DETERMINATION BY THE GAS AND ELECTRICITY MARKETS AUTHORITY OF A DISPUTE REFERRED TO IT UNDER SECTION 23 OF THE ELECTRICITY ACT 1989 – The Reasonableness Of Terms Included In A Connection Offer

1. Introduction

1.1. The Gas and Electricity Markets Authority ("the Authority"[1]) has been asked by [redacted] ("the Customer's Agent") on behalf of [redacted] ("the Customer") to determine a dispute between the Customer and [redacted] ("the Company"). The dispute relates to the terms of a connection offered by the Company to the Customer to provide a connection for a 500kW anaerobic-digestion facility at [redacted] ("the Premises"). The connection offer included a term that would allow the Company to constrain the Customer's ability to export electricity onto the distribution system at times of low demand on the part of the distribution system to which the Premises would be connected.

1.2. The Customer's Agent wrote to us on 11 May 2012 explaining the concerns of the Customer. The Agent had been authorised to act on behalf of the Customer.

1.3. The dispute has been referred to us for determination under section 23 of the Electricity Act 1989 ("the Act"). We are required to determine such disputes falling within our powers once a customer has requested that we do so.

2. Statutory Obligations

2.1. 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 us under section 23 of the Act for determination. The specific sections of the Act that relate to this particular dispute are outlined below.

2.2. Section 16 requires that an electricity distributor is under a duty to make a connection between his distribution system and a premises when required to do so by either the owner or occupier of that premises or a duly authorised agent acting with the consent of the owner/occupier.

[1] Within this decision document the Authority are also referred to as "Ofgem", "us" and "we"

2.3. Under section 16A(1) of the Act, where a person requires a connection to be made by an electricity distributor in pursuance of section 16(1), they must give the distributor a notice requiring it to offer terms for making the connection.

2.4. Under section 16A(2) of the Act, that notice required under section 16A(1) must specify:

a) the premises or distribution system to which a connection to the distributor's system is required;

b) the date on or by which the connection is to be made; and

c) the maximum power at which electricity may be required to be conveyed through the connection.

2.5. Under section 16A(5), as soon as practicable after receiving the notice the distributor shall give to the person requiring the connection a notice:

a) stating the extent (if any) to which his proposals are acceptable to the distributor and specifying any counter proposals made by him;

b) specifying any payment which that person will be required to make under section 19(1) or regulations under section 19(2);

c) specifying any security which that person will be required to give under section 20; and

d) stating any other terms which that person will be required to accept under section 21.

2.6. Section 19(1) of the Act allows an electricity distributor to recover expenses reasonably incurred in providing the connection to the Customer from the Customer to the extent that it is reasonable to do so.

2.7. Under section 21(b), an electricity distributor may require any person who requires a connection to accept in respect of the making of the connection any terms which it is reasonable in all the circumstances for that person to be required to accept.

2.8. 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 us under section 23 of the Act for determination.

3. Facts Of The Case

Summary

3.1. The dispute relates to a particular clause included by the Company in a connection offer. The effect of this clause would be to limit the ability of the Customer to export electricity under certain conditions (where there was low demand on the network). The Company had undertaken a study which noted that the voltage levels at the point the connection was to be made would be limited to 20.4kV. The Company noted that this constraint might restrict the generator's ability to export.

3.2. The Customer considers that the inclusion of this clause in the connection offer has a significant impact on the viability of the project. The Company considers that this clause is necessary to meet the Customer's requirement for an affordable connection whilst ensuring compliance with the Electricity Safety, Quality and Continuity Regulations 2002 as set out in Regulation 27: Declaration of phases, frequency and voltage at supply terminals.

The Facts

3.3. We understand that the Customer initially requested a connection[2] to the Premises from the Company's distribution system to export a maximum of 500kW in July 2010. The Company provided an estimate[3] with a value of £1.7m plus value added tax (VAT) for a non-interruptible connection, ie a connection that would allow the Customer to export up to 500kW at all times, in August 2010. This quotation involved connecting the customer directly to the [redacted] Primary Substation. This quotation was not accepted by the Customer on the basis that it was not economically viable.

3.4. In response to the rejection of the first, non-interruptible offer, the Company developed a further offer[4] of £140k in November 2010. The second connection solution involved connecting the generator to an existing overhead line close to the Customer's premises rather than directly to the substation. This meant that the Customer would need to fund the installation of fewer sole use assets than under the original connection offer. This offer was interruptible ie the ability of the generator to export would be interrupted at certain times by the Company.

[2] See appendix 3
[3] See appendix 4
[4] See appendix 5

Although significantly lower in cost than the first offer, this offer was still rejected on the basis of cost.

3.5. In September 2010 consultants acting on behalf of the Customer purchased the Company's long-term development statement (LTDS) for the [redacted] with the intention of *"performing an assessment of where a generator could be located on the network for our* [their] *client."* This led to a further connection request in March 2011 and the Company provided a quote[5] in June 2011 of £173k plus VAT for a connection. A final connection offer[6] was made in March 2012 costing £119k plus VAT. This offer was based on a different point of connection and reflected additional general network reinforcement undertaken by the Company in the intervening period. This is the connection offer on which we have been asked to determine.

3.6. The March 2012 connection offer contained the following clause:

> *"Our studies indicate that the HV [High Voltage] voltage at the generator HV [High Voltage] connection point will be limited to a maximum of 20.4 kV.*
>
> *It must be emphasised to the customer that this overvoltage setting may restrict the generators export capability at times of reduced system and local demand and it could trip due to overvoltage caused by them. They would need to decide if this would make the project economically viable. Circuit data and LIPP [the Company's historical load information database] half hour feeder load data has been provided to allow the customer's consultant to carry out load flow studies to ascertain the viability.*
>
> *The generator should ideally operate at the power factor of the system, in* [redacted] *Primary substation's case 0.96 lag, but must operate between 0.95 lag (exporting VAR's) to unity"*

3.7. On 10 April 2012 the Customer's Agent contacted the Company to inform them that the Customer would be willing to accept the most recent connection offer if the clause above was removed but that, if the clause was not removed, then the Customer would seek a determination from us on the reasonableness of the clause. On 20 April 2012 the Company stated that it would be willing to replace the clause above with the following text:

> *"In order to ensure local customers do not experience voltages outside of Statutory limits, due to the export of the generator, the voltage of the connection point to the generator must have an upper voltage limit of 20.4 kV.*

[5] See appendix 6
[6] See appendix 7

We have provided data that enables an assessment of the frequency of this limitation occurring.

The generator should ideally operate at the power factor of the system, in [redacted] Primary substation's case 0.96 lag, but must be able to operate between 0.95 lag (exporting VAR's) to unity."

3.8. This clause was not acceptable to the Customer and consequently the Customer's Agent requested that we make a determination. The Customer has also asked the Company for further information to allow them to calculate the likelihood of interruption on a number of occasions. In addition to publishing its Long Term Development Statement, the Company has provided a Load Flow Study[7] for the vicinity of the Premises. The Customer alleges that this information is incorrect and that the length of cable included in the model is incorrect. The Company disputes this allegation. In any event, the Customer does not believe that they have received sufficient information to allow them to calculate the number of times the generator is likely to be constrained. This is disputed by the Company. The Customer considers that they are unable to make an informed decision regarding the financial viability of the project without additional information.

4. Discussions And Conclusions

4.1. We have been asked to determine two issues:

- is the clause to interrupt the ability of the generator to export electricity reasonable?; and
- was the level of information provided by the Company to the Customer reasonable?

4.2. The second point above is outside the scope of a determination brought under section 23 of the Act. We have however included a discussion on the point within this section.

4.3. Under section 19 of the Act, the Company has the power to recover expenditure made in the provision of a connection. As explained in section two of this document the Company is allowed to require the party requiring the connection to fund a proportion of these costs in line with its charging methodology (the methodology must, where practicable, ensure that charges are reflective of the costs of the distribution business). We have not been asked to determine the

[7] See appendix 8

reasonableness of any of the quotes provided. These are, therefore, outside the scope of this determination.

Condition of connection to allow the Company to interrupt the ability of the generator to export electricity

4.4. As noted in the Statutory Obligations section of this document there are a number of obligations with which both parties in the connections process must comply. Where the Customer requires a connection to the distribution system they must give a notice to the Company. The Company must then set out terms upon which the connection would be acceptable; as we explain in paragraphs 2.2 to 2.7 above these terms can include conditions and a charge for the provision of the new connection. In this case the Company's offer was conditional and required payment.

4.5. The Customer and the Company have worked over a period of time on a number of connection requests and offers, following the procedure set out above in paragraphs 2.2 to 2.7. In July 2010 the Customer first requested a connection to the Company's distribution system. The Company provided a quote for a firm or non-interruptible connection. This meant that the Customer would have been able to export up to the capacity requested at any time. The offer would have required the Customer to pay £1.7m plus VAT but included no other conditions. As outlined above, the Customer considered that the connection offer made by the Company would have prevented the scheme from going ahead on an economic basis.

4.6. As described above, and noted by the Company in its response, further work was carried out by the Customer on a number of connection requests and consequently by the Company on a number of connection offers. Eventually an offer was made in March 2012 which was acceptable to the Customer with one exception. This connection offer was significantly less expensive than the initial connection offer. This lower cost reflected both a different point of connection and a technical constraint that was not included in the initial offer.

4.7. The original connection notice proposal made by the customer required a connection directly to the [redacted] Substation, and the less expensive offer involved connecting the customer to a feeder close to the Premises. Connecting the Premises to the substation directly would have less impact on the rest of the distribution network. However, connecting the Customer to the feeder might

cause voltage to rise outside statutory limits, according to the Company. For this reason the Company included the clause shown at paragraph 3.6 above.

4.8. We consider that having provided an original connection offer in August 2010 which was not acceptable to the Customer, the Company has worked with the customer to provide a connection that was more acceptable. The first connection offer was substantially more expensive but did not place limits on the ability of the Customer to export electricity. The less expensive connection offer did include limits on the ability to export. We do not consider it unreasonable to expect that a connection that is going to be provided at a significantly lower cost may not provide all the benefits of the original connection offer.

4.9. The Company is required to provide a connection offer when requested to do so. In its connection offer the Company may include reasonable conditions of connection and provide a cost for the provision of a connection. The Company is also required to comply with the Electricity Safety, Quality and Continuity Regulations 2002, S.I. 2002/2665. We consider that given these dual requirements and the Customer's rejection of a more expensive connection offer that did not contain this clause, the terms of the connection offer reference ENQ5179745 appear to be reasonable in the circumstances.

Information Provision

4.10. Sections 16 to 21 of the Act do not set out the level of detail of information that should be provided to a customer requesting a connection. Consequently the Customer's request that we determine the issue of the level of information that a Licensee is required to provide falls outside the scope of this Determination. By way of comment, however, we expect network companies to provide good customer service. We also note that Licensees are required to publish a Long Term Development Statement. The purpose of this statement is to allow anyone with an interest in connecting to the distribution network to identify suitable areas to connect. In addition, the Customer requested load flow data for the area of the network in which the Premises are located.

4.11. The Company has made available its Long Term Development Statement as required under Standard Licence Condition 25. It has also provided additional information in the form of the Load Flow Diagram. The Customer's Agent used both these documents to assess the viability of the project. The information that was available to the Customer is noted in paragraph 3.5 above. We therefore consider that the Company has provided the minimum information required.

4.12. In addition, the Customer also asked the Company to estimate the number of occasions on which they are likely to be curtailed. The Customer has also requested additional information so that they can perform their own calculation on the number of times their ability to export electricity is likely to be curtailed. Beyond the Load Flow Diagram no further information has been made available and no estimate of curtailment has been provided.

4.13. We welcome the Company's willingness to explore alternative scheme designs and contractual arrangements to help enable a less costly connection. We believe these are the type of activities Distribution Network Operators (DNOs) should undertake to help customers negotiate their way through the connections process and secure a connection that meets their requirement for capacity at least cost. We also acknowledge that the Company is unable to provide guarantees on the number of occasions the Customer would need to be curtailed. However, we believe the Company could have done more to engage with the Customer to help them fully understand the terms associated with the resulting connection offer.

4.14. For instance the Company could have engaged more fully with the Customer to educate them about the circumstances which may lead to curtailment and how frequent these would be in a number of different circumstances. This would allow the Customer to gain an understanding of the level of risk they were signing up to with an interruptible contract. The emerging learning from the Low Carbon Network Fund trials is that this is the type of engagement required to obtain customers' 'buy-in' to interruptible contracts. The trials are also revealing that each customer has different requirements and that DNOs will need to work with them to understand these needs and match them with those of the network. We consider that the Company could have done more to follow these lessons, not least in being more proactive in providing additional data and information to the Customer's Agent.

4.15. The Company notes in its response that it is only permitted to recover costs associated with providing connection offers from those who proceed with a connection, and that it considers this limits the level of information it can provide to customers seeking a connection. We do not accept that the inability to recover costs prior to quotation acceptance prevents the Company from providing a reasonable level of information in line with customer requirements. We expect DNOs to have systems and processes in place that ensure that customers are sufficiently informed to make a decision on whether to sign up to

a bespoke contract, such as one which allows curtailment. We also note that providing more information earlier in the connections process might reduce the number of speculative applications a DNO is required to process.

4.16. In this case we also observe that there appears to be disagreement between the Customer and the Company about the information required to assess the likely frequency of curtailment. We consider that the Company could have worked with the Customer's Agent more closely to understand and address the concerns which had been raised about the level of information provided.

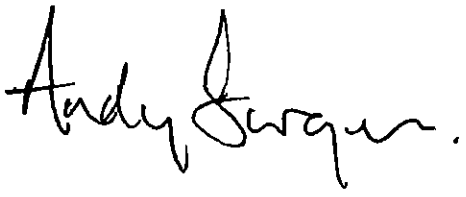
4.17. Regardless of whether further information could or should have been provided there clearly exists a degree of uncertainty arising from the terms associated with this offer. In these circumstances, we believe the Company could have been clearer in justifying both the need for these terms and clarifying the alternative options open to the Customer. We expect that as part of this dialogue the Company would show a greater willingness to explore whether there might be any alternative interruptible contract options for the customer that have a reduced risk of interruption.

4.18. We recognise that the Company has no specific obligations to provide some of the information above and in any case this falls outside the scope of the determination. However, in many instances, customers have little option but to use a DNO when connecting to the network. Customers are therefore dependent upon a DNO for receiving the level of service and information they require in order to make an informed choice on whether or not to proceed with a significant level of investment. Statutory requirements set out the minimum level of information, but we expect DNOs to go much further than these in assisting customers in connecting to the network. We would therefore expect that in circumstances such as those set out in this document a DNO should do more to provide the pertinent information to which it had access, to the customer or the customer's agent.

5. Determination

5.1. The Authority finds that the Company may reasonably include a clause such as that included in paragraph 3.6 above where the network conditions require it.

5.2. This document constitutes a notice stating reasons for the Authority's decision for the purpose of section 49A of the Act.



Andrew Burgess
Associate Partner, Transmission and Distribution Policy
Duly authorised on behalf of the Gas and Electricity Markets Authority

APPENDIX ONE - VIEWS OF THE CUSTOMER

1. Please explain exactly what is in dispute in this case, attaching any relevant paperwork to back up your argument.

   We completed a G59/2 distributed generation application on behalf of our client, [redacted] for issue to [redacted], who in turn conducted a grid connection study to determine the effects of connecting the generator onto its network.

   A grid connection offer was subsequently released by [redacted] issued which contained a clause that is unacceptable to our client and in fact makes the project unviable.

   The grid connection offer, referenced ENQ5179745[8] is attached to this questionnaire. We refer you to page 4, section 2 of the offer, highlighted for your review.

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

   Our client is proposing to establish a biomass generator at his development site known as [redacted].

   The generator will be connected at high voltage onto the 20kV distribution network.

   The G59/2 application included a request for a point of connection under SLC15, rather than requesting an S16 offer.

   We were originally appointed by our client to challenge [redacted] on the point of connection location, which had been identified in a connection offer dated 10th June 2011. We successfully challenged [redacted] and the revised offer (referred to above) identified a local point of connection which made the scheme financially viable.

   However, a very onerous clause has been included in the revised offer. The clause places an emphasis on our client to determine the times when generation may not be possible, i.e. the generator could be constrained off by [redacted] during times of light network demand.

3. What elements of the terms of the connection offer do you consider to be unreasonable and why?

[8] See appendix 7.

The clause contained within Section 2 of the offer does not provide any meaningful indication as to when the generator may be constrained off the network.

The [redacted] *development viability is based upon kWh of energy exported onto the distribution network. Without a robust appraisal of the risks by the DNO and release of the findings, the connection offer is unviable.*

In addition, it is the DNO who is responsible for carrying out detailed distribution network assessments, not the developer. The developer and his consultants do not have access to feeder load analysis data, nor live data on network demands, fault history, LV network parameters nor operational running.

[redacted] *has all of this information to hand and its engineers should be able to provide data in support of its statements. If this is not possible, then the clause should be removed from the connection offer.*

[redacted] *approach to this project is not in accordance with that of other DNOs that we deal with on a regular basis. We have not come across this type of clause before. Our company has made over 150 grid connection applications for generation projects over the course of the last five years and this is the first time we have encountered such onerous wording.*

From a commercial perspective, inclusion of such onerous terms conflicts with a DNO's obligation to connect a User to the network.

