

Transmission licensees,
generators, suppliers, consumer
groups and any other interested
party

Date: 15 November 2013

Dear colleague

Decision on the proposed Kintyre-Hunterston reinforcement, under the electricity transmission price control, RIIO-T1, Strategic Wider Works (SWW) arrangements

This letter sets out the Authority's decision on the proposed reinforcement of the transmission system around the Kintyre peninsula in the South West of Scotland (the Kintyre-Hunterston project) which was submitted by Scottish Hydro Electric Transmission plc (SHE Transmission). This is our **decision (subject the relevant licence modification proposals)** on the transmission project proposal following our consultation on the Project Assessment¹, which we published on 24 July 2013. The reinforcement project is designed to deliver a SWW output of 270MW² of additional transmission capacity, it is expected to cost £197.4³ million (in 2013 prices), and is planned to be completed in 2016.

Taking into account the evidence submitted by SHE Transmission, our analysis of both the Needs Case and the Project Assessment, our consultants' views and points raised in response to our July consultation, the Authority has decided:

- To make a decision on the appropriate increase in Allowed Expenditure and SWW output at this time, subject to consideration of a request by SHE Transmission for a potential modification to the Transmission Area specified in its licence. The decision on the SWW Output and Allowed Expenditure is also subject to a licence modification proposal (to insert these into SHE Transmission's SWW licence condition).
- To require SHE Transmission to deliver a SWW Output from the project of 270MW additional transmission capacity across the B3 transmission boundary in the South West of Scotland in the final quarter of 2015/16.
- To increase SHE Transmission's Allowed Expenditure in the price control, RIIO-T1⁴, by £197.4 million (in 2013 prices). This is £15 million less than the amount requested by SHE Transmission in its initial submission. A reduction of £6 million

¹ <https://www.ofgem.gov.uk/publications-and-updates/consultation-our-project-assessment-under-riio-t1-strategic-wider-works-arrangements-proposed-kintyre-hunterston-reinforcement>

² Boundaries are used to split the transmission system into different areas in order to assess and report on system capability.

³ The £197.4 million figure is our final assessment of the efficient costs of delivering the project and associated SWW Output. SHE Transmission's initial project cost estimates were £212.4 million. Following our July consultation, SHE Transmission reduced these to £203 million due to cost savings in the final contracts placed with its suppliers for the project. These figures relate to the SHE Transmission aspects of the project only.

⁴ The RIIO-T1 price control sets out the outputs that the electricity and gas transmission network companies need

to deliver for their consumers, and the associated revenues they are allowed to collect, for the eight-year period from 1 April 2013 until 31 March 2021.

was due to cost savings in SHE Transmission's final contract negotiations with its suppliers. An additional £9 million reduction is due to our alternative treatment of risk and uncertainty to that proposed by SHE Transmission.

We set out further detail of our decision below, as follows:

- First, we summarise the general background on the proposed reinforcement, the SWW arrangements, our "minded-to" decision on the Needs Case and consultation on the Project Assessment.
- Next, we summarise our assessment of the project, including the SWW Output and Allowed Expenditure adjustment and the reasons for treating risk and uncertainty differently to SHE Transmission's proposals.
- In addition, we set out the further consideration that is required on SHE Transmission's request to modify the Transmission Area in its Electricity Licence.
- We then outline our decision and reasons.
- Finally, we set out the next steps in the process.

Background

On 8 January 2013, SHE Transmission submitted a Needs Case to us for a proposed reinforcement of the B3 boundary (Argyll and Kintyre peninsula) to allow the export of additional renewable generation in the area. The proposed reinforcement would deliver an SWW Output of 270MW⁵ of additional capacity. The proposed project,⁶ which SHE Transmission estimated in its submission to cost around £205 million, and is planned to be completed in 2016, comprises:

- 2 x 220kV 240MVA AC subsea cables from Crossaig to SP Transmission Ltd's (SPT) existing substation at Hunterston.
- A new 132/220kV substation, including Quad Boosters, at Crossaig.
- Construction of 13km of new 132kV double circuit overhead line between Crossaig and Carradale (and dismantling of the existing 132kV overhead line).

