

To: National Grid Electricity Transmission plc

**Electricity Act 1989
Section 11A(1)(a)**

**MODIFICATION OF THE LICENCE OF NATIONAL GRID ELECTRICITY
TRANSMISSION PLC WHO HOLDS AN ELECTRICITY TRANSMISSION LICENCE
GRANTED UNDER SECTION 6(1)(b) OF THE ELECTRICITY ACT 1989**

Whereas –

1. National Grid Electricity Transmission plc (NGET) (the Licence Holder) is the holder of an electricity transmission licence (the Licence) granted or treated as granted under section 6(1)(b) of the Electricity Act 1989 (the Act).
2. In accordance with section 11A(2) of the Act the Gas and Electricity Markets Authority (the Authority) gave notice on 19 March 2015 (the Notice) that it proposed to modify Special Conditions 4C, 4D, 4E, 4F, 4G, 4H and 4J of the Licence and by requiring any representations to the modification to be made on or before 16 April 2015.
3. In accordance with section 11A(4)(b) of the Act, the Authority gave notice of its intention to make the modifications to the Secretary of State and has not received a direction not to make the modification.
4. Prior to the close of the consultation period in respect of the Notice, the Authority received three responses. Two respondents did not express specific views on the drafting of the licence conditions, but suggested changes to the overall incentive scheme and the development of future incentives. NGET proposed three amendments to the Notice: a drafting change to Special Condition 4C.36 (the SO Methodologies and update provisions); an adjustment to the Black Start Target; and the exclusion of Balancing Mechanism Units (BMU) specific trades on wind generation in the calculation for the wind generation forecast error. All non-confidential responses have been placed on the Ofgem website.¹
5. The Authority has carefully considered in relation to the proposed modifications all representations received. Our response to these representations is set out in the accompanying letter.²
6. The Authority gives the following reasons for making the licence modifications:
 - i. Minimise the cost of resolving imbalances on the energy transmissions system
 - ii. Increase transparency, providing the market with clear analysis and rationale for its actions
 - iii. Improve the accuracy of wind generation forecasts
 - iv. Facilitate the use of the System Operator Innovation Roll-out Mechanism (SO-IRM)
7. The effect of the modification(s) will be to update the existing SO incentive schemes, ensuring that they continue to encourage the Licensee to minimise the costs of operating the system for market participants and deliver value for money for consumers.

¹ Responses available at <https://www.ofgem.gov.uk/publications-and-updates/electricity-system-operator-incentives-2015-17-final-proposals>

² Cover letter available at <https://www.ofgem.gov.uk/publications-and-updates/decision-electricity-system-operator-incentives-2015-17>

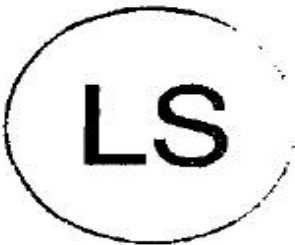
8. The Authority considers it necessary to make two minor alterations to the modifications set out in the Notice. These alterations are highlighted in yellow in the attached Schedule 1. The reasons for any differences between the modifications set out in the Notice and the modifications reflected in Schedule 1 are to reflect NGET's proposed drafting changes to Special Condition 4C.36. The reasons for our decision to make these changes are set out in the accompanying letter.²
9. Where an application for permission to appeal the Authority's decision is made to the Competition and Markets Authority under section 11C of the Act, Rule 5.7 of the CMA's Energy Licence Modification Appeals Rules³ requires that the appellant must send to any relevant licence holders who are not parties to the appeal a non-confidential notice setting out the matters required in Rule 5.2. The attached Schedule 2 provides a list of the relevant licence holders in relation to this modification notice. The meaning of 'relevant licence holder' is set out in section 11A(10) of the Act.

Now therefore

In accordance with the powers contained in section 11A(1)(a) of the Act, the Authority hereby modifies the licence of National Grid Electricity Transmission plc in the manner specified in attached Schedule 1. This decision will take effect on 14 August 2015.

This document constitutes notice of the reasons for the decision to modify the electricity transmission licence held by National Grid Electricity Transmission plc as required by section 49A of the Act.

**The Official Seal of the Gas and Electricity Markets Authority
here affixed is authenticated by the signature of**



.....
**Mark Copley, Duly authorised on behalf of the
Gas and Electricity Markets Authority**

19 June 2015

³ The rules were published by the Competition Commission in September 2012. On 1 April 2014, the Competition Commission was abolished and its functions transferred to the Competition and Markets Authority (CMA).

