Appendix 1 - CE Electric UK proposals for interim embedded licensed distribution network operator (LDNO) charges

Executive summary

1. This paper sets out our proposals for interim tariffs for embedded licenced distribution network operators (LDNOs). The tariffs are based on a development of the cost allocation methodology that Ofgem previously consulted on in a joint consultation on LDNO charging. The proposal has been developed further as a portfolio solution since the consultation on our previous proposal, although we have received no specific comments from the LDNOs.

2. In developing our tariffs we believe we have addressed the obligations placed upon us by our distribution licence and the Competition Act 1998. We believe that our proposed tariffs are more cost-reflective than our existing arrangements and have particular features aimed at addressing the concerns previously expressed by the LDNOs. We therefore submit that these tariffs better meet the relevant objectives set down in our licence. The tariffs have the following features:

    - The tariffs are applied on a portfolio basis rather than at a boundary level. Although we believe that boundary tariffs are inherently more cost reflective, because they take account of the specific site costs, we are conscious of the proposed long-term approach and wish to align with, as far as possible, in order to minimise the scope for future price disturbances;

    - Portfolio tariffs ensure the alignment of the tariff structures with the “all-the-way” charge, and remove the situation where the LDNO is seen to be disadvantaged during the period when a site is being developed;

    - The recognition of displaced costs, both capital and revenue, ensures that the new tariffs reflect the cost differences faced by the DNO in distributing energy to an LDNO development rather than directly to the end-users;

    - The cost allocations that form the basis of the tariffs are derived from the regulatory reporting pack (RRP) information produced under standard condition 48; forecast business plan questionnaire (FBPQ) costs and network data, rather than the distribution reinforcement model;

    - Both the low-voltage (LV) and high-voltage (HV) tariffs can be applied using grid supply point (GSP) group-level, or site-level, settlements data or metering data provided by the LDNO;

- The use of an average distance per user principle to average LV costs amongst LV users ensures a fair and appropriate distribution of cost, which can also be influenced by the investment/engineering strategies employed by the LDNOs;
- When compared with the standard LV HH tariffs the illustrative tariffs produce constant margins for all sizes of development and hence meet our obligation to avoid restricting, distorting or preventing competition in the distribution of electricity; and
- We are also prepared to use estimated annual consumption (EAC) values with counts of end-users provided by the LDNO in lieu of an industry settlements system. However, we would expect to reconcile any EACs used with actual settlements data once the system is in place and retrospectively process any "reconciliation" that may be required.

Background

1. Over the past year several distribution network operators (DNOs) have submitted modification proposals to Ofgem aimed at addressing the concerns raised by embedded licensed distribution network operators (LDNOs) that existing use of system (UoS) tariffs are not cost-reflective when applied to inset LDNO netwoks. They also claim that the current DNO tariffs distort competition by inadvertently foreclosing LDNOs from competing in respect of a large proportion of new developments, potentially in contravention of standard condition 13, paragraphs 13.3(b) and (c), of the electricity distribution licence, which defines the relevant objectives for setting use of system charges.

2. LDNOs and DNOs operating out of area are subject to a price cap under distribution licence condition BA2 and special licence condition G1 (see appendix 1), which caps end-user charges for domestic customers to that of the host DNO. It is therefore appropriate for us to consider the impact of our tariffs on this group of users, whilst taking full account of our licence obligations to ensure cost-reflective tariffs that are set in accordance with an Ofgem-approved charging methodology.

3. We recognise that it is appropriate in setting LDNO charges to consider factors additional to those considered for setting end-user tariffs. We are also mindful of comments made in recent Ofgem consultations on LDNO tariff proposals by Western Power Distribution (WPD)[1]; Scottish Power (SP)[2]; and more recently Central Networks[3] (CN).

4. Ofgem has also advised that all DNOs should review the application of charges to LDNOs. This document details the proposals that CE Electric UK (CE) intends to introduce in relation to both Northern Electric Distribution Limited (NEDL) and Yorkshire Electricity Distribution plc (YEDL) (subject to non-veto by the Authority) to address these issues.

Licence Requirements

5. CE's use of system charging methodologies for NEDL and YEDL have been approved by Ofgem, pursuant to standard condition 13, paragraph 13.1 (a) of the electricity distribution licence, as being in accordance with the relevant objectives.

[1] Modification Request on changes to the Use of System Charging Methodology to incorporate IDNO Networks and consequential changes to the form of the Use of System Charging Statement, 21/03/07, WPD

[2] Amendment Proposal COM-07-001 Amendment of Use of System Charging Methodologies for IDNO Networks, 13/04/2007, Scottish Power

[3] CN E Dec 07: modification proposal to use of system charging methodology statement: New IDNO specific tariffs,

6. Licence requirements, as of 1 April 2005, are that DNOs' methodologies must be reviewed at least annually and modifications (if any) should only be introduced as necessary for the purpose of better achieving the relevant objectives set out in standard licence condition 13.3. For the purpose of the methodology, the relevant objectives are:

    a) 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 this licence;

    b) 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;

    c) 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

    d) that, so far as is consistent with sub-paragraphs (a), (b) and (c), the use of system charging methodology, as far as is reasonably practicable, properly takes account of developments in the licensee's distribution business.

Competition Act requirements

7. Given the position of LDNOs in the electricity distribution market it is important in setting tariffs for LDNOs that we not only comply with our licence obligations but also pay due regard to the requirements of the Competition Act.

8. Specifically, when setting tariffs for LDNOs, a DNO sets input prices to the LDNOs. We recognise that LDNOs are subject to a price cap under distribution licence condition BA2 and special licence condition G1 (see appendix 1), which caps end-user charges for domestic customers to those of the host DNO: it is therefore appropriate for us to consider the impact of our tariffs on this group of customers.