The proposed reinforcement is largely located in SHE Transmission's licensed Transmission Area but 3.5km of cable and associated substation works are located in SPT's licensed Transmission Area⁷ at Hunterston. SPT will be completing the required works in its licensed Transmission Area and SPT's share of the works has been included in its RIIO-T1 baseline allowance, and therefore will not be subject to the SWW arrangements.

As part of the RIIO-T1 price control, which took effect from 1 April 2013, we put in place arrangements for considering and determining potential Allowed Expenditure adjustments during the price control period to enable the delivery of SWW Outputs that significantly increase transmission capacity.⁸ To put forward a project for consideration under the SWW arrangements⁹ the Transmission Owner (TO) must provide notice under Special Condition 6I of the Electricity Transmission licence, showing that the proposal meets certain eligibility criteria, as well as supporting evidence, including:

- A Needs Case submission, which should include a justification for the project (including the proposed scope and timing) and an explanation of how the proposed reinforcements would meet the required need; and
- A detailed Project Assessment submission which includes detailed plans on design, cost and risks for the project along with evidence that the proposed costs are efficient.

SHE Transmission submitted the relevant information to us and we have assessed and consulted on the Needs Case (the first stage in the SWW assessment process) for the

⁵ In previous letters we have referred to a capacity increase of 260MW. This should have read 270MW or 260MVA.

⁶ Additional information can be found on the SHE Transmission website <http://www.sse.com/KintyreHunterston/ProjectInformation/>

⁷ As set out in Special Condition 1B of its Electricity Transmission Licence.

⁸ SWW outputs are defined as increases in boundary capability or equivalent additional capacity where there is no boundary.

⁹ Further information on the SWW arrangements is set out in our guidance document which was published on 21 October 2013. <https://www.ofgem.gov.uk/publications-and-updates/guidance-strategic-wider-works-arrangements-electricity-transmission-price-control-riio-t1-0>

proposed Kintyre-Hunterston reinforcement. We published our “minded-to” position on the Needs Case on 18 July 2013 stating that:

- There is a well justified need for reinforcement of the transmission system in the Kintyre area.
- The delivery timetable put forward by SHE Transmission appears to be appropriate, given the expected generation in the area.
- The technical scope of the option for reinforcement being proposed appears to be an appropriate first step for the need identified.
- We think it is likely to be in the interests of existing and future consumers. The scale of the benefit is dependent on the generation that connects in the area, but could be in the order of £526 million over the life of the project.

On 24 July 2013 we consulted on our Project Assessment (the second stage in the SWW assessment process) which focused on the forecast construction and ongoing operational costs associated with the proposed output.

We appointed consultants (Pöyry¹⁰) to provide an independent assessment of the project and to make recommendations regarding the project costs proposed by SHE Transmission. We published Pöyry’s report alongside our consultation letter in July. Pöyry’s assessment considers whether SHE Transmission had developed a sufficiently robust development plan and risk sharing arrangements to deliver the proposed SWW Output efficiently.

We received four responses to our consultation. Respondents were generally supportive of our proposals and for the proposed reinforcement to go ahead. Specific issues raised by respondents are discussed in the next section and a summary of responses is provided in Annex 1.

Our Project Assessment and decision

In this section we restate our initial view (informed by our consultants’ assessment) expressed in our July consultation. We then discuss any issues raised in response to, or since, the consultation before setting out our final decision on the SWW Output and the RIIO-T1 Allowed Expenditure adjustment for the proposed reinforcement project.

SWW Output

The proposed reinforcement is designed to increase the boundary capacity in the Argyll and Kintyre area (Boundary B3) in order to reduce constraints and allow additional generation to connect in the region. SHE Transmission plan for this additional capacity to be available by quarter four of 2015/16 although spend on the project will continue into 2016/17.

