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Transmission Constraint Licence Condition Guidance

Consultation

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Contact:	Tom Corcut & Leonie Bensted
Team:	GB Markets
Tel:	020 7901 ext 7262, or ext 7323
Email:	Tom.Corcut@Ofgem.gov.uk Leonie.Bensted@Ofgem.gov.uk

Overview:

The Energy Act 2010 gave powers to the Government to introduce a licence condition to limit behaviour by electricity generators during periods when there is insufficient capacity to transmit electricity from where it is generated to where the demand is. In such circumstances, known as transmission constraints, the System Operator will need to take actions to ensure that the level of electricity supplied equals the level of electricity demanded. These actions are generally to pay generators to either increase their generation, or to accept a payment from (or sometimes pay) generators to reduce their generation. During transmission constraints, there are often only a limited number of options available to the System Operator, which can sometimes lead to very high costs to balance the system. The licence condition prohibits generators from deriving an excessive benefit from electricity generation in relation to a period of transmission constraint. This may occur either where the generator artificially creates or exacerbates a transmission constraint, or where the generator derives an excessive financial benefit from the System Operator in return for reducing their generation. The Department for Energy and Climate Change (DECC) is consulting on the content of the licence condition in its document '*The Transmission Constraint Licence Condition*'. This document is a consultation on Ofgem's intended approach to interpreting and enforcing the licence condition, as instructed by the Energy Act 2010. It is intended that the two documents are read together.



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1. Introduction

Background

1.1. Ofgem has had longstanding concerns that the potential exists for electricity generators to manipulate and exploit market conditions and charge unduly high prices¹ to the System Operator (SO) to balance the GB electricity system in connection with periods of transmission constraint. Transmission constraints occur when there is insufficient network capacity to transmit the electricity into or out of a region on the network². During periods of transmission constraint the SO often has a limited set of options to purchase increased/reduced generation (or demand) from a specific geographic area. Given the limited numbers of options available to the SO, the potential exists in some cases for generators to charge high prices for balancing services (or other contractual services to adjust generating levels); these are costs which will ultimately fall on the consumer.

1.2. In April 2008 Ofgem launched an investigation under the Competition Act 1998 (CA98) into Scottish Power (SP) and Scottish & Southern Energy (SSE), following concerns raised by industry participants about possible market manipulation and exploitation of market conditions arising from constraints between England/Wales and Scotland. While we had concerns about some of the behaviour observed under the period of investigation, in January 2009, Ofgem closed the investigation, noting that the likelihood of establishing an infringement under the CA98 was low, and that other routes were available which could be more effective in addressing the concerns.

1.3. Following this investigation, Ofgem published its consultation paper "Addressing Market Power Concerns in the Electricity Wholesale Sector – Initial Policy Proposals" in March 2009³. After consideration of the responses to the consultation document, Ofgem concluded that it would be most appropriate to introduce a new licence condition to address the concerns identified. Given the importance of the issue and the likelihood of increased constraint periods, we considered there was a strong case for the licence condition to be introduced via primary legislation. This led to the Department for Energy and Climate Change (DECC) pursuing a statutory change and the 2010 Energy Act gave the Secretary of State for Energy and Climate Change an enabling power to introduce a new licence condition for that purpose. The Government is currently seeking views on the proposed Transmission Constraint Licence Condition (TCLC).

¹ Or pay the SO unduly low 'bid' prices in the Balancing Mechanism.

² An export constraint is said to occur when total generation in an area exceeds the total demand plus transmission capacity to export the excess electricity. An import constraint is said to occur when, given the current demand and electricity generated within a particular region, there is insufficient transmission capacity to import the required amount of electricity.

³<http://www.ofgem.gov.uk/Markets/WhlMkts/CompandEff/Documents1/Market%20Power%20Concerns-%20Initial%20Policy%20Proposals.pdf>

1.4. There have been further instances over the past year when concerns have been raised that bids accepted in the Balancing Mechanism (BM) during periods of transmission constraint have been unduly costly for the SO. Typically, bids are paid by generators to the SO to reduce their generation of electricity, with the level of bids reflecting fuel costs associated with generation. However, during some periods the SO has had to pay large amounts (i.e. negative bids) to generators to reduce their generation. These occasions have been rare. However, it is anticipated that as the ambitious programme of future investment in wind generation is likely to be concentrated in particular areas, this could lead to an increased frequency of such negative bids.

1.5. Over time, developments in the GB electricity market may change the need for the TCLC. There are a number of policies in development that could affect the need for the TCLC, including: DECC's Electricity Market Reform programme, National Grid's Connect and Manage programme, and project Transmit. In addition, developments in smart meters and smart grids may change the way in which the SO balances the GB electricity system. If implemented in 2012 as planned, the TCLC would remain in force until 2017 with the possibility of extension by the Secretary of State to 2019 if necessary.

Purpose

1.6. This document provides draft guidance to licensees and other interested parties on Ofgem's interpretation of the TCLC and its intended approach to enforcement. It should be read in conjunction with the Government's consultation on the draft TCLC. For ease of reference the draft licence condition is reproduced in full at Appendix 2.

Status

1.7. This document constitutes the guidance referred to in paragraph 5 of the TCLC. Once finalised, it may be revised from time to time in accordance with paragraph 6 of the TCLC and Ofgem will consult on any proposed changes to the guidance.

1.8. The introduction of this condition does not preclude Ofgem tackling anticompetitive behaviour through the application of UK and EU competition law, where appropriate. Equally, the assessment of any potential infringement of this licence condition will be distinct from any assessment of potential competition law infringements and the indicators of potential breach discussed in this guidance are not intended to replicate or correspond to those commonly applied in competition law cases. The application of this licence condition should therefore be viewed as complementary to relevant competition law.

Outline

1.9. This guidance document is set out in the following way. Chapter two sets out the detail of Ofgem's interpretation of the licence condition by going through the

specific behaviour that will be prohibited, setting out key definitions and explaining how Ofgem intends to decide whether the condition has been breached. In chapter three, we explain how Ofgem intends to monitor and enforce the licence condition. Finally, chapter four describes the timeline of the condition.

2. The Licence Condition

Overview

2.1. Paragraph 1 of the TCLC provides that the licensee must not obtain an excessive benefit from electricity generation in relation to a transmission constraint period.