9. We have received advice that we need to ensure sufficient margin to avoid foreclosure of the market, which in practice means that the available margin ought to ensure an adequate share of the market is open to competition by LDNOs: due to the specific nature of our tariff structure boundary tariffs can have the unintended effect of

foreclosing LDNOs from some classes of customer. Moving to portfolio tariffs ensures the LDNOs are not foreclosed from any market due to a negative price differential.

Existing charging arrangements

10. Currently LDNO networks are allocated a tariff based on the connection voltage and the size of the connection. Generally for low-voltage (LV) connections the standard LV half-hourly (HH) tariff would be applied and for high-voltage (HV) connections the standard HV HH tariff is applied. These tariffs are based on larger commercial and industrial customers' load profiles and therefore may not necessarily best reflect the load profiles of the LDNO sites.

11. The current HH tariffs contain capacity charges that, when applied to domestic sites, can cause foreclosure issues for the LDNOs, as they can only recover income on a fixed and unit basis due to the nature/function of the settlements system in that market (i.e. standard HH tariffs do not translate/map easily to a domestic tariff structure as they contain fixed, unit and capacity elements, whereas our domestic tariffs are based on fixed and unit elements only). This results in the potential for an LDNO to be disadvantaged during the period when a site is being developed.

12. Furthermore, we recognise that the costs incurred in distributing electricity to the LDNO site may well differ from those incurred in distributing electricity to the end-user. However, it is appropriate that LDNOs pick up an appropriate share of the costs.. Our proposed arrangements seek to address these issues.

Proposed charging arrangements

13. We are proposing to introduce a suite of 14 new portfolio-style tariffs for LDNO networks, 7 for LDNO sites with a LV point of connection (POC) and 7 for LDNO sites with a HV POC.

Allocation of costs between network and transformation levels

14. All costs that make up the fixed-charge element of the "all-the-way" tariffs are defined as either an asset or a customer-related component. Each cost is also allocated a specific network driver which is used to break down the costs and split them over the relevant network voltage and transformation levels. Grouping the costs by both tariff component and network driver creates a "cost-matrix" split by network level. The proportions of the matrix can then be used to split the individual "all-the-way" tariff elements by network level.

15. Direct costs are taken from table 2.3 of the RRP submission; as the majority of these are already split by voltage/transformation level no network driver is required. The small proportion of direct costs that are not already split by network levels are allocated across the voltage and transformation levels in the same proportions as the known values. These direct costs include inspections, maintenance, fault costs and tree cutting and are all categorised as asset related costs.

16. Indirect costs and pass-through costs are predominantly taken from tables 2.2 and 2.6 of the RRP respectively. As neither of these cost types is split by voltage and transformation level a network driver is associated with each cost line to derive the allocation to network levels and a tariff component relationship is set (i.e. is the item an asset- or customer-driven part of our currently approved charging methodology for the "all-the-way" tariffs). The costs and associations currently utilised are listed below.

Indirect costs

RRP table	Activity	Network driver	Tariff component
2.2	Network Policy	Gross capex	Asset
2.2	Network Design & Engineering	Gross capex	Asset
2.2	Project Management	Gross capex	Asset
2.2	Engineering Mgt & Clerical Support	Gross capex	Asset
2.2	Control Centre	HV Cost	Asset
2.2	System Mapping – Cartographical	Length	Asset
2.2	Customer Call Centre	Customers	Asset
2.2	Stores	Gross capex	Asset
2.2	Vehicles & Transport	Length	Asset
2.2	IT & Telecoms	Customers	Customer
2.2	Property Mgt	Length	Customer
2.2	HR & Non-operational Training	Customers	Customer
2.2	Health & Safety & Operational Training	Length	Asset
2.2	Finance & Regulation	Customers	Customer
2.2	CEO etc.	Customers	Customer
2.9	Wayleaves	Length	Asset

Pass-through costs

RRP table	Activity	Network driver	Tariff component
2.6	Exit charges	Exit charge	Exit charge
2.6	Wheeled units imported	HV Cost	Customer
2.6	Network rates	Net capex	Asset
2.6	Ofgem licence fee	Customers	Customer
2.6	EGS compensation payments	Length	Customer

RRP table	Activity	Network driver	Tariff component
2.6	Ex-gratia compensation payments	Length	Customer
2.6	Bad debt expense	Customers	Customer

Network drivers

17. The table below show the network drivers and their associated proportions (these figures are for illustrative purposes only and will be subject to change year-on-year).

NEDL Network drivers	LV Circuit	HV/LV	HV System	EHV System	Total
Net Capex	24.0%	8.0%	25.4%	42.6%	100.0%
Gross Capex	35.9%	7.7%	22.2%	34.2%	100.0%
Length	46.2%		46.3%	7.5%	100.0%
Customers	100.0%		0.0%	0.0%	100.0%
Exit charge	1.1%	2.4%	2.6%	93.9%	100.0%
HV Cost	0.0%		100.0%	0.0%	100.0%

YEDL Network drivers	LV Circuit	HV/LV	HV System	EHV System	Total
Net Capex	22.3%	8.1%	27.5%	42.0%	100.0%
Gross Capex	35.8%	8.1%	23.8%	32.4%	100.0%
Length	53.8%		37.0%	9.2%	100.0%
Customers	99.9%		0.1%	0.0%	100.0%
Exit charge	1.1%	2.4%	2.6%	93.9%	100.0%
HV Cost	0.0%		98.7%	1.3%	100.0%

18. Gross capex is the sum of capital expenditure from FBPQ tables LR1, LR3, LR4 and NL1.

- LR1 – New connections: expenditure in tables 6, 7 & 8 is allocated to the network levels as described in the tables with the exception of the HV/LV, which was taken from the “LV end connections involving HV work” category within the HV network level. The HV category is then reduced by this amount to maintain the correct total values. Unmetered costs are all allocated to the LV system network level;
- LR3 – Diversions: expenditure is allocated to the network levels as described in the tables with zero cost allocated to the HV/LV transformation level. This is the application of the assumption that the majority of diversion expenditure relates to overhead lines and cables;

- LR4 – General reinforcement: expenditure is allocated to the network levels as described in the tables, with the exception of the HV and HV/LV allocated costs, HV/LV transformation level costs are the costs within the HV category which specifically related to overloaded pole and ground mounted transformers which is extracted from CE's internal work program systems. The HV category is simply the balance of the HV category costs once the HV/LV costs are subtracted; and
- NL1 – Asset replacement: LV system includes all LV service and LV system replacement costs. HV/LV transformation level includes HV transformer and substation expenditure: the remaining HV costs are allocated to the HV system. All EHV and 132kV costs are allocated to the EHV network level.