Our consultants noted that the construction programme is challenging in terms of timetable, but considered that it is as good as practically possible given time constraints. It noted that the delivery schedule is heavily dependent on the subsea cable installation and that there is no slack in the timetable should any slippage occur. Our initial assessment (which we consulted on in July) was that the programme and delivery dates proposed by SHE Transmission were appropriate. Any delay in delivery of the SWW Output, relative to the delivery schedule specified, could constitute a potential breach of the licence condition and potentially be subject to enforcement action by Ofgem. In such cases we will follow our usual investigation and enforcement processes and policies¹¹.

No respondents to our consultation raised any concerns with this approach. In light of this, the Authority has decided that the SWW Output set out in Table 1 below is appropriate.

¹⁰ Pöyry Management Consulting (UK) Ltd, an international consulting and engineering company.

¹¹ More information on this can be found on our website. <https://www.ofgem.gov.uk/ofgem-publications/37567/enforcement-guidelines-2012.pdf>

Table 1: SWW Output

Outputs – Boundary B3 (Delivery in quarter 4, 2015/16)	
Transfer capability before Output	150MW
SWW Output (additional transfer capability to be delivered)	270MW
Total Transfer capability after SSW Output	420MW

Project costs

We asked our consultants to consider the procurement process followed for the main contracts. Our consultants considered that the process followed was robust and had been efficiently applied given the time constraints of the project. However, they noted that had the process started earlier there may have been scope for increased efficiencies resulting in lower risks.

Pöyry concluded that the overall project costs were reasonable based on benchmarking analysis of the construction costs (with the exception of those highlighted below in the discussion on risk).

Our initial view, set out in our July consultation on the Project Assessment, which took into consideration Pöyry's assessment, was that the overall construction costs proposed by SHE Transmission appeared to be appropriate with the exception of the risk and uncertain cost elements.

No respondents to our consultation raised any concerns around the project costs (again with the exception of those highlighted below in the discussion on risk).

Since issuing our minded-to position on the Needs Case, and the consultation on the Project Assessment in July, SHE Transmission has finalised and signed the contracts with its suppliers for the main areas of work (cabling, overhead lines and substation). We have reviewed these final contracts for the purposes of the project assessment and noted some changes from the forecast figures included in SHE Transmission's earlier submission. As a result we have reduced the Allowed Expenditure by £6 million to reflect these changes.

Risk and uncertain costs

Our consultants noted that SHE Transmission has allocated risk to contractors where possible, retaining only those risks that are best borne by it, or could not be transferred or insured against. However, there were two areas where Pöyry considered that a different treatment than that proposed by SHE Transmission would be appropriate:

- SHE Transmission was seeking a risk allowance based on P70 (meaning that there is a 70 per cent probability that the TO will deliver the project for less than the allowance). Pöyry considered this to be inappropriate given the risks of the project and recommended a lower risk allowance based on P50 (meaning that there is an equal probability of the costs turning out to be higher or lower than the allowance) so that the risks are evenly shared with consumers.
- SHE Transmission included a number of uncertain costs (such as those relating to ground conditions and unpredictable weather) in its construction funding request (referred to as Provisional Sums), ie it assumed these costs would arise with certainty. Pöyry considered it was more appropriate for these to be included in the risk allocation instead, as they would not be certain to occur (meaning that the TO would not need to be fully protected against the risks, and it should share the risks with consumers as opposed to consumers bearing the full risk).

In our July consultation we set out our initial view, in line with Pöyry's recommendation, that it would be appropriate for SHE Transmission to adopt the P50 value on the basis that:

- The risk allowance only captures residual risks not included in the contract, and consumers are already protecting SHE Transmission against some risks that are covered by insurance, and in the contracts it has with its suppliers, meaning that the management of these risks will be managed by the supplier and are reflected in the overall contract price.
- We consider that the sharing factor and re-opener provisions set out in RIIO-T1 provide sufficient protection to SHE Transmission for a credible range of material risks, such as extreme weather events that might interfere with the construction programme.
- Setting the risk allowance based on P50 would, in this case, represent an appropriate sharing of risk between SHE Transmission and consumers.