2.2. A transmission constraint occurs where the transmission system is unable to transmit the power supplied onto the transmission system to the location where the demand for that power is situated, and can arise due to a number of reasons, as set out in Appendix 3. The TCLC will apply to all periods of transmission constraint regardless of how the constraint arises; a full definition of transmission constraint is set out in the licence condition and in the glossary of this document. A transmission constraint period is any period when a transmission constraint occurs, regardless of the duration.

2.3. Paragraph 2 of the TCLC further provides that the licensee shall be considered to have obtained an excessive benefit from electricity generation in relation to a transmission constraint period if:

- a) The licensee and the SO enter into, or have entered into, Relevant Arrangements which relate to an actual or potential transmission constraint period; and
- b) One or more of the circumstances set out in paragraph 3 occurs.

2.4. The Relevant Arrangements referred to in paragraph 2 are defined as arrangements entered into between the licensee and the SO either (a) within the BM or (b) in the form of bilateral contracts outside the scope of the BM whereby the licensee agrees with the SO that in certain circumstances the SO can automatically shut down generation at a specified plant. Ofgem intends to interpret (b) as relating to bilateral commercial inter-trip arrangements (described in more detail in Chapter 3 and in Appendix 4). Ofgem considers that Relevant Arrangements entered into within the BM will relate to an actual transmission constraint period whereas bilateral inter-trip arrangements may relate to a potential transmission constraint period. That is, in regards to (b), instances where the SO enters into an inter-trip arrangement to manage export transmission constraints are considered as Relevant Arrangements irrespective of whether the transmission constraint has occurred.

2.5. The circumstances identified in paragraph 3 of the TCLC essentially capture two types of behaviour:

- Manipulation of generation to create or exacerbate a transmission constraint (output manipulation) enabling the generator to derive excessive benefit from either bids or offers in the BM. This situation occurs when a generator

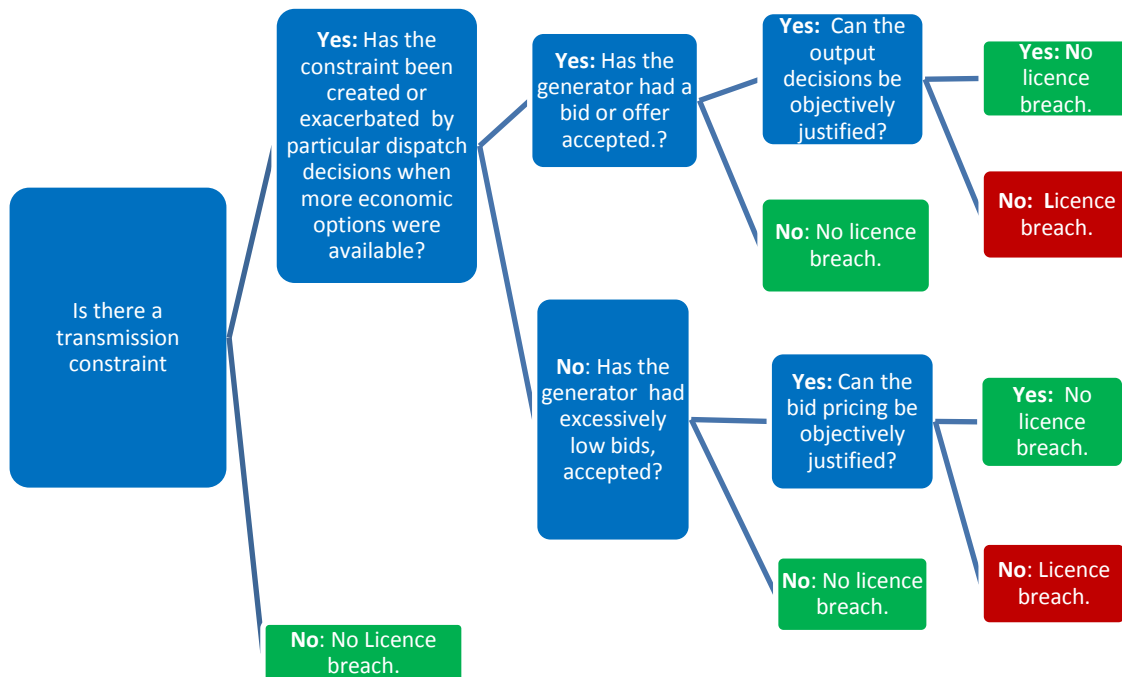
dispatches or withholds plant when it had more economic options available to it (i.e. because it was either running/withholding the plant unprofitably, and/or it had more profitable options open to it). The generator benefits because it gains a substantially higher financial reward from services provided in the BM than it would have done selling in the forward market alone.

- Excessive bids or inter-trip pricing in relation to export constraints⁴. In such cases, irrespective of output manipulation, generators may potentially take advantage of being behind an export constraint and the limited number of options with which the SO can resolve the constraint.

2.6. There may be instances when it appears that the licensee is in breach of the condition, but their actions can be objectively justified. Any alleged objective justification relied upon by a licensee for breaching any of the circumstances set out in paragraph 3 of the TCLC will need to be clearly evidenced by the licensee and will be assessed by Ofgem on a case-by-case basis.

2.7. The diagram below provides a high-level illustrative example of how Ofgem may determine whether a breach of the TCLC has occurred in relation to output manipulation and excessive benefit from bidding behaviour. This excludes the analysis for inter-trips which is discussed at paragraphs 2.28-2.33 below.

⁴ Note that the TCLC does not prohibit excessively high offers during import constraints in the absence of output manipulation. DECC's rationale for this was that (in the absence of output manipulation) such prices spikes may be a true reflection of scarcity of generation, and hence a reasonable investment incentive.



2.8. The remainder of this chapter discusses in detail each of the three circumstances that will be prohibited by the TCLC.

