

Modification proposal:	Central Network's Electricity Distribution Use of System Charging Methodology: Interim¹ IDNO tariffs		
Decision:	The Authority ² directs that this proposal be not vetoed ³		
Target audience:	DNOs, IDNOs, Suppliers, Generators and other interested parties		
Date of publication:	5 November 2009	Implementation Date:	1 April 2009 ⁴

Background to the modification proposal

Central Networks⁵ ("CN") has licence obligations⁶ to have in place three charging statements: the statement of use of system ("UoS") charging methodology, the statement of UoS charges and statement of connection charging methodology and charges. The statement of UoS charging methodology outlines the method by which distribution UoS charges are calculated. CN has a requirement to keep the methodology under review and bring forward proposals to modify the methodology that it considers better achieves the relevant objectives.⁷

The Authority has been encouraging Distribution Network Operators ("DNOs") to modify their charging methodologies to bring forward specific IDNO tariffs which better reflect the costs IDNOs impose on their distribution networks⁸. In July 2008, a DNO/IDNO working group was established with the aim of developing more appropriate charging arrangements for IDNOs. DNOs, including CN, are now bringing forward proposals as a result of the work undertaken in this group. So far Western Power Distribution plc⁹, Scottish and Southern Power distribution plc¹⁰, Electricity North West and Scottish Power

¹ In this case the 'Interim' methodology would apply from 1 April 2009 until 1 April 2010 when the common distribution charging methodology (CDCM) is due to be implemented.

² The terms 'the Authority', 'Ofgem' and 'we' are used interchangeably in this document. Ofgem is the Office of the Gas and Electricity Markets Authority.

³ This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

⁴ CN wish to implement this mod retrospectively. They have stated that doing so will have a minimal impact on the charges of other end users. We consider that retrospective implementation will provide IDNOs for compensation for being charges under commercial tariffs.

⁵ Central Networks has 2 licensees – CN East and CN West. This letter applies to both of them.

⁶ Standard licence conditions (SLC) 13 (Charging Methodologies for Use of System and connection) and 14 (Charges for Use of System and connection).

⁷ The relevant objectives for the UoS charging methodology, as contained in paragraph 3 of SLC 13 of Central Network's licence are:

- (a) that compliance with the UoS charging methodology facilitates the discharge by the licensee of the obligations imposed on it under the Electricity Act 1989 and its licence;
- (b) that compliance with the UoS charging methodology facilitates competition in generation and supply of electricity, and does not restrict, distort or prevent competition in the transmission or distribution of electricity;
- (c) that compliance with the UoS charging methodology results in changes which reflect, as far as is reasonably practicable (taking into account of implementation costs), the costs incurred by the licensee and its distribution business; and
- (d) that, so far as is consistent with sub-paragraphs (a), (b) and (c), the UoS charging methodology, as far as is practicable, properly takes account of developments in the licensee's distribution business.

⁸ See our December 2007 not veto letter on WPD's IDNO proposal:

<http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/ENW%20uos006%20mod.pdf>

⁹ The proposal was not vetoed in December 2007 and can be found at:

<http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/ENW%20uos006%20mod.pdf>

WPD had a second IDNO charging methodology not vetoed in June 2009:

<http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/Decision%20letter%20WPD%20Wales%20issued%20050609.pdf>

¹⁰ <http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/Final%20decision%20letter%20SEPD.pdf>

Energy Networks¹¹ have had their IDNO charging proposals not vetoed. In addition to these decisions, the Authority has consulted on a proposal from CE Electric UK¹² and has vetoed a proposal from EDF¹³.

We also note that all DNOs have now submitted the common distribution charging methodology (CDCM), which contains a specific IDNO cost allocation generating new IDNO tariffs. Ofgem is currently consulting on these proposals until 26 October¹⁴.

The modification proposal

CN submitted a proposal¹⁵ on 13 July 2009 to modify its statement of UoS charging methodology in order to introduce IDNO specific tariffs at low voltage ("LV") in both its Eastern and Western distribution service areas (DSAs). On 7 August 2009, the Authority notified CN in writing of its intention to consult upon its revised IDNO charging proposals¹⁶. On 18 August 2009 the Authority issued its consultation¹⁷.

At present, CN charge IDNOs on the same basis as commercial customers. These charges are calculated using a distribution reinforcement model ("DRM"). The DRM models the costs of adding 500MW of simultaneous demand to CN's network. This produces an incremental cost per network level. These costs are allocated to customer classes on the basis of their contribution to maximum demand. These costs are then scaled up or down by a fixed percentage to ensure that CN recover their allowed revenue.

