



1. Attendees

Frank Prashad (FP), RWE npower	Robert Longden (RL), Mainstream Renewable Power
Ivo Spreeuwenberg (IS), NGET	Stuart Cotten (SC), Drax Power Limited
James Anderson (JA), ScottishPower	Michael Dodd (MD), ESB International
Tim Russell (TR), REA	Helen Snodin (HS), Scottish Renewables and HIE
Garth Graham (GG), SSE	Ricky Hill (RH), Centrica
Louise Schmitz (LS), EDF Energy	Min Zhu (MZ), Ofgem
Guy Nicholson (GN), RenewableUK	Jonathan Hodgkin (JH), Ofgem
Simon Lord (SL), First Hydro	Scott Hamilton (SH), Ofgem
Duncan Sinclair (DS), Redpoint	Steve Davies (SD), DECC
Nick Screen (NS), Redpoint	Guy Phillips (GP), E.ON (alternate)
Apologies for absence: Paul Jones (PJ), E.ON	

2. Overview of discussion

Ofgem opened the meeting, recapping the context of Project TransmiT and the role of the Technical Working Group (WG). Ofgem noted that the WG process was part of the broader Project TransmiT process and was intended to provide support to develop detailed changes to existing TNUoS transmission charging arrangements, known as Investment Cost Related Pricing (ICRP). Ofgem emphasised that the WG was not to decide between the two potential change options – Postalised or Improved ICRP, but to develop these options in more detail. Changes under both of these options would fall under the following 6 themes:

6 Themes of Project TransmiT's TNUoS review:

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| <ol style="list-style-type: none"> 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 |
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Ofgem noted the aim of WG meeting 2 was to consider themes 1 and 2.

In terms of the broad process of this review, Ofgem clarified that Redpoint's modelling work will simulate one complete charging model for each of the three options:

- o Postalised
- o Status quo (ICRP)
- o Improved ICRP

Ofgem noted that the outputs of the modelling process would then feed into the SCR consultation in October 2011.

Review and feedback from WG Meeting 1:

Ofgem had circulated draft minutes of WG1 and requested feedback from participants on their accuracy. Ofgem stated it had received one set of comments by email relating to the modelling assumption about transmission losses and discussion of the Irish model for transmission charging.

Other issues included;

- One member asked for clarification as to whether demand charges were within the scope of the project as this had been raised at WG1 and had not been clarified by the WG1 minutes. Ofgem confirmed that discussion of demand charges was within the scope of the project and would be reflected in the WG Terms of Reference (ToR) accordingly.
- The group noted that the WG ToR had made reference to discussion of 'issues raised so far' and sought clarification on its meaning. Ofgem stated that this referred to all issues raised in all TransmiT correspondence to date, including responses to consultations, and thus, all these issues had been captured by the 6 themes being discussed in the course of the Working Groups. Nonetheless, Ofgem stated that should issues arise that fall outside the 6 themes, there would be scope for their consideration within the Working Groups. The group asked for some guidance on what issues each theme addressed and Ofgem agreed to provide this.
- The group asked for clarification on Redpoint's ToR, namely that locational marginal pricing (LMP) was not intended to be included as one of the options for change within the Project TransmiT process. Ofgem confirmed that while Redpoint would be conducting analysis of LMP, this was separate from the three options of TNUoS charging methodology being considered under TransmiT and would not impinge upon the modelling of the three TNUoS options. Hence, LMP was not to be discussed as an option within the Working Groups.
- In response to TR's query, Ofgem confirmed that in Redpoint's modelling, the assumption about transmission losses allocation will be based on the status quo and that this would be clarified in the minutes.

The terms of reference for the WG were agreed subject to the addition of a paragraph explaining the use of alternates and clarifying that the scope of the work extended to both generation and demand charges.

Process update on GSR009:

An action point arising from WG1 requested an update from Ofgem at WG2 on the progress of GSR009, which is a proposal to modify the National Electricity Transmission System Security and Quality of Supply Standard (NETS SQSS). Ofgem stated that it had received proposals from industry and was in the process of completing its Impact Assessment which was expected to be published shortly subject to a further round of discussion with the SQSS Review Group.