19. The net capex network driver is calculated as the sum of the difference between table 8 and table 9 of FBPQ worksheet LR1, plus FBPQ worksheets LR3, LR4 and NL1. This is calculated in an identical way to the gross capex but excludes sole-use expenditure as this is fully funded by the customer.

20. Network circuit length is taken from table 5.1 of the RRP submission and customer numbers are from CE's metering point registration systems.

21. The exit charge allocation is based on the incremental increase in load at the GSP due to losses. An example of how the exit charges allocation is calculated is detailed below.

Network Level	Loss Factor	kW	Incremental change in demand at GSP	% of MD Allocation to voltage level
GSP	0%	1	1	= 1/1.0915 = 91.62%
EHV	2.45%	1.0245	0.0245	= 0.0245/1.0915 = 2.24%
HV	5.30%	1.0530	0.0285	= 0.0285/1.0915 = 2.61%
HV/LV	7.90%	1.0790	0.0260	= 0.0260/1.0915 = 2.38%
LV	9.15%	1.0915	0.0125	= 0.0125/1.0915 = 1.15%

22. The HV cost driver is used for indirect and pass-through costs in circumstances that are known to be associated with the HV network level and could not be displaced by LDNO network connections at either LV or HV.

23. Applying the network drivers to the cost lines and grouping the values by tariff component produces the tables below for each licence of NEDL and YEDL. These percentages are specific to the fixed-charge element of the "all-the-way" tariff.

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%

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%

24. The unit charge element is also broken down into two components - asset related and exit charge related. The drivers for these components are taken directly from the network drivers table. Asset-related costs are apportioned based on net capex and exit charge costs with the exit charge driver. The tables for NEDL and YEDL respectively are shown below.

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%

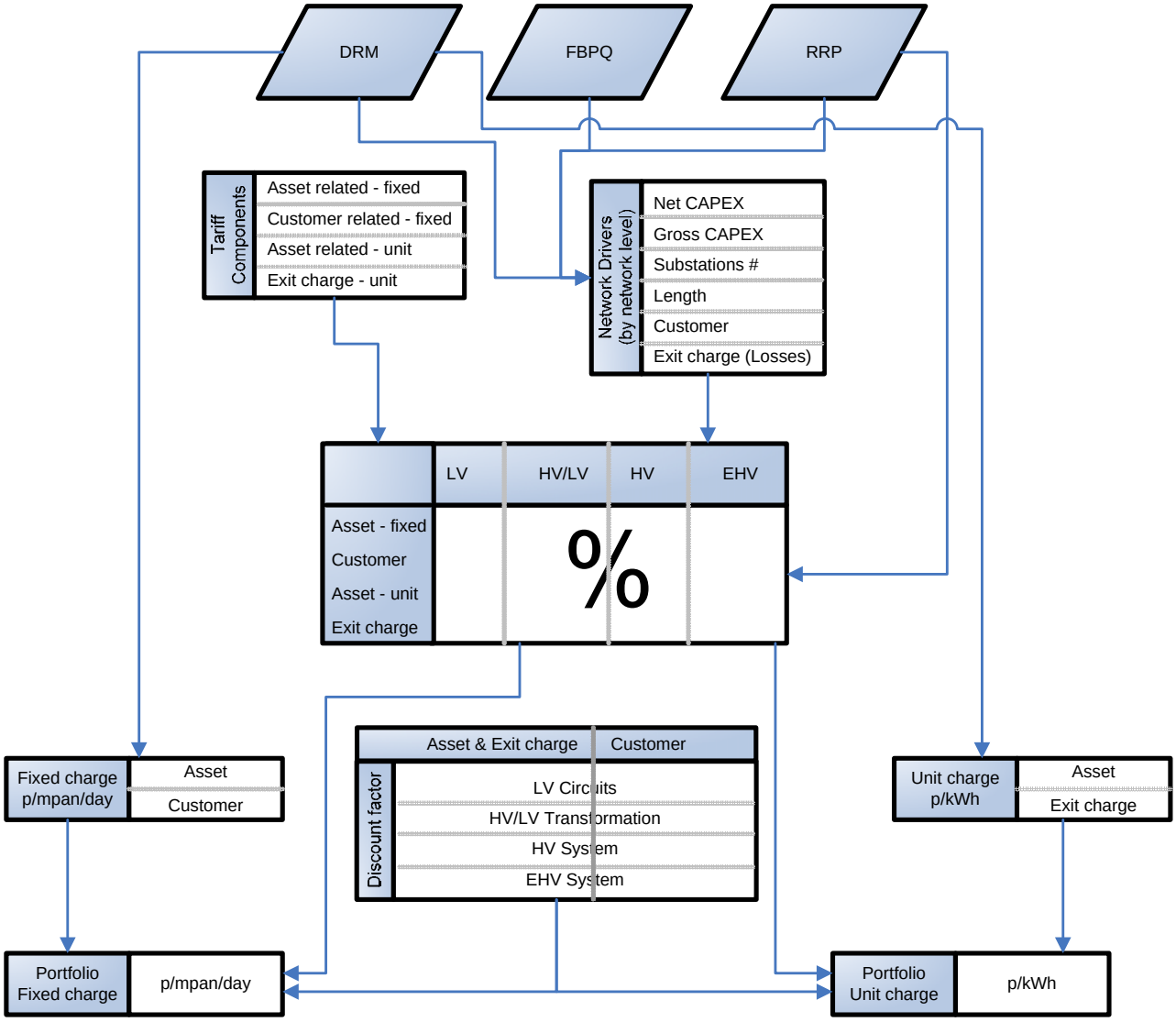
YEDL Tariff component	LV circuit	HV/LV	HV system	EHV system	Total
Asset – unit	22.3%	8.1%	27.5%	42.0%	100.0%
Exit charge - unit	1.1%	2.4%	2.6%	93.9%	100.0%

