Modification proposal:	**CE Electric (UK) plc's Electricity Distribution Use of System Charging Methodology: Interim[1] 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

CE Electric (UK) plc[5] ("CE") has licence obligations[6] 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. CE 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 networks[8]. So far Western Power Distribution plc[9], Scottish and Southern Power distribution plc[10], Electricity North West[11]

[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] CE wish to implement this mod retrospectively. They have stated that doing so will have a minimal impact on the charges of other end users.

[5] CE has 2 licensees – NEDL and YEDL. This letter applies to both licensees.

[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

[11] http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/ENW%20IDNO%20decision%20letter%202%20Final.pdf

and Scottish Power Energy Networks[12] have had IDNO charging proposals not vetoed. In July 2008 a DNO/IDNO working group was established with the aim of developing more appropriate charging arrangements for IDNOs. DNOs, including CE are now bringing forward proposals as a result of the work undertaken in this group. In addition to the decisions outlined above, the Authority has consulted on a proposal from CN[13] and has vetoed a proposal from EDF[14]. We also note that all DNOs have now submitted the common distribution charging methodology which contains a specific IDNO cost allocation generating new IDNO tariffs. Ofgem issued a consultation on these proposals which closed on 26 October[15].

The modification proposal

CE submitted a proposal[16] 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 Northern and Yorkshire distribution service areas (DSAs). On 10 August 2009, the Authority notified CE in writing of its intention to consult upon its revised IDNO charging proposals[17]. On 21 August 2009 the Authority issued its consultation[18].

At present CE 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 CE'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 CE recovers their allowed revenue.

CE propose to calculate IDNO boundary tariffs by applying a discount to the fixed, unit and (where applicable) capacity elements of end user charges[19]. The discounts represent an allocation of revenue to downstream network activities (i.e. those activities undertaken by the IDNO).

CE proposes to disaggregate their DRM model to identify the revenue recovered from their all the way fixed charge and unit charge into one of three categories;

- Customer related costs
- Asset related costs
- Exit charge

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[12] http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/SP%20IDNO%20decision%20letter.pdf

[13] 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

[14] http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/Final%20EDF%20interim%20IDNO%20decision.pdf

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

[16] http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/Appendix%201%20-%20CE%20Electric%20UK%20-%20LDNO%20interim%20tariff%20proposal.pdf

[17] This letter can be found on our website at: http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Pages/DistChrgMods.aspx

[18] http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/CE%20Interim%20IDNO%20Consultation.pdf

[19] Note that because IDNO charges are regulated via a relative price control regime, IDNO charges to end users cannot exceed those of the upstream DNO.

CE proposes to use different cost drivers to allocate the revenue associated with each of these categories to network levels. The percentage of total revenue associated with the network levels which the IDNO operates is applied as a discount to the all the way tariff components. The tariffs which are produced are then offered to the IDNO on a portfolio basis i.e. a separate tariff is applied to each customer class connected to the IDNO network so that the IDNO is charged on its entire portfolio of customers.

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

Consultation responses

The Authority's consultation noted that the proposal from CE represents a substantial change to their current methodology.

We received two responses to the consultation on CE's proposal[20]. The two responses urged Ofgem to veto CE's proposal and raised the following issues;

- The reliance on a length parameter to allocate certain LV costs
- Concern that the approach was an avoided cost method.
- The use of the DRM to initially allocate and calculate costs, given that it does not take into account total costs.
- The impact of system losses on the IDNO tariff has not been appropriately considered.
- The data required to implement the portfolio billing approach was not available.

Respondents also commented on some favourable aspects of the proposal, including:

- The removal of non-phased capacity charges during the energisation period of a site.
- Applying a discount to each of the separate elements of the all the way charge.
- The relatively comprehensive nature of the costs included, such as the inclusion of exit charges.

The Authority's Decision

In coming to our decision the Authority has considered the proposed modification against the relevant objectives and the Authority's wider statutory duties. The Authority has also taken account of the responses we received to the consultation on CE's proposal.

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

Therefore, given the benefits of the proposal compared to the current methodology, the Authority has decided to **not veto** the proposal. The specific reasons for the decision are detailed below.

