

**Structure of Electricity Distribution Charges
Implementation Steering Group (ISG)**

29 January 2004, Ofgem, 9 Millbank, London

Attendees:

Ofgem: Mark Cox (Chair)
Martin Crouch (latter part of Item 2 and Items 3 onwards)
James Richardson
Clover Powell

DNOs:

Richard Smith	Aquila Networks
Andrew Neves	EME
Peter Merrick	EDF Energy
Tony McEntee	SP Power Systems
Max Lalli	SSE
Malcolm Sugden	UU
Nigel Turvey	WPD
Joe Hart	YEDL/NEDL

Supplier Reps: David Tolley npower

Generator Reps: Malcolm Taylor AEP
Peter Williams RPA¹

Apologies: Nick Carter BGT (Supplier Rep)
Jeremy Nicholson EIUG (Customer Rep)
Sebastian Eyre energywatch (Customer Rep)

Introduction

Mark Cox welcomed those present to the meeting.

James Richardson said that Ofgem had received 32 responses to the November 2003 'Initial decisions' document. He said that responses had been received from 8 network companies, 2 retail companies, 3 generation organisations, 1 independent connections provider, 13 microgeneration companies and 5 from other organisations. He outlined the key messages from the responses, and said that a summary would be circulated to ISG members during February.

Item 1: Actions from last meeting

Clover Powell said that Ofgem had circulated a revised timetable, and papers on the connection charge rules and interim generation use of system charges. She said that these papers and the timetable would be addressed as agenda items.

Clover Powell thanked Joe Hart for his connection charge case studies and Peter Williams and David Tolley for their fault level paper. She said that these would be picked up as part of the agenda item discussion on the connection charge rules.

¹ Ilex's representation of renewable generators is being partly supported by Alcan.

Item 2: Connection charge rule – interim solution

Mark Cox introduced Ofgem's paper on the proposed connection charge rules. He said that this had been adapted from Tony McEntee's paper tabled at the previous ISG meeting, and had attempted to take on board both responses to the November 2003 'Initial decisions' document and discussions at meetings of the ISG.

A DNO said that he agreed with the definition of 'connection charge' presented in the paper, but that he did not understand the use of the words 'contestable' and 'non-contestable' in the context of the definition. He said that he understood Ofgem's reasons for trying to align the boundary with the current competition in connections boundary, but that as the contestable boundary would move over time, the use of the word contestable might not be appropriate for the structure of charges proposals.

A number of DNOs agreed with this viewpoint, and it was suggested that the issue could be resolved if the words 'contestable' and 'non-contestable' were removed from the definition. A DNO said that the definition could be improved if it were made clear that the charges were those made by a DNO, rather than via an independent connections provider (ICP).

A DNO warned Ofgem against taking an overly simplistic approach to the definition. He said that this would ultimately lead to an increased workload for DNOs in interpreting the rules for individual projects, and that this would lead to DNOs having to use more staff resource for connections quotes.

A DNO said that Ofgem was using the term 'capacity' rather than the Electricity Act term 'maximum power requirement'. He said that 'capacity' had also been used in the Electricity (Connection Charges) Regulations, and questioned whether this was appropriate.

Apportionment rules

Mark Cox said that Ofgem had proposed three rules; one covering thermal requirement for reinforcement, one covering voltage requirement for reinforcement, and the third covering fault level requirement for reinforcement.

Starting with the thermal rule, the group discussed Ofgem's proposal. A number of group members said that Ofgem's selection of 'new equipment capacity' as part of the formula needed more thought.

One DNO representative gave the example of an existing transformer of 500 KVA, a new customer causing reinforcement requiring 100 KVA, and the next available transformer size of 800 KVA. He said that, under Ofgem's proposal, the formula would be $100/800$, leaving $700/800$ to be spread amongst all customers. He asked whether this was an appropriate level for the charge, and queried whether $100/300$ (the increase in capacity) would be a fairer calculation. A generator representative suggested an alternative treatment of this example, whereby the formula would be $100 \text{ (required capacity)}/800 + 500 - 450$ (new capacity plus old capacity minus existing utilisation). A different DNO said that it would be impossible to find the perfect rule. He said that a better way of searching for the right answer would be to try to find the solution where the bandwidth between winners and losers should be as narrow as possible.

