. However, one area in which the User Group has challenged SPT is in the timing with which customers and stakeholders will fully realize the benefits of some proposed actions / initiatives. SPT has indicated that some proposals entail material business changes, so will take time to develop and embed within daily business processes. Hence, some actions will not be fully realised until the later stages of the price control period.

## The User Group's engagement with SPT

The TOUG engaged well with SPT during the development of the Environmentally Sustainable Network section. As a result, we were able to effectively influence a number of proposals put forward by SPT in the Business Plan.

The most significant contribution of the User Group was to encourage SPT to review their commitments to sustainability and development of their supply chain. This has emerged from our review as a significantly stronger commitment to embed sustainability consideration in SPT's procurement through the ISO204000 Sustainable Procurement Standard and introducing a carbon metric.

Whilst the User Group appreciates the problem of SF<sub>6</sub> gas leakage is not unique to SPT, we challenged them on their commitment regarding protection against SF<sub>6</sub> gas leakage, and to develop a collaborative approach to drive the development of SF<sub>6</sub>-free technologies. SPT's revised commitment addresses some concerns about reliance placed on the industry / manufacturers to drive change in this area.

The User Group specifically challenged the lack of proposed action on SF<sub>6</sub> leakage at Torness 400kV Substation which accounts for a disproportionate percentage of SPT's total carbon footprint. SPT presented clear economic arguments for not replacing the switchgear at this time, and also explained the actions that they are taking to minimise leakage. The User Group agree with the approach SPT proposed, including the commitment to offset emissions with a carbon offsetting partner.

The User Group challenged SPT's losses strategy and whether or not more could be done to reduce losses. SPT provided a clear rationale for the proposed losses reduction strategy in line with their statutory obligations, committing to doing more where such action was economic and beneficial to customers.

The commitments regarding land and biodiversity are generally positive, however, we consider that that SPT is being too conservative in how rapidly it proposes to implement initiatives related to Biodiversity Net Gain (BNG) and Natural Capital Assessment. Unlike in England and Wales, BNG is not currently mandatory under the Scottish planning system, so there is less incentive for SPT to develop this as rapidly as would otherwise be the case. SPT proposes to take a cautious approach to the implementation of BNG, which is reflected in their commitment to "no net loss" and having a process in place to deliver net gain by 2023. While this will enable SPT to take account of lessons learned elsewhere, it does mean there will be a period in which their proposed approach may not deliver net gain. In the incentives section of the plan there is a reference to net gain being realised by the end of the price control period, but it is unclear whether this relates to a commitment to a net gain over the entire price control period or projects being delivered towards the end of the period.

The User Group is satisfied with SPT's commitments with regard to resource use. In particular, we applaud the commitment to embed the principles of a circular economy in business processes and practice.

## Conclusions

Engagement between the User Group and SPT during development of this section of the Business Plan progressed well, and in an open manner. SPT has addressed the key sustainability issues which we raised, and we believe the group has had a positive influence on the final plan. Although the plan proposes effective actions and initiatives to mitigate SPT's environmental impacts, the group considers SPT could be more ambitious in driving change more quickly, demonstrating industry leadership and delivering positive outcomes for stakeholders and customers.

There are certain commitments proposed by SPT which can be influenced by factors beyond the realm of their control, such as the reliance on SF<sub>6</sub> gas as an insulator product becoming available. While their last commitment to collaborate with others and drive improvement is a positive initiative, it will likely face hurdles against their proposed timescales due to the reliance on manufacturers and the rest of the industry to drive change.

## Open Hearings

The User Group has questioned SPT's approach to BNG and whilst we understand the approach being proposed, consider it appropriate to highlight to Ofgem that it will lead to inconsistencies with other TOs where delivering net gain is mandatory under the planning system. In the short term SPT propose to deliver no net loss which is largely reflective of their current approach and we would question whether they could or should be more ambitious in bringing forward proposals to deliver net gain.

# Health and Safety

## Overview

The Health and Safety section outlines the health and safety culture at SPT and their commitment to Health and Safety is underpinned with their consistent messaging around their “Health and Safety Matters” initiative. A number of assessments of Customer Value Propositions have been made in relation to Health and Safety and details of the governance and assurance of health and safety is provided as well. There are a number of commitments provided by SPT, including public safety focused initiatives and training mental health first aiders to help internally.

## Introduction

SPT is a good employer with respect to their focus on health and safety. They assess their business against world-class benchmarks, have determined that they outperform these, and seem to be content with their position. The Business Plan demonstrates a desire to maintain this present performance, but the User Group believes that it evinces insufficient ambition to improve. In addition, the User Group was initially concerned that the Business Plan provided inadequate details regarding health, although we had a feeling that the information provided in the plan did not fully describe the work and initiatives that SPT has undertaken in this area. In later discussions, the SPT CEO shared more detailed information with the User Group on their approach to employees’ health, which supported the assumption of the User Group. This additional information was provided to the User Group verbally and at a time when it was too late to include in the Business Plan.

There are a few initiatives around health that are outlined in the Business Plan, but no information regarding how these initiatives were generated or how they were decided upon is included. In addition, there was no description of SPT’s governance procedures around health, whereas there was for safety. As with other elements of the Business Plan, the User Group shared a concern, albeit minor about the explanation of health initiatives and whether SPT had provided good insight into the activities that the company undertakes.

## The User Group’s engagement with SPT

The User Group supports the inclusion of a specific chapter on Health and Safety within the Business Plan and recognises that this goes beyond the requirements set out by Ofgem.

We challenged early drafts of the Business Plan, which proposed more strenuous targets for improving TRIR for staff (20%) than for contractors (10%). SPT resolved this challenge by reducing their commitment for their own staff, which the User Group found to be very disappointing. Further revisions were even more disappointing, as SPT decided to remove all TRIR reduction commitments from their business plan.