The Authority's reasons

[20] http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=627&refer=NETWORKS/ELECDIST/POLICY/DISTCHRGMODS

Relevant objective (c) – That compliance with the methodology results in charges which reflect as far as is reasonably practical (taking into account implementation costs) the costs incurred by the licensee in its distribution business.

CE state that their proposal better meets the relevant objective (c) because it introduces more cost reflective IDNO specific tariffs which are the product of a specific cost allocation which takes account of the loading characteristics of IDNO end customers. We agree with CE that its proposal better meets relevant objective (c) for the reasons highlighted below, but we also consider that there are aspects to CE's cost allocation method which could be improved.

1. Specific IDNO charges

We agree with CE that its proposal to introduce charges based on the specific load profile of IDNO end customers should result in charges that are more cost reflective than the current approach of treating them as a commercial customer. CE's proposal recognises that the load profile of IDNO end customers is different from commercial customers and that they impose different costs on the network. Furthermore, CE's proposal identifies a range of potential IDNO end customer types and produces a specific tariff for each, based on anticipated load profile of these customer types. Consequently, we consider that this is a significant step forward and better meets relevant objective (c).

2. Approach to cost allocation

It is worth highlighting that as respondents have recognised, CE's proposed cost allocation is different from other interim IDNO proposals which we have not vetoed. Whilst the basic principles are the same, the identification of total costs, disaggregation into cost categories and some of the cost drivers utilised are different. We consider that CE's attempt to identify the costs associated with different network levels in order to allocate costs to IDNOs is a substantial step forward from the current approach which charges IDNOs based on incremental costs. Consequently we consider that this aspect of the proposal better meets relevant objective (c). In particular we welcome the selection of specific cost drivers to allocate operating costs. We consider that the indirect operating costs categories are different in nature and that using different cost drivers for each activity is a more accurate and reasonable manner in which to allocate these costs to network levels. We consider this is something which all DNOs should consider when reviewing their IDNO charging methodology.

However, we are less in convinced the use of CE's DRM as a starting point to identify costs. We have expressed our view on previous occasions that UoS charges to IDNOs should be based on an allocation of total costs[21]. The DRM is based on incremental costs which are scaled up to allowed revenue. Consequently, whilst we consider the remainder of the cost allocation methodology is more appropriate for IDNO charging, we would highlight that the identification of these costs should be addressed by CE when they come to review their methodology.

However, despite these concerns, we still consider that the proposed methodology allocates a reasonable estimate of total average costs to the IDNO boundary. We therefore disagree with respondents that this is an avoided cost methodology.

[21] See previous decisions on interim IDNO proposals, for instance WPD decision in June: http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/Decision%20letter%20WPD%20Wales%20issued%20050609.pdf

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.

CE state that the proposal better meets relevant objective (b) by addressing the concerns of the IDNOs regarding the impact of the current methodology on competition. Again, the Authority agrees with this, and considers that the new methodology better meets relevant objective (b).

1. Portfolio billing

The Authority welcomes CE's proposal to move towards a portfolio billing system[22]. We agree with CE 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. Whilst the Authority notes that respondents are concerned that the necessary data flows for portfolio billing are not currently available. However, we are aware that a DCUSA working group is developing the systems and governance required for portfolio billing and that CE have stated they will use IDNO estimated average consumption (EAC's) in order to establish the data flows required.

Consequently, we consider that this provides IDNOs with more certainty in the market and therefore aids competition in distribution.

2. Capacity charges

The Authority notes that CE's proposal to offer portfolio tariffs will reduce the risk that IDNOs have to pay a capacity charge for their site which they are unable to pass on to end customers. Consequently, we consider that in removing capacity charges for IDNO sites which serve domestic customers, CE are treating the IDNO more like they would treat their own downstream network. This provides a more level playing field to allow the IDNO to compete and therefore better facilitates relevant objective (b).