Circumstance 1

2.9. As set out in paragraph 3 of the TCLC:

Circumstance 1 is that:

- (i) the licensee creates or exacerbates a Transmission Constraint by dispatching or withholding one or more Generation Units in circumstances when it had more economic options available to it; and
- (ii) under the Relevant Arrangements, either:
 - a. the licensee is paid, or seeks to be paid, an excessive amount by the system operator in connection with an increase in electricity generation during the Transmission Constraint Period; or
 - b. the licensee is paid, or seeks to be paid, an excessive amount by the system operator, or the licensee pays, or

seeks to pay, an excessively low amount to the system operator, in connection with a reduction in electricity generation during the Transmission Constraint Period;

2.10. This provision is designed to prohibit generators from making dispatch decisions that create or exacerbate a transmission constraint and then deriving an excessive benefit from the SO entering into arrangements with them in the BM. This benefit stems from the SO having either paid the generator for an increase in generation or being paid by generators to reduce generation where such payments would not have occurred had the generator followed what would have been their most economic dispatch options.

2.11. We consider that a generator would have created or exacerbated a transmission constraint, in the way envisaged under Circumstance 1, if it has made dispatch decisions which run counter to the prevailing economics of its generation units during the transmission constraint period in question. Our approach to determining whether this has occurred is discussed in more detail below.

2.12. Once we have determined that a generator has created or exacerbated the transmission constraint, if that generator then has a bid or offer accepted in the BM in respect of the constraint period, we consider this sufficient to establish that the generator is to be paid an excessive amount by the SO (or, is to pay the SO an excessively low amount) for the purposes of Circumstance 1. For example, if a generator dispatches a coal fired plant in a certain location, when it would have been more economic to dispatch a gas fired unit in a different location and this forced the SO to take actions with that generator in the BM via either 'offers' to increase electricity or 'bids' to reduce electricity generation, given that the generator would be making greater profits than they would have if the constraint had not been created or exacerbated by their dispatch decisions, any profits that they make in the BM in relation to this will be considered excessive (subject to any consideration of objective justification).

2.13. Ofgem generally expects to take action in relation to Circumstance 1 only when a generator has created or exacerbated a constraint and has a bid or offer in the BM accepted. However, the TCLC also permits enforcement action where the generator has created or exacerbated a constraint and submits a bid or offer which would result in an excessive benefit being derived if it were accepted (but it is not) – i.e. the generator seeks to be paid (or to pay) an excessive (or excessively low) amount. Ofgem retains the option of taking action against generators that create or exacerbate a constraint but whose submitted bids or offers are not accepted, including in (but not limited to) circumstances where there is evidence of repeated conduct in this manner.

2.14. Our approach to determining whether a licensee has dispatched or withheld one or more generation units in circumstances when it had more economic options available to it will include, but not be limited to, the following. We will examine dispatch decisions based on Final Physical Notifications (FPNs) that are submitted to the SO one hour before gate closure for each settlement period. We will use the following non-exhaustive list of costs and prices to calculate generation spark and

dark spreads or profitability from other units, on a Balancing Market Unit (BMU) specific basis:

- Within day gas prices;
- Spot coal prices;
- Spot European Union Allowances (co2 prices) + any lift up from the UK's carbon price floor mechanism;
- Any relevant other fuel costs (e.g. biomass);
- Any relevant subsidies from Renewable Obligation Certificates (ROCs); and
- Within day electricity prices.

2.15. We intend to adjust our profitability calculations to take account of any warm up/ramp up costs for generation units as well as any other technology/plant specific costs.

2.16. Ofgem has internal estimates of the profitability of all BMUs in GB. However, we recognise that a complete profitability calculation can be difficult given the complexities involved and that there may be costs we have missed. Therefore, we will consult with generators before concluding whether plant has been dispatched or withheld when more economic options were available. If we suspect a generator has manipulated its output, we would generally expect to request information relating to the actual cost of generation between the generator's portfolio. We would also expect to seek full information of any maintenance scheduling and associated costs.

2.17. As noted above, there may be instances when it appears that the licensee is in breach of the condition, but their actions can be objectively justified. Any alleged objective justification relied upon by a licensee for behaving in a way prohibited by paragraph 3 of the TCLC will need to be clearly evidenced by the licensee and will be assessed by Ofgem on a case-by-case basis. If relevant the licensee should provide any evidence which demonstrates that their actions can be objectively justified. Monitoring and enforcement is discussed in more detail in Chapter 3.

2.18. By way of illustration, for Circumstance 1, Ofgem may consider the following types of conduct to be objectively justified where they are evidenced.

Outages

2.19. Ofgem recognises that from time to time unplanned failures or required maintenance affects the capability of plants to meet their notified generation (FPN). This can either be a temporary shut down or a reduction in generation units' capability. Therefore, Ofgem will consider any evidence presented by the licensee alleging an objective justification related to mechanical or technological failure of

plant that leaves it inoperable and means that the generator has had to dispatch alternative plants. This will give the generators the opportunity, where relevant, to provide evidence that they dispatched plant uneconomically because their hand was forced by unplanned equipment issues.

Large Combustion Plant Directive effects

2.20. Ofgem acknowledges that there are European and UK policies that affect the profit optimising strategy of generators may also affect dispatch decisions. One such regulation is the Large Combustion Plant Directive (LCPD). If a coal plant is opted out of the LCPD then it has limited running hours up to 2015. This may mean that a coal fired plant may want to hold back on generating even if generating now would be profitable, if it believes that it may be able to make more profitable use of its remaining hours at some point in the future. In such cases, Ofgem may consider this an objective justification if a generator can provide evidence that it has a consistent strategy based on optimising the profits of the remaining hours and why they believe that the generation unit could be more profitably employed at a different time. Ofgem will also consider evidence put forward by generators that they are following a different strategy driven by the LCPD. For instance, a generator may decide simply to run the remaining hours of an existing unit, despite having more profitable options available, in order to build a new plant. However, in this case a generator will need to show firm plans that an alternative strategy to profit maximisation is being employed.

Supply chain logistics

2.21. It may be the case that supply chain logistic failures or constraints mean that plant cannot be used for example because it does not have the fuel to do so, or if transportation costs are so great as to alter the economic analysis. Ofgem will consider evidence as to objective justification based on supply chain logistics. Generators seeking to rely on this objective justification will have to supply Ofgem with convincing evidence that their dispatching was impeded because of logistical issues, such as transportation costs, which were outside its reasonable control.

Question 1: Do you agree with our interpretation of uneconomic dispatch?

Question 2: Is the use of 'within-day' fuel and electricity prices to calculate generation profitability the most realistic approach?

Question 3: What other costs, if any, should be included in our initial analysis of dispatch decisions?