4. Why isn't it possible for you to undertake an assessment of the availability of the connection, based on the information that has been provided along with the connection offer?

The gird connection offer does not contain any technical information in support of the clause, for example a chart over the course of a typical day, week or month that clearly identifies when the generator may be constrained off. The offer does not contain any technical information in support of the statements such as load flow studies, voltage profiling, transformer tap change positions, local and remote customers connected to the LV network and the effects of connecting the generator.

5. Please explain how you have escalated your complaint with the Company. Please provide your complaint ID (if you have one) and details of any correspondence attaching any relevant documentation. (Note: Ofgem expects that any dispute has been escalated through the Company's formal dispute resolution procedure and that this avenue has been exhausted prior to it being referred to Ofgem for determination.)

Complaint ID *By e-mail and telephone*

Contact Mr [redacted] *and Mr* [redacted]

Details of dispute escalation We have requested that NPG reconsiders the clause by sending e-mails to Mr [redacted] *and by escalation to Mr* [redacted] *regulatory manager. However, Mr* [redacted] *has confirmed that the clause is the best compromise the company can make.*

6. Please include any other facts relevant to the case for example whether the Company has offered any compensation, etc and attach any relevant correspondence.

[redacted] *has not responded to any further requests to reconsider the clause on Page 4 of its offer and to amend its wording.*

Meaningful data has not been supplied since provision of the revised connection offer dated 16th March 2012 leaving us no option other than to refer the matter to Ofgem.

Appendix 2 - VIEWS OF THE COMPANY

Questions

1. Please explain exactly what is in dispute in this case, attaching any relevant paperwork to back up your argument.

   [redacted], *via their agent* [redacted], *received a connection offer from* [redacted] *dated 16 March 2012 in respect of connecting a 500kW anaerobic-digestion facility to the* [redacted] *distribution system. In section 2 of the offer, Provision of the Connection,* [redacted] *highlighted that, in passing on the offer, Utility Engineering Solutions Ltd should make it clear to the customer that, due to the configuration/status of the distribution network in the locality of the proposed installation, the export from the proposed generation might be restricted at times of reduced system and local demand. Furthermore, the potential extent of any restriction, and hence the economic viability of the customer's project, would need to be assessed by the customer's consultant, utilising distribution-system information already provided by Northern Powergrid.*

   The documentation that Ofgem has shared with us confirms that [redacted] *continue to believe that the words in section 2 of the connection offer, relating to constraints, are unacceptable and that in some way they contravene* [redacted] *Section 16 responsibilities. Also, it appears that Utility Engineering Solutions Ltd believe that it is the responsibility of* [redacted] *to carry out a detailed network evaluation to analyse the 'before and after' connections scenarios and to advise whether a 'firm' unconstrained network connection is possible.*

   In summary the customer states that the inclusion of the "caveat" in the connection offer is unacceptable and "does not make the connection offer viable".

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

   In order to afford a suitable connection to [redacted] *'s proposed 500kW anaerobic-digestion facility at* [redacted] *has proposed a three-phase 20kV connection on the site to be provided by*

extending the existing 20kV overhead [redacted] *20kV teed feeder from pole 10 and by installing a section of 185mm, 20kV Triplex cable, approximately 150m in length. The cable would be installed for the majority of its length in a customer-excavated and reinstated trench and would terminate onto a 20kV Arriva Visax metered generator incomer panel located in a new substation at the customer's site. The customer would be responsible for providing a suitable substation built to* [redacted] *minimum specification.* [redacted] *would install suitable protection equipment at the site and the required metering CTs and VTs, but not the metering instrument. The* [redacted] *protection equipment would include a mini-SCADA system that would transmit alarms and analogue signals from the generation site to* [redacted] *primary SS, this being the normal operation source of supply for the 20kV feeder.* [redacted] *would witness the customer's G59/2 commissioning tests at the site.*

It would also be necessary for [redacted] *to undertake alterations to the local 20kV assets, installing a new in-line fused section on the above teed feeder at pole 10.*

3. Please set out your view of the timeline of events that led to us being asked to determine this dispute. Please include how you dealt with [redacted] complaint?

In your answer please include details of any correspondence enclosing all relevant documentation and evidence (e.g. presentation slides, emails and minutes from both parties).

Please provide the complaint ID (if you have one) and details of any correspondence attaching any relevant documentation.

Complaint ID.....258089

Details of Company staff who have dealt with the complaint

[redacted] - Commercial Manager

[redacted] - Design Team Leader

[redacted] - Head of Customer Service

Details of dispute escalation process followed ...

A letter from Mr [redacted] MP dated 17 September 2011 was sent to our President and Chief Operating Officer, [redacted]. Following internal review a response was sent to Mr [redacted] on 30 September 2011. Subsequently, we were of the impression that we were dealing with a dynamic (and, so far as we were concerned, still ongoing) exchange aimed at arriving at the best solution, consistent with associated cost, for the customer. Indeed, the lack of any rejoinder from Mr [redacted] on receipt of our response served to underline this.

The overall timeline of events is as follows. *The initial enquiry for the site was received on 26 July 2010 by e-mail from [redacted] of [redacted] and requested a budget estimate for a 500kVA generator connection. A scheme was duly raised under cover of ENQ5123108 and the budget estimate provided to the customer on 6 August 2010 with a connection point at [redacted] primary substation. The budget price for this estimate was £1.7m + VAT.*

Following receipt of the budget estimate, Mr [redacted] wished to pursue potential cheaper alternative solutions. A second budget estimate, which proposed a non-firm technical solution, was then provided on 5 November 2010, for an amount of £220k + VAT. This solution was based on making a connection to the 20kV main line adjacent to the site rather than making a connection back to [redacted] primary substation.

On 23 September 2010, Mr [redacted] of [redacted], acting on behalf of [redacted], had purchased the [redacted] long-term development statement (LTDS) for the [redacted] area of [redacted] with the intention of "performing an assessment of where a generator could be located on the network for our client."

Further discussions with Mr [redacted] then culminated in a detailed generation scheme request and attached ENA connection application form being submitted to [redacted] by e-mail on 3 March 2011. A new scheme was duly raised under cover of ENQ5138349 and quoted on 10 June 2011, based on the same technical solution as the last budget estimate, but now quoting a firm price of £173k + VAT.

Following the issue of the firm quotation [redacted] then continued to hold discussions, at the request of the customer Mr [redacted] from [redacted]

(owners of the site), with Mr [redacted], and Mr [redacted] of [redacted].

On 17 September 2011, a letter was received from Mr [redacted] MP seeking our response to issues raised in a letter to Mr [redacted] from one of his constituents, Mr [redacted] of [redacted], dated 1 September 2011 and concerning the proposed connection at [redacted]. This was duly responded to by [redacted] on 30 September 2011, explaining our understanding of the circumstances in which [redacted] were operating and confirming our responsibility to provide all of our customers with connections that meet the standards required by our statutory duties. In providing our response we explained that we had taken account of our statutory duties and highlighted the fact that the project output might be compromised unless a direct circuit to Hexham primary substation were provided. On receipt of this response Mr [redacted] did not request any further information or interaction on the matter.

On 28 December 2011, [redacted] was provided with a report, entitled 'Load Flow Study, Chantry Farm, December 2011', compiled by the consultant [redacted] of [redacted]. This study was provided to Northern Powergrid for information only. Following our receipt of this report Mr [redacted] requested a further meeting with [redacted] to discuss the connection offer.

On 23 January 2012, a letter was received from [redacted] in which he expressed concerns about the scheme, the voltage rise and an apparent lack of supporting network data identifying voltage rise as a problem. Mr [redacted] also asked [redacted] to confirm that the network data supplied to him by another consultant, [redacted] was correct. As a gesture of goodwill consistent with our overall approach [redacted] reviewed the information as requested and at a subsequent meeting pointed out that some fundamental errors in the interpretation of the data in the network model had been made that rendered the network modelling invalid. Therefore, Mr [redacted] view of the output of his modelling suggesting that there were no voltage-rise problems was put in question.

During the meeting with Mr [redacted], preceding his letter of 23 January 2012, he was advised that [redacted] had, in the course of ongoing activities to improve the quality of supply to customers, identified a need for some reinforcement works to be carried out in the vicinity of the proposed connection. These works would enable the connection offer to be revised, with the point of connection being moved closer to the anaerobic-digester site, thus making it cheaper. Mr [redacted] had also asked in his

letter for a revised connection offer based on the new point of connection, which was quoted at a cost of £119k +VAT, under cover of ENQ5179745, on 16 March 2012.

Following this connection offer [redacted] *then worked with Mr Barker to resolve the issue he had with the clause in section 2 of the offer, which described the potential for the generation to be constrained during periods of low load. On 20 April 2012 Mr* [redacted] *was provided, via e-mail, with alternative wording to this section, to which a response has not been received.*

4. Following this complaint being escalated through your complaints handling procedures it has still not been resolved. The complainant has set out that they consider a clause in the connection agreement to be unreasonable. How have you satisfied yourself that the terms you provided are reasonable? Why do you consider the clause in the connection offer to be necessary?

An important aspect of 'optioneering' on new connection arrangements is the ability, in liaison with the applicant, to produce connection offers and agreements specifying technical restrictions in order to enable the connection of new loads to our network at locations that would otherwise be unavailable due to unacceptable impacts on existing customers. In many cases this allows customers to obtain connections at a much reduced cost in line with their financial constraints.

[redacted] *understands that this practice is common within our industry and that it is normal practice amongst DNOs for a site-specific connection agreement to set out the terms upon which customers' installations would be and would remain connected to the distribution system. This practice is in line with the cross-industry agreed common connection charging methodology.*

in terms of the suitability of the connection offer, [redacted] *first response to the connection application was to offer a firm connection arrangement, with no technical constraints, based on a point of connection at* [redacted] *primary substation. Only at the customer's subsequent request did* [redacted] *then 'optioneer' and offer alternative arrangements that were significantly cheaper but, because of their potential adverse impact on other existing customers fed from the network, included technical constraints. In that way* [redacted] *believed that the offer being provided met all relevant requirements as it was in line with the customer's request for a cheaper solution whilst protecting the quality of supply of other existing customers*

[redacted] *believes that the clause relating to the restriction on this connection is reasonable (given the customer's unwillingness to consider a higher-cost solution without constraints) as our technical studies indicate that, without it, voltage levels would rise above statutory limits set out in the Electricity Safety, Quality and Continuity Regulations 2002, Regulation 27. and subsequently adversely affect existing customers connected to the network.*

If the customer requires [redacted] *will be happy to revert to the original unconstrained (under normal operating conditions) technical solution.*

5. What prevents you from providing the additional analysis that the complainant requires in order to assess the viability of their project?

The data provided by [redacted] *for modelling this network is typical of that provided to consultants in similar instances and we believe that it should be sufficient for them to determine project viability. This information is used for two different purposes: by* [redacted] *to determine the point of connection and by the customer to assess the overall commercial viability of the project. At no point is* [redacted] *accountable to the customer for an assessment of the commercial viability of the proposed project.*

This information provided to Mr [redacted] *was used by Utility* [redacted] *to model the network for various circuit conditions as detailed in their report, 'Load Flow Study,* [redacted]*, December, 2011'. The scope of this report was to 'assist the client in carrying out an overall project feasibility exercise', and from this it was believed the customer had used the information provided to assess the commercial viability of the project.*

[redacted] *has provided all the relevant available information to Mr* [redacted] *and the information has been used by him in producing his report.*

6. What prevents you from providing the data that the complainant deems necessary to undertake this analysis for themselves?

[redacted] *is always willing to provide customers seeking a connection to its distribution network with all of the relevant and readily available network information to enable them to carry out any network analysis they deem necessary.*

On this occasion [redacted] *has provided all of the relevant information in order to assist Mr* [redacted] *as much os possible in the development of his commercial-viability study. Without any further request from Mr* [redacted], [redacted] *felt it was reasonable to believe that it had already satisfied the customer's requirements for network information.*

As mentioned in the response to question 5 above, Mr [redacted] *has already used the information provided to carry out a commercial-viabilty study, 'Load Flow Study,* [redacted]*, December, 2011', and therefore it is believed an analysis has been undertaken.*

7. Please include any other facts relevant to the case and attach any relevant correspondence:

This dispute appears to stem from the customer's unwillingness either to accommodate the estimated cost of a firm connection or to accept the technical constraints that are of necessity associated with the lower-cost option of a non-firm connection for which we have offered terms at the customer's request. The customer appears to believe that we should take a more active role than we hove done in helping to prove the commercial viability of the proposed generation project. We believe that we have responded as required to requests for the offer of connection terms under section 16A of the Electricity Act 1989 and that the terms offered are reasonable in the circumstances. Further, we believe that we have provided all relevant available information that we have to the customer and that this should have been sufficient to facilitate modelling by the customer of the project's commercial viability under the constraints referenced in the offer of terms. There is in any event a limit to what we can reasonably be expected to do in cases such as this due to our inability to recover the costs we incur in making connection offers if such offers are not subsequently accepted and proceeded with. We appreciate that Ofgem has worked hard to remedy this particular problem by influencing the modification of section 16A of the Electricity Act 1989 by the Energy Act 2008, but the problem will remain until the regulations now made possible by section 16A are actually produced by the government. Until then we have a duty of care to the generality of connections customers and to our shareholders in respect of such potential stranded costs. Notwithstanding this, we have continued to act in good faith and to do what we reasonably could throughout our engagement with the customer and the

customer's various agents in this case in an attempt to find a mutually acceptable connection solution (which for us means one that is both technically feasible and legally compliant).

[redacted] *continues to he open to ongoing discussions regarding this offer and we note that we are still to receive a response to our last e-mail correspondence with Mr* [redacted] *of 20 April 2012 in which we continued in good faith to seek a mutually acceptable and technically viable way forward. We remain ready to assist the customer and the customer's agents in any way that we reasonably can and to provide any further offers that might better meet their requirements.*

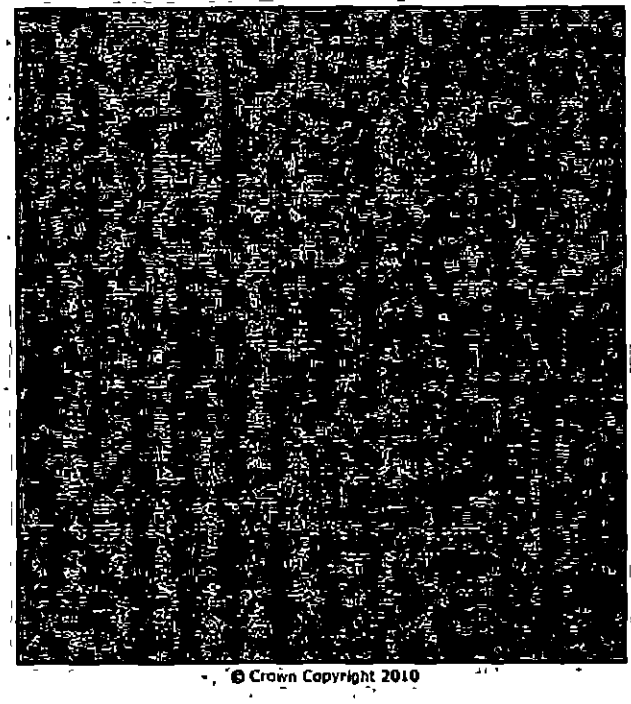
APPENDIX 3 – ORIGINAL CONNECTION REQUEST

[redacted]

From: [redacted]
Sent: 22 July 2010 14:26
To: Network Connections
Subject: FW: [redacted]
Follow Up Flag: Follow up
Flag Status: Red

Hi there, could you please raise a budget generation scheme for this site/customer (500kVA) Cheers Dave.

From: [redacted]
Sent: 22 July 2010 10:27
To: [redacted]
Cc: [redacted]
Subject: [redacted]



www.ordnancesurvey.co.uk/getamap

[redacted]

Apologies for the style of email, technology is getting the better of me. The alternative site we have found in [redacted]. It is located adjacent to the A[redacted] just north of [redacted] As discussed we ideally are looking to export 500kw, if you could give an indication as to whether this line could take

this would be ideal, if not we will need to try to find somewhere else. I believe there is a transformer on the pole in the farm yard.

If you need any other info or the map doesn't make sense please give me a call – [redacted]

Regards

[redacted]

APPENDIX 4 – FIRST BUDGET ESTIMATE

Name: [redacted]
Tel: [redacted]
Your Ref:
Our Ref: ENQ5123108, QUO5119496
Date: 06 August 2010

[redacted]

Dear Mr[redacted]

Budget estimate for electricity generation connection at

Chantry Farm, [redacted]Ne45

Enquiry No: ENQ5123108, QUO5119496

Thank you for your enquiry about this site. As you requested, I am pleased to provide you with a budget estimate for the work we believe we will need to carry out to provide an electricity connection to this development

We calculate our budget estimates by making assumptions about the work we will need to do based on similar work we have carried out in the past. We have not visited the site, analysed the electricity network in the area or carried out any technical studies. Therefore, the budget estimate we have given may differ from the amount in any later quotation.

I hope that this budget estimate is helpful to you. You should read it alongside the attached information which outlines any assumptions we have made and any aspects of the work that are likely to significantly change the charges.

We have used the information you have provided to process your application. We may also pass your details to a market research company who conduct customer satisfaction surveys on our behalf.

