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*Promoting choice and value for  
all gas and electricity customers*

Our Ref RBA/TR/A/DET/160  
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Date 01 December 2011

Dear Colleagues

**Erratum letter for Ofgem's determination RBA/TR/A/DET/160**

This letter applies to our Determination dated 7<sup>th</sup> July 2011 on a dispute brought to us in accordance with section 23 of the Electricity Act 1989. This dispute relates to the provision of an electricity connection to the Customer's generation plant by the DNO, specifically the reinforcement and undergrounding of the 33kV distribution system to make the connection and the potential costs for work on the transmission system.

The Determination contains a typographical error at paragraph 5.41 which we are correcting by issuing this erratum letter and which will be published alongside the Determination on the Electronic Public Register. The correction does not affect the final decision and is set out in the appendix to this letter. The original determination referred to "secure capacity" which is a mistake when read in context of the issues in dispute between the parties and the amendment amounts to a strikethrough over the word "secure".

The Determination should be read in conjunction with this letter.

Yours faithfully

A handwritten signature in black ink, appearing to read "Rachel Fletcher".

Rachel Fletcher  
Acting Senior Partner  
Smarter Grids & Governance  
Distribution



## **Appendix**

5.41 Third, the Authority considers that it is accepted across industry that connection related reinforcement is normally<sup>1</sup> work to increase the capacity of a section of network in order to accommodate a connection and that it is the intention of the apportionment rules to apportion costs based on the capacity of that section of network after reinforcement. Based on this view, the Authority considers that it is appropriate to consider the section of network that did not have enough ~~secure~~ capacity to accommodate the Customer's Required Capacity without additional work and the additional work carried out to provide additional capacity. In this case, the Existing Feeder was the section of network that had insufficient capacity to accommodate the Customer's connection and the New Feeder was added to increase the capacity of that section of network. Therefore, the Authority considers that costs should be apportioned based on the non-secure capacity of the section of network comprising both feeders.

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<sup>1</sup> The Authority notes that in certain circumstances connection work may be used to reinforce the network elsewhere, either to accommodate additional future connections or general load growth.



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

**1 INTRODUCTION**

- 1 1 [REDACTED] has referred a dispute between [REDACTED]  
(the Customer ) and [REDACTED] (the  
Company ) to the Gas and Electricity Markets Authority (the Authority ) for  
determination. The dispute is in relation to the provision of an electricity  
connection to the Customer's generation plant at [REDACTED]  
[REDACTED] (the Premises'). It concerns the charge for reinforcement and  
undergrounding of the 33kV distribution system between [REDACTED]  
and [REDACTED], and a potential charge for work on the transmission system.
- 1 2 The dispute was referred to the Authority for determination under Section 23 of the  
Electricity Act 1989 (the Act") on 8 July 2010. Under section 23 the Authority is  
required to determine such disputes once a Customer has requested that it do so.
- 1 3 Appendices 1 and 2 of this determination have copies of the Customer Statement  
of Facts and the Company Statement of Facts in relation to this dispute, as well as  
any email correspondence.

**2 STATUTORY OBLIGATIONS**

- 2 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.
- 2 2 Any dispute arising under section 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.



### **3 LICENCE OBLIGATIONS**

- 3 1 Under Standard Licence Condition ("SLC") 13 1 of its Electricity Distribution Licence ( the Licence ) the Company is required to have in force at all times a Connection Charging Methodology ( the CCM ) that has been approved by the Authority on the basis that it achieves the Relevant Objectives<sup>1</sup>
- 3 2 Under SLC 13 3(b) compliance with the CCM should facilitate the discharge by the Company of the obligations imposed on it under the Act and the Licence
- 3 3 SLC 1 clarifies that a CCM is a complete and documented explanation presented in a coherent and consistent manner of the methods principles and assumptions that apply in relation to connections for determining the Company's Connection Charges
- 3 4 Under SLC 14 1 the Company must prepare and make available a Connection Charging Statement ("the CCS") that separately sets out the basis on which charges for connection will be made in a form that is approved by the Authority
- 3 5 Under SLC 14 2 the CCS must be prepared in accordance with the relevant CCM and presented in such form and with such detail as would enable any person to make a reasonable estimate of the charges for which they would become liable in respect of the provision of connections
- 3 6 Under SLC 14 15 charges for the provision of a connection must except with the Authority's consent comply with the CCS in the form in which it is in force at the time at which the licensee offers to enter into the arrangement
- 3 7 Under SLC 14 13 and SLC 14 Appendix 1 A 2 the CCS must contain amongst other things a statement of the principles on which and the methods by which any charges will be made in respect of any extension or reinforcement of the

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The relevant objectives for the connection charging methodology as contained in paragraph 3 of Standard Licence Condition 13 of the licence are

- (a) that compliance with the methodology facilitates the discharge by the licensee of the obligations imposed on it under the Electricity Act 1989 and by its licence
- (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
- (c) that compliance with the 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 methodology as far as is reasonably practicable properly takes account of developments in the licensee's Distribution Business



Company's Distribution System that is made necessary or appropriate (at the Company's discretion) by virtue of providing connection to that system

3.8 Under SLC 14.20 the Company must have regard for the principles that

(a) will not generally take into account Distribution System reinforcement carried out at more than one voltage level above the voltage of the connection

(b) will not generally take into account the costs (including any capitalised charge relating to them) for any maintenance, repair and replacement required of any electric lines or electrical plant provided and installed for making a connection

(c) may include an amount for reinforcement of the licensee's Distribution System that is based on a proportionate share of the costs of such reinforcement and is charged at the time of connection, and

(d) will not cover any costs that are covered by Use of System Charges

#### **4. FACTS OF THE CASE**

4.1 Below is a summary of what the Authority considers are the main facts of the case. Both parties' full submissions are in attachments 1 and 2 to this Determination.

4.2 The Customer is an electricity generator wishing to connect to the distribution network operated by the Company.

4.3 The Customer requested a non-secure<sup>2</sup> connection to the Company's 33 kV network downstream of the 132/33 kV substation at [REDACTED] (the Substation) for an electricity generator. It is the Customer's intention to export electricity via the Substation. The Customer's requested maximum export capacity (Required Capacity) is 3.75 MVA.

4.4 [REDACTED] other generators have requested connections to the Company's 33kV distribution system downstream of the Substation. These generators also intend to export electricity via the Substation. The total required export capacity of all [REDACTED] generators, including the Customer, is 14.85 MVA. This capacity is required on a non-secure basis.

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<sup>2</sup> A connection is secure if there is a back-up supply that can be used if there is a fault in the normal supply while the fault is being fixed.