Application of cost allocation method – calculation of the fixed and unit charge

25. The fixed-charge element is broken down into two distinct components - an asset-related component and a customer-related element. Feeding the fixed-charge components through the matrix breaks down these components by network level. A discount factor is then applied to the LV network level and the components are then aggregated back up to the tariff element level and form the “discounted” portfolio tariff fixed charge. The calculation of the discount factors is shown below.

26. The unit charge element is broken down into two distinct components - an asset-related component and an exit charge component. The asset-related component is allocated to the network/transformation levels by net capex proportions. The exit charge component is allocated to the network/transformation levels using a calculation based on the incremental increase in load at the grid supply point due to losses. Once the drivers have been allocated to the relevant components a “discount factor” is then applied to the

appropriate network/transformation level. Once "discounted" the components are aggregated back up to the tariff-element level and form the basis of the "discounted" portfolio tariff unit charge.



Allocation of LV costs between LDNO and host DNO ("discount factor")

27. For asset and exit charge-related components, costs will be apportioned between the host DNO and the LDNO by the application of an average distance-per-user method. The proportion of LV costs to be applied to the LDNO will be calculated as follows: average length of LV mains provided by the DNO per LDNO end user as a proportion of average length of LV mains per DNO end user.

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

28. It should be noted that, in calculating the total number of LDNO LV customers, we have endeavoured to use information provided by the LDNO. In the absence of such information we have calculated the number of customers by dividing the site agreed capacity by 1.5kVA (the typical capacity of a domestic property) to produce a realistic and pragmatic proxy for the number of customers.

29. The calculation below shows an illustrative example:-

- Total DNO to LDNO LV circuits = 3,300 meters;
- Total LDNO LV customers (within DNO DSA) = 931;
- Total DNO LV circuits = 18,245,200 meters; and
- Total DNO LV customers = 1,577,983.

$$LV\_Ratio = \frac{3{,}300}{931} / \frac{18{,}245{,}200}{1{,}577{,}983} = \frac{4.71(m/customer)}{11.56(m/customer)} = 0.31$$

30. Therefore, the LDNO LV tariffs would include 31% of the LV apportioned costs (i.e. they would get a discount of 69% off the LV apportioned costs).

31. For HV LDNO POCs, the asset and exit charge related component discount factors will simply be 100% LV network and 100% HV/LV transformation.

32. The tables below show the "discount factor" for both NEDL and YEDL. It should be noted that these figures will change on an annual basis to reflect the latest available information.

NEDL LDNO POC	LV circuit	HV/LV	HV system	EHV system
LV	69.0%	0.0%	0.0%	0.0%
HV	100.0%	100.0%	0.0%	0.0%

YEDL LDNO POC	LV circuit	HV/LV	HV system	EHV system
LV	86.0%	0.0%	0.0%	0.0%
HV	100.0%	100.0%	0.0%	0.0%

33. For customer-related component costs, we do not believe that these costs would vary with network length as the asset and exit charge-related component costs do. So, it would be inappropriate to apply a distance-based method of cost splitting. For customer-related components we propose to apply the following network-level discount factors in each licence area:

LDNO POC	LV circuit	HV/LV	HV system	EHV system
LV	100.0%	0.0%	0.0%	0.0%
HV	100.0%	100.0%	0.0%	0.0%

34. It should be noted that we have calculated the discount factors based on the best information, for the NEDL and YEDL networks, available at the time of publication. We recognise that this is a limited sample size and that the long-term figures may vary from the results generated based the current dataset. Whilst we believe that discounts are representative of the current penetration of LDNOs in our distribution services areas, we would consider utilising a bespoke long-run "national average" figure if such an analysis were available.

Calculation of the high-voltage (HV) LDNO tariffs

35. The methodology for calculating the HV tariffs is identical to that described above for LV tariffs with the exception of the derivation of the discount factors. For high-voltage the proportion of the LV and HV/LV costs applied to the LDNO tariffs is 0%.

Worked example

36. The following section details a worked example using the network drivers above to calculate the domestic unrestricted LV and the domestic unrestricted HV portfolio tariffs.

Tariff elements	Fixed charge		Unit charge	
Tariff component	**Asset related**	**Customer related**	**Asset related**	**Exit charge related**
Charge	4.839 *p/mpan/day*	3.486 *p/mpan/day*	1.085 *p/kWh*	0.044 p/kWh

Fixed charge	LV	HV/LV	HV	EHV	Total
Asset related	=4.839*34.7% =1.679*p/mpan/day*	=4.839*8.6% =0.416*p/mpan/day*	=4.839*30.1% =1.457*p/mpan/day*	=4.839*26.6% =1.287*p/mpan/day*	4.839 *p/mpan/day*
Customer related	=3.486*89.2% =3.110*p/mpan/day*	=3.486*0.00% =0.000*p/mpan/day*	=3.486*9.7% =0.338*p/mpan/day*	=3.486*1.1% =0.038*p/mpan/day*	3.486 *p/mpan/day*
Total	=1.679+3.110 =4.789*p/mpan/day*	=0.416+0.000 =0.416*p/mpan/day*	=1.795+0.338 =1.795*p/mpan/day*	=1.287+0.038 =1.325*p/mpan/day*	8.325 *p/mpan/day*

37. The table above shows the domestic unrestricted charge broken down by tariff component. The percentages from paragraph 23 are applied to the respective components which break down the fixed charge by voltage and transformation level. The same calculation is then done for the unit charge using the percentages from paragraph 24.