Another DNO said that a direct result of shallower charging would be an increase in the size of the RAB to be recovered from all customers.

Mark Cox presented some slides adapted from Joe Hart's connection case study scenarios. The slides had been populated with some mock cost data in order to illustrate the effect of Ofgem's proposed rules. During the discussion of the slides a number of points were raised. One DNO representative remarked that any new rules that would result in costs associated with previously charged assets being charged to new connectees would require changes to the E(CC) Regulations ie contribution to Existing Reinforcement Assets. Another DNO said that the pursuit of the perfect apportionment rule could seriously slow the progress of the project. He said that the group should identify rules that meet the requirements of being economic and efficient and agree to move on to the next stage of the project. A different DNO commented that any major changes to assumptions could have a dramatic effect on the price control financial business plan questionnaires. A supplier representative raised the issue that had been raised at previous ISGs suggesting that the re use value of any replaced assets should be deducted from the cost paid by new connectees.

The group moved on to consider the proposed rules for voltage level and fault level reinforcement rules. The allocation of costs associated with switchgear replacement (resulting from elevated fault levels) is yet to be resolved. The Peter Williams/David Tolley paper described how sources other than distributed generation (e.g. demand, transmission connected generation etc.) contribute to distribution system fault level. There was general agreement that the group needs to consider fault level issues further ahead of Ofgem's planned April 04 consultation document.

The generator representatives were of the opinion that Ofgem's initial proposals for the allocation of reinforcement costs associated with elevated fault level costs seems to disadvantage distributed generation. The initial (DNO-led) proposal for apportionment includes a multiplier of 3 which, apparently, aims to reflect the existing (average) system fault level headroom. The generator representatives noted that the direct effect of this would be to increase the connection costs attributed to distributed generation threefold. This was challenged by the generator representatives who said that the justification for the factor '3' was less than clear - and they requested that it be removed.

A supplier represented said that the group should consider whether the age of the assets to be replaced should be factored into the formula. He said that if the asset was due for replacement anyway, it seemed unfair to charge the connecting party the same charge as if the asset were brand new. The group decided that such a rule would be unduly complicated, but DNOs indicated that in extreme cases they would be willing to look carefully at the issues.

A generator representative said that the group needed to make a decision on the connection rule and then move on. He agreed with the point raised earlier in the meeting that the interim regime was really only a stepping stone to the long-term solution, and that, as such, a perfect solution would not be found.

Mark Cox noted that good progress had been made on the connection charge rule, but there were still some outstanding issues. He suggested that the ISG form a sub-group to meet in the weeks after the ISG in order to work up a final solution. He said that the group should be in a position to report back to the next ISG on 18 March.

The ISG agreed that this was the best way forward. Richard Smith, Tony McEntee, Joe Hart, Max Lalli and Peter Merrick volunteered to form the sub-group. Ofgem agreed to handle the organisation of the sub-group.

Action: Ofgem and sub-group members

Peter Williams/David Tolley paper on fault levels

Peter Williams and David Tolley said that their paper had originally contained a section on allocative models, which they had removed before the current meeting because they were planning to deal with allocative and economic models in a separate discussion paper. The group decided that it would be a good idea if this section was reinstated so that the amended paper could be considered at the sub group meeting. Peter Williams said that he would circulate the paper with a request for comments from all ISG members, and then forward it to Ofgem to be sent out to the sub group.

Action: Peter Williams and Ofgem

Item 3: Generator use of system charges – Interim solution

Mark Cox introduced the Ofgem generator use of system charging paper that had been circulated to ISG members prior to the meeting. He said that the intention of the paper was:

- to illustrate the interaction between the GDUoS charge and the DG Hybrid Incentive regime;
- to set out Ofgem's initial thoughts on how the charge should be set; and
- to pose some questions for the ISG to consider.