- 4 5 Currently the section of network that will connect the generators with the Substation comprises a single 33 kV feeder (the Existing Feeder') running from [REDACTED] to the Substation. This feeder has a capacity of 5.5 MVA and therefore cannot provide the generators combined capacity requirements.
- 4 6 To connect the Customer the Company will have to carry out works to connect the Premise to the 33 kV network (the Extension) and works to increase the capacity of the existing 33 kV network in order to provide sufficient capacity for all [REDACTED] generators (the Reinforcement). The total charge for the Customer's connection is £2,141,732.
- 4 7 The Extension comprises constructing a 33 kV overhead line and all associated work, excavating and laying an 11kV underground cable, establishing communications links and the design and specification of all of the distribution connection works. The total charge for these works is £727,982. These works are not in dispute.
- 4 8 The Reinforcement comprises an additional 33 kV feeder (the New Feeder') between [REDACTED] and the Substation and a new 33 kV switchboard at the Substation. The total cost of the Reinforcement to be split by all [REDACTED] generators is £5.7m. The costs of the Reinforcement have been apportioned between the Customer and the other generators resulting in a charge to the Customer of £1,413,750.
- 4 9 The capacity of the new feeder will be 14.7 MVA and the total non-secure export capacity of the 33 kV network after Reinforcement will be 20.2 MVA, equal to the combined capacity of the new Feeder and the Existing Feeder. The Company will recover 100% of the costs of the Reinforcement from the [REDACTED] generators on a pro-rata basis in relation to each generator's Required Capacity.
- 4 10 The Company calculated the Customer's charge in respect of the Reinforcement as follows:
- a High Cost Element: the Company has charged reinforcement costs over £200/kWh in full to the generators on a pro-rata basis whereby each generator pays in proportion to its Required Capacity. This results in a total high cost element of £2.63 million of which £664,000 is charged to the Customer.



- b Remaining Costs the Company has also apportioned the remaining costs (£2.97 million) on a pro rata basis where by each generator pays in proportion to its Required Capacity. This results in a charge of £750,000 for the Customer.

4.11 However, the Company has explained that normally it would derive each generator's charge in respect of the Remaining Costs by multiplying them by a Cost Apportionment Factor (CAF) equal to that Customer's Required Capacity divided by the secure capacity of the network after reinforcement (the New Network Capacity) which the Company considers is 14.7 MVA.

4.12 In this case, because the generators' connections are non-secure, their total Required Capacity (14.85 MVA) is greater than the Company's calculation of the New Network Capacity. Therefore, apportioning costs based on the secure capacity of the network would result in an over-recovery of the costs incurred in providing the Reinforcement.

4.13 To avoid over-recovering, the Company has split the remaining costs between the [REDACTED] generators on a pro rata basis in the same way as the high cost element of the Reinforcement.

4.14 The Customer has been provided with three connection quotes to date: the first on [REDACTED], the second [REDACTED] and the final one on [REDACTED]. The Customer signed the amendment of the contract for this quotation, however, did not sign the actual contract.

4.15 The Company informed the Customer in their letter dated [REDACTED], that it may also charge for increased transmission costs resulting from the addition of the new line to its distribution network. The Company has since clarified that it does not charge small generators in respect of transmission cost.

## **5 DISCUSSIONS AND CONCLUSIONS**

- 5.1 The Authority considers that it has been asked to determine on:
- the costs for the Reinforcement
  - the apportionment of the costs of the Reinforcement
  - the potential transmission charge



- 5 2 This determination is in respect of the latest connection offer that the Customer received on [REDACTED]

### **The costs of the Reinforcement**

- 5 3 The quotation received by the Customer highlighted that the Company was planning to underground the new 33kv line that was being installed as part of reinforcement work. The Customer disputed that this line should be undergrounded as the decision to underground was not discussed with any of the applicants.
- 5 4 Since the Customer disputed whether the line should be undergrounded, the Company was asked to provide an explanation for their decision to underground, i.e. why the Company considered undergrounding to be the minimum scheme<sup>3</sup>. As the connection offer had not been formally accepted, the Company has not applied for planning permission. Therefore, the Company had no formal documents from planning authorities to show that it would be required to underground the relevant portion of the line.
- 5 5 The Company explained that the area is at the gateway to the [REDACTED] that is in the vicinity and is a popular tourist destination and that they therefore believed that planning permission for an overhead line would not be granted. The Company also noted that the existing overhead line had to be placed further up the hill than was initially intended in order to not detract from the view.
- 5 6 In support of its position, the Company submitted to the Authority an email from their local wayleaves officer who drew on previous experience of constructing an overhead line in that area. The wayleaves officer considered that adding another overhead line would create a tunneling effect which would diminish the view and that the most practical solution would be to underground.
- 5 7 As mentioned above, the Company does not yet have formal planning permission for the line and therefore they have no firm instruction that the line must be underground. They have informed the Authority that planning permission will be applied for once the Customer has accepted the connection offer. The Company has assured the Authority that if they do gain planning permission for an overhead

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<sup>3</sup> The minimum scheme is the scheme with the lowest capital cost for the Customer's required capacity (as determined by the Company). The Company is bound to provide the minimum scheme by their charging methodology.



line they will refund the Customer the money apportioned to the undergrounding in their quotation

- 5 8 In accordance with SLC 13 1 the Company is required to comply with its charging methodology at all times and as such should be providing the minimum scheme for all connection offers. The Authority considers that the minimum scheme is the lowest cost scheme for which planning permission can be obtained. However the Authority also notes that there may be costs associated with delays and extra design work caused by failed planning applications and it would therefore not be sensible for the Company to apply for planning permission in cases where there is a negligible chance of obtaining it.
- 5 9 Given that depending on the outcome of the planning process the undergrounding of the line may transpire to be more than the minimum scheme the Authority does not consider that it is reasonable in all the circumstances as required by section 19(1) EA 1989 for the Company to charge the Customer for undergrounding of the line without first consulting with the Customer regarding possible alternative options. As a result the Authority considers that in these circumstances the reasonable course for the Company to take is to discuss with the Customer the chances of gaining planning permission for an overhead line and the implications in terms of cost and time delays of a failed application for such a line. If the Customer then wishes the Company to apply for planning permission for an overhead line the Company should do so.
- 5 10 In the case that a failed planning application is made for an overhead line the Authority considers that it would be reasonable in all the circumstances for the Company to seek to recover any additional costs associated with the application from the Customer as part of the connection charge. The Authority considers that such costs would be properly recoverable under section 19 EA 1989.
- 5 11 In the case that planning permission for an overhead line is granted any costs associated with the design of the undergrounded line that have been incurred to date should be borne by the Company.
- 5 12 For the avoidance of doubt the Authority considers that section 19 EA 1989 requires the Company's final connection charge to the Customer to reflect the expenses reasonably incurred in making the connection. These expenses and the appropriate connection charge will differ depending on whether the line is underground or overhead.