Unit charge	LV	HV/LV	HV	EHV	Total
Asset related	=1.085*24.0% =0.260*p/kWh*	=1.085*8.0% =0.087*p/kWh*	=1.085*25.4% =0.276*p/kWh*	=1.085*42.6% =0.462*p/kWh*	1.085 *p/kWh*
Exit charge related	=0.045*1.1% =0.001*p/kWh*	=0.045*2.4% =0.001*p/kWh*	=0.045*2.6% =0.001*p/kWh*	=0.045*93.9% =0.042*p/kWh*	0.045 *p/kWh*
Total	=0.260+0.001 =0.261*p/kWh*	=0.087+0.001 =0.088*p/kWh*	=0.276+0.001 =0.277*p/kWh*	=0.462+0.042 =0.504*p/kWh*	1.130 *p/kWh*

38. Once the tariffs are split by network and transformation level the discount factor is applied to the appropriate level.

LV Portfolio tariff	LV	HV/LV	HV	EHV	Total
Fixed charge	4.789 *p/mpan/day*	0.416 *p/mpan/day*	1.795 *p/mpan/day*	1.325 *p/mpan/day*	8.325 *p/mpan/day*
Unit charge	0.261 p/kWh	0.088 p/kWh	0.277 *p/kWh*	0.504 *p/kWh*	1.130 *p/kWh*
Discount factor	=1-0.31=69%	0%	0%	0%	0%
Portfolio fixed charge	=4.789*(1-69%) =1.485 *p/mpan/day*	=0.416*(1-0%) =0.416 *p/mpan/day*	=1.795*(1-0%) =1.795 *p/mpan/day*	=1.325*(1-0%) =1.325 *p/mpan/day*	5.021 *p/mpan/day*
Portfolio unit charge	=0.261*(1-69%) =0.081 *p/kWh*	=0.088*(1-0%) =0.088 *p/kWh*	=0.277*(1-0%) =0.277 *p/kWh*	=0.504*(1-0%) =0.504 *p/kWh*	0.950 *p/kWh*

HV Portfolio tariff	LV	HV/LV	HV	EHV	Total
Fixed charge	4.789 *p/mpan/day*	0.416 *p/mpan/day*	1.795 *p/mpan/day*	1.325 *p/mpan/day*	8.325 *p/mpan/day*
Unit charge	0.261 p/kWh	0.088 p/kWh	0.277 *p/kWh*	0.504 *p/kWh*	1.130 *p/kWh*
Discount factor	100%	100%	0%	0%	0%
Portfolio fixed charge	=4.789*(1-100%) =0.000 *p/mpan/day*	=0.416*(1-100%) =0.000 *p/mpan/day*	=1.795*(1-0%) =1.795 *p/mpan/day*	=1.325*(1-0%) =1.325 *p/mpan/day*	3.120 *p/mpan/day*
Portfolio unit charge	=0.261*(1-100%) =0.000 *p/kWh*	=0.088*(1-100%) =0.000 *p/kWh*	=0.277*(1-0%) =0.277 *p/kWh*	=0.504*(1-0%) =0.504 *p/kWh*	0.781 *p/kWh*

39. From the above tables it can be seen that the tariffs are:

Tariffs	Fixed charge *p/mpan/day*	Unit charge *p/kWh*
All-the-way charge	8.325	1.130
LV portfolio charge	5.021	0.950
HV portfolio charge	3.120	0.781

Tariffs and tariff structures

40. For embedded networks with a LV and HV point of connection (POC), the following tariffs and structures will be available:

Portfolio tariffs LV and HV LDNO POC	Fixed	Unit rate 1	Unit rate 2	Capacity
	p/mpan/day	*p/kWh*	*p/kWh*	*p/kVA/day*
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	×	✓	×	×

41. The table below shows the LDNO portfolio tariffs that are generated from an LV POC for NEDL and YEDL respectively:

NEDL portfolio tariffs LV LDNO POC	Fixed	Unit rate 1	Unit rate 2	Capacity
	p/mpan/day	*p/kWh*	*p/kWh*	*p/kVA/day*
Domestic unrestricted (PC1)	5.003	0.949		
Domestic restricted (PC2)	5.805	1.116	0.202	
Non-domestic unrestricted (PC3)	15.455	1.068		
Non-domestic restricted (PC4)	18.218	1.050	0.190	
Non-domestic max demand (PC5-8) LV	71.864	1.057	0.191	
Standard half-hour low-voltage	426.536	0.228	0.041	2.777
Unmetered supply		0.691	0.691	

YEDL portfolio tariffs LV LDNO POC	Fixed	Unit rate 1	Unit rate 2	Capacity
	p/mpan/day	*p/kWh*	*p/kWh*	*p/kVA/day*
Domestic unrestricted (PC1)	3.788	0.851		
Domestic restricted (PC2)	4.442	1.040	0.141	
Non-domestic unrestricted (PC3)	15.021	0.964		
Non-domestic restricted (PC4)	20.115	0.908	0.123	
Non-domestic max demand (PC5-8) LV	84.733	0.890	0.120	
Standard half-hour low-voltage	282.610	0.188	0.026	2.214
Unmetered supply		1.005	1.005	

