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Date: 13 July 2015

Dear Colleague,

### **Consultation on SP Transmission Ltd's opening asset value for the B5 Boundary electricity transmission project**

SP Transmission Ltd (SPT) has completed construction works to upgrade four electricity transmission substations to increase capacity across the B5 Boundary located in Southern Scotland. This will reduce network constraints and facilitate the further connection of renewable generation in Scotland. The project is funded under the Transmission Investment for Renewable Generation (TIRG) mechanism<sup>1</sup>.

The TIRG licence condition<sup>2</sup> requires us to determine the opening asset value (OAV) for relevant projects. This value determines the revenue allowance for the 5 years after construction. Unless we determine otherwise, this value will take the value specified in the TIRG condition<sup>3</sup>. This consultation is on our view that the OAV for the B5 Boundary should equal the OAV set out in the licence, £11.209 million<sup>4</sup>. We have reached this provisional view because we consider that the B5 Boundary project has met all the criteria set out in Special Condition 3J of SPT's transmission licence (the TIRG condition) and has been delivered at efficient cost.

It is our view that the project outputs were delivered in 2010-11. This is one year later than envisaged in the TIRG condition. We therefore propose that the project's post-construction revenue allowances set out in Schedule C of the TIRG condition should have started in 2011-12. As a result of the one year delay, SPT should have received zero project revenue in the year 2010-11. In practice, the OAV could not have been finalised before 2010-11, as construction had not finished. This meant that SPT's total allowed revenue for 2010-11 included the project revenue that was expected to be recovered in that year. Therefore, this letter also sets out our proposed methodology for adjusting SPT's future revenue to account for the project revenue recovered in that year.

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<sup>1</sup> Background on the TIRG mechanism can be found in Appendix 1 of this letter

<sup>2</sup> "The TIRG licence condition" and "The TIRG Condition" are both used in this letter to refer to Special Condition 3J of SP Transmission's electricity transmission licence

<sup>3</sup> For each TIRG project, the forecast OAV set out in Schedule C of the TIRG condition is referred to as "ETIRGORAV", whilst the OAV that we need to determine and are now consulting on, is referred to as "SAFTIRG"

<sup>4</sup> All monetary values within this consultation, including the appendices, are shown in 09-10 price basis

We are seeking your views on our proposal in the following areas:

1. Do you agree that the OAV should equal the value specified in the TIRG condition for the B5 Boundary project?
2. Do you agree that the post-construction period should have started in 2011-12?
3. Do you agree that SPT should restate its historical allowed project revenues for the B5 project to account for it entering the post-construction period one year too early?
4. Do you agree that SPT should also restate its historical allowed project revenues for the Beaully-Denny project to account for the historical reduction in revenue allowance specified in the November Asset Value Adjusting Event (AVAE) decision<sup>5</sup>?
5. Is there any other relevant information that we should take into account?

Please submit your response by 10 August 2015, preferably by email, to Thomas Johns ([thomas.johns@ofgem.gov.uk](mailto:thomas.johns@ofgem.gov.uk)). We will also accept postal submissions. Please send these to:

Thomas Johns  
Electricity Transmission  
Ofgem  
9 Millbank  
London  
SW1P 3GE

Responses will be published on our website unless they are marked confidential<sup>6</sup>. If you would like your response to remain confidential, please clearly mark your response to that effect and provide reasons for confidentiality. Subject to your responses, we expect to publish a decision in the summer.

### **The B5 Boundary Project**

The B5 Boundary works were initially part of the Beaully-Denny scheme to upgrade the existing 132kV line between Beaully and Bonnybridge to 400kV. However, due to planning approval and consent issues, the completion date for Beaully-Denny was significantly delayed. In order to release system capacity across the B5 Boundary, National Grid, as system operator, asked SPT to bring forward the work on the B5 boundary ahead of the remainder of the Beaully-Denny project. As a result, we approved the delivery of these works as a TIRG scheme ahead of the wider Beaully-Denny scheme<sup>7</sup>.

