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Dear Colleague

Transmission Investment Incentives: Supplementary document to decision letter of 21 January 2011

Ofgem is committed to playing a full role in helping to reduce carbon emissions to tackle climate change. A key part of this is ensuring that network companies are incentivised and funded to invest efficiently in their networks to facilitate the timely achievement of the Government's environmental objectives.

In April 2010, we introduced the Transmission Investment Incentives framework (**TII framework**)¹ for providing interim funding, within the current transmission price control period (TPCR4), for critical large-scale investments that the TOs² identify are required to support achievement of the Government's 2020 renewable energy targets. At the same time, we provided interim funding, on a capex basis, for an initial tranche of investment (worth over £300 million) in pre-construction work and urgent construction work up to end 2011/12. We also introduced a process for considering further funding requests from the TOs within the TII framework.

In December 2010 we consulted³ on our proposed approach and timetable for reaching a decision on a number of funding requests received under our TII framework. We also consulted on our proposed approach for extending the TII framework to 2012/13 (the 2012/13 arrangements) under the one-year adapted rollover of TPCR4 (TPCR4 rollover).

Following consideration of consultation responses, on 21 January 2011 we published a **decision letter**⁴ confirming the next tranche of funding to be provided under our TII framework, and our intention to take forward the 2012/13 arrangements in line with the approach set out in the December consultation. This next tranche of funding relates to £95 million⁵ of investment planned over the next two financial years (2011/12 and 2012/13) on

¹ Enhanced Transmission Investment Incentives: Final Proposals (Ref 04/10), January 2010
<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/TAR/Pages/Traccrw.aspx>

² The three TOs are National Grid Electricity Transmission (NGET), Scottish Power Transmission (SPTL) and Scottish Hydro-Electric Transmission Ltd (SHTL).

³ Transmission Investment Incentives: funding requests and extension of funding framework to 2012/13 (Ref 151/10), December 2010

<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/CriticalInvestments/InvestmentIncentives/Pages/InvestmentIncentives.aspx>

⁴ Transmission Investment Incentives: Decision on requests for funding from 2011/12, 21 January 2011

<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/CriticalInvestments/InvestmentIncentives/Pages/InvestmentIncentives.aspx>

⁵ In 2010/11 prices

specific projects put forward by the TOs. The decision letter also discussed the way forward for reaching a decision on a number of further investment projects.

This **supplementary document** sets out further details of the rationale for our decisions and other issues set out in the decision letter. It also discusses the responses to the December consultation and way forward for the 2012/13 arrangements.

This document is structured as follows:

- **Appendix 1** discusses the responses to the December consultation and sets out our conclusions on the issues on which we sought views. It also confirms the way forward for the 2012/13 arrangements including our work to extend existing TII funding and to consider further funding requests.
- **Appendix 2** provides a descriptive overview of the projects considered in our most recent assessment, identifying the components of those projects for which the TOs requested funding from 2011/12.
- **Appendix 3** sets out our current assessment of the funding requests identified in Appendix 2 and the rationale for the funding decisions reached in January 2011. It also gives more detail on the way forward for further consideration of the funding requests on which we did not reach funding decisions.

Alongside this document we are also publishing the final report from our consultants, KEMA Consulting (KEMA), who we appointed to support our assessment of the funding requests.

Next steps

Our immediate next steps are to take forward work to implement the funding decisions (the **January 2011 funding decisions**) set out in the decision letter.

Subject to statutory consultation on the associated licence changes, this will be done in two stages:

- the **first stage** is to provide funding for the period to end 2011/12 under our current TII framework, and
- the **second stage** is to extend that funding to the year 2012/13 under the 2012/13 arrangements.

To proceed with the **first stage** we are issuing a formal statutory consultation under section 11 of the Electricity Act 1989 with a view to implementing, by 1 April 2011, if possible, the licence changes to give effect to those decisions for the period to end 2011/12. That statutory consultation⁶ is published today. We will take forward the **second stage** following our work, planned for later this year, to consider the licence changes to extend the TII framework to 2012/13.

Our way forward on the other issues discussed in this document is discussed in Appendix 1.

If you wish to discuss any of the issues set out in this letter then please contact Cheryl Mundie (e-mail: cheryl.mundie@ofgem.gov.uk, tel: 0141 331 6003).

Yours sincerely

Hannah Nixon
Partner – Transmission

⁶ Transmission Investment Incentives: statutory consultation on first stage of licence changes to give effect to decisions set out in decision letter of 21 January 2011
<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/CriticalInvestments/InvestmentIncentives/Pages/InvestmentIncentives.aspx>

Appendix 1: Conclusions on issues set out in December consultation

1.1. This appendix discusses the responses to the December consultation and sets out our conclusions on the issues on which we sought views. It also confirms the way forward for the 2012/13 arrangements including our work to extend existing TII funding and to consider further funding requests.

Summary of responses to the December consultation

1.2. We received seven responses to the December consultation, of which one was confidential. The six non-confidential responses were received from three electricity TOs, two companies with both generation and supply businesses, and one trade association that represents renewable generators. We have taken all of the responses into account in our consideration of the issues. The points raised in the non-confidential responses are summarised below.

CHAPTER: Two - Key principles and application to 2012/13 arrangements

Question 1: Do respondents have any comments on our detailed proposals for the extension of our TII framework to 2012/13?

1.3. There was general support for the proposed approach set out in the December consultation.

1.4. Three respondents expressed their support for the staged approach to funding decisions, but one said that it would prefer a framework that provided cost-effective funding for the entire length of the project. Three welcomed the proposal to extend funding to 2012/13 for projects that either already have TII funding to the end of 2011/12, or are provided TII funding from 2011/12 following our assessment of a funding request. One TO expressed disappointment that requests for TII funding from 2012/13 would be assessed at a later stage, and another respondent asked for more clarity on when this assessment will be undertaken.

1.5. Two respondents agreed that it is preferable to not revisit funding decisions already made. One of these respondents pointed out that milestones will have to be set for 2012/13 work, and further considered that any changes in costs since the original submissions should be addressed by the existing asset value adjusting event provisions, set out in the special licence conditions. Another respondent considered that where circumstances have materially changed projects with existing TII funding should be further reviewed before determining 2012/13 allowances, but that future funding decisions should be extended to 2012/13 without further review.

1.6. Two respondents agreed with the proposal to defer the review of the TOs' capex efficiency by one year. One of these respondents further expressed the view that for TII projects which span TPCR4 and RIIO-T1 the capex efficiency review should be further deferred until the project is completed, to avoid adding risk to the projects. Noting Ofgem's proposal to adopt the prevailing cost of capital, this respondent also considered that expenditure on TII projects should be taken into account in determining the cost of capital for 2012/13 under TPCR4 rollover.

Question 2: Do respondents have any comments on the interactions with development of future arrangements under RIIO-T1?

1.7. One respondent made no comment, but said that it would do so in response to the RIIO-T1 December 2011 consultation; one TO assumes that funding requirements from 2013/14 will be addressed in its business plan of July 2011.

1.8. One respondent considered it appropriate to leave the options open for funding under RIIO-T1, whereas another believed that certainty was needed in order to not dampen investment. Another respondent pointed out that TOs might commit to costs before the costs must be paid, and that they should not be denied funding in future years for costs that were committed to earlier in the project. One respondent considered that projects which receive TII funding should not have their costs revisited under RIIO-T1. This respondent also felt that for TII projects which are started before RIIO-T1 and are not completed until during RIIO-T1, then the remaining construction work and the subsequent operation should not be subject to a competitive process. Another respondent supported the option to adopt a competitive process for specific projects under RIIO-T1.

CHAPTER: Three - Update on assessment of TII funding requests

Question 1: Do respondents consider that we have identified the relevant issues to consider in our assessment of TII funding requests, both in general and in the specific context of the TII funding requests currently under consideration?

1.9. Four respondents agreed that the assessment considers the relevant issues. Two of these respondents supported the use of the same assessment criteria adopted for the 2009 assessment. One respondent believed that the assessment of need case may be more robust if it could take into account the conclusions of the ongoing review of the Security and Quality of Supply Standards (SQSS), which it considered may not necessarily lead to the same view of investment requirements as a cost benefit analysis (CBA) approach.

1.10. Three respondents raised the issue of licensing for the Western HVDC Link, and requested that this work be taken forward as soon as possible noting that it may require a long process.

Question 2: Do respondents have any comments on our initial views on the TII funding requests currently under consideration or on our proposed approach to assessing these requests?

1.11. There was broad support for Ofgem's initial views on these TII requests and proposed assessment approach.

1.12. Two respondents noted the high cost of the projects, one believing that the majority of Ofgem's TII resources should be used to scrutinise the construction costs rather than pre-construction costs. Two respondents expressed disappointment that the assessment of the Western HVDC Link may take a longer time frame and were concerned that this may delay the project, while another respondent considered it appropriate that the merits and costs of this scheme should be subject to careful review. The TOs each made comments on points made in the consultation document regarding individual projects.

CHAPTER: Four - Way forward

Question 1: Do respondents have any views on our proposed process and timetable for reaching a decision on the TII funding requests currently under consideration?

1.13. Two respondents reiterated concerns that the decision on funding the Western HVDC Link may take a longer timeframe and that this could delay the project. One of these respondents considered that an early decision to provide funding from 2011/12, with scope for funding allowances to be subsequently amended, would provide certainty to potential suppliers.

1.14. One respondent was concerned that TII funding may not be agreed in time to be included in the setting of TNUoS tariffs, and sought clarification on how this would be dealt with. Two respondents wanted early notice of changes to TNUoS tariffs, and one was opposed to within-year tariff changes.

1.15. One respondent suggested that the draft licence conditions should be published alongside the funding proposals.

Question 2: Do respondents consider that there are any material issues that require further consultation before the Authority reaches a decision on these TII funding requests?

1.16. One respondent stated that it would welcome further consultation on the needs case and the cost benefit analysis for the Western HVDC link. One respondent raised the issue of the SQSS review, requesting that the review be complete by summer 2011 and the results taken into account in funding decisions for 2012/13 and under RIIO-T1.

Question 3: Do respondents have any views on our proposed process and timetable for extending our TII framework to 2012/13?

1.17. Three respondents were keen to establish an appropriate process and timetable for assessment of requests for funding from 2012/13. One respondent considered this should be conducted as quickly as possible, while another set out a suggested timetable that would align the TII process with that for the TPCR4 rollover. One respondent welcomed the decision that works with TII funding to 2011/12 would continue to be funded in 2012/13.

