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Decision on SP Transmission Limited's submission to the 2015 Innovation Rollout Mechanism application window

Final decision

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Overview:

We have decided to award SP Transmission Plc (SPT) funding for the project under the Innovation Rollout Mechanism (IRM), and this document sets out our reasons why.

SPT has applied to use the IRM to deploy a new type of conductor on parts of its network to increase capacity. The alternative is to completely rebuild sections of network. It estimates the total cost of the work as £44.5m, and is seeking £24.28m in funding from the IRM.

The IRM is there to help realise proven innovations that will provide long-term value for money to consumers, before the next price control period. To qualify for it, the innovations must deliver carbon and/or environmental benefits.

Context

Innovation is a key element of the RIIO (Revenue = Incentives + Innovation + Outputs) model for price controls on the energy network companies. The RIIO model was introduced for gas distribution companies (RIIO:GD1), electricity and gas transmission companies (RIIO:T1) from 1 April 2013 and for electricity distribution companies (RIIO:ED1) from 1 April 2015.

One of the innovation components of RIIO is the Innovation Rollout Mechanism (IRM). The purpose of the IRM is to facilitate the rollout of proven innovations, which will provide long-term value for money to consumers, in advance of the next price control period. To qualify, innovations must deliver carbon and/or environmental benefits without a commercial return for the licensee within the price control period.

This document sets out our decision on SPT's application seeking an adjustment to its allowed revenues under the IRM.

Associated documents

RIIO-T1: Final Proposals for SP Transmission Plc and Scottish Hydro Electric Transmission Ltd

Special Condition 6E (The Innovation Rollout Mechanism) of SP Transmission's Licence

Consultation on the assessment of benefits from the Rollout of proven innovations through the Innovation Rollout Mechanism

Assessment of benefits from the rollout of proven innovations through the Innovation Rollout Mechanism

Consultation on SP Transmission's (SPT's) Innovation Rollout Mechanism (IRM) Submission

Contents

Executive Summary

The Innovation Rollout Mechanism (IRM) is intended to facilitate the rollout of proven innovations in to business as usual.

The network company licensees can apply to make use of the IRM to fund the transfer of a proven innovation in to business as usual where it meets the relevant criteria and delivers carbon and/or wider environmental benefits to consumers.[1] A licensee can seek funding in each of the application windows as many times as it wants.

The first application window of the RIIO-T1 and RIIO-GD1 price controls opened in May 2015. We received one submission from SP Transmission Plc (SPT). SPT initially requested £27.13m from the IRM to install a new type of conductor on two transmission lines. The new conductor has not been used in Great Britain before, apart from in trials. While we were assessing its proposal, SPT revised its funding request down to £24.28m to take account of overlaps with funding already granted.

We have concluded that the project meets the relevant criteria and is in the interests of consumers. We have therefore decided to allow SPT to recover £24.28m, which we consider to be an efficient cost for rolling it out.

SP Transmission's proposed project

SPT is undertaking a series of reinforcement projects in southwest Scotland, to address the lack of network capacity that is preventing new wind generation from connecting in the area. More capacity on this part of the network would be required to accommodate the extra generation expected to connect in the region during the RIIO-T1 price control period.

The capacity required can be delivered in a number of ways. Firstly SPT could follow one of the 'business as usual' approaches (ie something it does as part of its every day activity), which would involve either rebuilding the line with larger towers and conductors, or building a second line parallel to the existing circuit. Both these options would be funded through the volume driver that funds connecting generation within SPT's RIIO-T1 settlement.[2] An alternative, for which SPT is seeking IRM funding, is to install a new type of high capacity conductor[3] on the existing transmission towers. This conductor is able to operate at higher temperatures allowing it to carry additional capacity without increasing the weight of the line or adding more circuits that would otherwise be needed to carry this extra capacity. Unlike the 'business as usual' options, the use of the new conductor would not be funded through the volume driver.