### **The apportionment of the costs of the Reinforcement**

- 5 13 In light of the above the Authority considers that the total cost of the Reinforcement will depend upon the outcome of discussions with the Customer and any planning permission application in respect of overhead lines. The Customer has disputed that it should be charged in respect of the costs of the Reinforcement. This section discusses whether the Customer should be charged in respect of these costs and if so what portion of the costs it is reasonable in all the circumstances for this Customer to bear.
- 5 14 The Customer's view is that the costs associated with reinforcement should be borne in full by the Company. The Customer makes two arguments in support of this position.
- 5 15 First the Customer argues that because the Reinforcement is upstream of the point of connection to the existing network the Company will recover these costs via use of system ( UoS ) charges and by levying a connection charge. In respect of these costs the Company will effectively recover its costs twice.
- 5 16 Second the Customer considers that charging up front for the Reinforcement of the existing network rather than recovering costs over time via UoS charges imposes prohibitively high costs on small generators such as its self.
- 5 17 The Company considers that the total cost of the Reinforcement is £5.6 million and 100% of the costs of the Reinforcement should be apportioned between the generators on a pro rata basis according to the Required Capacity of each generator resulting in the Customer being charged £1.42 million in respect of the Reinforcement<sup>4</sup>.
- 5 18 The Company argues that apportioning costs in this manner meets its obligation to charge in line with the Methodology and its obligation to not recover more than the costs it incurs in providing a connection.
- 5 19 The Company also considers that if the costs of the Reinforcement were to be apportioned based on the non secure (rather than the secure) capacity of the network after reinforcement only the New Feeder should be considered. They argue that this approach is in line with the Common Methodology. The Common Methodology states that only the sections of the network which may be used to

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<sup>4</sup> The Company's calculations are explained in paragraph 4.10 above.



supply the Customer in normal and abnormal operating arrangements should be considered and the Company considers that the existing feeder will not be able to supply the Customer in any operating arrangements

- 5 20 The Authority has considered whether any charge should be made in respect of the Reinforcement and in finding that it should what the Customers charge should be in respect of the High Cost Element and the Remaining Costs

***Should the Customer be charged in respect of the Reinforcement?***

- 5 21 It is the Authority's view that the Methodology is clear that connecting customers may be charged in respect of works carried out to reinforce the existing network where the following two conditions apply

the reinforcement is required to connect the Customer and

those works are not more than one voltage level above the voltage at which the Customer connects to the Company's existing distribution system

- 5 22 The Authority considers that in this case it is clear that the Reinforcement is required to provide the Customer's connection and the Customer will connect to the existing network at the same voltage level as the reinforcement 33 kV Therefore the Authority considers that the Company has charged the Customer in line with its Methodology

- 5 23 The Authority sees no reason why the Methodology so far as it provides for the Company to levy a charge in respect of the Reinforcement should not be applied in this case Therefore the Authority considers that it is appropriate for the Company to charge the Customer in respect of the Reinforcement

- 5 24 The Authority notes the Customer's view that the Company will recover the costs of the Reinforcement via use of system ('UoS') charges and therefore the costs should not be included in the connection charge The Authority considers the current regulatory arrangements are clear that a proportion of reinforcement costs up to one voltage level above the voltage at the point of connection to the existing network will be recovered from the connecting customer Only the remaining costs will be recovered via UoS charges For clarity the Customer will not be charged again in respect of the assets it has funded up front via the connection charge and these costs will not enter the Company's regulatory asset value



5 25 The Authority also notes the Customer's view that charging for network reinforcement upfront prohibits small generators from connecting to the network. All electricity distribution network operators ( DNOs ) in Great Britain operate a shallowish connection charging boundary for all connecting Customers. Under this connection charging boundary, the cost of connection related reinforcement up to one voltage level above the voltage of connection is split between those recovered via connection charges and those recovered via UoS charges.

5 26 The Authority considers that this boundary strikes the appropriate balance between providing a locational cost signal to connecting Customers and protecting Customers from excessive up front charges associated with deeper connection charges. I.e. where all connection related reinforcement costs are recovered via connection charges. The Authority sees no reason why the connection boundary should not apply in this case.

5 27 However, whilst the Authority considers that the Methodology is correct in providing for the Company to make a charge in respect of the Reinforcement, it does not agree that the specific charge that is derived by applying the Methodology is appropriate in this case, as discussed below.

#### ***How should the costs of the Reinforcement be apportioned?***

The high cost element

5 28 The Authority notes that under the Methodology, costs related to network reinforcement provided in order to connect a generator to the Company's distribution system of over £200 per kVA should be charged in full to the Customer. The Authority also notes that the Methodology is silent in respect of how, where reinforcement is provided to accommodate more than one generation connection, the High Cost Element should be split between those generators.

5 29 It is the Authority's view that, by calculating the high cost element of the charge based on the cumulative Required Capacities of all ■■■, the Company has applied the Methodology correctly. The Authority also considers that apportioning the total on a pro rata basis according to each generator's Required Capacity is an equitable and transparent method of apportioning the total High Cost element of the Reinforcement costs between the generators. Therefore, the Authority considers that in the case that planning permission for an overhead line is not granted, the High Cost Element of the Customer's connection charge should be £664,000. If planning permission for an overhead line is granted, then the same method of determining the high cost element of the Customer's connection charge should be



applied to the costs associated with providing the reinforcement via an overhead line

#### The Remaining Costs

5 30 The Authority considers that by providing for Companies to recover the reasonable costs incurred in providing a connection Section 19 of the Act includes an obligation not to recover more than the costs actually incurred in providing a connection In situations where network reinforcement is provided to accommodate a non secure connection (or connections) with a Required Capacity greater than the secure capacity of the network after reinforcement applying the Methodology as it stands will result in an over recovery of costs

5 31 Therefore the Authority considers that so far as it relates to the apportionment of the costs of reinforcing the network to accommodate non secure connections the Methodology is in error and that reinforcement costs in respect of non secure connections should be apportioned based on the non secure capacity of the network after reinforcement

5 32 The Authority is of the view that the non secure capacity of the network after reinforcement is equal to the combined capacities of the Existing Feeder (5.5 MVA) and the New Feeder (14.7 MVA) and should not be based solely on the new feeder's capacity This results in a total non secure capacity 20.2 MVA and a charge of either £551,000 in respect of the costs of the Remaining Costs of the Reinforcement (ie  $3.75^5/20.2 \times 2.97^6 = 0.55$ ) or in the case that the cost of the Reinforcement is less than or equal to £2.97 million and there is no high cost element the cost of the Reinforcement multiplied by  $3.75/20.2$  as discussed further below

In coming to this view the Authority has considered the intentions of the apportionment rules and arguments put forward by the Company in support of its position

#### *The Intention of the Apportionment Rules*

5 33 The Authority considers that it is likely that the apportionment rules were drafted with a view to apportioning the costs of reinforcement provided to accommodate secure connections In support of this view the Authority notes that

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The Customer's Required Capacity

<sup>6</sup> £2.97 million being the remaining cost of reinforcement stated by the Company see paragraph 4.11(b) above



DNOs are normally obliged by Engineering Regulations P2/6 to provide Customers (or groups of Customers) of a certain size with secure connections and that reinforcement tends to be carried out to accommodate larger connections. So normally connection related Reinforcement will be carried out to provide secure capacity.

In the Authority's view the apportionment rules are in error when applied to reinforcement provided to accommodate non secure connections. The Authority considers that it is unlikely that the apportionment rules were drafted with the intention of over recovering costs where non secure connections are provided.

