Structure of Charges Working Group Meeting – 4

MEETING NOTES – 5 MARCH

Present: Lars Rognlien, Ofgem, Chair
Gail Crick, Ofgem
James Richardson, Ofgem
Bradley King, LE Group
Ann Evans, Scottish Power
Simon Brooke, United Utilities
Nigel Turvey, Western Power Distribution
Dave Miller, YEDL/NEDL

Apologies: Colin Green, Ofgem
Malcolm Sugden, United Utilities
Denis Aitchison, Transco/NGC

1) Minutes from last meeting

The working group agreed the minutes of the last meeting with no additional comments.

2) Structure of Charges: February workshop – views and comments

Lars invited comments from the working group members following the Structure of Charges workshop held on 20 February.

A suggestion was made at the workshop that the working group should become more inclusive of all different industry stakeholders. It was agreed by the group members that this would be a bad idea, as the group would become unwieldy and less able to achieve its objectives. It was pointed out that all notes and discussion papers are available on the website and comments from any external parties are welcome.

One member said that they thought the workshop had provided a useful forum for discussion on all levels, and that it was helpful to hear the views of other interested parties.

Following the interest in losses shown at the workshop, there was agreement within the group that a separate working group to discuss distribution losses should be set up. Lars confirmed that this was already underway.

3) Structure of Charges – initial proposals

Lars noted that this document should be published at the end of March.

Charging Principles

He outlined the main principles as being:

Cost reflectiveness
Symmetry across demand and generation
Predictability
Transparency

One member questioned the proposal to introduce simplicity of tariffs, and was concerned that this may stifle innovation and being able to offer a variety of tariffs. It was noted that distributed generators did not favour the suggestion made at the workshop that charges could start off simple and develop into more complex tariffs.

The difference between charges which were cost reflective and that encouraged efficient use of the network was discussed. Some members stressed that it was possible to have tariffs which were, in themselves, cost reflective, but that might not send strong economic signals. For example, a shallow charging regime backed by appropriate transportation charges could be made cost-reflective through (e.g.) a rigorous LRMC approach, but would not send signals as clearly as deeper connection charges/

It was discussed whether tariffs should be cost reflective. Splitting distribution charges and identifying them as discrete categories, e.g. reactive power, on customer bills would be one way of passing cost messages on to customers. There was some concern that suppliers of domestic customers may not pass these cost messages on to customers, as they tend to smear costs across all customers by tariff class. In order to identify the distribution split, suppliers would require changes to their billing system. As reactive power accounts for only 1-5% of distribution costs, this expenditure would probably not be justified.

It was suggested that there is an issue about Ofgem's social and environmental responsibilities. If these are deemed most important over all other responsibilities then schemes could be introduced to help customers improve their energy efficiency. One such scheme could be employing staff to visit customers to improve their knowledge of the distribution networks and the part they could play in reducing reactive power. This would appear to fit with the energy white paper that suggests that half the savings could come from energy efficiency. It was pointed out that new generators discuss reactive power at the time of connection.

It was suggested that it might be possible to make the distribution charges more cost reflective for commercial and industrial customers more easily and effectively than for domestic customers. Specifically, it might be more practical for suppliers to reflect distribution charges in customers' bills for his group, and they might be more willing and able to react to that message.

There was discussion as to whether tariffs were based on marginal or average costs. It was noted that all companies base their tariff on some form of marginal costs and these are then averaged over a number of customers. The tariffs are then adjusted to match the overall revenue targets using a scalar.

Connection boundary

Lars stated that the Initial Proposals would include proposals on the boundary of connection. The paper will propose shallowish connection charges that cover sole-use assets and some share of the reinforcement.

It was discussed what sole-use assets are defined; assets that are sole-use at time of connection or after further connections. It was agreed that sole-use assets should be defined as sole-use at the time of connection.

Discussion followed about how to treat second-comers if connection charges are changed to shallowish. It was argued that the possibility of getting some reimbursement from a second-comer at some point in the future probably wouldn't influence an initial comer's investment decision. One member queried whether the regulations state that a second-comer must pay the first-comer a proportion of the costs he incurred. This may result in second-comers paying more than expected under a shallower charging regime.

