Structure of Charges Working Group Meeting

MEETING NOTES – 09.12.02

Present:
Ann Evans, SP
Bradley King, LE Group
Nigel Turvey, WPD
Malcolm Sugden, UU
Dave Miller, NEDL/YEDL
Denis Aitchison, Transco/NGC
Colin Green, Ofgem
Gary Keane, Ofgem – Minute Taker

1) Minutes from last meeting

The group adopted the minutes of the last meeting. It was noted that they had been published on the Ofgem website on 5 December.

2) The scope of the Structure of Charges Working Group

Colin explained that some responses to the October 2002 update document had suggested a widening of the scope of the project. In particular, it was felt that it should include a consideration of what a distribution business should look like. However, he believed that progress could best be achieved by maintaining the current structure of separate, manageable workstreams. Consequently, this group should not examine in detail those areas covered by other working groups. One DNO representative suggested that an overlap of personnel between different working groups would facilitate a coherent discussion. It was noted that Ofgem should try to avoid delivering inconsistent messages to different working groups.

Although members were generally satisfied with the scope of the project, one of them remarked that the title provides an impression of a detailed consideration of tariffs. In response, Colin noted that the group should delay detailed discussion of charging models until progress is made in other areas.

One member stated that the two main priorities of the group should be to define the products offered by DNOs and to propose a boundary between connection and use of system charges. During discussions, it was noted that where products are currently difficult to define, they should be given freedom to evolve. Furthermore, concerns have been expressed within the industry that the group should not place excessive emphasis on examining the issues surrounding the connection of distributed generation. Colin stated he and Cemil Altin would soon be taking responsibility for work on distributed generation.

3) Options Paper

An update of the discussion paper on charging methodologies is expected to be published on the Ofgem website.

There was a discussion of the need for compromise in developing a framework for the structure of charges. Suggested desirable properties of charging models include:

- commonality
- cost-reflectiveness
- retention of economic signals
- minimal distortions produced by scaling to recover allowed revenue
- facilitation of competition in related markets
- minimal administrative costs, and
- cash flow stability.

4) Broad Principles

Asset-based pricing

There was broad support for shallowish connection charges for generation and demand customers. It was noted that during the review of the charging boundary in gas, there had been regulatory pressure for a move to a shallower connection charge.

The group backed the introduction of use of system charges for all network users. These charges would recover the costs of assets that fall outside the boundary of connection charges. It was noted that the proportion of costs recovered through ongoing charges would have implications for the cashflow of the DNOs, especially if revenue from distributed generation is unpredictable. Although cashflow was stated to be important in the electricity distribution industry, one member commented that the price control contained other cashflow mechanisms beyond the structure of charges.

Availability charges were proposed as one possible component of use of system charges. Based on kVA billing, these tariffs could be imposed on both import and export customers and be extended to recover NGC charges. Availability charges were compared to the fees that NGC levy on customers with own generation (CWOG).

The charging methodology for gas transportation was outlined. For customers connected to the NTS, an average is taken across entry and exit points in order to produce one entry point charge. However, it is considered to be too complicated to extend an entry-exit charging mechanisms to LDZs because of the multiple pathways involved.

Zonal use of system charges
It was agreed that zonal charges would not be appropriate for demand customers. However, the group discussed the desirability of zonal charges for small and medium-sized generators.

Under certain zonal methodologies, it is possible that generators in demand-rich areas would receive a credit to reflect the deferment of upstream investment. This would be more likely to occur if the generator faced significant connection charges to recover the cost of sole-user assets. One DNO representative outlined their opposition to a methodology that could produce a negative transportation charge. It was noted that operating costs are always greater than zero and substantial fixed costs exist outside the asset base.

Several criticisms were made of zonal use of system charges. They may:

- not be cost-reflective

  It was stated that the total number of assets, and not the location of connection, is the key driver of the long-term costs incurred by the DNO. The asset base drives cycles in asset replacement and maintenance costs.

- breach the principle of commonality
  Different charging methodologies would be employed for generation and demand customers despite the fact that the two groups use the same assets on the same network.
- not provide strong economic signals, and
  It was noted that NGC levies zonal charges but there has not been substantial connection of generation in generation-poor areas.
- result in unpredictable charges that would discourage connection.
  Initially charges may be volatile because there may be few distributed generators over which to average costs. Furthermore, it was suggested that asymmetric information exists about the net benefits of connection by a distributed generator in a particular area.

In response to the last comment, it was stated that LC 25 will enable the identification of the primary substation that the customer is associated with. By employing consultants, a potential customer could assess the costs and benefits of connection in a particular zone.

Supplier-hub issues

The supplier-hub is the mechanism through which contracts and data flows are channelled between suppliers and various parties. It will affect the implementation of charging principles because only a few contracts, such as connection agreements, exist outside the supplier-hub. This system was contrasted to the gas industry where there are fewer distributors.

One DNO representative expressed a preference for tariffs that can operate within the hub through the use of import and export MPANs to identify the relevant supplier. However, it was noted that some generators prefer to be charged directly rather than through the hub. Consequently, some flexibility may need to be retained in this area.

Annualised connection charges
It was reported that Ofgem representatives have expressed support for the annualisation of elements of the connection charge. If annualised connection charges are introduced for generation, it was felt that similar arrangements would have to be extended to demand customers. These contracts would operate outside the supplier hub. Concerns were raised about the implications for credit risk and competition.

Credit risk is an issue that has proved difficult to resolve within the hub. Therefore, it may be problematic if a significant number of individual connection agreements are made. It was felt that the DNO may be treated as a 'cheap bank' if their regulated rate of return is below that expected by customers. Consequently, it was proposed that a DNO should be able to set a credit rate to reflect those charged by financial institutions. It was suggested that Ofgem may need to provide guidance in this area. Ofgem could achieve this either by setting parameters for reasonable terms or using determinations to set precedents. Colin commented that there was increasing recognition of the need to link risk and return.