42. The table below shows the LDNO portfolio tariffs that are generated from an HV POC for NEDL and YEDL respectively:

NEDL portfolio tariffs HV LDNO POC	Fixed	Unit rate 1	Unit rate 2	Capacity
	p/mpan/day	*p/kWh*	*p/kWh*	*p/kVA/day*
Domestic unrestricted (PC1)	3.117	0.782		
Domestic restricted (PC2)	3.716	0.919	0.166	
Non-domestic unrestricted (PC3)	10.920	0.880		
Non-domestic restricted (PC4)	12.983	0.864	0.156	
Non-domestic max demand (PC5-8) LV	53.032	0.870	0.157	
Standard half-hour low-voltage	317.814	0.192	0.035	2.682
Unmetered supply		0.553	0.553	

YEDL portfolio tariffs HV LDNO POC	Fixed	Unit rate 1	Unit rate 2	Capacity
	p/mpan/day	*p/kWh*	*p/kWh*	*p/kVA/day*
Domestic unrestricted (PC1)	2.802	0.738		
Domestic restricted (PC2)	3.334	0.902	0.122	
Non-domestic unrestricted (PC3)	11.943	0.836		
Non-domestic restricted (PC4)	16.089	0.787	0.107	
Non-domestic max demand (PC5-8) LV	68.675	0.772	0.104	
Standard half-hour low-voltage	229.706	0.168	0.023	2.407
Unmetered supply		0.857	0.857	

Impact and sensitivity analysis

43. The charts below clearly demonstrate that there is a positive price differential for all sizes of development under the proposed approach, which is not the case with the existing tariffs. It also shows that at no point during the development of a larger site will the LDNO suffer from negative gross margins. It should be noted that, whilst the charts

included in the paper focus on the domestic unrestricted and domestic restricted tariffs, the same effect is prevalent for all the proposed LDNO portfolio tariffs.

