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Dear Colleague,

Transmission Investment Incentives: update on Western HVDC Link ("Western Bootstrap")

The electricity Transmission Owners' (TOs) strategic investment programme for accommodating the anticipated significant growth of renewable generation in Scotland includes a subsea "**bootstrap**" running down the west coast, referred to as the **Western HVDC link**. The estimated costs of the Western HVDC link are around **£1 billion**, and it could deliver significant additional capacity (~2GW) for North-South transfers. It is being developed jointly by National Grid Electricity Transmission (NGET) and SP Transmission Ltd (SPTL). NGET and SPTL are currently working towards delivery of the Western HVDC link in 2015¹ and plan to award construction contracts later this year. The two licensees requested construction funding² from 2011-12 under our Transmission Investment Incentives (TII)³ framework. On 1 August 2011⁴ we set out, for consultation, the Authority's minded-to position on funding of the Western HVDC link.

The **purpose of this letter is to provide an update on our position on funding of the Western HVDC link**, taking into account responses to the consultation and further work conducted since August. Specifically:

- **The Authority has maintained the minded to position previously set out in our August 2011 consultation** (and restated below), while noting the progress made against certain conditions attached to that position.
- In doing so, **the Authority has concluded that there is a case for delivering the link in 2015**, ie that there is a consumer benefit from the project and that it supports the proposed timing of the link.
- **The focus of our ongoing project assessment going forward will be on issues relevant to the determination of the specifics of funding.**

¹ This timing is in line with the original target delivery timescales envisaged when this project was first put forward in 2009, and reflects the earliest possible delivery date taking lead times into account.

² By "funding under TII" we mean to allow efficient cost recovery via a revenue stream calculated under the relevant provisions of the TII framework.

³ The TII framework is set out in Special Condition D11 of NGET's licence and Special Condition J12 of the licences of SPTL and Scottish Hydro Electric Transmission Ltd (SHTL). Its purpose is to provide project-specific, interim funding (for each year up to the next price control period) for critical large-scale investments that the TOs identify are required to support achievement of the Government's 2020 renewable energy targets.

⁴ "Transmission Investment Incentives: consultation on minded-to position for the Western High Voltage Direct Current (HVDC) link ("Western Bootstrap")", Ref: 94/11, 1 August 2011:

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=10&refer=Networks/Trans/ElecTransPolicy/CriticalInvestments/InvestmentIncentives>

- However, **the Authority's final funding decision will remain subject to a successful outcome on the conditions attached to the minded-to position and no material escalation in expected costs.**

The remainder of this letter sets out further detail on:

- the minded-to position set out in our August consultation
- the progress made since then on the conditions attached to that minded-to position, including our latest findings from our ongoing project assessment and an update on licensing issues
- our expected way forward towards reaching a final funding decision.

The Authority's minded-to position set out in August 2011

As set out in our August 2011 consultation, the Authority reached a **minded-to position to allow efficient cost recovery under TII for construction works on the Western HVDC link from 2011/12, 'in principle', subject to the following conditions:**

- a) consideration of responses to our August 2011 consultation
- b) a positive conclusion from our ongoing project assessment
- c) successful resolution of relevant licensing issues
- d) successful resolution by the TOs of any licensing issues with the relevant authorities of Northern Ireland and Isle of Man, and any planning consents
- e) statutory consultation on the relevant licence modifications to give effect to the Authority's final decision.

Our August consultation also noted that relevant aspects of our ongoing project assessment (condition b above) include:

- our final assessment of the case for delivering the Western HVDC link in 2015, following an updated review of need case, scope and timing of the overall project
- no material escalation in expected costs of the specific construction works⁵ to which the funding request relates
- confirmation by the TOs of firm plans for those works and demonstration of their readiness to proceed with those plans in 2011-12
- determination of annual ex-ante funding allowances for 2011-12 and 2012-13, in line with our view of efficient costs of those works, which (a) take account of planned expenditure, and (b) can be linked to deliverables which reflect planned milestones and forecast output measures
- consideration of appropriate risk sharing arrangements between the TOs and consumers.

Update on progress made against conditions attached to the minded-to position

Condition a: Consideration of responses to our August 2011 consultation

We received three responses to our August 2011 consultation, none of which were confidential. All three respondents were supportive of the Authority's minded-to position and our proposed way forward. One respondent supported maintaining a delivery date of 2015, while agreeing that the conditions attached to the minded-to position were appropriate and seeking early notice of the potential impact on transmission charges. Two respondents were keen to see progress in developing appropriate licensing arrangements.

We welcome the views of respondents, and will continue to take the issues raised into account in our ongoing work to consider the funding request for the Western HVDC link and the appropriate licensing arrangements for this and other similar projects.

⁵ These relate to the HVDC component of the link, identified as item a in paragraph 1.4 of Annex 1 our August 2011 consultation.