We acknowledge that TRIR is a reactive indicator and, with SPT's already relatively low injury / incidence rates, even single events can have a marked impact on the performance metric. However, TRIR is the industry standard for measuring health and safety performance; it is a shame that SPT will consider themselves successful if their incident rates in T2 are the same as in T1. We do not support this lack of ambition, and would rather prefer to see SPT commit to a reduced TRIR. We do recognise and applaud the culture of aiming for zero harm which is prevalent within the company.

SPT's commitment to train 2% of staff as mental health first aiders seems weak; it is unclear in the Business Plan how this proportion was determined. More importantly, the Business Plan does not indicate what scale of issue SPT believes mental health issues could be or how 2% of staff being trained as mental health first-aiders will help. On the plus side, it is likely that this T2 ambition will actually be achieved before the end of T1. SPT noted that the number of first-aid responders could be more if they had volunteers. Finally, we are pleased by the commitment to public safety, but concerned that it is not quantified, other than attendance at agricultural shows and committing to deliver five safety demonstrations per year. Their commitment is only to deliver 100% - which could, for example under the agricultural show simply mean attending a single event and presenting five safety demonstrations. The User Group therefore believes that there should be more ambition around the public safety initiatives and that SPT should be actively looking for new ways and new opportunities to engage with different sectors of the community.

## Conclusions

SPT professes their desire to achieve zero accidents, but their positioning strongly suggests that they are happy with the status quo, and propose to do little to move further towards zero harm. Indeed, other than a weak commitment to mental health first aiders, we cannot identify anything that SPT proposes to do differently in T2.

In concrete terms, the "Customer Value Proposition" (CVP) in relation to health and safety seems to be overestimated, with what appears to be an assumption that all staff would receive a non-fatal injury over the price control period, which they value at a cost of £5.9M. Similarly, there is a figure of £3.3M quoted as a monetary benefit of introducing mental health first aiders, without any justification. We do acknowledge, however, that this detail may be in the Annexes, which the User Group has not had a chance to review.

# Whole System Planning

## Overview

The Business Plan builds upon what some see as the competitive advantage of SPT owning the entire distribution and transmission network in central and southern Scotland. It identifies the need for coordination and engagement with different stakeholders. SPT modelled future energy scenarios between the distribution and transmission network which are aligned with the 2019 National Grid System Operator Future Energy Scenarios (FES), then further enhanced the model to understand the impact upon individual substations.

The Business Plan indicates that the projections made and evaluated are not limited to the scenarios modelled. The scenarios were used to test the adaptability of the network components to interaction between the gas and electricity system. They were also applied to evaluate possible changes in the transport and heating sectors, considering their impact on energy networks.

## Introduction

The Business Plan exhibits the thorough and coordinated approach taken by SPT in the production of the plan and particularly their modelling of future energy scenarios and impacts down to the level of individual substations. The approach taken by SPT to assess the scenarios appears to be robust and thorough, reflecting strong planning and lending credibility. However, the key to a successful outcome will be the plan's flexibility to cope with a future energy system, as opposed to strict alignment with previously assumed scenarios.

SPT has forecasted a relatively low growth in the share of electric vehicles (EV); during the T2 period, they expect numbers to reach 130,000 by the year 2026, before rising exponentially to 610,000 by 2030. The impact of achieving this 20% increase in the electric vehicle share (610,000) in the T2 period would lead to an increase in peak demand of 406MW. The User Group had raised this concern with SPT during their engagement; in answer to which, SPT organised a focused presentation for the User Group to explain their approach on modelling future energy scenarios. This discussion reassured the User Group that, should the transition to electric vehicles or other Net Zero carbon initiatives occur more quickly, then SPT would not be an impediment.

The User Group notes that the FES report will undergo a major revision next year to reflect the Net Zero carbon ambitions of the country, which may accelerate the need for enhanced co-ordination across the entire energy sector.

## The User Group's engagement with SPT

The User Group is satisfied with the development of the plan. During the time of engagement, the User Group and SPT had several discussions to ensure that the approach taken by SPT on whole system planning is robust and pragmatic, considering different outcomes in future energy demand.

In this regard, one of the User Group team members made a detailed presentation on the FES to SPT team members, to clarify SPT's approach and provide guidance. SPT has progressively taken into account User Group feedback throughout the entire engagement. Further, as previously mentioned, they even arranged for a bespoke presentation to the group on various scenarios. The User Group appreciates SPT's open-mindedness, and acknowledge their efforts to deliver a resilient plan. The User Group and SPT were extensively engaged throughout the development of the whole system planning section.

The result of various discussions between the User Group and SPT are reflected in the Whole System Planning section. The presentation by SPT to the User Group on future energy scenarios (the FES and their local views of what the future might look like) communicated the challenges faced by SPT and the other transmission operators (TO's) in planning for a scenario that is unlikely to be entirely correct, while remaining flexible to satisfy the needs of customers and consumers.

The User Group noted that the future role of gas in domestic heating and the transition to a hydrogen economy is not explicitly mentioned in the Whole System Planning section of the Business Plan. However, it is fully considered in the future energy scenarios that SPT has used to construct the Business Plan.

## Conclusions

The User Group is satisfied that the Whole System Planning section of SPT's Business Plan adequately covers the need for a coordinated approach to whole system planning by identifying the main stakeholders. The example of Westfield GSP in the Business Plan demonstrates SPT's proactive engagement with local authorities and generators, assessing future growth in generation and changes in substation demands. This approach reflects their commitment to develop a coordinated whole system solution for a sustainable and Net Zero future.

The User Group is in agreement that SPT's approach in using and developing the future energy scenarios for the SP transmission network is the best practice. Of course, even with the increased granularity, it is extremely unlikely that any given scenario will be wholly correct; hence flexibility will continue to be the key to the success of SPT's Business Plan. We consider that the Plan allows for such flexibility

Whilst the User Group believe SPT's development of the Whole System Planning section of the Business Plan will not necessarily fully enable a Net Zero transition, neither will it impede it, and thus was an approach we could support.

SPT has resolved all queries and challenges raised by the User Group throughout the process of engagement. In this area we have no further queries or challenges for SPT or recommendations of issues to be considered at an Open Hearing.