As required under the TIRG condition, the post-construction expenditure report includes an independent auditor's statement confirming the delivery of the project outputs. This statement was provided by SKM<sup>8</sup>. This report was submitted to us in June 2013.

SPT commenced construction works for the B5 Boundary project in 2007-08. The condition of porcelain conductor supports at Clydes Mill Substation meant that planned works had to

<sup>5</sup> <https://www.ofgem.gov.uk/publications-and-updates/decision-sp-transmission%E2%80%99s-request-amended-revenue-allowance-beaully-denny-project>

<sup>6</sup> Ofgem will respect such requests, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

<sup>7</sup> <https://www.ofgem.gov.uk/publications-and-updates/14507-separation-tirg-expenditure-b5-boundary-works-scottish-power-transmission-ltds-network>

<sup>8</sup> Published alongside this consultation

be delayed until the relevant assets were completely refurbished. The SKM post-construction technical report confirms that any works at Clydes Mill which fell outside of the scope of the TIRG scheme, were funded separately by through SPT's price control.

The licence anticipated a three year construction period, meaning that it was expected that the project would be completed and the outputs would be delivered in 2009-10. As a result of the delays at Clydes Mill, the full project works were not energised until 2011-12. However, through the use of temporary arrangements, SPT were able to deliver the B5 Boundary project-specific outputs, as set out in the licence, in 2010-11<sup>9</sup>.

### **Determination of the Opening Asset Value (OAV)**

We have considered all the relevant information and our minded to position is that the relevant criteria in the TIRG licence condition have been met. Despite the delay to the project, the costs and scope of works funded through the TIRG mechanism were not affected. The total construction expenditure incurred was £10.9 million which is less than the forecast expenditure of £12.2 million.

Appendix 2 sets out our assessment of SPT's B5 project against the criteria set out in the licence.

Where project delays impose a detrimental impact on consumers (eg higher constraint costs) we consider this to be a relevant factor in our decision on the value of a TIRG project's OAV.

In the specific case of the B5 project, we can find no evidence to suggest that the financial impact on consumers of the delay was significant. We also consider that, once the issue at Clydes Mill was identified, SPT operated effectively and quickly to prevent further delay to the project's delivery. Most importantly, we consider that SPT was doing the right thing for consumers in bringing forward the works (ahead of the rest of the Beaulieu Denny project) in the first place.

Therefore, we consider that our minded to position to not extend the construction period and withhold any project revenues from SPT for the duration of the delay is the appropriate measure to protect the interests of consumers for the delay to the delivery of the B5 project. We consider that this position is in line with the policy guidance that was issued at the start of the TIRG mechanism<sup>10</sup>.

Our minded to position, therefore, is that costs were incurred efficiently despite the delays and propose that the OAV for the B5 Boundary project should remain at £11.209 million. This equals the forecast OAV in the TIRG condition.

This consultation does not consider the value of the revenue allowances after the end of the five-year incentive period.

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<sup>9</sup> The capability of the B5 Boundary during winter 2010-11 is stated in Chapter 8 of the 2010 NETS Seven Year Statement

<sup>10</sup> A copy of the guidance note can be found here: <https://www.ofgem.gov.uk/ofgem-publications/56420/12320-27505.pdf>

## Adjustment for historical revenues

The policy intent behind the TIRG condition is that the OAV should remain as forecast in the licence until evidence is brought forward to prompt an amendment to this value. For this reason, until we determine the OAV, the licencees delivering TIRG projects are funded based on the post-construction incentive period starting the year after the construction period is expected to end. In the case of the B5 Boundary project, this meant that the post-construction incentive period started before the outputs had been delivered.

Until the final determination of the OAV for any specific TIRG project, the relevant TO is able to recover the annual post-construction revenue for the project as anticipated by the licence. Given that the B5 Boundary project was completed one year later than envisaged by the licence, SPT entered the post-construction period one year early by default. This means that SPT was able to recover allowances one year before it should have done. This meant that SPT recovered slightly more in total overall revenue in 2010-11 than it otherwise would have done. We therefore need to make a negative adjustment to SPT's future revenues to account for the revenue received early.

