



1. Attendees

Frank Prashad (FP), RWE npower	Guy Phillips (GP), E.ON alternate
Ivo Spreeuwenberg (IS), NGET	Helen Snodin (HS), Scottish Renewables and HIE
Alan Kelly (AK), Scottish Power alternate	Ricky Hill (RH), Centrica
Tim Russell (TR), REA	Jonathan Hodgkin (JH), Ofgem
Garth Graham (GG), SSE	Anthony Mungall (AM), Ofgem
Louise Schmitz (LS), EDF Energy	Scott Hamilton (SH), Ofgem
Guy Nicholson (GN), RenewableUK	Apologies for absence: James Anderson, Scottish Power; Paul Jones, E.ON; Simon Lord, First Hydro; Michael Dodd, ESB International.
Robert Longden (RL), Mainstream Renewable Power	
Stuart Cotten (SC), Drax Power Limited	

2. Overview of discussion

Ofgem opened the meeting, briefly recapping the objective for Technical Working Group (WG) meeting 3 was to consider theme 3, Treatment of Security Provision, and theme 4, Reflecting New Transmission Technology. In addition, time was also scheduled for discussion of themes 1 and 2 to further consider potential Postalised 'strawman', part of which would be informed by presentations by WG members, HS and GG.

6 Themes of Project Transmit's TNUoS review:

1. Reflecting characteristics of transmission users
2. Geographical/topological differentiation of costs
3. Treatment of security provision
4. Reflecting new transmission technology
5. Unit cost of transmission capacity
6. G:D split

Review and feedback from WG Meeting 2:

Ofgem had circulated draft meeting note of WG 2 and requested feedback from participants on their accuracy. Ofgem noted comments circulated amongst the WG pertaining to points from WG 2 that had not been recorded in the draft meeting note. On this point, Ofgem reiterated that the meeting notes were intended as a general account of the themes of discussion and were not a detailed verbatim reporting of each WG member's contribution. In this context, it was agreed that the points raised via email correspondence generated by WG 2 would be added in the final draft of the note.

Other issues included;

- Some members of the WG noted that the draft meeting note of WG 2 contained references such as 'the group agreed that', and intimated that this was not as categorical, in some instances, as the draft note inferred (eg agreement of the justification provided for use of an annual load factor under the theme 1 improved ICRP discussion). Ofgem agreed to modify the language in the draft meeting note to reflect this point.
- Some members of the group asked that, for the avoidance of doubt, NGET's 'strawman' Improved ICRP proposal should be more clearly identified as being separate from the WG. IS indicated that he would make it clear in the proposal he was developing that it was NGET's work, but is partly informed by the contributions of WG members.
- The group considered the discussion of 'themes' in relation to the WG timetable. It was agreed that while the WG's position on the provisional options for change for themes 1 and 2 had not be definitively agreed, the lack of agreement on these points should not delay discussion of themes 3-6. It was noted that the WG may be better placed to answer the outstanding issues within themes 1 and 2 once they have further developed their views on the other themes. It was agreed the outstanding issues pertaining to themes 1 and 2 would be reconciled at future WG meetings (starting with WG 4).
- In the meantime, Ofgem noted that the recap of themes 1 and 2 in the day's meeting would serve to establish a 'hierarchy of issues' to assist NGET in the continuing development of their 'strawman' proposal.
- One member wished to restate that WG 6 is scheduled to take place after the 'cut-off' point for input into Redpoint's modelling (end August). Ofgem restated the point from WG 1, that currently WG 6 (9 September) was designated to finalise the WG report and that the workplan for the WG envisaged agreement on the modelling parameters for input into Redpoint's modelling at WG 5 (30 August).
- The WG asked for some insights into the development of the draft WG report, as this would help the WG contribute to, and assist in, the development of ideas. IS agreed to circulate a skeleton outline of the WG report before WG 4. Several members of the group noted that the WG report should aim to contain clear definitions of each model being simulated by Redpoint.
- Some members of the groups expressed concern that IS was being overstretched and could perhaps benefit from greater assistance from the WG members. IS confirmed that he did have the resource support to meet the demands of the WG discussion but would seek to delegate aspects of the work to WG members where possible (eg description of a postalised/socialised model).
- Ofgem confirmed that the draft WG report should continue, as far as practicable, to be developed in parallel to the WG discussions.
- Some members of the group expressed concern about the tight timeframes for the WG and the TransmiT SCR process more broadly. Ofgem noted this point but stated that the schedule and Terms of Reference (ToR) for the WG had been debated, and there was agreement that the work would continue within planned timeframes. The WG agreed

