Modification proposal:	**EDF Energy Network's Electricity Distribution Use of System Charging Methodology: Interim[1] IDNO tariffs**		
Decision:	The Authority[2] directs that this proposal be vetoed[3]		
Target audience:	DNOs, IDNOs, Suppliers, Generators and other interested parties		
Date of publication:	5 August 2009	Implementation Date:	N/A

Background to the modification proposal

EDF Energy Networks[4] ("EDF") has licence obligations[5] 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. EDF 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.[6]

The Authority has been encouraging Distribution Network Operators ("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 has had IDNO charging proposals not vetoed[7]. The Authority has recently received interim modification proposals from 6 of the 7 DNO groups.

The modification proposal

On 19 July 2009 EDF submitted a use of system charging proposal to introduce specific IDNO tariffs[8].

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[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] EDF Energy Networks has 3 licencees – LPN, SPN and EPN. This letter applies to all 3 licensees.

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

[6] The relevant objectives for the UoS charging methodology, as contained in paragraph 3 of SLC 13 of EDF'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.

[7] WPD have had two IDNO charging proposals not vetoed; the first in December 2007 which can be found at: http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/WPD%20uos006%20mod.pdf And the second in June 2009 which can be found at: http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/Decision%20letter%20WPD%20Wales%20issued%20050609.pdf

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

At present EDF 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 EDF'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 EDF recover their allowed revenue. In the past the Authority has asked DNOs to bring forward IDNO specific tariffs[9].

EDF propose to calculate new specific IDNO tariffs by using regulatory reporting pack[10] (RRP) data to allocate the average p/kWh revenue they receive from low voltage ("LV") customers to different network levels. EDF calculates the percentage of their costs allocated to each network level as a percentage of average LV p/kWh revenue. 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 EDF's proposal can be found in Annex 1 to this letter.

The Authority's reasons

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 recognises that EDF's proposal develops specific tariffs to IDNOs which attempt to reflect the costs which IDNOs place on their distribution system. However it considers EDF's proposal fails to better meet the relevant objectives. Therefore the Authority has decided to veto the proposal. The specific reasons for the decision are detailed below and largely relate to the cost allocation EDF propose.

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.

EDF 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. Whilst the Authority agrees that in principle this should provide for more cost reflective IDNO tariffs, we consider that certain negative aspects of EDF's proposal outweigh this benefit. These aspects are detailed below.

1. Use of LV revenue to identify total costs and reinforcement costs

The Authority was clear in its June decision letter on IDNO charging[11] that it considers total costs rather than incremental costs to be a more appropriate starting point for IDNO charging. Use of increment EDF's starting point for IDNO charging is to identify the

[9] 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

[10] 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

[11] The WPD decision letter is available on Ofgem's website at: http://www.ofgem.gov.uk/Networks/ElecDist/Policy/DistChrgMods/Documents1/Decision%20letter%20WPD%20Wales%20issued%20050609.pdf

revenue they recover from LV connected customers. This revenue is assumed to be the equivalent to the total costs of distributing to LV customers. This revenue is recovered via tariffs which are based on the output of a scaled incremental charging model (the DRM).

The Authority questions the extent to which LV revenue recovered from a DRM methodology represents an accurate assessment of the total costs of operating and maintaining a distribution network. This is because the DRM cost allocation method does not explicitly consider the fixed costs associated with owning and operating a network such as call centres, IT systems and staff costs.

We also note that EDF identify reinforcement costs as being the residual which remains after subtracting the operating costs p/kWh and replacement p/kWh from the total LV revenue p/kWh. We do not consider that deducting the LV proportion of RRP operating costs to a constructed p/kWh (representing total cost) is a robust basis on which to identify different categories of cost, particularly capital, for allocation. In this regard we do not consider that EDF's proposal is more cost reflective than their current methodology. The Authority therefore considers that this aspect of the proposal fails to better achieve relevant objective (c).