We aim to give the best possible service and I hope this information meets your needs. If you have any questions about the information in this letter, please contact me on the above number.

Yours sincerely

[redacted]

Budget estimate for a new electrical generation connection to the distribution system of NEDL

Your request

I understand that you need a generation capacity of 500kVA. We have based this budget estimate on providing you with this capacity.

Providing the connection

To provide this connection, our initial investigations have shown that we will need to:

- Extend the existing high voltage underground distribution system to a position on the site and install a ground mounted substation. From this substation we will install switchgear to provide a high voltage connection.

When calculating the budget estimate, we have assumed that:-

- sufficient spare capacity exists within the generation capacity of Hexham Primary local network
- there is adequate space to accommodate the additional switchgear and terminate the new circuit(s) at [redacted] primary substation
- any substation will be sited next to the public highway with 24 hour, 365 days a year unrestricted vehicular access
- you will carry out all civil works on your site, including the construction of suitable substation accommodation built to our specification
- you grant us a lease, at no cost, for the substation accommodation
- we can obtain wayleaves and any other statutory consents for the cable route. If we need to obtain any wayleaves or consents from any third parties, there will be no charge or conditions imposed upon us
- you will carry out all excavations on site
- we can provide the connection along the most direct and economical route and there are no abnormal ground conditions along that route
- the work will be carried out during normal working hours of 9am to 5pm between Monday and Friday
- there are no disturbing loads, e.g motors, welders
- your proposals will not affect any street furniture, e.g. street columns, bollards, traffic lights
- your proposals will not affect any existing assets, i.e. site entrance diversions, diversions across the site, substation re-locations
- any generation that you install complies with the associated Engineering Recommendations
- any equipment that you install which produces harmonics complies with the associated Engineering Recommendation
- any equipment you install that is classed as 'disturbing' complies with the associated Engineering Recommendation
- For large generation, you will provide the 'Normal' LV supplies. An alternative supply will be provided from a dedicated pole equipment/substation, supplied from the local 11kV network.
  (Note: To avoid earthing problems, the supply should not be provided from any existing LV's in this area). The cost of the LV supply has not been included in this estimate.

- The customer's generator will have the same technical parameters as the general parameters of a Double Fed Induction Generator, and these have been used in the assessment
- a 'Loss of Mains' scheme will be required
- Before the generation can be connected, a stability study will be required. The costs for this study and any subsequent work are as yet unknown and are not included in this estimate
- The generator connection is acceptable. However the output from the generation may have to be constrained due to export limits imposed by NGET at the GSP.

The connection budget estimate

Based on the above criteria and assumptions, we estimate that the cost of providing a connection to this site will be in the region of £1,700,000.00 plus VAT @ 17.5%

If you would like a quotation

This letter is not an offer to provide a connection and the above budget estimate is for guidance only. It is not a quotation and you cannot accept it and instruct us to start work.

If you wish to proceed with the provision of this connection and require a quotation, please write to:

[redacted]

Please send us a completed application form, a location drawing, site layout drawing and plans showing the proposed meter positions You can find all our application forms on the [redacted] website [redacted]

We will then send you a quotation detailing our charges and terms of contract.

Timescale if you accept a quotation

If you accept a quotation from us, we may need up to 9 Months to provide the connection particularly if difficulties are encountered in obtaining the necessary consents, wayleaves, materials, etc.

Competition in connection

Under competition regulations, other companies may be able to carry out some aspects of this work. If you choose to use another company, you must ensure that they are accredited by 'Lloyds Register' to undertake the work.

[redacted] records

If you need copies of [redacted] mains records you can get these by contacting us using the following contact details:-

[redacted]

APPENDIX 5 – SECOND BUDGET ESTIMATE

Name: [redacted]
Tel [redacted]
Your Ref:
Our Ref: ENQ5123108, QUO5123021
Date: 05 November 2010

[redacted]

Dear Mr [redacted]

Budget estimate for electricity connection at [redacted] Ne45

Enquiry No: ENQ5123108, QUO5123021

Thank you for your enquiry about this site. As you requested, I am pleased to provide you with a budget estimate for the work we believe we will need to carry out to provide an electricity connection to this development.

We calculate our budget estimates by making assumptions about the work we will need to do based on similar work we have carried out in the past. We have not visited the site therefore; the budget estimate we have given may differ from the amount in any later quotation.

I hope that this budget estimate is helpful to you. You should read it alongside the attached information which outlines any assumptions we have made and any aspects of the work that are likely to significantly change the charges.

We have used the information you have provided to process your application. We may also pass your details to a market research company who conduct customer satisfaction surveys on our behalf.

We aim to give the best possible service and I hope this information meets your needs. If you have any questions about the information in this letter, please contact me on the above number.

Yours sincerely

[redacted]

Budget estimate for a New electrical connection to the distribution system of [redacted]

Your request

I understand that you need a generation capacity below 200kVA. We have based this budget estimate on providing you with this capacity by installing a new discrete 200kVA pole mounted substation adjacent to the existing overhead main three phase line.
No requirement for [redacted] backup protection but an upper voltage limit will be required to be applied.

Providing the connection

To provide this connection, our initial investigations have shown that we will need to:

- Extend the existing high voltage overhead distribution system to a position on the site and install a pole mounted substation. From this substation we will lay an underground low voltage distribution cable to mutually acceptable service kiosk position.
-
- When calculating the budget estimate, we have assumed that:-
- sufficient spare capacity exists within the local high voltage network
- any substation will be sited next to the public highway with 24 hour, 365 days a year unrestricted vehicular access
- we can obtain wayleaves and any other statutory consents for the cable route. If we need to obtain any wayleaves or consents from any third parties, there will be no charge or conditions imposed upon us
- you will carry out all excavations on site
- we can provide the connection along the most direct and economical route and there are no abnormal ground conditions along that route
- the work will be carried out during normal working hours of 9am to 5pm between Monday and Friday
- your proposals will not affect any street furniture, e.g. street columns, bollards, traffic lights
- your proposals will not affect any existing assets, i.e. site entrance diversions, diversions across the site, substation re-locations
- any generation that you install complies with the associated Engineering Recommendations
- any equipment that you install which produces harmonics complies with the associated Engineering Recommendation
- any equipment you install that is classed as 'disturbing' complies with the associated Engineering Recommendation
- the customer's generator will have the same technical parameters as the general parameters of a Double Fed Induction Generator, and these have been used in the assessment
- a 'Loss of Mains' scheme will be required
- before the generation can be connected, a stability study will be required. The costs for this study and any subsequent work are as yet unknown and are not included in this estimate

The connection budget estimate

Based on the above criteria and assumptions, we estimate that the cost of providing a connection to this site will be in the region of £14000.00 plus VAT @ 17.5%

If you would like a quotation

This letter is not an offer to provide a connection and the above budget estimate is for guidance only. It is not a quotation and you cannot accept it and instruct us to start work.

If you wish to proceed with the provision of this connection and require a quotation, please write to:

[redacted]

Please send us a completed application form, ensuring you provide the following minimum information. You can find all our application forms on the [redacted] website [redacted]

- Customer name and address (correspondence address), other contact details and preferred method of contact
- Site address
- Site plan at an appropriate scale to indicate the site boundary, the layout of buildings and roads and where the customer expects a substation(s) to be required, the proposed location of the substation(s). The plan should be free of unnecessary detail and be suitable for use as a background layer for the Distributor proposal drawing.
- Proposed location of each metering point
- Letter of authority where the applicant is acting as an agent of the customer
- Date when the customer requires the connection(s) to be made
- Maximum capacity (kVA) at each metering point to be connected (for domestic premises the Distributor may require a description of the premises and whether electric space and water heating is to be installed)
- Technical details of any electricity generator that is required to operate in parallel with the supply
- Technical details of any customer owned equipment that is likely to cause disturbance to the electricity supply (i.e. large motors, welders etc.)

We will then send you a quotation detailing our charges and terms of contract.

Timescale if you accept a quotation

If you accept a quotation from us, we may need up to 6 Months to provide the connection particularly if difficulties are encountered in obtaining the necessary consents, wayleaves, materials, etc.

Competition in connection

Under competition regulations, other companies may be able to carry out some aspects of this work. If you choose to use another company, you must ensure that they are accredited by 'Lloyds Register' to undertake the work.

[redacted] records

If you need copies of [redacted] mains records you can get these by contacting us using the following contact details:-

[redacted]

APPENDIX SIX – THIRD CONNECTION OFFER

Name: [redacted]
Tel: [redacted]
Your Ref:
Our Ref: EHOS133349, CUOS134348
Date: 10 June 2011

[redacted]

Dear Mr [redacted]

Generation Connection at [redacted]
(Export Capacity 500 kW)

Thank you for your enquiry requesting the provision of a connection to [redacted] system at the address shown above. I have enclosed a quotation for you to consider.

This quotation includes charges for installation of cable in a 1200 metre route with excavation and reinstatement by the customer. A 10 metre highway crossing will be completed by [redacted] Our preferred cable installation route comprises of approx 1200 metres of verge with a 10 metre crossing of the highway. On commencement of the site works, if it is found that we are unable to use our preferred cable installation route, then it is likely that extra costs will be incurred by us and will be charged to you. We will inform you as soon as this becomes known to us and advise you of the associated increase in the charges for the work.

In accordance with provisions of our electricity distribution licence aimed at facilitating competition, we have applied a regulated margin of 4% to those elements of this quotation that [would be funded solely by you and] are identified as contestable and in respect of which you therefore could, if you wished, seek terms from alternative providers.

If you wish to accept this proposal, please complete and return the following in the enclosed pre-paid envelope: -

- The Form of Acceptance.
- The Waiver Notice. (These are attached to the back of the quotation).

As you have requested, this proposal is based on providing the connection with single circuit security. This means that should any faults occur on this circuit or maintenance work be required, the connection will become disconnected from the Distribution System.

Prior to your acceptance of this quotation, if you have any technical questions regarding the work, please contact me in the first instance.

Our aim is to give the best possible service and I hope the information provided meets your requirements. If you have any questions regarding the information contained in this letter, please contact me on the above number.

Yours sincerely

[redacted]

Quotation for a Connection to the Distribution System of [redacted]

Generation Connection for Export Operation

Name of Customer to be connected:

[redacted]

Address of Connection:

[redacted]

INTRODUCTION

Additional Terms and Conditions

The general terms for this quotation are shown in Terms & Conditions for Customer Connections; however, additional terms and conditions are included throughout this quotation.

The use of the connection is outside the scope of this quotation, however the User of the Connection should be made aware of the following points:

The use of the connection will be covered by a Connection Agreement, which the User will be required to complete before the connection is made available for use.

The use of the connection will be in accordance with the Distribution Code, which imposes certain duties. In particular, the User's obligations regarding voltage disturbances and harmonic distortion, caused by certain types of equipment, should be noted.

PLEASE NOTE:

For new connections, you will need to appoint an Energy Supplier. Your Energy Supplier is responsible for new or alterations to your existing metering equipment. Please contact them in advance to discuss your requirements. Failure to do so will result in the energisation of the connection being delayed.

The 1998 trading arrangements for the electricity industry state that, only the energy Supplier can request the Distributor [redacted] to energise a Connection and only after the Supplier has registered liability for that Connection with the Distributor.

We will notify the nominated Supplier of the MPAN number and your details in order to pre-register your supply. This does not constitute a contract between you and the Supplier.

We cannot provide an energised service until we have received a written instruction from your Supplier to do so.

Your Supplier must also confirm to us who will be the meter operator for this site.

If you change your Supplier during the course of the scheme development, then you must notify us of the change.

1. YOUR REQUEST

You have requested that we provide you with an offer of connection for you to export a maximum of 500 kW (526 kVA) onto the [redacted] import capacity of 50 kW (53 kVA). You have advised us that you only wish us to install single circuit security for this connection.

2. PROVISION OF THE CONNECTION

This quotation is based on the connection point being at 20,000 volts.

In order to provide the connection a tee off the [redacted] SW 20kV feeder at pole 17 will be established via a single underground feeder cable installed in a customer excavated & reinstated trench. [redacted] are to complete a crossing of the highway which is to be excavated and reinstated by them. Termination of this cable will be in a switch house constructed on the customers premise, by the customer and at their cost, to [redacted] specifications. The cable will terminate on an incoming switch disconnector & metered bus coupler with outgoing cable box. The bus coupler would be equipped with import and export metering and full G59 interface protection. Full G59/2 protection will be provided by the customer on his synchronising circuit breaker, this will require witness testing by [redacted] prior to commissioning.

Important: ***During Times of reduced system and local demand the required maximum 20.4kV voltage setting may trip due to overvoltage, therefore restricting it's export window. This may affect the economic viability of the project.***

The harmonic current emissions provided by the customer appear acceptable. Any harmonics produced must be within ER G5/4 limits.

The customer will be responsible for designing and installing there own earthing system to ensure that touch and step potentials are within limits.

As you have requested, this proposal is based on providing the connection with single circuit security and as such any faults or maintenance work will mean the whole site will be disconnected from the Distribution System.

2.1 Briefly, our proposals include:

- The design of the connection.
- An extension of the underground Distribution System.
- Establishing an 20,000 volt substation (excluding the building).
- The planning and supervision of our work.
- Negotiation and completion of any necessary, wayleaves, easements and leases for our work.
- Installing equipment suitable to connect the metering apparatus including metering CT's & VT's but not metering instruments.
- Witnessing of your G59/2 commissioning tests.
- We will terminate your high voltage cable onto our apparatus; the type of cable we accept will be agreed between yourselves and our construction engineer.

Your electrical contractor will be required to ensure that your installation complies with current statutory requirements before we make the connection available for use.

Wall space of 1.5 x 1.5 metres is required for metering apparatus within approximately 10 metres of our metering circuit breaker, it must be accessible for meter reading. This space is usually in your switch room adjacent to our substation but if this is not convenient, please advise us so we can discuss an alternative location.

2.2 Protection

We will install a mini SCADA protection system at the site that will transmit alarms and analogues from the generation site to [redacted] Primary substation. This will enable inter-tripping between [redacted] Primary substation and at your site. The operation of this will disconnect your site from our Distribution System.

As no protection equipment is failsafe, you should satisfy yourself that you have back up protection suitable to ensure the safety of your equipment.

For generation connections over 1 MW capacity protection systems using ROCOF, REED, Vector shift or similar protection arrangements are unacceptable due to the increasing volume of embedded generation connected to our Distribution System and the increased likely hood of dependent failure.

2.3 Substation Accommodation

Our proposals are based on you providing the substation land and building to our specification to house our switchgear and the metering apparatus at your own cost. You will also be responsible for obtaining planning permission for this substation building.

In the substation we need you to provide us with a 230-volt, 15 amp, single-phase electricity connection, switch fuse, lighting, tubular heaters and a 13 Amp socket outlet. The electricity used is to be provided by the customer at nil cost for the lifetime of the connection.

After this quotation is accepted, our local staff will advise you of our basic high voltage substation building specification. Please provide us with a drawing of your proposed building prior to you commencing the work so we can ensure its suitability.

Our use of this substation and the routes for our circuits on your site will be secured by a lease and easements, the terms of which are outside the scope of this quotation. This quotation is made on the basis that we will not be required to pay for the lease or any easements.

When you accept this quotation, please provide us with a scaled location plan showing the land you are providing for the substation site, with reference positions so lease drawing/s can be prepared. We will then send two copies of the "Heads of Terms" outlining our standard requirements for the lease.

All leases and any easements will need to be completed before we can start work on site.

2.4 Excavation

This quotation is made on the basis that you will be carrying out the excavation and reinstatement of any trenches required for our cables on your site.

Any excavation work off your site will be carried out by us.

2.5 Our Proposals do not include:

- Metering instruments or remote meter reading facilities
- Any building and civil works at the generation site which are to be undertaken by yourselves.
- The provision of your switchgear and plant.
- Generator protection to G59/2
- Generator synchronisation equipment.
- Any testing on the your installation

2.6 Timescale

From us receiving the signed Form of Acceptance of this quotation from you and all relevant legal documents having been completed by you or any third parties, we estimate that this connection can be made available for your use in approximately 9 months. However, we will use our best endeavours to keep this timescale to a minimum.

3. THE CONNECTION CHARGE

The payment required for providing the connection is;	£173,110.00
VAT @ 20.0%	£ 34,622.00
Total	£207,732.00

Please provide a cheque with your acceptance.

The charge for work shown is based on the work being carried out during our normal working hours of 9 AM to 5 PM between Monday to Friday. If you require us to work outside of these hours, we will need to re quote you in line with your requirements.

The connection charge is based on current charges and the proposed design of the connection work. The charge set out in our quotation is fixed for sixty days from the date of the quotation. We reserve the right to review the charge before commencement of the work, in the event of any increase in our costs between the end of the fixed charge quotation period and the commencement of the work, and during the course of the work should the design parameters change or should there be any other alteration or amendment to the agreed works, whether such changes are instigated by us or by you. You will be notified in writing of any increase in the connection charge that is identified in advance of the commencement of the work and your agreement to proceed will be required before any work is commenced. Where any increase in the connection charge is identified during the course of the work you will be notified and your agreement to proceed will be required before any further work is undertaken that would increase the charge beyond the value already agreed by you. If you do not agree to any increased charge you or we may cancel the contract and you may obtain a refund of sums paid in respect of the proposed connection works, less our reasonable costs incurred at the time of cancellation.