3. Cost allocation

CE's cost allocation method is a reasonable attempt to identify and allocate their costs to network levels to form the basis of an IDNO tariff. In particular the allocation of asset related costs in proportion to net capex additions to the network should, *cateris paribus*, provide the IDNO with a return equal to that which CE would have earned on those same assets. We consider that this creates a more level playing field of competition in distribution and that therefore the proposal better facilitates relevant objective (b).

4. LV main calculation

We note that one respondent to our consultation on CE's proposal commented that the LV main calculation, used to apportion the LV network costs between IDNO and DNO, did not appropriately allocate fixed costs. We note that CE's current methodology makes no attempt to identify the costs associated with the LV network and does not attempt to

[22] Portfolio billing is described in Annex 1 to this letter and essentially involves CE 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 and IDNO bill.

allocate these between IDNO and DNO. The IDNO will not always connect to CE's network at the LV substation. Therefore, some LV costs will be shared between CE and IDNOs. We consider that CE's calculation is a robust method on which to calculate the average use of the LV network by IDNOs. Given that CE's LV costs are shared on a per customer basis[23] it appears appropriate for CE 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 (b).

Our decision

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

It is important to note that our decision letter relates to the methodology rather than the quantification of elements produced by the methodology. It is for CE 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.

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

Annex 1 – CE's proposal

1. Overview

CE's proposal is to provide IDNO specific boundary tariffs for IDNOs who have end users who are connected to an (IDNO adopted) low voltage (LV) network, where the IDNO point of connection (POC) with CE's network is either with CE's LV network or with CE's high voltage (HV) network.

CE propose to calculate IDNO boundary tariffs by applying a discount to the fixed, unit and (where applicable) capacity elements of end user charges[24]. The discounts represent an allocation of revenue to downstream network activities (i.e. those activities undertaken by the IDNO). The revenue allocated to IDNO activities by the CE method is equal to either the percentage of each tariff element allocated to LV network activities (after an adjustment for the average utilisation of CE's LV network by IDNOs) or the percentage allocated to both LV and HV/LV network levels. The discount that is applied to end user charges depends on the IDNO point of connection (POC) with CE's network, i.e. whether the IDNO has connected to the CE LV network or to its HV network.

2. Calculation of fixed and unit charge discounts

CE calculates the fixed and unit charge, end user discounts by:

i) Disaggregating (separately) the fixed element and the unit element of their end user charges into "customer related", "asset related" and "exit charge" elements;
ii) Applying selected cost drivers to the fixed-customer/asset elements, unit-customer/asset and capacity-customer/asset of end user charges to disaggregate them to network levels; and
iii) Calculating the IDNO end user tariff discounts for the customer, asset and exit elements of the charges based on the cost allocation in step ii) and an estimate of IDNO utilisation of the CE network.

These steps are outlined in more detail below.

<u>Step i) disaggregate fixed, unit and capacity elements of charges into customer/asset/exit costs</u>

CE end user charges are based on their distribution reinforcement model (DRM). The DRM model calculates the cost of building an incremental 500MW to the CE network. The total incremental cost is made up of customer related costs (roughly equating to indirect operating costs) asset related costs (roughly direct operating costs and capital costs) and transmission exit charges. The DRM methodology allocates these costs to network levels and then to the fixed, unit and capacity elements of end user tariffs. The tariffs produced by the DRM are then scaled so that (at forecast levels of demand) CE will recover their allowed revenue, which is based on the total (rather than incremental) cost of running CE's network.

Implicit in CE's DRM methodology there are allocations of customer/asset/exit costs to end user charges for each end user tariff. CE identifies the amount in each category that has been allocated to the various elements of end user charges (after scaling). As we

[24] Note that because IDNO charges are regulated via a relative price control regime, IDNO charges to end users cannot exceed those of the upstream DNO.

show in the explanation of Step ii) below the CE methodology suggests that the proportion of each of the above elements of cost is the same in all end user charges. The table immediately below illustrates how the CE DRM method allocates customer/asset/exit costs to the various elements of end user charges.