2. Allocation of costs to Grid supply point ("GSP") level

EDF state that once they have deducted the LV p/kWh operating cost and the LV p/kWh replacement cost from the total LV p/kWh, they allocate the remaining costs to the GSP level. This has the effect of taking costs which may be associated with the LV and HV network levels and saying that they are solely associated with the GSP level where the distribution system connects to the Transmission system. We consider that this lowers the percentage of cost EDF identify as being contained in the LV and HV network levels.

EDF make no attempt to justify why this residual is wholly allocated to the GSP level other than to say that it is consistent with the requirements of efficiency and competition law. The Authority considers that part of this residual will be associated with revenue recovered from other network levels other than the GSP as most of this residual is associated with reinforcement and RAV costs. EDF are likely to undertake reinforcement at LV and HV as well as at the GSP level. EDF's current methodology more accurately reflects this and therefore Authority therefore considers that this aspect of the proposal fails to better achieve relevant objective (c).

3. Treatment of operating costs

We are concerned by EDF's proposal to allocate all operating costs to network levels in the same proportion as direct operating costs. Direct operating costs account for only 30% of 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 70% of operating cost on the basis of this 30% especially when this 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 cost.

Under EDF's current methodology operating costs are allocated in the scaling element of the DRM charge. This effectively allocates them according to modern equivalent asset value ("MEAV"). Whilst we have reservations over the use of MEAV as a cost driver, in this instance we consider that it is more appropriate than using direct costs as a driver for indirect costs. Indirect costs are likely to have a more linear relationship with MEAV than they do with direct costs. As such, the Authority considers that this aspect of the proposal fails to better achieve relevant objective (c).

4. Use of one years' RRP

The Authority is further concerned that EDF's proposal is based on just one years worth of RRP data. This data is pivotal in identifying operating and capital costs and then allocating these costs to network levels. We consider that data from one year may not be reflective of EDF's medium and longer term costs and therefore fails to better achieve relevant objective (c).

5. Estimate of future replacement costs

EDF's proposal makes adjustments to the replacement costs they identify on their network to take account of the fact that IDNOs will not have to replace their assets for 40 years. On this basis, they reduce the replacement expenditure they allocate to IDNOs by nearly 80%. Relevant objective (c) requires EDF to accurately reflect the costs which they incur. The Authority understands the arguments behind the adjustment to replacement costs but considers that they are highly subjective and can't be objectively evaluated against the costs which EDF incur. Consequently, we remain to be convinced that this is an accurate and cost reflective manner in which to devise IDNO tariffs. EDF's current methodology makes no subjective adjustments to their costs, consequently we can't state 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.

EDF state that the proposal provides a guaranteed income for each IDNO plot therefore better meets the relevant objective (b). Again, the Authority agrees with this principle but has concerns that the cost allocation underlying these tariffs makes a number of adjustments to EDF's costs which do not create a level playing field for competition in distribution. These are detailed below along with aspects of EDF's proposal which we consider better achieve relevant objective (b).

1. Exclusion of costs from IDNO discount

As stated above the Authority notes that certain costs which EDF's method identify are either adjusted to a lower level (in the case of replacement costs) or allocated to the GSP level (in the case of reinforcement and RAV revenue). EDF's proposal attempts to model the percentage of total costs associated with the operation and maintenance of new networks at each of their network levels. EDF then use this percentage of cost in each network tier as the basis of a discount on the 'all the way' tariff to produce a specific IDNO tariff. This discount is supposed to be sufficient to cover the costs EDF associate with the network levels which the IDNO is operating.

For the reasons of cost reflectivity cited in the first part of this letter, we do not consider that the cost allocation method employed by EDF achieves its aims in accurately modelling the costs of new networks at each network level. Therefore, the guaranteed income per plot which flows from this methodology does not allow IDNOs to compete on a level playing field with EDF. In this respect we do not consider that the proposal better achieves relevant objective (b).

