To distributors, suppliers, generators, customers and other interested parties

Promoting choice and value for all customers

Your Ref: CE 0013N/2009
CE 0013Y/2009
Direct Dial: 020 7901 7194
Email:rachel.fletcher@ofgem.gov.uk

Date: 21 August 2009

Dear colleague,

Consultation on proposals CE 0013N/2009 and CE 0013Y/2009 for CE Electric UK plc (CE) to introduce specific use of system (UoS) charges from Independent Distribution Network Operators (IDNOs).

Distribution Network Operators (DNOs) have licence obligations[1] to have in place a statement of use of system charging methodology, a statement of UoS charges and a statement of connection charging methodology and charges. The statement of UoS charging methodology outlines the method by which distribution UoS charges are calculated.

DNOs are required to keep their statement of UoS charging methodology under review and to bring forward proposals to modify the methodology that they consider better achieve the relevant objectives[2].

Before making a modification to a statement of UoS charging methodology a DNO must submit to the Gas and Electricity Markets Authority (the "Authority")[3] a proposal to modify its methodology stating how the proposal better achieves the relevant objectives. The DNO then makes the modification unless within 28 days the Authority either directs the DNO not to make the modification or notifies the DNO that it intends to consult and then within three months directs the DNO not to make the modification.

CE submitted a proposal on 20 July 2009 to modify their respective statements of UoS charging methodologies in respect of how they charge IDNO[4] customers connected to their

[1] Standard Licence Conditions (SLC) 13.

[2] The relevant objectives for both the connection and use of system charging methodologies, as contained in paragraph 3 of SLC 13 of the distribution license respectively are:

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

[3] Ofgem is the office of the Authority. The terms 'Ofgem' and the 'Authority' are used interchangeably in this letter.

[4] This also applies to DNOs operating out of area within CE's (Distribution Service Area) DSA.

networks[5]. On 10 August 2009, the Authority notified CE in writing of its intention of consult upon their IDNO charging proposals[6].

Background

The Authority has been encouraging (DNOs) to modify their charging methodology to bring forward specific IDNO tariffs which better reflect the costs IDNOs impose on their distribution network. As yet only Western Power Distribution plc and Scottish and Southern Electricity have had IDNO charging proposals not vetoed. The Authority is also consulting on proposals by Electricity North West and Central Networks. An EDF Energy proposal has been vetoed. We have received proposals from Scottish Power and are currently considering them.[7]

IDNO charging issues have been discussed in a joint DNO/IDNO working group. However the charging proposals put forward by each DNO have been developed independently from the working group. CE's methodology in particular has not been specifically discussed in any form at the working group.

Summary of CE submission

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. Any IDNO connecting to CE's network who does not meet these criteria will be charged at the boundary for use of CE's distribution network on the basis of a standard commercial user tariff (as is currently the case for all IDNOs networks connected to the CE 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[8]. 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.

CE calculates IDNO boundary charges 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 elements 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.

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

[5] The details of this proposal can be found at the following link: http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/Appendix%201%20-%20CE%20Electric%20UK%20-%20LDNO%20interim%20tariff%20proposal.pdf

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

[7] Details of the proposals, decisions and consultations can be found on our website vie the following link: http://www.ofgem.gov.uk/NETWORKS/ELECDIST/POLICY/DISTCHRGMODS/Pages/DistChrgMods.aspx

[8] 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.

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- Each IDNO end user will be assigned to one of seven tariff categories (these are outlined in Table 4 in Annex 1 below) according to their characteristics (e.g. domestic/non-domestic, restricted/unrestricted, metered/unmetered);
- The fixed, unit and capacity 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 to the sum of the boundary charges applicable to each end user connected to their network(s) based on the tariff category to which they have been assigned and the units of energy they consume.

Further description of the method can be found in Annex 1. Indicative impacts of the tariff for domestic customers are presented in Annex 2.

Views sought

The proposal from CE represents a substantial change to their current methodology. The Authority has taken the decision to consult on the proposed modifications evaluate whether the proposal better achieves the CE's relevant objectives. In consulting we note that many of the issues raised by CE's proposal have not been discussed by the industry. Specifically, we are looking for views on;

- The extent to which the proposals are more cost reflective than the CE's current methodology[9];
- Whether CE demonstrate that its proposal better facilitates competition in generation and supply and restricts, distorts or prevents competition in transmission and distribution less than the current approach[10];
- Whether we have correctly captured the main issues raised by CE's proposal; and
- The specific questions related to CE's proposal in Annex 3.

Responding to this consultation letter

Views are invited on these points from any interested parties, including IDNOs, DNOs suppliers, customers and their representatives.

Views are invited by **18 September 2009**. Where possible, responses should be sent electronically to Mathieu Pearson at mathieu.pearson@ofgem.gov.uk.