The hybrid mechanism

A DNO representative said that it was useful to have the worked example presented in the paper, and asked Ofgem to confirm that distributed generation (DG) revenue would be separated from other revenue. Martin Crouch said that Ofgem was working on the principle that DG and demand would be discrete revenue streams. Another DNO raised the issue of how, and whether, DG could be incentivised. Martin Crouch said that such issues should be dealt with in distribution price control fora rather than at the ISG.

A DNO asked whether the charge should be calculated on a project by project basis, or based on an estimation of what DG might connect. Mark Cox indicated that it was the latter. Another DNO said that there were numerous options for calculating the charge, and that there could be problems of volatility in the first few years. He said that this meant that DNOs should not be penalised for significant over- or under-recoveries. Martin Crouch said that Ofgem's intention was to have a simple, cost reflective charge, and that the potential for over- or under-recovery was recognised. He said that this was the intention of having a deadband.

A DNO noted that it would be easier to calculate voltage level charges, which could be worked out using line loss factors, than locational charges. Mark Cox said that it may be sensible to have locational charges in some circumstances, eg for exceptional GSPs on the network, and confirmed that Ofgem would approve the use of higher GDUoS tariffs for certain areas where connections would be expensive, provided that the DNO could demonstrate that they were cost reflective.

The group discussed P2/5 and the planning regulations, and the effect of these on the connection of DG. There was difference of opinion on how significant an affect this might have, and how it interacted with the IIP incentive.

A DNO returned to the incentive formula, querying its treatment of customer contributions. Martin Crouch said that these would be removed before the application of the 70 per cent pass through. A group member said that the underlying principle of the formula seemed to be that DG revenue would be ring-fenced. This would mean a higher rate of return than the rest of the RAB and generators funding the incentive, as its chief beneficiaries. Another group member said that although he realised that it was not workable, a kWh driver would be preferable, because the Government targets concerned volumes of DG, rather than capacity. A group member queried the basis for the modelling of the formula. Martin Crouch said that the numbers came from DNO forecasts of DG schemes. The group member said that his impression of the formula was that it incentivised an optimum level of DG, rather than allowing for an ever increasing reward from unlimited levels of DG. In response to a DNO query, Ofgem confirmed that ongoing network maintenance costs created by DG connection would be covered by a £/kW amount uplifted into the price control.

A DNO returned to the problem of volatility of charges, and the potential for significant changes year on year. Martin Crouch confirmed that if there was a correction factor left at the end of the price control period then it would be rolled into the next. Ofgem and DNOs agreed on the importance of keeping as close to their allowed revenue as possible. DNOs noted the difficulty of trying to set pricing signals for the next five years, and the volatility inherent in anything that involved forecasting. Martin Crouch said that while it was inappropriate for DNOs to be exposed to penal interest rates on over- or under-recovery, the actual amounts of money involved were likely to be quite small.

The group briefly discussed the issue of onsite generation, with one DNO noting that though the exported capacity of such generators would be minimal, the effect on fault levels could be quite significant. However, this might not be material, since the incentive worked for capacity installed, rather than volume exported. The DNO also questioned the effect of DG connecting on one network but prompting reinforcement on another, but it was felt that this would be dealt with under existing wheeled unit agreements.

A DNO raised the issue of interruption compensation arrangements, and concern was voiced that having a different system for DG than for existing customers could increase complaints. Martin Crouch indicated that this was another issue best dealt with as part of the price control discussions. A DNO voiced concern, stating that it was important to understand the cost drivers that would be incorporated into the GDUoS tariff.