Furthermore, we have indicated that use of LV revenue recovered using a DRM methodology may ignore the fixed costs associated with owning and operating a network business. The Authority considers that a cost allocation to IDNOs which does not include

fixed costs risks leaving the IDNO unable to cover these costs such that in the long term it may be forced from the market. Consequently we consider that there is a clear potential for this aspect of the proposal to restrict competition and therefore fail to meet relevant objective (c).

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, 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 of IDNOs and therefore fail to better achieve relevant objective (b).

3. Treatment of Pension deficit payments

The Authority considers that the treatment of pension deficit cost is a complicated issue in IDNO charging. However, at present, we remain to be convinced that pension deficit payments should be excluded from the allowed revenue which is allocated between network levels. EDF correctly argue that pension deficit is a legacy cost of providing the existing network. IDNOs construct their own network which is not bound by these legacy costs, but equally this new network connects to the existing network which bears the legacy costs. As such it seems appropriate that these costs are allocated across the whole distribution network including downstream of the IDNO boundary. This would seem to generate a more level playing field for competition. In allocating these costs to the GSP level, EDF fail to generate this level playing field and the Authority considers that their proposal fails to better achieve relevant objective (b).

The Authority sees a stronger case for omitting the results of incentive schemes (whether they have a positive or negative impact) from the allowed revenue to be split between network levels. This also ensures that the difference between the boundary charge and the 'all the way' end user charge should not be affected by the success or otherwise of EDF in relation to their specific incentive schemes.

4. Portfolio billing

The Authority welcomes EDF's proposal to move towards a portfolio billing system[12]. We agree with EDF 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. However, we consider that this benefit is outweighed by the flaws in the cost allocation methodology which are detailed above.

Our decision

The Authority has decided to **veto** the modification to the UoS charging methodology statement. The Authority considers that EDF's cost allocation methodology fails to improve the cost reflectively of the IDNO charging methodology. Furthermore, EDF's proposed cost allocation fails to create a level playing field for competition in distribution. Consequently, on balance and despite some improvements which the proposal makes,

[12] Portfolio billing is described in Annex 1 to this letter and essentially involves EDF 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.

the Authority considers that EDF's proposal does not better achieve 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 EDF 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, Director Distribution
Signed on behalf of the Authority and authorised for that purpose.

Annex 1 – EDF's proposal

EDF's method is only used to calculate IDNO tariffs for IDNOs who have end users who have LV network customers and who connect to EDF's LV network or directly into the HV/LV substation. Any IDNO which does not fall into these categories would be charged under a standard commercial tariff.

The starting point for EDF's methodology is to identify the average p/kWh revenue they recover from LV connected customers. This revenue is recovered via customer tariffs based on an incremental costs model (with the tariffs produced by the model scaled to permit full recovery of allowed revenue). EDF use average LV revenue as a proxy for the average cost of distributing electricity to LV customers. After establishing this value EDF then use four steps to calculate the IDNO tariffs.

Step 1 – Using RRP data establish an expenditure matrix consisting of p/kWh operating, replacement and reinforcement costs at each network level.

Step 2 – Use the expenditure matrix to split the average p/kWh LV revenue between network levels

Step 3 – Use the allocation of average network revenue to network levels to calculate a percentage discount to be applied to EDF end user charges in order to establish IDNO boundary charges.

Step 4 – Apply IDNO discount to end user charges to calculate the IDNO boundary tariff.

Step 1: Establish expenditure matrix from RRP data.

Using RRP data EDF establish an expenditure matrix of p/kWh operating, replacement and reinforcement cost at each network level. They use this matrix to allocate average (p/kWh) LV cost to network levels. See below for a simplified example of the expenditure matrix.