# Proposed Expenditure and Outputs

## Load Related Expenditure

### Overview

This section outlines SPT's plans for projects over the T2 period driven by power transfer requirements from and to the neighbouring networks, new generation connections and distribution connection demand requirements.

### Introduction

In the opinion of the User Group, the Load Related Expenditure section of SPT's Business Plan is strong, and firmly based on solid principles, using a scenario-based approach. The Business Plan considers several possible future projections, and accounts for carbon reduction initiatives. There is a clear ambition to facilitate a Net Zero electricity distribution network by connecting new renewable power generation and being prepared for changes in demand. The Business Plan also covers the important aspects of boundary upgrades at the connection points in the north and south, with SSEN and NGET respectively.

SPT's Business Plan reflects the pragmatic assessment of future evolution of supply and demand relationships, accounting for changes such as: decreased industrial demand for electricity, possible increase in transport electrification, a shift in heating buildings with electricity instead of gas, and the system operation of a lower-carbon electricity distribution network.

### The User Group's engagement with SPT

The User Group has engaged with SPT extensively during the development of the Load Related Expenditure section of the Business Plan. The interaction with SPT was collaborative, and they adopted all the feedback given by the User Group. Throughout the course of interaction, SPT proactively updated the team members who were leading the review of this section and appraised them of progress and modifications made to the Business Plan.

The User Group provided detailed guidance to SPT on the FES, and User Group members made a detailed presentation on this topic to the SPT team. SPT and the User Group jointly deliberated the application of cross-sector views quite thoroughly.

During the engagement, the User Group raised questions with SPT on the development of their boundary network transmission boundary upgrades, considering the future growth in transfer requirements. SPT responded effectively to the query - including the result in the Business Plan - wherein the level of power required in the future is computed for each scenario for the next few decades, based on the FES.

SPT is collaborating with the transmission owners, using these projections to determine the most economical solutions to prepare the network systems for the growth in transfer requirements. The User Group agrees with this approach using the Network Options Assessment (NOA), and supports SPT's plan on existing projects. Furthermore, while reviewing SPT's initial draft of the Load Related Expenditure section of the Business Plan, we advised SPT to make projections based on the Scottish and UK Governments' ambitious targets for carbon reduction. SPT has successfully addressed this concern by adding future energy scenarios based on the governments' reduced carbon and electric vehicle roll-out targets.

The User Group requested detailed information on, how generation connection costs are split between connections customers and network users and consumers. SPT responded to this feedback by including an explanation of how connection costs are charged in the business plan.

During the early stages of the plan, the User Group felt that there was considerable uncertainty about the level of interconnections, and more work was required in this area. This also ties into the issue of 'black starts', and the role which additional interconnections could play in mitigating these risks. Of course, we do acknowledge that the response to black start issues significantly depends on policies and priorities of the UK and Scottish Governments, and not just the actions of the transmission operators.

In support of our shared concern, and in preparation for such a disruption to the electrical distribution network, SPT has proposed a reasonable view of the investment required in Scotland to support Great Britain's black start plans. The User Group is in agreement with the investment proposed in the business plan.

The User Group also supports SPT's Generation Export Management System scheme in the south-west of Scotland to maximise the utilisation of the transmission and distribution networks in that area. This is an innovative and value-for-money scheme which allows optimal use of the 132kV assets in that area by the wind generation in the area. The scheme will allow connection of a significant amount of low carbon generation for a relatively low cost.

During the engagement and collaborative development of the Business Plan, the User Group had critiqued SPT's inclusion of synchronous compensators in the baseline. The User Group held the perspective that this type of service may be more efficiently delivered by other market participants, which aligns with NGEN's pathfinder project. As a result of discussions with the User Group, SPT removed the synchronous compensators from the baseline plan and have included the projects as possibly required. If required, the synchronous compensators would be funded by an uncertainty mechanism.

All projects are only included in the Business Plan if they are required in all four FES scenarios. We challenged SPT on this approach, but they responded that this is consistent with the NOA process which provides a 'proceed signal' where a project is justified under all four scenarios.

## Conclusions

The User Group is of the opinion that SPT has built a strong plan built on good principles that takes into account key stakeholder ambitions and targets. The effectiveness of the uncertainty mechanisms will be key to deal with intra-period changes to this plan. Effective implementation of the proposed Business Plan is essential for achieving the carbon emissions reduction targets expected in the country's electricity distribution network. The User Group has been satisfied with the progress of the section on Load Related Expenditure over the period of our engagement.

## Open Hearings

The User Group was informed very late in the process about SPT's inclusion of Branxton in the Business Plan, which is of itself a very significant project and financial commitment. Accordingly, we have not had the opportunity to scrutinise this as much as we would have wished. An Open Hearing could help confirm whether or not Branxton is truly required in the baseline.

## Non-load Related Expenditure

### Overview

SPT have developed a robust asset management plan for their non-load related assets. There is evidence of a substantial amount of work that has been undertaken to assess and categorise each class of asset and compose a risk-based assessment of their asset condition. From this, a robust plan of investment has been created that delivers a network risk profile at the end of RIIO-T2 which is very similar to the risk profile at the end of RIIO-T1.

The User Group has not seen evidence, other than past performance of Energy Not Supplied, that this is the right level of risk for customers and the consumer, although SPT have stated that, based on its assessment of the condition of its assets, additional risk reductions “would not be in consumers interests”.

### Introduction

This is a significant proportion of the RIIO-T2 expenditures for SPT, and hence the User Group has had early engagement with SPT on this topic. Through this process, we have been able to request deep dives into certain non-load related projects to better understand the drivers and cost benefit assessments (CBA). The User Group selected these deep dives from the list of projects provided by SPT.

Through this, we gained confidence in the CBA methodology and support this process of assessment. The discussions we have had around monetised risk have been generally confusing and have not helped to aid the acceptance of the work allocation in the Business Plan. The User Group has discussed the Network Asset Risk Metric and understand the process and the metric, and we believe it has been applied correctly. However, we found the total figures quantifying the monetised risk benefit confusing.