We always offer the least cost method for us to provide a reliable and efficient connection to our distribution system. However, we would be happy to discuss with you the alternative option of you (or your contractor) doing some parts of the work. If you would like more information on how this would work, please ask for a copy of our explanatory leaflet on Competition in Connections.

For your information, the non contestable cost element of the connection project is likely to be in the region of £30,000.00 + VAT.

This is an indication of the costs that we would need to charge if you chose to have the contestable elements of whole project undertaken by an independent connection provider (ICP). This cost varies slightly depending on the details of the alternative connection project proposed by your ICP.

If you would like a quotation for just the non contestable elements, then please apply a for Point of Connection (PoC) offer using the Point of Connection Application form available on our website – [redacted]

3.1 Terms of Payment

The total Connection Charge will need to be completely paid along with acceptance. Stage payments will be considered subject to successful credit vetting.

		Payment Required:	Plus VAT @ 20.0%	Total:
1	upon accepting this quotation	£173,110.00	£34,622.00	£207,732.00
	Total	£173,110.00	£34,622.00	£207,732.00

The above figures will be subject to VAT at the appropriate rate as indicated above. Please provide a cheque with your acceptance.

4. MAXIMUM CAPACITY

The maximum capacity provided for via this connection for export purposes will be 526 kilovolt-amperes. The maximum capacity provided for via this connection for import purposes will be 53 kilovolt-amperes.

5. USE OF SYSTEM CHARGES

5.1 Exported Energy

[redacted] 'Use of Distribution System' charges for exported energy will be charged in accordance with our Statement of Charges as amended from time to time.

5.2 Imported Energy

Your supplier of electricity will be charged as stated in our Statement of Charges as amended from time to time.

These charges may include a component (the Availability Charge) related to the capacity being reserved for the user of the connection. This will initially be at the level stated in this quotation in Maximum Capacity.

When a connection agreement is in place between the user of the connection and [redacted] the Availability Charges will be based on the Maximum Capacity stated in the agreement.

The user may request that the Maximum Capacity be varied from the level stated in this quotation on entering the Connection Agreement or as a request for a modification under the agreement. The effect on the use of system charges is subject to the published conditions relating to those charges. The request may also result in [redacted] either proposing a modification to the connection or requiring the user to pay a capital sum towards the ongoing costs of operation, repair and maintenance of equipment provided under this quotation which will not be utilised as fully as [redacted] expects at the date of this quotation.

6. THE CONNECTION CHARACTERISTICS

6.1 Import from our Distribution System

6.1.1 Standard of Security

The standard of security of supply of our system to which this connection will be made will comply with the conditions given in The Distribution Code.

6.1.2 Voltage, Frequency and Short Circuit Level

The connection will permit a supply to be provided at three-phase alternating current at a nominal voltage of 20,000 volts and a normal frequency of 50Hz.

6.1.3 Exit Point

The exit point (i.e. our distribution system connection to the User's system) will be at the out going terminals of the metering circuit breaker. The terminals being [redacted] and the cable connected to them being yours

6.1.4 Earthing

We do not provide an earth terminal. It is therefore your responsibility to ensure that adequate earthing arrangements are made for both your high and low voltage systems. Where an earth connection is required, the Electricity Safety, Quality and Continuity Regulations 2002 should be met.

It will be the customers responsibility to design and install their earthing system to ensure touch and step potentials

It may be necessary to interconnect the User's earthing system with [redacted]. Details of any interconnections are outside the scope of this quotation and will be discussed with you on site.

Please confirm to us the rise in earth potential from your installation; this must comply with Engineering Recommendation S36. If more than 430 volts we must inform British Telecom and phone equipment used on site must have isolating transformers fitted.

6.1.5 Breaking Capacity of High Voltage Switchgear.

It is your responsibility to provide suitable equipment to protect the User's installation against excess energy.

6.1.6 Disconnection from [redacted] System in an Emergency by the User

A push button will be provided adjacent to the metering which will enable you to disconnect your installation form [redacted] Distribution System in an emergency. This facility can be extended to provide a push button at an alternative location and we will be pleased to quote for this work if required.

If the push button is used reconnection will have to be carried out by [redacted] personnel. A charge will normally be made for this service.

6.1.7 Maximum Import Capacity

The maximum import capacity will be that shown in item 4 above and is based on a site power factor between 0.95 lagging to Unity.

6.2 Export to [redacted] Distribution System

6.2.1 Standard of Security

This will be the same as 6.1.1 above.

6.2.2 Voltage, Frequency

The connection will permit energy to be exported at three-phase alternating current at a nominal voltage of 20,000 volts and a nomal frequency of 50Hz.

6.2.3 Exit Point

This will be the same as 6.1.3 above.

6.2.4 Earthing

The star point of your generator/s must not be connected to earth when they are in parallel with [redacted] Distribution System. You may wish to earth the framework of them.

6.2.5 Maximum Export Capacity

The maximum export capacity will be that shown in item 4 above which is based on an exported site power factor being between 0.95 lagging and Unity. The lagging power factor indicates the site is exporting both Var's and watts.

7. INTERRUPTIONS

This offer of connection is based on the level of security you have requested from us. Whilst the security of the connection will be extremely high, it cannot be guaranteed that no interruptions will occur.

Parts of our Distribution System are subject to short term interruptions (typically up to 30 seconds) due to the use of high-speed automatic reclose switches. You should satisfy yourself, therefore, that the apparatus you intend to install will not be adversely affected. Liability cannot be accepted for losses resulting from any interruptions.

8. INTERFERENCE TO OTHER USERS

Your installation must comply with current statutory requirements and must not cause interference on the [redacted] Distribution System, or with others connected to the [redacted] System. If your installation causes interference with the [redacted] System, or with customers connected to the [redacted] System, you will be responsible for any damage caused and losses, costs or expenses arising as a result.

9. PRIVATE STANDBY GENERATION

Standby generating plant must be installed in such a way so as to prevent the generator connection being in parallel with the [redacted] system. A drawing showing the proposed interlocking arrangements of the generating equipment must be provided for checking before the plant is installed.

10. METERING WAIVER

We will install metering current and voltage transformers (CT's & VT's) to facilitate the measurement of energy through the connection. The provision of the metering

instruments will need to be clarified between you, your Supplier, your Meter Operator and ourselves.

As different parties are likely to own different items of the overall metering apparatus the metering cannot be certified. To comply with the provisions of The Electricity Act 1989 (as amended) in adopting this procedure your consent is needed to use non-certified metering. A waiver notice, giving this consent, is attached. The completion of this waiver notice does not affect your statutory rights in obtaining a determination by a Meter Examiner in the event of a dispute concerning this metering.

If the end user of this connection intends to use another Meter Operator you must inform us of the name and address of that Operator on your acceptance form. Failure to inform us will cause delays to the provision of the connection.

11. AUTHORISED PERSONNEL

The connection and your installation will be subject to the Distribution Code and The Electricity Safety, Quality and Continuity Regulations 2002. Under the Distribution Code you are required to appoint authorised persons to carry out the control, operation, work or testing of any plant and apparatus forming part of, or connected to, the [redacted] distribution system.

Please Note: If the engineer in charge of the on site works does not receive your written confirmation of your authorised staff, [redacted] will not be able to energise your connection.

If you do not wish to appoint your own authorised persons then [redacted] will be pleased to provide a quotation for acting on your behalf in this capacity, please contact me for more details.

12. ASSISTANCE

Our aim is to provide the best possible service. If you have a query or need clarification on any aspect of our quotation, please ring us on the above telephone number. We will be pleased to assist.

However, if you wish to complain about the way in which we have dealt with your query, then we want to know.

We will investigate and where appropriate, put matters right.

Please contact me on the number provided and your complaint will be thoroughly reviewed.

13. DATA PROTECTION

We will use the information you have provided for the purpose of administering your quotation, providing you with the service covered by the quotation and for research and statistical analysis.

To: Central Receipting

[redacted]

FORM OF ACCEPTANCE for a GENERATION CONNECTION

This form must be completed by the person or organisation that will be responsible for paying the charges for providing a connection to the distribution system of [redacted]. Please enclose a cheque.

Your Details:

Company Name: _____

Address: _____

_____

Postcode: _____

Invoice/Receipt Address: (if different)

Name: _____

Address: _____

_____

Postcode: _____

Please note: we will not start work until this form has been completed and returned to us.

Connection Name & Address: [redacted]

Enquiry No: EN0513S349;0U05134348

Import Capacity: 50 kW (53 kVA) **Export Capacity: 500 kW (526 kVA)**

Payment Required:

		Payment Required:	Plus VAT @ 20.0%	Total:
1	upon accepting this quotation	£173,110.00	£34,622.00	£207,732.00
	Total	£173,110.00	£34,622.00	£207,732.00

Income Code: Generation

Subject to the conditions of the quotation it is estimated that the connection can be provided approximately 9 months from the date [redacted] receive this for

The charges for energy are outside the scope of this quotation.

Having received your written acceptance of our quotation relating to the above, together with everything else we need in order to proceed, please provide us with your UK contact details so we can contact you on a working day during the period 9.00am to 5.00pm to begin the process of agreeing a schedule of work dates.

Method of Contact

Preferred Work Start Date:

Site Contact Name:

Site Contact Address:

Telephone:

Email:

Under the 1998 trading arrangements, [redacted] are unable to energise the high voltage connection until your appointed supplier has registered suitably with our Registration Service and instructed us to energise.

Energy Supplier: _____

Meter Operator: _____

Please tick this box if you have not yet appointed an Energy Supplier ☐

If you do not confirm to us the Name, address, Phone & Fax No of you Energy Supplier and Meter Operator we will be unable to energise the connection.

I certify that the wiring installation as described at the above address will be completed and tested in accordance with the British Standard 7671 (IEE Wiring Regulations) and, where a NEDL earth connection is required, the particular requirements for bonding The Electricity Safety, Quality and Continuity Regulations 2002 have been met.

I/We accept the quotation for a connection to the above site in accordance with the terms and conditions given in that quotation and confirm the installation complies with Engineering Recommendation G59 and The Distribution Code.

Signed: _____ Date: _____

Name (in capitals): _____

Position: _____

[redacted] CURRENT TRANSFORMER OPERATED METERING WAIVER AGREEMENT

This Agreement is made the day of _____ 2011

Between [redacted]
Registered Office: [redacted]
and ('the Consumer')

1. The Consumer agrees that as from the date of this agreement where the electricity consumption is registered through meters then the metering equipment (including any time switches and contactors) relating to the supply need not be certified under the provisions of The Electricity The Electricity Act 1989 (as amended) or any subsisting statutory modification or re-enactment thereof insofar as it is lawful for such agreement to be given.

2. For the avoidance of doubt it is hereby declared that this agreement shall apply to the supply of electricity now taken by the Consumer from [redacted] at The provisions of this agreement do not preclude a statutory determination by a Meter Examiner in the event of a dispute concerning the said metering.

3. If any difference arises between [redacted] and the Consumer as to whether a meter is registering correctly the matter may be determined by a Meter Examiner in accordance with the said Act.

SIGNED _____ The Consumer /On behalf of the Consumer

NAME (in Caps)_____

NOTE: In the case of partnerships, the full names of all Partners must be given and the agreement signed by the individual Partners or by one Partner 'for self and Partners'. In the case of a Limited Company it must be signed by a Director, Manager or Secretary, duly authorised to sign on behalf of the Company.

Please complete and return this form to: [redacted]

Central Receipting
[redacted]

TERMS AND CONDITIONS OF CONTRACT FOR THE WORKS REQUIRED TO THE ELECTRICITY DISTRIBUTION SYSTEM

1. **DEFINITIONS**

1.1. "Customer" means the person, firm, or company whose name appears on the Quotation;

1.2. "Contract" means the Contract entered into between the parties consisting of the Quotation, these terms and conditions and the Quotation Acceptance Form;

1.3. "Work" or "Works" means the works to be carried out by the Distributor for the Customer as stated in the Quotation and as amended pursuant to these terms and conditions;

1.4. "Contract Price" means the price stated in the Quotation as being the amount payable by the Customer for the completion of the Works as varied in accordance with the Contract;

1.5. "Distributor" means [redacted] and its successors in title or [redacted] and its successors in title as applicable;

1.6. "Distribution System" means the electricity distribution system of either [redacted] or [redacted] plc as applicable;

1.7. "Quotation" means the offer made by the Distributor to the Customer to carry out the Works that incorporates the Quotation letter[, the contract-specific information] and the terms and conditions set out in this Part 2 and stating the Contract Price; and

1.8. "Quotation Acceptance Form" means the acceptance form to be returned by the Customer to the Distributor.

2. **CONTRACT CONDITIONS**

2.1. These terms and conditions shall be the terms and conditions of Contract. They shall prevail over any other terms and conditions.

2.2. The Contract Price is based on the proposed design of the Works and prices current as at the date of this Quotation. Both parties agree that the Distributor shall have the right at its sole discretion to vary the Contract Price:

2.2.1. following acceptance of this Quotation but prior to commencement of the Works; and/or

2.2.2. if the design of the Works or any of the design parameters alter, or a variation or change during the construction of the Works; and/or

2.2.3. if, for any reason (other than those reasons already detailed in sub-Clause 2.2.2 above) there is any alteration, variation or amendment to the Works, irrespective of which party initiated such alteration, variation or amendment; and/or

2.2.4. if the Works:

2.2.4.1. are not completed within the period of 12 months from the date of this Quotation; or

2.2.4.2. are suspended at the Customer's request for more than 3 calendar months pursuant to Clause 5.2; or

2.2.4.3. are suspended pursuant to Clause 6.3.

2.3. If the Contract Price ("Existing Contract Price") is varied pursuant to Clause 2.2.1 you will be notified in writing of the revised Contract Price and we will not commence the Works until we receive your agreement to the revised Contract Price in writing.

2.4. If we intend to revise the Existing Contract Price pursuant to Clause 2.2.2, to 2.2.4 (inclusive) you will be notified of the revised Contract Price in writing and we will not complete any works, the value of which exceeds the Existing Contract Price, until such time as you notify us in writing of your acceptance of the revised Contract Price.

2.5. If we notify you of a revised Contract Price in accordance with Clauses 2.3 or 2.4 and you decide not to accept the revised Contract Price, either party has the right to terminate this Contract by 7 days' prior notice in writing to the other. We will refund to you an amount equal to the Existing Contract Price, less (i) the value of the works completed as at the date of termination, (ii) the costs of making the works safe and (iii) our reasonable costs incurred at the time of cancellation, including (without limitation) the costs associated with canceling or terminating any contracts for the supply of any plant, materials or equipment and any contracts for labour or the costs of the same if they cannot be canceled or terminated.

3. **PERIOD OF QUOTATION**

The Quotation is open for acceptance by the Customer for a period of 60 calendar days from the date of it, or as otherwise specified in the Quotation.

4. DRAWINGS

The Distributor accepts no responsibility for any drawing, design or specification not prepared by it. The reasonable cost of any additional work to be carried out by the Distributor as a result of defects or omissions in any such drawing, design or specification shall be calculated and the Contract Price varied pursuant to Clause 2.2.2 or 2.2.3 (as applicable).

5. ALTERATIONS AND ADDITIONS

5.1. The work to be carried out by the Distributor shall be that described in this Quotation unless both parties agree otherwise in writing in which case the consequential alteration, variation or amendment to the Contract Price shall be calculated and agreed with the Customer before any alterations to the Works are agreed pursuant to Clause 2.

5.2. If the Customer suspends the Works for any reason, the Contract Price shall be altered, varied or amended in accordance with Clause 2.

6. TERMS OF PAYMENT

6.1. Subject always to subclause 6.2, the Contract Price is payable by the Customer on the date upon which the Quotation Acceptance Form is received by the Distributor unless otherwise set out in this Quotation. If payment of the Contract Price (or any relevant Milestone payment comprising part of the Contract Price) is not made by you within 14 days of the date of an invoice issued by us then we reserve the right to charge interest on the outstanding balance at the rate of 2% per annum above the base rate from time to time of National Westminster Bank plc from the date payment was due until the date payment is made.

6.2. If this Quotation states that payment of the Contract Price is satisfied with the return of the Quotation Acceptance Form then it is a condition precedent of this offer that the payment is so made. If this condition is not met no Contract shall be created, notwithstanding the return of the Quotation Acceptance Form, until such time as the Distributor receives the payment.

6.3. If the Customer fails to make any payment when due then in addition to the rights reserved to the Distributor pursuant to subclause 7.4 below the Distributor shall also have the right by notice in writing to the Customer to suspend all its obligations under the Contract forthwith until such time as payment is made. Any costs, losses and expenses whether direct or indirect incurred or suffered by the Distributor as a result of the suspension and subsequent resumption of the Works shall be added to the Contract Price.

7. TERMINATION AND TITLE

7.1. The Customer acknowledges that the Works comprise alterations or improvements to the Distribution System and that notwithstanding payment of the Contract Price the Customer shall not be entitled to any right, title or interest of any nature in any of the assets, equipment or plant used in connection with the Works or created as a result of it.

7.2. The Distributor is entitled to enter upon any premises owned or occupied by the Customer to carry out the Works or to recover assets, equipment or plant.