Redpoint modelling:

Redpoint delivered a presentation outlining their involvement in Project TransmiT and their approach to the modelling of options for changes to TNUoS charges, the following issues were raised:

- The group asked for clarification on the role of Plexos software which Redpoint had cited in its modelling plans. Redpoint provided a high-level description of Plexos and explained its utility in modelling within the energy sector, and examples of its use in previous studies.
- The group asked for clarification on the number of options Redpoint were able, or intended, to model (ie, could they model variants within each charging option, eg Postalised 'a' and Postalised 'b'). Redpoint stated that due to time constraints, it would only be in a position to simulate one model for each of the three options: Postalised; Status quo; Improved ICRP.
- Redpoint's presentation outlined the general modelling approach they intended to take. Ofgem requested feedback on the methodology by email.
- The group requested to see some of the data Redpoint would be using in their modelling. Ofgem and Redpoint confirmed that it would make key data available to the group, although it would not be for the working group to decide assumptions.
- The group asked for clarification on the cut-off point for working group input into the modelling process. Redpoint indicated that the end of August would be the final opportunity for decisions to be taken about the modelling. The group noted that this meant the final working group scheduled for 9 September would fall outside this timeframe.
- The group asked if the October 2011 consultation process allowed for consideration of alternatives outside of the three options Redpoint would model, or would the group be 'locked in' to proceeding with the three scenarios being analysed. Ofgem stated the consultation would be based on the three models, but noted there was potential for other options to be considered later, should they be relevant.
- The group noted the need for transparency in the treatment of renewables in the modelling work. In particular, the group requested to see details of support levels by type and location.
- One member of the group expressed concern that the proposed modelling approach does not adequately capture the inability of generators seeking connection to the transmission network to identify the specific tariff they will be subject to once connected and the level of exposure throughout its potential operating life.

- The group debated the proposed modelling outcomes in relation to the simulated timeframes. Some members of the group felt disaggregating the modelling outcome data into annual figures (from 2011 to 2014-15, and possibly beyond to 2030) would provide greater understanding of the costs and benefits of each model.
- Some members of the group asked for more information on the data Redpoint intended to use when considering capital cost assumptions. Ofgem agreed to liaise with Redpoint in order to provide additional information.

Discussion of Theme 1, Reflecting characteristics of transmission users:

Ofgem gave a brief summary recapping the ranges of choices and original strawman for this option as previously discussed in the WG Meeting 1. It was noted that NGET's proposal of change on this theme, which was taken as the starting point of the strawman, had been outlined at a separate event on 28 July, which was attended by most of the WG members.

Improved ICRP:

The discussion was based on the starting point of NGET's proposal and potential further changes. NGET's proposal takes account of both of a generator's characteristics in the scaling of capacity both for the peak security flow and year round flow, allocates the investment trigger for each circuit to the highest of the two flow conditions, and applies an historic annual load factor to represent a generator's contribution to the need for year round capacity. The WG explored some aspects in detail.

One of these was whether the proposal dealt adequately with zones containing different combinations of various types of generation (eg those dominated by intermittent generation vs those with large amount of flexible generation). The group agreed that whilst there could be further improvement in accuracy (for example, by taking into account the combination of different plant types in a zone in addition to individual plant types' characteristics), it was necessary to strike a balance between simplicity and accuracy. In particular, it was agreed it may not be worth pursuing a level of accuracy much higher than other areas of TNUoS charging.

Another key aspect of potential alternatives to NGET's proposed approach was how circuits are identified as being peak security or year round circuits. Some noted that this may be a philosophical issue, but could have some impact on the result that may be regarded as counterintuitive. Any WG members who have specific alternative proposals would circulate them by email before next WG meeting.

Overall, the group was in general agreement about the principles of NGET's proposal but needed more information to help it understand the impact of the proposals. For demonstrative purposes, NGET agreed to share some indicative tariff results with the group. It was also agreed members should circulate any alternative ideas via email.

Additional comments included;

Some members of the group felt there was, in general, insufficient detail in NGET's proposal to clearly identify which parties were paying for different parts of the system. Within the peak-based scenario, NGET's proposal separates the network into peak system costs and

year round system costs. The appropriateness of recovering the peak system costs from demand and a particular class, or subset of generators, was cited as one area of concern.

In the year round scenario, some members of the group requested more information on the implications of using load factor in the calculation of tariffs, eg the link between annual load factor and constraints had not been made fully clear. IS agreed to clarify this point and provide an update at a future working meeting.

Postalised:

On top of the starting point of using capacity scaled by annual load factor, two broad alternative choices of generation charging basis were discussed: (a) capacity without scaling, and (b) energy output. Arguments made for and against the different options, in comparison to the baseline are summarised below.