In the past the Authority has asked DNOs to bring forward IDNO specific tariffs¹⁸. CN propose to calculate new specific IDNO tariffs by using regulatory reporting pack¹⁹ (RRP) data to allocate the average p/kWh revenue they receive from low voltage ("LV") customers to different network levels. CN's methodology allocates this average p/kWh revenue to network tiers using cost drivers. This allows them to establish the percentage of cost in each network tier. They use these percentages as the basis of a discount from the 'all the way' charge they would levy on end customers to produce a boundary tariff for the IDNO.

A more detailed summary of CN's proposal can be found in Annex 1 to this letter.

¹¹ <http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/SP%20IDNO%20decision%20letter.pdf>

¹² <http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/CE%20Interim%20IDNO%20Consultation.pdf>

¹³ <http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/Final%20EDF%20interim%20IDNO%20decision.pdf>

¹⁴ http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgs/Documents1/Ofgem_CDCM_consultation%20280909_1.pdf

¹⁵ CN's modification report can be found on Ofgem's website at:

<http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/CN%20East%20embedded%20networks%20methodology%20approval%20submission%20July2009.pdf>

¹⁶ This letter can be found on our website at:

<http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Pages/DistChrgMods.aspx>

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<http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/CN%20IDNO%20Consultation.pdf>

¹⁸ Please see the Authority's decision letter on WPD's IDNO charging modification of December 2007:

<http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/WPD%20006%20IDNO%20charging%20decision%20letter%20wales.pdf>

¹⁹ This is data which is submitted to Ofgem by DNOs on an annual basis to allow Ofgem to better understand DNOs' costs when setting price controls

The Authority's consultation noted that CN's proposal raised a number of similar issues to those raised by ENW's first interim modification (which was subsequently withdrawn). In addition to these issues, the consultation particularly sought views about:

- How CN proposed to calculate the LV main proportion.
- CN's approach to applying the discount equally to the fixed and unit charge components of the 'all the way' tariff.
- The range of tariffs CN proposed to offer, including allowing IDNOs to use the existing commercial tariff for the remainder of the interim period.

We received two responses to our consultation on CN's proposal, one from GTC and one from IPNL. Both responses made similar points, which are summarised below:

- CN's proposed approach to cost allocation was an avoided cost approach, and therefore did not appropriately take into account the costs of a downstream business such as an IDNO. In particular, the use of a percentage of LV main to calculate the reduction compared to the 'all the way' tariff does not recognise the fixed costs incurred in operating a downstream network.
- The use of direct operating costs to allocate indirect operating costs was inappropriate given the relatively small percentage of costs accounted for by direct operating costs.
- The data was not available to implement the portfolio billing approach.

The Authority's Decision

The Authority also has some concerns over CN's approach outlined below. However, on balance we consider that the benefits of the proposal outweigh the disadvantages. Therefore, the Authority has decided to **not veto** the proposal.

In coming to the decision, the Authority has considered the proposed modification against the relevant objectives and its wider statutory duties. The Authority has also taken account of the two responses outlined above.

The Authority welcomes CN's development of specific tariffs for IDNOs, which attempt to reflect the costs IDNOs place on their distribution system. Furthermore, CN's proposal offers IDNOs the option of portfolio billing²⁰, which improves transparency regarding the margins available and has been generally welcomed by IDNOs. IDNOs can continue to use site specific tariffs for the interim period.

CN's proposal clearly has improvements over their current approach. We particularly consider that the development of IDNO specific charges offered under a portfolio tariff structure takes into account the loading characteristics of IDNO networks in a way the current tariffs do not.

The Authority's Reasons

The specific reasons for the decision are detailed below.

Relevant objective (c) – That compliance with the methodology results in charges which reflect as far as is reasonably practical (taking into account

²⁰ Portfolio billing involves billing the IDNO on the entire portfolio of end customers they have connected to their networks, rather than billing each site on a single tariff.

implementation costs) the costs incurred by the licensee in its distribution business.

CN state that their proposal better meets the relevant objective (c) because it introduces specific IDNO tariffs which take account of the fact that IDNO sites predominately serve domestic premises and therefore have load characteristics more in common with domestic customers rather than commercial ones. We generally agree with this, although there are aspects of its cost allocation methodology that we consider could be further improved.

1. Specific IDNO charges

We agree with CN that its proposal to introduce charges based on the specific load profile of IDNO as end customers should result in charges that are more cost reflective than the current approach of treating them as a commercial customer.

This aspect of the proposal better meets relevant objective (c).

2. Approach to cost allocation

We consider that CN's proposal to allocate capital costs to network levels in proportion to the net capex additions to their network is an improvement on their current approach. We consider that, *ceteris paribus*, the IDNO can earn the same rate of return on assets as the DNO would have done had it owned those assets and thus is reflective of CN's costs.