5.34 In situations where reinforcement is provided to accommodate secure connections if the apportionment rules are applied based on the secure capacity of the network the Customer will pay in proportion to the available network capacity that it uses. Consider for example a scenario in which the secure capacity of the network after reinforcement is 20 MVA and the Customer requires a secure connection with a capacity of 10 MVA. The Customer uses half of the available capacity and by applying the apportionment rules in their current form will pay half the cost of the Reinforcement.

5.35 In order to achieve a similar result in a situation where the Customer's connection is non secure it makes sense to calculate the cost apportionment factor (CAF) based on the non secure capacity of the network. This can be seen by considering the following example.

If the section of network described above (secure capacity 20 MVA) has a non secure capacity of 40 MVA and the connecting Customer requires his 10 MVA connection on a non secure basis the Customer will use 25% of the available capacity. Applying the apportionment rules based on the secure capacity of the network will result in a charge of 50% whereas applying the apportionment rules based on the non secure capacity will result in a charge of 25%.

5.36 Based on the above discussion the Authority considers that it is appropriate to apportion the costs in this case based on the non secure capacity of the network after reinforcement.

5.37 The Authority notes that the Company has argued that if the costs of the Reinforcement are to be apportioned based on the non secure capacity of the 33 kV network only the capacity of the new feeder should be considered. The Company considers that the existing feeder should not be taken into account when



calculating the New Network Capacity because it will not be used by the Customer to export electricity. The Company has cited the Common Methodology in support of this argument, which states that the new Network Capacity should be based on the capacity of the relevant section of network and defines the Relevant Section of the Network (RSN) as the section of network that may be used to supply the Customer in normal and abnormal operating conditions.

5.38 The Authority wishes to make a number of points in relation to this argument.

5.39 First, the connection charge levied in respect of this work should be based on the Methodology in place at the time that the Company offered to enter into an agreement to connect the Customer. The Common Methodology came into force on 1 October 2010, after the last offer to connect the Customer was made on [REDACTED]. Therefore, the Common Methodology has no bearing on this determination.

5.40 Second, the Authority has highlighted issues with the definition of RSN set out in the Common Methodology and has asked the DNOs to address this issue.

5.41 Third, the Authority considers that it is accepted across industry that connection-related reinforcement is normally<sup>7</sup> work to increase the capacity of a section of network in order to accommodate a connection and that it is the intention of the apportionment rules to apportion costs based on the capacity of that section of network after reinforcement. Based on this view, the Authority considers that it is appropriate to consider the section of network that did not have enough secure capacity to accommodate the Customer's Required Capacity without additional work and the additional work carried out to provide additional capacity. In this case, the Existing Feeder was the section of network that had insufficient capacity to accommodate the Customer's connection and the New Feeder was added to increase the capacity of that section of network. Therefore, the Authority considers that costs should be apportioned based on the non-secure capacity of the section of network comprising both feeders.

5.42 The Authority also notes that the Company's view that the Reinforcement is designed to fit the capacity requirements of the [REDACTED] generators. The Authority understands that the Company intends to imply that the Reinforcement will not provide any benefit to other network users by creating spare capacity or replacing

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<sup>7</sup> The Authority notes that in certain circumstances connection work may be used to reinforce the network elsewhere, either to accommodate additional future connections or general load growth.



existing assets and therefore it may be considered appropriate that all the costs of the Reinforcement are recovered from the generators

5 43 The Authority considers that it is not possible to accurately judge the benefit gained by a connecting Customer and existing and future Customers as a result of network reinforcement on a case by case basis and that the apportionment rules are designed to provide a consistent approach to be applied in all circumstances. Therefore the Authority considers that while the apportionment rules may in certain circumstances result in the Company bearing part of the costs of the Reinforcement where no benefit for other Customers is created it considers that those rules should be applied consistently and not adjusted on a case by case basis. Therefore it does not consider this is an issue in this determination and has no view on whether the Reinforcement will provide a benefit to other Customers.

5 44 In summary the Authority considers that the Customer should be charged in respect of the reinforcement. The Authority cannot determine the exact costs of the reinforcement work due to uncertainty over planning permission. The methodology used to determine the Customer's charge in respect of the reinforcement work should be the following:

The total High Cost Element to be spread across all the connecting customers on a pro rata basis should be equal to cost of the reinforcement less £2.97 million (ie the total capacity of the all connecting customers in kVA (14850) multiplied by £200).

The Customer's charge in respect of the High Cost element should then be equal to the total High Cost element multiplied by  $3.75/14.85$  (ie the Customer's Required Capacity divided by the sum of all connecting customer's Required Capacities).

The Customer's charge in respect of the remaining cost should be the lower of £551,000 or the cost of the reinforcement multiplied by  $3.75/20.2$  (ie the Customer's Required Capacity divided by the total non secure capacity including the existing feeder).

### **Transmissions Costs**

5 45 In terms of the Customer having to pay for transmission works that may be needed to accommodate the generator the Authority notes that the Company confirmed that it is not their policy to charge small generators for transmission



work costs therefore excluding the Customer from paying any costs towards transmission works

5 46 However it appears that this fact has not been made clear to the Customer The quotes that the Customer received all state that the Company can recover charges from the Customer including costs in respect of transmission connection works The quotes also include the transmission work within the breakdowns but have no prices attached to them

5 47 This then makes it clear why the Customer was under the impression that they were responsible for paying for some of the transmission work that may have to take place This would have also made it difficult for them when considering the quote as they did not know the exact cost of the connection or how much it could increase by in the future which could have had implications on the viability of the project

5 48 Lessons learnt in this case would be the need for the Company to communicate more effectively with the Customer The Company's position on transmission costs could have been clarified before escalated this far More quote specific clauses instead of general ones when presenting a quote to the Customer would also have created clarity for the Customer

## **6 DETERMINATION**

6 1 The Authority has determined on the reasonableness of the apportionment used for reinforcement costs the reasonableness of the Company's decision to underground part of the new line and the reasonableness of transmission costs quoted as part of the scheme

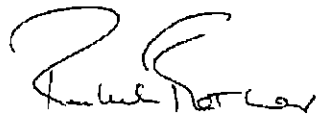
6 2 In reference to the apportionment of reinforcement costs the Authority considers that the Company was acting in line with their charging methodology when apportioning the high cost element of the costs However when apportioning the remaining costs the Company did not include both the existing feeder and the new feeder when calculating the charge and that so far as it relates to the apportionment of the costs of Reinforcement provided to connect non secure connections the methodology is in error Therefore the Authority considers that the quote should be revised to reflect a New Network Capacity based on the non secure capacity of both feeders Apportionment along these lines would be in the Authority's view reasonable in all the circumstances for the purposes of section



19(1) EA 1989 As the Company does not yet have planning permission the exact cost of the reinforcement work cannot be determined

