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**MODIFICATION PROPOSAL ENW/2010/003.1**

**Electricity North West Limited**

Proposal to amend the EHV charging methodologies on Fixed, Capacity and Excess Charges

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**FOR APPROVAL BY THE GAS AND ELECTRICITY MARKETS AUTHORITY**

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## **1. Introduction**

- 1.1 On 21<sup>st</sup> December 2009, Electricity North West was granted a derogation by Ofgem, pursuant to paragraph 50.36 of the Electricity Distribution Licence (the "Licence"), in respect of the requirements of paragraph 50.13 relating to the Common Distribution Charging Methodology (CDCM).
- 1.2 The derogations expire on 30<sup>th</sup> September 2010 and Electricity North West will be able to fully comply with the requirements of CDCM from this date.
- 1.3 This change modification proposes to amend the charging statement to remove reference to these derogations as they will no longer apply. This change modification also proposes to extend the billing modifications that will be implemented from 1<sup>st</sup> October for CDCM customers to all EHV customers.

## **2. Description of the modification**

- 2.1 The derogations granted to Electricity North West on 21<sup>st</sup> December 2009 are detailed below:
  1. Paragraphs 133(a) and 133(d) of the CDCM prescribe that fixed and capacity charges for half hourly customers be charged on a pence per day basis. Electricity North West requests a definite derogation to continue to use its existing methodology, which is to charge on a £ per month basis, until 30 September 2010.
  2. Paragraph 150 of the CDCM prescribes that capacity in excess of the maximum import capacity will be charged for the duration of the month in which the breach occurs. Electricity North West requests a definite derogation until 30 September 2010 to continue to use its existing methodology whereby the chargeable supply capacity (kVA) shall, for any month, be the highest of:
    - the supply capacity in that month;
    - the supply capacity in any of the previous eleven months; or
    - the authorised supply capacity.
- 2.2 Electricity North West proposes to amend the LC14 charging statement to remove all reference to these derogations from 1<sup>st</sup> October 2010.
- 2.3 Electricity North West proposes to amend the methodology statement for EHV customers to ensure consistency with CDCM customers as follows:
  - Capacity in excess of the Maximum Import Capacity (MIC) will be charged for the duration of the month in which the breach occurs for EHV customers. The exceeded portion of the capacity will be charged at the same p/kVA/day rate based on the difference between MIC and the actual capacity.
  - Charges for EHV customers will be expressed as p/Site/day and p/kVA/day rather than per month.

**3. Reasons for the change with an explanation of how the proposed change better meets the relevant objectives**

- 3.1 Electricity North West must demonstrate that any proposed changes to its charging methodology better meets the relevant objectives set out in SLC 13.3 of the distribution licence.
- 3.2 This modification creates a consistent approach between the treatment of HV/LV customers and EHV customers in terms of the charging units billed (p/day) and the calculation of capacity. The calculation of exceeded capacity on a monthly basis has been implemented within the CDCM to ensure customers are not excessively penalised for a short term breach of the MIC which may have no actual cost impact on the DNO. We have reviewed the arguments for charging excess capacity on a monthly basis and accept that this is a more cost reflective approach and therefore better meets SLC 13.3 (c) that compliance with the methodology results in charges which reflect as far as reasonable practicable (taking account of implementation costs), the costs incurred by the licensee in its distribution business.
- 3.3 The current proposals for the new EDCM methodology that will be submitted to Ofgem by 1<sup>st</sup> September 2010, is to apply exceeded capacity charges on the same basis as the CDCM. The proposed methodology change will bring Electricity North West's calculation of exceeded capacity in line with the EDCM methodology in its current proposed format. We recognise that the EDCM methodology is subject to change but consider it extremely unlikely that this particular element will change prior to submission. The additional transparency and consistency of implementing this modification better meets SLC 13.3 (b) that compliance with the 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.
- 3.4 To remove the derogation on the calculation of the Chargeable Supply Capacity (CSC) within the CDCM it has been necessary to amend our billing system. The most effective way to upgrade our billing system is to apply the new methodology of calculating CSC to all customers and not just CDCM customers. This will result in a more efficient IT solution and a better use of resources. Given that we expect this change to be required as part of the introduction of EDCM in April 2011, it is reasonable to implement the change for EDCM and CDCM customers at the same time. This modification therefore better meets SLC 13.3 (d) that, so far as is consistent with subparagraphs (a), (b), and (c), the methodology, as far as is reasonably practicable, properly takes account of developments in the licensee's Distribution Business.
- 3.5 The majority of DNOs currently charge on p/day for EHV customers. The introduction of p/day at Electricity North West puts us on a consistent charging basis with the majority of DNOs. This assists customers and suppliers when comparing charges across DNO areas. The additional transparency and consistency of implementing this modification better meets

SLC 13.3 (b) that compliance with the 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.