Independent Electricity Distributors

There was some concern within the group about the treatment of Independent Electricity Distributors (IEDs). The main concern was related to the risks they imposed on the DNO and credit cover arrangements. The main question to be answered was about who the IED pays: the DNO directly, or the supplier who then pays the DNO. Concerns were also raised over ensuring an equitable allocation of system losses and of use of system charges between incumbent and incoming distributors. Lars said that there would be a separate consultation to consider these issues.

Regulatory Impact Assessment (RIA)

Ofgem will require some information on costs for DNOs to help complete the RIA. These will need to be ballpark figures at this stage, and should include both costs of the review and costs of implementation. The main costs for DNOs will be those of billing and impacts on risk and cash flow. In addition, suppliers and generators will face costs on the settlement system. It was seen as important that Ofgem clearly identifies in the proposals document the areas on which it thinks the proposals will impact. This will enable the industry to come up with estimates of costs.

A DNO representative commented that it would be difficult to develop an RIA without having the entire process mapped out. It would be difficult for DNOs to provide costs on a process that had not been developed.

4) Interactions with DCPR 4

Lars said that Ofgem was interested to hear the views of the group on the interactions between the structure of charges work and the forthcoming DCPR.

The group stated the opinion that one of the main issues was to define the boundary between connection and use of system charges as soon as possible and to resolve the issues regarding TSA and O&M. In particular, this would need to be defined before DNOs could submit DCPR 4 business plan questionnaires (BPQs). The group commented that the boundary would need to be reasonably prescriptive, and urged Ofgem to carefully consider how consistency between DNOs could be achieved in respect of completing BPQs.

A second major area of interaction was the need to debate further the rewards for DNOs of connecting distributed generation to their networks. The group gave the example that DNOs would need to know the rate of return it could expect for undertaking

"speculative" investment in the expectancy that DG would arrive in the near future. This would be required in advance of completing BPQs, as without this information they would be unable to accurately provide forward projections.

The group commented that there was still work to be done on deciding what should happen if distributed generation assets become stranded e.g. because the generator becomes insolvent. Group members said that there was currently no guidance on what DNOs could expect, for example would the asset be marked off as capital inefficiency because the DNO should have factored in the risk, or would the asset sit in the RAB for a defined period of time. A group member suggested that a 'cap and collar' approach could be adopted so that DNOs assume some of the risks of stranded assets.

A group member asked whether it remained Ofgem's intention to form and chair an 'Incentives for Distributed Generation' group. Lars Rognlien said that he would check with the relevant Ofgem team and provide an update with the minutes of the day's meeting. The group commented that they felt that the issue was worthy of a discussion group, and also raised the potential for a group to look at the uncertainties of distributed generation. A member of the group stated that as long as the industry and Ofgem decide upon the correct high-level principles for the work going forward, much of the potential problems could be avoided.

Update: As of 10.03.03, no information available.

5) Discussion papers:

Tariff Support and O&M (Bradley King)

Bradley King tabled a paper entitled 'Tariff Support and O&M'. The paper outlined the purpose of tariff support and discussed the advantages and disadvantages of removing it. The paper also commented upon recent discussion surrounding the issue of whether it is appropriate for O&M costs to be recovered through connection charges.

Bradley King said that he found it difficult to understand how tariff support could be removed from the current regime. He agreed that it might be viewed as a barrier to connection, but commented that many of the problems associated with tariff support have arisen due to the lack of understanding of the process and the process may be viewed as not being transparent enough.

A DNO representative commented that his company had successfully removed tariff support. He added that until this time, the company had published tariff support information in a table as £ per kVA, and that in his view this was adequately transparent.

Another DNO representative commented that even though tariff support may be viewed as complicated it was a robust, cost reflective mechanism, which met the charging principles, set down at the beginning of the meeting.

One of the group members acknowledged that there was an issue of de-motivation concerning ground-level employees of DNOs, in that the perception was that other firms were taking away the DNO's connections business, and then being 'rewarded' via a payment from the DNO for the adoption of the asset.

A discussion followed regarding adopted networks and the recovery of costs. The group summarised the current price control position. The consumer pays for demand connection assets as the costs of installation – the connection charge. The remaining costs, e.g. reinforcement, are placed into the RAB and are captured as use of system charges. Adopted assets are recorded in the asset register, and so receive maintenance when necessary. The opex allowance reflects the assets in the asset register. The adopted assets are, however, not recorded in the RAB. There is therefore a deviation between the asset register and the assets in the RAB.

