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Your Ref: CN Mod005
Our Ref: RBA/DPC/SOC
Direct Dial: 020 7901 7255

cc: Andrew Neves (by email only)

23 March 2006

Dear Sir/Madam,

Decision in relation to Modification Proposal CN Mod005 to the Use of System Charging Methodology: Reactive power charges

On 17 March 2006, Central Networks East PLC (CN) submitted a proposal, reference CN/005 to the Gas and Electricity Markets Authority (the 'Authority')¹ to modify CN's use of system (UoS) charging methodology statement.

The proposal modifies the UoS charging methodology statement for the method by which CN levies reactive power charges. The changes are designed to provide further cost reflectivity, transparency and consistency in CN's methodology. This modification proposal follows our decision letter, published on 22 February 2006², which vetoed modification proposal (CN Mod002) concerning reactive power charges.

Having carefully considered the issues raised in the proposal, the Authority has decided not to veto this modification.

This letter sets out the background to the modification proposal, explains briefly the proposed changes, and sets out the reasons for the Authority's decision.

Background

CN has licence obligations³ to have in place as of 1 April 2005 three charging statements: the UoS charging methodology statement, the statement of UoS charges and the connection charging methodology statement. The UoS charging methodology statement outlines the method by which distribution UoS charges are determined. CN has a requirement to keep the methodology under review and bring forward proposals to modify the methodology that it considers better achieves the relevant objectives⁴.

¹ Ofgem is the office of the Authority. The terms 'Ofgem' and the 'Authority' are used interchangeably in this letter.

² Decision letter on Electricity Distribution Use of System Charging Modification Proposals: Central Networks East - Reactive power charges.

³ Standard Licence Conditions (SLC) 4-4B

⁴ The relevant objectives for the use of system charging methodology, as contained in paragraph 3 of standard licence condition 4 of CN's distribution licence are:

CN Modification Proposal CN Mod005

Ofgem vetoed the modification proposal CN Mod002 on the basis that it implied that double charging could occur. A summary of the issues is given below; full details on this are set out in the CN/005 decision letter, available on our website⁵.

CN's charging model is used to calculate the cost of providing network capacity to each class of demand user connected to their system. The outcome of the model is a matrix of £/kW/year 'yardstick' costs relating to various voltage and transformation levels. These yardsticks assume that customers have a power factor of 0.95. If an assumed power factor of less than 0.95 is used in the charging model then the £/kW/year yardstick costs will be increased. The reason for this increase in the yardstick costs is that if the average network power factor is reduced then more kVA units of capacity will be required to provide a given kW network capacity increase. The yardsticks are used as the basis for allocating costs to demand users. These allocated costs are recovered from users in various ways which include a kVA charge and a kWh charge.

The vetoed charging modification could have permitted CN to calculate reactive power charges based on the total change in these yardsticks where the assumed power factor was less than 0.95. This method did not recognise that some of the additional costs suggested by a change in these yardsticks as a result of a lower power factor would already automatically be recovered via kVA charges.

CN's charging modification proposal CN Mod005 excludes the proportion of the yardstick costs that are recovered via the kVA charge from the calculation of their reactive power charges. It therefore seeks to remedy the double charging issue by explicitly excluding capacity costs that are recovered via their kVA charge from the calculation of their reactive power charges. The wording of the UoS charging methodology statement has been amended to reflect this calculation.

The additional capacity costs that are caused by a poor power factor and that are not recovered via kVA charges are allocated to customers on the basis of the kVARh that they consume. According to CN's UoS charging methodology statement the resulting kVARh charges are applied only to demand customers (this includes generators who are importing real power) but not to generation network users who are exporting real power.

The proposal introduces reactive power charges for CN's demand customers for the first time. If the proposed methodology is adopted this would mean that demand users will pay reactive power charges where their average power factor falls below 0.95. A power factor of 0.95 is consistent with that used by CN in its model to determine UoS yardstick costs.

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- (a) that compliance with the use of system charging methodology facilitates the discharge by the licensee of the obligations imposed on it under the Electricity Act 1989 and by this licence;
 - (b) that compliance with the use of system 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 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 reasonably practicable, properly takes account of developments in the licensee's distribution business.

⁵ www.ofgem.gov.uk

CN states that the proposed change to its methodology is designed to introduce cost reflective excess reactive power charges designed to provide a clear signal to customers with a poor power factor. CN proposes to levy the excess reactive power charges in a manner consistent with the calculation of charges in their charging model.

The modification proposal report CN Mod005 submitted by CN can be found on our website as an attachment to this document.

The Authority's decision

The changes to the UoS charging methodology statement requires consideration from the Authority in line with SLC4. The Authority has considered the proposal against the relevant objectives and wider statutory duties.

It is our view that introducing excess reactive power charges improves the cost reflectivity of CN's UoS charging methodology. Furthermore, it is our view that by excluding the proportion of the yardstick charges that are recovered via a kVA capacity charge the proposed reactive power charges now address our concerns with the original modification CN Mod002. The Authority has therefore decided not to veto this modification.

Please contact Mark Cox on 0207 901 7458 or Colette Schrier on 0207 901 7239 if you have any queries in relation to the issues raised in this letter.

Yours faithfully,



Martin Crouch
Director, Distribution

Signed on behalf of the Authority and authorised for that purpose by the Authority

Annex 1: Glossary of terms

DNO	Electricity Distribution Network Operator
kVA	Kilovolt Amperes
kVAR	Kilovolt Amperes Reactive
kVARh	Kilovolt Amperes Reactive hour
kWh	Kilo Watt hour
UoS	Use of System