In the absence of any other funding mechanism, SPT has applied to use the IRM to fund the deployment of the new conductor on two circuits. SPT estimates the total cost of the work as

[1] The criteria for the IRM are in Special Condition 6E the Innovation Rollout Mechanism of SP Transmission's licence.
[2] Within SPT's RIIO-T1 price control arrangements, under special condition 6F of its licence, once a set threshold of connecting generation is met, its funding is increased as the level of generation increases. Within this document it is referred to as the "volume driver".
[3] High temperature low sag (HTLS) aluminium conductor composite reinforced (ACCR) referred to as "novel conductor" or "new conductor" within this document.

£44.5m and initially sought £27.13m from the IRM, later reducing its funding request to £24.28m. Both 'business as usual' options involve building taller or additional towers, so are likely to cost considerably more than using the new conductor. They would also probably take longer to build and face delays in getting the planning consents needed to start the works. The new conductor will take less time to install, and so will accelerate the connection of renewable generators compared to the one of the business as usual options. The new conductor will increase the capacity at a lower cost than the 'business as usual' method and will deliver additional carbon and environmental benefits.

Our assessment of the project

To reach our decision to fund the project, we assessed the funding request against the requirements of Special Condition 6E (The Innovation Rollout Mechanism) of SPT's transmission licence. We also consulted publicly on the contents of SPT's submission, receiving one response from National Grid Electricity Transmission (NGET) which operates as both a Transmission Owner (TO) and the system operator (SO) for the transmission network.

Some funding was specifically provided for minimal reinforcement work on one of the circuits as part of the RIIO-T1 price control baseline allowance. For work that was previously funded, we will only provide funding for the difference in cost between what was originally funded and the cost of using the new conductor. If there was no baseline funding, but the 'business as usual' option would have been funded through the volume driver, we will provide the funding required to roll out the new conductor.

We find that SPT's proposal relates to a proven innovation that wasn't feasible to propose as part of its RIIO-T1 business plan. It delivers clear carbon and environmental benefits to consumers, while meeting the remaining criteria in special condition 6E of its licence conditions. We consider it is in the interest of consumers to fund SPT to deliver additional capacity through the new conductor, rather than pursuing one of the more expensive 'business as usual' options. For these reasons, we believe that SPT's proposal is eligible for full funding.

We have concluded that the level of funding requested reflects the efficient cost of implementing the project and will allow SPT to recover £24.28m through the IRM.

1. SP Transmission's application and the Innovation Rollout Mechanism (IRM)

Chapter Summary

This chapter describes SP Transmission's (SPT's) proposal and the 'business as usual' alternative.

SPT's Proposal

1.1. We have published a non-confidential version of SPT's submission alongside this document. The proposal is summarised here.

1.2. SPT is undertaking a series of reinforcement projects in southwest Scotland. Over the next few years, a large increase in renewable generation is scheduled to connect to this part of SPT's network. The work covered by SPT's IRM submission will address a lack of existing network capacity that is preventing new generators from connecting.

1.3. SPT is seeking to use the IRM to fund using an aluminium conductor composite reinforced (ACCR) solution (the "new conductor") on two circuits in southwest Scotland. The circuit between Kilmarnock South and Coylton transmission substations is referred to as 'XY' circuit throughout this document and the circuit between Coylton and Mark Hill is referred to as 'YY' circuit. Using this technology will let SPT provide more capacity using existing transmission pylons and civil structures. It will increase the capacity of these two circuits, as shown below.

Circuit	Length	Existing capacity	Upgraded capacity
XY – (Kilmarnock South – Coylton)	15.5km	640MVA	1600MVA
YY (Coylton – Mark Hill)	49.5km	504MVA	924MVA

1.4. The total project cost for the XY route is £22.88m. Through the southwest Scotland reinforcement project some baseline allowance had already been identified for use on this project (£17.44m). So SPT's original funding request for the XY route was £5.44m. However, our review identified that some of this £5.44m constituted duplicated costs already funded through SPT's baseline price control funding. In response, SPT reduced its request to £2.64m. This figure reflects the incremental cost to roll out the new conductor above its baseline price control funding.