#### 4. Proposed Changes

4.1 The proposed changes to Electricity North West's Use of System Charging Methodology statement are detailed in Appendix A.

#### 5. Proposed illustrative structure and charges in the LC14 Use of System Charging Statement

5.1 There is no impact on customer's bills from the change from p/MPAN/month to p/MPAN/day.

5.2 There may be an impact on customer's charges from the updated calculation of the import capacity. This will be determined as the higher of the MIC and calculated capacity within month. This will result in a reduction in some customer's charges or have no impact as the chargeable import capacity was previously derived as the maximum over the previous 12 months and not just the month in question. The impact of the proposed change if it had been applied in the charging year 2009/10 can be seen in the table below:

LLFC	Current Methodology 2009/10 Charge	Proposed Methodology 2009/10 Charge	Percentage Change
610	£304,948	£304,948	-
500	£116,539	£116,539	-
650	£46,713	£46,713	-
660	£133,684	£133,684	-
640	£128,617	£128,617	-
700	£135,870	£135,870	-
900	£332,438	£332,438	-
670	£115,583	£103,477	- 10.5%
320	£129,950	£129,950	-
850	£483,332	£483,332	-
450	£521,662	£521,662	-
520	£97,241	£97,241	-
460	£111,062	£111,062	-
470	£0	£0	-
680	£568,917	£480,913	- 15.5%
690	£0	£0	-
510	£88,413	£88,413	-
720	£0	£0	-
530	£143,097	£143,097	-
770	£0	£0	-
540	£140,431	£136,653	- 2.7%
740	£0	£0	-
550	£218,013	£218,013	-
750	£0	£0	-
810	£115,961	£0	-
820	£0	£0	-
830	£24,865	£24,865	-
840	£0	£0	-

960	£38,597	£38,210	- 1.0%
970	£0	£0	-
950	£210,750	£210,750	-
910	£29,121	£25,060	- 13.9%
920	£6,812	£6,385	- 6.3%
570	£169,987	£166,534	- 2.0%

**6. Timetable for the implementation of the modification and charges changes**

6.1 Electricity North West intends to implement the proposed changes contained within this modification proposal on 1st October 2010.

## Appendix A: Proposed changes to Use of System Charging Methodology Statement

### 3. Use of System Charging Methodology – Extra High Voltage Demand Charges

#### Introduction

- 3.1 As the costs and circumstances of each Extra High Voltage (EHV) customer are individual to each customer, use of system charges for each Designated EHV premises will be considered on a site-specific basis. This methodology explains the calculation for site-specific use of system charges for Designated EHV premises.
- 3.2 This methodology will be valid from 1 April ~~April~~ [October](#) 2010 until the introduction of a new EHV Distribution Charging Methodology on 1 April 2011 and will be utilised to calculate EHV use of system charges for all Designated EHV premises<sup>1</sup>.

#### Standard EHV Charging Methodology

#### Model Inputs

- 3.3 EHV use of system charges are designed to recover all relevant costs associated with the provision, operation and maintenance of the EHV exit point (in so far as these were not recovered as part of the initial charge for the connection), the assets used in providing a delivery path from NGET's transmission network and the cost of billing and customer service. The main components of an EHV use of system charge are:

- Customer Related Costs;
- Sole Use Assets;
- Joint Use Assets;
- NGET Connection Charges; and
- Business rates.

#### Customer related cost

- 3.4 The cost of use of system billing is recovered via this EHV use of system charge component. This is equivalent to the contribution of a half-hourly metered charge customer towards DUoS billing. In addition, the cost of the annual review of the EHV use of system charge is recovered. The cost of the annual EHV use of system review is calculated as the time taken to complete this task multiplied by rates for the staff involved. Customer related costs are recovered via ~~a monthly standing~~ [an element of the daily](#) Fixed Charge.

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<sup>1</sup> Premises connected to assets on the licensee's Distribution System at a voltage level of 22 kilovolts or more.

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### **Sole Use Assets (SUA)**

- 3.5 The capital cost of any assets provided for the sole use of the EHV site is normally recovered from the customer prior to energisation. This will be in the form of an upfront capital contribution. Where other specific customer arrangements were made in the past, this will be reflected in the asset values used to calculate this Use of System charge component.
- 3.6 The value of the SUA is reviewed annually to take account of modern equivalent asset value and any modifications to that part of our distribution system. An annual contribution towards the costs of on-going Operation and Maintenance of these SUA is calculated by multiplying the asset valuation of the SUA by the standard operation and maintenance percentage. This charge is recovered via an element of the EHV use of system monthly daily fixed charge.