Condition b: A positive conclusion from our ongoing project assessment

As set out in our August 2011 consultation, consultants SKM were appointed to undertake an independent review of the TO submissions and to set out recommendations to Ofgem to inform our project assessment. The minded-to position set out above took into account the first stage of SKM's review, completed in July, which informed our initial assessment of the case for delivering the link in 2015. The Authority's minded-to position is subject to a positive conclusion from all relevant aspects of our ongoing project assessment as set out above.

In the second stage of its review, SKM has considered each of these areas so far as possible based on the information available from the TOs. Given the commercially confidential nature of much of this information, SKM has prepared a separate public version of its report alongside the full report to Ofgem. The public version of SKM's Stage 2 report is published alongside this letter, and SKM's findings are discussed in more detail in Appendix 1.

We have taken SKM's findings into account, alongside our own review of the TO submissions, in updating our project assessment as follows:

- **We have sufficient information at this stage to conclude on the case for delivering the Western HVDC link in 2015:** The TOs have provided updated cost estimates based on the link capacities at the maximum and minimum of the range under consideration in the tender evaluation process. These have been used in the updated Cost Benefit Analysis (CBA) which also includes further analysis using alternative assumptions as to market bidding behaviour, in order to further test the robustness of the need case and proposed timing of the link. The available evidence indicates a low stranding risk and a positive lifetime net benefit in all cases⁶, although as previously noted in our August 2011 consultation the scale of those benefits and in turn optimal timing⁷ are sensitive to input assumptions. Recognising that other factors highlighted in our August 2011 consultation, including supply chain issues, are also relevant, we still think that on balance the risks to consumers are likely to be greater if the investment is delayed than if the link is delivered ahead of need. **Overall, we consider there remains a strong case for enabling the TOs to maintain their current planned programme.**
- **The remaining aspects of our project assessment will require further review as the TOs firm up their plans, and this will be an input to consideration of the specifics of funding with reference to those plans:** At the time of completion of SKM's review, the TOs' were broadly on track with their planned programme but were still to finalise firm plans for the link, agree final costs and construction timetable with the successful bidder(s) and finalise the terms of contract award. While there have been some delays in key milestones since completion of SKM's review, the TOs consider that these are not critical to their maintaining the ability to deliver the link in line with their current planned programme. The latest information on costs and designs remain commercially confidential as the TOs' tender evaluation process is ongoing and we will be unable to judge whether there has been a material escalation in costs until negotiations reach the Best and Final Offers (BAFO) stage. **Overall, at this stage we have insufficient information to undertake a detailed cost assessment and to determine, where appropriate, annual ex-ante funding allowances, deliverables and risk sharing arrangements.**

Based on the information currently available to us, we have reached a positive conclusion on the case for delivering the link in 2015, but we are not currently in a position to conclude on the remaining aspects of our project assessment.

⁶ Stage 2 CBA gave estimated net lifetime benefits in the approximate range one to four billion pounds for the Slow Progression and Gone Green scenarios used in the Stage 1 CBA. This range reduces to around £0.5 billion to £2.5 billion when varying the input assumptions regarding market bidding behaviour, to stress test the CBA.

⁷ Under the Slow Progression scenario, the optimal timing may be later than 2015.

Therefore, the focus of our ongoing project assessment going forward will be on issues relevant to the determination of the specifics of funding, although this is subject to timely receipt of relevant information from the TOs as they firm up their plans. We will liaise with the TOs regarding our information requirements to inform this further work.

Condition c: Successful resolution of relevant licensing issues

The Western HVDC link as currently proposed will form part of the onshore transmission system and connect one part of GB to another. The proposed route of the HVDC cable runs from its northern connection point in SPTL's transmission area to its southern connection point in NGET's transmission area, via an undersea corridor which extends outwith the current authorised transmission areas of both SPT and NGET. Part of the route of the undersea cable passes through UK territorial waters adjacent to Northern Ireland (NI) and the Isle of Man. Both of these areas are outwith GB, its territorial waters and the Renewable Energy Zone (REZ). Therefore we have been considering the licensing arrangements and any necessary amendments. Our minded-to position is subject to successful resolution of these issues.

We are satisfied that the Authority is able to licence the TOs with respect to the Western HVDC link, subject to appropriate changes to the transmission licence. We are considering the detail and timing of these licence changes and currently envisage modifications to the Transmission Area and/or Specified Area. We will provide an update on this separately.

Condition d: Successful resolution by the TOs of any licensing issues with the relevant authorities of Northern Ireland and Isle of Man, and any planning consents

The ability of the TOs to proceed to construction works is subject to their obtaining the necessary planning permission and construction consents from all of the relevant authorities with jurisdiction on the proposed route of the Link, and where applicable addressing any licensing issues with the authorities of Northern Ireland and the Isle of Man. Our minded-to position is subject to successful resolution of these issues by the TOs.

The TOs have advised us that they have received confirmation that transmission licences are not required from the relevant authorities of Northern Ireland and Isle of Man.