Lars Rognlien noted that several DNOs had changed their tariff setting methodology to track the tariff basket in the price control and asked whether, in terms of charging principles, the group had views on this and whether companies should use the 500MW model. The group came to the conclusion that different DNOs currently use varying methods for charging, and that these are commercial decisions taken by each company. One group member said that his company would seriously consider a common charging model for all DNOs, but added that he did not believe all DNOs would want this. Another group member said that while common principles should be considered, micro-management should be avoided.

Principles underlying reinforcement contribution rules (Colin Green)

Colin Green, who had been due to present a paper entitled 'Principles underlying reinforcement contribution rules' was unable to attend the meeting. It was agreed that the paper would be circulated to the group as soon as possible following the meeting. **Action: Colin to circulate discussion paper.**

Dave Miller led a short debate on the issue of the principles underlying reinforcement contribution rules, concentrating in particular on how a change to the regime could impact upon fault levels. It was agreed that following the circulation of Colin's paper, Dave Miller would prepare a paper outlining the issues he had highlighted during the group discussion, in particular in relation to fault levels, to be presented at the next working group meeting.

6) Future role of the working group

This point had already been discussed under point 2 above. The group had stated a preference not to increase the membership of the working group. Although this would allow a wider range of viewpoints to be bought to the table, the group felt that an increase in members would stifle the rate of progress that the group had been making.

7) AoB

No other business was discussed.

8) Date for the next meeting

It was agreed that Gail would suggest possible dates for the next meeting via email.

Structure of Charges Workstream:

The paper has been put together to help inform the debate about the future role of tariff support allowances.

Tariff Support

DNOs recover expenditure on the distribution system in two ways – up-front connection charges and ongoing DUoS charges. Connection charges aim to recover costs that are specific to the conectee and which, by definition, are not included within the average (or Long Run Marginal Cost) costs that are recovered through DUoS charges.

Tariff support is the mechanism used for establishing the boundary, and controlling the balance, between connection charges and DUoS. It is a mechanism, which has proven to be robust in ensuring that each customer pays an appropriate contribution for each level of asset over its life – whether or not the assets are for the sole use of the customer or whether use is shared between customers.

Based on the original Electricity Council formulation, tariff support is derived from the yardstick cost at various each asset voltage level, suitably scaled to the allowed price-controlled revenue, e.g. 11kV/LV-transformation. Tariff support allowances are then calculated as the current (NPV) worth of that DUoS revenue flow over future years.

An associated charge will then be a function of the total cost for the new assets required at each relevant asset level less the tariff support – i.e. the specific cost less the notional average (or LRMC) cost. In practice, the calculation is a little more complicated since adjustments need to be made for any part of the connection asset that is for general system reinforcement (costs which the DNO bears (resulting from the 25% and voltage level rules)) and also for the circumstance where only part of the asset (at a certain level) needs to be installed.

We therefore reach a situation where customers are not double charged for any system element, but all will contribute appropriately.

Removal of Tariff Support

Figure 1 represents a situation where 2 identical domestic customers ask for a connection to supply their homes. The location of the home will determine the degree of assets required (red represents new assets). We can see that under a scheme where no tariff support is available customer 2 will be liable for a HV/LV transformer, LV mains line and a service line while customer 1 will only be required to pay for the service line. A domestic customer who is seeking to have his house connected cannot be expected to pay for all the assets due to the location of his home not being close to the historic LV mains makeup of the distribution network.