Question 4: Do respondents have any views on interactions with parallel work?

1.18. One respondent stated that moving from the TII arrangements into the RIIO-T1 framework via the TPCR4 roll-over will need to be coordinated, and that the TOs should not be exposed to unnecessary additional risks. One respondent noted that expenditure on TII projects must be taken into account when Ofgem undertakes financeability assessment of the TPCR4 rollover and RIIO-T1 settlements. Two respondents considered that early decisions on requests for TII funding from 2012/13 would reduce uncertainty in this respect. One respondent reiterated its comments, referred to above, in relation to timetable alignment between TII and TPCR4 rollover and deferral of capex efficiency review.

Ofgem conclusions

General

1.19. We welcome the support for our proposed approach, set out in our December consultation document, for reaching a decision on funding requests under our TII framework and for the extension of that framework to 2012/13 (the **2012/13 arrangements**). We have taken into account the specific issues raised by respondents in reaching the conclusions set out below on the issues on which we sought views in the December consultation.

1.20. We have applied these conclusions in reaching the funding decisions, set out in our January 2011 decision letter, in relation to works planned to commence by end 2011/12. In terms of implementation of these decisions, our initial focus is on providing funding up to end 2011/12 under the current TII framework and we are publishing alongside this document a statutory consultation⁷ on this first stage of the licence changes to give effect to our January 2011 funding decisions. At a later stage we will extend that funding to 2012/13 as part of our work on the 2012/13 arrangements.

1.21. Given that the TII framework currently only extends to end 2011/12, we continue to consider it appropriate to have deferred our assessment of requests for funding in relation to works planned to commence in 2012/13. We will consider such requests as part of our work on the 2012/13 arrangements. The process and timescales for our assessment of future TII funding requests is also discussed below.

⁷ Transmission Investment Incentives: statutory consultation on first stage of licence changes to give effect to decisions set out in decision letter of 21 January 2011
<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/CriticalInvestments/InvestmentIncentives/Pages/InvestmentIncentives.aspx>

Key principles for assessment of TII funding requests and 2012/13 arrangements

Principles

1.22. As set out in the December consultation, our approach to dealing with TII funding requests and the extension of our TII framework to 2012/13 follows principles previously established for the TII framework⁸ and the scope of the TPCR4 rollover⁹, and seeks to:

- be **consistent with the general principles** of our TII framework, which aims to balance the risks to customers when funding projects
- **continue to use our TII framework** to provide project-specific capex funding for pre-construction and construction works, based on annual cost allowances set on an ex ante basis and linked to defined deliverables¹⁰
- **adopt the same assumptions** regarding the level of incentivisation and depreciation as for existing TII funding¹¹, unless we see good reason to change for a given project
- **retain flexibility to adapt our assessment or funding approach** where necessary to deal with projects with materially different characteristics to projects funded under TII to date, for example in terms of risk
- **adopt the same cost of capital assumptions as the prevailing price control**, that is: (a) revenue up to end 2011/12, under our current TII framework, will be based on assumptions previously determined for TPCR4; while (b) revenue in 2012/13, under the extension of our TII framework to include the rollover year, will be based on the updated assumptions to be determined for TPCR4 rollover
- be **consistent with principles agreed for treatment of capex under the TPCR4 rollover** arrangements, by deferring full assessment of historical capex by one year, and adopting an approach which is proportionate to a one year review in determining 2012/13 provisions, and
- where appropriate, **keep future options open** with respect to the ongoing treatment of projects under RIIO-T1.

1.23. We continue to consider that these principles are appropriate. We will assess TII funding requests and take forward the 2012/13 arrangements in line with the approach previously set out in the December consultation and further developed below.

1.24. In our work to take forward the 2012/13 arrangements we will consider the licence changes to extend the TII framework to 2012/13 and will continue to give consideration to our detailed approach for capex efficiency review of TII expenditure, in line with the ongoing development of our detailed policy for TPCR4 rollover.

1.25. In managing the transition to RIIO-T1, we will also take the interim nature of TII funding into account in our consideration of TII funding requests and in our work under RIIO-T1 to develop the principles to be adopted under RIIO-T1 in relation to works which are in progress at the end of 2012/13.

⁸ As set out in the following document:

Transmission Access Review – Enhanced Transmission Investment Incentives: Final Proposals (Ref 04/10), January 2010

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=16&refer=Networks/Trans/ElecTransPolicy/TAR>

⁹ As set out in the following document:

Transmission Price Control 4 - Rollover (2012/13) Scope Decision and Consultation (Ref 78/10), June 2010

<http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=1&refer=Networks/Trans/PriceControls/TPCR4Rollover/ConRes>

¹⁰ Key programme milestones for all funded works and technical output measures for funded construction works, set with reference to an agreed baseline consistent with prevailing assumptions at the time the funding decision is made.

¹¹ We adopted a 75:25 ratio of pass-through to incentivised costs (consistent with TPCR4) and depreciation of 20 years commencing in the year following expenditure

Funding in stages

1.26. In line with the above principles, we continue to consider it appropriate to adopt a staged approach to our consideration of TII funding requests. In the December consultation this approach was illustrated with reference to a generic model for “funding in stages”. Here, a large scale project receives incremental tranches of funding over time as funding decisions are made at different points in time to fund a defined sub-component (or “stage”) of the overall works taking into account the prevailing justification for the investment and the readiness of the TO to commence work. Under this model each decision to provide TII funding to a given project, specifically with respect to a defined component of works and up to a given end date, can be viewed as a new stage of funding for the project as a whole.

1.27. In applying this approach to funding requests under TII, we will seek to identify the extent to which the planned works for a given project can be divided into components for the purposes of funding consideration under TII. We will focus our detailed assessment on components which are planned to commence construction by the end of the following financial year. This approach allows us to target this assessment on components in most urgent need for clarification of construction funding. It also allows us to focus our attention on components for which the TO is most likely to be able to provide the information we need to complete our assessment and, where appropriate, determine project-specific funding provisions under our TII framework.

1.28. In undertaking our assessment of TII funding requests we will take any relevant previous assessment as our default position unless we receive new information to justify updating this assessment. The onus is therefore on the TO to provide the evidence we require to be able to complete our assessment and reach a funding decision under our TII framework.

1.29. Where a TII funding request relates to construction works planned to commence in 2012/13, it will also be important to consider interactions with parallel work on TPCR4 Rollover and on assessment of business plans under RIIO-T1. We set out below how we intend to manage such interactions and the evidence we expect to consider in our assessment.

Funding to 2012/13 and beyond

1.30. In line with the funding decisions previously reached in January 2010, existing TII funding currently extends to end 2011/12. Since making those decisions, we have confirmed our decision to rollover the current price control (TPCR4) by a year. We will extend these previous funding decisions to 2012/13 and in doing so we will also determine cost allowances and deliverables for the rollover year. Our default position is to determine these using the same baseline assumptions¹² underpinning the funding decision reached in January 2010. The circumstances in which we will consider whether to adopt a different approach are discussed below.

1.31. For funding decisions reached from January 2011 onwards, in the context of TII funding requests, we will determine cost allowances for the year 2012/13 at the same time as determining allowances for the period to end 2011/12. Funding provisions for 2012/13 will be determined using the baseline assumptions underpinning the decision on the TII funding request.

1.32. For all components of works funded under TII, future funding arrangements, from 2013/14 onwards will be addressed through RIIO-T1. This will take into account the latest information provided in the TOs’ business plans submitted for that purpose. It will also take into account the funding provided under TII, the baseline assumptions underpinning the relevant funding decision and the progress made on deliverables linked to the funding allowances.

¹² Total cost, annual spend profile, programme and (in case of construction funding) technical output measures for the planned component of works.

Approach to dealing with changes in circumstances

1.33. Under the current TII framework¹³, funding allowances are linked to defined deliverables which are expected to result from the planned expenditure. This approach¹⁴ recognises the interim nature of such funding and is designed to ensure that the comparison of actual spend against the capex allowance can be undertaken on a like for like basis. To the extent that the TOs' plans subsequently change, and this leads to changes to the design, cost and/or programme, or re-profiling of planned expenditure for components of works with existing TII funding, we expect to take these changes into account when undertaking our capex efficiency review of past expenditure and when considering future funding requirements under RIIO-T1.

1.34. The current TII framework also includes mechanisms through which existing TII funding allowances and/or associated deliverables for currently funded works may be amended. These are the asset value adjusting event mechanism¹⁵ and output measure adjusting event mechanism¹⁶, both of which are triggered by a formal request from the TO and apply in specific cases of material, unforeseen changes of circumstances outside the TOs' control. These provisions focus on material changes associated with planning consent, and are narrower than similar provisions under the TIRG¹⁷ mechanism in recognition of the proximity of commencement of the relevant works at the time the TII funding decision is made. They also reflect the fact that decisions on construction funding under TII are reached following detailed scrutiny of the TOs' investment plans, which includes consideration of the readiness of the TO to proceed with planned works.

1.35. As noted above, where existing TII funding provisions for a given component of works currently only extend to 2011/12, our default position is to extend the funding to 2012/13 by determining ex ante allowances using the same baseline as the previous TII funding decision. However, in certain circumstances, we may consider the case for providing additional funding in 2012/13 over and above that which would otherwise be provided under the default position. This applies where we receive, by **4 April 2011**, a request for additional funding in 2012/13 which is supported by clear evidence of material changes in circumstances since the previous TII funding decision was taken. Our ability to reach a decision on any additional funding to be provided in 2012/13 will then be subject to timely receipt of any further information we require to be able to: (a) complete our assessment of any additional funding requirements; and (b) clearly establish a new baseline against which funding provisions may be determined for 2012/13. Where possible, we will aim to reach our decision in timescales which allow that decision to be reflected in our Initial Proposals under the TPCR4 Rollover, currently planned for July 2011. If by mid August we still have insufficient information to reach a decision then we will determine 2012/13 funding provisions in line with the default position.

1.36. In considering the case for providing additional funding in 2012/13 under the approach set out in the previous paragraph, we will also reflect the principles of the TII framework discussed above and take into account the basis on which the previous TII funding decision was made. We will focus on establishing any material changes in scope and associated impact on the level of costs, as well as milestones and output measures which reflect the changed scope and programme. We will consider the extent to which these changes relate to factors outside the TOs' control which were not taken into account in the assessment which informed the funding decision reflected in the existing TII funding provisions to end 2011/12. We will also consider the case for incurring such additional costs prior to RIIO-T1. This will inform our assessment of the proportion of additional costs which relate to expenditure which is both unfunded through existing TII funding allowances (as

¹³ Special Condition D11 of NGET's transmission licence, Special Condition J12 of SPTL's transmission licence and Special Condition J12 of SHETL's transmission licence.