7.3. Subclause 7.4 below applies if:

7.3.1. either party ("Defaulting Party") commits any breach of the Contract (including failure to pay on the due date any charge, instalment or other payment); or

7.3.2. the Defaulting Party makes any voluntary arrangement with its creditors or becomes subject to an administration order or (being an individual or firm) becomes bankrupt or (being a company) goes into liquidation (otherwise than for the purpose of amalgamation or reconstruction); or

7.3.3. an encumbrancer takes possession, or a receiver is appointed, over any of the property or assets of the Defaulting Party; or

7.3.4 the Defaulting Party ceases to carry on business; or

7.3.5 the other party ("Party not in Default") reasonably apprehends that any of the events mentioned above is about to occur in relation to the Defaulting Party and notifies the Defaulting Party accordingly.

7.4. If this subclause 7.4 applies then, without prejudice to any other right or remedy, the Party not in Default shall be entitled by written notice to terminate the Contract. In any case where the Customer is the Defaulting Party, and any of the Work has been carried out but not paid for, the Customer shall pay to the Distributor a sum of money equal to the value of such Work as determined by the Distributor notwithstanding any previous agreement to the contrary.

8. COMMENCEMENT AND COMPLETION

8.1 The Works shall be commenced and completed on agreed dates and shall be completed with all reasonable speed. Without prejudice to the generality of subclause 9.4 below the Distributor shall have no liability whatsoever to the Customer in respect of any losses, costs or expenses suffered or incurred by the Customer whether directly or indirectly as a result of the failure of the Distributor to complete the Work by any such date.

9.2. If the Distributor shall suffer any direct loss and/or expense by reason of the regular progress of the Work having been impeded by any reason other than any act, omission or default of the Distributor, then the amount of such loss and/or expense shall be ascertained by the Distributor and be added to the Contract Price. This subclause shall not prejudice any other rights or remedies of the Distributor.

9. LOSS OR DAMAGE

9.1. The liability of either party for death or personal injury caused by its negligence shall not be limited.

9.2. Subject to the provisions of subclauses 9.3 and 9.4 below, the liability of either party ('Party Liable') in respect of any losses, costs or claims suffered by or made or threatened against the other party ('Other Party') which arise out of the negligence or breach of contract or other default of the Party Liable shall be limited to the lesser of one million pounds and the Contract Price.

9.3. Where in the course of carrying out the Work the Distributor works on or tests any equipment owned by the Customer or any third party, the Customer shall bear the cost of repairing or replacing any such equipment that is damaged or destroyed by such work or tests (except where such damage or destruction is caused by the negligence of the Distributor in which event the Distributor's liability shall be limited to the lesser of (i) the cost of effecting the repair or replacement, (ii) the Contract Price or (iii) five hundred thousand pounds). The Customer authorises the Distributor to execute any such repair or replacement and, save as set out above, agrees to pay the reasonable cost of doing so. All such work shall be in accordance with these terms and conditions.

9.4. Neither Party shall be liable in respect of any indirect, consequential or economic loss, loss of contract or loss of profit that arises out of the negligence or breach of contract or other default of the Party Liable.

10. SUBSTITUTION OF EQUIPMENT

The Distributor reserves the right to substitute other equipment for equipment specified in the Quotation. However, if any such substitution is likely to increase the Contract Price, such substitution will be first agreed with the Customer.

11. ASSIGNMENT

The Customer shall not, without the written consent of the Distributor, assign the benefit of the Contract.

12. VALUE ADDED TAX

The Contract Price shall be increased as appropriate by the amount of any Value Added Tax (at the rate from time to time in force) properly payable in respect of the Work.

13. CONNECTION AGREEMENT

The Customer acknowledges and agrees that, unless stated to the contrary in the Quotation, no equipment or installation, whether belonging to the Customer or any other person, firm or company, will be connected to the Distribution System or energised unless and until the person, firm or company (whether or not the Customer) whose equipment or installation is intended to be connected to the Distribution System has executed and completed the Distributor's standard form of Connection Agreement.

14. SUBSTATION SITES, EASEMENTS AND WAYLEAVES

14.1. As soon as reasonably practicable following the date of the Contract, the Distributor shall establish its requirements for substations, overhead electric lines, underground electric lines and all ancillary apparatus and will notify the Customer of such requirements. Insofar as it is within the ability of the Customer to grant or procure the grant of any conveyances, transfers, leases, deeds of grant and Wayleave consents required by the Distributor, the Customer shall do so without delay or charge and on terms acceptable to the Distributor. Insofar as it is not within the ability of the Customer to grant or procure the grant of any conveyances, transfers, leases, deeds of grant and Wayleave consents, the Distributor will contact the owner/occupiers of the area(s) of land affected by the relevant requirements and attempt to negotiate and complete all relevant conveyances, transfers, leases, deeds of grant and Wayleave consents. All payments that the Distributor agrees to make to such owner/occupiers will be repaid by the Customer on demand provided that any such amount in excess of £1,000 (individually, not collectively) shall not be incurred without the agreement of the Customer. The Distributor reserves the right to delay commencement of any other part of the Work until all conveyances, transfers, leases, deeds of grant and Wayleave consents required by the Distributor have been legally completed.

14.2. In the event that the Distributor, having used reasonable endeavours (such expression not being deemed to require the Distributor to use any or all of its statutory powers), has been unable to complete any or all

of the said conveyance, transfers, leases, deeds of grant and Wayleave consents within six calendar months of the date of the Contract, or the Customer has not agreed to the amounts referred to in subclause 14.1, the Distributor shall be entitled at any time after such date to terminate the Contract forthwith by notice in writing to the Customer. If it does so, the Distributor shall refund to the Customer within 14 days of the date of the said notice all amounts paid by the Customer to the Distributor pursuant to the Contract less a reasonable amount to reflect the parts of the Work already carried out by the Distributor. If the Customer has not made any payment to the Distributor, the Customer shall pay to the Distributor such amount as the Distributor reasonably considers reflects the parts of the Work already carried out.

15. LEGAL CONSTRUCTION

The Contract shall be governed by and construed in accordance with English law and the parties agree to submit to the exclusive jurisdiction of the English courts.

16. WHOLE AGREEMENT

The Customer acknowledges that the Contract comprises the whole agreement between the parties and that the Customer has not, in entering into the Contract, relied upon any oral or written representation made to the Customer by the Distributor or its employees or agents.

17. WAIVER

The failure by either party to enforce at any time or for any period any one or more of the terms and conditions of the Contract shall not be a waiver of them or of the right at any time subsequently to enforce all terms and conditions of the Contract.

18. UNENFORCEABLE CONDITIONS

If any provision of these terms and conditions is held by any competent authority to be invalid or unenforceable in whole or in part, the validity of the other provisions of these terms and conditions and the remainder of the provision in question shall not be affected thereby.

19. FORCE MAJEURE

The Distributor shall not be liable to the Customer for any delay or failure due to any cause beyond the Distributor's reasonable control.

20. ADDITIONAL TERMS AND CONDITIONS

There shall be deemed included within these terms and conditions any other terms and conditions that are contained in the Quotation and are stated to be 'Additional Terms and Conditions'.

APPENDIX 7 – FOURTH CONNECTION OFFER

Name: [redacted]

Tel: [redacted]

Your Ref:

Our Ref: ENQ5179745, QUO5169804

Date: 16 March 2012

[redacted]

Dear Mr [redacted]

Generation Connection at [redacted]
(Export Capacity: 500 kW)

Thank you for your enquiry requesting the provision of a connection to [redacted] system at the address shown above. I have enclosed a quotation for you to consider.

This quotation includes charges for 150 metres in total, for cable installation. On commencement of the site works, if it is found that we are unable to use our preferred cable installation route, then it is likely that extra costs will be incurred by us and will be charged to you. We will inform you as soon as this becomes known to us and advise you of the associated increase in the charges for the work.

In accordance with provisions of our electricity distribution licence aimed at facilitating competition, we have applied a regulated margin of 4% to those elements of this quotation that [would be funded solely by you and] are identified as contestable and in respect of which you therefore could, if you wished, seek terms from alternative providers.

If you wish to accept this proposal, please complete and return the following in the enclosed pre-paid envelope: -

- The Form of Acceptance.
- The Waiver Notice. (These are attached to the back of the quotation).

As you have requested, this proposal is based on providing the connection with single circuit security. This means that should any faults occur on this circuit or maintenance work be required, the connection will become disconnected from the Distribution System.

We will use the details you provide to process your connection request and to monitor the service we provide. If you accept our quotation your contact details will be used by [redacted] and its appointed delivery partners for the purpose of informing you about the progress of your electricity connection, this will be either by e-mail or text message. Your details will be kept securely and will not be used for marketing purposes. The electricity industry regulator, Ofgem, may contact you to conduct a customer satisfaction survey into [redacted] service delivery performance.

Enclosures, Form Of Acceptance, Waiver Notice, Prepaid Envelope

ngenquot v9.0

Our aim is to give the best possible service and I hope the information provided meets your requirements. If you have any questions regarding the information contained in this letter, please contact me on the above number.

Yours sincerely

[redacted]

Enclosures: Form Of Acceptance, Metering Waiver Notice, Prepaid Envelope

Quotation for a Connection to the Distribution System of [redacted]

Generation Connection for Import & Export Operation

Name of Customer to be connected:

[redacted]

Address of Connection:

[redacted]

INTRODUCTION

Additional Terms and Conditions

The general terms for this quotation are shown in Terms & Conditions for Customer Connections, however, additional terms and conditions are included throughout this quotation.

The use of the connection is outside the scope of this quotation, however the User of the Connection should be made aware of the following points:

The use of the connection will be covered by a Connection Operational Statement, which the User will be required to complete before the connection is made available for use.

The use of the connection will be in accordance with the Distribution Code, which imposes certain duties. In particular, the User's obligations regarding voltage disturbances and harmonic distortion, caused by certain types of equipment, should be noted.

PLEASE NOTE:

For new connections, you will need to appoint an Energy Supplier. Your Energy Supplier is responsible for new or alterations to your existing metering equipment. Please contact them in advance to discuss your requirements. Failure to do so will result in the energisation of the connection being delayed.

The 1998 trading arrangements for the electricity industry state that, only the energy Supplier can request the Distributor [redacted] to energise a Connection and only after [redacted] Connection with the Distributor.

We will notify the nominated Supplier of the MPAN number and your details in order to pre-register your supply. This does not constitute a contract between you and the Supplier.

We cannot provide an energised service until we have received a written instruction from your Supplier to do so.

Your Supplier must also confirm to us who will be the meter operator for this site.

If you change your Supplier during the course of the scheme development, then you must notify us of the change.

1. YOUR REQUEST

You have requested that we provide you with an offer of connection for you to export a maximum of 500 kW (526 kVA) onto the [redacted] Distribution System import capacity of 50 kVA (53 kVA). You have advised us that you only wish us to install single circuit security for this connection.

You are installing one generator with a capacity of 500 kW.

2. PROVISION OF THE CONNECTION

This quotation is based on the connection point being at 20,000 volts.

The local high voltage network (20,000V tee to [redacted]) is single phase and cannot accommodate the proposed generation.

In order to provide the connection it is proposed to tee into the existing overhead [redacted] Sw 20kV teeded feeder at Pole 8 by installing a 185mm Al Triplex cable to the site via a customer excavated and reinstated trench. Termination will be onto a 20kV Visax incomer and generator metered bus coupler unit.

The proposed connection to the customer's switchboard will be via a customer provided cable and terminated by the customer onto the switchgear under the supervision of [redacted] staff. The existing sectionaliser at [redacted] to be removed and replaced with an aerial switch.

A new protection zone is to be created by installing a fused in-line section on the [redacted] 20kV teeded feeder at a pole 10.

Important: Our studies indicate that the HV voltage at the generator HV connection point will be limited to a maximum of 20.4 kV.

It must be emphasised to the customer that this overvoltage setting may restrict the generators export capability at times of reduced system and local demand and it could trip due to overvoltage caused by them. They would need to decide if this would make the project economically viable. Circuit data and UPP half hour feeder load data has been provided to allow the customers consultant to carry out load flow studies to ascertain the viability.

The generator should ideally operate at the power factor of the system, in [redacted] Primary substations case 0.96 lag, but must operate between 0.95 lag (exporting VAR's) to unity.

The customer will need to fit full G59/2 protection to their synchronising switchgear. Which will need to be witness tested by our protection section.

2.1 Briefly, our proposals include:

- The design of the connection.
- An extension of the underground Distribution System.

- Establishing a 20,000 volt substation (excluding the building).
- The planning and supervision of our work.
- Negotiation and completion of any necessary wayleaves, easements and leases for our work.
- Installing equipment suitable to connect the metering apparatus including metering CTs & VTs but not metering instruments.
- Witnessing of your G59/2 commissioning tests.
- We will terminate your high voltage cable into our apparatus; the type of cable we accept will be agreed between yourselves and our construction engineer.

Your electrical contractor will be required to ensure that your installation complies with current statutory requirements before we make the connection available for use.

Wall space of 1.5 x 1.5 metres is required for metering apparatus within approximately 10 metres of our metering circuit breaker, it must be accessible for meter reading. This space is usually in your switch room adjacent to our substation but if this is not convenient, please advise us so we can discuss an alternative location.

2.2 Protection

We will install a mini SCADA protection system that will transmit alarms and analogues from the generation site to [redacted] Primary substation.

As no protection equipment is failsafe, you should satisfy yourself that you have back up protection suitable to ensure the safety of your equipment.

For generation connections over 1 MW capacity protection systems using ROCOF, REED, Vector shift or similar protection arrangements are unacceptable due to the increasing volume of embedded generation connected to our Distribution System and the increased likely hood of dependent failure.

2.3 Substation Accommodation

Our proposals are based on you providing the substation land and building to our specification to house our switchgear and the metering apparatus at your own cost. You will also be responsible for obtaining planning permission for this substation building.

In the substation we need you to provide us with a 230-volt, 15 amp, single-phase electricity connection, switch fuse, lighting, a 360 watt tubular heater and a 13 Amp socket outlet. The electricity used is to be provided by the customer at nil cost for the lifetime of the connection.

After this quotation is accepted, our local staff will advise you of our basic high voltage substation building specification. Please provide us with a drawing of your proposed building prior to you commencing the work so we can ensure its suitability.

Our use of this substation and the routes for our circuits on your site will be secured by a lease and easements, the terms of which are outside the scope of this quotation. This quotation is made on the basis that we will not be required to pay for the lease or any easements.

When you accept this quotation, please provide us with a scaled location plan showing the land you are providing for the substation site, with reference positions so lease drawing/s can be prepared. We will then send two copies of the "Heads of Terms" outlining our standard requirements for the lease.

All leases and any easements will need to be completed before we can start work on site.

2.4 Excavation

This quotation is made on the basis that you will be carrying out the excavation and reinstatement of any trenches required for our cables on your site.

Any excavation work off your site will be carried out by us.

2.5 Our Proposals do not include:

- Metering instruments or remote meter reading facilities
- Any building and civil works at the generation site which are to be undertaken by yourselves.
- The provision of your switchgear and plant.
- Generator protection to G59/2
- Generator synchronisation equipment.
- Any testing on the your installation

2.6 Timescale

From us receiving the signed Form of Acceptance of this quotation from you and all relevant legal documents having been completed by you or any third parties, we estimate that this connection can be made available for your use in approximately 9 months. However, we will use our best endeavours to keep this timescale to a minimum.

3. THE CONNECTION CHARGE

The payment required for providing the connection is:	£119933.00
VAT @ 20.0%	£23986.60
Total	£143,919.60

Please provide a cheque with your acceptance.

The charge for work shown is based on the work being carried out during our normal working hours of 9 AM to 5 PM between Monday to Friday. If you require us to work outside of these hours, we will need to re quote you in line with your requirements.

The connection charge is based on current charges and the proposed design of the connection work. The charge set out in our quotation is fixed for 60 days from the date of the quotation. We reserve the right to review the charge before commencement of the work, in the event of any increase in our costs between the end of the fixed charge quotation period and the commencement of the work, and during the course of the work should the design parameters change or should there be any other alteration or amendment to the agreed works, whether such changes are instigated by us or by you. You will be notified in writing of any increase in the connection charge that is identified in advance of the commencement of the work and your agreement to proceed will be required before any work is commenced. Where any increase in the connection charge is identified during the course of the work you will be notified and your agreement to proceed will be required before any further work is undertaken that would increase the charge beyond the value already agreed by you. If you do not agree to any increased charge you or we may cancel the contract and you may obtain a refund of sums paid in respect of the proposed connection works, less our reasonable costs incurred at the time of cancellation.

We always offer the least cost method for us to provide a reliable and efficient connection to our distribution system. However, we would be happy to discuss with you the alternative option of you (or your contractor) doing some parts of the work. If you would like more information on how this would work, please ask for a copy of our explanatory leaflet on Competition in Connections.

For your information, the non contestable cost element of the connection project is likely to be in the region of £37,000.00 + VAT.

This is an indication of the costs that we would need to charge if you chose to have the contestable elements of whole project undertaken by an independent connection provider (ICP). This cost varies slightly depending on the details of the alternative connection project proposed by your ICP.

If you would like a quotation for just the non contestable elements, then please apply a for Point of Connection (PoC) offer using the Point of Connection Application fonn available on our website – [redacted]

3.1 Terms of Payment

The total Connection Charge will need to be completely paid before the final connection is made available for your use.

