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Dear Colleague,

Determination and Notice of Scottish Hydro Electric Limited's Transmission Investment for Renewable Generation asset value adjusting event for "Beaully-Denny"

This letter constitutes our determination in relation to Scottish Hydro Electric Limited ("SHEL's") Notice submitted under the Transmission Investment for Renewable Generation (TIRG) asset value adjusting mechanism in respect of the transmission investment project Beaully-Denny. The provisions governing SHEL's revenue allowance in relation to this transmission project are set out in its Special Condition J3 – Restriction of transmission charges: Transmission Investment for Renewable Generation, of its Electricity Transmission Licence ("the TIRG condition").¹ These include the provisions for varying the allowance levels, including through a "TIRG asset value adjusting event."

On 24 December 2010, SHEL submitted a Notice of a TIRG asset value adjusting event to recover the additional forecast construction costs on the Beaully-Denny project. SHEL estimated these additional costs amounted to £229.7 million² over the construction period from 2011/12 to 2015/16. This was additional to the existing total allowance of £245.2 million set out in the TIRG condition based on the 2004 forecast. On 20 May 2011, we published a consultation setting out our initial view on SHEL's Notice. We received five responses to our consultation and all non-confidential responses were published on our website.

Our determination is that a TIRG asset value adjusting event has occurred and that the value of the adjustment is £212.6m. This is £17.1 million lower than SHEL's Notice. This letter also sets out reasons for our determination.

Background

The TIRG mechanism

We put the TIRG mechanism in place in 2004³ to provide the three transmission licensees with revenue allowances to connect renewable generation that was not forecast at the time the relevant transmission price controls were set. It includes explicit expenditure allowances for specific projects for each of the transmission licensees. Given the uncertainty around the design and cost of these projects, we provided

¹The relevant licence provisions are summarised in Appendix 1. For a copy of this licence condition please see the following link: http://epr.ofgem.gov.uk/document_fetch.php?documentid=15847

² All cost items in this document, unless stated otherwise, are in 2004/05 prices.

³ For more information on the TIRG final proposals please see: <http://www.ofgem.gov.uk/Networks/Trans/Archive/TPCR4/ConsultationDecisionsResponses/Documents1/9139-28804.pdf>

flexibility in the mechanism for the Authority to consider amending the revenue allowances up or down under defined circumstances.

The TIRG mechanism requires the licensee to give notice to the Authority of a TIRG asset value adjusting event where relevant amendment to the scope of construction work is expected to cause additional costs or savings to be incurred. In order to vary their ex ante revenue allowances during the construction period through a TIRG asset value adjusting event, the licensee is required to give notice of such an event to the Authority as soon as is reasonably practicable after it has occurred and in any event prior to the TIRG relevant year when construction of the project commences.

The licensee's TIRG allowances are subject to an ex post adjustment at the end of project's construction period in order to determine the revenue allowances during the subsequent five years. In order for such an ex post adjustment to be made, the requirements of the TIRG condition must be met including the relevant supporting documentation requirements and consultation with the licensee and relevant parties. The TIRG condition requires the licensee to demonstrate that, at the time of project's completion, the final aggregate investment expenditure for the project has been efficiently incurred in order for it to be included in the opening asset value.

Changes allowed in a TIRG asset value adjusting event are based on the best information available at the time, whereas further adjustments to the revenue allowance could be made, up or down, in the subsequent steps when further evidence becomes available. Therefore, as with other regulatory funding mechanisms such as price controls, the licensee is expected to share some risks of potential cost fluctuation.

The Beaully-Denny project

The upgrade of the existing 132kV transmission line to 400kV between Beaully in the north of Scotland and Denny in central Scotland is the largest project covered by the TIRG mechanism and lies primarily within SHETL's transmission area. Scottish Power Transmission Limited (SPTL) is responsible for building the southern part of the line in its transmission area.