Through this engagement over the last 18 months, the overall network risk position has changed more than once. Whilst we recognise that the final figure is a lower increase than proposed at earlier stages, the final position is that the network risk will rise slightly with an increase of 0.8%. There is no explanation as to what this means in reality, or what it would have cost to enhance or reduce the risk level.

The User Group agrees with the approach taken for the transmission cables. Though it is rather conservative and keeps ageing assets on the system, it is accepted as being the best value for now. Similarly, the uncertainty mechanism for Currie-Gorgie does seem to be the best approach for dealing with this asset.

Because of the manner in which the non-load plan has been described, it is difficult to link any efficiencies gained in RIIO-T1 through increased productivity or through innovation into the baseline for this RIIO-T2 submission.

## The User Group's engagement with SPT

The User Group has challenged many aspects of this non-load plan. As a result of our questioning, the investigations spurred by our challenges, many items were justified, while the plan was enhanced in other areas.

Specifically, we challenged the costs regarding the Longannet Substation, the telecommunications expenditures - which is a significant cost that wasn't detailed in the Business Plan, and the decision for GIS rather than AIS at Windyhill. For each of these specific challenges, SPT responded positively and the User Group is comfortable with the detail provided to justify the costs.

Other challenges by the User Group have changed the plan. The Chair of the User Group wrote a letter to SPT's CEO, Frank Mitchell, regarding the level of investment in the physical security of the network and above-ground assets. We believe that the Business Plan now incorporates a reasonable level of investment to protect the critical parts of the network.

However, some outstanding issues remain. For example, we have requested access to the external consultant's reports (or at least a sample), but the User Group has not received them.

As SPT do not participate in any international-based benchmarking with regards to asset management, the only data we have to ascertain the robustness and efficiency of this non-load related plan is a high level report from Arcadis which SPT commissioned.

The User Group was concerned by a lack of targeted intervention at the Torness 400kV substation, which accounts for almost 50% of SPT's SF<sub>6</sub> gas leakage. We don't believe that the routine maintenance of their site is sufficient. SPT presented clear economic arguments for not replacing the switchgear at this time, and also explained the actions they are taking to minimise leakage. The UG agree with the approach SPT proposed, including the commitment to offset emissions. Related to this, we believe that SPT could take more of a leading role with their supply chain to develop an alternative to SF<sub>6</sub> gas for higher voltage insulation applications.

The User Group challenged the roll-out of innovation within the Business Plan and discussed the benefits of digital substations. The User Group witnessed the successful rollout of a digital substation at Windyhill 132kV Substation. We have not been able to review Annexes in detail to link this key innovation with financial benefit but we are persuaded that the approach taken by SPT is the right one for RIIO-T2.

## Conclusions

This is a robust non-load plan with a well justified bottom-up approach to managing the transmission assets. However, it is difficult to fully demonstrate that best practices are being applied, given the limited amount of external benchmarking.

The User Group also agrees that there appears to be little innovation and ambition in the plan for non-load investments and seems to be a good plan delivering good outputs for a competent and established network operator.

## Open Hearing

The Business Plan is built from the bottom up and demonstrates competent management of individual assets. The User Group believe that there is merit in also presenting a top-down approach to derive a target risk profile based on reliability targets, historical performance and projections of work-load and risk profile into future regulatory review periods.

## Supporting and Securing our Network

### Overview

This section is intended to give reassurance that SPT has taken the necessary steps to ensure that the electricity transmission network is secure and resilient. It sets out a comprehensive enumeration of areas and details the expenditures which will be needed for each of these.

### Introduction

The proposed expenditures seem reasonable in all cases, and it is noteworthy that the total annual expenditure in relation to Engineering and Corporate Support proposed for the T2 period is £5.6m per annum lower than in T1.

Overall, the use of statistics is quite confusing, and has taken a considerable amount of time to understand fully what is involved and how it is all composed. We have eventually received the necessary clarification that they are comprehensive and not double-counted.

There is no doubt that such resilience is both expected and required by customers, and that additional expenditures are necessary to keep the network robust in the face of new and different challenges, such as climate change (and in this regard, the specific increased risk of flooding) and cyber security. Overall, at approximately £60m per annum, it is far from being one of the most significant areas of expenditure. However, it is of great importance in terms of impact, especially with regard to the higher levels of risk if the expenditures are not undertaken.

### The User Group's Engagement with SPT

We had questioned the proposed costs associated with business support activities, having challenged the largest element of this (for "reporting" activities) topic, and are pleased to see this has been reduced from £40m in earlier drafts of the Business Plan to £30m.

We have received presentations on most of the areas of expenditure being proposed, and this has given the User Group assurance that the work has been assessed on a case-by-case basis, as necessary in the T2 period.

We support the proposed work on flood mitigation, and are pleased to have confirmation that such plans are based on a 1 in 1000 year event.

A considerable increase in baseline costs for Supporting and Securing our Network was presented to the User Group in the December plan. Much of the cost increase is to accommodate an estimated level of uncertain costs around items such as wayleaves and Injurious Affection.

Although it is not specifically stated in the Business Plan, we sought, and received, assurances that the “legislative, policy and standards” uncertainty mechanism allows for the return of funding in the event that the volumes estimated for the baseline do not materialise.

We recognise that there are particular sensitivities with respect to elements covered in this section, especially with regard to security issues. For understandable reasons, some of these cannot be discussed fully in a public document, but they have been discussed extensively in our meetings with SPT, including at the board Level. We are encouraged by the increasing amount of senior management time being given to address these issues in depth. The User Group has determined that the measures being proposed seem proportionate to the level of challenge and risk. We have sought, and received, assurances regarding the pace of such work being undertaken, and are pleased to have seen the proposed budget allocated to such work has been increased significantly.

Given that almost 30% of the workforce is due to retire / leave in the coming years, we have sought clarification on SPT’s response. SPT has assured the User Group that adequate steps are being taken to increase training to ensure this turnover / attrition does not threaten their ability to carry out the necessary work. We note that the operational training expenditure is planned to rise from £0.8m per annum in T1 to £2.3m per annum. in T2. Such an increase is essential.