1.5. No reinforcement work was forecast on the 'YY' circuit at the time of the price control review, so there was no baseline funding for work on this circuit. SPT's proposed approach of re-conductoring the existing route with the new conductor would not be covered by either the volume driver or any other price control provisions. SPT is seeking £21.64m for work on this circuit. This amount is the total cost of the proposed work on this circuit.

1.6. The total amount SPT is requesting is £24.28m. It says that the total implementation cost is £44.5m. The £20.22m of funding, not sought through the IRM, has already been provided through the baseline allowance for work on the 'XY' circuit.

The 'business as usual' options

1.7. The 'business as usual' alternative to using the new conductor technology would be to either build new transmission lines parallel to the existing circuits or rebuild the line with larger towers and conductors. This building work would be funded through a volume driver in special condition 6F of SPT's licence. SPT estimates that this work would cost £108.85m if funded through the volume driver (6F). This is much higher than the cost of using the new conductor.

1.8. SPT also considers that the alternative proposal would be subject to major planning delays, if planning permission were given at all. It notes that the planning process for the original line required a public enquiry. SPT used single circuit, low profile towers when building the existing line in an effort to address the concerns of those who objected to the line.

The IRM versus other funding sources

1.9. When SPT developed its business plan for the RIIO-T1 period, it included funding for some smaller reinforcement works on the 'XY' circuit. But no funding was provided for reinforcement on the 'YY' circuit.

1.10. The new conductor cannot be funded through the volume driver because the option to use the new conductor on an existing line to provide capacity is not specifically included.

1.11. For the XY circuit, SPT is seeking funding only for part of the incremental costs resulting from the rollout of the new conductor technology. The remaining cost is covered by allowances already allocated under SPT's price control allowance. SPT is seeking funding for the full amount of the rollout on the 'YY' circuit.

2. Assessment of SP Transmission's proposed rollout

Chapter Summary

This chapter contains our assessment that SPT's submission meets the criteria in its licence to be eligible for funding.

2.1. For a project to be eligible for funding, the Authority must be satisfied that the proposed rollout of a Proven Innovation:[4]

a) will deliver carbon benefits[5] or any wider environmental benefits
b) will provide long-term value for money for electricity consumers
c) will not enable the licensee to receive commercial benefits from the rollout within the remainder of the price control period (for instance, if the rollout will lead to cost savings (including benefits from other incentives) equal to or greater than its implementation costs within the price control period)
d) will not be used to fund any of the ordinary business arrangements[6] of the licensee.

2.2. In addition, the Authority should be satisfied that: the amount the licensee has requested is above the materiality threshold, it only relates to costs which have not been incurred, and will allow the licensee to fund the rollout.

2.3. We set out below our findings against each of these criteria.

2.4. We published a non-confidential version of SPT's submission and asked stakeholders questions relating to SPT's submission and have taken into account the responses we received.

Proven innovation or ordinary business arrangement?

2.5. The IRM can only be used to roll out proven innovations,ie innovations that have been trialled succesfully and it should not be used to fund ordinary business arrangements of licensees. In our consultation we asked:

[4] Defined in the licence as: "an Innovation which the Transmission Owner can demonstrate has been successfully trialled or demonstrated either on the network to which this licence relates or elsewhere"
[5] To demonstrate Carbon Benefits the licensee must explain what elements of Government's Carbon Plan the rollout is facilitating.
[6] Defined in the licence as: "any or all of the following: (a) a specific piece of existing Network Equipment; (b) an arrangement or application of existing Network Equipment; (c) an operational practice; (d) a commercial arrangement, that is being used or is capable of being used, without modification, by the licensee or another Transmission Owner at the start of the Price Control Period".

Do you consider the technology that SPT wishes to roll out falls within the definitions of either a proven innovation or an ordinary business arrangement as defined in the IRM licence condition?

Consultation responses

2.6. In its response, NGET said it has successfully trialled the use of new technology on its network and it agreed that it was a proven innovation.

2.7. NGET said the new conductor technology does not fall within the definition of an ordinary business arrangement, as it could not be used without modification.