¹⁴ See the section on "Funding Mechanism" in chapter 3 of Enhanced Transmission Investment Incentives: Final Proposals (Ref 04/10), January 2010

¹⁵ Paragraph 3 of Special Condition D11 of NGET's transmission licence, paragraph 3 of Special Condition J12 of SPTL's transmission licences and paragraph 3 of Special Condition J12 of SHETL's transmission licence.

¹⁶ Paragraph 9 of Special Condition D11 of NGET's transmission licence, paragraph 9 of Special Condition J12 of SPTL's transmission licences and paragraph 9 of Special Condition J12 of SHETL's transmission licence.

¹⁷ Transmission Investment for Renewable Generation

extended to 2012/13) and efficiently incurred within the current price control (including rollover).

1.37. Once we have established TII funding provisions for a given component of works to 2012/13, any further funding requirements¹⁸ for that component of works will be considered in the context of RIIO-T1. If the TO considers there is a case for adjustment to existing TII funding provisions, it is open to the TO to submit a formal request under the adjustment mechanisms referred to above. For us to be able to consider such a request it must be accompanied by full supporting information as specified in the relevant licence condition.

Issues to consider in assessment of TII funding requests

General approach and application to funding requests identified in Appendix 2

1.38. Our assessment of TII funding requests will adopt the general approach set out in the December consultation. In line with the five key assessment criteria¹⁹ previously identified as relevant to our assessment of funding needs under the TII framework, our assessment of requests for construction funding will build upon any previous assessment and further review the need case, scope and timing for the overall project, as well as the technical readiness and planning consents status of the specific component for which funding is requested. We will consider economic justification for the overall project as well as the readiness of the TO to take forward the specific component of works for which construction funding is requested, and the efficient costs of those works.

1.39. In considering need case and timing we will continue to base our assessment on both SQSS and CBA considerations. We note that the SQSS provides a starting point for identifying investment requirements and that actual investment decisions may also take CBA into account in refining that starting point, either upwards or downwards. Our expectation is that the current SQSS review will crystallise the current CBA process and therefore provide a better starting point than today's SQSS. While we consider that the conclusions of this review are unlikely to change the outcome of the investment decisions for projects funded under the TII framework to date, we further note that our approach to funding in stages, as set out above, would minimise any impact in this respect. We also expect the TOs to take the SQSS review into account in preparing their business plans for RIIO-T1²⁰.

1.40. In considering the case for providing construction funding under our TII framework we may also consider the appropriateness, in the interests of current and future consumers and sustainability, of funding projects with uncertain need case. We will also consider whether projects requiring construction funding have materially different characteristics (e.g. utilisation, cost or deliverability risk) to projects funded under TII to date. This will inform our view of whether to adapt our approach when funding individual projects. We note that these considerations may be relevant to the Western HVDC link and, also taking into account the materiality of the request, we consider it appropriate that we are adopting a longer process for our consideration of this project. In Appendix 3 we set out our intended process towards reaching a funding decision on this project, taking into account our current assessment based on the information available now and the further information we expect to receive during 2011/12.

¹⁸ Other than in the context of the asset value adjust event mechanism discussed above.

¹⁹ We identified five criteria relevant to our assessment of funding needs: need case, scope, timing, planning consent and technical readiness. These criteria are discussed in more detail in the following document: Transmission Access Review – Enhanced transmission investment incentives: Initial Proposals (Ref 135/09), November 2009

<http://www.ofgem.gov.uk/Networks/Trans/ElecTransPolicy/TAR/Pages/Traccrw.aspx>

²⁰ Consultation on strategy for the next transmission price control - RIIO-T1 Overview paper (Ref 159/10, December 2010)

<http://www.ofgem.gov.uk/NETWORKS/TRANS/PRICECONTROLS/RIIO-T1/CONRES/Pages/ConRes.aspx>

1.41. We will consider interactions with existing funding provisions, including those forming part of the TII framework, in identifying the planned works and associated costs requiring detailed funding consideration through TII and in determining our proposed funding allowances based on our view of efficient costs. These considerations are particularly relevant where the funding request relates to a component of works with existing TII funding for the period to end 2011/12 and on which we have not yet finalised funding provisions for 2012/13. Our approach to dealing with such issues is set out above and further discussed in Appendix 3 in the context of our intended process towards reaching a decision on NGET's requests for additional funding for Deeside substation and IPC-related pre-construction work.

1.42. In cases where there is a need to consider the licensing provisions we will take this forward as a separate workstream. We have commenced this work for the Western HVDC link and will provide an update at a later date.

Approach to considering future TII funding requests

1.43. We consider that the general approach set out above will remain valid for application to future TII funding requests. However, it may be appropriate to further refine our approach in this context in order to manage the transition to RIIO-T1 and interactions with TPCR4 Rollover. We also note that a number of respondents were in favour an approach which allows the assessment process to be undertaken earlier in the year and a funding decision reached sooner than in the timetable adopted for the recent TII funding requests. The following paragraphs set out our proposed approach.

1.44. To inform the decisions of the TOs on the timing and content of future TII funding requests, we have identified two "windows" in which we may be able to undertake our assessment of a number of requests in parallel, as follows.

First window

1.45. For TII funding requests assessed in the **first window** we will work towards reaching funding decisions in **September 2011**. To be considered for assessment in this window, the TII funding request must be submitted, with full supporting information, by **4 April 2011**.

1.46. We expect to be able to complete our assessment in these timescales for TII funding requests which relate to components of works which have either previously been assessed for construction funding under TII, and/or are part of a project for which other components of works have already been granted construction funding under TII through our January 2010 funding decisions or our January 2011 funding decisions. In assessing TII funding requests in this window we will therefore focus on updating any relevant previous assessment to take account of new information.

1.47. For us to be able to reach funding decisions in September 2011 it will be important that the TOs' submissions of 4 April 2011 include a detailed commentary which clearly identifies what has changed since any relevant previous assessment, in terms of need case, scope, timing, planning consents, technical readiness and costs. This commentary should also highlight new evidence provided with the submission which addresses any outstanding issues identified in that assessment, and set out a clear case for committing construction expenditure in 2012/13.

1.48. The full supporting information provided with the submission should also include detailed information covering the requirements previously specified²¹ for our assessment TII funding requests.

Second window

²¹ As set out in the March 2010 open letter referred to above and Paragraph 1, Annex A of Special Condition D11 or J12 as relevant to the given licensee.

1.49. We also recognise that the TOs may not have certainty in April 2011 of all the components of works for which they are likely to submit a TII funding request.

1.50. We have therefore also identified a **second window** for assessment, in which we will work towards reaching funding decisions in **January 2012**. To be considered for assessment in this window, the TII funding request must be submitted, with full supporting information by **mid August 2011**.

1.51. In order to reach funding decisions in January 2012, our information requirements will be the same as specified above for requests assessed in the first window, and this information must be submitted in full alongside the funding request.

Potential need for extended assessment

1.52. We expect that a longer assessment period may be required for TII funding requests which relate to projects which not previously been assessed for construction funding under TII, e.g. where they have previously been put forward for pre-construction funding only. For such TII funding requests there may be limited previous assessment to take as a default position in which case it will be necessary to undertake a complete assessment

1.53. In such cases we will work towards reaching a funding decision in **January 2012**. However, to allow us to commence that assessment as early as possible we will require the TOs to provide initial submissions on **4 April 2011**. The TO should then provide, as soon as it becomes available and no later than **mid August 2011**, further supporting information in the areas set out above.

1.54. We will initially focus on assessing the need case, scope and timing of the overall project, in parallel with our work on the first window referred to above. As more detailed information becomes available we will, in parallel with our work on the second window, consider in more detail the funding requirements for the given component of works for which funding is requested.

1.55. The initial submission of 4 April 2011 should include a detailed commentary on the latest position in terms of need case, scope and timing of the overall project, as well as an update on planning consents, technical readiness and latest cost estimates. This commentary should also highlight any new evidence provided with the submission or expected to become available over the course of the assessment period.

Way forward

Overall timeline

1.56. We are continuing to work to the timeline set out in our December consultation, which we have further developed in a number of areas set out below.

January 2011 funding decisions and 2012/13 arrangements

1.57. In January 2011 we published a decision letter confirming our funding decisions for TII funding requests for which we have completed our assessment, and our intention to take forward the 2012/13 arrangements in line with the approach set out in the December consultation. This supplementary document provides more detail on these matters, including our conclusions on the issues on which we sought views in the December consultation and current assessment of the funding requests set out in that consultation.

Further assessment of funding requests on which we did not reach decisions

1.58. As noted above, our January 2011 funding decisions did not cover all the funding requests identified in Appendix 2. Appendix 3 also provides further detail our intended process towards reaching a funding decision on the remaining funding requests, taking into

account our current assessment based on the information available now and the further information we expect to receive during 2011/12.

Interaction with TNUoS-setting

1.59. The January 2011 decision letter included an update on our next steps for considering the remaining requests and discussed interactions with the process of setting Transmission Network Use of System (TNUoS) tariffs for the financial year 2011/12.

1.60. We note that the 2011/12 tariffs published on 31 January 2011²² took into account both the funding decisions confirmed in our decision letter and the potential provision of further funding in 2011/12 for the projects on which we did not reach a decision. We do not envisage the need for a within-year tariff change in the event that we make retrospective provision for funding of those projects for the year 2011/12. We currently expect that any over or under recovery in 2011/12 with respect to TII funding can be adequately dealt with through the Kt term. We will continue to keep this under review.

Licence changes to give effect to funding decisions and extension of TII framework

1.61. Today we are issuing a statutory consultation on the first stage of licence changes to give effect to our January 2011 funding decisions. The proposed licence changes seek to make provision under our current TII framework for funding of identified components of works in 2011/12 only. In the second stage of licence changes we will seek to make provision for funding for those components of works in 2012/13, following our work to consider the licence changes to extend the TII framework to 2012/13.

1.62. We also set out above our process and timetable for determining 2012/13 funding provisions for components of works on which we reached funding decisions in January 2010. We will similarly take forward the licence changes to apply those 2012/13 funding provisions following our work to consider the licence changes to extend the TII framework to 2012/13.

