

**DETERMINATION BY THE GAS AND ELECTRICITY MARKETS AUTHORITY OF A DISPUTE REFERRED TO IT UNDER SECTION 23 OF THE ELECTRICITY ACT 1989 CONCERNING THE CHARGES FOR AN ELECTRICITY CONNECTION TO THE PREMISES.**

**1 INTRODUCTION**

- 1.1 The Gas and Electricity Markets Authority (the "Authority") has been asked by the Customer's Agent acting on behalf of the Customer to determine a dispute between the Customer and the Company. The dispute concerns the proposed terms of a connection agreement to provide electricity to a new development area (the "Premises") within a business park (the "Locality").
- 1.2 The request for a formal determination was received by Ofgem on 22 November 2006. The Customer's Agent asked the Authority to determine the dispute under Section 23 of the Electricity Act 1989 (the "Act"). Ofgem is the office set up to assist the Authority to discharge its statutory responsibilities.

**2 BACKGROUND**

- 2.1 In July 2004, the Company issued a quotation in response to the Customer's application under Section 16 of the Electricity Act for 5.5 MVA of new capacity at the Premises.
- 2.2 The quotation referred to the charge being based on the "minimum cost scheme" for meeting the Customer's power requirements, with the Company reserving the right to use the Customer's contribution to help fund 'part of a large scale scheme for network improvement'. The Company's scheme involved 33kV and 11kV cabling to and from the existing primary substation (the "First Primary"). The Company however did not undertake the described scheme but carried out an alternative scheme in order to generate adequate spare capacity for the network, in anticipation of the development's load and other network demand growth. This alternative scheme includes a new 33kV/11kV primary substation (the "Second Primary") with two 33kV/11kV 12/18/24MVA transformers. This Second Primary is located some distance away from the First Primary mentioned in the quotation.

- 2.3 In October 2004, the Customer accepted the quotation on the alternative scheme on a without prejudice basis and informed the Company that the Customer's Agent would be acting on their behalf to review the basis of the connection charge. The Customer and the Customer's Agent suggested that the Company's basis for charging is inappropriate and considered the proposed charge to be excessive.
- 2.4 Following acceptance of the connection quote (on a without prejudice basis), the Customer's Agent and the Company have exchanged correspondence on the charges and details of the alternative scheme.
- 2.5 In July 2005, the Customer's Agent issued a complaint to energywatch, requesting assistance in obtaining more detailed information about the scheme from the Company.
- 2.6 In January 2006, the Customer's Agent requested energywatch to forward the dispute to Ofgem for formal determination having failed to obtain sufficient information from the Company to be satisfied that the connection charge was appropriate. This resulted in informal technical advice being sought from Ofgem and a further exchange of correspondence between the Company and energywatch.
- 2.7 In October 2006, having failed to obtain sufficient information from the Company, the Customer's Agent requested a formal determination of the dispute under Section 23 of the Act.

### **3 VIEWS OF THE CUSTOMER**

- 3.1 The Customer's Agent contends that under the Act it is not possible for the Company to recover costs related to a hypothetical scheme rather than to the connection works actually undertaken. The Customer's Agent refers to Section 19(1) of the Act, which allows for recovery of costs *"in respect of any expenses reasonably incurred in providing any electric line or electrical plant for the purpose of making the connection"* and maintains that assessing a connection charge on a totally different scheme of works which will not be carried out (i.e. a hypothetical scheme) does not fall within the scope of this definition.
- 3.2 The Customer's Agent requested details of the actual work and network connection arrangements at an early stage in the dispute in order to estimate the proportion of costs that they considered should properly be included within the assessment of the connection charge. The Customer's Agent then sought the assistance of energywatch in this respect but the Company again failed to provide this prompting the determination

request. The minimum cost scheme approach applied by the Company would only be valid if the proportion of actual costs were greater than those of the minimum scheme.