In the gas industry, upfront connection charges are seen to facilitate competition in connections. Therefore, annualised charges may need to be restricted to non-contestable costs only. This would exclude deeper reinforcement costs and the contestable element of shallowish connection charges. However, the Authority has proposed interim

arrangements for the annualisation of deep charges, moving to shallower in the long-term. In response to a question about the process of clarifying the definition of shallow and shallowish before the production of LC 4 statements, Colin highlighted the work of Sean O'Hara in this area.

Power Factor charges
The role of power factor charges was discussed at the meeting. The DNO can levy additional charges based either on availability (kVA) and/or reactive power (kVAr). Significant administration costs, poor data quality and the expense of maximum demand meters were given as reasons that these charges should only be applicable to half-hourly metered customers. Although revenue from reactive power charges could be removed from the price control, it was said that this would only provide an incentive at the start of the price control period.

However, it was recognised that the effectiveness of DNO activity in this area is driven by the behaviour of suppliers. Unless suppliers set out an explicit availability or power factor charge on the bill, the customer will not perceive a benefit from improving their power factor performance. Furthermore, it was noted that the use of energy efficient equipment is associated with poor power factor performance. Consequently, it was suggested that improvements in power factors could be more effectively achieved through the amendment of ISO regulations on household equipment.

Contracts for constraints
There was a discussion of the role of contracts under which customers agree to be constrained off the network if necessary. These agreements already exist on some distribution networks. If the product offered by the DNO is defined as a P2/5 compliant connection, a contractual debate can occur on either side of the system security level. Distributors can offer higher security at a higher price, as under current arrangements: this would allow generators to make an informed decision over the balance between cost and risk, facilitating the economic development of the network. It was noted that the issues become more complex when export constraints exist deep in a P2/5 compliant network. It was stated that buy back costs have been fairly low for access to other similar networks.

Under a shallow connection charge regime, the potential customer may be in a strong bargaining position. They can demand a constraint fee up to the level of reinforcement costs necessary to make the point a firm connection. Therefore, there may be a role for Ofgem in this area.

Consider the need for an incentive, or at least not a dis-incentive, to tell DNO that dCHP is connected

There was a discussion about the regulations, benefits and tariffs associated with the connection of dCHP. It was reported that it is unclear from current regulations when a customer should inform a DNO about the connection of dCHP - whether at or before connection, or within 30 days of connection. Furthermore, because existing regulations apply to individual connections, the DNO may not be notified of large-scale retrofitting of dCHP. It is then difficult for the DNO to plan any necessary network reinforcement or to identify relevant parties from whom to recover reinforcement costs. The safety implications of not knowing where dCHP is connected will be mitigated if operational staff treat the LV network as if it is always live.

The benefits of widespread connection of dCHP were described as being unclear. Even after the connection of a significant amount of dCHP in an area, a DNO may only be able to reduce the size of assets and maintenance costs. The number of assets may remain fixed because of security of supply considerations and the need for maintenance outages. It was stated that distributed generators have proved unable to commit to supply at definite times and locations.

Because DNO tariffs will affect customers' preferences for dCHP, it is important to strike a balance in the incentive to report dCHP. If it is too strong, it may stimulate excessive registration of dCHP units – some of which may not be useful or even operational. However, the strength of the effect will depend on the way in which suppliers pass on the charges. A voltage-level charging matrix could provide an incentive for suppliers to register and encourage dCHP. It was suggested that tariffs should be generic and not dependent on appliances. For example, a customer does not require a storage heater to be eligible for the E7 tariff and there is not a separate tariff for energy efficient appliances.

It is difficult to consider the details of dCHP tariffs because settlement mechanisms for dCHP are not due to be finalised until late 2003. In addition to the absence of profile classes and data collectors, it is unclear as to whether any meters for export have been certified. Because unrecorded export is not allowed under the BSC, backstops are used to prevent the consumption meter from running backwards to record net flows. One DNO was reported to use credit meters connected backwards as a dedicated export meter.

Consider the amount of work involved in developing new models or modifying existing new models

The group discussed the issue of distributed generators that have already paid a deep connection charge. If new charging structures are introduced, it is unclear how such customers should be treated. They are likely to be opposed to paying ongoing charges. However, there are significant complexities involved in grandfathering rights and identifying suppliers in order to levy differential tariffs.

5) AOB

There was a discussion of the areas to be covered in the next document. Colin felt that it was important to develop a sense of an appropriate boundary between connection and use of system charges. This requires a consideration of key underlying principles, such as stability, predictability and cost reflection. In addition, it is important to consider how far transportation charges for generators should reflect any costs and benefits of connection within a geographical area.

A further issue that was raised was the evaluation of the drivers of reinforcement costs. In particular, Colin proposed that he would examine the documents that set out the justification for the 25% rule. The rule is one method of identifying a contribution to network utilisation that makes the customer liable to incur certain connection costs. The methodology should identify the significant marginal contribution.

6) Next Meeting

It was agreed that the next meeting would take place on 14 January 2003. At this meeting, there will be a discussion of the responses to the October 2002 update document. It was anticipated that most responses would be published on the Ofgem website by 13 December 2002.

Colin asked for a volunteer to present a paper that outlines the issues associated with the introduction of a generator use of system charge. Ann agreed to take responsibility for this paper if the rest of the group would provide support on technical issues. Colin set out that there should be a consideration of the criteria for setting site-specific use of system charges – voltage level or generator size. Ann noted that problems can occur during negotiations if customers decide to change the voltage level at which they propose to connect.