In our July consultation we considered that the adjustments to the requested risk and uncertain costs allowance proposed by Pöyry are appropriate as it gives SHE Transmission sufficient allowance for the risks identified whilst protecting consumers from paying for risks that may not materialise.

Two respondents to our July consultation commented on this area of our assessment:

- SP Transmission considered that using a P50 approach for risk would provide too low a risk allowance for subsea projects.
- However, in contrast, SHE Transmission accepted our approach to the treatment of risk but disagreed with our assessment of provisional sums.

SHE Transmission has argued that the events included in the provisional sums estimate (which include costs relating to seabed compaction, unpredictable weather conditions and non-homogenous rock formation) have a 100 per cent probability of occurring and should not be treated in the same way as other risks (as recommended by our consultants). We did not receive sufficient evidence from SHE Transmission (eg costs and experience from a range of similar projects) that we consider would justify such an approach.

In our view, the approach proposed by our consultants (ie to treat these provisional sum items in the same way as risk) is appropriate as the events are not certain to happen and neither are the costs if they were to occur. This approach ensures that the risks associated with them are shared between SHE Transmission and consumers. Therefore, our decision on adjustments to SHE Transmission's RIIO-T1 Allowed Expenditure (set out below) is based on this approach.

Adjustments to SHE Transmission's RIIO-T1 Allowed Expenditure

The table below summarises the Authority's decision on the adjustment to be made to SHE Transmission's RIIO-T1 Allowed Expenditure for the delivery of the SWW Output from the Kintyre Hunterston reinforcement project. The table compares this to the Allowed Expenditure adjustment SHE Transmission requested, as well as our assessment of the efficient forecast costs included in our July consultation. The annual Allowed Expenditure is set out in Annex 2. This Allowed Expenditure will also be subject to a licence modification (to insert these into the SWW licence condition).

Table 2: Adjustment to SHE Transmission’s RIIO-T1 Allowed Expenditure

2013 prices	Initial view (July)	Decision (November)
SHE-T’s requested allowance	£212.4m	£203.0m
Additional Allowed Expenditure adjustment	£204.7m	£197.4m
Difference	-£7.7m (3.6%)	-£5.6m (2.8%)

SHE Transmission’s request to amend the Transmission Area

Before these changes to the licence can be made we need to further consider SHE Transmission’s request for an amendment to the Transmission Area set out in its licence. Special Condition 1B of SHE Transmission’s electricity transmission licence sets out its Transmission Area, which is the area within which it is allowed to own or operate a transmission system. Currently, this is defined as “The area specified in the Electricity Act 1989 (North of Scotland Specified Area) Order 1990 made on 7 March 1990 but excluding the Cruachan Transmission Line.”

The Kintyre-Hunterston project will be jointly constructed by SHE Transmission and SP Transmission (with approximately 90 per cent of the cable falling within SHE Transmission’s current transmission area). SHE Transmission (following discussion with SP Transmission) proposes that in order to allow for optimum technical and operational benefits the cable demarcation point (where ownership of the cable changes between the licensees) should be on the shore rather than at sea, and propose that the Transmission Area in their licences be modified accordingly. This would have the effect of a small increase in the Transmission Area specified in SHE Transmission’s licence.

In assessing the appropriateness of any potential modification we are considering the coverage of the existing transmission area (including with respect to inland waters). If we conclude that a change to the transmission area is appropriate we anticipate that such an amendment would be proposed and consulted upon alongside the proposed changes to the RIIO-T1 Allowed Expenditure and SWW Output for the Kintyre-Hunterston project. Any such changes would require a statutory consultation process to be followed.