- 6 3 The Authority considers that to comply with SLC 13 1 the Company must provide the minimum scheme as set out in their charging methodology As there is not enough information regarding costs and planning permission the Company should provide an estimate for each scenario The Customer can then decide which option to take If the Customer then requests that the Company apply for planning permission for an overhead line the Company should do so
- 6 4 In the case that a failed planning application for an overhead line is made the Authority considers it reasonable in all the circumstances that the Company should require any additional costs associated with the planning application to be borne by the Customer as part of the connection charge thus these costs would in the Authority's view be recoverable under section 19(1) EA 1989 In the case that planning permission for an overhead line is granted any costs associated with the design of the undergrounded line incurred to date should be borne by the Company However the Authority considers that the Company should discuss the chances of success in applying for planning permission for an overhead line and the implications associated with a failed application with the Customer as well as providing them with relevant information in order for them to make an informed decision
- 6 5 The Authority considers that the transmission costs were not in fact an issue as the Company policy is not to charge small generators for transmission works and therefore the Company would not have been charged any of the transmission works costs
- 6 6 Therefore in conclusion the Authority determines that the Company should revise the quote to take account of the difference in methodology for apportioning the remaining costs of the reinforcement The new quote should also take into account the any changes resulting from an application for planning permission for an overhead line
- 6 7 If the connection goes ahead as planned and the line is undergrounded the reinforcement portion of the quote should be revised from £1 42 million to £1 21 million due to the remaining costs element of the reinforcement work being revised from £750 000 to £550 000 plus any costs resulting from a failed application for an overhead line



A handwritten signature in black ink, appearing to read 'Rachel Fletcher'.

**Rachel Fletcher 7 July 2011**

**Partner, Distribution**

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



## **APPENDIX ONE VIEWS OF THE COMPANY**

### **SHEPD Response**

- 1 Please provide a description of the works this dispute relates to attaching any relevant paperwork This should include single line diagrams showing the network before and after the connection works**

The connection to the proposed [REDACTED] development comprises 2 elements a new sole use element and a modification and reinforcement element

#### **Sole Use Element**

The sole use element of the works comprises of an extension to the existing 33kV network

This requires approximately [REDACTED] of 3 wire 38mm<sup>2</sup> 33kV overhead line with [REDACTED] of 3c

95mm<sup>2</sup> underground cable into a new indoor 33kV switchboard The works include the provision of an auxiliary supply to the switch room and of the associated auxiliary systems and Radio Telemetry Unit at the new substation

#### **Modification and Reinforcement Element**

The existing 33kV network is currently operating at voltage limits In order to provide the Customer's required connection and continue to meet the security standards modification and reinforcement is required During the period in which the Customer applied for a connection we also considered applications from [REDACTED] other prospective generators requiring a connection Accordingly the modification and reinforcement element is sized to meet the requirements of the total [REDACTED] generators totalling a capacity requirement of [REDACTED]

The works comprises

□ The establishment of a new 33kV switchboard at [REDACTED] as the existing 33kV network sourced from two 24MVA 11 / 33kV transformers was not suitable for creating a 33kV circuit extension and

□ The establishment of a new 33kV feeder between [REDACTED] and [REDACTED] comprising [REDACTED] of 33kV overhead line and [REDACTED] of 33kV underground cable The use of underground cable for an additional circuit is considered to be necessary in this [REDACTED]

Please find attached network diagrams showing the existing and proposed network The Customer's proposed connection is named as [REDACTED] on the proposed network diagram

- 2 Please provide an explanation including supporting documentation where appropriate, of how the Customer's charge in respect of the 33kV circuit between [REDACTED] substation and [REDACTED] has been calculated This should include an explanation of whether the circuit has been treated as network reinforcement or network extension under your connection charging methodology, and why it has been treated in this way**

As explained in our answer to Question 1 [REDACTED] generators applied for connection to the [REDACTED]

[REDACTED] all applications were considered concurrently The total capacity requested was [REDACTED], of which [REDACTED] required [REDACTED] The



proposed reinforcement and modification do not affect the operation of the existing network they have been sized to meet the requirements of the [REDACTED] generators and hence existing and future Customers would realise no benefit as a result of the works

There have been two steps to our calculation of the Customer's charge in respect of the 33kV circuit. Firstly, as the applications were processed concurrently, we effectively considered the [REDACTED] generators as a single generator. Secondly, we apportioned the resulting cost on a pro rata basis across all [REDACTED] generators.

The total cost of the reinforcement of the network and the modification works was [REDACTED].

#### High Cost Element

Following the rules around high cost element set out in our Connections Charging Methodology, i.e. that costs of over £200/kW are to be treated as high cost element and hence borne by the applicant(s), we calculated the high cost element to be [REDACTED].

#### Cost Apportionment

The required capacity was driven by compliance with the security standards, as explained in our answer to Question 1. Accordingly, the security cost apportionment factor was applied to the remaining [REDACTED]. Our Connections Charging Methodology sets out the calculation for the security cost apportionment factor as follows:

$$\text{Security CAF} = \frac{\text{Required capacity} \times 100}{\text{New network capacity}}$$

The required capacity was [REDACTED] and the new network capacity was the same, resulting in an apportionment factor of 100% and hence resulting in the generators picking up the [REDACTED] cost.

Consequently, the generators were quoted on a pro rata basis, based on their required capacity, for the total [REDACTED] cost. This meant that [REDACTED] would pick [REDACTED].

- 3 If the 33kV circuit from [REDACTED] to [REDACTED] has been treated as network reinforcement and the apportionment rules applied, please explain how the cost apportionment factor was calculated. This should include an explanation of the operational ratings used to determine New Network Capacity and the section of network that has been considered in calculating the new network capacity.**

Please refer to our answer to Question 2 above for how we calculated the cost apportionment factor.

The network reinforcement and modification were sized to meet the requirements of the [REDACTED] concurrent generator applications. The existing network is unaffected. As such, only the reinforcement and the modification were considered in calculating the new network capacity.

- 4 Please explain why you have been unable to provide the Customer with an indication of the transmission works and charges necessary to complete the connection of [REDACTED].**



The distribution connection offer made to the Customer states that transmission works are to be advised. We explained to the Customer that this was pending the outcome of the Government's Transmission Access Review (TAR) and Ofgem's work to facilitate early access under Interim Connect and Manage.

The proposed connection is to the distribution network that connects with the transmission system at [REDACTED] Grid Supply Point (GSP). The radial transmission system between [REDACTED]

[REDACTED] GSP and the Main Interconnected Transmission System (MITS) at [REDACTED] is at the limits specified in the transmission planning standard (the Security and Quality of Supply

Standard - SQSS), consequently, under the Invest and Connect transmission access regime the [REDACTED] to [REDACTED] transmission system would need to be upgraded before the Customer could connect. However, the Invest and Connect access regime has been under review and hence we sought to await the outcome of this review before advising the Customer of the necessary transmission works.

On 11 August 2010 following TAR, the Invest and Connect access regime was replaced by a

Connect and Manage access regime. In addition, the Authority has granted derogations from the SQSS for radial transmission circuits in [REDACTED] and the [REDACTED] under Interim

Connect and Manage. This means that we are now in a position to advise of the necessary transmission works. Our initial view is that these works will either be (i) the radial transmission upgrade between [REDACTED] and [REDACTED], or (ii) managed access to the transmission system subject to upgrade of [REDACTED] GSP.