Figure 1

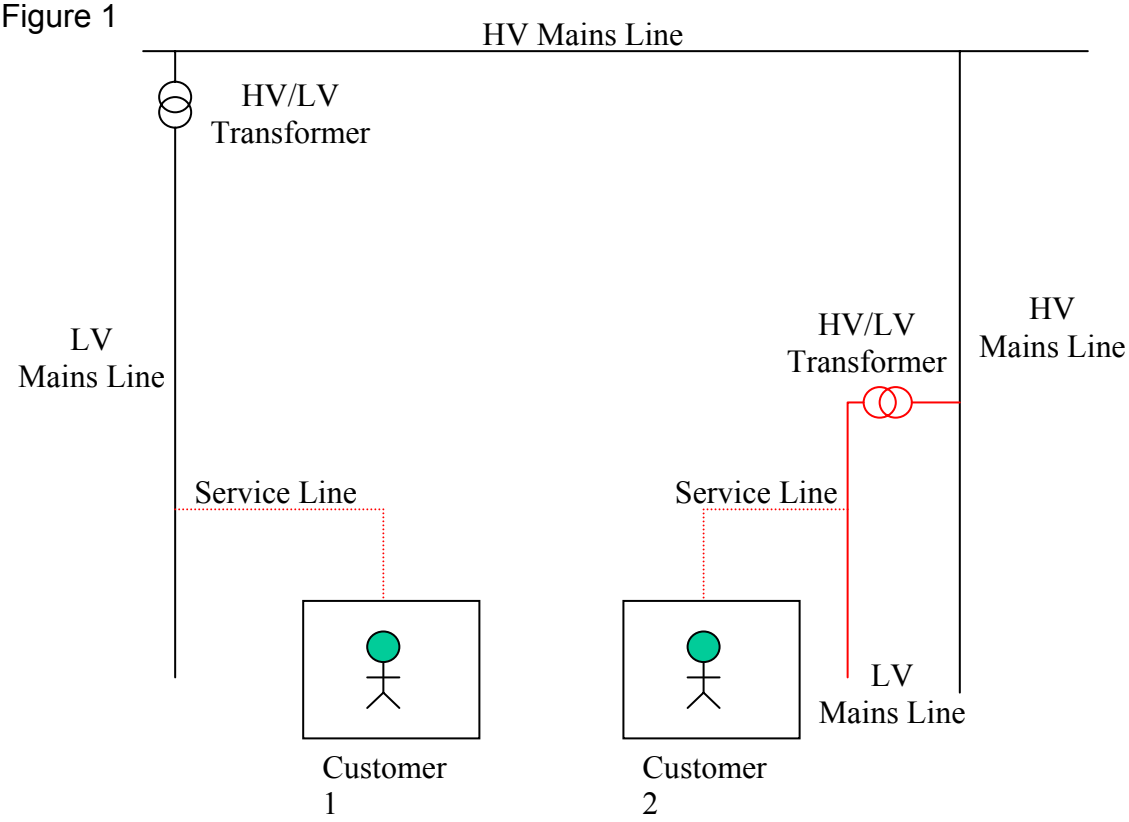
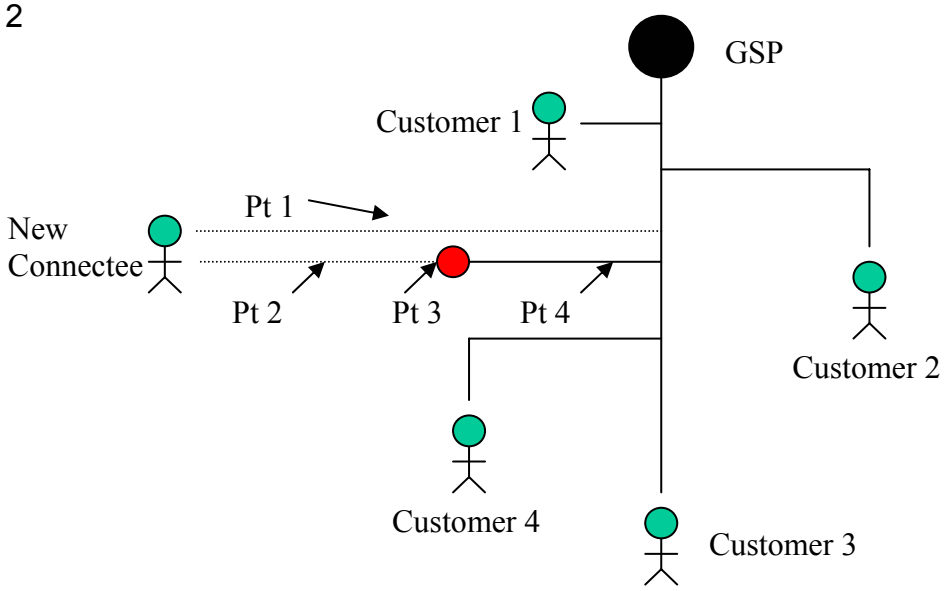


Figure 2 gives a simplistic view of the tariff support mechanism. Point 4 represents the proportion of the asset for the new connectee, which is paid for through DUoS and represents the average capital cost of connecting to the distribution network. Point 3 represents the boundary between the average cost of connection and the additional costs of connection. These additional costs of connection provide an economic location signal (location capital costs) to the connectee.