		Payment Required:	Plus VAT @ 20.0%	Total:
1	upon accepting this quotation	£119,933.00	£23,986.60	£143,919.60
	Total	£119,933.00	£23,986.60	£143,919.60

The above figures will be subject to VAT at the appropriate rate as indicated above. Please provide a cheque with your acceptance.

4. MAXIMUM CAPACITY

The maximum capacity provided for via this connection for export purposes will be 528 kilovolt-amperes. The maximum capacity provided for via this connection for import purposes will be 53 kilovolt-amperes.

5. USE OF SYSTEM CHARGES

5.1 Exported Energy

[redacted] 'Use of Distribution System' charges for exported energy will be charged in accordance with our Statement of Charges as amended from time to time.

5.2 Imported Energy

Your supplier of electricity will be charged for using [redacted] system as stated in our Statement of Charges as amended from time to time.

These charges may include a component (the Availability Charge) related to the capacity being reserved for the user of the connection. This will initially be at the level stated in this quotation in Maximum Capacity.

When a connection agreement is in place between the user of the connection and [redacted] the Availability Charges will be based on the Maximum Capacity stated in the agreement.

The user may request that the Maximum Capacity be varied from the level stated in this quotation on entering the Connection Agreement or as a request for a modification under the agreement. The effect on the use of system charges is subject to the published conditions relating to those charges. The request may also result in [redacted] either proposing a modification to the connection or requiring the user to pay a capital sum towards the ongoing costs of operation, repair and maintenance of equipment provided under this quotation which will not be utilised as fully as [redacted] Limited expects at the date of this quotation.

6. THE CONNECTION CHARACTERISTICS

6.1 Import from our Distribution System

6.1.1 Standard of Security

The standard of security of supply of our system to which this connection will be made will comply with the conditions given in The Distribution Code.

6.1.2 Voltage, Frequency and Short Circuit Level

The connection will permit a supply to be provided at three-phase alternating current at a nominal voltage of 20,000 volts and a normal frequency of 50Hz.

6.1.3 Exit Point

The exit point (i.e. our distribution system connection to the User's system) will be at the outgoing terminals of the metering circuit breaker. The terminals being Northern Powergrid (Northeast) Limited's and the cable connected to them being yours.

6.1.4 Earthing

We do not provide an earth terminal. It is therefore your responsibility to ensure that adequate earthing arrangements are made for both your high and low voltage systems. Where an earth connection is required, the Electricity Safety, Quality and Continuity Regulations 2002 should be met.

It will be the customer's responsibility to design and install their earthing system to ensure touch and step potentials.

It may be necessary to interconnect the User's earthing system with [redacted] Details of any interconnections are outside the scope of this quotation and will be discussed with you on site.

Please confirm to us the rise in earth potential from your installation, this must comply with Engineering Recommendation S36. If more than 430 volts we must inform British Telecom and phone equipment used on site must have isolating transformers fitted.

6.1.5 Breaking Capacity of High Voltage Switchgear.

It is your responsibility to provide suitable equipment to protect the User's installation against excess energy.

6.1.6 Disconnection from [redacted] Limited's System in an Emergency by the User

A push button will be provided adjacent to the metering which will enable you to disconnect your installation form [redacted] Distribution System in an emergency. This facility can be extended to provide a push button at an alternative location and we will be pleased to quote for this work if required.

If the push button is used reconnection will have to be carried out by [redacted] personnel. A charge will normally be made for this service.

6.1.7 Maximum Import Capacity

The maximum import capacity will be that shown in item 4 above and is based on a site power factor between 0.95 lagging to Unity.

6.2 Export to [redacted] Distribution System

6.2.1 Standard of Security

This will be the same as 6.1.1 above.

6.2.2 Voltage, Frequency

The connection will permit energy to be exported at three-phase alternating current at a nominal voltage of 20,000 volts and a normal frequency of 50Hz.

6.2.3 Exit Point

This will be the same as 6.1.3 above.

6.2.4 Earthing

The star point of your generator/s must not be connected to earth when they are in parallel with [redacted] Distribution System. You may wish to earth the framework of them.

6.2.5 Maximum Export Capacity

The maximum export capacity will be that shown in item 4 above which is based on an exported site power factor being between 0.95 lagging and Unity. The lagging power factor indicates the site is exporting both Var.'s and watts.

7. INTERRUPTIONS

This offer of connection is based on the level of security you have requested from us. Whilst the security of the connection will be extremely high, it cannot be guaranteed that no interruptions will occur.

Parts of our Distribution System are subject to short term interruptions (typically up to 30 seconds) due to the use of high-speed automatic reclose switches. You should satisfy yourself, therefore, that the apparatus you intend to install will not be adversely affected. Liability cannot be accepted for losses resulting from any interruptions.

8. INTERFERENCE TO OTHER USERS

Your installation must comply with current statutory requirements and must not cause interference on the [redacted] Distribution System, or with others connected to the [redacted] System. If your installation causes interference with the [redacted] System, or with customers connected to the [redacted] System, you will be responsible for any damage caused and losses, costs or expenses arising as a result.

9. PRIVATE STANDBY GENERATION

Standby generating plant must be installed in such a way so as to prevent the generator connection being in parallel with the [redacted] system. A drawing showing the proposed interlocking arrangements of the generating equipment must be provided for checking before the plant is installed.

10. METERING WAIVER

We will install metering current and voltage transformers (CT's & VT's) to facilitate the measurement of energy through the connection. The provision of the metering instruments will need to be clarified between you, your Supplier, your Meter Operator and ourselves.

As different parties are likely to own different items of the overall metering apparatus the metering cannot be certified. To comply with the provisions of The Electricity Act 1989 (as amended) in adopting this procedure your consent is needed to use non-certified metering. A waiver notice, giving this consent, is attached. The completion of this waiver notice does not affect your statutory rights in obtaining a determination by a Meter Examiner in the event of a dispute concerning this metering.

If the end user of this connection intends to use another Meter Operator you must inform us of the name and address of that Operator on your acceptance form. Failure to inform us will cause delays to the provision of the connection.

11. AUTHORISED PERSONNEL

The connection and your installation will be subject to the Distribution Code and The Electricity Safety, Quality and Continuity Regulations 2002. Under the Distribution Code you are required to appoint authorised persons to carry out the control, operation, work or testing of any plant and apparatus forming part of, or connected to, the Northern Powergrid (Northeast) Limited distribution system.

Please Note: If the engineer in charge of the onsite works does not receive your written confirmation of your authorised staff, [redacted] will not be able to energise your connection.

If you do not wish to appoint your own authorised persons then [redacted] will be pleased to provide a quotation for acting on your behalf in this capacity, please contact me for more details.

12. ASSISTANCE

Our aim is to provide the best possible service. If you have a query or need clarification on any aspect of our quotation, please ring us on the above telephone number. We will be pleased to assist.

However, if you wish to complain about the way in which we have dealt with your query, then we want to know.

We will investigate and where appropriate, put matters right.

Please contact me on the number provided and your complaint will be thoroughly reviewed.

13. DATA PROTECTION

We will use the information you have provided for the purpose of administering your quotation, providing you with the service covered by the quotation and for research and statistical analysis.

Please ensure that you return your acceptance form to the following address:

[redacted]

FORM OF ACCEPTANCE for a GENERATION CONNECTION

This form must be completed by the person or organisation that will be responsible for paying the charges for providing a connection to the distribution system of [redacted]. Please enclose a cheque.

Your Details:

Company Name: _____

Address: _____

_____

_____ Postcode: _____

Invoice/Receipt Address: (if different)

Name: _____

Address: _____

_____

_____ Postcode: _____

Please note: we will not start work until this form has been completed and returned to us.

If you wish to pay by BACS or CHAPS please ensure the ENQ number is quoted as a reference number, which will enable the payment to be matched against the paperwork. Once the paperwork and payments are matched, we can release your acceptance to our connections team to progress your work. Failure to provide this information could result in your work being delayed. The bank account details are:-

Bank
Sort Code
Account number
Account name

[redacted]

Connection Name & Address: [redacted]

Enquiry No: ENQ5179745, QUQS169004

Import Capacity: 53 kVA Export Capacity: 500 kW (526 kVA)

Payment Required:

		Payment Required:	Plus VAT @ 20.0%	Total:
1	upon accepting this quotation	£119933.00	£23986.60	£143,919.60
	Total	£119933.00	£23986.60	£143,919.60

Income Code: Generation, Bespoke

Subject to the conditions of the quotation it is estimated that the connection can be provided approximately 9 months from the date [redacted] receive this form.

The charges for energy are outside the scope of this quotation.

[redacted]

[redacted]

If you cancel the works at any time after acceptance then you will be charged a minimum administration fee of £30 + VAT together with any reasonable costs that we may have incurred up to the date of receiving your cancellation. This will include charges for any site visits that we or our contractors have made together with any costs in preparing drawings, designs or specifications carried out prior to cancellation.

Having received your written acceptance of our quotation relating to the above, together with everything else we need in order to proceed, please provide us with your UK contact details so we can contact you on a working day during the period 9.00am to 5.00pm to begin the process of agreeing a schedule of work dates.

Method of Contact

Preferred Work Start Date:

Site Contact Name:

Contact Address:

Telephone:

Email:

Under the 1998 trading arrangements, [redacted] are unable to energise the high voltage connection until your appointed supplier has registered liability with our Registration Service and instructed us to energise.

Energy Supplier: ______________________________

Meter Operator: ______________________________

Please tick this box if you have not yet appointed an Energy Supplier ☐

If you do not confirm to us the Name, address, Phone & Fax No of you Energy Supplier and Meter Operator we will be unable to energise the connection.

I certify that the wiring installation as described at the above address will be completed and tested in accordance with the British Standard 7671 (IEE Wiring Regulations) and, where a Northern Powergrid (Northeast) Limited earth connection is required, the particular requirements for bonding The Electricity Safety, Quality and Continuity Regulations 2002 have been met.

I/We accept the quotation for a connection to the above site in accordance with the terms and conditions given in that quotation and confirm the installation complies with Engineering Recommendation G59/G75 and The Distribution Code.

Signed: ______________________ Date: ______________________

Name (in capitals): ____________________

Position: ____________________

[redacted] CURRENT TRANSFORMER OPERATED METERING WAIVER AGREEMENT

This Agreement is made the day of _____ 2012

Between [redacted]
Registered Office: [redacted]
and [redacted] ('the Consumer')

1. The Consumer agrees that as from the date of this agreement where the electricity consumption is registered through meters then the metering equipment (including any time switches and contactors) relating to the supply need not be certified under the provisions of The Electricity The Electricity Act 1989 (as amended) or any subsisting statutory modification or re-enactment thereof insofar as it is lawful for such agreement to be given.

2. For the avoidance of doubt it is hereby declared that this agreement shall apply to the supply of electricity now taken by the Consumer from [redacted] at [redacted] The provisions of this agreement do not preclude a statutory determination by a Meter Examiner in the event of a dispute concerning the said metering.

3. If any difference arises between [redacted] and the Consumer as to whether a meter is registering correctly the matter may be determined by a Meter Examiner in accordance with the said Act.

SIGNED _____ The Consumer /On behalf of the Consumer

NAME (n Caps)_____

NOTE: In the case of partnerships, the full names of all Partners must be given and the agreement signed by the individual Partners or by one Partner 'for self and Partners'. In the case of a Limited Company it must be signed by a Director, Manager or Secretary, duly authorised to sign on behalf of the Company.

Please complete and return this form to: [redacted]
Central Receipting
[redacted]

[redacted]

PART 2
TERMS AND CONDITIONS OF CONTRACT FOR THE WORKS REQUIRED TO THE ELECTRICITY DISTRIBUTION SYSTEM

1. DEFINITIONS

1.1. "Customer" means the person, firm, or company whose name appears on the Quotation;

1.2. "Contract" means the Contract entered into between the parties consisting of the Quotation, these terms and conditions and the Quotation Acceptance Form;

1.3. "Work" or "Works" means the works to be carried out by the Contractor for the Customer as stated in the Quotation and as amended pursuant to these terms and conditions;

1.4. "Contract Price" means the price stated in the Quotation as being the amount payable by the Customer for the completion of the Works as varied in accordance with the Contract;

1.5. "Distributor" means [redacted] and its successors in title or [redacted] and its successors in title as applicable;

1.6. "Distribution System" means the electricity distribution system of either [redacted] as applicable;

1.7. "Quotation" means the offer made by the Distributor to the Customer to carry out the Works that incorporates the Quotation letter, the cost schedule information and the terms and conditions set out in this Part 2 and stating the Contract Price; and

1.8. "Quotation Acceptance Form" means the acceptance form to be returned by the Customer to the Distributor.

2. CONTRACT CONDITIONS

2.1. These terms and conditions shall be the terms and conditions of Contract. They shall prevail over any other terms and conditions.

2.2. The Contract Price is based on the proposed design of the Works and prices current as at the date of this Quotation. Both parties agree that the Distributor shall have the right at its sole discretion to vary the Contract Price -

2.2.1. following acceptance of this Quotation but prior to commencement of the Works, and/or

2.2.2. if the design of the Works or any of the design parameters alter, are varied or change during the construction of the Works; and/or

2.2.3. if, for any reason (other than those reasons already detailed in sub Clause 2.2.2 above) there is any alteration, variation or amendment to the Works, irrespective of which party initiated such alteration, variation or amendment; and/or

2.2.4 if the Works:

2.2.4.1. are not completed within the period of 12 months from the date of this Quotation, or

2.2.4.2. are suspended at the Customer's request for more than 3 calendar months pursuant to Clause 5.2; or

2.2.4.3. are suspended pursuant to Clause 6.3.

2.3. If the Contract Price ("Existing Contract Price") is varied pursuant to Clause 2.2.1 you will be notified in writing of the revised Contract Price and we will not commence the Works until we receive your agreement to the revised Contract Price in writing.

2.4. If we intend to revise the Existing Contract Price pursuant to Clause 2.2.2. or 2.2.4 (inclusive) you will be notified of the revised Contract Price in writing and we will not complete any works, the value of which exceeds the Existing Contract Price, until such time as you notify us in writing of your acceptance of the revised Contract Price.

2.5. If we notify you of a revised Contract Price in accordance with Clause 2.3 or 2.4 and you decide not to accept the revised Contract Price, either party has the right to terminate this Contract by 7 days' prior notice in writing to the other. We will refund to you an amount equal to the Existing Contract Price, less (i) the value of the works completed as at the date of termination, (ii) the costs of making the works safe and (iii) our reasonable costs incurred at the time of cancellation, including (without limitation) the costs associated with cancelling or terminating any contracts for the supply of any plant, materials or equipment and any contracts for labour or the costs of the same if they cannot be cancelled or terminated.

[redacted]

3. **PERIOD OF QUOTATION**

The Quotation is open for acceptance by the Customer for a period of 60 days from the date of it, or as otherwise specified in the Quotation.

4. **DRAWINGS**

The Distributor accepts no responsibility for any drawing, design or specification not prepared by it. The reasonable cost of any additional work to be carried out by the Distributor as a result of defects or omissions in any such drawing, design or specification shall be calculated and the Contract Price varied pursuant to Clause 2.2.2 or 2.2.3 (as applicable).

5. **ALTERATIONS AND ADDITIONS**

5.1. The work to be carried out by the Distributor shall be that described in the Quotation unless both parties agree otherwise in writing in which case the consequential alteration, variation or amendment to the Contract Price shall be calculated and agreed with the Customer before any alterations to the Works are agreed pursuant to Clause 2.

5.2. If the Customer suspends the Works for any reason, the Contract Price shall be altered, varied or amended in accordance with Clause 2.

6. **TERMS OF PAYMENT**

6.1. Subject always to subclause 6.2, the Contract Price is payable by the Customer on the date upon which the Quotation Acceptance Form is received by the Distributor unless otherwise set out in this Quotation. If payment of the Contract Price (or any relevant Milestone payment comprising part of the Contract Price) is not made by you within 14 days of the date of an invoice issued by us then we reserve the right to charge interest on the outstanding balance at the rate of 2% per annum above the base rate from time to time of National Westminster Bank Limited from the date payment was due until the date payment is made.

6.2. If this Quotation states that payment of the Contract Price is required with the return of the Quotation Acceptance Form then it is a condition precedent of this offer that the payment is so made. If this condition is not met no Contract shall be created, notwithstanding the return of the Quotation Acceptance Form, until such time as the Distributor receives the payment.

6.3. If the Customer fails to make any payment when due then in addition to the rights reserved to the Distributor pursuant to subclause 7.4 below the Distributor shall also have the right by notice in writing to the Customer to suspend all its obligations under the Contract forthwith until such time as payment is made. Any costs, losses and expenses whether direct or indirect incurred or suffered by the Distributor as a result of the suspension and subsequent resumption of the Works shall be added to the Contract Price.

7. **TERMINATION AND TITLE**

7.1. The Customer acknowledges that the Works comprise alterations or improvements to the Distribution System and that notwithstanding payment of the Contract Price the Customer shall not be entitled to any right, title or interest in any asset in any of the assets, equipment or plant used in connection with the Works or created as a result of it.

7.2. The Distributor is entitled to enter upon any premises owned or occupied by the Customer to carry out the Works or to recover assets, equipment or plant.