The process associated with modifications to the charging methodologies is detailed within the electricity distribution licence (SLC 13). As the Authority's decision is time bound, please ensure that your comments are received by the date indicated so that they can be fully considered. It may not be possible to consider responses on the CE modification proposal that have been received after this date.

All responses will be held electronically by Ofgem. They will normally be published on our website unless they are clearly marked confidential. Consultees should put confidential material in appendices to their responses where possible. We prefer to receive responses electronically so that they can easily be placed on the website.

Copies of this document are available on our website under the distribution charging modifications area of work[11]. If you have any questions concerning either consultation document please contact Mathieu Pearson at mathieu.pearson@ofgem.gov.uk or on 0207 901 7294.

[9] Standard condition 13(3(c)) of the electricity distribution licence.
[10] Standard condition 13(3(b)) of the electricity distribution licence.
[11] http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Pages/DistChrgMods.aspx.

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Yours faithfully,

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

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Annex 1 Summary of 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. Any IDNO connecting to CE's network who does not meet these criteria will be charged at the boundary for use of CE's distribution network on the basis of a standard commercial user tariff (as is currently the case for all IDNOs networks connected to the CE 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[12]. 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.

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

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 show in the explanation of Step ii) below the CE methodology suggests that the proportion of each

[12] 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.

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

According to CE their DRM allocation methodology results in 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.

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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

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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.

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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

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Annex 2 – Indicative impact of CE's proposed modification

In Tables 5-8 below we provide an indication of impact of CE's proposed charging modification on IDNO Boundary charges at domestic sites in the NEDL and YEDL DSAs and the net DUoS income available to IDNOs if they were to adopt these sites. This indicative impact is based on CE's own impact an sensitivity analysis presented on pages 15 to 17 on Appendix 1 to their modification proposal ["Interim Embedded Licensed Network Operator (LDNO) charges", CE (August 2009)].

Table 5. Indicative impact of proposed CE IDNO charging modification on LV connected IDNOs - NEDL

End user tariff[1]	No. plots	ATW charges[2,3]	Boundary charges[2,3]		Net DUoS income available to IDNOs	
			Current (based on std HH LV tariff)	Proposed	Current	Proposed
PC1	5	£367.97	£2,205.37	£272.79	-£367.48	£19.04
	10	£735.95	£2,353.78	£545.57	-£161.78	£19.04
	25	£1,839.87	£2,799.03	£1,363.93	-£38.37	£19.04
	50	£3,679.73	£3,541.10	£2,727.86	£2.77	£19.04
	100	£7,359.47	£5,025.24	£5,455.72	£23.34	£19.04
	200	£14,718.94	£7,993.53	£10,911.45	£33.63	£19.04
PC2	5	£433.18	£2,325.26	£326.00	-£378.41	£21.44
	10	£866.36	£2,593.56	£651.99	-£172.72	£21.44
	25	£2,165.90	£3,398.46	£1,629.98	-£49.30	£21.44
	50	£4,331.81	£4,739.97	£3,259.95	-£8.16	£21.44
	100	£8,663.62	£7,422.98	£6,519.90	£12.41	£21.44
	200	£17,327.23	£12,789.01	£13,039.81	£22.69	£21.44

Notes: (1) assumes all customers at the site are on this tariff; (2) for customers on PC1 tariff assumes annual consumption of 3825 kWh per plot; (3) for customers on PC2 tariff assumes annual consumption of 3340 kWh in the "day" and 3329 kWh in the "night"

Table 6. Indicative impact of proposed CE IDNO charging modification on HV connected IDNOs - NEDL

End user tariff[1]	No. plots	ATW charges[2,3]	Boundary charges[2,3]		Net DUoS income available to IDNOs	
			Current (based on std HH LV tariff)	Proposed	Current	Proposed
PC1	5	£367.97	£6,902.03	£206.35	-£1,306.81	£32.32
	10	£735.95	£6,986.67	£412.70	-£625.07	£32.32
	25	£1,839.87	£7,240.59	£1,031.75	-£216.03	£32.32
	50	£3,679.73	£7,663.80	£2,063.49	-£79.68	£32.32
	100	£7,359.47	£8,510.20	£4,126.99	-£11.51	£32.32
	200	£14,718.94	£10,203.00	£8,253.97	£22.58	£32.32
PC2	5	£433.18	£6,976.20	£249.03	-£1,308.60	£36.83
	10	£866.36	£7,135.01	£498.07	-£626.87	£36.83
	25	£2,165.90	£7,611.44	£1,245.17	-£217.82	£36.83
	50	£4,331.81	£8,405.49	£2,490.35	-£81.47	£36.83
	100	£8,663.62	£9,993.59	£4,980.70	-£13.30	£36.83
	200	£17,327.23	£13,169.78	£9,961.39	£20.79	£36.83