On 28 September 2005, SHETL and SPTL applied for planning consent to install a double circuit 400 kV overhead transmission line from Beaully to Denny. Given the length and voltage of the proposed line and that it would pass through a number of cultural and historical sites, the application attracted significant local interest. Following receipt of objections from statutory consultees, the planning application was referred to public inquiry in February 2007. The inquiry reporters submitted their final report to the Scottish Government on 19 February 2009. Following consideration of this report, the Scottish Government granted planning consent for the Beaully-Denny line on 6 January 2010. The consent included conditions in relation to mitigation of the visual and environmental impact of both the line itself and additional electrical equipment along the route.

In March 2010 SHETL submitted notice of a TIRG asset value adjusting event in respect of TIRG relevant year $t=0^4$ (2010/11).⁵ SHETL did not consider it was able to finalise the overall scope of works, and hence capital cost, of the Beaully-Denny project until the work necessary to satisfy the key consent conditions had been undertaken. To allow this to occur, SHETL asked the Authority to extend the deadline for submission of a TIRG asset value adjusting event notice for the remaining years of construction ($t=1$ to $t=n^6$,

⁴ $t=0$ means the relevant year in which construction of the project commences.

⁵ The Authority's determination in relation to this TIRG asset value adjusting event can be found at: http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/CriticalInvestments/TIRG/Documents1/SHETL%20B-D%20AVAE%20notice%20determination_FINAL.pdf

⁶ $t=0$ to $t=n$ means the construction period and $t=n$ means the relevant year in which the project is commissioned.

2011/12 onwards) to 31 December 2010. The Authority agreed to this request on 28 May 2010.⁷

SHETL's TIRG asset value adjusting event notice – Beaulieu-Denny

On 24 December 2010, SHETL submitted to the Authority a notice of a TIRG asset value adjusting event it considered had occurred in respect of the transmission investment project Beaulieu-Denny. In that notice, SHETL considered that its forecast construction cost for the project had risen from £245.2 million forecast in 2004 to £474.3 million. SHETL cited the planning consent conditions imposed, legislative change and the technical, engineering and planning constraints identified during pre-construction work as the drivers for the cost rise. Furthermore, SHETL considered that project delay caused by the public inquiry and the subsequent obligation to comply with the consent conditions had resulted in an amended delivery date for the project, from 2013/14 as currently set out in the TIRG condition, to 2015/16.

The May 2011 Consultation

We published an open letter consultation on SHETL's asset value adjusting event Notice on 20 May 2011.⁸ The consultation detailed our approach to considering the Notice, summarised the findings from the independent technical advisor Sinclair Knight Merz (SKM) which we published alongside the consultation⁹ and set out our initial view.

The consultation set out our consideration that based on SHETL's submission and SKM's findings, the funding request constituted an asset value adjusting event as specified in the TIRG condition. The consultation further considered whether the value of the adjustment should be lower than the amount requested by SHETL suggesting an initial view of a reduction of £17.1m to account for cost provisions made in SHETL's notice where we considered the supporting information had not demonstrated meeting the relevant criteria.

Responses to the May 2011 consultation

Ofgem received five responses to the May consultation.¹⁰ SHETL have also provided additional commercially sensitive information for our consideration.

Most respondents expressed concerns regarding the forecast cost increase. One party, who responded confidentially, questioned whether the most economic approach was adopted for the project. However, the majority of respondents recognised the need for construction to progress in a timely manner for the project to realise benefits for consumers. A more detailed summary of the consultation responses is provided in Appendix 2.

After careful consideration of the responses and the additional information provided by SHETL, we consider that no new material evidence has come to light following our May consultation.

⁷ The Authority's notification can be found at the following link:
<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/CriticalInvestments/TIRG/Documents1/EXTENSION%20OF%20THE%20DEADLINE%20FOR%20NOTIFICATION.pdf>

⁸ For a copy of the May 2011 consultation, please see the following link:
<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/CriticalInvestments/TIRG/Documents1/SHETL%20B-D%20AVAE%20notice%20consultation%20final%20for%20publication.pdf>

⁹ Public version of SKM's report where all commercially sensitive content has been removed is available at:
<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/CriticalInvestments/TIRG/Documents1/BD%20Asset%20Value%20Event%20SKM%20Report%20Ofgem%20Public.pdf>