Assessment of requests for funding in 2012/13 and transition to RIIO-T1

1.63. We set out above our process and timetable for assessment of further funding requests under our TII framework, including requests for funding in 2012/13. Under this process we will aim to confirm further TII funding decisions in September 2011 and/or January 2012. The timescales for reaching a decision on a given TII funding request will depend on the timing and content of the initial submission and the extent of relevant previous assessment. Where we specify submissions to be provided by mid August 2011, we expect these to be consistent with the initial business plans submitted in the context of RIIO-T1, which are due at the end of July 2011.

1.64. In cases where we have insufficient information to complete our assessment in January 2012, we currently expect to continue to consider funding requirements for the relevant component(s) of works in the context of RIIO-T1 rather than TII. However we will keep this position under review, and may continue to consider TII funding requests in cases where we consider there are strong reasons to do so.

Interaction with TPCR4 rollover

1.65. For components of works on which we reached funding decisions in January 2010 or in January 2011, the 2012/13 funding provisions will be taken into account in our Final Proposals under the TPCR4 Rollover. For the purposes of our Initial Proposals under the TPCR4 Rollover, we will assume the default position set out above for components of works for which we are still considering requests for additional funding in 2012/13.

²² Explanatory note to Final TNUoS Tariffs Applicable from 1st April 2011, available on NGET's website at: <http://www.nationalgrid.com/NR/rdonlyres/CFD2AC21-BF62-4D13-8020-FE10E61AF730/45138/FinalTNUoS tariffs for 2011.pdf>

1.66. For future TII funding requests, our TPCR4 Rollover Final Proposals will take into account any TII funding decisions reached in September 2011. It will also specify any assumptions made with respect to TII funding requests for which our assessment is ongoing in September 2011.

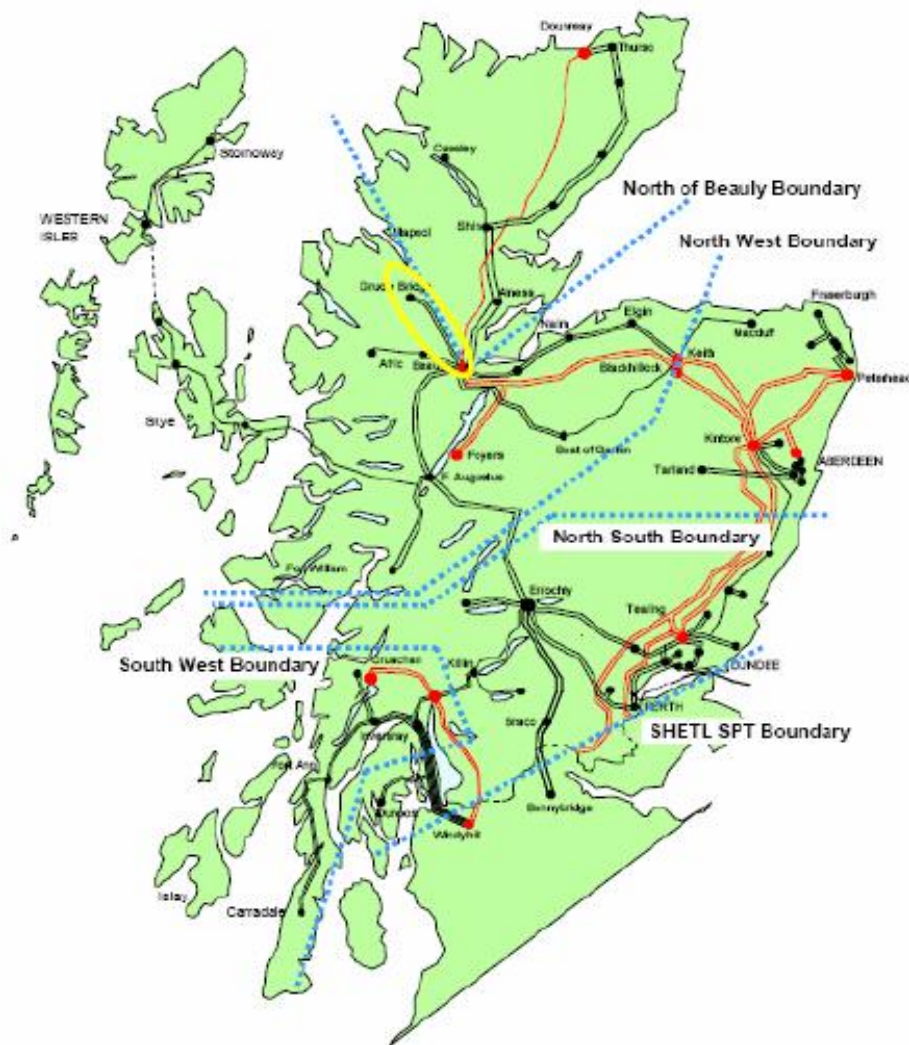
Appendix 2: Overview of projects for which funding was requested from 2011/12

2.1. This appendix describes the projects for which the TOs requested funding from 2011/12, and illustrates their geographical location. Further details are given in KEMA's final report which is published alongside this document.

SHETL

2.2. The map shown in **Figure 2.1** below highlights the project for which SHETL requested funding from 2011/12.

Figure 2.1 – Project for which funding was requested by SHETL

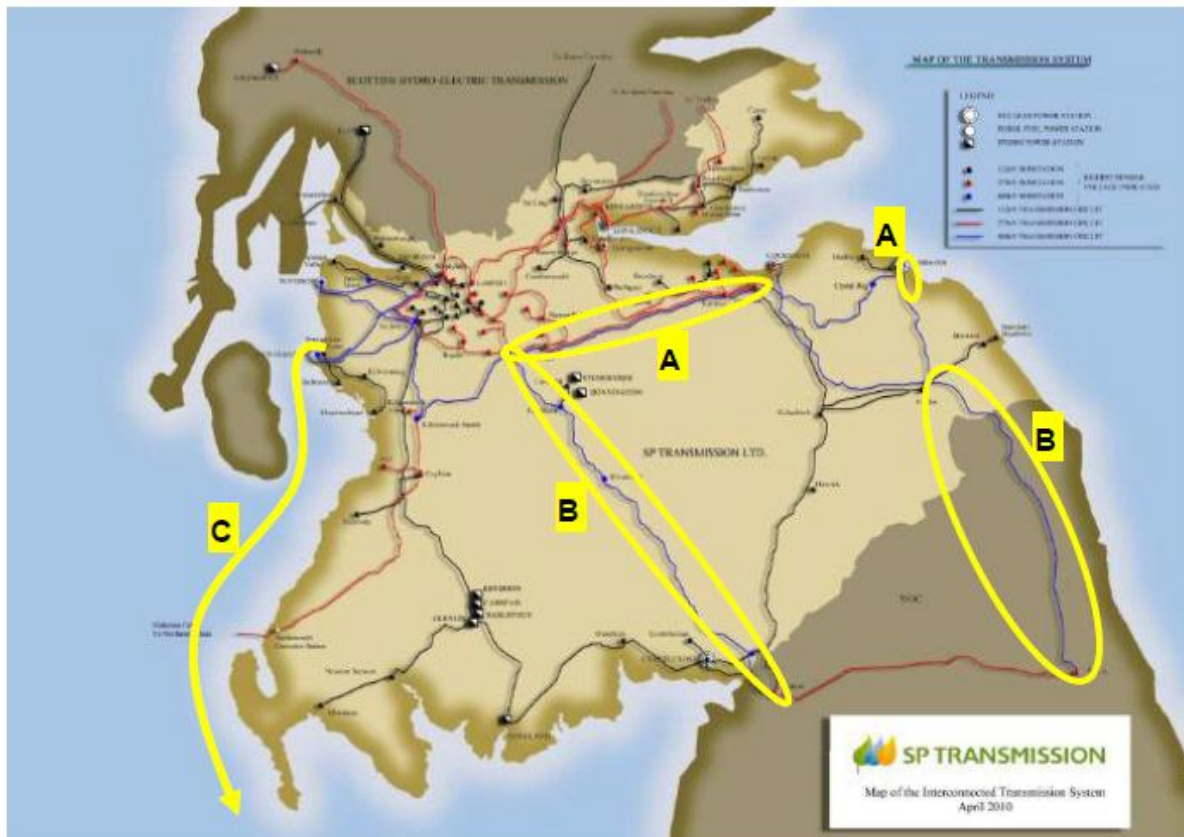


2.3. SHETL's **Beaulay-Mossford** project (highlighted in **yellow** in **Figure 2.1**) comprises the replacement of the existing single circuit 132kV overhead lines and tower structure with a higher capacity double circuit 132kV tower line and the establishment of a new 132kV switching station close to the existing Mossford sub-station. The works will facilitate connection of proposed new windfarms in the area and facilitate compliance with the Security and Quality of Supply Standards (SQSS). SHETL's request for **construction funding** from 2011/12 related to the upgrade to **Mossford substation**, with the remaining works planned to commence in 2012/13.

SPTL

2.4. The map shown in **Figure 2.2** below highlights the projects for which SPTL requested funding from 2011/12.

Figure 2.2 – Projects for which funding was requested by SPTL



2.5. SPTL's **East-West upgrade** project (labelled as **project A** in **Figure 2.2**) comprises the upgrade of the existing double overhead line from Strathaven to Smeaton to full 400kV operation and the installation of a second cable per phase on the Torness – Eccles No.1 and No.2 400kV circuits. The **SPTL-NGET Interconnection** project (labelled as **project B**) seeks the introduction of 6 series capacitors into the East and West coast 400kV double circuit transmission lines between Scotland and England. These two projects taken together form **SPTL's Incremental Reinforcements** scheme, with construction funding requested for both elements from 2011/12.