- 3.3 The Customer's Agent makes a reference to the principle that generally charges take into account system reinforcements up to one voltage level above the voltage of connection, as contained in Standard Condition 4B paragraph 5(c)(ii) of the Company's Electricity Distribution Licence (the "voltage rule"). The Customer's Agent claims that all supplies at the Premises will be connected at low voltage, so that only reinforcements at the 11kV level can be charged to the Customer, whilst any works to primary substations and to the 33kV network cannot be.
- 3.4 The Customer's Agent disagrees with the Company's assertion that the voltage rule should be interpreted differently by applying the voltage at the point of connection to the existing network so that 33kV works are included. The Company cites a decision made within a Structure of Charges Implementation Steering Group meeting held on 18 July 2006. However, that meeting post dates the quotation and should not create a precedent in this case. Moreover, it is the licensing arrangements under which the Company is obliged to operate that should determine the appropriate application rather than seeking to justify its charges based on what has come out of a subsequent steering group meeting.
- 3.5 The Company refers to a document entitled Basis and Methodology of Charges for Connection to the Electricity Distribution System to support the quoted charge. The Customer's Agent understands that the currency of this document could not pre-date 1 April 2005 and, since this post dates the quotation, is irrelevant. Rather, it is the Company's Statement of Basis of Charges for Connection to the Electricity Distribution System dated 1 December 2003 that was applicable at the time of the quotation. It is against this document that the connection charge should be assessed and not some later version.
- 3.6 The Company contends that different charging arrangements to the norm applied and that 'speculative' or 'infrastructure' considerations were applied to the charge. The Customer's Agent does not understand this since (a) the quotation only refers to providing 'the requested 5.5 MVA' and, (b) the Company's Statement of Basis of Charges for Connection to the Electricity Distribution System dated 1 December 2003 in force at the time the Company issued the quotation makes no reference to special arrangements or charges for 'speculative' or 'infrastructure' supplies.

- 3.7 Had the Customer been advised that the Company were treating the connection application as a 'speculative' or 'infrastructure only' request this will have led the Customer to consider using an independent distribution network operator ("IDNO") for the network within the development. This is because the Company state that the full cost of work is chargeable to a 'speculative' or 'infrastructure only' scheme but if an IDNO is involved the Company would install a meter (11kV) at the development site boundary and apportion its upstream costs by the ratio of the new load (5.5 MVA) to the newly provided network capacity (24 MVA). Since different charges would result, the Customer questions the validity of such an assertion in what appears to be a discriminatory approach in meeting the same load requirements.
- 3.8 The Customer's Agent refers to Standard Condition 4B paragraph 5(c)(i) of the Company's Electricity Distribution Licence, which states that *"no charge will normally be made for reinforcement of the existing distribution system if the new or increased load requirement does not exceed 25% of the existing effective capacity at the relevant points on the system."* (the "25 per cent rule"). The Customer's Agent contends that the new primary substation actually built to supply the site was established in 2005 and identified as a scheme in the Company's Long Term Development Statement in 2004 for the purposes of general network reinforcement in anticipation of increased demand by existing customers in the area, other new development at the Locality (unconnected with the Customer's project) and load at the redevelopment of a large airfield site nearby. The Customer's Agent argues that costs of the new Primary substation cannot be charged to the Customer, as the load requirement of 5.5MVA do not exceed 25 per cent of the substation's firm capacity of 24MVA.
- 3.9 The Customer's Agent disagrees with the Company's assertion that a 'hypothetical' scheme can be used to determine the effective capacity in a network since charges need to relate to actual connection or feeding arrangements. Additionally, the Company maintains that the Customer's application forms part of a larger project and that the load required by the development is much higher (at about 10 MVA). This is a false assertion, as it appears that the Company are attempting to bring in load from other unrelated developments as if these are the responsibility of the Customer.
- 3.10 The Customer makes a reference to Determination No. S23/R/157, which considered the issues related to the "voltage" and the "25 per cent" rules for charging reinforcements with reference to a similarly sized scheme.

- 3.11 In addition to meeting the load requirement of 5.5 MVA covered by the disputed quotation of £611,967.00, the Customer subsequently accepted a quotation from the Company and paid £31,891.32 for the installation of 11kV cabling (extensions from nearby existing 11kV cables) on the Premises. From this newly installed 11kV cable, it is expected that approximately six on-site 11kV/LV substations with associated LV mains and services will be required.
- 3.12 To date the Customer has accepted two further quotations from the Company (at £32,966.71 each) to provide in each case extensions from the 11kV cable (installed under the £31,891.32 quotation), provision of a new 11kV/LV substation and associated LV cabling. In addition, several on-site LV supply connections have now been installed into new premises from existing LV mains off the development site. The provision of these on-site supplies, in the Customer's view, reinforces the assertion that 33kV and primary substation costs should not be included in the disputed charge.