Schedule 1: Licence Drafting

Special Condition 4C: Balancing Services Activity Revenue Restriction on External Costs

Part A: Balancing services activity revenue restriction on external costs

4C.1 The licensee shall use its best endeavours to ensure that in respect of Relevant Year t the revenue derived from and associated with procuring and using balancing services (being the external costs of the Balancing Services Activity) shall not exceed an amount calculated in accordance with the following formula:

$$BXext_t = CSOBM_t + BSCC_t + ET_t - OM_t + IncPayExt_t + RFIIR_t + ROV_t + BSFS_t + NC_t + IONT_t + LBS_t$$

where:

$BXext_t$ represents the maximum allowed revenue derived in Relevant Year t from and associated with procuring and using balancing services;

$CSOBM_t$ which represents the cost to the licensee of bids and offers in the Balancing Mechanism (excluding those relating to Supplemental Balancing Reserve and Demand Side Balancing Reserve) accepted by the licensee in Relevant Year t less the total non-delivery charge for that Relevant Year, is the sum across Relevant Year t of the values of $CSOBM_j$ (being the daily System Operator BM cashflow for each settlement period j as defined in Table X-2 of Section X of the BSC in force immediately prior to 1 April 2001) less any costs incurred within these values of $CSOBM_j$ relating to Supplemental Balancing Reserve and Demand Side Balancing Reserve;

$BSCC_t$ means the costs to the licensee of contracts for the availability or use of balancing services during the Relevant Year t, excluding costs within $CSOBM_t$ and LBS_t but including charges made by the licensee for the provision of balancing services to itself in the Relevant Year t;

ET_t means the amount of any adjustment to be made during the Relevant Year t in respect of any Relevant Year prior to Relevant Year t as provided in paragraph 4C.2;

OM _t	means an amount representing the revenue from the provision of balancing services to others during the Relevant Year t, calculated in accordance with paragraph 4C.3;
IncPayExt _t	means an incentive payment for Relevant Year t calculated in accordance with paragraph 4C.4;
NC _t	means the Outage Change cost allowance in each Relevant Year t in accordance with 4C.22;
IONT _t	means the amount of any allowed outage cost adjustments in each Relevant Year t in accordance with paragraph 4C.32;
BSFS _t	means the amount which the licensee may recover in respect of the costs of Feasibility Studies for the provision of Black Start services in accordance with paragraph 4G.5 of Special Condition 4G (Black Start Cost Incentive);
RFIIR _t	means the incentive payment which the licensee may derive from the Wind Generation Forecasting Incentive in Relevant Year t in accordance with Special Condition 4H (Wind Generation Forecasting Incentive);
ROV _t	means the Roll-out Value which the licensee may derive from the System Operator Innovation Roll-out Mechanism in Relevant Year t in accordance with Special Condition 4J (System Operator Innovation Roll-out Mechanism); and
LBS _t	means the allowed revenue derived in Relevant Year t from and associated with procuring and using Demand Side Balancing Reserve and Supplemental Balancing Reserve services in accordance with Special Condition 4K (Demand Side Balancing Reserve and Supplemental Balancing Reserve Revenue Restriction on External Costs).
j	shall mean a settlement period (being half an hour) as defined in the BSC.

Part B: Balancing Services Activity adjustments

4C.2 For the purposes of 4C.1, the term ET_t which relates to prior period adjustments in respect of the Relevant Year t shall mean:

(a) the costs, whether positive or negative, to the licensee of:

(i) bids and offers in the Balancing Mechanism (excluding those relating to Supplemental Balancing Reserve and Demand Side Balancing Reserve) accepted by the licensee in any period before Relevant Year t less the total non-delivery charge for that period; and

(ii) contracts for the availability or use of balancing services during any period before Relevant Year t , excluding costs within $CSOBM_t$ and LBS_t for that period, but including charges made by the licensee for the provision of balancing services to itself in that period;

in each case after deducting such costs to the extent that they have been taken into account in any Relevant Year in computing the terms $CSOBM_t$ or $BSCC_t$; and

(b) any amount within the term ET_t as defined in this licence in the form it was in on 1 April 2000 whether as then defined or as now defined.