¹⁰ All non confidential responses are published at the following location:
<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=50&refer=Networks/Trans/ElecTransPolicy/CriticalInvestments/TIRG>

Licence Condition Requirements

In accordance with the TIRG condition, for the Authority to determine that a TIRG asset value adjusting event has occurred, we must be satisfied that three key criteria have been met:¹¹

1. That the costs in the licensee's notice are expected to result in a **material increase** or decrease to the average asset value for the relevant years $t=0$ to $t=n$ compared to the existing allowance.
2. That the costs are expected to be **incurred or saved efficiently**.
3. That the costs **cannot otherwise be recovered** under the TIRG revenue allowance provided under the TIRG condition.

Where the Authority determines that a TIRG asset value adjusting event has occurred, it must be satisfied that the transmission investment project will remain economically efficient as a consequence of that event.

Reasons for the Authority's determination

We consider the additional construction cost associated with the Notice to be material for the purpose of determining whether a TIRG asset value adjusting event has occurred.

Following consideration of the Notice, SKM's assessment and consultation responses, we consider the Notice overall meets the TIRG efficiency criterion. However, having carefully assessed further information submitted by SHETL and having considered responses, we consider that the value of the TIRG asset value adjusting event should be £212.6m. This is £17.1 million¹² lower than the amount requested by SHETL and accounts for the cost provisions made in SHETL's notice where we consider the supporting information does not demonstrate meeting this criteria. These are set out below:

- *Contractor incentive mechanism, uncertain costs resulting from contractor performance and other uncertain contractor costs:* We do not consider that an ex ante allowance should be provided for the potential liability under the contractor incentive mechanism and other uncertain costs resulting from contractor performance. We consider that any potential cost escalation due to factors that are under SHETL's control should be borne by SHETL during the construction period. Likewise, we consider that contractor costs that are not related to the Beaulieu-Denny project do not meet the criterion.
- *Allowance for uncertain costs associated with land access:* We do not consider it appropriate to provide an ex ante allowance for this low probability event.
- *Changes in foundations:* We consider that the proportion of this provision that SKM consider overly conservative for the project does not meet the criterion.
- *Allowance for small aggregate contract:* We do not consider an ex ante funding is appropriate where SHETL have not provided sufficient evidence to demonstrate that these costs would be efficiently incurred.

Should these, or any other costs not included in SHETL's notice occur, we will reconsider their treatment at the end of project's construction period as stipulated in the TIRG condition. Any such cost could potentially be included in the post-construction opening asset value if SHETL demonstrate that they were efficiently incurred and if considered beyond the level SHETL is expected to bear in line with the allowed return provided for

¹¹ Appendix 1 summarises the relevant licence provisions relating to TIRG asset value adjusting events.

¹² In 2004/05 prices. These amount to £20.2 million in 2010/11 prices.

in the TIRG mechanism. Finally, we will monitor the spend related to these allowances through SHETL’s annual construction expenditure report submissions as stipulated in the TIRG relevant condition.

The revised costs of the project cannot be recovered under the terms of the TIRG revenue allowance in an alternative way. The increase in construction costs can only be recovered by revising the construction period average asset value, thereby triggering a revenue adjustment. Consequently, we confirm that the third criterion is met.

We have reviewed the cost benefit case for the Beaully-Denny project in light of forecast cost increase and are satisfied that the project will remain economically efficient notwithstanding this TIRG asset value adjusting event.