We expect to discuss these options in more detail with the Customer as and when he accepts the distribution connection offer.

**5 Please Provide details of the quote(s) you provided to [REDACTED], attaching any relevant documentation**

We have sent the quotations under separate cover due to the size of the documents.



## **EMAIL CHAIN REGARDING TRANSMISSION WORK COSTS**

### **OFGEM EMAIL (21/12/2010) -**

Further to your submission of 2 September 2010 we have some further questions on the transmission works aspect of this determination. We would appreciate a response to these questions by 7 January 2010 please let me know if that will not be possible.

- 1 We understand from your previous submissions that since the Government's Transmission Access Review (TAR) and our work to facilitate early access under Interim Connect and Manage (IC&M) was still underway (at the time the connection offer was made) the offer stated that transmission works were to be advised. We are interested in whether [REDACTED] considered including non firm costs for transmission works on a conditional basis in the quote. I.e. quoting on an assumption of the outcome of TAR and IC&M with caveats that the quote could be subject to change pending the outcome of the reviews. Please explain whether this option was considered and why [REDACTED] did not choose to include assumed costs for transmission works in the connection offer.
- 2 In your response you state that since August 2010 you have been in a position to advise on the necessary transmission works although you do not plan to go into detail on the options until after the customer has accepted the distribution connection offer. Please explain why now that you are able to you have not produced an updated connection offer for the customer including transmission works.
- 3 The customer has stated that they do not consider that they should be paying the cost of the [REDACTED] upgrade to [REDACTED]. It is my understanding that if transmission reinforcement is triggered by a distribution connection the distribution user does not pay as such as the transmission connection arrangements are very shallow. Please can you explain what kind of costs you consider [REDACTED] may be liable for i.e. an indication of whether it is likely that [REDACTED] would be asked to fund a portion of the transmission works or whether they would only be asked to provide security/ a pre commissioning user commitment. Could it be possible that the works triggered by [REDACTED] would be considered wider works (for the purpose of assessing user commitment) and that there may be no security requirement at all? For information since [REDACTED] will be out of the office in January I would appreciate it if you could respond to myself and [REDACTED].

### **[REDACTED] RESPONSE (07/12/2010) -**

Please find below our response to the questions set out in your email.

- 1 Our policy is not to include assumed costs of transmission works in our distribution connection offers.
- 2 The connection offers provided to each of the [REDACTED] generators in this area are dependent upon all of the others being accepted. In the provision of these offers a significant amount of work was involved to assess the extensive Distribution works required. Since issuing the connection offer [REDACTED] have now been formally accepted (this does not include



██████████, who have accepted subject to the condition that the cost of the upgrade at ██████████ is removed) We now therefore require to revise the distribution connection design solution and costs based on those generators wishing to proceed (as ██████████ are still under determination for the cost of their quotation we will include them in this process although we understand that they now require a ██████████ rather than a ██████████ connection) We will then issue modifications to each of the generators in question Prior to the issuing of these modifications it would be possible for us to provide initial modifications detailing the Transmission works However the provision of multiple modifications to offers can be confusing and misleading for customers As such we intend to instead to provide each of the generators with one modification detailing both the revised Distribution costs and the Transmission works This will ensure that customers are given all of the information required in order for them to be able to make an informed decision as to whether to accept the modified offer 3 The ██████████ upgrade at ██████████ constitutes Distribution rather than Transmission works As such a share of this will be picked up by each of the generators In terms of the Transmission works ██████████ would not be required to fund or underwrite any of the enabling works as our internal policy is not to require this from generators of this size Further in line with principles of Connect and Manage they would not be required to fund or underwrite any of the wider works I hope this is helpful If you require any further information or wish to discuss the above further please be in touch

OFGEM EMAIL (10/01/2011)

Thank you for the email I think you have answered all of my questions but can you just clarify the points below 1 I understand from your email that ██████████ will not be liable for any costs relating to work on the Transmission system only the apportioned costs of the distribution upgrade at ██████████ Please can you confirm that this is the case? 2 It is clear from the connection offer why the Customer understood that he could be liable for the cost of transmission works The Connection offer states that SHEPD shall in the event of **Transmission Systems Reinforcements** and/or Distribution System Reinforcements be entitled to **amend the terms and conditions of the Offer/Agreement** (including without limitation the programme and **Cost of the Connection**) Can you confirm when it became ██████████ policy not to require generators of this size to contribute towards/underwrite transmission works i.e. was this the case at the time ██████████ made its connection offer to ██████████ 3 Having reviewed the connection offer to ██████████ I am not totally clear on section 5 which explains that under the Connection Charging Methodology (CCM) generators will pay certain Use of System charges I have been unable to locate a copy of the CCM ██████████ had in place at the time the connection offer was made please can you provide a copy of this CCM and confirm that these are UoS charges detailed in the CCM rather than in ██████████ UoS charging Methodology Also if ██████████ are not be liable for any costs relating to work on the transmission system does this include the charges mentioned in this section? As with my second question – if they are not liable for such costs was this the case at the time ██████████ made its connection offer to ██████████ We would appreciate a response by close of play Wednesday please let me know if this will not be possible



**RESONSE (12/01/2011)**

1 I can confirm that this is the case 2 This is a general clause that is included in our connection offers For small generators such as [REDACTED] this clause allows us to amend the programme of the connection in the event of transmission works being required and to update distribution costs accordingly For example if significant transmission works are required the programme of the distribution works may also change and as such we would require to amend the distribution costs Our policy has historically been not to expose small generators to transmission costs (including underwriting obligations) this has been the subject of several discussions with both National Grid and Ofgem As such at the time of making our connection offer to [REDACTED], our policy was for them not to pick up any transmission costs 3 Please find attached the Connection Charging Methodology that was in place at the time of [REDACTED] connection offer The CCM states that certain generators will be liable for Distribution Use of System (UoS) charges the UoS Charging statement (also attached) details these charges Small generators do not pick up Transmission UoS charges however they may pick up some Distribution UoS charges Transmission UoS charges are levied by National Grid in line with its published charging statements The prevailing arrangements are that small generators do not pick up transmission UoS costs I hope this answers your questions Please be in touch if you require anything further

**OFGEM EMAIL (13/01/2011) -**

I understand from the customer's submission that he never took this complaint through [REDACTED] dispute resolution procedure Do you know if the customer ever discussed any aspects of his concerns/complaint with anyone at [REDACTED]?

In particular did he ever discuss concerns about transmission costs with [REDACTED]?