Point 1 represents the assets that the connectee will be liable for if tariff support is removed. The problem with this approach is that the new connectee will not only pay for the full cost of the asset but also pay DUoS charges, which as pointed out above is the average capital cost of connecting to the distribution network. Therefore the new connectee will effectively pay for a proportion of the connection assets twice.

Figure 2



It might be argued that the tariff support mechanism is a barrier to competition in connections as it may give an advantage to the DNOs when quoting the cost of connection work to the network. However this can be overcome by implementing a transparent process where third parties have access to information on what asset costs are recovered through DUoS. This will facilitate a level playing field for DNOs and third parties when quoting on contestable work.

Another problem associated with the removal of tariff support is its use in the adoption of assets where a third party completes the contestable work. If tariff support is not available for payment to the third party for future use of that asset then that party may choose to apply for a licence to operate and maintain that asset. This could lead to third parties operating and maintaining bits and pieces of distribution network all over the UK. This does not seem to be a very practical or sensible approach.

However the current mechanism has weaknesses. There is only one UoS charge for distribution, which recovers a proportion of costs for all connections (commercial and domestic). Take the scenario where a large car manufacturer builds a processing plant, which requires a connection within a commercial park. Under the current mechanism the costs of the connection would be subject to the probability of the demand of the connectee adding to the peak load in that particular area. If the car manufacturer decides to close down their operations then the net cost of that connection (the part not subject to tariff support) will be recovered through DUoS charges levied on other customers.

Conclusion

Pros:

- The application of tariff support reduces the initial capital contribution by the customer for a given project.
- The tariff support methodology aids the asset adoption process, which ensures supply quality and security for end customers.
- The tariff support methodology ensures equality between similar customers. For example, the previously loosely defined process applied in the gas industry has resulted in some customers connected to private network being charged more ongoing distribution charges than equivalently connected Lattice connected customers.
- This simplifies Supply contract pricing and removes additional risks taken on by Suppliers offering standard prices.
- Inefficient investment decisions could be made if tariff support allowances are reduced or abolished in the future. Developers may ask for more capacity than really required if they know that they will not be held to a 5 year agreement for capacity currently required to protect our investment through tariff support allowances. This may result in distributors reinforcing their networks at their own cost unnecessarily under the 25% and the >1 voltage level reinforcement rules.
- Tariff support methodology is being proposed for the future in support of generator connections.
- May give locational signals if standard connection charges or free connections are the alternative.

Cons:

- The value of future DUoS income to fund tariff support is eroded over time due to the RPI-X and periodic price control mechanisms applied.
- May reduce locational signals if full price deep connection charging is the alternative.
- Application of the ‘Competition in Connection’ process could result in the developer receiving the allowances without the benefits being passed onto the end customer.

The New World

Therefore if the aim is to remove tariff support then a mechanism must be put in place that will create a boundary between connection charges and DUoS (some form of tariff support). This boundary must be simple to apply and understand. However it must also provide a cost reflective message to the new connectee.

The new mechanism could be based on rules that apply to voltage level, capacity, demand, assets required and class of customer. There is some concern over rules that would apply to assets required. Since networks differ

from one region to another (radial and interconnected) it would seem difficult to construct a reasonably robust mechanism to facilitate this.

It must be recognised that a simple mechanism will increase the likelihood of perverse results. Therefore it would be necessary to incorporate a safety net in any mechanism that was proposed. This could be considered to be an even more complex mechanism then the one we currently operate under.

Operation and Maintenance

There has been some discussion over whether or not it is appropriate for Operation and Maintenance (O&M) costs to be recovered through connection charges. Currently O&M costs are recovered by DNOs through a one off up front fee to the connectee, which covers the costs of operating and maintaining the asset for its economic life.

If O&M costs are not recovered through the current mechanism then the costs will need to be allowed for through the price control. If the costs are allowed for through the price control then the customer base will be cross subsidising locational O&M charges for new connectee.

O&M charges could be applied to 'excess assets' (over and above the 'average normal' situation) therefore maintaining the locational signal.