



MODIFICATION PROPOSAL ENW/2008/004

Electricity North West Limited

**Proposal to update the Distributed Generation charging methodology within our
Licence Condition 4 statement**

Date of Issue: 21st January 2008

For approval by the Gas and Electricity Markets Authority

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1. Description of the modification

Electricity North West Limited proposes to revise its charging methodology for Distributed Generation customers connected to our electricity distribution network.

The main aims of our proposal are to improve the clarity and ease of use of our methodology and to better reflect the costs imposed by Distributed Generation customers in the connection of their plant to our electricity distribution network.

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

Our proposal will better meet the relevant objectives in the following ways:

- it provides clarity in terms of user understanding of the alignment of our methodology to the Distributed Generation Incentive Regulatory Instructions and Guidance, aiding the ability of those parties to better understand the charges likely to be levied;
- the introduction of a new group of customers, where the connection of their Distributed Generation requires no reinforcement, allowing for a better reflection of the costs incurred by us in this type of connection;
- the introduction of a £/kW per annum charge for LV NHH generation customers, replacing the pence per day, to provide a greater level of predictability of charges and aligning to the criteria as provided under 5.4 of Section 5. The costs attributed to this customer group do not vary with the change in component used to derive the tariff.

3. Proposed Distributed Charging Methodology

Section 5 - Charging Methodology - Distributed Generation Charges

Introduction

5.1 Ofgem has determined that distribution businesses should introduce use of system charges for Distributed gGenerationers, rather than relying on full recovery of all asset related costs in an up-front connection charge. United UtilitiesElectricity North West has worked with Ofgem and the other distribution licencees in the Implementation Steering Group to develop a framework for a Distributed gGeneration charging methodology for the 'Interim Arrangements'⁴.

5.2 Distributed Generation customers should be aware that this methodology has been developed for implementation under the Interim Arrangements and that in time a new charging methodology will be implemented to fulfill the Longer Term Framework. For the avoidance of doubt, Distributed

Generation customers will also be charged Use of System for their demand requirements, in accordance with section 3 of this statement.

Parties Liable for Distributed Generation Charges

5.3 All Relevant Distributed Generation is liable for Generator Use of System (GDUoS) charges. This methodology explains the calculation of Generator Use of System (GDUoS) generation charges for ~~d~~Distributed gGeneration customers connected after 1st April 2005 and for ~~any upgrade or expansion additions or extensions~~ to existing Distributed Generation plant, generators also after 1st April 2005.

Charging Methodology

Distributed Generation Allowed Revenue

5.4 The broad framework of ~~generator~~ charges for Distributed Generation customers in the interim period is dictated by the ~~form of the price control allowed revenue as provided in the Distribution Generation Incentive~~ that Ofgem ~~have~~ introduced from 1 April 2005. The allowed revenue calculation is made up of the following elements:

- **Asset annuity charge** – An annuity charge based on 80 percent of the total cost of the reinforcement works required to connect the Installed gGeneration ~~e~~Capacity of the Distributed Generation plant, over a 15 year life, with a rate of return of 6.9 percent
- **Capacity Charge** – A standard £1.50⁵ per kW per annum of Installed gGeneration ~~e~~Capacity installed of the Distributed Generation plant (in place of direct recovery of the remaining 20 percent of the reinforcement assets). An additional £3⁵ per kW per annum of Installed gGeneration ~~e~~Capacity installed of the Distributed Generation plant will be included for ~~distributed generation any connections~~ in an RPZ (Registered Power Zone).

⁴ For further information on the Interim Arrangements and Longer Term Framework refer to the Ofgem consultation paper titled, "Structure of Electricity Distribution Charges – Update document and Licence Modifications" published in April 2004.

⁵ All values are indexed annually by RPI (July to December).

- **Operation, Repair and Maintenance Charges** – A standard £1⁵ per kW per annum of Installed gGeneration ~~e~~Capacity installed of the Distributed Generation plant to recover the allowable operation, repair and maintenance on the sole use and reinforcement assets of the ~~connection ed distributed generator.~~

5.5 Note, for Distributed gGeneration connections only, the cost apportionment factor rules detailed in our Licence Condition 4B document titled "Statement of Methodology and Charges for Connection to ~~United Utilities~~ Electricity North West Limited's Electricity Distribution Network' will only be applied to reinforcement costs up to a cap of £200⁵ per kW of ~~i~~Installed gGeneration ~~e~~Capacity. All reinforcement costs in excess of this cap will be charged in full to the connecting generator alongside other connection charges.