## Conclusions

The programme of works being proposed seems reasonable, although not ambitious. Undoubtedly more work could be undertaken, and there is a balance to be struck between doing what is necessary and what might be more comprehensive, but could be considered gold-plating.

## Open Hearings

We have questioned whether adequate use is being made of new technologies to manage this programme of works in the most efficient way. For example, whether more use could be made of drones to inspect the network, reducing the need for physical inspections. We are not in a position to say with certainty whether more could be done in this regard, though this kind of innovation could reduce both operational costs and risks to health & safety of employees / contractors. We are advised that this is covered further in Annex 6, but it may be an area which should be explored further.

We support in principle the steps that SPT is proposing to reduce its own carbon footprint, for example through the shift to electric vehicles. We note that financial support is requested to fund the purchase of EVs, and further work may be beneficial to ensure that the savings in operational costs of EVs over traditional vehicles has also been factored in.

The Annexes may include more detailed breakdown of costs. Taking as an example, the £76m proposed for Network Operations; it would be helpful to have figures to show how much of this relates to labour, external costs, and other costs.

# Implementing Plan

## Continuing to Engage with Stakeholders

### Introduction

The User Group was impressed with the detailed stakeholder engagement process employed by SPT, and the manner in which they have tracked their stakeholder survey results over the duration of T1.

SPT has proposed a detailed and well-constructed stakeholder engagement process and governance framework in the Business Plan. In the “Continuing to Engage with Stakeholders” section of the Business Plan, SPT has shared their initiatives and successes. SPT for some time has employed an audit firm, named “AccountAbility”, to assess the level of their stakeholder engagement against the AA1000 Stakeholder Engagement Standard. According to AccountAbility’s assessment, SPT is ranked in the top 16% of companies globally. In addition, SPT was awarded “Team of the Year” at the Utility Week Awards for their industry-leading stakeholder engagement team.

### The User Group’s Engagement with SPT

The User Group did not have any significant challenges or queries regarding the Stakeholder Engagement section of the Business Plan, as SPT provided complete details from the outset of the process they put in place for developing engagement with their shareholders. We found SPT’s approach viable and detailed. Our sole concern was over how SPT would identify and engage with hard to reach stakeholders.

### Conclusions

SPT have committed to improve their stakeholder engagement further, intending to earn an advanced score with AccountAbility. SPT has also committed to give access to stakeholders to view details of all their engagement on SPT’s website. SPT will further incorporate analysis of the social return on investment generated by their stakeholder initiatives.

SPT has proposed to drive engagement with vulnerable customers using a distribution-led approach. While the User Group understands that SPT could have an advantage, being an integrated transmission and distribution company, we understand that Ofgem has agreed with this approach. The User Group is supportive of having a continuing role for a User Group through T2, to consider how SPT is meeting the commitments they have made in their Business Plan. However, the User Group has a view that it may be better to have one single User Group across all of the Transmission companies, with a view to comparing performance against each other.

The User Group recognised that SPT are proposing to engage with vulnerable customers using a distribution-led approach. Whilst the User Group was concerned that it may be an option for SPT to use a distribution-led approach to helping vulnerable customers, this is not an approach open to all of the Transmission companies. We are unclear if Ofgem has agreed with this approach.

# Managing Uncertainty

## Overview

This section details SPT's proposals for dealing with change during the T2 period. It is the mechanisms that SPT believes they require to cover the implications of changes to the plan. These will be essential, especially as the drive to Net Zero may accelerate required initiatives.

## Introduction

As with all forward-looking enterprises, SPT's Business Plan requires mechanisms to manage uncertainty, as there are many outcomes and issues which cannot be predicted with confidence. Effective uncertainty mechanisms allow such matters to be explicitly documented; if quantified, this can enable a more thorough understanding of potential reactions and associated costs.

In the energy sector, there is a particular focus on Net Zero, as the legal requirements for companies (both existing and new) have not yet been finalised, and are subject to a high amount of uncertainty. This section of the Business Plan details SPT's proposed mechanisms to deal with uncertainty.

## The User Group's engagement with SPT

SPT has documented their learnings from RIIO T1, and been open about these learnings, and their desire to avoid unintended consequences. We have encouraged SPT to develop a baseline programme in which they have a high level of confidence and use it as a basis for uncertainty mechanisms that would capture the impact of possible changes in developing a sustainable Net Zero future network. SPT has adopted our suggestions and incorporated possible expenditures in the baseline plan.

Generation connections and additional projects approved by network options analysis (NOA) have been added to the Business Plan. We have not reviewed the uncertainty mechanism in detail, but agree that the generation connection mechanism should take into account the length of the circuit to the closest existing infrastructure.

During the User Group engagement period, we discovered that land agreement records are not yet digitised or centralised. This can substantially hinder access to data which may be relevant to managing uncertainty for many projects. Central digitization of land agreement records may help SPT reduce the requirements for land and consent uncertainty mechanisms.

## Conclusions

The User Group supports SPT's proposed section on uncertainty, which details the mechanisms proposed to cover all the anticipated uncertainty factors, along with the approximate costs. We agree that this approach should deliver the best outcomes for consumers, but have not reviewed the incremental values associated / proposed in detail. Effective uncertainty mechanisms are essential, and mechanisms become more effective as they are applied and evaluated. We would like to see more extensive application of the learning from RIIO-T1 in the current Business Plan.

## Open Hearings

SPT has proposed the removal of a Real Price Effect index and the ongoing efficiency requirement. This is probably an economic assessment best done by Ofgem. We support this proposal at a high level as it fixes the price for the consumer and moves risk to SPT. This proposal may need to be considered in conjunction with the proposed reopener on Brexit. An open hearing may help clarify the value of this proposal.

The legislative, policy, and standards uncertainty mechanisms seem to be quite a broad 'change of law' protection. This is especially true of the mechanisms for managing uncertainty regarding non-rechargeable diversions and environmental enhancements. Due to the increase in the allowance in the operations cost for land and wayleaves implications, the Open Hearing could help establish whether the reopener should still be included.