7.3. Subclause 7.4 below applies if:

7.3.1. either party (Defaulting Party) commits any breach of the Contract (including failure to pay on the due date any charge, instalment or other payment); or

7.3.2. the Defaulting Party makes any voluntary arrangement with its creditors or becomes subject to an administration order or (being an individual or firm) becomes bankrupt or (being a company) goes into liquidation (otherwise than for the purpose of amalgamation or reconstruction); or

7.3.3. an encumbrancer takes possession, or a receiver is appointed, over any of the property or assets of the Defaulting Party; or

7.3.4. the Defaulting Party ceases to carry on business; or

7.3.5. the other party (Party not in Default) reasonably apprehends that any of the events mentioned above is about to occur in relation to the Defaulting Party and notifies the Defaulting Party accordingly.

7.4 If this subclause 7.4 applies then, without prejudice to any other right or remedy, the Party not in Default shall be entitled by written notice to terminate the Contract. In any case where the Customer is the

[redacted]

Defaulting Party, and any of the Work has been carried out but not paid for, the Customer shall pay to the Distributor a sum of money equal to the value of such Work as determined by the Distributor notwithstanding any previous agreement to the contrary.

8. COMMENCEMENT AND COMPLETION

8.1. The Works shall be commenced and completed on agreed dates and shall be completed with all reasonable speed. Without prejudice to the generality of subclause 9.4 below the Distributor shall have no liability whatsoever to the Customer in respect of any losses, costs or expenses suffered or incurred by the Customer whether directly or indirectly as a result of the failure of the Distributor to complete the Work by any such date.

8.2. If the Distributor shall suffer any direct loss and/or expense by reason of the regular progress of the Work having been impeded by any reason other than any act, omission or default of the Distributor, then the amount of such loss and/or expense shall be ascertained by the Distributor and be added to the Contract Price. This subclause shall not prejudice any other rights or remedies of the Distributor.

9. LOSS OR DAMAGE

9.1. The liability of either party for death or personal injury caused by its negligence shall not be limited.

9.2. Subject to the provisions of subclauses 9.3 and 9.4 below, the liability of either party ("Party Liable") in respect of any losses, costs or claims suffered by or made or threatened against the other party ("Other Party") which arise out of the negligence or breach of contract or other default of the Party Liable shall be limited to the lesser of one million pounds and the Contract Price.

9.3. Where in the course of carrying out the Work the Distributor works on or tests any equipment owned by the Customer or any third party, the Customer shall bear the cost of repairing or replacing any such equipment that is damaged or destroyed by such work or tests (except where such damage or destruction is caused by the negligence of the Distributor in which event the Distributor's liability shall be limited to the lesser of (i) the cost of effecting the repair or replacement, (ii) the Contract Price or (iii) five hundred thousand pounds). The Customer authorises the Distributor to execute any such repair or replacement and, save as set out above, agrees to pay the reasonable cost of doing so. All such work shall be in accordance with these terms and conditions.

9.4. Neither Party shall be liable in respect of any indirect, consequential or economic loss, loss of contract or loss of profit that arises out of the negligence or breach of contract or other default of the Party Liable.

10. SUBSTITUTION OF EQUIPMENT

The Distributor reserves the right to substitute other equipment for equipment specified in the Quotation. However, if any such substitution is likely to increase the Contract Price, such substitution will be first agreed with the Customer.

11. ASSIGNMENT

The Customer shall not, without the written consent of the Distributor, assign the benefit of the Contract.

12. VALUE ADDED TAX

The Contract Price shall be increased as appropriate by the amount of any Value Added Tax (at the rate from time to time in force) properly payable in respect of the Work.

13. CONNECTION AGREEMENT

The Customer acknowledges and agrees that, unless stated to the contrary in the Quotation, no equipment or installation, whether belonging to the Customer or any other person, firm or company, will be connected to the Distribution System or energised unless and until the person, firm or company (whether or not the Customer) whose equipment or installation is intended to be connected to the Distribution System has executed and completed the Distributor's standard form of Connection Agreement.

14. SUBSTATION SITES, EASEMENTS AND WAYLEAVES

14.1. As soon as reasonably practicable following the date of the Contract, the Distributor shall establish its requirements for substations, overhead electric lines, underground electric lines and all ancillary apparatus and will notify the Customer of such requirements. Insofar as it is within the ability of the Customer to grant or procure the grant of any conveyances, transfers, leases, deeds of grant and Wayleave consents required by the Distributor, the Customer shall do so at their expense and on terms acceptable to the Distributor. Insofar as it is not within the ability of the Customer to grant or procure the grant of any conveyances, transfers, leases, deeds of grant and Wayleave consents, the Distributor will contact the owners/occupiers of the area(s) of land affected by the relevant requirements and attempt to negotiate and complete all relevant conveyances, transfers, leases, deeds of grant and Wayleave consents. All payments that the Distributor agrees to make to such owners/occupiers will be

[redacted]

repaid by the Customer on demand provided that any such amount in excess of £1,000 (individually, not collectively) shall not be incurred without the agreement of the Customer. The Distributor reserves the right to delay commencement of any other part of the Work until all conveyances, transfers, leases, deeds of grant and Wayleave consents required by the Distributor have been legally completed.

14.2. In the event that the Distributor, having used reasonable endeavours (such expression not being deemed to require the Distributor to use any of all of its statutory powers), has been unable to complete any or all of the said conveyance, transfers, leases, deeds of grant and Wayleave consents within six calendar months of the date of the Contract, or the Customer has not agreed to the amounts referred to in subclause 14.1, the Distributor shall be entitled at any time after such date to terminate the Contract forthwith by notice in writing to the Customer. If it does so, the Distributor shall refund to the Customer within 14 days of the date of the said notice all amounts paid by the Customer to the Distributor pursuant to the Contract less a reasonable amount to reflect the parts of the Work already carried out by the Distributor. If the Customer has not made any payment to the Distributor, the Customer shall pay to the Distributor such amount as the Distributor reasonably considers reflects the parts of the Work already carried out.

15. LEGAL CONSTRUCTION

The Contract shall be governed by and construed in accordance with English law and the parties agree to submit to the exclusive jurisdiction of the English courts.

16. WHOLE AGREEMENT

The Customer acknowledges that the Contract comprises the whole agreement between the parties and that the Customer has not, in entering into the Contract, relied upon any oral or written representation made to the Customer by the Distributor or its employees or agents.

17. WAIVER

The failure by either party to enforce at any time or for any period any one or more of the terms and conditions of the Contract shall not be a waiver of them or of the right at any time subsequently to enforce all terms and conditions of the Contract.

18. UNENFORCEABLE CONDITIONS

If any provision of these terms and conditions is held by any competent authority to be invalid or unenforceable in whole or in part, the validity of the other provisions of these terms and conditions and the remainder of the provision in question shall not be affected thereby.

19. FORCE MAJEURE

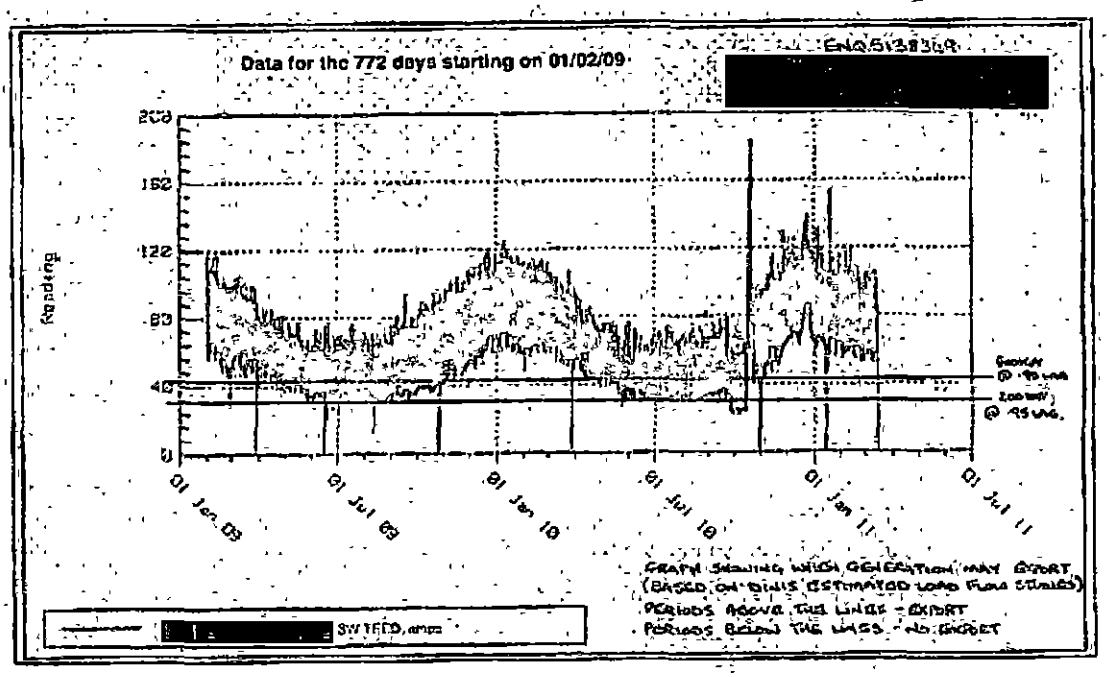
The Distributor shall not be liable to the Customer for any delay or failure due to any cause beyond the Distributor's reasonable control.

20. ADDITIONAL TERMS AND CONDITIONS

There shall be deemed included within these terms and conditions any other terms and conditions that are contained in the Quotation and are stated to be 'Additional Terms and Conditions'.

[redacted]

APPENDIX 8 – LOAD FLOW CURVE (PROVIDED BY [redacted])



APPENDIX 9 – CUSTOMER'S AGENT'S RESPONSE TO INITIAL COMPANY RESPONSE

[redacted] [redacted]

Our Ref: [redacted]
Your Ref:
Date: 12th September 2012

Ofgem
9 Millbank
London
SW1P 3GE

For the attention of Mr. Sam Cope

Dear Mr. Cope

Re: [redacted]

We have now conducted an appraisal of the [redacted] response to our complaint and firmly believe that [redacted] must carry out further network studies that clearly identify the number of occurrences when the proposed [redacted] generator is offline.

Our client is not asking [redacted] to carry out a commercial appraisal of the generation project, however as incumbent DNO, the company has a responsibility to provide supporting information to a potential User, upon request.

Presently, the statement that contained within the last [redacted] offer, *'that this overvoltage setting may restrict the generator's export capability at times of reduced local demand'* is not consistent with that of other DNO connection offers.

We work in conjunction with Electricity North West, UK Power Networks, Scottish and Southern Energy and Western Power Distribution and we have received distributed generation connection offers from all of these companies without onerous statements. We do not agree with the summary in Section 7 of the [redacted] response that the company has complied with its regulatory obligations, in fact much to the contrary in that [redacted] is actually in breach of its regulatory obligations.

The statements relating to our company's misinterpretation of the network data supplied by [redacted] in Section 3 of the letter are factually incorrect. We were supplied network data to assist in developing a basic network model; however when we referred to our report findings at the meeting in January 2012, the [redacted] network engineer stated that the cable and overhead line circuit lengths contained within the NPG data were incorrect.

I refer you to our letter dated 23rd January 2012, addressed to [redacted] at [redacted] In the section relating to voltage rise and transformer tap change positions, we specifically asked [redacted] to provide supporting data that confirms the network conditions before and after connection of the [redacted] generator and the associated voltage rise issues under light network loading. This information has yet to be supplied by NPG.

You will also note in our letter dated 23rd January 2012 that we asked [redacted] to supply the correct network data. We have yet to receive this information from [redacted]

We also gave [redacted] the opportunity to provide a copy of its network studies that clearly identifies the constraint periods, however we have not received a response to this reasonable request.

We were appointed by our client to continue with work carried out by [redacted]. Unfortunately, the two engineers that had been dealing with this project had left [redacted] and as such we were appointed to continue with the piece of work in obtaining a satisfactory conclusion to the connection request.

It would be useful at this point to discuss the history of this scheme so that you have an overview of the position leading to our complaint.

Originally, an offer for connection of an anaerobic digestion plant was submitted to our client at Codlaw Dene. The connection offer is enclosed for your perusal, referenced ENQ 5114788, dated 01/06/2010.

The connection point for Codlaw dene was located on the same 20kV line as Chantry farm, but further north. Our client decided that the capex associated with the Codlaw Dene connection offer was excessive and would render the project unviable. I have attached a map showing the location of [redacted].

The line at [redacted] is closer to the primary substation. Our client therefore made the assumption that if the line could accept 500kVe export capacity at [redacted] then it could accept the same level of export capacity at [redacted], which is still some distance from the primary.

You will note that the original connection offer referenced ENQ5114788 does not contain an onerous clauses relating to constraining the generator, however the connection offer referenced ENQ5179745 does contain the onerous clause that is the subject matter of our complaint.

We therefore require a full explanation as to why the commercial terms have changed from that of the original offer addressed to Power Systems.

In summary, we believe that [redacted] is not acting in accordance with its duty to supply upon request. We have been supplied with invalid network data by [redacted] and we have yet to receive responses to reasonable requests for information. We have a connection offer that makes the generation scheme commercially unviable owing to an unsubstantiated argument that the network cannot accommodate the generation capacity.

We trust that Ofgem will consider our statements when making a determination. In the meantime, if you require any supporting information then please give me a call.

[redacted]

[redacted]
Director
[redacted]

cc [redacted]

APPENDIX 10 – COMPANY RESPONSE TO LETTER IN APPENDIX 9

[redacted]

[redacted]

[redacted]

Mr Sam Cope
Senior Manager, Policy Development
Distribution
The Office of Gas and Electricity Markets
9 Millbank
London
SW1P 3GE

Our Ref:mlh/RJDet01

25 September 2012

Dear Mr Cope

Determination of a dispute between [redacted] and [redacted]

Following your e-mail of 14 September 2012, in which you included a copy of the letter dated 12 September 2012 from Mr [redacted] of [redacted] below is the response of [redacted] to each of the points raised.

1. *Our client is not asking [redacted] to carry out a commercial appraisal of the generation project, however as incumbent DNO, the company has a responsibility to provide supporting information to a potential User, upon request.*

[redacted] has previously provided the customer and his consultants with supporting information to assist them in carrying out the analysis required as part their commercial appraisal. We have supplied details of cable type, length and impedances for all circuits and plant-size information relevant to the connection being offered. Similarly we have also supplied historical data for recorded demands on the appropriate assets and networks; in this case we have supplied all this information to the customer and/or his consultant. If there is some specific data that the customer requires that has not already been provided we are unable to understand what that could be and certainly we are unable to locate any specific request from the customer or his consultant in this regard. We note that in his letter to you Mr [redacted] does not reference any specific data that we have failed to provide rather he makes the generic statement that we have failed to supply all the necessary supporting data. We believe we have supplied this and we have also made clear to Mr [redacted] that we are unable to understand what technical data could be reasonably provided and useful to him that we have not already provided.

Following receipt of the information already provided by [redacted] we would expect the consultant to have used his load-flow analysis software programme to build up his model and in this case we understand that Mr Barker is using ERACS Power System Analysis software.

[redacted]

The following steps outline the routine process that would be followed:

- Insert the primary source data from information freely available on the Northern Powergrid website via the Long-Term Development Statement.
- Using the high-voltage schematic diagrams, circuit lengths and cable types provided (both tabular and scaled geographic) by [redacted], build up a schematic model of the high-voltage circuit to be studied.
- Using the list of connected substations, transformer sizes and connected customers provided by [redacted] connect these substations to the high-voltage model.
- Using load-profile data provided, allocate this load to the feeder at the primary substation.
- The consultant's computer software will share the allocated feeder load out amongst all the connected substations and hence calculate estimated load flows and voltage drops.
- The proposed generator and associated parameters can then be added to the model and the programme run again with the calculated results showing a change in the voltage profile in the area of the generation.
- The generation output and allocated feeder load can be altered to ascertain at what values there is not a calculated voltage-rise issue.
- Using the half-hourly feeder load data, an estimation can be made of the periods and amount of generation output that may be achieved at various times of the day and year. This is obviously based on historical data with no guarantee that future loads would remain similar.

In Mr [redacted] 'Load Flow Study' dated December 2011, under the heading Scope, he indicates his desktop network study was built up in this way. He also comments "This network connection desktop study has been prepared to assist the client in carrying out an overall project feasibility exercise".

2. *Presently, the statement that contained within the last [redacted] offer, "that this overvoltage setting may restrict the generator's export capability at times of reduced local demand" is not consistent with that of other DNO connection offers.*

Although we are not in a position to comment on the commercial terms offered by other DNOs, the terms offered by [redacted] in relation to requests for generator connections are in line with the ENA's Distributed Generation Connection Guide, which is a guide for customers wishing to connect generation that falls under G59/2 to the network. Most (if not all) DNOs, including [redacted], have a link to this document on their website.

Section G of this document, Technical and Commercial Interfaces, Operational Issues - DNO Control Schemes (page 82), states:

"A possible alternative to reinforcement could be a DNO control scheme for DG. For example, DG can remain connected under normal operating conditions but under certain operating conditions their output may be constrained. It should also be noted that constraining the generating plants' output can affect the economics of a project."