Principles and basis of charges

- 5.6 ~~Within the parameters of Ofgem's incentive scheme, United Utilities Electricity North West~~ aims to produce cost reflective charges for Relevant eDistributed gGeneration within the parameters of Ofgem's Distributed Generation Incentive Regulatory Instructions and Guidance, connected after 1st April 2005.
- 5.7 The calculation of the charges to be recovered from eDistributed gGenerations customers will be based on either on the average expected costs (for HV/LV connections) or actual costs (for EHV connections) costs of any the reinforcement works required to connect their Installed gGeneration eCapacity.
- 5.8 ~~United Utilities Electricity North West~~ does not intend at present to recover either Local Authority rates or NGET Connection or Use of System charges from eDistributed gGenerations customers. ~~United Utilities Electricity North West~~ shall keep this approach under review and when appropriate propose a modification to introduce a charging mechanism for the recovery of these charges.
- 5.9 ~~United Utilities Electricity North West~~ shall discuss with the eDistributed gGeneration customer and their nominated Supplier whether generation charges will be recovered either directly from the Distributed Generation customer/the distributed generator, or from their nominated sSupplier.
- 5.10 At the time of the connection application the Distributed gGeneration customer will inform ~~United Utilities Electricity North West~~ of the MW capacity of his Distributed gGeneration plant. This declaration forms the basis of ~~United Utilities Electricity North West's~~ assessment of the type and size of network assets required to be installed to connect the Distributed gGeneration customer to ~~United Utilities Electricity North West's~~ distribution network. It will also set the level of on-going chargeable Installed gGeneration eCapacity. The Distributed gGeneration customer will be charged at the level of his declared Installed gGeneration eCapacity for the first five years.
- 5.11 The Distributed gGeneration customer will be expected to operate, ~~with an export power factor~~ within the band between 0.95 lagging and 0.95 leading power factor. If the eDistributed gGeneration customer operates outside of this range area of operation the customer it will incur reactive power charges, unless the mode of operation has previously been agreed, in which case the customer is entitled to request a refund of any charges incurred. The value of the excess reactive power charge to be levied on Distributed gGeneration customers is set at the same value as that levied on demand customers.
- 5.12 ~~United Utilities shall apply its right to amend generation charges, by providing 3 months' notice and publishing the revised charges in its Licence~~

~~Condition 4A document titled 'Statement of Charges for Use of United Utilities Electricity Limited's Electricity Distribution Network'.~~

ClassGroups of Distributed gGeneration connections

~~5.13~~5.12 The following groups classes will be used for the calculation of Distributed gGeneration charges:

- EHV Distributed gGeneration (HH metered)
- HV, LV Distributed generation with reinforcement (NHH metered and HH metered)
- HV, LV Distributed generation with no reinforcement (NHH metered and HH metered)~~LV generation (NHH metered – other)~~
- LV connected (NHH metered – SSEG)⁶~~5~~

~~5.14~~5.13 These customers classes have been grouped based on the split of expected costs to be incurred by United Utilities Electricity North West over the Distributed Generation Incentive Price Control period.

Distributed Generation charging models

~~5.14~~5.14 A number of models, based on the classes groups of Distributed gGeneration connections, will be maintained for the calculation of generation charges. The models will be:

- EHV Distributed gGeneration – one model per EHV site
- HV, & LV Distributed gGeneration with reinforcement (NHH metered and HH metered) – one model for all qualifying sites
- HV, LV Distributed Generation with no reinforcement (NHH metered and HH metered) – one model for all qualifying sites
- LV generation (NHH metered – other) ~~one model for all qualifying sites~~
- LV Distributed gGeneration (NHH metered – SSEG) - one model for all qualifying sites

For April 200~~8~~⁶, only the EHV model(s) and the HV, & LV models will be utilised. All ~~newly connected~~ EHV connected Relevant Distributed gGeneration sites will receive their own charging model and collectively will form the EHV customer group. ~~All~~ HV, ~~and~~ LV connected Relevant dDistributed gGeneration sites with reinforcement will be captured in one model and ~~this forms one of the HV/LV customer groups, the other one will be formed from HV, LV Relevant Distributed Generation sites without reinforcement.~~

5.1~~5~~⁶ As the type, size and number of ~~d~~Distributed gGenerations connecting to our network increases, it is proposed to use the full range of models as detailed proposed above.

5.1~~6~~⁷ If however the proposed set of models does not provide an appropriate apportionment of costs, United Utilities Electricity North West

will amend the number and constitution of the models to reflect any changes in the penetration of ~~e~~Distributed ~~g~~Generation.

~~5.178~~ ~~Illustrative Distribution~~ ~~g~~Generation charges are published in Table 3 of Schedule 1 of our Licence Condition 4A document titled 'Statement of Charges for Use of ~~United Utilities~~ Electricity ~~North West~~ Limited's Electricity Distribution Network'. 3 months notice will be given where any changes to charges are required.