# Output Delivery Incentive Proposals

## Overview

The Business Plan includes a package of incentives designed to steer the company towards a sustainable, Net Zero future. The plans are based on Ofgem guidance and cover a variety of different penalty / reward mechanisms. The incentives are grouped into three categories covering:

- meeting the needs of consumers and network users
- maintaining a safe and resilient network
- delivering an environmentally-sustainable network

The proposed range of penalty and reward is broadly similar to RIIO-T1, ranging from -£11.6m to +£13.77m per annum.

## Introduction

We believe the existing incentives have made a real and measurable difference in improving the performance of network companies, including SPT. We recommend continuation of the incentive mechanisms for RIIO T2. SPT's proposal builds upon their experience in T1 and through the stakeholder engagement process, including interactions with the TOUG. The User Group supports SPT's proposal on incentives; we believe that it is a strong package with excellent new additions. At the same time, it is our opinion that the Business Plan could have been even stronger by balancing some of the new incentives between penalty and reward or including further project delivery incentives.

The Consumer Value Proposition clearly quantifies the financial benefit from the incentive package. The User Group has not reviewed the calculations on Social Return on Investment in any detail, but we confirm our support for the principles presented.

## The User Group's engagement with SPT

SPT has engaged early and consistently with us in this area. From our perspective, though, they have struggled to distil Ofgem's views and where to pitch their proposal due to the lack of clarity in the Ofgem incentive proposals. We have worked with SPT on the wording of the commitments, and they have used our feedback to realign many incentives. Where appropriate, each incentive now includes a statement on where SPT are presently performing in T1. This allows a simple assessment on the level of challenge for each proposed T2 baseline target.

Timely and accurate connection offers remain essential as a key part of delivering carbon reduction targets. The User Group has highlighted that SPT are not in complete control of the issue of Connection Offers as these come from the ESO. The proposed metric for "Timely Connection Offers" needs to reflect timely issue of quotation details to ESO rather than directly to the customer. The proposed T2 benchmark is appropriate.

The wording regarding “Quality of Connections Survey” has improved significantly. The User Group has discussed and challenged the need to improve the quality of Connection Offers and to get them right-first-time. The commitment to measure the number of offers which require post-offer modifications is good, although the User Group believe subsequent amendments are still needed.

The User Group is disappointed that SPT will only report on errors they have made, and have not offered any commitment to help customers get their requests correct.

The User Group agrees that Electricity-not-Supplied should remain a key incentive in T2. However, the baseline target proposed by SPT is not considered ambitious by the User Group, given that present performance is already well ahead of the target. The RIIO-T1 method of setting the baseline against a 10-year rolling average seems to remain an appropriate method of establishing the baseline target and we are unclear why this has not been proposed.

The User Group had several discussions with SPT regarding the length and impact of system outages, and the consequential effects on use of system charges and constraint costs. We encouraged SPT to include incentives to drive network availability for connected generators in a similar way to “Energy Not Supplied”.

The “Optimising Network Availability for Connected Generation” incentive is new for T2 and is proposed as a reward only. As a new incentive, the User Group agrees that this appropriate, represents good value, and addresses specific requests from customers.

The User Group supports incentives to minimise constraint costs. We also support the inclusion of a funding mechanism to implement contingency measures to minimise Customer Interruptions (CI) or Customer Minutes Lost (CML). However, the User Group is uncertain if this should be managed as an incentive or an uncertainty mechanism. The potential rewards to the customer are high, so the User Group believes the incentive cap is unnecessarily low. An uncertainty mechanism may help maximise the value for connected customers who placed reliability at the top of their wishes in engagement sessions.

We were pleased that, at our request, SPT has included the measurement of CI/CML to protect customer interests. The commitment to report on CI/CML has been included in the Business Plan.

We discussed with SPT, at some length, whether or not there should be a financial penalty on late delivery of projects or connections. In the end, the risk of longer programmes (due to the addition of contingency) or increases in costs (due to pricing in the risk) has led some within the User Group to accept that a reputational measure remains generally applicable in this area. This was a rare example of where there was not a consensus within the User Group. The User Group also highlighted that the cost of delays in generation connections is largely borne by the developer and there is presently no mechanism for the developer to recover any such costs.

We have also discussed environmental incentives, and worked to ensure that none of these led to double counting. The User Group are supportive of the proposals to accelerate the adoption of a low carbon vehicle fleet. However, it is a commitment within the Business Plan which is already funded elsewhere and we question whether it is appropriate for an additional incentive reward to be given, albeit to advance the timescale of the project.

SF<sub>6</sub> gas leakage is the largest single component of the SPT carbon footprint. The User Group is therefore uncertain if the SF<sub>6</sub> gas leakage incentive is sufficiently challenging.

In respect of the stakeholder engagement incentive, SPT informed the User Group that the Ofgem proposal is to remove the incentive and expect stakeholder engagement to be part of BAU. This could risk losing some of the business focus that has been evident in T1. A substantial amount of good work has been undertaken – and arguable a culture change has been evolving – through T1 to improve procedures and systems for working with stakeholders; all supported by a business case based on the incentive arrangements. We agreed with SPT that the retention of Stakeholder Engagement incentives will help ensure that this work continues and improves throughout T2. The User Group has had substantial influence on SPT's proposal for stakeholder engagement, and believe that the proposals provide a robust baseline to measure performance.

SPT proposed to retain the Transmission User Group to provide external input on incentive performance, including an annual appraisal of incentives classed as "Discretionary Financial Incentives". The User Group supports the principle of discretionary awards, but is concerned that the appraisal must be seen to be fully independent.

We recognise the case for a continuing User Group, to monitor progress and provide an objective assessment, but we recognise the limitations of a group appointed by the TOs for this purpose (which is a significantly different role to that originally envisaged for the User Group). We believe that a central appointment by Ofgem of a User Group to cover all the TOs should be considered.