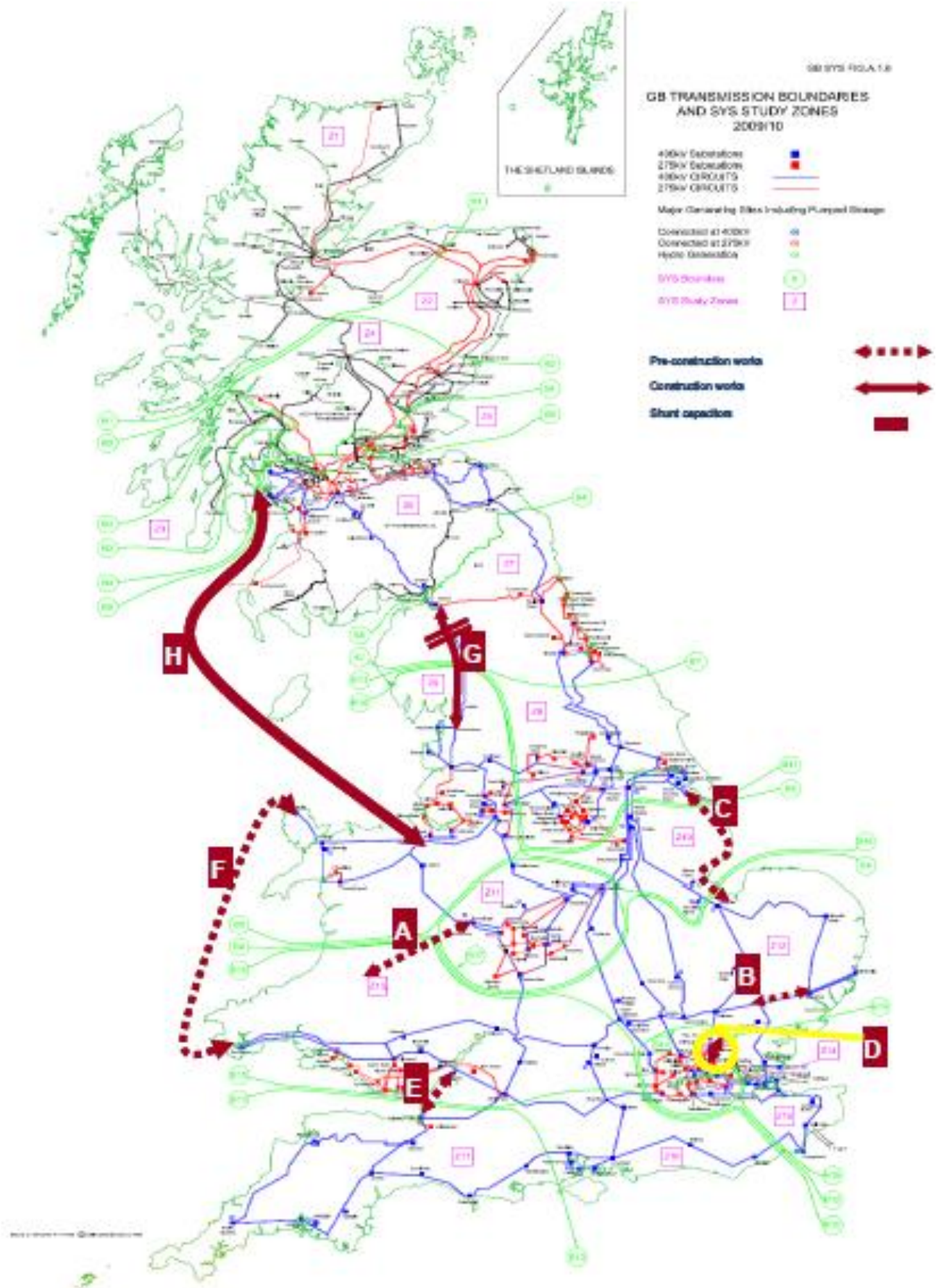
2.6. SPTL's Incremental Reinforcements scheme, in conjunction with NGET's Anglo-Scottish Incremental scheme (discussed below), is part of an overall package of **incremental onshore reinforcements** which will facilitate the increase of the transient stability limit towards 4,400MW (subject to the successful completion of other works funded under TPCR4 and the Transmission Investment for Renewable Generation (TIRG) works).

2.7. The SPTL element of the **Western HVDC Link** (labelled as **project C** and discussed in more detail below), for which SPTL requested construction funding for the SPTL contribution to the costs of the **HVDC Link**. The wider project also includes a new 400kV sub-station at Hunterston North, however SPTL has not requested funding for this sub-project at this time.

NGET

2.8. The map shown in **Figure 2.3** below highlights the range of projects across the England & Wales network for which NGET requested funding from 2011/12.

Figure 2.3 – Projects for which funding was requested by NGET



2.9. In relation to the **projects labelled A to E**, NGET sought further **pre-construction funding** (over and above that previously provided under TII for these projects for the period to end 2011/12) to address additional costs required to progress the following proposed sub-projects (or alternatives developed through the public consultation process) through the Infrastructure Planning Commission (IPC):

- A. Central Wales: Mid-Wales – Ironbridge 400kV Overhead Line;
- B. East Anglia: Bramford – Twinstead Tee 400kV Overhead Line;
- C. Humber: Humber – Mumby – Walpole Overhead Line;
- D. London: Hackney – Waltham Cross 400kV upgrade; and
- E. South-West: Hinkley – Seabank 400kV Overhead Line.

2.10. **Project F** is the **Wylfa – Pembroke HVDC Link**, a new project proposed by NGET for which **pre-construction** funding was requested from 2011/12 in respect to initial development work. NGET considers that this offshore link may be required to accommodate new nuclear generation in north Wales and offshore wind generation in the Irish Sea.

2.11. **Project G**, which forms part of NGET's **Anglo-Scottish Incremental** scheme, comprises the introduction of **shunt compensation** equipment at Harker, Hutton and Stella West for which **construction funding** was requested from 2011/12. NGET's scheme also includes two further sub-projects for which no additional funding is sought for 2011/12: the first sub-project seeks to introduce series compensation equipment on the Harker – Hutton, Harker – Strathaven and Stella – Eccles circuits; the other is to re-conductor the Harker-Hutton-Quernmore Tee circuits. This scheme has been re-optimised since last year's assessment, with the series compensation solution redesigned and supplemented by shunt compensation.

2.12. As discussed above, NGET's Anglo-Scottish Incremental scheme is linked to SPTL's Incremental Reinforcements scheme (comprising the SPT-NGET Interconnection and the East-West upgrade sub-projects discussed above) which form an overall package of **incremental onshore reinforcements** to the Anglo-Scottish boundary.

2.13. **Project H** is the **Western HVDC Link** running from Hunterston to Deeside and is a joint project between NGET and SPTL (also shown as project C in Figure 2.2 above). Together with NGET's contribution to the costs of the **HVDC Link**, NGET's request for **construction funding** for the Western HVDC link includes the construction of the **converter station**. Separately, NGET also requested additional construction funding, over and above that previously provided under TII for the period to end 2011/12, for the rebuilding and extension of the **Deeside 400kV sub-station**.

2.14. The Western HVDC link is designed to improve Scotland to England transfer capability by by-passing Boundaries B6 and B7 and improving the transfers across Boundary B7a, providing substantial additional capacity (circa 2,000MW) for North-South transfers. A further HVDC link (referred to as the Eastern HVDC Link) which may run from Peterhead to Hawthorn Pit or Torness to Hawthorn Pit is also being developed by the TOs. However the TOs currently regard the Western HVDC link as the preferred next stage reinforcement increase transfer capability between Scotland and England, over and above the level (4.4GW) achieved following completion of the package of incremental onshore reinforcements referred to above.

Appendix 3: Project assessment and rationale for funding decisions

3.1. This appendix sets out our current assessment of the funding requests identified in Appendix 2 and the rationale for the funding decisions reached in January 2011. It also gives more detail on the way forward for further consideration of the funding requests on which we did not reach funding decisions

Overview

3.2. The December consultation (see Chapter 3 in that document) set out our proposed approach to assessing the funding requests described in Appendix 2, building upon the approach adopted in our 2009 assessment²³. We confirmed the appointment of KEMA Consulting (KEMA) to support our assessment and identified some specific issues relevant to our consideration of individual projects, taking into account KEMA's initial findings. We also confirmed our intention to publish a document in January 2011 confirming, where applicable, funding decisions in cases where we have completed our assessment within this timeframe and noted that the remaining cases may follow a longer process.

3.3. We have now completed our assessment of the following cost items, on which we reached funding decisions in January 2011:

Construction works:

- The **East-West upgrade** and **SPTL-NGET Interconnection** components of **SPTL's Incremental Reinforcements** project
- The **Shunt Compensation** component of **NGET's Anglo-Scottish Incremental** project
- The **Mossford Substation** component of **SHETL's Beaulieu-Mossford** project

Pre-construction works:

- NGET's **Wylfa-Pembroke** project.

3.4. This appendix sets out our assessment of these requests and the rationale for the funding decisions we set out in the January 2011 decision letter.

3.5. For the remaining funding requests identified in Appendix 2, our ability to reach funding decisions is subject to receipt of relevant information to inform further assessment. To inform future work we set out below our current assessment of these requests based on the information available now, and how we expect to deal with further information that may become available.

Assessment of requests for funding of construction works

Approach

3.6. Our assessment of the construction funding requests described in Appendix 2 has followed the approach set out in the December consultation and further developed in Appendix 1. We have also taken into account consultation responses discussed in Appendix 1 as well as KEMA's final conclusions²⁴ (set out in KEMA's final report published alongside this document) and further information from the TOs.

²³ Last year we undertook an assessment (our 2009 assessment) of the investment proposals put forward by the transmission companies in August 2009 for funding consideration in the context of our work on TII. The approach adopted in our 2009 assessment is described in our December consultation and references therein. Our 2009 assessment was supported by consultancy work by KEMA Consulting (KEMA) and Parsons Brinckerhoff (PB).

²⁴ KEMA's report sets out its final conclusions from its review of information provided by the TOs for the purposes of this assessment up to a cut-off date of 10 January 2011. In publishing the report we have, at the request of the TOs, redacted certain information relating projects on which the TOs are currently or will shortly be undertaking a tendering process.

3.7. KEMA's review has built upon the approach adopted in the 2009 assessment by considering each construction funding request in the following terms:

- Need case, scope and timing for the overall project²⁵
- Design (including technical readiness), deliverability (e.g. planning consents) and cost for the specific component of that project for which funding is requested by the TO from 2011/12.

3.8. In this respect KEMA's review has combined (a) an updated review of the overall project in line with the approach adopted by KEMA in the context of the 2009 assessment, with (b) extending this latest review to cover those aspects previously considered by Parsons Brinckerhoff (PB) in the 2009 assessment. This has informed our assessment of the economic justification for proceeding with the planned construction works and the readiness of the TO to take forward this work by the end of 2011/12.

3.9. Both aspects are relevant to our assessment of the case for provision of construction funding from 2011/12 and our determination of appropriate funding provisions under our TII framework for the period to end 2012/13, subject to our assessment of efficient costs and of interactions with existing funding provisions.