There are two possible options to correct the revenues received by SPT. Both options are set out below:

*Option 1 – Make a one-off adjustment to its allowed revenue in 2016-17 to account for the amount recovered early, as well as an additional amount to ensure that consumers are fully NPV-neutral to the revenue SPT recovered early*

Option 1 would be to make a one-off adjustment to SPT's 2016-17 allowed revenue by modifying SPT's licence. This one-off revenue adjustment would be applied to ensure that the change to historical revenues reflects an adjustment for the revenue received early, as well as an additional adjustment to offset any financial benefits of the revenue received early. The NPV calculation would use the rate of return that is applicable to TIRG projects, 8.8%. As set out in Appendix 3 of this consultation, applying this adjustment for SPT entering the post-construction period one year early would result in a £0.826m reduction to its allowed revenue for 2016-17.

*Option 2 – Require SPT to restate historical allowed revenues and use the correction factor in the licence to adjust historical revenues to account for over/ under recovery*

Option 2 would be to require SPT to restate historical allowed revenues to account for the post-construction period not starting until 2011-12. This would involve reducing the 2010-11 TIRG allowed revenue for the B5 project to zero. The correction factor within the calculation of total overall allowed revenue in the corresponding years would then adjust SPT's 2016-17 total overall allowed revenue to account for the revenue that has been received too early. This approach will also apply an adjustment to reflect the financial benefits of receiving the post-construction revenues early – this would be done using the interest rate applicable to the correction factor (a lower rate than the 8.8% used within the TIRG condition).

Further detail of how the correction factor works can be found in Appendix 4 to this letter.

We anticipate that the historical restatement of the revenues associated with the B5 boundary project in isolation, would reduce SPT's allowed revenue for 2016-17 by approximately £0.6m.

## **Our proposed approach**

In practice, between 2010-11 and the current year, any financial benefits to SPT of TIRG revenue recovered early in 2010-11 were the result of it ensuring compliance with the revenue return requirements. This is because the revenue model, by default, follows the annual revenue allowances foreseen by the licence until the Authority directs otherwise. Given that SPT was recovering the revenues in line with its licence requirements, we think that Option 2 is the most appropriate approach. The intention is to restate incorrect historical allowed revenues rather than impose a more penal adjustment which Option 1 could be considered to represent.

Our preferred option also has the benefit of not requiring a formal licence modification process to be followed. Given the materiality of the likely impact on SPT's total overall allowed revenue, we consider it proportionate to pursue this approach.

## **Applicability for Beaulieu-Denny**

In our November 2014 decision<sup>11</sup> to provide additional funding for SPT's Beaulieu-Denny project, we indicated that an initial negative adjustment would be made to account for the reduction to historical revenues. We proposed to make this adjustment through the use of the methodology detailed in Option 1. We also explained that we would need to consult on a licence change in order to apply this change. We have not made this licence change.

Having further considered the circumstances in both projects, we propose to also apply Option 2 to the historical revenue allowances for Beaulieu-Denny. Again, in the years that SPT recovered revenues on the project that were higher than the level we later determined they should be, it was the result of SPT ensuring compliance with the licence requirements in place at the time. It could not reasonably have been expected to have done otherwise. With this in mind, we propose to allow for SPT to restate the historical annual revenue allowance for the Beaulieu-Denny project in the same manner as the B5 project. In practical terms, this approach maintains the historical revenue reductions specified in the decision, but would reduce the adjustment applied to reflect the financial benefits of receiving revenue early.

## **Next Steps**

We welcome views from any interested parties regarding the issues raised in this letter. We will use these to inform our determination of the opening asset value and our approach to adjusting historically allowed revenues. We anticipate publishing our decision in August 2015. If you have any queries regarding this consultation, please contact Thomas Johns ([thomas.johns@ofgem.gov.uk](mailto:thomas.johns@ofgem.gov.uk)).