Matching ~~Distributed~~ ~~g~~Generation charges to Distributed Generation Allowed Revenue

~~5.189~~ ~~United Utilities Electricity North West~~ shall set its Distributed ~~g~~Generation charges on an annual basis to recover and not to exceed the projected Distributed Generation Allowed Revenue (adjusted for the previous year's under/ over-recovery and any allowed transfer of assets into the main distribution price control).

~~6.5~~ SSEG - a Small Scale Embedded Generator is a source of electrical energy rated up to and including 16 Ampere per phase, single or multiphase, 230/400 Volt ac.

~~5.1920~~ Where the projected income from setting ~~Distributed~~ ~~g~~Generation charges is expected to over-recover or under-recover the forecast Distributed Generation Allowed Revenue all ~~generation the~~ charges will be reduced or increased proportionately within the customer groups, subject to the following clause 5.20.

~~5.21~~5.20It is recognised that due to the proposed structure of the ~~Distributed~~ ~~g~~Generation charging methodology, to be applied from April 2005, ~~generation~~ charges may vary over time. In order to provide some stability and predictability of ~~generation~~ charges over the next Price Control it is proposed to minimise ~~the any~~ disturbance ~~of generation charges~~ by capping the change in nominal ~~generation~~ charges to plus or minus ten percent per annum (except where the current charge is zero).

Structure of ~~Distributed~~ ~~g~~Generation charges

~~5.225.21~~The models deliver charges to be applied to ~~e~~Distributed ~~g~~Generators customers in the following manner:

- EHV Distributed Generation (HH metered) pounds per ~~kVA kW per annum~~
- HV, & LV Distributed Generation with reinforcement (NHH metered and HH metered) pounds per ~~kVA kW per annum~~
- HV, LV Distributed Generation with no reinforcement (NHH metered and HH metered) pounds per ~~kW per annum~~
- ~~LV NHH - other~~ ~~pence per day~~
- LV NHH - SSEG ~~pence per day~~ pounds per kW per annum

Interruption Standard Payment

~~5.235.22~~Ofgem has proposed that ~~United Utilities~~Electricity North West offer an interruption standard payment to ~~d~~Distributed g~~enerationers~~ customers when their connection to our distribution network is unavailable, subject to the terms and conditions of ~~the~~ the connection agreement with the Distributed Generation customer.~~the generation customer.~~

5.23 The facility to receive the interruption payment for Distributed generation customers connected at LV is covered by The Electricity (Standards of Performance) Regulations 2005.

5.24 ~~United Utilities~~Electricity North will offer a standard interruption payment, of £0.002 kWh-1 for every whole hour without network availability (except for pre-arranged outages), to HV and EHV Distributed generation customers that they have a firm (secure) connection to our distribution network.

Section 7 – Glossary of terms

Glossary of terms

7.1 The following definitions are included to aid understanding of this document.

| | |
|--------------------------------------|---|
| Distributed Generation er | A generator with a directly connection to United Utilities' Electricity North West's <u>distribution network or directly connected to an independent or private network (not including the onshore interconnected networks) which in turn is connected to Electricity North West's distribution network.</u> |
| Installed Generation Capacity | The capacity <u>rating of the Distributed Generation plant</u> . provide to meet the maximum power required as requested by the party seeking to export onto the United Utilities' distribution network. |
| Relevant Distributed Generation | <p><u>Means an installation comprising any plant or apparatus for the production of electricity, which:</u></p> <ul style="list-style-type: none"> • <u>is directly connected to Electricity North West's distribution network or directly connected to an independent or private network (not including the onshore interconnected networks) which in turn is connected to Electricity North West's distribution network;</u> • <u>has a connection start date on or after 1 April 2005;</u> • <u>is eligible for use of system charges (if any) in accordance with the charging methodologies in place on or after 1 April 2005, but excluding generators who have paid deep connection charges and are exempt from use of system charges at least until 2010, by virtue of being pre-existing under the policy set out in Ofgem's "Structure of electricity distribution charges – initial decisions document, November 2003").</u> |

| | |
|--|--|
| | <ul style="list-style-type: none"> <u>An increase in capacity due to an upgrade or expansion after 1 April 2005 of a Distributed Generation plant, whether or nor existing before 1 April 2005, is regarded as a separate addition of Distributed Generation for the purpose of the Distributed Generation Incentive Scheme. Standby generators that operate in parallel with Electricity North West's distribution system for short periods of time for the purpose of testing only will not be included in this term.</u> |
|--|--|

4. Proposed illustrative structure and charges

There is an attachment to this document with the relevant areas to be changed highlighted in track changes. This should make it easy to see how the areas of change sit within the Condition 4 statement.

5. A timetable for the implementation of the modification and charges changes

| Date | Activity |
|-------------------|--|
| 21st January 2008 | Modification proposal submitted to Ofgem for approval. |
| 1 April 2008 | Electricity North West Limited's proposed implementation date. |