with this in principle but noted that as far as is possible quality should not give way to expediency in the TransmiT process.

- Some members of the group felt that more time should be allowed, in particular, for the development of the WG report. Ofgem noted this point and emphasised that the WG ToR stated the need to produce a 'report publishable by mid-Sept'. Ofgem noted there would be some limited scope after the last WG meeting (9 September) for final iterations and editing but there is no scope for publication to be delayed beyond mid September.

Ofgem also stated that Redpoint were producing (i) a [methodology Q&A document](#) on its modelling process which would address comments made at WG 2 and (ii) a short document detailing the key modelling assumptions.

Review of actions from WG meeting 2:

- In WG 2 some members of the group asked for clarification on how the issues generated through the TransmiT consultation process correlated with the 6 key themes of the TransmiT SCR process. In response, Ofgem agreed to circulate some information by 9 August. Ofgem stressed that the draft information is intended to reflect a general account of the themes raised by respondents and how these map to the broad themes identified. Comments are invited on this basis, with all comments to be received by 16 August.
- The action point pertaining to HS's development of a postalised/socialised strawman to identify key choices to be made under the 6 themes of TransmiT would be discharged in the course of this meeting.
- The action point requesting email comments on Redpoint's modelling approach had been completed. Ofgem noted that these comments were contributing to the development of the scenarios to be simulated by Redpoint but requested final commentary should be received by 19 August.
- Ofgem noted that all other actions were agreed to have been completed or in the process of completion.

Additional points:

The WG requested guidance on the distribution of documentation and correspondence generated by the WG's meetings. It was agreed that no email comments or documentation generated by the WG members would be placed on the 'Project TransmiT: Technical Working Group web forum' without prior agreement from the WG.

Review and recap of Themes 1 & 2:

- *Theme 1 (Reflecting User Characteristics), Postalised model*

Ofgem presented a summary of the debates on the proposed strawman model thus far. In addition to the original strawman proposal of deriving a generator's £/kW tariff based on uniform tariff scaled by its historic annual load factor (NGET), two broad alternative choices

of generation charging basis were under consideration; (i) uniform capacity tariff without annual load factor scaling, and (ii) uniform tariff based on energy output.

Ofgem noted there had been general consensus that removing the location-related cost signal was emerging as a favoured principle. Some WG members raised concerns about the degree of ICRP in the development of any postalised/socialised charging model, noting that this, too, remained to be resolved. One member clarified that there is a distinction to be made about 'cost reflectivity' in terms of how people use the system and the reflection of the costs they impose.

The WG agreed that the discussion of tariffs (£/kW vs £/MWh) within the 'strawman' postalised/socialised model was still under consideration and that the above points need to be better justified.

- *Theme 1 (Reflecting User Characteristics), Improved ICRP model;*

Ofgem gave a brief summary recapping the strawman for the Improved ICRP change option as outlined in previous meetings, and the intention of IS to address queries on this approach raised since WG 2 (and to be addressed at a future WG meeting). To facilitate this, IS requested some support in collating and refining the comments derived from WG correspondence. LS agreed to assist in this process and would produce a summary of the key philosophical comments (eg justification for using an annual load factor to calculate generators' charges) and detailed methodological issues for 11 August. This action will be a precursor to IS's action on providing the WG with a skeleton draft of the WG report.

In addition, IS agreed to provide more information to the WG on the tariff implications of this strawman proposal.