**RESONSE (17/01/2011) -**

Our discussions and correspondence with the customer have centred around what we understood to be his concern the proportion of the cost of the upgrade at [REDACTED] that was included in his connection offer From the customer's correspondence with Ofgem during the determination we now understand that he was also concerned about the cost of transmission works however this concern was not explicit in his previous correspondence with us Of course had we been aware of this we would have been happy to talk this through with him



## **EMAIL CHAIN REGARDING UNDERGROUNDING WORK**

### **RESPONSE (22/02/2011)**

Further to your query yesterday i can now confirm the following We are adding a new 33kV feeder from [REDACTED] that will connect into the existing 33kV cables in [REDACTED]. This new feeder will be used to pick up the generation export from [REDACTED] and other schemes. The new circuit will compnse of [REDACTED] of overhead line and [REDACTED] of underground cable (the undergrounding is due to this section of the circuit being in a protected area). The existing feeder will be used to pick up existing and new generation between [REDACTED] and [REDACTED]. I hope this answers your questions. if you require any further information please let me know

### **OFGEM ASKED (28/02/2011)**

Thank you for your prompt response. I have one further question in response to your answer. could you please detail your reasoning behind why you are undergrounding the line?

### **RESPONSE (01/03/2011)**

Whilst the area is not specifically a [REDACTED], it runs down the front of [REDACTED]. When the original overhead line was built in 1996 it was required to be located high up the side of the valley to minimise the visual impact from the viewpoint. The local wayleave officer therefore considered that planners would require us to underground the new circuit as the collective effect of two lines on parallel routes would not be acceptable in this area. We only use undergrounding where it is required by planning or if requested specifically by the customer. Generation attached to an undergrounded route leads to specific technical issues on our side and as such we would pursue an overhead route where possible.



## **EMAIL CHAIN REGARDING COST APPORTIONMENT - [REDACTED]**

### **OFGEM EMAIL (11/10/2010) -**

Having reviewed your response of 2 September 2010 we are concerned that you may not have apportioned the costs of reinforcement in line with your connection charging methodology in force at the time. We would like to give you the opportunity to justify your approach. Below we set out our understanding of your method of apportioning costs and explain why we are concerned that this is not consistent with your methodology. It is our understanding that you have apportioned the costs of reinforcement between [REDACTED] connectees on a pro rata basis such that the New Network Capacity (NNC) has been calculated as the sum of the connectees required capacities. Your Connection Charging Methodology in force at the time states that 'The DNO must determine what the effective (secure) capacity of the existing network is prior to the connection and then the necessary upgrade to ensure the network is secure following the connection of the party'. The New Network Capacity is the secure network capacity following the reinforcement of the relevant assets. This implies that the NNC is equal to the effective (secure) capacity of the existing network is prior to the connection plus the increase in capacity to ensure the network is secure following the connection of the party. Therefore the NNC would be greater than the sum of the required capacities of the connectees and some of the costs would be borne by [REDACTED]. We would be grateful if you could confirm whether our understanding of your method of apportioning costs is correct and if so provide justification for this approach including an explanation of why you consider that it is in line with your methodology. We are currently only addressing the apportionment issue. It may also be necessary to examine the total costs of the work. We will advise you further on this point in due course. Please respond by Monday 18 October 2010. Please note that the information we have requested will be considered under this determination.

### **[REDACTED] RESPONSE(25/10/2010)**

The proposed new circuit secures the existing [REDACTED] radial feeder from [REDACTED] to [REDACTED]. As such the reinforcement that was required to connect the generators does not increase the secure capacity of the network rather it secures the existing capacity. The technical constraint on the existing network is related to voltage rise which limits the capacity of generation that can be connected to the circuit due to the presence of on line demand customers. The new circuit provides a suitable connection to the [REDACTED] of new generators on a non firm basis i.e. the new generation can only connect during times when the new circuit is available and cannot export through the existing circuit when the new circuit is unavailable. We agree that under our charging methodology in place at the time (and the new common connection charging methodology) the New Network Capacity is the secure network capacity following the reinforcement of the relevant assets. Using this definition in our case following the reinforcement of the relevant assets the New Network Capacity would be [REDACTED]. As such in this scenario the required network capacity ([REDACTED]) is in fact larger than the new network capacity. This is explained by the fact that the [REDACTED] on this radial circuit required by the generators is non firm. Apportioning [REDACTED] over a New Network Capacity of [REDACTED] would have resulted in an over recovery of costs from



developers so we have apportioned costs on the basis of cost per MW connected. Hence I can confirm that your understanding of our method of apportioning costs is correct. However in applying our methodology in this case it is important to remember that this is a radial circuit and that as such the capacity before reinforcement and the secure capacity after reinforcement are the same.

OFGEM EMAIL (01/12/2010)

Further to our discussion on 19 November I would be grateful if you could provide confirmation of the export capacity of the network local to [REDACTED] proposed connection.

Please confirm the following:

The maximum generation capacity that the local network will be able to export to the [REDACTED] substation after the addition of the new feeder. (My understanding from our meeting is that this would be [REDACTED] ([REDACTED] along the new feeder and [REDACTED] along the existing feeder). Please include a complete explanation of how [REDACTED] has arrived at this figure.

[REDACTED] view of what if the figure calculated above was the New Network Capacity, the cost apportionment factor and the charge levied in respect of the reinforcement would be in this case. Again please include a complete explanation of how [REDACTED] has arrived at this figure.

We would also be grateful if you could provide any arguments in favour of using the secure capacity of the network in order to calculate New Network Capacity when the capacity provided to the connecting customer is not secure.

[REDACTED] RESPONDED (10/12/10) -

Sorry to have been a while in coming back to you - we've been struggling with the snow! The existing 33kV circuit has an operating capacity of [REDACTED] due to voltage limits. The new circuit will have an operating capacity of [REDACTED] due to voltage limits. The New Network Capacity is defined in the Connections Charging Methodology as the new secure capacity of the network. This remains predominantly a radial network and as such the secure capacity is neither [REDACTED] or the sum of these. The circuit as far as the [REDACTED] cable section would be secure in terms of the existing demand. Customers and using the rating of the weakest link in this ring would give a secure capacity of [REDACTED] for the line between [REDACTED] & the [REDACTED] cable section. Costs could have been calculated as [REDACTED] (the total generation connection) / [REDACTED] however as this would have resulted in an over recovery of costs we instead based the apportionment of these costs on the total generation capacity connecting i.e. [REDACTED], resulting in 100% cost apportionment. The costs were then apportioned on a pro rata basis dependent on the capacity of each generator. In parallel with the determination process we intend to progress discussions with the customer to resolve the situation including firming up his requirements (particularly as he has not accepted the connection offer that is under dispute) and discussing with him changes that may have occurred since his application.



OFGEM RESPONDED (10/12/10) –

Thanks for your response. You've not really answered the second bullet point. Could you give me a ring to discuss?

OFGEM EMAIL (17/01/2010) –

Further to our last conversation on [REDACTED] Are you intending to get back on the second bullet point below and/or any arguments in support of using secure capacity to apportion costs when the capacity provided is not secure?

[REDACTED] RESPONDED (18/01/2010) –

I'm not sure that there is much more we can add, but I have set out our reasoning for the cost apportionment calculation below. The connections charging methodology statement in place at the time [REDACTED] were given their connection offer did not differentiate between cost apportionment rules for connections where the new capacity to be provided was secure and where it was non-secure. As such, in calculating the cost apportionment for [REDACTED], we adhered to the principles set out in the connections charging methodology statement, which included the use of the new secure capacity in the calculation.

