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Dear Ynon

Response to Ofgem consultation on “Electricity distribution charging methodologies: DNOs’ proposals for the higher for the higher voltages”

We responded to Ofgem on 17 June 2011 on proposed implementation timescales for the EDCM. This letter provides our comments to the proposed methodology and in particular, to those areas which we think may have a material impact on charges to LDNOs. Our detailed responses to questions raised in chapter 3 and chapter 5 of the consultation are provided in the annex to this letter.

A summary of our comments is provided below.

Allocation of indirect costs

The EDCM uses a number of different ways of allocating indirect costs:

- for allocating indirect costs between EDCM and CDCM customer groups, an asset value cost driver is used;
- for allocating indirect costs between EDCM customers, a customer size (capacity) cost driver is used; and
- for allocating indirect costs between DNOs and LDNOs the method M model uses a weighted mix of cost drivers (predominantly comprising of MEAV and unallocated direct costs).

We are concerned at this inconsistent approach in allocating DNOs’ indirect costs. We agree with DNOs (and also Ofgem’s view?) that asset values have no link to indirect costs and should therefore not be used as a cost driver to allocate these costs. However, we are not convinced that capacity is the best driver. Whilst customer size may have some bearing on indirect costs, we think customer numbers has a significant influence on such costs. This is particularly the case in allocating costs between EDCM and CDCM customers

Extended Method M Model

We note that it is proposed to use a separate extended Method M Model to determine discount factors used in calculating LDNO tariffs. Currently, LDNOs have submitted a number of change proposals to the CDCM version of the Method M Model. If these changes are approved we would expect that the EDCM extended Method M model would incorporate those changes for implementation from 1 April 2012.

Treatment of Generation

We have not commented on the EDCM proposals with respect to generation connected to LDNO networks at EHV or at HV/LV. We think this is an area where further work is required to assess the benefits and costs that LDNO connected generation brings, in particular:

- Where an LDNO network is generation dominant it will export to the upstream network. Such export could reduce upstream DNOs' costs by deferring reinforcement of the upstream network.
- Where an LDNO network is demand dominant, but such demand is met (to a large or small extent) by local generation on the LDNO network then the DNO will benefit from reduced system losses and potential deferred reinforcement.

We think this is an area that needs to be looked at under both the CDCM and EDCM. At present we are concerned that the current LDNO charges for generation are not reflective of the costs incurred.

If there are any points in our response you wish to discuss further please contact me.

Yours sincerely

Mike Harding
Head of Regulation
GTC

Annex 1

Response to Questions in Chapter 3

Question 3.1: *Do you agree with our assessment that the approach for the revenue target is reasonable?*

The EDCM proposes that direct and indirect costs are apportioned between EDCM and CDCM customer groups using asset values. We note that DNOs are proposing to weight asset values by inventing operating expenditure intensity factors between HV/LV and EHV assets. The DNOs' submission shows these factors ranging from 0.27 to 1.09, with an average DNO figure of 0.68. Whilst the DNO submission explains how these factors are calculated, there is no objective explanation as to why this new formula results in indirect and direct costs being accurately assigned to EDCM and CDCM customers.

We do not support the premise that asset value is an appropriate cost driver for allocating indirect costs between CDCM and EDCM customer groups. Nor, given the wide gap between factors, do we support the use of an average factor

Paragraph 3.16 of Ofgem's consultation states:

"The DNOs' proposal for the calculation of the revenue target is to allocate DNO level costs to individual EDCM customers based on their proportion of asset value out of total asset value in the DNO area. The total EDCM revenue target would be the sum of individual cost allocations across EDCM demand customers."

Table 3.4 of the consultation goes on to show how each cost component is allocated to the EDCM demand revenue.

Paragraph 3.20 makes the point that:

"These allocations are for the purpose of calculating a revenue target for demand customers collectively, not for the purpose of calculating individual DUoS charges."

In paragraph 3.26 Ofgem comment that

"The revenue target aims to represent a fair share of the allowed revenue attributable to EDCM demand customers, relative to other customer groups (EDCM generation and CDCM customers) and ensure that these customers do not pay too much or too little as a group."

However, in paragraph 3.47 of their consultation, Ofgem make reference to the DNO submission which says (in paragraph 144):

"DNO indirect costs are not considered to be closely linked to assets..."

In paragraph 3.52 Ofgem state

"Given that indirect costs are 'costs incurred undertaking activities which do not involve physical contact with system assets' ... we think it is reasonable not to allocate them based on notional asset values but rather based on the 'size' of the customer."