Question 4: Are there any further important arguments that provide objective justification for uneconomic dispatch?

Question 5: Are there any objective justifications cited above which should not be considered in our assessment?

Please include any reasoning and evidence in your answers.

Circumstance 2

2.22. As set out in paragraph 3 of the TCLC:

Circumstance 2 is that, under the Relevant Arrangements and in connection with a reduction in electricity generation in the Transmission Constraint Period, either:

- i. the licensee pays, or seeks to pay, the system operator an excessively low amount, or
- ii. the licensee is paid, or seeks to be paid, an excessive amount by the system operator;

2.23. This is intended to prohibit generators from taking advantage of their position during export constraints and charging the SO an excessive amount to reduce its generation⁵. Ofgem generally expects only to take action under Circumstance 2 when a generator has a bid accepted. However, the licence condition allows for the possibility of taking action if extremely low bids are submitted, but not accepted (i.e. the licensee 'seeks to pay or be paid'). Ofgem retains the option of taking action on this basis, including in (but not limited to) circumstances where there is evidence of repeated conduct in this manner.

2.24. This circumstance applies regardless of whether the generator has caused or exacerbated the constraint by dispatching plant when it had more economic options available to it.

2.25. For example, during an export constraint if a generator charges the SO an excessive amount in the BM to reduce its generation then the generator will be in breach of the licence condition.

2.26. The following is a non-exhaustive list of indicators which may be considered when determining whether excessive amounts have been paid:

- Avoidable costs. Ofgem would compare bids accepted to manage export transmission constraints to estimates of avoidable costs. Avoidable costs can be defined as short-run marginal costs (SRMC) plus additional maintenance

⁵ The rules of the BM under emergency instructions mean that the SO pays the last remaining bid price submitted by the generator, even if that bid price is not related to the current settlement period. Given that emergency instructions can occur during periods of transmission constraint, there is the possibility of a TCLC breach in relation to emergency instructions. That is, if the SO has paid a bid to a generator by emergency instruction which is deemed excessively high and the bid price relates to a bid made after the TCLC came into force, then there is a potential TCLC breach. However, if the bid price is related to a bid made prior to the TCLC coming into force (i.e. where the generator last bid into the BM before the TCLC came into force) this would not be captured by the TCLC.

and ramping down costs, e.g. costs of going below the 'Stable Export Limit'. We will also take account of opportunity costs and allow for reasonable profits to be earned. In the case of wind generators, opportunity costs will include the price of the Renewable Obligation Certificates (ROCs).

- Comparable generator benchmarks. Accepted bids behind an export constraint would be compared with those charged by any comparable generators, on the other side of a constraint. For example, for a coal generator in Scotland behind a constraint the benchmark would be bids accepted by a comparable coal generator in England or Wales. We would look at a range of factors such as profits obtained by comparable generators and historical profits from bids in the BM when determining a reasonable profit.
- Other indicators from general market monitoring, such as historical bids during non-constrained periods, average GB-wide bids etc.

2.27. If the above indicators suggest a potential breach, as set out in Chapter 3, Ofgem would generally expect to write to the licensee concerned, giving them an opportunity to respond. If the licensee believes their pricing can be objectively justified, an explanation and supporting evidence should be submitted to Ofgem for assessment. By way of illustration, Ofgem may consider any contractual obligations as an objective justification for Circumstance 2. For example, generators may have arrangements with suppliers to maximise renewable generation output that may make them reluctant to make bids other than at higher (lower) than usual prices. Monitoring and enforcement is discussed in more detail in Chapter 3.

Question 6: Do you agree that the indicators outlined above are useful for Ofgem to consider when determining whether the bids are excessive or not?

Question 7: Are there other factors or indicators that Ofgem should consider in interpreting this circumstance?

Question 8: Are there any further important arguments that provide objective justification for seemingly high bids?

Question 9: Are there any objective justifications cited above which should not be considered in our assessment?

Please include any reasoning and evidence in your answers.

Circumstance 3

2.28. As set out in paragraph 3 of the TCLC:

Circumstance 3 is that, under the Relevant Arrangements, the licensee is to be paid an excessive amount by the system operator in connection with the licensee preparing for the possible cessation of generation of

electricity by particular generating plant in a Transmission Constraint Period.

2.29. This provision relates to commercial inter-trips, which are used by the SO to manage constraints in export-constrained regions⁶. Inter-trips are devices that are fitted to plants and once “armed” allow additional power to flow over the relevant transmission lines, since if a selected circuit trips the generation in question will automatically be disconnected to avoid the lines overloading.

2.30. The SO enters into bilateral contracts with generators for commercial inter-trip arrangements. The intention of Circumstance 3 is to prohibit generators from receiving excessively high amounts for the arming fee component of such contracts. We consider that it is appropriate that this provision primarily applies to marginal costs, referred as “arming fees”, associated with inter-trip devices and not other costs, such as tripping charges, which are payable by the SO if the plant is disconnected or tripped. See Appendix 4 for a description of a typical fee structure of commercial inter-trip contracts and description of an ‘arming fee’.

2.31. If the SO enters into an inter-trip arrangement for an excessive amount to manage a potential export transmission constraint, then the licensee may be found to be in breach irrespective of whether the export transmission constraint occurs. Further, we may take action against excessive arming fees before a relevant transmission constraint occurs.

2.32. To determine whether inter-trip arming fees during an export constraint are excessive, the following non-exhaustive list of indicators will be considered:

- Avoidable costs. Ofgem would look at the costs associated with the arming of inter-trips. For example, the maintenance and other operational costs associated with arming the inter-trip, as well as any opportunity costs associated with inter-trip arming.
- Benchmark of inter-trip arming fees in export constrained areas against those charged by comparable generators in non-constrained areas.
- Other indicators from general market monitoring such as historical inter-trip arming fees.

2.33. If such indicators suggest a potential breach, Ofgem would generally expect to write to the licensee concerned, giving it an opportunity to respond. Ofgem acknowledges that there may be instances when it appears that the generator is in breach of the condition, but their actions can be objectively justified. Therefore, at this stage, if relevant the licensee should provide any evidence which demonstrates

⁶ Inter-trips can only be used to manage export transmission constraints because they allow more power to be flowed from the export-constrained region. They are not suitable for managing import constraints where the problem is a deficit, rather than a surplus, of generation.

that their pricing can be objectively justified. Monitoring and enforcement is discussed in more detail in Chapter 3.