One member made the general comment that the discussions to date had not yet provided a clear justification for the use of an annual load factor in the improved ICRP strawman and that she considered there to be no genuine link between annual load factor and the investment in the network at a particular location. IS agreed that these points would be addressed in the revised note he is producing.

- *Theme 2 (Geographical/topological differentiation of costs), Postalised;*

Ofgem presented a summary of the range of choices the WG had managed to narrow discussion to within this change option. The WG was in general agreement that the principles for postalised charging under this proposal lacked sufficient detail but it was recognised that HS and GG's presentation to WG meeting 3 may help progress and stimulate thinking on a postalised/socialised model to be simulated by Redpoint.

The key choices in this model had been broadly narrowed to consider;

- Removing the 'local' charging boundary and applying a uniform tariff to all infrastructure assets
- Retaining the local/wider boundary (no change, as now)
- Retaining the boundary but with modifications. One suggested alternative was to recognise that some 'local' assets are likely to transition to 'wider' in the long run

(eg anticipatory change to wider as a result of demand on the islands). It was noted that this option, in particular, required further WG discussion.

- *Theme 2 (Geographical/topological differentiation of costs), Improved ICRP;*

Ofgem noted that the WG discussion on theme 2, thus far, had not significantly altered the thinking on locational cost differentiation set out in the original strawman Improved ICRP proposal. Ofgem noted that, at this stage, there have been no strong arguments raised for changing from the status quo on the issue of the Local/Wider boundary. The relevance of the Local/Wider boundary for offshore/island links did, however, remain as one issue that the WG collectively had yet to agree a formal position on.

GN noted he had specific proposals for changing the G:D split for offshore generators regarding the discussion on themes 1 and 2 and these would be communicated via email after WG. It was agreed these would be discussed via email correspondence and raised at future WG meetings where appropriate.

Presentation on postalised/socialised strawman:

HS delivered a presentation to the group on ideas for developing a postalised/socialised strawman. HS began by outlining elements of the current ICRP model where there were levels of socialisation and set out some combinations of these elements together with the treatment of unit charge (MW, MWh or other). The broad conclusion from this part of the presentation was that the G / D split and definition of 'local' charging boundary were key development areas.

The presentation also noted other features of a socialised approach that could be used to "level off" the variance in locational charging signals (eg socialise cost of security > 1 rather than > 1.8, amend GTNUoS zoning criteria to establish larger zones, socialise costs of transmission > 400KV). In response, IS said that costs do not "level out" in the manner suggested in the presentation, noting instead that the farther you move from the centre of the system the cost will increase to reflect the higher MW/km unit cost (assuming that the unit cost assumption is correct)¹. One member made the additional point that distance is only used as a proxy in the current charging model; other important factors to consider include the movements in the generation and demand background.

GG delivered a separate presentation on a potential postalised/socialised strawman model. GG noted that while the presentation had outlined approximately 60 combinations of variables to be considered under a postalised/socialised model, it was emphasised that this number could be revised down reasonably quickly as the WG had achieved with the Improved ICRP strawman. The broad strawman presented consisted of the following main features:

- Locational signal via the local charge (no change, as now)
- No locational signal on the MITS (Wider recovered via Residual)
- uniform tariff (kWh basis), G/D split the same
- OFTO (no change, as now)

¹ HS asked for clarification on this (to be taken forward outside the WG).

It was suggested that the above features form the basis of the modelling option for generation users only (ie retention of locational differentials on the wider system retained for demand users). GG confirmed that he would confirm this point. One member made the comment that the same postalised/socialised strawman should apply to both generation and demand users. Another member made the point that the ICRP based locational charging is currently applied to recover 100% of the total TO allowed revenue costs.

There was a debate on the scope and feasibility of approach that utilises a MWh charge. There was general consensus from the WG that such an approach has issues to be resolved (eg ex ante billing would require forecast of output and provision made for ex-post reconciliation). One member noted that a shift to monthly arrangement would have implications for cashflow.