The TOs have also confirmed that all outstanding consents applications had been submitted as of 13 October 2011 with decisions on those applications currently expected around late December 2011. In light of this, the TOs have updated their programme slightly and currently plan to reach contract award stage in early January 2012. The TOs have confirmed that this update to their programme is not anticipated to materially affect the planned timescales for delivery of the Western HVDC link.

Condition e: Statutory consultation on the relevant licence modifications to give effect to the Authority's final decision

Any funding decision made under TII is subject to statutory consultation on proposed licence changes to give effect to that decision. For the potential licence changes to take effect, without retrospective application, from 1 April 2012 it is anticipated that the statutory consultation would need to be issued in early January 2012 or sooner.

As noted above, our work to consider the specifics of funding for the Western HVDC link is subject to the timely provision of further information by the TOs as they firm up their plans. While we will seek to complete this work as soon as we can, we envisage that this aspect of our project assessment may be ongoing as of early January 2012 given that some information may not be available until the contract award stage. We may therefore be unable to conclude our consideration of all aspects of condition b (see page 2) attached to the minded-to position by early January 2012.

Noting the Authority's minded-to position set out above, and taking into account the timing issues noted above, we anticipate that there may be a need to make retrospective provision for funding for the Western HVDC link for the financial years 2011-12 and 2012-13 in line with the Authority's final decision on funding. We are continuing to consider the appropriate way forward for this issue.

We note that the TOs took account of potential provision of funding for the Western HVDC link in specifying the revenue forecasts used for the purposes of setting transmission charges for 2011-12. Therefore we do not expect retrospective provision of funding for the financial year 2011-12 to have a material impact on the level of transmission charges for that year.

Next steps

As noted above, the Authority has maintained its previous minded-to position as set out in the August 2011 consultation and reached a positive conclusion on the case for delivering the Western HVDC Link in 2015.

We will provide a separate update on licensing issues (condition c above). We will also provide a further update on the remaining aspects of our ongoing project assessment (condition b above) at a later stage following further review of the TO's latest plans.

The Authority's final funding decision will remain subject to a successful outcome on any outstanding conditions attached to the minded-to position, and no material escalation in expected costs. It is also subject to statutory consultation on the relevant licence changes.

Any questions on this document should be directed, in the first instance, to Cheryl Mundie (e-mail: cheryl.mundie@ofgem.gov.uk, tel: 0141 331 6003) or to Simon Cran-McGreehin (e-mail: simon.cran-mcgreehin@ofgem.gov.uk, tel: 020 7901 7440).

Yours sincerely,

Hannah Nixon

Acting Senior Partner – Smarter Grids & Governance: Transmission

Appendix1: Outline of SKM's Stage 2 Review

SKM's report "Independent Review of Funding Request for Western HVDC Link, Stage 2 Public Report" is attached as a separate document. The scope and key findings from SKM's Stage 2 review are summarised below.

Annex 3 of our August 2011 consultation noted the areas in relation to which the TOs were asked to provide submissions for our ongoing project assessment, and outlined the key issues for SKM's Stage 2 review of those submissions.

TO submissions

The TOs provided an initial submission on 11 July 2011 and later supplemented this with further information in response to queries as well as updates on progress in the tender evaluation process and other work to develop the project to the contract award stage. The TOs also provided an updated Cost Benefit Analysis (CBA) with further results for the Slow Progression and Gone Green scenarios (as previously considered in Stage 1). The updated analysis used the latest available cost estimates based on the link capacities at the maximum and minimum of the range under consideration in the tender evaluation process. It also used a range of assumptions as to market bidding behaviour, in order to further test the robustness of the need case and proposed timing of the link.

SKM's findings

SKM has maintained its previous conclusion that although the need for the Western HVDC link by 2015 would depend on relevant future generation developments, the proposed timing is appropriate on balance in view of the costs of delivering the project behind of need as compared to ahead of need.

SKM is also satisfied that the programme generally appears to be on schedule while highlighting that some uncertainty remains, including around link capacity and costs, as the TOs continue to finalise their plans through the ongoing tender evaluation process and progression of planning consents and land purchase. SKM also noted that while some risks remain with the potential of affecting contract award, the TOs are working to manage and resolve these risks.







The findings from SKM's Stage 2 review are summarised by the following "traffic light" indicators in line with the approach adopted in previous consultancy reviews⁸ under TII:

In respect to the overall Western HVDC link project:

Scope	Need (by Dec2015)	Timing
		

Note: 'Need (by 2018)' is green under all scenarios and sensitivities.

In respect to the specific works for which funding is requested, ie HVDC component:

Deliverability	Design	Costs
 	 	 

⁸ More details of the traffic light ratings used in previous consultancy reviews are given in Appendix 3 of "Transmission Investment Incentives: supplementary document to decision letter of 21 January 2011", March 2011: <http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/CriticalInvestments/InvestmentIncentives/Pages/InvestmentIncentives.aspx>.