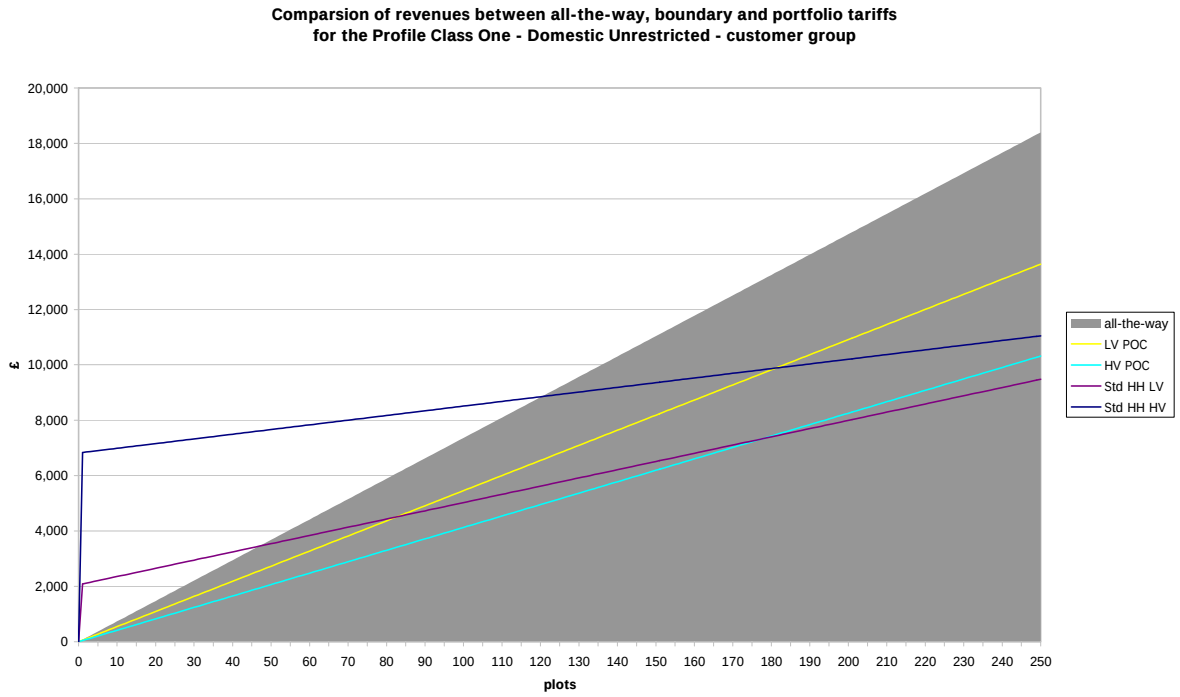


Figure 1: NEDL domestic unrestricted end customers

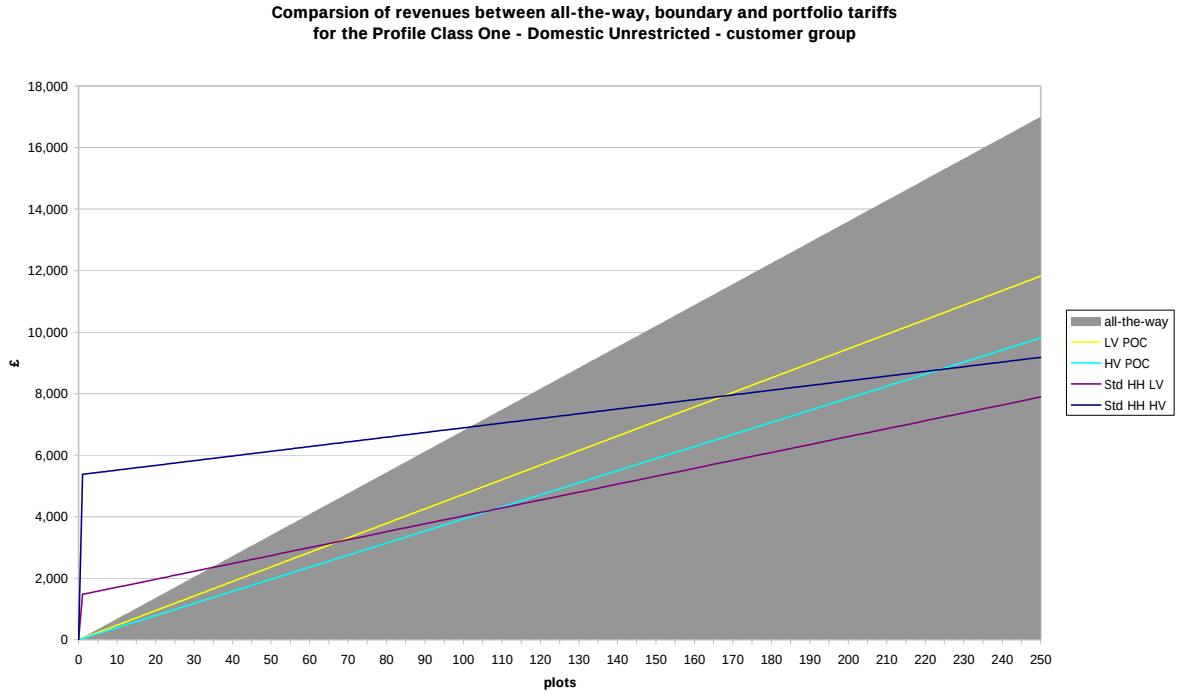


Figure 2: YEDL domestic unrestricted end customers

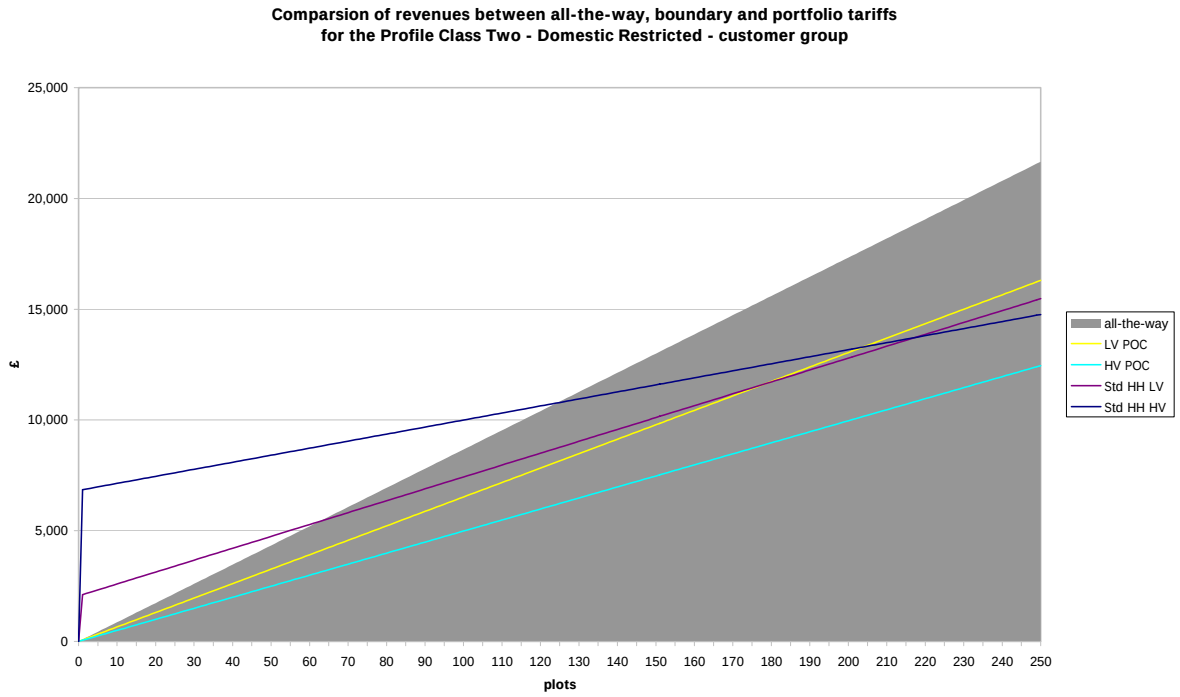


Figure 3: NEDL domestic restricted end customers

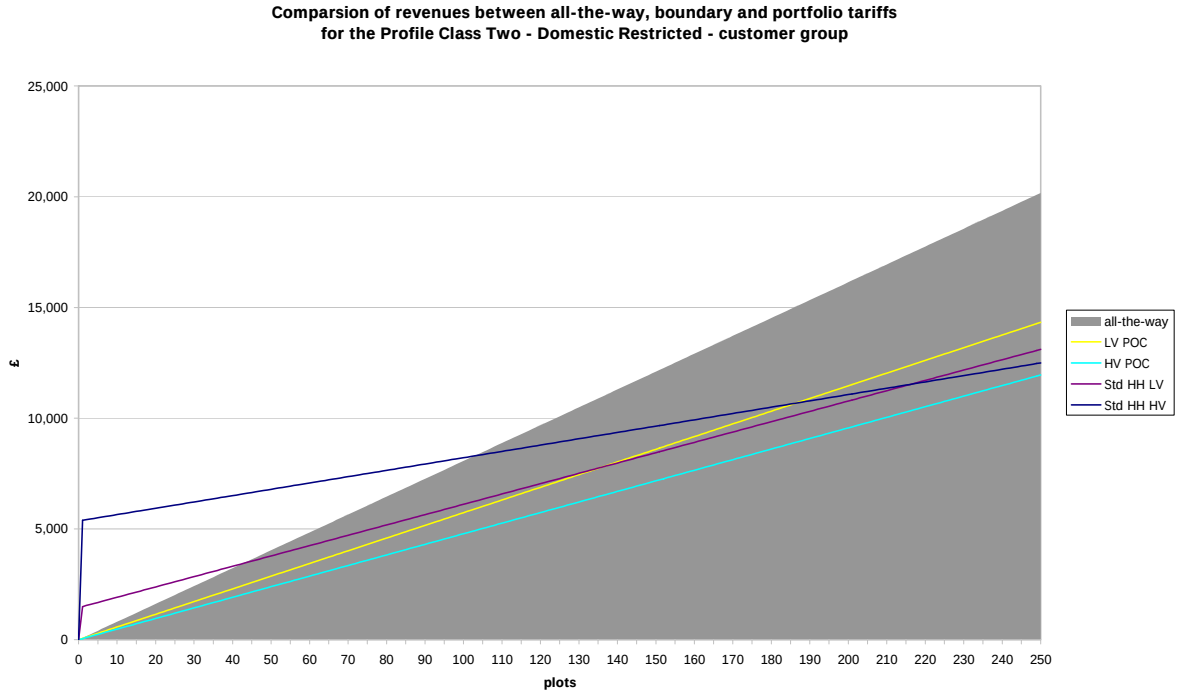


Figure 4: YEDL domestic restricted end customers

Conclusions and licence obligation assessment

44. We believe this proposal better meets our licence objectives for the following reasons:

- The tariffs are applied on a portfolio basis rather than at a boundary level. Although we believe that boundary tariffs are inherently more cost reflective, because they take account of the specific site costs, we are conscious of the proposed long-term approach and wish to align with it as far as possible, in order to minimise the scope for future price disturbances;
- Portfolio tariffs ensure the alignment of the tariff structures with the "all-the-way" charge, and remove the situation where the LDNO is seen to be disadvantaged during the period when a site is being developed;
- The recognition of displaced costs, both capital and revenue, ensures that the new tariffs reflect the cost differences faced by the DNO in distributing energy to an LDNO development rather than directly to the end-users;
- The cost allocations that form the basis of the tariffs are derived from the regulatory reporting pack (RRP) information produced under standard condition 48, forecast business plan questionnaire (FBPQ) costs and network data, rather than the distribution reinforcement model;
- Both the LV and HV tariffs can be applied using GSP group-level, or site-level, settlements data provided by the LDNO;
- The use of an average distance per user principle to average LV costs amongst LV users ensures a fair and appropriate distribution of cost, which can also be influenced by the investment/engineering strategies employed by the LDNOs;
- When compared with the standard LV HH tariffs the illustrative tariffs produce constant margins for all sizes of development and hence meet our obligation to avoid restricting, distorting or preventing competition in the distribution of elecricity; and
- We are also prepared to use estimated annual consumption (EAC) values with counts of end-users provided by the LDNO in lieu of an industry settlements system. However, we would expect to reconcile any EACs used with actual settlements data once the system is in place and retrospectively process any "reconciliation" that may be required.

Appendix 1 – LDNO price cap licence conditions

Standard Condition BA2. Charging Arrangements

1. The licensee shall make available and continue to make available charges for the provision of use of system to any authorised supplier using the licensee's network to supply domestic customers.

2. The licensee's distribution use of system charges to domestic customers may vary according to the distribution services area of the licensed distributor within which domestic premises are connected to the licensee's distribution system.

3. The licensee shall set these charges so that, except with the prior written consent of the Authority, the standing charge, unit rate and any other component of charges shall not exceed the distribution use of system charges to equivalent domestic customers.