The Authority’s determination

In consideration of its principal objective and general duties, the Authority has carefully considered the information before it, including the Notice and other relevant information submitted by SHETL, the responses to the May 2011 consultation and all other relevant information. The Authority is satisfied that all relevant criteria and requirements set out in the TIRG condition have been met. For the reasons set out above, and in accordance with paragraph 6 of the TIRG condition, the Authority determines that a TIRG asset value adjusting event has occurred and the asset value adjustment allowance for transmission investment project Beaully-Denny shall take the value of £212.6m for the period from 2011/12 to 2015/16 (in 2004/05 prices) and that the value of the asset adjusting event term (represented by $AFFTIRGC_t$ in the TIRG condition) and the adjustment to the depreciation during construction (represented by $AFFTIRGDepn_t$) for the relevant TIRG years take the values set out in the following table:

Table 1 – adjustment to the average asset value in Schedule C of the transmission licence

Project costs (£ 000) 2004/05 prices	t = 1	t = 2	t = 3	t = 4	t = n
Relevant year	2011/12	2012/13	2013/14	2014/15	2015/16
Adjustment to the average asset value during construction period ($AFFTIRGC_t$)	-1,034	16,600	77,001	149,640	187,442
Adjustment to the depreciation during construction ($AFFTIRGDepn_t$)	-30	-75	1,729	6,047	9,381

The Authority is satisfied that the asset value adjustment allowance determined is such as to ensure that the financial position and performance of the licensee is, insofar as is reasonably practicable, the same as if the TIRG asset value adjusting event had not occurred.

This letter also constitutes Notice for the purposes of the TIRG condition.

Yours faithfully,

Hannah Nixon
Acting Senior Partner, Smarter Grids and Governance: Transmission
For and on behalf of the Authority

Appendix 1 – Relevant Licence provisions

The following paragraphs summarise the relevant licence provisions relating to TIRG asset value adjusting events. The full provisions of the licence can be found on Ofgem's website in the electronic public register.¹³

TIRG Asset Value Adjusting Events

SLC J3 of SHETL's electricity transmission licence sets out the TIRG asset value adjusting event provisions. Paragraph 6 of SLC J3 sets out that a TIRG asset value adjusting event means relevant additional preconstruction works or a relevant amendment to the scope of construction works that the Authority is satisfied is expected to cause costs and/or expenses to be incurred or saved in relation to a specific transmission investment project, provided such costs and expenses:

1. Are expected to result in a material increase or decrease to the average asset value for the relevant years $t=0$ to $t=n$;
2. Are expected to be efficiently incurred or saved; and
3. Cannot otherwise be recovered under the existing TIRG revenue allowance.

Where the licensee considers, and can provide supporting evidence that a TIRG asset value adjusting event has occurred, it shall give notice of that event to the Authority as soon as is reasonably practicable, together (unless otherwise agreed by the Authority) with the particulars required by the licence. Following consideration of the notice and supporting documentation, and after consultation with the licensee and relevant parties, the Authority will determine whether such an event has occurred and determine what the asset value adjustment ($AFFTIRG_t^i$) should be, either the amount requested by the licensee, or a different amount, at its discretion. In addition, the depreciation calculation for the relevant project will be affected by any adjustment to the asset value, such that the associated depreciation term ($AFFTIRGDepr_t^i$) would also need to be adjusted via an Authority determination.

Determination by the Authority that a TIRG asset value adjusting event has occurred and the amount of the adjustment does not involve an amendment to the licence condition. To give effect to any income adjustment, the Authority must determine the value of the $AFFTIRG_t^i$ and $AFFTIRGDepr_t^i$ terms in the licence, but the values that they take do not appear within the licence. Therefore, there is no change to the content of the licence and consequently no requirement to invoke the statutory modification procedure. When a determination is made, the Authority must publish a notice stating the income adjusting allowance, giving reasons for the determination.

Future licence changes

In addition to the changes described above, in the event that the adjustment is approved by the Authority, subsequent licence changes will be necessary for the period following construction, in accordance with the provisions of the TIRG revenue restriction in the transmission licence.

The annual TIRG revenue restriction for relevant year t , for relevant project i is the sum of the following revenue streams:

1. $IPTIRG_t^i$ – representing the annual preconstruction and contingency revenue allowance for the relevant TIRG project for relevant years $t=p$ to $t=-1$;

¹³ Please see the following link: http://epr.ofgem.gov.uk/document_fetch.php?documentid=15847

2. $TIRGI_{t}^{i}Ad$ – representing the sum of one or more preconstruction and contingency revenue allowance adjustments for a TIRG income adjusting event as determined by the Authority;
3. $FTIRG_{t}^{i}$ – representing the annual construction revenue allowance for the relevant TIRG project for the period between relevant year $t=0$ to $t=n$;
4. $ETIRG_{t}^{i}$ – representing the annual incentive revenue allowance for the relevant TIRG project for relevant years $t=n+1$ to $t=n+5$, and
5. $ATIRG_{t}^{i}$ – representing actual annual revenue allowance for the relevant TIRG project for relevant years $t=n+6$ to $t=n+20$.