In this case we have confirmed that the connection of generation plant sought by Mr [redacted] on behalf of his client (in line with the second quotation) would require a remote connection to the network in order to mitigate the impact of voltage excursions experienced by local customers at times of low network demand. Given that this customer had already made it clear that his project was extremely sensitive to the initial connection fee and that the previously-quoted price (of an unconstrained connection) would make the project unviable, we advised the customer of the possibility of providing a connection that would not involve incurring the costs of a remote connection but that in consequence would involve operating

with constraints at certain times. We consequently made an offer of terms incorporating this option in response to a request from the customer for us to do so. Regrettably, but unavoidably, this necessitates a restriction of the kind written into the offer to protect existing customers from voltage excursions beyond statutory limits. We can well understand that on other connection projects with other DNOs such a restriction may be unnecessary. Indeed, it is often unnecessary within [redacted] and as outlined earlier our first connection offer to this customer did not include such a restriction because, with the originally quoted arrangements, it was unnecessary. However, the customer wanted a lower cost connection and this means connecting at a point where connection costs are less but constraints exist.

3. *We work in conjunction with Electricity North West, UK Power Networks, Scottish and Southern Energy and Western Power Distribution and we have received distributed generation connection offers from all of these companies without onerous statements. We do not agree with the summary in Section 7 of the NPG response that the company has complied with its regulatory obligations, in fact much to the contrary in that NPG is actually in breach of its regulatory obligations.*

We believe that we have provided information and the offer of connection terms on this occasion in line with our regulatory obligations, the stated wishes of the customer and our own desire to accommodate the constraints under which the customer is operating to the extent that we feasibly can. We find it frustrating that [redacted] state so categorically that we are in breach of our regulatory obligations but yet do not cite either the obligations they have in mind or the nature of the specific breach that they perceive this makes it impossible for us to provide a more focussed response. We would point out that Engineering Recommendation G5912, section 5.1.5, states that "Information, which should assist Generators wishing to connect to the distribution system at high voltage (HV), will be published by the DNO in accordance with condition 25 of the distribution licence. This is known as the Long Term Development Statement (LTDS). The general form and content of this statement is specified by Ofgem and covers the existing distribution system as well as authorised changes in future years on a rolling basis". As we have previously confirmed, all requisite information, including LTDS information (which we believe to be fully compliant with the requirements set out in standard condition 25 of the electricity distribution licence), was supplied to the customer and his consultant. We would also refer you to our comment in section 2 above regarding the imposition of such constraints by Northern Powergrid and DNOs in general.

4. *The statements relating to our company's misinterpretation of the network data supplied by [redacted] in Section 3 of the letter are factually incorrect. We were supplied network data to assist in developing a basic network model; however when we referred to our report findings at the meeting in January 2012, the [redacted] network engineer stated that the cable and overhead line circuit lengths contained within the [redacted] data were incorrect.*

[redacted] has provided circuit-length data that is accurate and we are unaware of any correspondence that suggests that we believe otherwise. Additionally, in the letter dated 8 February 2012 from [redacted] of [redacted] to [redacted] (copy enclosed), [redacted] pointed out the fact, in the paragraph entitled 'Network Data', that "the original consultants for your client in respect of this project were provided with an accurate set of network data regarding the cable sizes and lengths. It appears that the use of that data within their network modelling was not accurate as only certain parts of the network were input into the model resulting in an inaccurate set of results". Therefore, although [redacted] had provided all of the required network information, the interpretation and use of that data appear to have resulted in the consultant's network model being incomplete and generating inaccurate results.

5. *I refer you to our letter dated 23rd January 2012, addressed to [redacted] at [redacted], in the section relating to voltage rise and transformer tap change positions, we specifically asked [redacted] provide supporting data that confirms the network conditions before and after connection of the [redacted] generator and the associated voltage rise issues under light network loading. This information has yet to be supplied by [redacted]*

In the letter dated 8 February 2012 from [redacted] of [redacted] to Mr [redacted] (copy enclosed), Mr [redacted] pointed out, in the paragraph entitled 'Voltage Rise', that "We believe that the information which we have provided to the previous consultants for the project and yourself is adequate to support the voltage rise concerns as discussed at our meeting". The information that [redacted] has provided, in response to the requests received, includes the primary substation source voltage, maximum and minimum feeder demands, circuit lengths and impedances, network substation transformer sizing and maximum demands. This information is sufficient, and consistent with the requirements set out in the Long-Term Development Statement, for a standard load-flow model to be developed. Further data relating to the actual profiles of the low-voltage network is impractical to assess and provide due to the number of networks involved and the amount of monitoring equipment that would need to be installed across a large geographical area. For this reason it is common practice to carry out high-voltage load studies whilst modelling low-voltage networks as static loads rather than using site-specific network profiles.

We believe that we have responded as required to requests for the offer of connection terms under section 16A of the Electricity Act 1989 and that the terms offered are reasonable in the circumstances. Further, we believe that we have provided all relevant available information that we have to the customer and that this should have been sufficient to facilitate modelling by the customer of the project's commercial viability under the constraints referenced in the offer of terms.

6. *You will also note in our letter dated 23rd January 2012 that we asked [redacted] to supply the correct network data. We have yet to receive this information from [redacted]*

As previously stated, we believe that we have previously supplied the customer and his consultant with all of the information necessary for them to carry out the required network analysis.

7. *We also gave [redacted] the opportunity to provide a copy of its network studies that clearly identifies the constraint periods, however we have not received a response to this reasonable request.*

In the reply to the letter from [redacted] dated 23 January 2012, from [redacted] on 8 February 2012, under the subsection Network Modelling, [redacted] confirmed that, 'the half hourly data can be used to evaluate the position for your client. We will however leave the potential for constraint and hence the viability of the offer to be determined by the client's consultant(s)'. [redacted] provided the half-hourly data to [redacted] by e-mail on 18 January 2012 (copy attached).

8. *We were appointed by our client to continue with work carried out by [redacted] Unfortunately, the two engineers that had been dealing with this project had left Scottish and as such we were appointed to continue with the piece of work in obtaining a satisfactory conclusion to the connection request.*

[redacted] has no comment on this statement other than that, throughout this enquiry, we have worked as required with all of the consultants engaged by the customer. [redacted]

9. *It would be useful at this point to discuss the history of this scheme so that you have an overview of the position leading to our complaint.*

   Originally, an offer for connection of an anaerobic digestion plant was submitted to our client at Coalow Cone. The connection offer is enclosed for your perusal, referenced ENQ 5114733, dated 01/06/2010

   The connection point for [redacted] *was located on the same 30kV line as* [redacted] *but further north. Our client decided that the capex associated with the* [redacted] *connection offer was excessive and would render the project unviable. I have attached a map showing the location of* [redacted]

   The line at [redacted] *is closer to the primary substation. Our client therefore made the assumption that if the line could accept 500kVe export capacity at* [redacted] *then it could accept the same level of export capacity at* [redacted]*, which is still some distance from the primary.*

   You will note that the original connection offer referenced ENQ5114733 does not contain an onerous clauses relating to constraining the generator, however the connection offer referenced ENQ5179745 does contain the onerous clause that is the subject matter of our complaint.

   We therefore require a full explanation as to why the commercial terms have changed from that of the original offer addressed to Power Systems.

We would note that the proposal identified by [redacted] under ENQ 5114733 relates to a scheme at a site named [redacted] that is a completely different project with no reference to the one that is the subject of this determination ([redacted]). However, we do recognise that a mistake was made on this occasion in the drafting of the unconnected Connection Offer for enquiry ENQ 5114733 ([redacted]), but we confirm that the constraint clause to which Mr Barker refers is a set standard of words that we use, when appropriate, for similar generator connections and which is readily accepted by customers in order to reduce connection charges.

Whilst not wanting to shift focus from the matter that is the subject of this determination, we wish for the record to deny absolutely that the quoted price for the [redacted] scheme was in any way excessive, as alleged here by Mr Barker - it represented the reasonable cost of doing the work that, in our professional opinion, would have been necessary to deliver a connection in line with the customer's request: as such we are confident that it would bear appropriate scrutiny.

To conclude, we would emphasise the following points:

- we believe we have complied with all relevant obligations and are disappointed that the accusation of breach of obligations has not been backed up with any specific detail;
- we believe we have acted reasonably in seeking a non-standard connection solution that might satisfy the customer's financial constraints;
- in all instances the solutions presented in our quotations have been in line with the customer's notice under section 16A(1) of the Electricity Act 1989;

- the information provided by us to complement the requested 'constrained' connection offer should have been sufficient to inform a commercial appraisal by the customer or his agents.

Please do not hesitate to contact me to discuss the content of our response and this matter any further.

Yours sincerely

[redacted]

Head of Connections Services

[redacted]

[redacted]

[redacted]

[redacted]

8 February 2012

Re: [redacted] - Connection of Distributed Generation

Thank you for your letter dated 23 January 2012 in which you have raised a number a points arising from our meeting on [redacted] on 17 January 2012.

Addressing each of the points in your letter in turn:-

Voltage Rise

We believe that the information which we have provided to the previous consultants for the project and yourself is accurate to support the voltage rise comments as discussed at our meeting. We will not be able to provide a network model that details these levels of information you require, as it is impractical to do so to the levels you have requested.

Network Data

Further to our recent email we have provided the data you actioned on 30 January 2012. [redacted] has examined the information and has indicated that the analysis has been conducted using only parts of the feeder lengths and not the entire relevant lengths.

The original consultants for your client in respect of this project were provided with an accurate set of network data regarding the cable sizes and lengths it appears that the use of that data within their network modelling was not accurate as only certain parts of the network were input into the model resulting in an inaccurate set of results. Therefore we would not be willing to reimburse any costs or pay the need to provide a new set of data.

Network Modifications

Our scheduled changes to the network that are not designed to redress Customer Interruptions and Minutes Lost. The purpose is to afford a general reduction in the Daily Interruptions to supply to customers connected to this circuit, and not to specifically reduce any distant demand. Our calculated results show that the demand would be approximately

[redacted]

If you would like an audio copy of this letter, a copy in large type, Braille or another format, please call 0800 169 7093.

talled as a result of these changes. Your network model should be utilised using the full set of data as provided earlier.

Network Modelling

We have provided half hourly data on 17 January 2012. This can be used to evaluate the position for your client. We will however leave the potential for constraint and hence the viability of the offer to be determined by the clients consultant(s).

Point of Common Coupling

We note your request to provide an offer based upon connection into the overhead 20kV line. Our designer [redacted] will provide an offer to you in due course. As you will be aware the practices of each DNO and their policies and procedures can and do differ. Each DNO is meeting its Legal and Regulatory obligations in a manner which is appropriate for its network, and all its customers. The use of G59 protection proposed by us is simply a way of affording your client with the connection required, whilst safeguarding the network for our other customers.

We trust the above information is useful and we assure you of our commitment to find a workable solution for all parties.

Yours sincerely

[redacted]

From: [redacted]
Sent: [redacted]
To: [redacted]
Cc: [redacted]
Subject: [redacted]
Attachments: [redacted]

[redacted]

Half hourly data as promised at meeting yesterday (17 Jan '12)

Regards,

[redacted]

Please consider the environment before printing this email

From: [redacted]
Sent: 17 January 2012 5:29 PM
To: [redacted]
Subject: [redacted]

[redacted]

Attached is the half hour feeder load data for the above circuit, as requested by and to be passed onto Gary Barker.

Thanks, [redacted]

APPENDIX 11 – LETTER FROM CUSTOMER'S AGENT

[redacted]

[redacted]

Our Ref: K024/LC/OfG/NPG/03
Your Ref:
Date: 04th October 2012

Ofgem
9 Millbank
London
SW1P 3GE

For the attention of Mr. Sam Cope

Dear Mr. Cope

Re: [redacted]

We have now conducted an appraisal of the second [redacted] response to our complaint.

Item 1 of [redacted] Letter Dated 25/09/2012
It has been clearly stated in our previous correspondence to [redacted] that the information supplied by its planners was misleading and incorrect. This matter was discussed at length in a meeting that took place at [redacted] office in January 2012, whereby the network planning engineer admitted (in front of our client) that the information was misleading. We therefore strongly disagree that [redacted] has fulfilled its obligations to provide meaningful data.

The information that should be provided by [redacted] is the number of occurrences in any one year that the proposed [redacted] generator would have been off line due to network constraints. [redacted] **is the only party that can respond to this reasonable request and as yet the company has failed to its duty to supply this information to our client.**

The data from [redacted] feeder load analysis supplied to date is not acceptable and does not provide adequate information that could support the stance taken by [redacted]. In addition, the cable length data is incorrect so we are at a loss as to why [redacted] thinks it has fulfilled its obligations.

I wish to take this opportunity to turn this point around and ask [redacted] if it has carried out the necessary steps (as per its sequence for creating a network model) then why hasn't the company supplied a copy of its study outputs showing the voltage rise effects for LV customers. This is the salient point for consideration and is directly related to the onerous clause contained within the Section 16 quotation.

Item 2 of [redacted] Letter Dated 25/09/2012
We await copies of the network studies performed by [redacted] in support of its statements.

In addition, if [redacted] doesn't confirm the number of potential outage events for the generator in a given 12-36 month period, then our client cannot make a proper commercial assessment of this project.

It is all well and good for [redacted] to quote extracts from ENA technical documents. It there are voltage excursions that are outside prescribed limits then we must be furnished with actual evidence in the form of a report and associated load flow analysis documents.

Item 3 of [redacted] Letter Dated 25/09/2012

[redacted] states that the company is frustrated at the statements we have made in previous correspondence, however the material fact remains that our client is unable to make an informed decision on the viability of this project.

It is our client that is frustrated at not being in possession of a meaningful Section 16 quotation that includes direct reference to potential network events that would have constrained the generator at certain times of the year.

We believe [redacted] to be in breach of its obligations under Section 16 of the Act. The quotation issued to date cannot be accepted by our client owing to what can only be described as 'woolly statements' about outage periods for the proposed generator.

If [redacted] had supplied meaningful data from the outset, we may not have had cause for complaint. It is [redacted] obstinate stance that has led to our firm making a formal complaint about the way the Section 16 quotation has been managed and the lack of follow up.

Item 4 of [redacted] Letter Dated 25/09/2012

The circuit length data is in question following our meeting with [redacted] January 2012, where we presented our initial network study. We were informed by the [redacted] planner that the circuit lengths supplied by [redacted] were incorrect.

There were four people representing the client side at this meeting, [redacted]. The statement made by the [redacted] planner that the network circuit length data was incorrect was clearly heard by all, so we strongly disagree with the statements made by NPG in point 4 of its letter.

Item 5 of [redacted] Letter Dated 25/09/2012

The letter from [redacted] dated 08/02/2012 is not a satisfactory response to our request. Respectfully, I think [redacted] is getting its wires crossed on this point, as we have made a specific request of [redacted] to provide supporting data with reference to its own network studies and associated outcomes. This question to [redacted] was not related to provision of technical information so that we could determine voltage profiles after connection of the generator.

I wish to make an important observation at this point. A DNO has the ultimate say as to whether a connection can be made onto its network. For the DNO to arrive at a satisfactory conclusion it is obliged to carry out all associated network studies that confirm voltage profile, fault level contributions, system load flows etc.

With all due respect, it is not for independent consultants to carry out network studies so that the DNO can provide a Section 16 quotation. It is incumbent on a DNO to carry out a thorough

evaluation of a generation project, to create an accurate network model and to supply copies of its findings for end user project evaluation. We do not believe that [redacted] has complied with its regulatory obligations on this particular scheme.

If a network has many complexities that are affected by connection of additional DG then the DNO must advise the end user of the actual constraints.

Item 6 of [redacted] Letter Dated 25/09/2012
We have made our stance very clear on this point and as such we await a follow up from [redacted] in terms of the incorrect circuit length data that was supplied in 2011.

We also refer to our response to [redacted] Item 5, paragraph 3 (above).

Item 7 of [redacted] Letter Dated 25/09/2012
This is not a satisfactory response from [redacted] We firmly believe that if a DNO places onerous clauses within its Section 16 connection offer then it is obliged to provide supporting data to the end user.

To reiterate, it is not for an independent consultant to evaluate a DNO's dynamic network and to make decisions on potential outage periods. The DNO has a great deal more network information at its disposal (which is not available within LC25 statements) when inputting data into a computer model, thus allowing it to make far more accurate predictions and assumptions on network constraints. In turn, an end user then needs to be supplied with meaningful outputs from the DNO's model which clearly shows the network voltage profile to be outside prescribed UK limits.

Item 8 of [redacted] Letter Dated 25/09/2012
We have no further comment to make on this point.

Item 9 of [redacted] Letter Dated 25/09/2012
[redacted] has not supplied a satisfactory response to the point raised by our firm in that we require a full explanation as to why the network connection terms were different for [redacted] to that of [redacted] For the record, both schemes are associated with our client.

I refer to our point *'the line at [redacted] is closer to the primary substation. Our client made the assumption that if the line could accept 500kW export capacity at [redacted] then it could accept the same level of export capacity at [redacted] which is still some distance from the primary'.* If [redacted] can substantiate its argument by providing supporting load flow studies for both schemes then it will prove beyond all reasonable doubt that voltage rise would have been an issue at [redacted] Until then, we firmly believe that the onerous clause contained within the [redacted] Section 16 offer is unacceptable.

Although I do not wish to divert your attention from the subject matter, I wish to make a correction to the statement made by Mr [redacted] under Section 9 of his letter. I have not alleged that the scheme costs associated with [redacted] are excessive and I request that Mr [redacted] ads my letter once again to clarify the situation. I was not privy to this particular