#### **4 VIEWS OF THE COMPANY**

- 4.1 It is the Company's view that the Customer has been provided with a quotation based on what was assessed to be the "minimum cost scheme" capable of meeting connection requirements: this consists of new 33kV cable between two existing substations and cross-jointing with existing cable, as well as new 11kV cable between one of these substations and the Premises.
- 4.2 However, the Company considered it contrary to its general duty to develop an efficient co-ordinated and economical system of electricity distribution (as contained in Section 9 of the Act) to carry out the "minimum cost scheme": it would have left little spare capacity available in an area where further load requirements were foreseen to be likely.
- 4.3 The company consequently decided that an alternative scheme had to be installed, which consists of a new 33kV/11kV primary substation on the existing substation site and two 33kV/11kV 12/18/24MVA transformers. It is acknowledged that the costs of the alternative scheme, net of any connection charges for the "minimum cost scheme", would be fully funded by the Company.
- 4.4 The Company argues that Section 19(1) of the Act allows for recovery of the costs in respect of the alternative scheme. Reference is made to Section 19 of the Act, which procures that "(...) the [Distributor] may require any expenses reasonably incurred in

*providing it to be defrayed by the persons requiring the [connection] to such extent as is reasonable in all the circumstances”.*

- 4.5 The Company claims that calculating the connection charge in respect of a scheme that is not actually installed is entirely consistent with the provisions of Section 19 of the Act, since it is merely a mechanism to determine the appropriate share of expenses to be recovered from the Customer for providing the necessary infrastructure. The Company also considers that provisions for charges based on an alternative scheme were included in the Statement of Basis of charges for Connection to the Electricity Distribution System in force at the time of the Customer’s application, as well as in the current version of the Basis and Methodology of Charges for Connection to the Electricity Distribution System document, as approved by Ofgem.
- 4.6 The Company objects to the views of the Customer’s Agent on the voltage rule for charging reinforcements, since it is considered that the “voltage of connection” referred to in the rule equates to the voltage at the point of connection to the existing network, rather than the voltage of supply at the premises. The Company states that agreement to such an interpretation has been reached within the Structure of Charges Implementation Steering Group, as documented in item 6 of the minutes of the 18 July 2006 meeting.
- 4.7 The Company also claims that the voltage rule is only relevant to the minimum scheme, so that the voltage of connection would be at 11kV and hence all 33kV reinforcement costs would be chargeable.
- 4.8 In addition, the Company also suggests that the voltage rule would not be applied since the Customer’s application is classed as both “speculative” and “infrastructure only”. In such cases the Company would charge reinforcement costs in full, as detailed in the Basis and Methodology of Charges for Connection to the Electricity Distribution System, as approved by Ofgem.
- 4.9 The Company also notes that for the “minimum cost scheme” only part of the works (i.e. the 33kV cables) would be considered as reinforcement, whilst in the case of the alternative scheme it is arguable if any of the work should be considered as such.
- 4.10 The Company rejects the argument made by the Customer’s Agent that the new 33/11kV facilities were established in 2005 and also rejects the argument that the 25 per cent rule exempts the Customer from contributing towards the costs of the new primary substation.

- 4.11 The Company considers that the new 33kV/11kV facilities received internal approval at a later time (April 2005), dependent on the partial funding received by the Customer on acceptance of the quotation and were only commissioned in December 2006. In this scenario, the company claims that the "existing effective capacity at the relevant points of the system" for the purposes of the application of the 25 per cent rule equals to the effective capacity of the existing 33/11kV primary substation, which at the time of application was constrained by upstream 33kV cables at 18MVA.
- 4.12 The Company refers to the Statement of Basis of Charges for Connection to the Electricity Distribution System in force at the time of the Customer's application, to claim that where an application forms part of a larger project, it is the aggregate capacity of that project that would be considered for the purposes of the 25 per cent rule. According to this, the estimated total capacity of the project, circa 10MVA, would make up 56 per cent of the 18MVA of existing effective capacity. The Company considers that even taking into account the Customer's requirements for 5.5MVA the 25 per cent rule would still be exceeded, since this amounts to 31 per cent of existing effective capacity.
- 4.13 In addition, the Company also holds that the 25 per cent rule would not be applied since the Customer's application is classed as both "speculative" and "infrastructure only". In such cases the Company would charge reinforcement costs in full, as detailed in the Basis and Methodology of Charges for Connection to the Electricity Distribution System, as approved by Ofgem.
- 4.14 The Company also notes that for the "minimum cost scheme" only part of the works (i.e. the 33kV cables) would be considered as reinforcement, whilst in the case of the alternative scheme it is arguable if any of the work should be considered as such.
- 4.15 The Company rejects the Customer Agent's argument that the Company's demand predictions for the relevant primary substation increase up to 26MVA in 2007/2008 (as included in the Company's Long Term Development Statement issued in 2003) took into account load growth from other sources that would have triggered the reinforcement in any case. The Company considers that the mentioned estimates for the relevant substation included the demand expectations at the Premises, which have been known to the Company since 2001 due to enquiry by the previous applicant (i.e. the agent of the original landowner by whom the Customer purchased the Premises in 2004). The Company clarifies that all other new connections in the area were made without any

need for works on the 33kV network and that it was the Customer's application that prompted the reinforcement.