## Conclusions

We believe incentives have made a real and measurable difference in the performance of network companies, including SPT. We support their continued and targeted use in RIIO T2. SPT's proposal builds on experience in T1, enveloping feedback from RIIO T2 engagement, including input from the User Group. We agree that it is a strong package with excellent new additions. In some areas, we think SPT could have gone further. In particular, we would have liked to see increased commitment for investments to mitigate constraints, which could result in a ten-fold return for their customers.

## Open Hearings

We believe it would be beneficial for the Open Hearing to consider whether there should be incentives to deliver projects and connections on time and for the incentives to have more than simply a reputational impact, for example, by allowing recovery of costs to provide compensation to affected parties.

Ofgem should consider a User Group to be appointed to monitor all the four transmission companies (including the Energy System Operator (ESO)) to allow assessment and comparison of performance rather than each having their own User Group.

Ofgem should ensure that SF<sub>6</sub> gas leakage targets are ambitious and consistent for all Transmission Owners and that best practice is shared

# Delivering the Plan

## Overview

This section covers how SPT will deliver the plan. It covers the major risks they see to delivery and how they plan to mitigate them. It focuses particularly on resources and skills required for plan delivery.

## Introduction

It is essential that SPT can deliver on the finalised and agreed-upon Business Plan agreed with Ofgem. This section lays out SPT's considerations, the primary one of which is identifying and managing risks. SPT's uses a sequential project management process to deliver their plan.

## The User Group's engagement with SPT

We have challenged SPT on how they intend to deliver projects more quickly and efficiently. The primary areas of risk include the design, consent, and construction phases. We welcome SPT's commitment to utilising digital technologies to drive improvements in their approach the design and consenting stages of projects.

We consider that technologies such as 3d modelling as well as digital delivery and visualisation of Environmental Impact Assessments (EIAs) can provide stakeholders with a greater understanding of their projects and potentially reduce delays. However, we consider there would be substantial benefit in SPT in reviewing their project development approaches and applying greater process innovation in order to deliver projects more efficiently and enable a Net Zero economy.

Staffing is an important source of risk to SPT's Business Plan. One of the key risks is turnover, as they anticipate the retirement and attrition of approximately 29% of staff in T2. Losing such a high proportion of knowledgeable staff will require extensive hiring, training and knowledge transfer efforts. SPT is aware of this issue and have plans to invest in recruitment and training to deal with this issue.

The User Group were provided details of the programme that SPEN has embarked upon, which includes a number of ways to tackle the issue, including contracting out, outreach approach, speeding up training and an initiative on maternity returners. In addition they are also looking at a graduate level apprenticeship scheme and international migrants.

We note that workforce renewal was not explicit in RII02, but that this is something that Ofgem has been considering, although SPEN has been looking more at their workforce issues from a resilience perspective, rather than a straight renewal approach.

The User Group understands that the alternative supply chain model is expected to increase market options for delivering projects and reducing costs. Compared to other TOs, we understand that SPT takes on the 'main' contractor role, and employs a number of subcontractors to deliver work packages. This may reduce cost and increase SPT's direct control over interfaces and programs. It also allows gives SPT access to a larger number of contractors with different skills. However, should anything go wrong with the interfaces between subcontractors managed by SPT, SPT does not have warranties or delay damages in their contract with the ESO as a 'main' contractor would have with a TO. Therefore, the risks of delay or interface costs passed on to SPET will then be passed on to their customers.

## Conclusions

SPT has thoroughly considered how they will deliver their plan and are confident in their performance. With their alternative supply chain model, SPT do internalise the management of project delivery and interface risk. However, in our opinion, it is inaccurate to describe the alternative supply chain model as internalising risk, as SPT only bears a portion of any interface costs and delay risks, which really fall to customers and consumers.

## Open Hearings

This Delivering our Plan section comes across as unambitious in challenging the accepted norms of project delivery timelines. We understand that SPT believe they have complied with what they are permitted to do under Ofgem guidelines but this could be looked into further.

SPT have outlined a credible plan to deal with expected staff turnover, but the User Group remains concerned about the high levels of expected staff turnover and whether in general terms, across all of the Transmission companies, that this is something that Ofgem should be looking at.

# Financing the Plan Efficiently

## Overview

The financing section of the Business Plan is a summary of a highly-technical subject, as it addresses the impact of Ofgem's proposed cost of equity along with an assessment of the implied cost of debt over the period of this price control period. As well as reviewing the cost of capital, the Business Plan considers the associated risk of the financial strategy on the overall investment plans.

External reports have been used to provide third-party evidence of the impact of the strategy as well as credit benchmarks from Moody's and Standard & Poors.

## Introduction

While the User Group was not specifically tasked with reviewing the finance section, we felt it was appropriate to understand and challenge the process and outputs where we deemed necessary. The content of the Business Plan and relevant annexes present extensively-detailed information regarding SPT's financial plans. The financial section of the Business Plan appears to be robust, including the external economic reports covering both equity and debt benchmarks. The inclusion of detailed sensitivity analysis demonstrating the effective robustness of the plan with respect to downside risk was especially welcome. However, it is fair to say that the analysis and evidence was documented to support an equity return at a higher level than that proposed by Ofgem. We expect that bilateral negotiations will be required to resolve this significant difference.

## The User Group's engagement with SPT

During the engagement period, SPT presented the finance section to the User Group only twice. Both sessions were open and engaging, although the time allotted for discussing challenges was limited. Accordingly, the feedback from the User Group was restricted to quite cursory comments. It was clear that SPT invested a great deal of effort to support the financial case. Though the User Group engaged with SPT regarding the financial section, we can not claim to have engaged enough to have influenced the financial section in any way.

## Conclusions

The Business Plan is conservative and focuses on limiting risk while delivering a reliable network, and the financial strategy in support of this objective is commensurate with this risk profile. However, it would be a useful challenge to understand in greater detail the risk to the business of operating at the return on equity proposed by Ofgem. While the technical analysis of the cost of debt and equity is well argued, there seems to have been a missed opportunity to put a case for greater investment at a higher return to enhance and accelerate the Net Zero ambition set by the UK and Scottish Governments.