Table 1. Example split of customer related, asset related and exit costs between tariff elements

	Fixed	**Unit rate**	**Capacity (note not all end user tariffs have a capacity element)**
Customer related	A p/KWh	N/A	N/A
Asset related	B p/kWh	C p/KWh	E p/KWh
Exit cost	N/A	D p/KWh	N/A

CE state that their DRM allocation methodology identifies splits between categories of cost incorporated in end user charges that roughly correspond to the following elements of operating and capital costs:

- "Customer related" indirect operating costs and pass through cost – customer related cost in the fixed charge (A p/kWh)
- Direct operating costs and "asset related" indirect operating costs and pass through costs – asset related cost in the fixed charge (B p/kWh)
- Capital expenditure – asset related costs in the unit charge, and (if applicable) capacity charge (C p/kWh plus - if applicable - E p/kWh)
- Transmission exit charges – exit cost in the unit rate (D p/kWh)

Step ii) Applying cost drivers to the elements of cost

Each element of cost identified in Table 1 is allocated to network levels on the basis of selected cost drivers. Details of the cost drivers selected by CE are provided below.

Fixed charge – customer related costs (A p/kWh from table 1)

The customer related costs in the fixed charge are made up of indirect operating costs and pass through costs that are indentified as being "customer related". CE identifies from the regulatory reporting pack (RRP) the categories of indirect and pass-through cost that they consider to be asset related. CE selects a cost driver for each category to achieve an allocation of the RRP costs in each category across network levels. We detail the RRP categories of indirect and pass through cost classified by CE as customer related and the cost drivers used to allocate these to network levels in Table 2 below.

Table 2. RRP categories of cost included in the fixed charge customer related costs and cost drivers used in network level allocation

Cost Categories	Cost Drivers
Indirect costs	
IT & Telecoms	No. customers
Property Mgt	Network length
HR & Non-operational Training	No. customers
Finance & Regulation	No. customers
CEO etc.	No. customers
Pass-through costs	
Wheeled units imported	No. substations
Ofgem licence fee	No. customers
EGS compensation payments	Network length
Ex-gratia compensation payments	Network length
Bad debt expense	No. customers

The result of the allocation process is an allocation of RRP cost in the categories identified in Table 2 to network levels. The proportion of the customer related fixed charge in each end user tariff is split between network levels in proportion to the allocation of these RRP costs to network levels.

Fixed charge – asset related costs (B p/kWh)

The asset related costs in the fixed charge are made up of direct operating costs and indirect operating costs that are identified as being "asset related". CE identify from the regulatory reporting pack (RRP) data to identify direct opex and categories of indirect cost that they consider to be asset related. RRP direct costs are already allocated across network levels, for indirect costs CE select a cost driver for each category to achieve an allocation of these RRP costs across network level. We detail the RRP categories of direct cost and RRP categories of indirect and pass through cost classified by CE as asset related and the cost drivers used to allocate these to network levels in Table 3 below.

Table 3. RRP categories of cost included in the fixed charge asset related costs and cost drivers used in network level allocation

Cost Categories	Cost Drivers
Direct costs	
Inspection and maintenance	RRP direct cost allocation to voltage levels
Faults	RRP direct cost allocation to voltage levels
Tree cutting	RRP direct cost allocation to voltage levels
Indirect costs	
Network Policy	Proportion of gross capex
Network Design & Engineering	Proportion of gross capex
Project Management	Proportion of gross capex
Engineering Mgt & Clerical Support	Proportion of gross capex
Control Centre	No. substations
System Mapping - Cartographical	Network length
Customer Call Centre	No. customers
Stores	Proportion of Gross capex
Vehicles & Transport	Network length
Health & Safety & Operational Training	Network length
Wayleaves	Network length
Pass-through costs	

Network rates	Proportion of net capex

The result of the allocation process is an allocation of RRP costs in the categories indentified in Table 3 to network levels. The proportion of the asset related fixed charge costs in each end user tariff is split between network levels in proportion to the allocation of these RRP cost to network levels.

*Unit and capacity charge – asset related cost (*C p/kWh and - if applicable - E p/kWh)

The asset related cost elements of the unit and capacity parts of end user charges are allocated to network levels in proportion to CE net capital expenditure at each network level (actual and forecast as appropriate) over the period 2005/06 to 2014/15. This data is sourced from the June version of CE's final business plan questionnaire (FBPQ) submitted as part of the ongoing price control process (DCPR5).