- 4.16 Finally, the Company also dismisses the argument that connection charges levied with respect to assets included in the Long Term Development Statement would amount to double counting. The Company argues that any additions to the Regulatory Asset Base resulting from capital expenditures, as part of periodic price control reviews, would net off any income derived from connection charges.

## **5 STATUTORY OBLIGATIONS**

- 5.1 Under Section 19(1) of the Act, an electricity distributor may require any expenses reasonably incurred in providing any electric line or electric plant to be defrayed by the person requiring the connection to such an extent as is reasonable in all the circumstances. Under Section 19(4) of the Act, such expenses included in the recovery of the capitalised value of any expenses likely to be incurred in continuing to provide the electric line or electric plant.
- 5.2 Any dispute arising under Sections 16 to 21 of the Act, between an electricity distributor and a person requiring a supply of electricity may be referred to the Authority under Section 23 of the Act for determination.
- 5.3 The works undertaken is a connection that falls within the statutory obligations set out above.

## **6 DISCUSSION/CONCLUSIONS**

- 6.1 Both parties have agreed in writing that their arguments are reasonably reflected in Sections 3 and 4 of this document. An oral hearing took place on 19 April 2007 and both parties presented their views to the Decision Maker. Both parties have agreed in writing that their arguments are reflected in the minutes of the oral hearing.
- 6.2 Having carefully considered the arguments reflected in Sections 3 and 4, taken into consideration the oral hearing discussion and written correspondence provided by both parties, the Authority considers the following issues pertinent to this determination. These are set out below, followed by the Authority's assessment and conclusions.
- Costs of actual scheme vs minimum cost scheme
  - 25 per cent rule

- Voltage rule
- Assessment of costs for minimum cost scheme

### **Costs of actual vs minimum cost scheme**

- 6.3 The Authority notes the view of the Customer's Agent (paragraph 3.1 above) that assessing a connection charge for a totally different scheme of works which will not be carried out (i.e. a hypothetical scheme) does not fall within the scope of Section 19(1) of the Act.
- 6.4 In the oral hearing the Customer's Agent expanded on this point and also referred to the inapplicability of the Electricity (Connection Charges) Regulations 2002 SI/93 (the "Regulations") where a customer is charged for the minimum cost scheme but the distributor carries out an alternative scheme of greater size and capacity. In particular, it is the Customer's Agent view that it would not be possible to calculate the rebate to be granted to the initial contributor, as prescribed by the Regulations in the event of a 'second comer' connecting.
- 6.5 A scheme proposed by a distributor which has a greater capacity than requested by the customer still falls within the scope of applicability of the Regulations. The Authority considers that distributors are under a legal requirement to be compliant with relevant legislation and should take the necessary steps to apply the Regulations.
- 6.6 The Customer's Agent considers that the customer should only bear the share of costs for the "as built" scheme determined in accordance with the Company's Statement of Basis of Charges for Connection to the Electricity Distribution System statement in force at the time of the application if lower than the minimum cost scheme.
- 6.7 The Authority is of the view that distributors are obliged by Section 9 of the Act to consider the most economic and efficient development of their network when considering connection applications. The connection proposed may be the minimum cost scheme or where appropriate a scheme that has greater capacity than a customer's request. Section 19 of the Act allows distributors to calculate and defray connection charges from customers for the minimum cost scheme. If a distributor provides a scheme that has greater capacity than a customer's request, the distributor should bear the costs net of the minimum cost scheme.

6.8 In any event, the Authority considers that the correct application of charging principles included in Licence Condition 4B about the apportionment of system reinforcements within the “as built” scheme (as reflected in the Statement of Basis of Charges, schedule 1, paragraph 2.1), i.e. the 25 per cent rule and the voltage rule, would have resulted in a connection charge higher than the one quoted to the Customer on the basis of the minimum cost scheme.

#### **The application of the 25 per cent rule**

6.9 The Authority notes the discussion on the application of the 25 per cent rule. According to this rule, a customer requesting the connection would be liable for the full cost of system reinforcements where their demand is higher than the 25% of the resulting effective capacity of the network. The Authority considers that it is not intended that the connection charging arrangements should allow for connection applications to be artificially segregated in order to take advantage of the 25 per cent rule. From the information presented about the Locality project and the Customer’s application, the Authority considers that the Customer’s site is genuinely separate from the larger development project with 10MVA aggregate capacity.