Decision and rationale

2.8. We consider that the new conductor SPT wishes to roll out falls within the definition of proven innovation and does not fall within the definition of an ordinary business arrangement.

2.9. The new conductor SPT wishes to roll out was not available at the time SPT developed its business plan, so SPT could not be expected to include it in its plan. In addition, while the stringing of the conductor is similar to the existing technologies, additional training and procedures will need to be established for the jointing of the aluminium matrix core. Many associated items will need to be specifically adapted to this technology, such as fittings, terminations, auxiliary equipment and installation equipment to allow for high temperature operation or to fit the conductor size. So the new conductor technology is not considered an ordinary business arrangement.

2.10. SPT and NGET said that the ACCR technology has been successfully trialled.[7] We have separately discussed with NGET the outcomes and benefits evidenced through its trial projects to inform our decision. So the new conductor technology is considered to be a proven innovation.

Carbon and/or other environmental benefits

2.11. To be eligible for funding, proposed rollouts must deliver carbon and/or environmental benefits. When considering whether the rollout was eligible for funding, we asked stakeholders:

Do you consider that the proposed rollout will facilitate the government's Carbon Plan,[8] or deliver wider environmental benefits?

2.12. We also asked stakeholders to comment on the level of carbon and environmental benefits claimed by SPT. We asked:

To what extent will the proposed rollout facilitate the Carbon Plan?

[7] ACCR was trialled through the Network Innovation Allowance details can be found here it was also trialled through the Innovation Funding Incentive and details can be found here.
[8] https://www.gov.uk/government/publications/the-carbon-plan-reducing-greenhouse-gas-emissions--2

- Please explain what aspects of the Carbon Plan you consider the proposed rollout will facilitate.
- What is your view of the claims made by SPT regarding the contribution the proposed rollout will make to these aspects of the Carbon Plan?
- Will the proposed rollout deliver benefits more quickly than the 'business as usual' methods used across Great Britain (GB)?

To what extent will the proposed rollout deliver wider environmental benefits?

- Please explain what, if any, environmental benefits you consider the proposed rollout will deliver.
- What is your view of the claims made by SPT regarding the environmental benefits the project will deliver?
- Will the proposed rollout deliver benefits more quickly than the business as usual methods used across GB?

Consultation responses

2.13. Although it did not explicitly agree or disagree with the suggestion that the proposal fulfils elements of the Carbon Plan, NGET confirmed that it is aware of a number of wind farms connected, or attempting to connect to the circuits in question. It also noted that the additional capacity will facilitate importing low-carbon generation from Ireland through the Moyle interconnector that is on the same section of network as the YY route.

2.14. SPT's proposed rollout of the new conductor will clearly deliver capacity quicker than the 'business as usual' alternatives. The extra construction work and planning requirements of building any additional lines in the area would inevitably delay the delivery of capacity compared to re-conductoring.

2.15. NGET also agreed with SPT's findings regarding wider environmental benefits, although it did not provide detailed comment. It specifically agreed with the visual amenity benefits that would be delivered through avoiding building additional overhead lines. It also agrees there would be "benefits" realised from not needing to reinforce existing steel tower structures holding up the existing overhead line.

Decision and rationale

2.16. We consider that the proposed rollout will deliver carbon and environmental benefits.

2.17. SPT has forecast that the level of generation on the circuits to more than treble by 2022, with approximately half of this additional generation expected to connect in the next two years. SPT has provided a detailed forecast of the expected levels of output across each generator that has a firm, or non-firm agreement to connect to the XY and YY routes over the next five years delivering £50m of carbon savings by connecting renewable generators alone.

2.18. SPT has shown what amounts of concrete and steel are included in its contract for delivering the new conductor solution. It has also estimated the equivalent amount of materials needed to deliver the 'business as usual' alternative. A comparison of the data for each option suggests that the new conductor will save approximately 4,000 tonnes of steel and 16,000 tonnes of concrete. The evidence also suggests that the new solution will reduce the amount of land to be excavated by approximately 45% relative to the 'business as usual' alternative.