Notes: (1) assumes all customers at the site are on this tariff; (2) for customers on PC1 tariff assumes annual consumption of 3825 kWh per plot; (3) for customers on PC2 tariff assumes annual consumption per plot of 3340 kWh in the "day" and 3329 kWh in the "night"

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Table 7. Indicative impact of proposed CE IDNO charging modification on LV connected IDNOs - YEDL

End user tariff[1]	No. plots	ATW charges[2,3]	Boundary charges[2,3]		Net DUoS income available to IDNOs	
			Current (based on std HH LV tariff)	Proposed	Current	Proposed
PC1	5	£340.05	£1,576.24	£236.41	-£247.24	£20.73
	10	£680.11	£1,705.08	£472.82	-£102.50	£20.73
	25	£1,700.27	£2,091.60	£1,182.04	-£15.65	£20.73
	50	£3,400.54	£2,735.81	£2,364.09	£13.29	£20.73
	100	£6,801.09	£4,024.24	£4,728.18	£27.77	£20.73
	200	£13,602.17	£6,601.08	£9,456.36	£35.01	£20.73
PC2	5	£403.40	£1,680.54	£286.54	-£255.43	£23.37
	10	£806.81	£1,913.68	£573.08	-£110.69	£23.37
	25	£2,017.02	£2,613.12	£1,432.70	-£23.84	£23.37
	50	£4,034.05	£3,778.84	£2,865.41	£5.10	£23.37
	100	£8,068.09	£6,110.29	£5,730.81	£19.58	£23.37
	200	£16,136.19	£10,773.19	£11,461.62	£26.81	£23.37

Notes: (1) assumes all customers at the site are on this tariff; (2) for customers on PC1 tariff assumes annual consumption of 3933 kWh per plot; (3) for customers on PC2 tariff assumes annual consumption per plot of 3446 kWh in the "day" and 3728 kWh in the "night"

Table 8. Indicative impact of proposed CE IDNO charging modification on HV connected IDNOs - YEDL

End user tariff[1]	No. plots	ATW charges[2,3]	Boundary charges[2,3]		Net DUoS income available to IDNOs	
			Current (based on std HH LV tariff)	Proposed	Current	Proposed
PC1	5	£340.05	£5,437.72	£196.20	-£1,019.53	£28.77
	10	£680.11	£5,514.10	£392.40	-£483.40	£28.77
	25	£1,700.27	£5,743.21	£981.01	-£161.72	£28.77
	50	£3,400.54	£6,125.07	£1,962.02	-£54.49	£28.77
	100	£6,801.09	£6,888.78	£3,924.05	-£0.88	£28.77
	200	£13,602.17	£8,416.21	£7,848.09	£25.93	£28.77
PC2	5	£403.40	£5,503.99	£239.03	-£1,020.12	£32.88
	10	£806.81	£5,646.63	£478.05	-£483.98	£32.88
	25	£2,017.02	£6,074.54	£1,195.13	-£162.30	£32.88
	50	£4,034.05	£6,787.72	£2,390.25	-£55.07	£32.88
	100	£8,068.09	£8,214.10	£4,780.50	-£1.46	£32.88
	200	£16,136.19	£11,066.84	£9,561.00	£25.35	£32.88

Notes: (1) assumes all customers at the site are on this tariff; (2) for customers on PC1 tariff assumes annual consumption of 3933 kWh per plot; (3) for customers on PC2 tariff assumes annual consumption per plot of 3446 kWh in the "day" and 3728 kWh in the "night"

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Annex 3 – Main issues with CE's proposal

CE's proposal raises a number of new issues which we welcome respondents' views upon. As stated in the cover letter to this document, we feel it is necessary to consult on the specifics of CE's proposal in order to give respondents the chance to comment upon how this methodology better achieves the relevant objectives.

This annex is split into four parts, the first discusses the basis of CE's cost allocation method, the second discusses the cost drivers used by CE in their cost allocation, the third discusses CE's calculation of the "LV ratio" and the forth discusses the application of the LV ratio.

1. Basis of allocation

At present, CE charge IDNOs using standard non-domestic customer tariffs. These tariffs are based on CE's DRM model. CE DRM model produces tariffs which are derived from an allocation of the cost of building a 500MW extension to their network. The tariffs produced by CE's DRM approximate the long run average incremental cost (LRAIC) of providing distribution services to customer groups. The tariffs that are produced by the DRM are scaled so that the final charges to end users will ensure that CE will recover its allowed revenue (based on forecast demand). CE's allowed revenue is the total revenue that CE's distribution licence allows it to recover from users connected to its network. The allowed revenue is a reasonable estimate to the total efficient cost of running the CE network.