The WG noted the positive contribution of the presentation in progressing debate on the development of a postalised model. It was requested that GG further develop the strawman proposal in order to provide a more detailed and comprehensive proposal for the WG to consider at future meetings. It was agreed that portions of a note previously circulated to WG members would be used as starting point, or template, for the development of the paper. The group noted that it would be beneficial for the updated paper to include worked examples for charging and elaborate on the reconciliation issues raised during the WG discussion. The treatment of interconnectors, pump storage and embedded generation were some of the other areas in which the group asked for more information in the development of the postalised/socialised strawman model.

HS and GG agreed to circulate their slides, and some of the information requested alongside a summary of their proposal by Friday 12 August.

Discussion of Theme 4, Reflecting New Transmission Technology:

NGET delivered a presentation to the group detailing their proposals for the treatment of new HVDC transmission technology within Redpoint's modelling simulations. While the WG noted that the proposed HVDC links are unlikely to come online before 2015, due to the simulated timeframes within which Redpoint will generate its modelling data, it was agreed that the WG should discuss options for the treatment of this new technology within the modelling scenarios.

The WG asked a series of questions throughout the presentation pertaining to a variety of issues they identified with NGET's proposed treatment of HVDC, including:

- A proxy for treatment of impedance
- Impact upon charging zones
- Impact of crossing boundaries
- Alignment with price control schedules
- Reinforcement of the onshore network

The WG noted NGET's presentation was informative but requested more information, and more time to consider the proposals. NGET agreed to provide more technical information on the proposed impedance calculation and a more developed description and rationale supporting the proposed costing approach. NGET also directed WG members to consult the

www.westernhvdclink.co.uk website for more information. The WG again noted the time and resource constraints upon IS in providing this information. It was therefore agreed that TR would assist in writing up and developing the presentation and comments generated in the discussion by Friday 12 August.

Some members raised the possibility that the modelling parameters for input into Redpoint's modelling for HVDC may be different in the status quo option than the improved ICRP option.

Discussion of Theme 3, Treatment of security provision:

Ofgem began the discussion with an overview of the strawman proposal from WG meeting 1, outlining the potential options for changes to the treatment of security provision. Ofgem noted that under the Improved ICRP proposal there would be no change to the treatment of security factor across the current local/wider boundary. Under the postalised/socialised model, it was proposed there would be one 'wider' generation zone for the GB network with no change to the 'local' aspect.

NGET explained the process for calculating the security factor for generators using the SECULF (Secure Load Flow) methodology which calculates security ratios. The WG noted the stability and predictability effects of the current arrangement as being desirable.

The WG generally agreed that there was a sufficiently convincing argument for continuing with the current system and its application to both the local and wider system (recognising that the local/wider boundary will be subject to further discussion in the context of the socialised option at future meetings). Nonetheless, it was agreed that the WG would require more information and more time to consider NGET's proposal and examine the SECULF model in more detail. IS agreed to circulate the presentation on the operation of SECULF by 10 August. It was further agreed IS would provide information showing the distribution of nodes around the average security factor of 1.8, and for nodes more than 1 or 2 standard deviations from the mean to indicate the zones in which they reside.

Discussions on WG Report to 11 August Stakeholder Event:

Ofgem noted that NGET had agreed to summarise WG progress at Project Transmit's Stakeholder Event on 11 August. NGET presented an outline of what they intended to say at the event and requested feedback from the WG.

The WG was in general agreement with NGET's presentation plan, but offered comments to help clarify the WG process, and to better reflect the sentiments of the WG members in that process.

Comments included;

- To make it clear to stakeholders that the WG would be producing a publishable report
- Emphasise that some of the decisions on assumptions and parameters of the modelling would be taken by Ofgem, but informed by the WG process.
- Note that some of the decisions on the models being simulated by Redpoint were based, to some extent, on qualitative judgements (ie, the WG's ability to understand the full

implications of choices pre-modelling was limited, and would not be fully revealed until Redpoint's modelling simulations were complete).