2.19. Although it is difficult to be certain what the actual environmental impact of the 'business as usual' alternative would be, we consider that the information provided robust enough to confirm that there will be notable environmental benefits achieved through the new solution as an alternative to more traditional reinforcement.

2.20. Additionally, one of the key concerns when building in a rural area such as southwest Scotland is the impact of the work on the surrounding landscape. The two alternatives to the new solution as a means of delivering capacity would be to reinforce the existing line which would require larger towers, or add a second circuit to the YY route. Both would increase the area of land visually impacted. So another benefit of the rollout is that it won't affect the natural beauty of the landscape.

Value for money

2.21. When considering whether the project was eligible for funding, we asked stakeholders:

> Do you consider that the proposed rollout will deliver long term value for money to customers?

2.22. We also asked stakeholders to comment on the extent to which the proposed rollout will deliver value for money:

> To what extent will the proposed rollout deliver value for money to consumers?
>
> - Please explain whether you consider the cost and scale of the project is justified relative to the benefits you consider it will deliver.
> - What proportion of the potential benefits from the project do you consider will accrue to the network compared to other elements in the energy supply chain?

Consultation responses

2.23. NGET noted that, although the cost of the new conductor is significantly higher than the cost of conventional conductors, it weighs less. This means there is no need to reinforce or rebuild existing towers to support it, and so offsets the high cost of the conductor.

2.24. A conductor type that runs hotter than another produces additional electrical losses. So because of the new conductor's characteristics, compared to the conductor type currently in use on the YY and XY routes, the new one is likely to experience 40-70% more losses when comparing a single circuit. However, a solution using existing conductor technology requires at least two times more length to provide the same capacity. For example, on the YY circuit at least

two traditional circuits would be required to provide the same capacity as a single circuit with the new conductor. When this extra length is taken into account, the new conductor actually reduces the losses experienced by both circuits.

2.25. NGET noted that not enough information was included to allow it to assess whether the new conductor will deliver value for money in this specific case. It noted that it would need to consider a number of factors, such as how long the additional capacity is required for, to fully assess if the project delivers value for money.

Decision and rationale

2.26. We consider that allowing SPT to recover the efficient cost of the rollout will deliver value for money to consumers. We think the cost of the rollout is proportionate to the scale of the benefits it will deliver, for example, the project will deliver £50m worth of carbon savings through the connection of renewable generators alone.

2.27. We consider that the proposed rollout will deliver value for money. We assessed two aspects: the financial benefits delivered to consumers, and the economic and efficient project costs.

2.28. The total project cost, to increase capacity on the XY and YY circuit, is estimated to be £44.52m. This figure reduces to £24.52m after subtracting existing allowances allocated to the XY circuit upgrade. But the cost to upgrade both circuits using conventional techniques and technology is estimated to be £105.47m. This is a clear saving (circa. £61m) from rolling out the new technology. There are also reduced losses from the using the new conductor, as discussed above.

2.29. The economic and efficient costs were assessed by breaking down the project costs into a base case (re-conductoring overhead lines using existing technology) and the incremental costs associated with the new conductor. Each cost element was analysed to for reasonableness and economic efficiency, and we found each one reasonable and robust.

2.30. We found that the overall project costs per circuit kilometre compares well with current overhead line conductor replacement projects.

2.31. Given the financial benefits to consumers, and the assessment that the cost elements of the project are reasonable and robust, we recommend that the full project costs be funded.

Will the rollout allow the licensee to receive a commercial benefit?

2.32. If the rollout will deliver commercial or cost benefits for the licensee, it should implement it without funding from the IRM. We did not ask stakeholders whether they considered the rollout would deliver commercial or cost benefits to the licensee.

Decision and rationale

2.33. We believe that no opportunity exists for SPT to commercialise and thus receive benefit from this rollout. In addition, SPT has reassured us that it does not foresee any further cases where the new conductor would be used within this price control period.