The conclusion of this is that the DNOs' submission and Ofgem's consultation appears to offer two contradictory approaches on the use of cost drivers to allocate indirect costs.

Given that the DNO view is that there is no link between assets and indirect costs, we find it difficult to understand what science there is, if any, to underpin and support applying expenditure intensity factors to asset values to apportion costs between EDCM and CDCM customers.

Why this is important to LDNOs

We have long held the view that asset value is an inappropriate cost driver for allocating indirect costs. Yet we see in the Model M Methodology under the CDCM that MEAV is used to allocate indirect costs to network tiers. Again, we see indirect costs being allocated between EDCM and CDCM customer groups using asset values.

We agree with the DNOs' statement that indirect costs are not closely linked to asset values. We think the effect of using asset values as a driver may be to unduly skew indirect costs to higher voltage tiers and to EDCM customer groups. This in effect would mean that EDCM customers are providing a subsidy to CDCM customers.

The effect this has on LDNOs is twofold. Firstly, a lower allocation of indirect cost to CDCM customers would lead to lower all the way charges calculated under the CDCM. This would result in lower margins being available to LDNOs whose networks connect to the DNO at EDCM or CDCM voltages and whose end customers connect to the LDNO at CDCM voltages.

Secondly, the use of asset values to allocate costs in the Model M methodology skews costs to higher voltage tiers. Both Ofgem and DNOs will be aware that we have raised changes under DCUSA governance arrangements to change some cost drivers in the CDCM Model M methodology. Given DNOs' position on the link between indirect costs and asset values we hope the extended Method M being developed under EDCM will review the cost drivers used.

Question 3.2: Do you think the principle the maximum import capacity is a cost driver at the voltage of connection is reasonable for charging purposes?

For direct costs we think that the principle that maximum import capacity is a cost driver is reasonable. We think the maximum capacity used should be the customer's contribution to the system peak demand at the relevant network or voltage level. This may change at different network voltage levels since the timing of customer's maximum demand compared to the system peak demand at different network tiers may differ. Therefore, except for the sole use assets, we think it is the customer's diversified maximum demand at the time of system peak (of each network tier) that should be used to allocate direct costs. Not taking diversity into account does not reflect the relevant proportion of costs that each customer brings to the operation of shared assets at the relevant voltage level.

We agree that there is no link between asset and indirect costs (and that an asset value cost driver is inappropriate). However, we are not convinced that customer size (in terms of capacity) is the best cost driver for allocating such costs. Whilst customer size may play a part in how indirect costs are incurred we think customer numbers plays a significant role in determining the level of indirect costs. Also, in setting the price control we think it is customer numbers and units distributed that form the growth term.

We think a cost driver comprising customer numbers and total units distributed (not just units in the super red period) may be a better way of allocating indirect costs between EDCM and CDCM customer groups and between EDCM customers within the EDCM customer group.

Question 3.3: *Do you agree with our view that reactive power flows should be incorporated as part of the capacity that attracts indirect costs and 20 per cent of the residual?*

No. Ofgem have already indicated that indirect costs are separate to the physical construction of the distribution system. Whilst reactive power may influence the direct costs of operating the distribution system, we do not think that reactive power in itself influences indirect costs. We refer to our response to question 3.2 where we question whether capacity is an appropriate driver for indirect costs and whether a driver weighted between customer numbers and units distributed is a better approach.

Question 3.4: *Is it appropriate to consider the specific assets the customer uses for the calculation of the customer's charge, or would it be more appropriate to consider only the voltage levels the customer uses for the calculation of its charges?*

We think there is a danger that granularity and precision could be confused with accuracy. As Ofgem notes throughout the consultation, many of the assumptions used are subjective. Even then, after all the assumptions have been applied, scaling factors are used to match outputs to target revenues. From the information we have seen, we are far from convinced that introducing this increased level of complexity improves accuracy or cost reflectiveness. Therefore, we believe a more 'honest' approach is to consider only the voltage levels the customer uses for the calculation of charges.

Question 3.5: *Do you think that the 'spare capacity' issue we identify should be addressed?*

We agree that further work is required to better understand and, if appropriate, allocate the operating costs associated with assets with underutilised or spare capacity. On face value it does seem inappropriate that a customer should bear the sole burden of funding the operation of assets with spare capacity. Such occurrences could occur when other customers move away from a location releasing capacity. Requiring customers to pay the direct costs of operating counter intuitive to what the LRIC/FCP approaches are trying to achieve.