### **Joint Use Assets (JUA)**

- 3.7 A proportion of the annuitised capital cost of existing joint user assets, used to provide supply from the grid supply point to the customer's exit point, is recoverable via the EHV use of system charge.
- 3.8 This proportion is based on the ratio of Maximum Import Capacity of the EHV exit point to the network maximum capacity of the JUA under consideration.
- 3.9 Additional to the annuitised capital costs are the annual costs of on-going Operation and Maintenance of these JUA and this charge is calculated by multiplying the asset valuation of the JUA by the standard operation and maintenance percentage. This charge is recovered via the EHV use of system charges.
- 3.10 The calculation of both capital and operational and maintenance costs is based on the site connection point's asset valuation and network capacity, which are provided by Electricity North West. These costs are reviewed annually to take account of inflation, any modifications to that part of our distribution system, the route of access to the NGET network and changes to the customer's Maximum Import Capacity. The total annual JUA charges are recovered via a monthly daily capacity related charge.

### **NGET Connection Charges**

- 3.11 A proportion of NGET's Connection Charge is recovered via the EHV Use of System charge. This proportion is based on the ratio of forecast site maximum demand compared to the forecast system maximum demand, applied to the total forecasted annual NGET Connection Charge value.

### **Business Rates**

- 3.12 A proportion of the cost of business rates is recovered via the EHV use of system charge. This proportion is based on the ratio of the site Maximum Import Capacity to forecast System Maximum Supply Capacity, applied to the total forecasted operational sites Business Rates bill. Business rates are recovered via a monthly daily capacity related charge.

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## Assumptions

3.13 The following assumptions are applied in the calculation for an EHV use of system charge:

- The allowed cost of capital for the price control period
- The standard operation and maintenance rate of 1.4 percent is applied;
- Reactive power unit charges may be levied on an EHV customer in accordance with the charging criteria as defined in our Licence Condition 14 document titled 'Statement of Charges for Use Of Electricity North West Limited's Electricity Distribution Network'; and
- The Loss Adjustment Factors for EHV sites are considered on a site-specific basis and each site is issued with a unique Loss Adjustment Factor. The Loss Adjustment Factor methodology is described in our document titled "Statement of Loss Adjustment Factor Methodology for Electricity North West Limited's Electricity Distribution Network". The value of the Loss Adjustment Factor is to be applied to each site and is reviewed on an annual basis to take into account of any changes to site demand, site load factor and network configuration.

## Model Outputs

3.14 The EHV use of system charge is structured in the following manner:

- ~~Standing charge per month~~
- Fixed charges per ~~month~~ day; and
- Capacity ~~Related~~ Charges per day (based on the maximum import capacity within the billing period).
- Excess Capacity Charges per day (where a customer takes additional capacity over and above the maximum import capacity without authorisation, the excess will be classed as exceeded capacity. The excess capacity charge will apply to this difference between the calculated capacity and the maximum import capacity. This will be charged for the duration of the month in which the breach occurs).

## Model Template

3.15 The template below shall be used to calculate an EHV use of system charge.

### Sole use assets

		Value, £ pa [A]
Deferred Capital Contribution		
	Value, £m [B]	Cost pa @ 1.4% [C = B*1.4%]
O&M charge		
	Asset 1	
	Asset 2	

### Joint use assets

		Value, £m [D]	Customer capacity, MVA [E]	Total capacity, MVA [F]	Ratio [G = E/F]	Cost pa @ 7.41% [H = D*G*7.41%]
Asset 3						
Asset 4						
Asset 5						
O&M charge						
	Value, £m [I]					Cost pa @ 1.4% [J = I*1.4%]
	Asset 3					
	Asset 4					
	Asset 5					

### NGET Connection Charges

	£m pa [K]	Customer MD, MW [L]	System MD, MW [M]	Ratio [N = L/M]	Cost pa [O = K*N]

### Local Authority Rates

	£m pa [P]	Customer ASC MVA [Q]	System Capacity, MVA [R]	Ratio [S = Q/R]	Cost pa [T = P*S]

### Customer related cost

Total

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## Matching Charges to Allowed Revenue

3.16 The Authority caps the use of system income to Electricity North West. In this price control period the total allowed revenue is the amount recoverable from all network users. In the interim period, prior to the introduction of the EHV Distribution Charging Methodology in April 2011, the allowed revenue for

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Designated EHV premises is calculated as the sum of base costs<sup>2</sup> of each Designated EHV premise inflated by the price index adjuster<sup>3</sup>.

- 3.17 Where there is a requirement to match the charges for the Designated EHV premises to the allowed revenue for Designated EHV premises the joint use asset costs of each Designated EHV premises are scaled proportionately using a multiplier approach.
- 3.18 This allowed revenue amount for Designated EHV premises and the allowed revenue for EHV DG customers are subtracted from the total allowed revenue amount to provide the allowed revenue recoverable from HV and LV networks users.

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<sup>2</sup> As defined by the costs identified by the EHV Charging Methodology, either at April 2005 or at the time of connection after April 2005.

<sup>3</sup> As defined within the ENW's Special Licence Condition B1 that were applicable as at 31 March 2010, available from Ofgem public register at <http://epr.ofgem.gov.uk/>.