3.10. Our December consultation highlighted that where the funding request relates to a component of works with existing TII funding for the period to end 2011/12, it is necessary to consider interactions with those existing funding provisions when considering additional funding requirements for that component of works. In dealing with these interactions we have applied the approach set out in Appendix 1.

Consultant assessment: summary results

3.11. In its latest review, KEMA expressed the summary results of its assessment through "traffic light" indicators consistent with those adopted by KEMA and PB for their respective reviews in the 2009 assessment. A comparison of the summary results of KEMA's latest assessment with those of the 2009 assessment is given in **Table 3.1** overleaf.

3.12. In both assessments, KEMA used "**red**" to represent "low/weak" and "**green**" to represent "high/strong" to indicate their view of the appropriateness of the **overall project** (including sub-projects planned to commence later than 2011/12) in terms of:

- **Needs case** (certainty of need): whether the case for investment is clear and certain at this time
- **Scope** (appropriateness of scope): whether the scope of the investment is appropriate and represents an efficient response to the need
- **Timing** (certainty of timing): whether the timing of the investment is appropriate given that there is a satisfactory case for need and that scope of investment is appropriate.

3.13. For its review of the TO readiness to take forward the planned construction works on the **specific sub-projects** for which funding is requested from 2011/12, KEMA's summary results used the same traffic lights adopted by PB, as summarized in **Table 3.2** below.

3.14. Key points from KEMA's latest assessment and changes since the 2009 assessment are discussed below in setting out our current assessment of the overall projects and associated sub-projects for which the TOs requested construction funding from 2011/12.

3.15. This assessment informed the funding decisions set out in our January 2011 decision letter. Where relevant, we will also take this assessment into account, together with any new information, in future assessments.

²⁵ The TOs' submissions included updated information on all sub-projects within these projects.

Table 3.1: Summary of consultant assessment of requests for funding of construction works

			2009 assessment (KEMA/PB)							Latest assessment (KEMA)						
			Specific sub-project (PB)				Overall project (KEMA)			Specific sub-project				Overall project		
			Construction commencement	Deliverability	Design	Cost	Need	Scope	Timing	Construction commencement	Deliverability	Design	Cost	Need	Scope	Timing
SPTL	Incremental reinforcement	SPTL-NGET Interconnection (Note 5)	2010/11	Amber	Red	Green / Amber	Green / Amber	Amber	Amber	2010/11	Amber	Green	Green	Green	Green	Green
		East-West upgrade	2011/12	Red	Red	Red				2011/12	Amber	Amber	Amber			
NGET	Anglo-Scottish incremental	Series compensation	2011/12	Amber	Red	Red				Note 3						
		Reconductor Harker-Hutton-Quernmore Tee	2011/12	Green	Green	Green				Note 3						
		Shunt compensation	Note 1							2011/12	Green	Green	Amber			
NGET / SPTL	Western HVDC link	Deeside substation (NGET)	2010/11	Green	Green	Green	Amber / Red	Amber	Red	2010/11	Green	Green	Amber	Amber	Amber	Amber
		HVDC Link and convertor station (NGET)	2011/12	Red	Red	Red				2011/12	Amber	Amber	Amber			
		HVDC Link (SPTL)														
		Onshore works (SPTL)	2012/13							Note 3						
SHETL	Beaully-Mossford	Mossford substation	Note 2						2011/12	Amber	Green	Green	Green	Green	Green / Amber	
		Line upgrade	Note 2						Note 3							

Notes

- 1 This sub-project is a new addition to this project since the 2009 assessment was undertaken
- 2 This project was not put forward for funding consideration in the 2009 assessment
- 3 In the latest assessment this sub-project was reviewed in context of overall project assessment only
- 4 Sub-projects for which funding is requested are shown in bold, further sub-projects in the given project are shown in purple shading
- 5 This sub-project has existing TIL construction funding to end 2011/12 - the funding relates to preparatory works with no decision reached on the remaining works

Table 3.2: Key for summary assessment of specific sub-projects in Table 3.1

Deliverability	Design	Costs
Green Consents already obtained or are not required	Green Design firm	Green Cost estimates are considered to be reasonable, reflecting content, quantities and market prices.
Amber Consents required but are not expected to be problematical	Amber Some design decisions required but may be addressed in the near future and the impact on cost may already be known	Amber Cost estimate considered reasonable but may be updated in short term
Red Consents required and may cause a delay to the programme	Red Design decisions will be addressed over a period of time and may influence cost of project	Red Estimate not firm and may change with development

*Ofgem assessment***(i) SPTL and NGET: Incremental onshore reinforcements**

3.16. In both the 2009 assessment and the latest assessment, KEMA's review of overall projects has treated the **incremental onshore reinforcements** proposed by SPTL and NGET as a package. This package comprises all sub-projects of **NGET's Anglo-Scottish Incremental** project together with both sub-projects of **SPTL's Incremental Reinforcement** project.

3.17. The driver of this package of sub-projects is to enable the full thermal capacity of the Scottish interconnector circuits (4.4GW) to be realised by relieving stability constraints that would otherwise limit export capacity to 3.3GW following completion of currently planned works including TIRG works. The TOs' proposals seek to achieve this by reducing the reactance of three 400kV double circuits (Stathaven-Harker, Eccles-Stella West and Harker-Hutton), addressing thermal limitations internal to SPTL network and upgrading the thermal capacity from Harker to the Heysham ring. The Tos have indicated that although the individual sub-projects each have some benefit in their own right, they must all go ahead in order to realise the full benefits of the incremental onshore reinforcements, namely a 1.1GW increase in transfer capability across the Anglo-Scottish boundary.

3.18. In the 2009 assessment, the incremental onshore reinforcements were considered as part of a wider suite of reinforcement options to provide increased transfer capability between Scotland and England. This suite also included the Western HVDC link discussed below as well as an Eastern HVDC link. In light of uncertainties as to the need, order and timing of individual reinforcement options, and need for further design work on individual components of planned construction works, we funded pre-construction work on the full suite of reinforcement options so that they may each be developed in more detail. In relation to the incremental onshore reinforcements, we also provided construction funding for preparatory works on SPTL's SPTL-NGET Interconnection sub-project in 2010/11, without making a decision the remaining works.

3.19. In making the requests for construction funding from 2011/12, the TOs indicated that the overall objectives and design principles of the incremental onshore reinforcements have not changed since the 2009 assessment. Taking into account NGET's updated cost benefit analysis (CBA), which has considered a wider range of generation scenarios, the TOs still view this package of sub-projects to be the preferred first stage reinforcement to the Anglo-Scottish boundary and that it should proceed without delay.

3.20. The TOs' detailed proposals for individual sub-projects are also further advanced following ongoing development work, and this has led to some design changes to individual sub-projects as follows:

- For the **Anglo-Scottish Incremental works**, NGET has revised its proposal for installation of reactive compensation equipment²⁶, which is now based on a combination of series and shunt compensation.
- For the **SPTL-NGET interconnection** sub-project SPTL has refined the capacities and locations of the proposed fixed series capacitors (FSCs), and complemented the series compensation solution with one Mechanically Switched (Shunt) Capacitor Damping Network (MSCDB) at Cockenzie.
- For the **East-West upgrade**, SPTL's proposal now includes a new 400kV GIS²⁷ substation at Wishaw, replacing the previously proposed new AIS substation east of Wishaw (i.e. remote from the existing transmission line).

KEMA's view

3.21. The findings of the 2009 assessment are discussed in para 3.17 above. In its latest assessment KEMA has concluded that, taken together, the proposed package of incremental onshore reinforcements is the most cost effective way of increasing the transfer capability between Scotland and England from 3.3GW to 4.4GW. KEMA also considers that the general timing and scope of each individual sub-project is reasonable and that while the TOs continue to progress planning consents and explore some detailed design issues, this is unlikely to lead to significant changes to the TOs' current proposals for the sub-projects for which funding is requested from 2011/12. KEMA also considered the TO current cost estimates for these sub-projects to be reasonable, subject to some qualifications, and recommended that they should be accepted for the purposes of determining funding allowances under the TII framework at this stage.

Ofgem's view

3.22. Taking KEMA's conclusions into account, we are satisfied that the overall package of incremental onshore reinforcements is economically justified and that the planned delivery timescales are appropriate. While we note some specific issues raised by KEMA in its review of the sub-projects for which funding is requested from 2011/12, we do not consider these sufficiently material to affect our TII funding decisions on these sub-projects at this stage. Our January 2011 decision letter therefore confirmed our decision to provide funding for these sub-projects to end 2012/13, in line with the latest cost estimates provided by the TOs. We set out in the following paragraphs how we expect the TOs to take the matters raised by KEMA into account going forward. We expect the TOs to reflect any progress on these issues in their business plans submitted under RIIO-T1, through which future funding arrangements, from 2013/14 onwards, will be addressed.

3.23. We note that KEMA highlights the potential need for retrofit of additional equipment in order to manage technical issues that may arise as a result of installing series compensation equipment on the existing network. However, KEMA considers the potential addition of such equipment is a detailed design issue which will only be revealed through the process of building and operating the assets. We agree with this view, and expect the TOs to manage this risk through making appropriate provisions within their contracts with suppliers and to continue to refine their designs as appropriate in light of further analysis.

3.24. KEMA also suggested the proposed installation of 275kV compensation equipment at Cockenzie, as part of the SPTL-NGET interconnection project, may not provide an optimal long term solution to the extent that there is opportunity to rationalize the network in the area following closure of Cockenzie power station. KEMA again view this as a detailed

²⁶ Compensation equipment provides voltage support, and can be connected in parallel ("shunt") with the transmission lines or in series, the latter being relatively newer technology to the GB transmission system.

²⁷ Substations can have Gas Insulated Switchgear (GIS) or Air Insulated Switchgear (AIS), the latter being more expensive but having a significantly smaller footprint.

design issue and note that the short term benefits of proceeding with the current design may outweigh any longer term savings from an alternative design taking into account the potential adverse impact on delivery timescales. We agree with this view, and further note the potential benefits of progressing the full package of incremental onshore reinforcements to the current planned timescales. However, we expect SPTL to take the issues raised by KEMA into account in developing its long term strategy for the network in this area and to continue to refine its design as appropriate in light of further analysis.