Unit charge – exit cost (D p/kWh)

The exit charge element of the unit charge is allocated to network levels on the basis of an estimate of the "incremental increase in load due to losses".

Final allocation of tariff elements between network levels

The allocation of tariff elements between network levels that results from the CE allocation process (for both CE owned DNOs) is set out in Figure 1 below.

Figure 1. CE allocation of tariff elements between network level – NEDL and YEDL

NEDL Tariff component	LV circuit	HV/LV	HV system	EHV system	Total
Asset - fixed	34.7%	8.6%	30.1%	26.6%	100.0%
Customer - fixed	89.3%	0.0%	9.7%	1.1%	100.0%

NEDL Tariff component	LV circuit	HV/LV	HV system	EHV system	Total
Asset – unit	24.0%	8.0%	25.4%	42.6%	100.0%
Exit charge - unit	1.1%	2.4%	2.6%	93.9%	100.0%

YEDL Tariff component	LV circuit	HV/LV	HV system	EHV system	Total
Asset - fixed	33.1%	8.6%	30.0%	28.3%	100.0%
Customer - fixed	91.3%	0.0%	7.2%	1.5%	100.0%

YEDL Tariff component	LV circuit	HV/LV	HV system	EHV system	Total
Asset – unit	22.3%	8.1%	27.5%	42.0%	100.0%
Exit charge - unit	1.1%	2.4%	2.6%	93.9%	100.0%

Source: Page 9, Appendix 1, "Interim Embedded Licensed Network Operator (LDNO) charges", CE (August 2009)

Step iii) Calculating the IDNO discounts from end user tariffs

For IDNOs that connect directly into the HV/LV substation the discounts that CE will apply to end user charges are equal to the sum of LV circuit percentage and the HV/LV percentage as shown in Figure 1.

Where IDNOs connect to CE's LV network the discounts applied to end user charges are as follows:

- For customer related cost and exit cost they are equal to the LV circuit percentage shown in Figure 1.
- For asset related cost they are equal to the LV circuit percentage as shown in figure 1 adjusted to take into account the average utilisation of the CE LV network by LV connected IDNOs.

For asset related costs the adjustment of the LV circuit percentage for IDNO utilisation of CE's LV network recognises the fact that IDNOs that connect to the CE LV circuit utilise some of CE LV network. CE calculates the end user tariff discounts for asset related costs for IDNOs connected to their LV network as follows:

LV circuit % * (1-LV ratio), where

$$LV\_Ratio = \frac{Total\_DNO\_to\_LDNO\_LV\_Circuit(m)}{Total\_LDNO\_LV\_Customers} / \frac{Total\_DNO\_LV\_Circuit(m)}{Total\_DNO\_LV\_Customers}$$

Source: Page 10, Appendix 1, "Interim Embedded Licensed Network Operator (LDNO) charges", CE (August 2009)

The LV ratio is the average length of CE network used by IDNO end users divided by the average length of CE network used by CE end users. Note that for NEDL the LV ratio is calculated as 0.31, whereas for YEDL the value is 0.14.

3. Proposed billing approach

CE proposes to bill IDNO's on a portfolio basis. This is proposed to work as follows:

- Each IDNO end user will be assigned to one of seven tariff categories (see Table 4 below) according to their characteristics (e.g. domestic/non-domestic, restricted/unrestricted, metered/unmetered);
- The fixed and unit discounts will be applied to each of the seven tariff categories to produce IDNO boundary charges for end users in each category.
- Each IDNO will be charged by CE an amount equal the sum of the boundary charges applicable to each IDNO end user based on the tariff category to which they have been assigned and the units of energy they consume.

Table 4. Available tariff structures

Domestic unrestricted (PC1)

Domestic restricted (PC2)
Non-domestic unrestricted (PC3)
Non-domestic restricted (PC4)
Non-domestic max demand (PC5-8) LV
Standard half-hour low-voltage
Unmetered supply