The DRM allocates costs between customer groups based on their usage characteristics, such as their load profile and contribution to peak demand. The majority of IDNO end users are domestic customers. Therefore, CE's current method of charging IDNOs, on the basis of standard non-domestic customer tariffs, may mean that the IDNO charges do not reflect the costs imposed on the CE network by the IDNO end users.

CE's proposed method seeks to improve the cost reflectivity of IDNO end user charges by allocating the various elements of end user charges to network tiers, and using this allocation as a basis for a discount from these charge to produce IDNO boundary charges.

Does CE's proposal to allocate elements of customer tariffs between network levels and use this allocation as the basis for a discount from end user tariffs to generate IDNO boundary charges better achieve the relevant objectives in terms of cost reflectivity and not restricting, preventing or distorting competition in distribution?

2. Cost allocation methodology

CE's cost allocation methodology is to identify the elements of the end user tariffs to which comprise customer related, asset related and exit charge costs. These costs have been allocated to components of end user charges using CE DRM methodology. (The end user charges produced by the DRM are scaled to allow full recovery of CE's allowed revenue). The customer, asset and exit costs are allocated to network levels using selected cost drivers. The cost allocation methodology is summarised in Table 9 below.

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Table 9. Summary of CE cost allocation methodology

Element of end user charge/cost category	Cost categories included in each element	Cost drivers used to allocate between network level
Fixed charge/customer related cost	*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
Fixed charge/asset related cost	*Direct costs*	
	Inspection and maintenance	RRP direct cost allocation
	Faults	RRP direct cost allocation
	Tree cutting	RRP direct cost allocation
	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
Unit and capacity charge/asset related cost	Capital expenditure asset costs	Proportion of net capex
Unit charge/exit cost	Transmission exit charges	Incremental increase in load due to losses

Does CE's proposed cost allocation methodology generate IDNO boundary charges that better achieve the relevant objectives in terms of cost reflectivity and not restricting, preventing or distorting competition in distribution?

Is CEs proposal of identifying the customer/asset/exit elements of end user charges based on DRM allocations, and then allocating these elements to network levels using selected cost drivers an appropriate methodology for generating IDNO boundary tariffs?

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CE select what they consider to be the most appropriate from a suite of cost drivers for each sub-category of cost, do respondents consider that this approach to selecting cost drivers is reasonable? Are the cost drivers selected by CE for allocating each of the sub-category of cost to network levels appropriate?

In previous documents[13] the authority has made it clear that it considers a reasonable allocation of total costs to be an appropriate basis for IDNO boundary charges, do respondents consider that the CE method achieves such an allocation?

3. Calculating the LV ratio

CE adjusts the LV allocation of the asset related elements of cost by the "LV ratio" to account for the fact that IDNOs who connect to CE's LV network will use some of that network. 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. The LV ratio is calculated as:

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

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

Because CE does not have data on the numbers of IDNO customer they estimate this number by dividing the contracted capacity of all IDNO connected to their LV network by 1.5 kVA., with 1.5 kVA (according to CE) being the "typical capacity of a domestic customer".

Note that for NEDL the LV ratio is calculated as 0.31, whereas for YEDL the value is 0.14. This is a significant variation in average usage and this may reflect the fact that a small number of IDNO are connected to CE's network and consequently the estimates are based on a (very) limited amount of data.

Will dividing the contracted capacity of all IDNOs by 1.5 kVA result in an accurate estimate of the total number of IDNO end users?

Is the LV ratio a reliable estimate of the ratio of average CE LV main per INDO end user to average CE LV main per CE end user (given the very limited data available to CE to make this calculation)? Are there alternative ways of estimating the LV ratio that would result in more robust estimates?

4. Application of the LV ratio

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 full LV circuit percentage allocation.
- For asset related cost they are equal to the LV circuit percentage adjusted to take into account the average utilisation of the CE LV network by LV connected IDNOs.

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)

[13] See decisions on in relation to charging modification proposals WPD/WALES/UOS006 and EDF UoS mod 28 at the following links:
http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/WPD%20006%20IDNO%20charging%20decision%20letter%20wales.pdf

http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=613&refer=Networks/ElecDist/Policy/DistChrgMods

For LV connected IDNOs, does multiplying the asset related LV circuit percentage allocations (and only the asset related allocations) by one minus the LV ratio result in an adjustment to allocation of cost to IDNOs that reflect the cost of IDNO usage of CE's LV network?

5. Differences in HV and LV IDNO boundary charges

In Annex 2 we present an indicative impact of CE's proposed methodology on IDNO boundary charges at domestic sites for both IDNOs who connect to CE's LV network and those that connect to CE's HV network.

Taking into account the indicative impacts of CE's charging methodology at domestic sites presented in Annex 2: do respondents consider that the differences in LV and HV boundary charges appropriately reflect the difference in cost to CE of an IDNO connecting to its HV network rather than its LV network?

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