3.25. Finally, we note that KEMA raised some concerns with SPTL's cost estimates for the Wishaw substation element of the East-West upgrade, in light of which KEMA recommended including a potential downward adjustment when determining funding allowances for this project beyond 2011/12. We have decided to adopt SPTL's current cost estimates for the purposes of determining funding allowances under TII for the period to 2012/13, but will take into account the latest cost information when considering funding arrangements from 2013/14 onwards under RIIO-T1.

(ii) SPTL and NGET: Western HVDC link

3.26. NGET and SPTL requested funding for construction costs for the **Western HVDC link** from 2011/12. Both TOs requested funding for their respective shares of the HVDC link while NGET's funding request also covered the convertor station at the southern endpoint of the link.

3.27. The TOs have put forward the Western HVDC link as the next stage reinforcement, over and above the incremental onshore reinforcements discussed above, for increasing the transfer capability (by a further ~2GW) between Scotland and England. As discussed above, the merits of this proposed link were previously assessed in 2009 as part of a wider suite of options to provide increased transfer capability between Scotland and England. The supporting information provided by NGET with the latest funding requests included an updated CBA which assessed the proposed reinforcements against a wider range of scenarios than the CBA provided for the 2009 assessment.

3.28. The TOs considered that, based on this analysis, the Western HVDC link is needed by 2015. This completion date is reflected in the TOs' current programme, in which construction expenditure is planned to be incurred from late 2011 following contract award on completion of the tendering process for construction works. The TOs therefore requested construction funding to be provided in 2011/12.

KEMA's view

3.29. In its latest assessment, KEMA has approached its review of the need case, scope and timing of the Western HVDC link from a baseline assumption that the incremental onshore reinforcements proceed, and hence considered further investment requirements beyond the 4.4GW transfer capability achieved following completion of those works. KEMA has concluded that, to the extent that further reinforcement is required, then an offshore HVDC link is the appropriate means of providing such reinforcement. KEMA also consider that there is a reasonable likelihood that reinforcement will be required at some point in the future. However, KEMA raise some questions over (a) whether this requirement will materialise by 2015, and (b) to the extent that it does, whether the Western HVDC link is preferable to the Eastern HVDC link.

3.30. In this respect KEMA note that the assessment of the optimal timing for the Western HVDC link (putting aside the question of whether it is preferable to the Eastern HVDC link) is highly sensitive to the CBA assumptions. While accepting that completing the Western HVDC link in 2015 can be justified under the assumptions adopted by NGET, KEMA consider that those assumptions may overstate the benefits of the link. KEMA also consider that similar analysis based on variations to those assumptions indicate that the link could be delayed.

3.31. KEMA conclude that while a case could be made to commence construction according to the TOs' planned timescales, there would be limited downside risk in delaying commencement of construction work to 2012/13. KEMA further note that this delay would allow for further review to be undertaken of scheme options and costs during 2011/12. KEMA recommend that this review consider in more detail the respective merits of all the available HVDC link options and take into account the latest available information, e.g. on constraints costs, in formulating the CBA. KEMA also note that cost uncertainty will reduce during 2011/12 through further information gained through the tendering process for the Western HVDC link.

Ofgem's view

3.32. We note that the Western HVDC link is a complex project without precedent in GB. We further note that both TOs have indicated that the cost estimate for the Western HVDC link (especially that associated with the undersea cable) is subject to significant uncertainty at this stage. Our December consultation made clear that our assessment may take a longer timeframe than other funding requests, recognising the materiality of the funding request, the lack of firm cost information and the need to address project-specific issues including licensing provisions.

3.33. Given the complexity and scale of the project, we need to explore further the issues raised by KEMA before reaching any decision on whether to provide funding in 2011/12 and on the level of any such funding. Therefore our January 2011 decision letter confirmed that, based on the information available now, we are unable to reach a funding decision on this project at this stage. We recognise the potential benefits of the proposed link, and support the TOs' decision to tender for this work. The tender process will provide data on costs which will be an important input to our further assessment. We will continue to work with the TOs to complete our assessment of this project, taking into account any further evidence provided by the TOs. We are committed to ensuring our decision process do not hamper the timely delivery of efficient critical investment and will complete our assessment as quickly as possible when further information comes available. We are also considering the licensing provisions for this project.

3.34. We note that in the timescales for KEMA's assessment set out in its January 2011 report it was not possible to resolve all areas of difference between NGET and KEMA with respect to the assumptions and analysis underpinning the assessment of need case and timing. We expect NGET to provide further evidence justifying its position on outstanding issues and we will take this into account in further assessment. We also expect the TOs to provide further evidence of their evaluation of alternative options, including east coast routes, which led to their conclusion that the proposed west coast option is the optimal next stage reinforcement, over and above the incremental onshore reinforcements discussed above, for increasing the transfer capability between Scotland and England. We will also consider any evidence of non-quantitative benefits, noting our previous statement that we may consider the appropriateness, in the interests of current and future consumers and sustainability, of funding projects with uncertain need case.

3.35. Subject to timely receipt of relevant information required to complete our assessment, we may be in a position to confirm funding decisions, where applicable, later this year. Taking into account interactions with the tendering process we plan to adopt a staged approach to our further assessment, as set out below. Pending completion of this assessment, we expect the TOs to continue work to maintain achievability of a delivery date of 2015.

3.36. The **first stage** of our assessment will focus on addressing outstanding issues in further updating our assessment of: (a) the case for delivering the Western HVDC link in 2015; and (b) the need to commit construction expenditure in 2011/12 in order to maintain achievability of this delivery date. We plan to consult on our updated assessment of these issues in summer 2011.

3.37. To inform this work, we invite the TOs to provide a further submission by **11 April 2011**, to include the following information:

- analysis of the net benefits (including non-quantitative impacts) of delivery of the proposed Western HVDC link in 2015, from an assumed baseline that all the proposed incremental onshore reinforcements proceed in line with current plans
- sensitivity analysis of the impact on those net benefits if delivery of the proposed Western HVDC link is delayed by one or more years
- details of assumptions and methodology used for the above analysis, identifying new information taken into account and providing supporting justification for the position taken on any outstanding areas of difference between NGET and KEMA
- further evidence justifying the TOs' position that, irrespective of timing, the proposed Western HVDC link is the optimal next stage reinforcement for increasing the transfer capacity from Scotland to England, e.g. this should include comparative analysis of alternative options considered to date, against relevant criteria, and
- update on expected process to progress the proposed Western HVDC link to contract award stage, giving details of key dependencies to achieving delivery in 2015 and approach to managing risks.

3.38. We note that for the purposes the first stage of our assessment, it may be appropriate to base the above analysis on generic assumptions as to the cost and capacity of the link (within reasonable ranges). We also expect the above submission to both consolidate relevant information provided to date and incorporate additional or updated information in presenting an updated case in the areas identified above.

3.39. In the **second stage**, we will further update our first stage assessment to take into account views of respondents and other information that may become available later this year. We will also focus in more detail on the funding requirements in 2011/12 and 2012/13, taking into account the specific plans of the TOs and the readiness to commit construction expenditure in 2011/12.

3.40. To inform this work, we expect the TOs to provide a further submission by **30 June 2011**, containing:

- detailed cost, design and programme information following initial tender returns, and
- updates to the analysis provided for the first stage of our assessment, with specific assumptions reflecting the latest available cost and design information

3.41. We also expect the TOs to provide further information with this submission and/or **throughout summer 2011** to include:

- demonstration of timely progress and a robust process in ongoing work to develop the Western HVDC link to the contract award stage, including effective management of risks, and
- any further information requirements identified through our first stage assessment.

3.42. Subject to timely receipt of relevant information from the TOs, we currently expect to be in a position to conclude the second stage of our assessment in September 2011. We will take this information into account in finalising our position on funding the Western HVDC link under our TII framework. Where applicable we will confirm our decisions on the level of funding, if any, to be provided under the TII framework, and any conditions attached to such funding e.g. in relation to planning consents.

(iii) NGET: Deeside substation

3.43. As discussed in Appendix 2, NGET requested additional TII funding, over and above that granted in April 2010, for the **Deeside substation** sub-project. Taking into account KEMA's latest assessment of the Western HVDC link from the perspective of the need case, scope and timing of the overall project, as set out above, we remain of the view that it is appropriate to give separate consideration to construction funding for this sub-project, without reaching a decision on the HVDC link itself.

Confirmed approach to dealing with this request

3.44. Following our 2009 assessment, we already reached a decision to provide construction funding to the Deeside substation sub-project for the period to end 2011/12. In line with the 2012/13 arrangements confirmed above we intend to extend that funding to 2012/13. As discussed in Appendix 1, our default position is to base 2012/13 funding on the same baseline assumptions underpinning the previous TII funding decision, and then consider any further funding requirements in the context of RIIO-T1.

3.45. However in light of NGET's request for additional TII funding from 2011/12 we recognise that circumstances may have materially changed since the previous funding decision was made. Therefore to the extent that additional works have been identified for the Deeside substation sub-project and were not taken into account in the 2009 assessment, we will consider the case for providing additional funding in 2012/13 in line with the approach set out in Appendix 1.

3.46. If NGET considers there is a case for adjustment to existing TII funding provisions for the period to end 2011/12, or those determined for 2012/13, it is open to NGET to re-submit its funding request in the form of a formal request under the asset value adjusting event mechanism and/or output measures adjusting event mechanism referred to in Appendix 1. For us to be able to consider such a request it must be accompanied by full supporting information as specified in Special Condition D11.

Ofgem's view

3.47. Based on the information provided by NGET to 10 January 2011, we have been unable to establish the extent of additional funding required or a clear baseline for provision of such funding in 2012/13. Therefore our January 2011 decision letter confirmed that, based on our assessment of that information, we are unable to reach a funding decision on NGET's funding request.

3.48. Shortly before publication of our January 2011 decision letter, NGET provided further information on Deeside substation. We intend to take this information into account in our ongoing assessment, together with any further information provided by NGET over the coming month. Our assessment will seek to establish the changes in scope and associated impact on costs and programme since our 2009 assessment, and the proportion of additional costs which relate to expenditure which is both unfunded and efficiently incurred within the current price control.

3.49. If by mid August we still have insufficient information to reach a decision on provision of additional funding in 2012/13, then we will determine 2012/13 funding provisions in line with the default position.

(iv) SHETL: Beaulieu-Mossford

3.50. This project was not put forward for funding consideration under TII last year, and therefore was not reviewed in the 2009 assessment. The overall project includes two sub-projects, relating to upgrade of Mossford substation and upgrade of the overhead line between Beaulieu and Mossford respectively. SHETL requested construction funding for **Mossford substation** from 2011/12, with construction works planned to commence on the line upgrade in 2012/13.