Billing arrangements

A DNO suggested that the current billing arrangements and settlements process could be used for big generators, and perhaps proxy profiles could be used for the smaller non half-hourly generators. He added that an issue was that very small generators may not register, and that this could cause a funding gap. A group member noted that a paper put to the BSC panel in November had argued for the HH/NHH boundary to be raised, and a review of this would begin in February 2004. Group members noted that the findings of Ofgem's paper on credit cover arrangements would be an important factor, and that these issues needed to be finalised so as to be ready for April 2005

implementation. Ofgem said that it was for DNOs to come up with workable solutions to the billing system problem.

A DNO asked whether Ofgem had made the assumption that as the allowed revenue increased, so too would the GDUoS charges. Ofgem said that this depended on whether numbers of generators increased, and when the more expensive DG projects arose.

Ofgem asked if DNOs envisaged their GDUoS charges being voltage varying rather than locational. A DNO suggested that they would be locational, but based on very broad areas. Another DNO asked whether Ofgem would be happy with DNOs charging high GDUoS to large generators (with high connection costs) and lower charges to very small generators. Another DNO said that fault level was a key issue, and that his company would like to avoid locational signals at lower voltage levels.

Item 4: EC Directive and Regulation – update on publication of guidelines

Ofgem's legal advice was that the EC Directive did have an impact on the work of the group. He said that Ofgem's advice was that changes would be required to the regulatory framework to ensure that GB was compliant with Article 23 of the Directive, concerning DNO charging methodologies. Mark Cox added that although DNO tariffs would need approval under the Directive, Ofgem was working on the assumption that tariffs that were already in place on 1 July 2004 would not require approval. Martin Crouch said that it was important for Ofgem and the ISG to establish how the process of approving methodologies would work, so that there was regular dialogue and no surprises for either side. A DNO said that guidance from Ofgem would be needed on this matter.

Mark Cox said that Ofgem's view was that the guidelines to be published by the EC to support the Regulation would not be likely to require any major action before 1 July 2004, and that the harmonisation process was likely to be phased.

Item 5: Next Steps

Mark Cox said that key themes for the April document would be the issues raised in the responses to the November document, the emerging direction of thinking on the connection charging boundary and GDUoS regime, and the licence modifications.

Licence modifications

Mark Cox said that the current plan for proposed standard licence modifications was to draft them in time for discussion at the March 18 ISG meeting. It was likely that the statutory consultation period would commence upon publication of the April document. He noted that the distribution rebates modification proposals would be included with the structure of charges modifications to the extent that they were changes to the SLC4, but added that the special licence condition modifications would be undertaken separately as part of the price control.

Group members felt that there were a number of issues to be resolved before the modifications could be drafted, and there was discussion of the possibility that the E(CC) Regulations would also need to be changed, which might be a matter for the DTI. The group concluded that this would require close liaison between Ofgem, DTI and the ENA Distribution Commercial Group, which was currently looking at the regulations in

detail. Ofgem agreed to look into the procedure for making changes to the regulations, and to progress work on the apportionment rules for the connection charge.

Action: Ofgem

Timetable

A DNO suggested that DNOs now had sufficient information to work up proposals for their GDUoS models and charges. Another group member warned that GDUoS regimes should not be developed in isolation, and that coordinated thinking was important, especially since DNOs would be required to have methodologies approved by Ofgem. Ofgem agreed that tariffs should not be developed in isolation, and said that discussions would progress in March and April.

A number of DNOs agreed to prepare initial views on GDUoS methodologies, with the aim of discussing these proposals in detail at the 18 March ISG.

Action: DNOs

Standing charges

A group member asked if it might be possible for the ISG to consider how standing charges and service capacity charges fitted into the new regime, since this was an important issue for suppliers. Ofgem said that they would consider how this fitted with the timetable.

Action: Ofgem

Item 6: AOB

A group member asked if Ofgem was aware of the microgenerators' reaction to the November document. Ofgem confirmed that this had been noted.

Item 7: Date of next meeting

The next meeting was fixed for Thursday 6 May 2004, to be held at Ofgem as normal. Mark Cox thanked the group for attending.