Furthermore, the Authority considers that CN's methodology allocates a reasonable estimate of average *total* DNO costs to network tiers. Therefore, CN's proposal is not based on an avoided costs approach.

Consequently, we consider that this aspect of the proposal better meets relevant objective (c).

3. Treatment of operating costs

We consider the overall cost allocation to be better than CN's current method. However, we agree with respondents that CN's proposal to allocate all operating costs to network levels in the same proportion as direct operating costs may not be optimal. Direct operating costs account for only around 30% of CN's total operating costs and relate to specific activities such as tree cutting and fault repair. We consider that it is not cost reflective to allocate roughly 70% of operating costs on the basis of this 30%, especially when the remaining 70% includes significant indirect costs (i.e. customer call centres, IT systems and staff costs) which are likely to have very different cost drivers from direct operating costs²¹.

However, on balance we do not consider that this aspect of the methodology is sufficient to outweigh the improvements we mention above. We note that this issue will be addressed when the CDCM is implemented on 1 April 2010.

4. Use of one year's RRP

²¹ For instance, direct costs are asset related and driven by the age and condition of the network, whilst indirect costs are more associated with the operating costs of a distribution business and the decisions employed by the management of that business.

The Authority would also stress that CN's proposal is based on just one year's worth of RRP data. This data is pivotal in identifying operating and capital costs and then allocating these costs to network levels.

Although we consider that data from one year may not be reflective of CN's medium and longer term costs, we do not think this aspect of the proposal is sufficient to outweigh the improvements in cost allocation. As before, we note that this point will be addressed when the CDCM is implemented on 1 April 2010.

5. LV main calculation

One respondent to our consultation on CN's proposal commented that the LV main calculation, used to apportion the LV network costs between IDNO and DNO, does not appropriately allocate fixed costs. In this regard, we note that CN's current methodology makes no attempt to identify the costs associated with the LV network and does not attempt to allocate these between IDNO and DNO.

In addition, the IDNO will not always connect to CN's network at the LV substation. Therefore, some LV costs will be shared between CN and IDNOs. For this reason, we consider that CN's calculation is a robust method on which to calculate the average use of the LV network by IDNOs. Given that CN's LV costs are shared on a per customer basis²² it appears appropriate for CN to allocate these shared costs on a length of network per customer basis.

Consequently, the Authority considers that this aspect of the proposal better meets relevant objective (c).

Relevant objective (b) – That compliance with the methodology facilitates competition in the generation and supply of electricity and does not restrict, prevent or distort competition in the transmission or distribution of electricity.

CN state that its proposal does not restrict, distort or prevent the development of competition, and indeed facilitates competition in distribution, and therefore better meets the relevant objective (b). The Authority generally agrees with this, although there are some aspects of CN's cost allocation approach that could be further improved.

1. Portfolio billing

The Authority welcomes CN's proposal to move towards a portfolio billing system²³. We agree with CN that this aspect of their proposal better achieves relevant objective (b) as it charges IDNOs on the same basis it would charge its own end users. Furthermore, it also ensures that there is no mis-match in tariff structure between what an IDNO is charged at the boundary and what they can recover from end customers. We consider that this provides IDNOs with more certainty in the market and therefore aids competition in distribution.

²² The costs of the LV network are recovered from customers. The more customers connected to the same network, the lower the per customer cost.

²³ Portfolio billing essentially involves CN calculating a specific IDNO boundary charge for each end customer the IDNO has connected to its networks. These individual charges are then aggregated up to produce an IDNO bill.

Whilst the Authority notes that respondents are concerned that the necessary data flows for portfolio billing are not currently available. We are aware that a DCUSA working group is developing the systems and governance required for portfolio billing and that there is nothing to prevent IDNOs providing data on a manual basis to CN. Furthermore, we note that CN will continue to offer their existing range of site specific tariffs to IDNOs.

Consequently, the Authority considers that this aspect of the proposal better meets relevant objective (b).

2. Use of one year's RRP data

In addition to our concerns over the cost reflectivity of using a single year's RRP data (see above), we are also concerned that such data may be volatile between years, and that if updated each year could lead to significant movements in IDNO tariffs. Such volatility would produce uncertainty in the market which would adversely impact investment decisions. We would stress that the reliance on such a narrow range of data inputs is not an optimal basis for a cost allocation methodology.

However, we do not consider that this aspect of the proposals outweighs the improvements outlined above. We further note that this issue will be addressed when the CDCM is implemented on 1 April 2010.

Our decision

The Authority has decided to **not veto** the modification to the UoS charging methodology statement. The Authority considers that CN's cost allocation methodology improves the cost reflectivity of the IDNO charging methodology. Furthermore, CN's proposed cost allocation, and the introduction of portfolio billing increases the potential for competition in distribution. Consequently, and despite having some concerns about CN's cost allocation methodology, the Authority considers that the proposal better achieves the relevant objectives.