The energy transition will require significant innovation and investment, and SPT should be at the forefront of this ambition, rather than just a follower. There remains a risk that a lower equity return will increase financing costs to SPT, due to reduced credit quality, which could adversely affect their investment plans.

This is a much wider subject than the current review, but should be a core part of the open sessions with Ofgem in 2020.

## Open Hearings

We would encourage the Open Hearing to discuss the financial risk being borne by SPT and its relationship to delivering a reliable network that accelerates the transition to a Net Zero energy system.

# Assuring the quality of the Plan

## Governance and Assurance

### Overview

This section adequately outlines the governance and assurance arrangements in place to develop and deliver a high-quality plan, though the lack of an explicit over-arching company process is quite surprising. The lines of defence associated with the assurance section are aligned with those found in similar industries and thus are considered a best practice.

The User Group noted the role of the board in challenging the Business Plan and, in addition, how SPT has widely shared the plan with public organisations such as Citizens Advice Scotland and Community Energy Scotland to ensure their needs were represented. This was extended to SPT sharing the plan with the Scottish Government to challenge whether the business plan proposals conflicted with any policy commitments.

There are no obvious issues that need to be raised at an Open Hearing.

# The User Group's Recommendations for Open Hearings

## Co-creating the plan with Stakeholders

On the basis of the User Group's experience in working with SPT throughout the Business Plan development process, we would make a specific recommendation to Ofgem to enable and underpin more effective stakeholder engagement and co-creation in the future. This recommendation is that more specific and explicit direction needs to be given to the requirements and implications of the type of 'green energy system' required to meet the UK's Net Zero commitments. This links to what SPT refers to in their Business Plan as a sustainable Net Zero future. However, the Net Zero ambitions (set by the UK and Scottish Government after the Business Plan process was initiated) have implications not only in terms of the costs of generating and transmitting zero carbon energy, but also in terms of regulation requirements and costs, and will interact with conditions in the wider economy. In addition to direct energy bill effects, the outcomes will impact consumers' well-being through a wider range of prices, household incomes, and other factors. Thus, a broader Net Zero perspective needs to enter Ofgem guidance to Network Operators (and other system actors) in preparing their Business Plans.

## Innovation Built-in

We would encourage the Open Hearing forum to consider the broad issue of innovation and how it is assessed, developed and implemented by the transmission companies. Specifically, it could usefully consider the balance between fundamental innovation needed to deliver the energy transition and the continued delivery of a reliable network.

## An Environmentally Sustainable Network

The User Group has questioned SPT's approach to BNG and whilst we understand the approach being proposed, consider it appropriate to highlight to Ofgem that it will lead to inconsistencies with other TOs where delivering net gain is mandatory under the planning system. In the short term SPT propose to deliver no net loss which is largely reflective of their current approach and we would question whether they could or should be more ambitious in bringing forward proposals to deliver net gain.

## Load Related Expenditure

The User Group was informed very late in the process about SPT's inclusion of Branxton in the Business Plan, which is of itself a very significant project and financial commitment. Accordingly, we have not had the opportunity to scrutinise this as much as we would have wished. An Open Hearing could help confirm whether or not Branxton is truly required in the baseline.

## Non-load Related expenditure

The Business Plan is built from the bottom up and demonstrates competent management of individual assets. The User Group believe that there is merit in also presenting a top-down approach to derive a target risk profile based on reliability targets, historical performance and projections of work-load and risk profile into future regulatory review periods.

## Supporting and Securing our Network

We have questioned whether adequate use is being made of new technologies to manage this programme of works in the most efficient way. For example, whether more use could be made of drones to inspect the network, reducing the need for physical inspections. We are not in a position to say with certainty whether more could be done in this regard, though this kind of innovation could reduce both operational costs and risks to health & safety of employees / contractors. We are advised that this is covered further in Annex 6, but it may be an area which should be explored further.

We support in principle the steps that SPT is proposing to reduce its own carbon footprint, for example through the shift to electric vehicles. We note that financial support is requested to fund the purchase of EVs, and further work may be beneficial to ensure that the savings in operational costs of EVs over traditional vehicles has also been factored in.

The Annexes may include more detailed breakdown of costs. Taking as an example, the £76m proposed for Network Operations; it would be helpful to have figures to show how much of this relates to labour, external costs, and other costs.

## Managing Uncertainty

SPT has proposed the removal of a Real Price Effect index and the ongoing efficiency requirement. This is probably an economic assessment best done by Ofgem. We support this proposal at a high level as it fixes the price for the consumer and moves risk to SPT. This proposal may need to be considered in conjunction with the proposed reopener on Brexit. An open hearing may help clarify the value of this proposal.[]

The legislative, policy, and standards uncertainty mechanisms seem to be quite a broad 'change of law' protection. This is especially true of the mechanisms for managing uncertainty regarding non-rechargeable diversions and environmental enhancements. Due to the increase in the allowance in the operations cost for land and wayleaves implications, the Open Hearing could help establish whether the reopener should still be included.

## Output Delivery Incentive Proposals

We believe it would be beneficial for the Open Hearing to consider whether there should be incentives to deliver projects and connections on time and for the incentives to have more than simply a reputational impact, for example, by allowing recovery of costs to provide compensation to affected parties.

Ofgem should consider a User Group to be appointed to monitor all the four transmission companies (including the Energy System Operator (ESO)) to allow assessment and comparison of performance rather than each having their own User Group.

Ofgem should ensure that SF<sub>6</sub> gas leakage targets are ambitious and consistent for all Transmission Owners and that best practice is shared.

## Delivering the Plan

This Delivering our Plan section comes across as unambitious in challenging the accepted norms of project delivery timelines. We understand that SPT believe they have complied with what they are permitted to do under Ofgem guidelines but this could be looked into further.

SPT have outlined a credible plan to deal with expected staff turnover, but the User Group remains concerned about the high levels of expected staff turnover and whether in general terms, across all of the Transmission companies, that this is something that Ofgem should be looking at.

## Financing the Plan Efficiently

We would encourage the Open Hearing to discuss the financial risk being borne by SPT and its relationship to delivering a reliable network that accelerates the transition to a Net Zero energy system.