Question 10: Do you agree with our definition of arming fees, and that this is the relevant price to capture under this circumstance?

Question 11: Do you agree that the indicators outlined above are useful for Ofgem to consider when determining whether inter-trip arming fees are excessive or not?

Question 12: Are there other factors or indicators that Ofgem should consider in interpreting this circumstance?

Please include any reasoning and evidence in your answers.

3. Monitoring and Enforcement

Monitoring

3.1. Ofgem will take a proactive approach to monitoring compliance with the TCLC. Ofgem has developed a database which contains data on all BMUs in GB, data on Bid-Offer Acceptances as well as the latest fuel and electricity price data. The database is fed with data from Elexon and Bloomberg. The database contains automatic alerts which indicate to Ofgem's market surveillance team whether BMUs have potentially been dispatched when more economic options were available to the generator. Similarly, automatic alerts have been set up to indicate when bid prices appear to be considerably above cost, or that are out of step with the rest of the market. These alerts have been set with low thresholds. Following these alerts Ofgem will then analyse the data in more detail to assess whether they indicate that a potential breach may have occurred. As referred to above, Ofgem may also request information from generators to monitor compliance.

3.2. Ofgem also expects market participants to play their part in identifying any potential breaches. As balancing costs are spread amongst market participants on a market share basis⁷ Ofgem believes that there is an incentive for market participants to report any suspected abuses to them. Ofgem will also regularly discuss balancing market actions with the SO to help identify any breaches of the TCLC. This is particularly relevant with respect to Circumstance 3, inter-trips arming fees, as these are generally negotiated via bilateral contracts between the SO and Ofgem does not have sight of these trades.

Enforcement

3.3. Generators are responsible for ensuring that they comply with the requirements of the TCLC. They will want to ensure that they are able to demonstrate compliance in the event that concerns are raised about their conduct. We will monitor compliance by the means set out above and by reviewing any evidenced complaints made to us by customers, whistleblowers and other industry players.

3.4. We will enforce the TCLC in accordance with our existing 'Enforcement guidelines on complaints and investigations' ('the Enforcement Guidelines')⁸.

3.5. Consistent with these guidelines, if, on our own initiative or following a complaint, we identify a potential breach under the TCLC, we may write to the licensee concerned, asking the licensee to provide cost and other relevant data. The

⁷ See explanation of the BM in Appendix 3 for a description of BSUoS charging.

⁸ <http://www.ofgem.gov.uk/ABOUT%20US/ENFORCEMENT/Documents1/Enforcement%20Guidelines%20post%20consultation.pdf>

licensee may also be required at this stage (or at a later stage) provide information which demonstrates that their actions were objectively justified.

3.6. If a licensee is found to be in breach, it may face a financial penalty. The amount of any penalty imposed will be determined by the Authority in accordance with its published policy on financial penalties for licence breaches⁹.

3.7. Unlike other licence conditions, the enabling power in the Energy Act 2010 for the introduction of this condition requires that appeals on enforcement orders, including those imposing financial penalties, are heard by the Competition Appeals Tribunal (CAT) on the merits. This means that the licensee has a broader right to appeal against any enforcement decision CAT on the merits of the decision and the amount of any penalty imposed. Third parties are not able to appeal our TCLC decisions to the CAT. The CAT's rules and procedures are available from its website¹⁰.

⁹ Refer to GEMA's "Statement of Policy with respect of financial penalties pursuant to section 27B of the Electricity Act and Section 30B of the Gas Act" published in October 2003.

¹⁰ <http://www.catribunal.org.uk/240/Rules-and-Guidance.html>

4. Licence Condition Timeline

The Sunset Clause

4.1. Section 23 of the Energy Act 2010 requires that the TCLC lapses after five years, with the possibility of a further two year extension. The start date for the duration of the licence condition will be with commencement of the condition itself, this is anticipated to be between April and October 2012. Any decision on whether to extend the condition would be made by the Secretary of State.

4.2. Ahead of the TCLC lapsing, we will review the degree to which market developments have reduced or eliminated the need for the TCLC. This process will include seeking the views of DECC, generators and other interested parties. Following that review process, the Secretary of State may consult on whether to extend the TCLC for a further 2 years.

4.3. Once the TCLC has lapsed there will be no explicit restrictions on generators' dispatch decisions or on their bidding behaviour in the BM and inter-trip arming fees. However, Ofgem will continue to monitor the BM and the market as whole in line with its powers and duties under UK and EU competition law and under any other relevant powers (such as the forthcoming EC REMIT proposals).

5. Appendices

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Appendix 1 - Consultation Response and Questions

1.1. Ofgem would like to hear the views of interested parties in relation to any of the issues set out in this document.

1.2. We would especially welcome responses to the specific questions which we have set out at the beginning of each chapter heading and which are replicated below.

1.3. Responses should be received by 1st March 2012 and should be sent to gb.markets@ofgem.gov.uk for the attention of:

- Ian Marlee
- Partner, GB Markets
- 9 Millbank
- London
- SW1P 3GE

1.4. Unless marked confidential, all responses will be published by placing them in Ofgem's library and on its website www.ofgem.gov.uk. Respondents may request that their response is kept confidential. Ofgem shall respect this request, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

1.5. Respondents who wish to have their responses remain confidential should clearly mark the document/s to that effect and include the reasons for confidentiality. It would be helpful if responses could be submitted both electronically and in writing. Respondents are asked to put any confidential material in the appendices to their responses.

1.6. Next steps: Having considered the responses to this consultation, Ofgem intends to publish the final guidance and licence condition in spring/summer 2012. Any questions on this document should, in the first instance, be directed to:

- Tom Corcut/Leonie Bensted (GB markets)
- 020 7901 7262/7323
- tom.corcut@ofgem.gov.uk or leonie.bensted@ofgem.gov.uk

CHAPTER: One

No question

CHAPTER: Two

Question 1: Do you agree with our interpretation of uneconomic dispatch?

Question 2: Is the use of 'within-day' fuel and electricity prices to calculate generation profitability the most realistic approach?

Question 3: What other costs, if any, should be included in our initial analysis of dispatch decisions?

Question 4: Are there any further important arguments that provide objective justification for uneconomic dispatch?