6.10 The Authority notes that the capacity at the First Primary substation was constrained by the upstream 33kV cables which have ratings of 18MVA (paragraph 4.11 above). The Authority has no evidence to suggest that the Company was planning to replace the 33kV cables constraining the capacity of the First Primary substation.

6.11 The Authority notes a discrepancy between the transformer capacity of 18MVA in the Company’s submission of facts and the figure of 23MVA in the November 2003 Long Term Development Statement (LTDS, page 334) and acknowledges the Company’s explanation, as detailed in the oral hearing minutes, that the LTDS was in error since it did not take into account constraints due to cable size. The Authority notes the importance of accurate LTDS information to users of the distribution system and regards this to be reflected in the relevant distribution licence obligation. The Authority considers that the Company should put in place all necessary measures to ensure that accurate information is made available in the public domain.

6.12 The Authority considers that it is reasonable to assess the 5.5MVA capacity requested by the Customer against the existing effective capacity (18MVA) of the First Primary substation. In taking this view, the Authority agrees with the Company’s assessment of

capacity of the existing system. The Authority therefore considers that it is reasonable for the Company to charge the cost of reinforcement to the Customer.

### **The application of the voltage rule**

6.13 The Authority notes the customer's views (paragraph 3.12) about the application of the voltage rule and this issue was discussed further in the oral hearing. Paragraphs 4.6 to 4.8 set out the company's views in this respect. The Authority notes that, at the time of connection, the distribution licence and the Company's charging statement were unclear and referred to "voltage of connection" which could be interpreted as being the Point of Connection (POC) or end user connection. The Authority notes the Company's view that agreement on this matter was reached in the 18 July 2006 Charges Implementation Steering Group (ISG). However, the Authority does not consider the decision reached in the ISG relevant to this determination as this meeting post dates the quotation. However, the Authority considers that it was reasonable for the Company to apply the voltage rule at the POC to the existing system as the customer's connection request was for 5.5 MVA of capacity to various sites within the development and no specific end users were identified at the time. Therefore, the Authority is of the view that the relevant voltage level for the Customer's application is 11kV.

### **Speculative and infrastructure only application**

6.14 In paragraphs 3.6 and 3.7 above, the Customer challenged the Company's assertion that the disputed application is speculative or infrastructure only (paragraphs 4.8 and 4.13). The Authority considers that this argument has no impact on the Authority's final decision.

### **The minimum cost scheme**

6.15 The Authority considers that the concept of "minimum cost scheme" has been construed by industry parties in order to reflect the Act provision (Section 19(1)) for a test of reasonableness to the expenses to be defrayed from the connecting party. In this sense, the Authority believes that the Company has, in principle, correctly identified the appropriate basis of the connection charge.

6.16 The Authority investigated a further connection option involving a 6.6kV supply from the Second Primary. Based on information provided by the Company, the Authority concluded that additional switchgear could not be installed at the Second Primary 6.6kV

substation without civil works to extend the substation. Furthermore, there has been a general industry trend towards replacement of 6.6kV networks with 11kV networks: in this sense, an offer for new connection at 6.6kV would be expected only if there was adequate secure spare capacity on the 6.6kV network. The Authority has reviewed the information provided by the Company and considers that an option of connecting the Premises at 6.6kV to the Second Primary substation would not have constituted an efficient and economic development of the network. In respect of the connection for the Premises, the Authority considers that the Company has correctly identified the minimum cost scheme.

- 6.17 In the Authority's assessment, the design of the 'as-built' and minimum cost schemes have been properly considered by the Company and are consistent with the Company's appropriate obligations and standards. Using engineering judgements and cost information from distribution companies and other relevant information sources, the Authority considers that the associated cost quoted by the Company for implementing the scheme proposed is reasonable.

## **7 DETERMINATION**

- 7.1 In the light of the information and evidence submitted by the parties and on the basis of the representations to the oral hearing, the Authority has formed the view that the Company was compliant with its requirements under Section 19(1) of the Act in basing the connection charge on the minimum cost scheme. The Authority also concludes that the Company correctly identified the minimum cost scheme and that the offer to the Customer represents a reasonable quotation of the costs involved.
- 7.2 Having regard to the points outlined above, the Authority determines that the expenses for providing the connection to the Premises, which are reasonable in all the circumstances for the Company to require the Customer to defray, are £611,967.00 plus VAT.
- 7.3 This document constitutes a notice stating the reasons for the Authority's decision for the purpose of Section 49A of the Act.

**Martin Crouch (6 July 2007)**

A handwritten signature in black ink, appearing to read 'M. Crouch', with a long horizontal flourish extending to the right.

**Director Electricity Distribution**

**Duly authorized on behalf of the Gas and Electricity Markets Authority**