2.34. The use of the new conductor is expected to create around £61m of cost savings compared to the 'business as usual' approach. However, these cost savings would not accrue to SPT as it would not be funded for the 'business as usual' approach under the price control. Our proposed funding only gives SPT the incremental funding needed to rollout the new conductor beyond what has already been funded. This is to ensure that no commercial benefit accrues to SPT.

2.35. We are satisfied that no other benefits materialise from any other incentive mechanism. We therefore agree that there will be no commercial gain, in the form of revenue or costs savings, from the rollout of the new conductor.

Has the licensee recovered any costs for rolling out the proven innovation?

2.36. To be eligible for funding, the licensee should not have incurred any of the innovation rollout costs. We did not ask any questions on this subject as part of the consultation.

Decision and rationale

2.37. SPT's original submission included some costs that were due to be incurred on the rollout in 2015-16. After we explained that 2015-16 costs could not be included in an IRM funding request, SPT removed this from its request. This confirms that any costs relevant to the IRM funding request relate only to costs not yet incurred. This is in line with the IRM's eligibility criteria.

Will the amount the licensee has requested allow it to roll out the proven innovation?

2.38. The licensee should request the amount it expects will allow it implement the proposed rollout. We did not ask stakeholders any questions on this point.

Decision and rationale

2.39. As part of the cost assessment process, we fully reviewed all cost elements. Major cost elements include: the supply and installation of the new conductor; civil works on the YY circuit; and items included in the risk category.

2.40. Supplying and installing the new conductor accounts for approximately 60%-70% of the costs on both circuits. The cost elements of this category were further broken down into a base case, which consisted of re-conductoring the circuits using a conventional conductor, and an incremental case to capture the elements associated with re-conductoring using the new one.

2.41. Another TO (NGET) has tested the new conductor, along with other types of conductors, and confirmed that the capital supply and install cost of the new conductor was approximately

five to six times greater than a conventional conductor. This high capital cost is driven by the fact that, at present, there is only one supplier in the market. We tested the costs provided by SPT and found them to be in line with the assumptions made by NGET.

2.42. The civil works on the YY circuit account for 22% of the project cost. Detailed methodologies and unit costs used to build this figure were supplied by SPT. This cost element consists of activity to build:

- access roads
- stone areas for tension towers
- stone areas for pulling positions
- stone areas for work and materials laydown.

2.43. RIIO-T1 average unit costs for temporary roads and stone areas were compared with the unit costs supplied by SP. The location of the YY route is challenging because it is remote and its ground conditions include rock, peat and river crossings that need to be bridged. Therefore, SP proposes a unit cost that is 40% higher than the RIIO-T1 average unit cost. It said this estimation has been informed by a recent separate contract that was tendered for similar conditions. In light of this evidence, we think that the overall cost of the civil cost element appears efficient and fair for consumers.

2.44. The risk category for both projects accounts for 5%-6% of the project costs. This category includes only risk associated with variation orders, delays, fluctuations in foreign exchange rates and risks involved in gaining landowner permissions for the larger pulling positions that are required for the new conductor. We believe that this amount of risk is reasonable and within the Institute of Engineering and Technology cost benchmarking range.[9]

2.45. In addition, we have compared the SPT project with average unit costs obtained from RIIO-T1 Regulatory Reporting Packs (RRP) 2014-15 for re-conductoring overhead lines. These unit costs indicate the SPT overall unit costs, based on a cost per circuit km, are approximately 8% higher than average unit costs for re-conductoring overhead lines with conventional conductors. Therefore, the overall unit costs appear reasonable and sufficient for the proposed works when you take into account the higher expected costs of this project.

2.46. Having thoroughly reviewed all the costs, we believe the amount the licensee has requested will allow it to roll out the proven innovation. We also note that costs not funded through the IRM will be funded through the licensee's baseline allowance or other price control mechanisms.

2.47. In summary, we believe the costs presented by SPT to roll out the new conductor on the XY and YY routes are efficient and fair for consumers.