Question 5: Are there any objective justifications cited above which should not be considered in our assessment?

Question 6: Do you agree that the indicators outlined above are useful for Ofgem to consider when determining whether the bids are excessive or not?

Question 7: Are there other factors or indicators that Ofgem should consider in interpreting this circumstance?

Question 8: Are there any further important arguments that provide objective justification for seemingly high bids?

Question 9: Are there any objective justifications cited above which should not be considered in our assessment?

Question 10: Do you agree with our definition of arming fees, and that this is the relevant price to capture under this circumstance?

Question 11: Do you agree that the indicators outlined above are useful for Ofgem to consider when determining whether inter-trip arming fees are excessive or not?

Question 12: Are there other factors or indicators that Ofgem should consider in interpreting this circumstance?

Please include any reasoning and evidence in your answers.

CHAPTER: Three

No question

CHAPTER: Four

No question

Appendix 2 – Licence Condition

Transmission Constraint Licence Condition

1. The licensee must not obtain an excessive benefit from electricity generation in relation to a Transmission Constraint Period.
2. For the purposes of paragraph 1, the licensee shall be considered to have obtained an excessive benefit from electricity generation in relation to a Transmission Constraint Period if:
 - a. the licensee and the system operator enter into, or have entered into, Relevant Arrangements which relate to an actual or potential Transmission Constraint Period; and
 - b. one or more of the circumstances set out in paragraph 3 occurs.
3. The circumstances referred to in paragraph 2(b) are as follows:
 - a. Circumstance 1 is that:
 - (iii) the licensee creates or exacerbates a Transmission Constraint by dispatching or withholding one or more Generation Units in circumstances when it had more economic options available to it; and
 - (iv) under the Relevant Arrangements, either:
 - a. the licensee is paid, or seeks to be paid, an excessive amount by the system operator in connection with an increase in electricity generation during the Transmission Constraint Period; or
 - b. the licensee is paid, or seeks to be paid, an excessive amount by the system operator, or the licensee pays, or seeks to pay, an excessively low amount to the system operator, in connection with a reduction in electricity generation during the Transmission Constraint Period;
 - b. Circumstance 2 is that, under the Relevant Arrangements and in connection with a reduction in electricity generation in the Transmission Constraint Period, either:
 - i. the licensee pays, or seeks to pay, the system operator an excessively low amount, or
 - ii. the licensee is paid, or seeks to be paid, an excessive amount by the system operator;

- c. Circumstance 3 is that, under the Relevant Arrangements, the licensee is to be paid an excessive amount by the system operator in connection with the licensee preparing for the possible cessation of generation of electricity by particular generating plant in a Transmission Constraint Period.
4. For the purposes of paragraph 3 any reference to an increase or reduction in generation by the licensee in a Transmission Constraint Period means:
 - a. an increase or reduction in comparison to the licensee's Notified Electricity Generation for that Transmission Constraint Period; and
 - b. includes an increase or reduction in generation of electricity by particular generating plant, whether or not there is an overall increase or reduction in electricity generation in that Transmission Constraint Period.
5. This licence condition shall be interpreted and enforced in accordance with guidance issued by the Authority in accordance with section 19 of the Energy Act 2010.
6. The Authority may from time to time revise the guidance referred to in paragraph 5 and before issuing any such revised guidance the Authority shall consult:
 - a. the holder of any licence under section 6(1)(a) of the Act;
 - b. the Secretary of State; and
 - c. such other persons as the Authority thinks it appropriate to consultsetting out the text of, and the reasons for, the proposed revisions.
7. The licensee shall provide to the Authority, in such manner and at such times as the Authority may reasonably require, such information as the Authority may require or deem necessary or appropriate to enable the Authority to monitor the licensee's compliance with this condition.
8. This condition will cease to have effect on the Expiry Date unless the Secretary of State makes an order extending the Expiry Date pursuant to section 23(2) of the Energy Act 2010.
9. In this condition:

"Balancing Mechanism"	means the mechanism for the making and acceptance of offers and bids to increase or decrease the quantities of electricity to be delivered to, or taken off, the total system at any time or during any period so as to assist the system operator in coordinating and directing the
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	flow of electricity onto and over the national electricity system and balancing the national electricity system pursuant to the arrangements contained in the BSC ;
"BSC"	has the meaning given in standard condition 9;
"Expiry Date"	means [<i>insert date 5 years from Commencement Date</i>];
"Generation Unit"	means any apparatus which produces electricity;
"National Electricity Transmission System"	means the system consisting (wholly or mainly) of high voltage electric lines owned or operated by transmission licensees within Great Britain, in the territorial sea adjacent to Great Britain and in any Renewable Energy Zone and used for the transmission of electricity from one generating station to a sub-station or to another generation station or between sub-stations or to or from any interconnector and includes any electrical plant or meters owned or operated by any transmission licensee within Great Britain, in the territorial sea adjacent to Great Britain and in any Renewable Energy Zone in connection with the transmission of electricity;
"Notified Electricity Generation"	means the intended level of generation notified by the licensee to the system operator for a period pursuant to the notification arrangements established by BETTA and the BSC;
"Relevant Arrangements"	means arrangements entered into by the licensee and the system operator either: (a) within the Balancing Mechanism; or (b) in the form of bilateral contracts outside the scope of the Balancing Mechanism whereby the licensee agrees with the system operator that in certain circumstances the system operator can automatically shut down generation at a specified plant;
"Renewable Energy Zone"	means any area designated by Order in Council under section 84(4) of the Energy Act 2004;
"Transmission Constraint"	means any limit on the ability of the National Electricity Transmission System, or any part of it, to transmit the power supplied onto the National Electricity Transmission System to the location where the demand for that power is

	<p>situated, such limit arising as a result of any one or more of:</p> <p>(a) the need not to exceed the thermal rating of any asset forming part of the National Electricity Transmission System;</p> <p>(b) the need to maintain voltage on the National Electricity Transmission System; and</p> <p>(c) the need to maintain the transient and dynamic stability of electricity plant, equipment and systems directly or indirectly connected to the National Electricity Transmission System;</p> <p>and used by the system operator to operate the National Electricity Transmission System in accordance with the National Electricity Transmission System Security and Quality of Supply Standard referred to in standard condition C17 (Transmission systems security standard and quality of service) of the standard conditions for electricity transmission licences or any other provision of the transmission licence, the Act or any other requirement of law;</p>
"Transmission Constraint Period"	<p>means any period of time, regardless of the duration, when a Transmission Constraint occurs.</p>

Appendix 3 – Market Arrangements

Overview of BETTA market arrangements

1.1. The BETTA market arrangements have been in place since April 2005 and have helped to facilitate competition in the GB-wide wholesale market for trading electricity (the previous NETA arrangements had applied only within England & Wales). Under BETTA and NETA, participants in the electricity market contract for the supply of electricity either on a bilateral basis or through organised exchanges such as APX. Each participant must notify its contractual position to the SO before real time.