Yours faithfully,



Kersti Berge  
Partner, Electricity Transmission

<sup>11</sup> <https://www.ofgem.gov.uk/publications-and-updates/decision-sp-transmission%E2%80%99s-request-amended-revenue-allowance-beaulieu-denny-project>

## Appendix 1 - TIRG Background

The TIRG mechanism was established in 2004 to fund transmission projects to connect renewable generation outside the price control process to minimise investment delays. It provides the three electricity transmission owners (TOs) with expenditure allowances for specific transmission reinforcement projects.

The various TIRG projects, including the B5 Boundary, can be broken down into four distinct phases:

<b>Pre-construction</b>	<b>Construction</b>	<b>Post-Construction<sup>12</sup> period</b>	<b>Regulated Asset Value period<sup>13</sup></b>
Period prior to construction	Period of construction. The length of the construction period is set out in the Licence with an annual revenue allowance set for each year.	Period of 5 years which begins one year after output is delivered	15 year period during which any savings are shared with consumers

The OAV sets the revenue for the post-construction period, which is designed to start the year after a project is commissioned. During this period, the TOs can retain the value of efficiency savings against the project's forecasted costs. This gives TOs an incentive to deliver projects efficiently. At the end of this period, any cost savings are shared with consumers. The TIRG final proposals and the published guidance note<sup>14</sup> for the mechanism provide further background on the intention behind the post-construction period.

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<sup>12</sup> In the licence this term is referred to as the 'incentive period'

<sup>13</sup> <https://www.ofgem.gov.uk/ofgem-publications/48279/glossary.pdf>

<sup>14</sup> A copy of the guidance note can be found here: <https://www.ofgem.gov.uk/ofgem-publications/56420/12320-27505.pdf>

## **Appendix 2 – Assessment of B5 project against the Opening Asset Value criteria**

The TIRG condition sets out that we will have regard to the following aspects of the project in determining a project's OAV. Set out below are justifications against each of these aspects:

### **1. Whether the final aggregate transmission investment expenditure set out in the post-construction expenditure report has been efficiently incurred**

SPT incurred final aggregate expenditure of £10.9 million for the B5 Boundary works. This compares to the £12.2 million which was the forecast expenditure. Given that the scope of works covered by the TIRG mechanism has not changed, we consider that the expenditure was appropriate to deliver the output measures, with the cost saving representing efficient delivery. Regarding the works undertaken at the Clydes Mill Substation, the SKM report confirms that the TIRG B5 Boundary scheme covered replacement of two 275kV switchgear bays and associated connections. All other works at the site were not categorised as expenditure on the TIRG project and were funded through SPT's price control allowance. We are minded to agree that project-specific costs that were incurred after the delivery of the project output were not outside of the original scope of the project.

### **2. The extent to which the licensee has complied with the output measures specified in Schedule C of the TIRG condition for the transmission investment project under consideration**

The Construction Completion Certificate provided as part of SKM's post-construction technical report certifies that SPT has completed the construction works necessary to fulfil its obligations for the B5 Boundary output measures.

SPT has argued that the condition of the insulator support at Clydes Mill substation was the sole reason for a delay in delivering the output, that it was outside of its control and could not have been anticipated. For this reason, SPT believes that it should not be penalised for the delay. We agree with SPT that the delay in the delivery of the outputs was directly attributable to the poor condition of the porcelain insulator supports at Clydes Mill substation. Work had to be put on hold until the conditions at the substation could be addressed. Also, once identified, we think, based on our review, that SPT used reasonable measures to mitigate the impact on output delivery. It installed temporary by-pass arrangements which allowed the output measures to be met in 2010-11, rather than slipping back a further year to 2011-12 with the rest of the project works. However our view is that SPT is responsible for the timely and efficient maintenance of its transmission assets, and is therefore also responsible for any project delays resulting from the condition of its assets. We therefore do not think it is appropriate to extend the construction period and consider that post-construction revenues should only be recovered the year after the output was delivered.

**3. Whether an adjustment has been made to the average asset value or the depreciation value for the transmission investment project during the construction period**

No adjustment was made to the average asset value or the depreciation value for the B5 Boundary project. Therefore our minded to position considers only the values specified in the licence.