The average asset value adjustment ($AFFTIRG_{t}^{i}$) and the adjustment to depreciation value for the TIRG project during construction ($AFFTIRGDepn_{t}^{i}$) terms are components of the $FTIRG_{t}^{i}$ term above and apply during the construction period only.

Consequently, further adjustments will need to be made to the post-construction revenue terms, $ETIRG_{t}^{i}$ and $ATIRG_{t}^{i}$. These adjustments are effected by altering the average asset value for the life of the assets such that any return and depreciation is calculated on the correct basis for the post-construction period.

To do this, the Authority needs to determine the value of the adjustment factor to the average asset value for the relevant transmission project, represented by the term $SAFRTIRG^{i}$ (a component of $ETIRG_{t}^{i}$). This adjustment factor amends the asset value in accordance with the Authority's determination of $AFFTIRG_{t}^{i}$. However, the $SAFRTIRG^{i}$ term is only relevant for the first five years after the project is completed (from relevant years $t=n+1$ to $t=n+5$). The Authority would not need to direct any change to $SAFRTIRG^{i}$ until after the relevant post-construction report has been received from the transmission licensee. Hence any determination of $SAFRTIRG^{i}$ will not take place as part of this determination process, but will follow upon completion of the project.

In addition to determining a value for $SAFRTIRG^{i}$, the Authority would also need to determine a value for post construction revenues to apply to subsequent relevant years following relevant year $t=n+5$. The asset life agreed for the TIRG projects is 20 years, hence a determination for relevant years $t=n+6$ to relevant year $t=n+20$ is made using the $ATIRG_{t}^{i}$ term in the licence. The Authority would therefore need to determine the value of the actual annual revenue allowance, $ATIRG_{t}^{i}$, which will enable efficiently incurred costs to be recovered by the licensee, and is required under the licence to do so by relevant year $t=n+5$.

If the Authority makes a determination that an asset value adjustment has occurred, the Authority will also need to publish further determinations for the purposes of revising $ETIRG_{t}^{i}$ and $ATIRG_{t}^{i}$ to reflect the revised post-construction revenue streams in due course.

Appendix 2 – Summary of May 2011 consultation responses¹⁴

Most of the respondents expressed concerns regarding the forecast cost increase. One respondent noted that a different decision might have been made concerning undergrounding of certain sections of the line had the changes in costs been realised at the time. Another party who responded confidentially questioned whether the most economic approach was adopted for the project.

There was broad support for the Beaulay-Denny project where several respondents noted the impact of the potential project delays on consumers. One respondent in this group stressed the project's importance for the development of the transmission network in Scotland and highlighted the influence of its forecast completion date on the anticipated system operation costs. Likewise, another noted the scrutiny the project has already endured and stressed the importance of a quick funding decision to prevent further constraint costs to consumers.

One respondent commented that the publication of SKM's report allowed them to see sufficient detail of the assessment and considered their report to be comprehensive. However, another noted the need for a few detailed examples of actual increase applied to the original priced items to be provided despite these being commercially sensitive.

One respondent commented that it is important that SHETL be fully funded for all necessary and efficient costs. Another respondent considered it appropriate for the risk associated with the contractor incentive mechanism to be borne by SHETL. This respondent further noted that such ex ante allowances dilute incentives and prevent consumers from benefiting from good management. On the other hand, another respondent questioned the contractor incentive mechanism being disallowed as they believed that it has the potential to deliver the best cost outcome.

¹⁴ All non confidential responses are published at the following location:
<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=50&refer=Networks/Trans/ElecTransPolicy/CriticalInvestments/TIRG>