We have a general concern over the use of asset values to allocate direct operating costs and network rates. To illustrate this point we pose the question: *Are the direct costs of operating a 132kV substation, compared to the direct costs of operating a lower voltage substation, split in the same ratio as the capital cost of the relevant assets?.* We think that the costs of operating these different substation types are not reflected by the asset values

We also question the basis for allocating network rates. We believe that the basis that the VOA uses to determine rates is essentially based on DNO profits. Only a small proportion of the assets form part of a DNO's RAB. The majority of assets are fully discounted. Therefore we do not agree that asset values (notional or otherwise) are the right way to apportion rates.

Question 3.6: *Do you think notional asset values should take into account assets below the customer's voltage of connection?*

For customers connecting at EHV it does appear inappropriate that the customer should take into account assets below the voltage of connection. This would appear to be particularly relevant in respect of charges to LDNOs in respect of EHV charges connected to their networks

Question 3.7: *Are there any other demand specific issues that you think we should consider as part of our decision?*

No comment.

Responses to Chapter 5

Question 5.1: *Do you agree when calculating LDNO charges that DNO costs upstream and downstream of the point of connection should be considered?*

In principle we concur with Ofgem's thoughts in paragraph 5.21

In respect of LDNOs the EDCM proposes two methodologies. The first is in respect of charges where the LDNO connects to the DNO at an EDCM voltage but where the LDNO's end customer connects at a CDCM voltage. The second is where the LDNO connects to the DNO at EHV and where the LDNO's end customer also connects at EHV.

LDNO connection at EHV with LDNO customers connected at CDCM voltage.

We understand that in principle DNOs propose to replicate the Model M methodology used for LDNOs under the CDCM, but extend it to include connections at EHV. Under the Model M approach the DNO uses regulatory reporting information (as provided in the 2007/8 RRP) to allocate total costs (less incentive payments) to different network tiers. From this the DNO derives discount factors that are applied to end user CDCM tariffs to determine tariffs to be applied to LDNOs. These discount factors are intended to reflect the efficient costs that the DNOs own notional arms length distribution business would incur in owning and operating the same network owned and operated by the DNO.

The approach proposed by DNOs under the EDCM appears to take a fundamental departure from the principle used originally in developing Model M for the CDCM, and on the approach used by DNOs to allocate EHV costs in respect of its own CDCM customers.

The approach put forward in the DNOs' submission is to split the EHV network into 15 categories based on the connection boundary to the LDNO and on the upstream assets provided by the DNO. On this basis an LDNO would, in respect of CDCM end customers, be entitled to receive a higher margin for certain upstream connection configurations than others (e.g. a network configuration of '1001' may be expected to give an LDNO higher margins than a network configuration of '1111').

We do not support the proposed DNO approach for a number of reasons:

1. Whilst DNOs say that the proposed approach will enable LDNOs to make larger margins (than those calculated by an average) for certain network configurations, it must also be true that margins for other network connections will be less. This could create perverse incentives for DNOs and LDNOs in respect of where the LDNO network connects to the DNO network.
2. A particular DNO network configuration at the time of connection may not always remain so. Future network changes by the DNO could change the network configuration and the margins available to the LDNO, even though the characteristics and the voltage of connection of the LDNO network remain unchanged. The proposed approach introduces price instability.
3. The proposed approach relies on perfect and complete communication within the DNO between its engineering arm and its tariff setting arm to identify when network configurations change. We question whether such perfect communication exists.

4. Changes in the principles in the way DNO allocates costs to its own CDCM customers and to LDNO CDCM customers creates the opportunities for distortions in allocation of relevant costs.
5. As we have stated previously, precision and granularity should not be confused with accuracy. We are not convinced that introducing this increased level of complexity improves accuracy or cost reflectivity.

It is for the above reasons we think that discount factors should be based on the average costs of assets provided (unless DNOs propose to introduce more localised and granular tariffs for their own CDCM customers).

Question 5.2: *Do you think that DNOs should provide LDNOs with a discount on all non-asset based charges?*

Yes. Where LDNOs provide network, they are substituting an activity that the DNO would otherwise have to provide. In undertaking the substitution activity, the LDNO is entitled to the same margin that the DNO's own notional arms length business would require in order to operate the same network and make a normal margin. In calculating the discount factors it is the total costs that should be considered.