1.2. The SO (NG) is responsible for ensuring the system is in balance at all times to avoid blackouts or overloads. The BM provides a residual market for balancing the system in real-time. Generators are free to choose whether to self-dispatch or offer into the BM.

The Balancing Mechanism (BM)

1.3. Parties trade to balance their positions day ahead and within day. To enable NG as SO to keep the transmission system in balance, the Grid Code requires each participant to submit, daily at 11am, an Initial Physical Notification ("IPN") of its contracted position for each of the half hour trading periods in the following day. Each participant's IPN may be amended at any time prior to "gate closure", which is one hour before the relevant half hourly trading period. At gate closure, an IPN becomes a Final Physical Notification ("FPN"), and these final positions are aggregated by NG and notified to the market¹¹.

1.4. At gate closure, NG as SO becomes the sole counterparty to all further trades and can adjust the levels of generation and demand to keep the transmission system in balance by using participants' Bids and Offers in the BM¹².

Balancing services

1.5. NG also uses other tools outside the BM such as standing reserve contracts and pre-gate closure transactions (PGBTs)¹³ to balance the system. Collectively, these

¹¹ Each participant must notify its contractual position for every half-hour trading period of the day to a central system operated by Elexon, the company that administers the Balancing and Settlement Code ("BSC") arrangements.

¹² Bids specify the price participants are willing to pay to NG to reduce generation or increase consumption by a specified volume, while Offers specify the price they will charge to NG to increase generation or reduce consumption by a specified volume. NG will normally accept the highest-priced Bids or lowest-priced Offers first, unless prevented from doing so by transmission constraints or the physical characteristics of the plant in question.

¹³ PGBTs are fixed-price contracts struck between NG and a generator before the BM opens. They are another tool used by NG to help balance the system.

tools are known as Balancing Services. NG uses these services in order to manage the flows of electricity over the GB transmission system in order to:

- ensure the residual balancing of electricity supply and demand;
- ensure that the frequency and voltage of electricity on the system is maintained within the prescribed limits;
- manage constraints which have an impact on the frequency and voltage of particular parts of the system; and
- deal with emergency situations.

Charges and Payments

1.6. NG's actions in balancing the system give rise to charges and payments from and to participants in the BETTA market, including:

- Balancing Services Use of System Charges ("BSUoS"), which aggregate all the costs incurred by NG in balancing the electricity system in real-time, and charge these back to participants based on their proportion of the total market.
- Bid and Offer cash flows, which represent the charges or payments between NG and all BSC parties for changes to output due to accepted BM Bids and Offers.
- Balancing Services Contract Costs ("BSCC"), which are charged by NG for services procured from all participants in the electricity trading markets, regardless of whether they use the BM, to ensure the safe operation of the transmission system
- Energy Imbalance Charges ("EIC"), also known as "cash-out prices", which are the charges paid or received by any market participant based on the difference between their contracted energy position (as set out in the FPN) and their physical position according to actual outturn metered volume; and
- Residual Cashflow Reallocation Charge ("RCRC"): after physical imbalances have been financially settled, the remaining net cash flow is paid to or from all market participants in the same way as the BSUoS mechanism re-distributes or collects monies.

The GB transmission system

1.7. The transmission network has a finite capacity to transit electricity between any two locations. If flows on the system are too high, the network can overload which could lead to blackouts. On the other hand, in order for electricity to flow freely, the network must have sufficient capacity available. If insufficient capacity is available, the ability to meet demand for power in a particular area may be limited. A transmission constraint (referred to in this document as a "constraint") occurs where the transmission system is unable to transmit the power supplied onto the transmission system to the location where the demand for that power is situated, and can arise due to:

- the limitations on the thermal (heating) ratings of electric lines within the GB transmission system being exceeded;

- the inability to maintain voltages on the GB transmission system within prescribed limits set out in the Great Britain Security and Supply Standard (GBSQSS¹⁴); or
- limitations to ensure the transient and dynamic stability of electrical plant, equipment and systems directly or indirectly connected to the transmission system being breached.

1.8. It should be noted that constraints can arise under “normal” network conditions, simply due to the patterns of supply and demand on a given day. However, constraints are often triggered or exacerbated by transmission outages (which reduce the available capacity on the network) and/or generation outages (which disrupt the usual pattern of electricity supply).

1.9. In the event of a constraint, the SO will seek to reconfigure the system and/or take actions in the market to increase and decrease the amount of electricity at different locations on the network in order to manage the flow of electricity across the GB transmission system. The exact way in which a constraint is managed by the SO depends on a number of factors including the nature of the flows on the transmission system; the local level of generation output; and the local level of system demand. In the first instance, SO (NG) will normally seek to manage constraints by reconfiguring the transmission system: this includes, for example, splitting a substation to control power flows or switching a circuit out to manage high voltage issues. However, the constraint may still exist once all such actions have been exhausted and therefore require further management actions to be taken by the SO, such as:

- deferring transmission outages: if the constraint has arisen as a result of an outage due to maintenance or the installation of new transmission assets, deferring the outage where possible may avoid the constraint for the time being, but it will disrupt the construction programme and the constraint may then re-emerge at a later date;
- commercial inter-trips: when an inter-trip arrangement is in place, additional power may be flowed over the relevant transmission lines without breaching the GBQSS, since if a selected circuit trips the generation or demand in question will automatically be disconnected to avoid the lines overloading;
- taking Bid-Offer Acceptances (BOAs) in the BM, in order to increase the level of local generation on one side of the constraint and reduce it on the other;
- entering into BMU-specific trades (Over-the-Counter (“OTC”) trades or PGBTs) with particular generators, which achieve a similar impact as do BOAs in the BM but may have the advantage of allowing NG to negotiate prices ahead of real-time and reduce the risk of exposure to volatile prices in the BM; and
- negotiating longer-term bilateral contracts for constraint management, which may have a variety of terms depending on the contract in question.