Table 1. Example EDF expenditure matrix

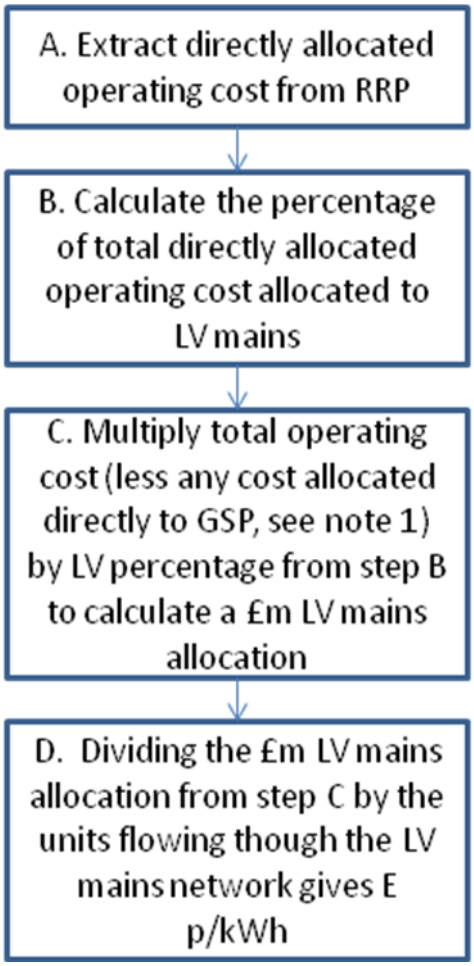
	GSP	**EHV**	**HV**	**HV/LV**	**LV mains**	**LV services**
Operating cost	A p/kWh	B p/kWh	C p/kWh	D p/kWh	E p/kWh	F p/kWh
Replacement cost	G p/kWh	H p/kWh	I p/kWh	J p/kWh	K p/kWh	L p/kWh
Reinforcement cost	M p/kWh	N p/kWh	O p/kWh	P p/kWh	Q p/kWh	R p/kWh

Operating costs

EDF identify operating costs from RRP data. Some of these costs (the so called direct operating costs[13]) are already allocated to network levels. Other costs (the so called indirect costs) are simply reported in total. EDF allocate total operating costs to network levels in the same proportion as the direct operating costs. The allocated costs are then divided by the number of units flowing through the network level to convert them into a p/kWh value.

For example the E p/kWh allocation of operating cost to LV mains is calculated as follows:

Figure 1. Calculating LV p/kWh operating costs for expenditure matrix



Note 1. Pension deficit and incentive costs are allocated directly to the GSP level. This means that at stage C of the process described in Figure 1 these costs are deducted from total operating costs. This has the effect that no costs relating to the pension deficit or incentives are allocated to the LV mains network level. At GSP level the total operating cost allocated to that network level would be the sum of the equivalent stage C calculation for GSP plus pension deficit and incentive costs.

Replacement costs

[13] These cover activities such as tree cutting, maintenance costs and faults expenditure.

As with operating costs EDF identify capital replacement costs from RRP data. Again these consist of some directly allocated[14] cost and total costs. Total replacement costs are allocated to network levels in the same proportion as directly allocated costs, before being divided by units flowing. The process for allocating replacement cost to the expenditure matrix is exactly the same as for operating costs, as described in Figure 1 above.

Reinforcement costs

For reinforcement costs all of the costs are directly allocated in the RRP data. These costs are divided by units flowing. The process for allocating reinforcement costs to the expenditure matrix is equivalent to the process for operating costs described in Figure 1 above.

Step 2: Allocate average LV revenue to network levels

Table 2 below provides an example (using the illustrative figures in Table 1) of how the allocations of average LV network revenue to the LV mains and services and the HV/LV network levels are calculated using the expenditure matrix. The allocations to each network level are the sum of the operating, replacement and reinforcement p/kWh allocations.

Table 2. Allocation of average LV revenue to LV mains and services and HV/LV network levels

	HV/LV network allocation	**LV mains network level allocation**	**LV services network level allocation**
Operating cost	D p/kWh	E p/kWh	F p/kWh
Replacement cost	0.2056 * J p/kWh	0.2056 * K p/kWh	0.2056 * L p/kWh
Reinforcement cost	None, all reinforcement cost allocated to GSP	None, all reinforcement cost allocated to GSP	None, all reinforcement cost allocated to GSP
Total	X p/kWh = D p/kWh + 0.2056 * J p/kWh	Y p/kWh = E p/kWh + 0.2056 * K p/kWh	Y p/kWh = F p/kWh + 0.2056 * L p/kWh

Operating costs

EDF allocate the whole of the operating cost p/kWh value from the expenditure matrix in network levels.