Choices	For	Against
a) Capacity based, no scaling	This would be more consistent with the principle of socialised charging	It goes too far in removing cost-reflectivity: Postalised option should only remove or reduce cost differentiation in the locational dimension It could lead to other arbitrary basis such as £/plant?
b) Energy based	This is based on the simple principle of generators who use system more should pay more	It would be more complicated for implementation Charges would be less certain It could send negative signal to wind generators' despatch decision. This would be incompatible with peak based demand charging.

Discussion of Theme 2, Locational/geographical/topological differentiation:

Ofgem gave a brief summary recapping the ranges of choices and original strawman for this option as previously discussed in the WG Meeting 1. There are two main aspects of potential changes under this theme:

- 1) the boundary between Local infrastructure and Wider infrastructure, which is relevant for both Postalised and Improved ICRP; and
- 2) the method of cost differentiation for Wider infrastructure, which is only relevant for Improved ICRP.

1. Local /Wider boundary

Postalised:

The group discussed the merits of revising or removing the distinction between Local and Wider infrastructure assets. Arguments made for and against the various options, in comparison to the based point of Status Quo are summarised below.

Choices	For	Against
a) Remove Local/Wider boundary and apply uniform tariff throughout	This would be more consistent with the principle of removing all locational differentiation	This would overstretch the postalisation to costs that are clearly driven by specific generators It would remove the incentive for generators to make efficient choice of its local connection design
b) Keep boundary but with modifications such as recognising some Local assets is Wider in the long run (This choice is subject to further work, being progressed by HS)	It could potentially remove some of the perceived shortcomings of current definition (eg appearance of demand can move island link from local to wider)	Depending on the further work by HS, it could be more complicated to implement.

Improved ICRP:

When the issue of the Local/Wider boundary was discussed under the Improved ICRP option no strong arguments were raised for changing from the current position (except if choice 'b' above were to be taken forward) and the WG were generally content to retain the status quo.

The WG discussed the specific relevance of the Local/Wider boundary for offshore and island links. Some WG members raised what they perceived to be an issue of cross-subsidy by

offshore generators to onshore generators. This was the potential outcome of all offshore generators paying positive tariffs and onshore generators paying negative tariffs when offshore transmission takes up greater proportion of transmission asset value, and was a result of the combined effect of maintaining the locational signal for offshore links and a fixed G:D split. This was perceived by some, but not all, WG members as a flaw of the current ICRP, and could potentially be addressed by changes in the treatment of Local infrastructure. Some potential choices were discussed, including:

- Moving some Local assets such as Offshore or Island links to Wider assets;
- Excluding Local assets from the application of the G:D split;

However, it was not clear that any of these changes could solve the issue raised above. Indeed some of the WG members did not agree that this was a cross-subsidy issue or that needed to be addressed. The WG agreed to consider this point further when looking at Theme 6, G:D split.

2. Locational differentiation within Wider

Only relevant for improved ICRP, the WG was generally supportive of the existing zoning methodology. It was noted that if the desire was to reduce the scale of the difference between high and low charge zones this could be done in easier ways, for example by multiplying the charges by a certain factor. Overall, it was recognised that if locational differentiation was a problem, the answer could be Postalised rather than looking for variations within Improved ICRP.

In specific reference to islands connection, the WG recalled the point that under the current Local/Wider boundary definition, some of the island links could, over time, move into the Wider infrastructure category. Some considered that this could lead to price instability and would like to address this further under Local/Wider boundary as noted above. However, others pointed out that given the high cost of these links, even if they moved into Wider infrastructure, the current zoning criteria would likely require the creation of new TNUoS zones and result in similar gaps of charges between islands and nearest mainland connection points.

One WG member suggested that Ofgem should liaise closely with DECC on island charging in the context of S185 and another member proposed consideration of the Irish methodology.

3. Future meetings

It was agreed there should be a revision to the WG schedule agreed at WG1. The revised schedule is set out below.

WG 3 (9 th Aug)	HS to present 'socialised charging' strawman. Group Discussion will focus on themes 3 and 4.
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	
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	
9.	Clarify in the minutes and at the wider stakeholder event that: <ul style="list-style-type: none"> • Redpoint'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 postalisised 	11/08/11	Ofgem	

	charging approach and one improved ICRP charging approach			
10.	Email any comments on Redpoint's modelling approach	05/08/11	All	
11.	Circulate key modelling assumptions	TBA	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	