It is important to note that our decision relates to the methodology rather than the quantification of elements produced by the methodology. It is for CN to ensure its own compliance with the Competition Act 1998 and EC competition law in its implementation of the proposed methodology. It should be noted that the processes and legal tests in relation to modifications and the Competition Act 1998 investigation are separate and distinct. Therefore, this decision does not limit or prejudice any findings which the Authority may make in relation to investigations under the Competition Act 1998.

If you have any questions relating to the issues discussed in this letter please contact Mark Askew at mark.askew@ofgem.gov.uk or on 0207 901 7022.

Yours faithfully,



Rachel Fletcher,
Rachel Fletcher, Partner, Distribution
Signed on behalf of the Authority and authorised for that purpose.

Annex 1 – CN’s proposal

CN establish IDNO charges by applying a discount to the ‘all the way’ (ATW) charge. The discount is calculated by allocating operating costs and capital costs to network levels²⁴. The IDNO receives a discount based on the network levels below its point of connection. Where the IDNO connects along the network as opposed to at the transformer, CN adjust the discount to reflect the average use of the network.

CN use regulatory reporting pack (RRP) data to establish the costs associated with:

- **Operating costs** (operating and faults expenditure, including transmission exit charges but excluding network rates)
- **Capital costs** (asset replacement and general reinforcement capital expenditure)

CN then allocate this expenditure to all network levels using selective cost drivers.

Operating expenditure in RRP is divided into two categories – direct²⁵ and indirect²⁶. The direct expenditure is already largely broken down by network level and is therefore already allocated. The indirect expenditure is not broken down by network level and CN allocate these costs to network levels in the same proportion as the direct operating costs. These costs are then divided by the number of units (kWh) flowing through each network level to produce a p/kWh operating cost matrix.

CN calculate the total revenue which they recover from LV connected customers and divide by the number of units (kWh) flowing through the network to produce an average LV revenue p/kWh. The total operating cost p/kWh is subtracted from this total revenue p/kWh. The residual is identified by CN to be the p/kWh associated with capital expenditure i.e. asset replacement and reinforcement. CN allocate this residual to network levels in the same proportion as net capital expenditure²⁷.

This net capital expenditure is calculated from replacement and general reinforcement expenditure contained in RRP data. Replacement expenditure is already broken down by network level. Some reinforcement costs do not distinguish between network and substation. Where this is the case reinforcement costs are allocated between network levels in the same proportion as capital expenditure.

The allocated operating cost and capital costs (representing replacement and reinforcement expenditure) are added together. The percentage of total costs which each network level constitutes is calculated and this forms the basis of a discount to be applied to the ‘all the way’ tariff.

This discount is calculated on the basis of 100% of the LV service cost and a certain percentage of the LV network costs, which reflects the average length of LV main to IDNO sites as a percentage of the average length of LV circuit employed in CN’s area.

²⁴ LV services, LV network, LV/HV transformer, HV network, HV/EHV transformer, EHV network, GSP level.

²⁵ These are the operating costs associated with the direct activities on the network e.g. fault repair, tree cutting and maintenance.

²⁶ These are the operating costs associated with the indirect activities on the network e.g. customer call centres, IT and certain staff costs.

²⁷ Net capital expenditure is all capital expenditure on the network excluding that which was funded by customer contributions.

For their Eastern area, CN calculate that LV services constitute 10.6% of total LV costs. They state that 23.5% of LV costs are in the LV network and that on average CN provides 9.9% of these network costs to IDNOs. This produces an overall discount of 31.7%²⁸ to be subtracted from the appropriate 'all the way' tariff.

For their Western area, CN calculate that LV services constitute 9.3% of total LV costs. They state that 26.4% of LV costs are in the LV network and that on average CN provides 18.2% of these network costs to IDNOs. This produces an overall discount of 30.6%²⁹ to be subtracted from the appropriate 'all the way' tariff.

CN propose to offer these tariffs on a portfolio basis which recognises the precise mix of end customers on an IDNO site and produces a 'boundary' charge for each one of these customers which is aggregated across the distribution services area (DSA) to produce an IDNO bill. CN state that they will require data from IDNOs on the number and type of end users in order to bill in this manner. CN also state that they will require the split of consumption on each site between different end customer classes.

²⁸ This results from the calculation of $(23.5\% \times (1 - 0.099)) + 10.6\%$. This percentage is then reduced to 31.3% allow for losses between the boundary and end user.

²⁹ This is then adjusted to 30.2% to allow for losses between the end user and the boundary.