KEMA's view

3.51. KEMA's review of the overall project concluded that there is a clear need for this project in order to both address SQSS compliance issues with the existing network arrangements and facilitate connection of new generation in the local area. KEMA also considered that the proposed scope and timing is appropriate including SHETL's proposal to complete the substation works ahead of completion of the overhead line works noting that the former has benefits in its own right. KEMA further considered that in light of planning consents being granted to the Beaully-Denny project there is a low risk that exports of generation connecting in the area would be curtailed in the long term due to the constraints on the wider transmission system. KEMA also considered the proposed design for the Mossford substation sub-project to be appropriate and SHETL's cost estimates reasonable, but that the need to achieve planning consents may create a risk to deliverability.

Ofgem's view

3.52. Taking KEMA's conclusions into account, we are satisfied that the overall project is required and we support SHETL's decision to take forward the substation works ahead of the overhead line works. To the extent that this project is not currently funded we consider that the TII framework is the appropriate route for provision of any necessary funding. Having reviewed further information submitted by SHETL in support of its view that there is no overlap with existing funding provisions, including the local revenue driver, we do not consider that adjustments to funding allowances for this project are necessary in this respect.

3.53. Our January 2011 decision letter therefore confirmed our decision to provide funding under TII for the Mossford substation sub-project to end 2012/13, in line with SHETL's cost estimates. We also expect to take into account our current assessment of the overall project, together with new information, in our future consideration of a request for construction funding under TII for the overhead line works.

3.54. We note that SHETL's proposal for Mossford substation is based on the assumption that planning consents will be granted and the current planned programme maintained. As with all TII funding to date, our funding allowances will be linked to deliverables consistent with assumptions underpinning the assessment on which the funding decision is based. Where circumstances change we expect this to be reflected in SHETL's business plan submitted in the context of the next full price control review, RIIO-T1, through which future funding arrangements, from 2013/14 onwards, will be addressed.

Assessment of requests for funding of pre-construction works

Approach

3.55. Our assessment of the pre-construction funding requests described in Appendix 2 has followed an approach in line with that described above for construction funding requests, albeit with a reduced scope.

3.56. In this context KEMA's review has focused on:

- Need case, scope and timing for the overall project²⁸
- Planned pre-construction works for which funding is requested by the TO from 2011/12.

3.57. We have taken KEMA's review into account in our assessment of the case for provision of pre-construction funding from 2011/12 and the determination of appropriate funding provisions under our TII framework for the period to end 2012/13, subject to our assessment of efficient costs and of interactions with existing funding provisions.

²⁸ The TOs' submissions included updated information on all currently planned sub-projects within these projects; these are shown in Table 3.3.

3.58. Where the funding request relates to a component of works with existing TII funding for the period to end 2011/12, we have dealt with interactions with existing funding provisions in line with the approach set out in Appendix 1.

Consultant assessment: summary results

3.59. For the pre-construction funding requests KEMA again expressed the summary results of its assessment of the overall project (including sub-projects planned to commence later than 2011/12) using the same “traffic light” indicators adopted by KEMA in the 2009 assessment. A comparison of the summary results of KEMA’s latest assessment with those of the 2009 assessment is given in **Table 3.3** overleaf.

3.60. It should be noted that while KEMA’s updated assessment has considered the overall project, including sub-projects for which funding is not requested at this stage, the rating given using the “traffic light” indicator primarily reflects KEMA’s assessment of the sub-project for which additional pre-construction funding is requested. Therefore a comparison with the summary results from the 2009 assessment may not be meaningful.

3.61. Key points from KEMA’s latest assessment and changes since the 2009 assessment are discussed below in setting out our current assessment of the overall projects for which the TOs requested pre-construction funding from 2011/12.

3.62. This assessment informed the funding decisions set out in our January 2011 decision letter. Where relevant, we will also take this assessment into account, together with any new information, in future assessment.

Table 3.3: Summary of consultant assessment of requests for funding of pre-construction works

			2009 assessment (KEMA/PB)							Latest assessment (KEMA)						
			Specific sub-project (PB)				Overall project (KEMA)			Specific sub-project				Overall project		
TO	Project	Sub-project (Note 4)	Construction commence-ment	Deliver-ability	Design	Cost	Need	Scope	Timing	Construction commence-ment	Deliver-ability	Design	Cost	Need	Scope	Timing
NGET	Central Wales	Mid-Wales – Ironbridge 400kV Overhead Line	Note 1				Red	Green	Amber / Red	Note 3				Amber / Red	Green	Amber / Red
		Substation works	Note 1							Note 3						
NGET	East Anglia	Bramford – Twinstead Tee 400kV Overhead Line	Note 1				Green	Green	Green / Amber	Note 3				Amber	Green	Amber
		Quadrature Boosters Norwich-Walpole circuit	Note 1							Note 3						
		Reconductor Walpole-Norwich, Norwich-Bramford 400kV (Note 5)	2010/11	Green	Green	Green				Note 3						
		Bramford 400kV substation (Note 5)	2010/11	Amber	Green	Green				Note 3						
NGET	Humber	Humber – Mumby – Walpole Overhead Line (Note 6)	Note 1				Red	Amber	Red	Note 3				Amber / Red	Green	Amber / Red
		Substation works	Note 1							Note 3						
NGET	London	Hackney – Waltham Cross 400kV upgrade	2011/12	Amber	Red	Red	Green	Green / Amber	Green	Note 3				Green / Amber	Green	Green / Amber
		Further works	Note 1							Note 3						
NGET	South-West	Hinkley – Seabank 400kV Overhead Line	Note 1				Red	Green	Red	Note 3				Amber	Green	Amber
		Substation works	Note 1							Note 3						
NGET	Wylfa-Pembroke HVDC link	Wylfa-Pembroke HVDC link	Note 2						Note 3				Red	Green / Amber	Red	

Notes

- 1 In the 2009 assessment this sub-project was reviewed for pre-construction funding only
- 2 This project was not put forward for funding consideration in the 2009 assessment
- 3 In the latest assessment this sub-project was reviewed in context of overall project assessment only
- 4 Sub-projects for which funding is requested are shown in bold, further sub-projects in the given project are shown in purple shading
- 5 This sub-project has existing TIL construction funding to end 2011/12
- 6 The existing TIL pre-construction funding is explicitly flexible to apply to either onshore OHL or offshore HVDC link solution between Humber and Walpole.

(i) NGET: IPC-related pre-construction funding

3.63. As discussed in Appendix 2, NGET requested additional TII funding, over and above that granted in April 2010, for **IPC-related pre-construction work** on a range of projects involving overhead lines. In considering these requests we are following a similar approach to that which we are adopting for the funding request for Deeside substation discussed above. That is, in considering additional funding requirements our focus is on identifying costs which were not taken into account in determining existing funding provisions.

Confirmed approach to dealing with this request

3.64. Following our 2009 assessment, we already reached a decision to provide pre-construction funding for these projects under the TII framework for the period to end 2011/12. In line with the 2012/13 arrangements confirmed above we intend to extend that funding to 2012/13. As discussed in Appendix 1, our default position is to base 2012/13 funding on the same baseline assumptions underpinning the previous TII funding decision, and then consider any further funding requirements in the context of RIIO-T1.

3.65. However in light of NGET's request for additional TII funding from 2011/12 we recognise that circumstances may have materially changed since the previous funding decision was made. Therefore we will consider the case for providing additional funding in 2012/13 in line with the approach set out in Appendix 1.

3.66. If NGET considers there is a case for adjustment to existing TII funding provisions for the period to end 2011/12, or those determined for 2012/13, it is open to NGET to re-submit its funding request in the form of a formal request under the asset value adjusting event mechanism and/or output measures adjusting event mechanism referred to in Appendix 1. For us to be able to consider such a request it must be accompanied by full supporting information as specified in Special Condition D11.

Ofgem's view taking KEMA's assessment into account

3.67. We note the 2009 assessment took account of potentially higher costs associated with the additional activities involved in meeting the requirements of the IPC, and also recognised that there may be some uncertainty in this respect. In considering the case for providing additional funding in 2012/13 it will be necessary to establish the nature and cost of pre-construction activities which are expected to be undertaken for the relevant projects up to end 2012/13 and are genuinely additional to those anticipated at the time of the 2009 assessment.

3.68. Taking latest KEMA's assessment into account, we agree that there appears to be a genuine need for additional costs resulting from the more stringent stipulations by the IPC. However, we consider that there is currently insufficient evidence available from NGET as to the impact of the activities to be undertaken for individual projects or on the costs of those activities for us to reach any firm decision on additional TII funding at this stage. Therefore our January 2011 decision letter confirmed that, based on our assessment of the available information, we are unable to reach a funding decision on this project at this stage.

3.69. We further note that further evidence will only become available through practical experience of operating under the requirements of the IPC. We expect NGET to gather such evidence and to present it to us for our assessment of funding requirements in 2012/13. We also expect NGET to present this information on a project-specific basis and at an appropriate level of detail. If by mid August we still have insufficient information to reach a decision then we will determine 2012/13 funding provisions in line with the default position. However, we note that the relevant information may only become available once NGET has completed the IPC process for at least one project, which may be after we have determined 2012/13 funding provisions. In that case we expect to take such information into account in considering further funding requirements in the context of RIIO-T1.

(ii) NGET: Wylfa-Pembroke HVDC link

3.70. The **Wylfa-Pembroke HVDC link** is a new project proposed by NGET, and therefore was not reviewed in the 2009 assessment. NGET anticipate a future need to accommodate new nuclear generation in north Wales and offshore wind generation in the Irish Sea, which could increase the required export capacity by 2GW. NGET has proposed a solution of building an offshore HVDC link from Wylfa to Pembroke in South Wales, which would bypass the increasingly constrained North West of England. Given the long lead time for such a project, propose to commence initial development work in 2011/12.

Ofgem's view taking KEMA's assessment into account

3.71. We consider that the proposed Wylfa-Pembroke HVDC link is a sensible option to develop in more detail, while recognising this project is at an early stage and that the timing of the reinforcement is not urgent. We also consider that the proposed pre-construction expenditure to 2012/13 is reasonable. Our January 2011 decision letter therefore confirmed our decision to provide funding under TII for pre-construction work on this project to end 2012/13, in line with NGET's cost estimates.