SHE Transmission requested that the Transmission Area in its licence be amended to include the underlined section below:

The area specified in the Electricity Act 1989 (North of Scotland Specified Area) Order 1990 made on 7 March 1990 and the Kintyre-Hunterston Transmission Line up to and including the transition joint at the landing point in Ayrshire, but excluding the Cruachan Transmission Line.

The Authority’s decision

Taking into account the evidence submitted by SHE Transmission, our analysis of both the Needs Case and the Project Assessment, our consultants’ views, and points raised in response to our July consultation the Authority has decided:

- To increase the Allowed Expenditure and SWW Output specified in Special Condition 6I of SHE Transmission’s electricity transmission licence. This decision is, subject to consideration of a request by SHE Transmission for a modification to the Transmission Area specified in its licence and any subsequent licence modification proposal and statutory consultation process.

- To require SHE Transmission to deliver a SWW Output from the project of 270MW additional transmission capacity across the B3 transmission boundary in the South West of Scotland in the final quarter of 2015/16.
- To increase SHE Transmission's Allowed Expenditure in the price control, RIIOT1, by £197.4million (in 2013 prices). This is £15 million less than the amount requested by SHE Transmission in its initial submission. A reduction of £6 million was due to cost savings in SHE Transmission's final contract negotiations with its suppliers for the project. An additional £9 million reduction is due to our alternative treatment of risk and uncertainty to that proposed by SHE Transmission.
- The decision on SWW Outputs and Allowed Expenditure will also be subject to a licence modification proposal (to insert these into Special Condition 6I of SHE Transmission's electricity transmission licence) and statutory consultation process.

Next steps

Once we have concluded our assessment of any potential modification of the Transmission Area, where appropriate we will undertake a statutory consultation on any proposed licence changes.

Any questions about the content of this letter should be addressed to Sheona Mackenzie in the first instance (SWW@ofgem.gov.uk).

Yours sincerely

Kersti Berge

Partner – Electricity Transmission

Annex 1: Summary of responses to our consultation on the project assessment

Respondent	Supportive?	Summary of comments
SHE Transmission	Disagreed with our treatment of provisional sums	<ul style="list-style-type: none"> • Welcome the consultation and generally comfortable with the assessment with the exception of provisional sums. • It considered the provision sums to cover additional scope items rather than risks or contingency.
SP Transmission	Supportive	<ul style="list-style-type: none"> • Agree the Outputs and delivery dates proposed are appropriate • Think that risk allowance (based on P50) is too low.
SP Renewable	Supportive	<ul style="list-style-type: none"> • Welcome opportunity to comment and hope process can be concluded quickly. • Further consideration of the user commitment and charging arrangements for key infrastructure projects is needed.
EDF Energy	Supportive although note discussions regarding nuclear safety are still being discussed.	<ul style="list-style-type: none"> • Welcome opportunity to comment and generally supportive of our approach and proposals. • A review of nuclear safety (which is mandated under the Scottish Nuclear Site Licence Provisions Agreement) is still ongoing. • Delivery dates and Outputs appear reasonable as does cost assessment. • Urge SHE Transmission to learn from this project (ie complete submissions, treatment of risk, etc) and apply the lessons learned to future projects.

Note: a summary of responses relating to the needs case assessment was provided in our July minded-to letter.

Annex 2: Detailed Expenditure Allowance decision

<u>Allowances</u>									
	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Total
	£m	£m	£m	£m	£m	£m	£m	£m	£m
Totex (2013 prices)	21,330,121	54,629,542	103,258,191	16,937,034	314,717	314,717	314,717	314,717	197,413,756
Totex (09/10 prices)	18,809,972	48,175,073	91,058,257	14,935,927	277,533	277,533	277,533	277,533	174,089,362

Note: Allowance are entered into the licence condition and the price control financial model to determine allowed revenues in 2019/10 prices as per RIIO-T1 policy.