Outputs

[9] http://www.theiet.org/factfiles/transmission-report.cfm

2.48. To be eligible for funding, the licensee must propose outputs which we can assess the rollout's performance against.

Consultation responses

2.49. The respondent to the consultation on SPT's submission did not comment on the appropriateness of the outputs proposed.

Decision and rationale

2.50. SPT has confirmed that the following outputs will be delivered through the rollout of the new conductor:

- Reconductoring of the Kilmarnock-Coylton circuit (XY route) will increase the capacity on the double circuit to 1600MVA per circuit by 31 March 2018, and
- Reconductoring of the Coylton-Mark Hill circuit (YY route) will increase the single circuit capacity to 923MVA by 31 March 2018

2.51. On reviewing SPT's initial submission, we felt that it did not make the exact timing of the outputs sufficiently clear. Having requested further clarity from SPT, we are comfortable that the proposed outputs are measurable, timebound and location-specific. This will allow us to measure whether SPT has delivered the capacity it stated when making its application.

3. Decision and next steps

Chapter Summary

This chapter explains our decision to make funding available for the rollout.

Eligibility

3.1. The project has fulfilled all the eligibility requirements and delivers benefits for customers:

- The technology SPT proposes rolling out is a proven innovation and is not an ordinary business arrangement – the new conductor was not available at the time of the price control review. However, it was successfully trialled in 2012 by NGET.
- The rollout will deliver carbon benefits and other environmental benefits – it will do this by accelerating the connection of renewable generators and reducing the amount of resources (eg concrete and new towers) that will be needed to provide capacity compared to the 'business as usual' approach.
- The rollout will deliver value for money – it will do this by providing additional network capacity for a lower cost than providing additional capacity using the 'business as usual' approach.

Cost efficiency

3.2. As noted earlier in this document we have assessed the cost efficiency of the rollout. The economic and efficient costs were assessed by breaking down the project costs into a base case (re-conductoring overhead lines using existing technology) and the incremental costs of the new conductor. Each cost element was analysed for reasonableness and economic efficiency. We found each cost element to be reasonable and robust.

Funding

3.3. Because the submission is eligible and having assessed the cost efficiency of the proposed rollout we have decided to adjust SPT's allowed revenue. We will increase its allowed expenditure over two years as set out in the table below to allow it to roll out the new conductor. Note that all figures in this table are in 2015/16 prices and will need to be adjusted accordingly for incorporation into the RIIO-T1 price control.

	2016/17	2017/18
Amount	£21.44m	£2.84m

Outputs

3.4. The rollout will deliver the following outputs:

- Reconductoring of the Kilmarnock-Coylton circuit (XY route) will increase the overhead line capacity on the double circuit to 1600MVA per circuit by 31 March 2018, and
- Reconductoring of the Coylton-Mark Hill circuit (YY route) will increase the single circuit overhead line capacity to 923MVA by 31 March 2018

3.5. If SPT does not deliver on the outputs it has proposed we will consider what action is appropriate including whether funding should be clawed back.

Next steps

Price control financial model annual iteration process

3.6. The IRM feeds in to the RIIO-T1 price control financial model. This was used to set opening base revenues for the price control. The allowed revenues are updated annually in light of the licensee's performance and the output levels it achieves, as well as additional funding being made available under mechanisms such as the IRM.

3.7. Under the annual iteration process, allowed revenues are remodelled using variable values, one of which is the IRM variable value. The Authority will issue a direction to adjust SPT's base revenue by 30 November 2015. The rules for determining revised values, determining the value of the "MOD" term, and for carrying out the annual iteration process are in the special conditions of SPT's licence and in the Price Control Financial Handbook. The price control financial model and Handbook form part of SPT's licence.

Lessons learned exercise

3.8. This was the first time we have done this. We recognise that processes such as this can change and improve over time. We will look at what worked well and less well as part of this year's implementation. This is so we can learn the necessary lessons before the next RIIO-GD1 and RIIO-T1 windows and the first RIIO-ED1 window. We will reflect on these lessons and propose amendments to our guidance or other processes if needed.