¹⁴ Condition C17 of the Transmission Licence requires NG and the Scottish transmission companies to act in accordance with the GBSQSS unless a derogation has been granted by the Authority. The GBSQSS sets out, among other things, the design criteria for the transmission system and for connections to that system, e.g. the capability to deal with faults/outages without exceeding equipment loadings or voltage limits.

Appendix 4 – Inter-trips Fee Structure

1.1. The fees paid to generators under bilateral contracts for commercial inter-trip services typically comprise three main components:

- a *capability fee* which remunerates the generator for the cost of installing and maintaining the inter-trip equipment. This is typically a flat fee charged on a monthly or annual basis;
- an *arming fee* for making the inter-trip device “active” so that the generation unit can be tripped off by NG in the event of a fault. This is normally charged according to the number of half-hourly periods for which the inter-trip is armed, although NG has also at times negotiated fixed fees for extended periods of “unlimited arming”; and
- a *tripping fee* which compensates the generator for any costs incurred (including opportunity costs in the form of revenue forgone in the forward market and the BM) if the inter-trip device is actually activated by NG. It should be noted that tripping is a rare event.

Appendix 5 - Glossary

A

Authority

The Gas and Electricity Authority ('GEMA') established under section 1 of the Utilities Act 2000.

B

British Electricity Trading and Transmission Arrangements (BETTA)

The British Electricity Trading and Transmission Arrangements, created a fully competitive British-wide wholesale electricity market for the first time. The new arrangements were implemented on 1 April 2005 and followed on from the implementation of NETA in England and Wales in 2001.

Balancing Mechanism (BM)

The Balancing Mechanism is the principal tool used by the System Operator to balance the electricity transmission system on a second-by-second basis, by procuring commercial services (Balancing Services) from generators and suppliers post gate closure, in accordance with the relevant provisions of the Balancing and Settlement Code (BSC) and the Grid Code.

Balancing Services

The services that the electricity System Operator needs to procure in order to balance the transmission system.

Bid-Offer Acceptances (BOAs)

Acceptances by the SO of Balancing Mechanism offers to increase output on the system, or bids to reduce output on the system. The prices of BOAs form the basis for the calculation of the Energy Imbalance or cash-out prices.

Balancing and Settlement Code (BSC)

The legal document setting out rules and governance arrangements for electricity balancing and settlement in Great Britain. All licensed electricity generators and suppliers must sign up to the BSC and other interested parties may also choose to do so.

Balancing Services Use of System (charges) (BSUoS)

The charge levied by the System Operator (SO) on users of the transmission system, in order to recover the costs the SO incurs in the Balancing Mechanism and in

procuring Balancing Services. They are charged on a half-hourly basis based on proportion of total output and demand

C

[Cash-out prices](#)

Cash-out prices (or Energy Imbalance Prices) applied to parties for their imbalances in each half-hour period.

G

[Great Britain Security and Supply Standard \(GBSQSS\)](#)

The GBSQSS sets out, among other things, the design criteria for the transmission system and for connections to that system, e.g. the capability to deal with faults/outages without exceeding equipment loadings or voltage limits.

[Grid Code](#)

Code revised under BETTA to permit the development, maintenance and operation of an efficient, co-ordinated and economical system for the transmission of electricity, to facilitate competition in the generation and supply of electricity and to promote the security and efficiency of the power system as a whole. National Grid and users of its transmission system are required to comply with the Grid Code.

I

[Inter-trip](#)

Inter-trips are technical devices which are fitted to generation units to allow the unit to be "tripped off" in case of fault on the transmission circuit. Inter-trips increase system stability and so allow the SO to safely increase the capacity of a transmission line above its normal limits.

L

[Large Combustion Plant Directive \(LCPD\)](#)

An EU Directive placing restrictions on the levels of sulphur dioxide, nitrogen oxides and dust particulates which can be produced by combustion plants with a thermal output greater than 50MW. The implementation of the LCPD in the UK requires coal and oil plant to fit flue gas de-sulphurisation (FGD) equipment or have their total running hours restricted to 20,000 between 1 January 2008 and 31 December 2015 before closing prior to the end of that period.

N

[New Electricity Trading Arrangements \(NETA\)](#)

Under NETA, bulk electricity is traded on one or more exchanges and through a variety of bilateral and multilateral contracts. Those buying and selling electricity on

exchanges and through bilateral contracts include not only generators and suppliers (who produce or consume physical quantities of electrical energy), but non-physical traders as well.

O

[Over the counter \(OTC\)](#)

Term used to refer electricity trading contracts which are negotiated directly between the parties concerned.

P

[Pre-gate closure transaction \(PGBT\)](#)

PGBTs are fixed-price contracts struck between NG and a generator before the BM opens. They are another tool used by NG to help balance the system.

S

[System Operator \(SO\)](#)

The entity charged with operating either the GB electricity or gas transmission system. NG is the SO of the high voltage electricity transmission system for the GB.

T

[Transmission Constraint](#)

There are various parts of the transmission network where import or export capacity is limited. Transmission constraints can become active when this capacity limit is reached. An export constraint is said to occur where total generation output in a given area exceeds the sum of demand plus transmission capacity to export from that area (i.e. excess supply over demand on one side of a transmission constraint). On the other hand, an import constraint occurs where there is an excess demand over supply on one side of a transmission constraint. Transmission constraints may require the SO to take 'sub-economic' balancing actions.

[Transmission system](#)

The national high voltage electricity network, operated by the SO.

Appendix 6 - Feedback Questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

1. Do you have any comments about the overall process, which was adopted for this consultation?
2. Do you have any comments about the overall tone and content of the report?
3. Was the report easy to read and understand, could it have been better written?
4. To what extent did the report's conclusions provide a balanced view?
5. To what extent did the report make reasoned recommendations for improvement?
6. Please add any further comments?

1.2. Please send your comments to:

Andrew MacFaul
Consultation Co-ordinator
Ofgem
9 Millbank
London
SW1P 3GE
andrew.macfaul@ofgem.gov.uk