- Note that the WG had met with Redpoint at WG meeting 2.
- It was requested that there be the inclusion of some explanation as to why the WG were considering / favouring some choices over others.
- In the proposals for the formal WG report, it was requested that the slide stating the WG would be 'assessed against criteria in the Terms of Reference' be amended to state 'considered' against the ToR.
- NGET agreed to include all these changes.

3. Future meetings

The updated and current WG schedule is set out below.

WG 4 (18 th Aug)	Group Discussion will focus on themes 5 and 6.
WG 5 (30 th Aug)	'Tidy up' session across all 6 themes.
WG 6 (9 th Sep)	Group discussion will focus on transitional issues.

List of Actions

	Action	Date for completion	Owner	Status
1.	Circulate link to 'GSR009' Report.	20/07/11	IS/AM	<i>completed</i>
2.	Circulate links to relevant papers (in particular, from ACER) discussing European developments (ie, issues NOT within scope of TransmiT).	20/07/11	AM	<i>completed</i>
3.	Publish Ofgem and NGET presentations from WG1.	20/07/11	AM	<i>completed</i>
4.	Verbal update at WG 2 on Ofgem process for GSR009.	01/08/11	AM	<i>completed</i>
5.	Develop 'socialised charging' strawman, identifying key choices to be made under each of the 6 themes Ofgem has identified.	09/08/11	HS	<i>completed</i>
6.	NGET to arrange briefing session for interested parties in the WG to explain NGET's potential options for change (in particular in relation to theme 1 – reflecting characteristics of users) in more detail; explore possibility of this being held Ofgem's Millbank office on 28 July, following the CAP192 workshop.	28/07/11	IS/AM	<i>completed</i>
7.	Email any comments on modelling work terms of reference, for discussion with Redpoint at WG 2.	31/07/11	All	<i>Completed</i>

8.	Clarify the issues each of the six themes is intended to address	09/08/11	Ofgem	<i>completed</i>
9.	Clarify in the minutes and at the wider stakeholder event that: <ul style="list-style-type: none"> • Repoint’s work for Project Transmit will address TNUoS charges only, and that LMP is a separate piece of work (albeit using the same model) that will follow later • Redpoint will carry out only three model runs – the status quo, one postalised charging approach and one improved ICRP charging approach 	11/08/11	Ofgem	<i>completed</i>
10.	Email any comments on Redpoint’s modelling approach	05/08/11	All	<i>completed</i>
11.	Circulate key modelling assumptions	19/08/11	Ofgem	
12.	Email any comments on key modelling assumptions	TBA	All	
13.	Circulate worked numerical examples of NGET’s improved ICRP approach for generic plant types	02/08/11	IS	<i>completed</i>
14.	Email alternatives/builds on NGET’s improved ICRP proposals	09/08/11	TR/All	<i>completed</i>
15.	Collate and circulate a list of outstanding issues with National Grid’s improved ICRP proposal for theme 1, separately identifying major	11/08/11	LS	

	“philosophical” issues and those of detail			
16.	Update National Grid improved ICRP proposal for theme 1 addressing issues raised in Action 15. and providing more detail on tariffs	16/08/11	IS	
17.	Circulate initial draft Working Group report	12/08/11	IS	
18.	Email any issues missing from Ofgem’s paper arising from Action 8.	16/08/11	All	
19.	Circulate proposal for changing the G:D split for offshore generators	10/08/11	GN	
20.	Circulate paper providing more detail of the postalisation proposal presented to WG3, including worked examples for charging and reconciliation	12/08/11	GG	
21.	Write up, further develop (including dealing with multiple boundaries) and circulate National Grid’s proposal for HVDC	12/08/11	TR	
22.	Circulate presentation on operation of SECULF	10/08/11	IS	
23.	Circulate information showing the distribution of nodes around the average security factor of 1.8 and for nodes more than 1 or 2 standard deviations from the mean indicate the zone they are in.	12/08/11	IS	