OFGEM ASKED (08/02/2011)–

In my email of 1 December 2010 and subsequent discussions with you and [REDACTED], we requested that [REDACTED] explain how costs would be apportioned in the case that the New Network Capacity was the total non-secure capacity of the two circuits from the [REDACTED] (The existing circuit from [REDACTED] towards [REDACTED] and the proposed new circuit from [REDACTED]).

Your email below explains what your understanding of Ofgem's views are in this respect but does not provide requested explanation.

Please provide a full explanation of how [REDACTED] would calculate the cost apportionment factor and the subsequent connection charge under the following conditions:

1. the NNC is calculated as the total non-secure export capacity of the two circuits mentioned above from the point at which they join [REDACTED] (i.e. the maximum export capacity of the two feeders) and
2. the operational ratings used are those at the time of most onerous operating conditions.

For clarity, we have not yet come to a decision on how costs should be apportioned in this case or what the New Network Capacity is under the approach discussed above. We would be grateful if you could respond by **Friday 11 February**.



**RESPONDED (14/02/2011)**

Apologies for not responding to your emails sooner. I was been down in London last week. My previous email set out how this calculation would be done i.e. by using [REDACTED] as the denominator in the cost apportionment equation. However I understand that you would like the calculation to be written out in detail. As explained previously this is not the calculation we have used nor is it one that we consider should have been used. Nevertheless please find below the calculation as requested on the understanding that this should not form part of our evidence case as we do not consider this to be a relevant calculation. Presuming that the high cost element would remain unchanged the cost of [REDACTED] would be split between the [REDACTED] generators based on the size of their required connection. For [REDACTED] this would be [REDACTED]. For the cost apportionment of the remaining [REDACTED] The cost to be apportioned to the [REDACTED] generators would be [REDACTED]. The cost to be apportioned to [REDACTED] would be [REDACTED]. Total costs that would be charged to [REDACTED] if the above calculation were to be used = [REDACTED].

**NB This is not how we calculated the charge nor how we believe it should be calculated.** I hope this helps you to progress with the case. Please give me a call if this is not what you are looking for or if you require anything further.

**OFGEM ASKED (14/02/2011)**

Thanks for your response. In terms of explaining the apportionment calculation it's what we were after.

We are also looking for a more detailed explanation of how the NNC is derived – i.e. how the figures of [REDACTED] and [REDACTED] were arrived at. (Apologies my email should have been clearer about this.)

Could you please –

Confirm that [REDACTED] and [REDACTED] are the capacities of the two feeders at the time of most onerous operating conditions.  
Explain how [REDACTED] arrived at these figures.

We would be grateful if you could respond by Friday 18 February.

**RESPONDED (16/02/2011)**

I can confirm that [REDACTED] and [REDACTED] are the capacities of the two feeders at the time of most onerous operating conditions. Unfortunately as [REDACTED] is on holiday this week I can't give you any more detail on your second bullet by Friday but I will get back to you as soon as I can next week.

**RESPONDED (23/02/2011)**

[REDACTED] and [REDACTED] (rather than MVA as stated in my previous email) are the maximum amounts of reverse power that can flow back into [REDACTED], based on all generators operating at rated output at times of minimum summer demand in order to keep the voltage levels within limits. In other words it is the maximum generation



minus the amount of load on each circuit. The two circuits are designed to cater for the generators in process at the time. There is no spare capacity due to the voltage limitations on these circuits. We modelled the network for the parameters given by the manufacturer for the two extremes i.e. summer minimum demand and winter maximum demand. For these two extremes we checked the whole network for thermal voltage rise and fault level issues. We also turned the generator off and on to check for voltage step change. The limiting factor in this case was voltage rise at summer minimum demand. Any more generation would push the voltage levels above the allowed limits for customers directly connected to these circuits. I hope this helps to answer your question. If you need anything further please be in touch.



## **Appendix Customer submission of facts and reasons.**

### **Note**

- Please ensure that each question below is answered as completely as possible
- Please ensure that you provide all the information you consider is relevant to assist us in understanding the grounds of the dispute
- Where you do not consider a question is relevant to your case please indicate this in your response

Please provide copies of any documentation you consider is relevant to your case cross referencing the documentation in your responses to the questions where appropriate

Please note that such documentation may be used to support your arguments but will not be treated as a substitute for your reasoned arguments which should be set out below

If you wish to provide information in addition to that requested in this template please do so at the end of your submission.

### **Questions**

- 1 Please explain exactly what is in dispute in this case i.e. what you would like Ofgem to determine on attaching any relevant paperwork to back up your argument.

Whether it is reasonable for [REDACTED] to charge for the full upgrade of the 33kv line from [REDACTED] and charge new applicants for the cost thereof and then charge DUOS charges for the use of the line thus recovering their cost twice The undergrounding of the line should have taken place approximately 15 years ago when the last realignment was done to take the line from the shore of [REDACTED] and realign it with the side of the public road from [REDACTED] to [REDACTED] as part of the renewal No detail has yet been received of possible cost of transmission upgrade & TNUOS cost. It is unreasonable to place funds in the hands of [REDACTED] without a definite connection date Cost can stop project. Scheme subsequently has been reduced to 2MW to conform with FITS

2. Please indicate whether [REDACTED] have gone through [REDACTED] internal complaints process. (If yes, please provide the reference number details of the Complaints Officer and the outcome of the process)?

N/A

- 3 Where applicable, please provide a description of the works this dispute relates to attaching any relevant paperwork.

Obtaining a 3.75 new connection for a new station at [REDACTED] and subsequent connection to the 11000kv – 33000kv near to [REDACTED]

**The Office of Gas and Electricity Markets**

9 M Ilbank London SW1P 3GF Tel 0 20 7901 7000 Fax 020 7901 7066 [www.ofgem.gov.uk](http://www.ofgem.gov.uk)



- 4 Please provide details of the connection offer/quotation provided to you by [REDACTED] attaching any relevant documentation. (If you have received more than one quote please provide details of all the quotes you have received and the reasons you received multiple quotes for this work.)

Copy letter attached dated 19/03/10

Detailed statement attached dated 19/03/10

Letter attached qualifying acceptance dated 22/04/10

- 5 If the Company has provided you with a breakdown of any disputed charges/quote please provide us with this information and attach any relevant correspondence.

Breakdown of quote attached.

6. Please include any correspondence between [REDACTED] and [REDACTED] related to your connection request.

Correspondence attached

Letter dated 19/01/09

Letter dated 14/04/09 – Two letters

Letter dated 20/05/09

Letter dated 03/06/09

Letter dated 30/06/09

Letter dated 19/03/10 – re-amended agreement

E-mail dated 04/03/10

E-mail dated 30/03/10

E-mail dated 08/04/10

E-mail dated 09/04/10

E-mail dated 13/05/10

E-mail dated 11/05/10