4. For the purposes of this condition, distribution use of system charges to equivalent domestic customers are the distribution use of system charges made by the licensed distributor that has a Distribution Services Direction specifying the distribution services area where the domestic premises connected to the licensee's system are located.

5. The Authority may specify by direction which of the distribution use of system charges made by the licensed distributor with Distribution Services Obligations for the distribution services area are relevant for the purposes of determining distribution use of system charges to equivalent domestic customers.

6. These charging arrangements shall have effect within this licence until such time and in such circumstances as are described in paragraphs 7 to 12 of this standard condition.

7. This condition shall cease to have effect (in whole or in part as the case may be) if the licensee delivers to the Authority a disapplication request made in accordance with paragraph 8 of this standard condition or notice is given to the Authority by the licensee in accordance with either paragraph 11 or paragraph 12 of this standard condition.

8. A disapplication request shall:

   (a) be in writing addressed to the Authority;

   (b) specify the paragraph or paragraphs of this standard condition to which the request relates; and

(c) state the date (being not earlier than the date specified in paragraph 10 of this standard condition) from which the licensee wishes the Authority to agree that the conditions shall cease to have effect (the disapplication date).

9. The licensee may withdraw a disapplication request at any time.

10. Save where the Authority otherwise consents in writing, no disapplication following delivery of a disapplication request pursuant to paragraph 8 of this standard condition shall have effect until a date being the later of:

(a) not less than 18 months after delivery of the disapplication request; and

(b) 31 March 2007.

11. If the Authority has not made a reference to the Competition Commission under section 12 of the Act relating to the modification of this standard condition or the part or parts thereof specified in the disapplication request before the beginning of the period of 12 months which will end with the disapplication date and the licensee has not withdrawn this disapplication request, the licensee may deliver a written notice to the Authority terminating the application of this standard condition or the part or parts thereof specified in the disapplication request with effect from the disapplication date or such earlier date to which the Authority has given its consent under paragraph 10.

12. If the Competition Commission makes a report on a reference made by the Authority relating to the modification of this standard condition or the part or parts thereof specified in the disapplication request and such report does not include a conclusion that the cessation of such revenue restrictions in this standard condition, in whole or in part, operates or may be expected to operate against the public interest, the licensee may within 30 days after the publication of the report by the Authority in accordance with section 13 of the Act deliver to the Authority written notice terminating the application of this standard condition or the part or parts thereof specified in the disapplication request with effect from the disapplication date.