We note the DNO submission proposes that a 50% discount in respect of indirect costs. We seek further clarification behind the logic and objective analysis used to arrive at this figure.

We think a discount should be applied to demand scaling. In their submission DNOs comment (in paragraph 110) that "Residual revenue includes depreciation, return on capital, the cost of incentive schemes etc." With the exception of incentive payments, LDNOs will incur these costs as part of owning assets. Therefore we support Ofgem's initial view is to make it a condition of our approval of the EDCM that a discount is applied to this scaling element of the LDNO charge.

Question 5.3: *Do you think that varying LDNO discounts only with the point of connection will better achieve a balance between reflecting upstream and downstream costs?*

We refer to our response to question 5.1. We think that varying LDNO discounts only with the point of connection is more consistent with the way DNOs allocate costs to their own CDCM end customers.

Question 5.4: *Do you agree that it may be appropriate in some circumstances for the DNO to pay LDNOs use of system credits?*

Yes. In the future LDNOs may provide additional system security, or through generation connected to their distribution system, defer the need for the DNO to undertake upstream reinforcement.

Proposals in the DNO submission to cap discount factors to 100% appear inconsistent. To date the principle that has been followed is that incentive payments should be excluded from calculating LDNO discounts. However, the effect of this proposal is that in an extreme case where a DNO receives high incentive penalties, the burden should be shared by LDNOs. Given that the discount factors already exclude incentive payments and are intended to enable an LDNO to recover the cost of operating the network and making a

normal return, placing a cap on the discount factor that would apply in these extreme circumstances would appear to result in a form of margin squeeze.

Response to Chapter 6

Question 6.1: *Do you think sole use assets should attract scaling 'costs' to the same extent as shared assets? Does the charging rate on sole use assets seem reasonable given the nature of these assets?*

The presumption in paragraphs 158 and 159 of the DNOs' submission is that these costs are linked solely to the provision and replacement of assets. However, we do not think this is the case since scaling costs relate to all costs incurred and are applied to match EDCM outputs to price control revenues. Such costs are of a general nature and do not relate to any particular activity.

Also, whilst a 40 year period is used for the accounting treatment of assets, in reality assets have a much longer life than this. This point was made recently in an Ofgem open letter dated 14 January 2011.

Therefore, we have difficulty in understanding the logic as to why DNOs think sole use assets should not attract scaling charges, and on the same basis as shared assets. The proposed approach skews allocation of costs to deeper assets. We are concerned how this will impact on charges to LDNOs; i.e. are LDNO having to fund an element of scaling charges which should be more appropriately recovered as part of sole use costs.

Question 6.2: *Do you agree with our view that the arrangements for demand and generation side management agreements are appropriate? Do you think such agreements should be available to all customers?*

We have not identified any issues at this time. However, areas where we seek further understanding are:

- How this would work for LDNOs.
- What happens (penalties etc) where a demand customer or a generator breaches such requirements? We believe the principles behind this need to be clear, transparent and common to all distributors.

Question 6.3: *Do you agree with our assessment that an explicit reactive power charge is not appropriate?*

Not answered.

Question 6.4: *On the proposal for sense checking branch incremental costs in LRIC:*

- *Do you agree with our view that positive cost recovery (ie charges) and negative cost recovery (ie credits) should be considered separately?*
- *Do you consider that recovery from demand customers and recovery from generation customers should be considered separately?*

We have not assessed in this in sufficient detail to provide an answer.

Question 6.4: *Do you think the EDCM should include a mechanism to mitigate the potential volatility from network use factors? We welcome views on measures to mitigate volatility and help customers manage volatility.*

One of the key objectives for the EDCM (and the CDCM) was for the charging methodology to be cost reflective and deliver forward looking locational pricing signals. We have always been concerned about the volatility that the EDCM can bring to customers, particularly where such volatility is as a consequence of the actions of other customers connecting to the network. However, we think such volatility is a natural feature of the approach taken in developing the EDCM. Developing mechanisms that counter the original intent of the EDCM would appear to have the effect of blunting the cost reflectivity and pricing signal messages.

Additionally, we are concerned as to the types and the extent of long term products LDNOs may be required to offer. We think that such products may be outside the natural skill set of a licensed distributor. The commodities industry may be better placed to offer hedging tools to manage volatility exposures.

Also, if LDNOs are to be required to offer long term products in respect of their networks, how will they be expected to fund them?