**4. Any other information the Authority considers to be relevant to the determination**

In setting the OAV for a given project, the TIRG mechanism allows us to also consider any further information that we see as relevant to the project. Where project delays impose a detrimental impact on consumers (eg higher constraint costs) we consider this to be a relevant factor in our decision on the project's OAV.

In the specific case of the B5 project, we have reviewed information from both SPT and the system operator on how the delay in completing works at the Clydes Mill substation affected the level of constraints on the B5 boundary. Having reviewed this data, we found that there is no evidence to suggest that the financial impact on consumers of the delay was significant. We also consider that, once the issue at Clydes Mill was identified, SPT operated effectively and quickly to prevent further delay to the project's delivery. Most importantly, we consider that SPT was doing the right thing for consumers in bringing forward the works (ahead of the rest of the Beaully Denny project) in the first place. Therefore, we consider that our minded to position to not extend the construction period and withhold any project revenues from SPT for the duration of the delay is the appropriate measure to protect the interests of consumers for the delay to the delivery of the B5 project.



## Appendix 3 – Revenue impact of Option 1

**Table 1: Adjustment to start of post-construction period for the B5 boundary project applied to 2016-17 revenues**

Year (y)	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17
Revenue actually received:	0.154	0.790	1.548	1.522	1.472	1.454	1.403	1.353		
Revenue that should have been received:	0.154	0.790	1.548	0	1.522	1.472	1.454	1.403	1.353	
Annual correction to revenue in prior years	0.000	0.000	0.000	-1.522	0.049	0.019	0.050	0.050	1.353	0.000
Number of years between year of correction and 2016-17 (t)	9	8	7	6	5	4	3	2	1	
NPV timing adjustment factor	2.1	2.0	1.8	1.7	1.5	1.4	1.3	1.2	1.1	
Annual NPV adjusted over/ under recoveries	0	0	0	-2.524	0.075	0.026	0.065	0.060	1.472	
<b>OVERALL ADJUSTMENT TO 2016-17 ALLOWED REVENUE:</b>										<b>-0.826</b>

All revenue values are presented in £m 09-10 prices

The table above shows the methodology for calculating the level of adjustment to 2016-17 revenues that would be required under option 1 considered in this consultation. In each year the difference between the amount of revenue actually received, and the amount of revenue that should have been received is calculated. In the table above, these are referred to as the annual correction to revenues in prior years. These annual corrections are then uplifted by the prevailing rate of return used in the TIRG mechanism, 8.8%. The NPV timing adjustment factor<sup>15</sup> is used to ensure that the adjustments take into account the number of years between the year being corrected and the 2016/17 year in which the correction will be applied. Each of these resulting Annual NPV adjusted over/ under recoveries is then added together to reach the final adjustment of -£0.826m.

<sup>15</sup> Each annual correction is multiplied by the relevant year's NPV timing adjustment factor, which is derived from the following formula:  $NPV\ timing\ adjustment\ factor\ (in\ year\ y) = (1 + 0.088)^t$

#### **Appendix 4 – Further information on the Correction factor and how it works**

Within an individual year it is unlikely that a TO will recover exactly the revenue its licence allows for. For this reason, the calculation of total overall allowed revenue in part B of Special Condition 3A of SPT's licence includes the  $K_t$  term. This term operates as a "correction factor" to annual revenues for over/under recoveries in previous years. This "correction factor" rolls all historical over or under recovery into an adjustment to the current year's allowed revenue allowance. Depending on how far the collected revenue differs from SPT's allowed revenue, it adds on different levels of interest when consolidating the difference into the current year.

The  $K_t$  term operates through the revenue return model. This return is submitted on an annual basis by each Transmission Owner. It provides us with both the breakdown of each TO's allowed revenue for the year, and the level actually received from customers. The restatement of allowed TIRG revenues will alter SPT's historical under or over recovery position in the relevant years. The rolling correction factor will then automatically adjust SPT's forward-looking revenue allowances for 2016-17 to reflect the revenue received early.