[14] These represent 80% of all capital replacement costs

Replacement costs

EDF Allocate approximately 20% of the replacement cost p/kWh values from the expenditure matrix to each network level. This downward adjustment to replacement cost is made on the basis that (because the majority of its assets are likely to be funded by upfront customer contributions) an IDNO only has to cover the costs of maintaining the downstream assets and the costs of replacing them at the end of their useful life. EDF therefore only allocate replacement costs in respect of their estimate of the amount required to fund the future replacement. EDF estimate that £100 of replacement expenditure from the RRP represents £4000 of future replacement (based on an average asset life of 40 years). EDF calculate that at a rate of return on capital of 6.9% the annual payment over 40 years required to fund £4000 of replacement is £20.56 p.a. Thus for each £100 of RRP replacement cost £20.56 is allocated to network levels, or for each 1 p/kWh from the expenditure matrix 20.56% is allocated to network levels.

Reinforcement costs

EDF deduct the p/KWh operating and replacement cost allocations to (all) network tiers from the average p/kWh LV revenue. to produce a residual of as yet unallocated p/kWh of LV revenue that they term "return". This residual is allocated to the entirely to the Grid supply point (GSP) network level.

Step 3: Calculate IDNO discount from end user tariffs

The calculation of the IDNO discount is based on the network level allocation as a percentage of average LV cost. The calculation of the INDO discount for LV services and mains and HV/LV network levels is outlined in Table 3.

Table 3. Allocation of average LV revenue to LV and HV/LV network level

	HV/LV	**LV**	
INDO discount	=(X p/kWh + Y p/kWh + Z p/kWh) / Average p/kWh LV revenue	Sum of LV mains discount and LV services discount (see below)	
		*LV mains discount = (Y p/kWh / Average p/kWh LV revenue) * INDO LV network utilisation percentage*[1]	*LV services discount = Z p/kWh / Average p/kWh LV revenue)*

Note: (1) IDNO utilisation discount reflects the % of the LV network used by the INDO, see below for explanation.

Where the IDNO connects to the HV/LV substation the IDNO discount is equal to the proportion of average LV cost that has been allocated to both the HV/LV and LV network levels.

Where the IDNO connects to the LV network the IDNO discount is equal to the proportion of average LV revenue that has been allocated to LV services network level plus the

proportion of average LV revenue that has been allocated to the LV mains network level multiplied by a factor which represents the average utilisation of the EDF LV network by IDNO. This utilisation factor is intended to account for the fact that IDNOs who connect to the LV network make some use of EDF's LV mains and should therefore contribute towards the cost of it. It is calculated as:

$$\frac{\text{1-Average length of EDF network per IDNO end user}}{\text{Average Length of EDF network per end user}}$$

Step 4: Apply IDNO discount to end user charge to calculate IDNO boundary tariff

EDF calculate the IDNO boundary charge as follows:

IDNO boundary charge = EDF end user tariff*IDNO discount.

Portfolio billing

Note that EDF propose to bill IDNOs on a portfolio basis, therefore the IDNO will pay a tariff to EDF based on the characteristics of their entire portfolio of end users. This is equivalent to steps 1 to 4 above being undertaken for all of an IDNO's end users. In order to permit portfolio billing, EDF require IDNOs to provide them with the following information within 45 days of the end of the consumption month:

i) The number of energised traded MPANs on each tariff offered by the IDNO.

ii) The percentage of the total amount of energy attributable to each unit rate on each tariff offered by the IDNO.

iii) The total chargeable capacity of the IDNOs' customers.

iv) The total chargeable kVArh of the IDNOs' customers.