Part C: Provision of balancing services to others

4C.3 For the purposes of paragraph 4C.1, OM_t (the amount representing the revenue from the provision of balancing services to others) shall be the sum of:

(a) the total amount (exclusive of interest and value added tax attributable thereto) recovered by the licensee in respect of Relevant Year t under any agreements entered into between an electricity supplier (being the holder of a supply licence granted or treated as granted under Section 6(1)(d) of the Act) or network operator (as defined in the Grid Code) and the licensee pursuant to which the costs of operation or non-operation of generation sets which are required to support the stability of a user system (as defined in the Grid Code) are charged to that electricity supplier or network operator (as defined in the Grid Code); and

(b) the total costs (exclusive of interest and value added tax attributable thereto) incurred by the licensee in respect of Relevant Year t which arise by reason of the operation or non-operation of generation sets and which result directly or indirectly from works associated with the National Electricity Transmission System or works thereon being carried out, rescheduled or cancelled by reason of any agreement with,

or request of, any third party other than an electricity supplier (as defined in paragraph 4C.3 (a) of this Special Condition) or network operator (as defined in the Grid Code).

Part D: Determination of incentive payments on external costs

4C.4 For the purposes of paragraph 4C.1, the term $IncPayExt_t$ shall be derived from the following formula:

$$IncPayExt_t = [SF_t (MT_t - IBC_t) + CB_t]$$

where:

SF_t which is a Balancing Services Activity sharing factor in respect of Relevant Year t, has the value specified against the relevant value of IBC_t for the Relevant Year t in the column headed SF_t in Table 3 in paragraph 4C.39.

MT_t which is a target for Balancing Services Activity incentivised external costs in respect of Relevant Year t, has the value specified against the relevant value of IBC_t for the Relevant Year t in the column headed MT_t in Table 3 in paragraph 4C.39.

IBC_t which is the cost of balancing services on which the licensee is incentivised during Relevant Year t, which is calculated in accordance with the formula given in paragraph 4C.5.

CB_t which is a balancing services sharing factor offset in respect of Relevant Year t, has the value specified against the relevant value of IBC_t for the Relevant Year t in the column headed CB_t in Table 3 in paragraph 4C.39.

4C.5 For the purposes of paragraph 4C.4, the term IBC_t in respect of Relevant Year t shall be calculated in accordance with the following formula:

$$IBC_t = CSOBM_t + BSCC_t - RT_t - OM_t - BSFS_t$$

where:

RT_t means the amount of any allowed income adjustments given by paragraph 4C.16

BSFS_t means any costs recovered via the term BSCC_t in respect of Feasibility Studies for Black Start in accordance with Special Condition 4G.

Part E: Income adjusting events under the Balancing Services Activity revenue restriction on external costs

4C.6 In Relevant Year t, an income adjusting event is any of the following:

- (a) an event or circumstance constituting force majeure under the BSC;
- (b) an event or circumstance constituting force majeure under the CUSC;
- (c) a Security Period;
- (d) (where the event or circumstance takes place in Relevant Year t or Relevant Year t-1) an unforeseen event or circumstance other than those listed above which leads to consequences beyond the reasonable control of the licensee which is, in the opinion of the Authority, an income adjusting event and is approved by it as such in accordance with Part E2 of this condition; and
- (e) (where the event or circumstance takes place in Period p) an event or circumstance other than those listed above which is, in the opinion of the Authority, an income adjusting event and is approved by it as such in accordance with Part E2 of this condition.

where the income adjusting event or circumstance has:

- (a) increased or decreased the value of IBC_t by more than £10,000,000 (the “threshold amount”). This threshold amount does not apply in respect of sub-paragraph 4C.6(c) above; or
- (b) in the Period p, in which the income adjusting event had occurred, increased or decreased the value of IBC_p (bearing the meaning of that term in this licence as at 31 March 2013) by more than £2,000,000.

4C.7 For the purposes of the period 1 April ~~2013~~ 2015 to 31 March ~~2015~~ 2017, events or circumstances arising directly from the implementation or otherwise of the following proposed modifications ~~and amendments~~ (both the original and any alternative unless otherwise specified) listed in Tables 1 and 2 below shall not qualify as an income adjusting event for the purpose of paragraph 4C.6 above:

Table 1:

BSC Modification Proposal	BSC Modification Title (as entitled by the proposer of the modification)
None applicable	

Table 2:

CUSC <u>Modification</u> Proposal	CUSC <u>Modification</u> Title (as entitled by the proposer of the modification)
None applicable	

Part E1: Notice of proposed income adjusting event

- 4C.8 Where the licensee considers, and can provide supporting evidence that, in respect of the Relevant Year in which the event or circumstance occurred or Period p, there have been costs and/or expenses that have been incurred or saved by an income adjusting event, then the licensee shall give notice of this event to the Authority.
- 4C.9 Where any other Party (as defined in the BSC) considers, and can provide supporting evidence that, in respect of the Relevant Year in which the event or circumstance occurred or Period p, there have been costs and/or expenses that have been incurred or saved by an income adjusting event, then that Party may give notice of this event to the Authority.
- 4C.10 A notice provided to the Authority under paragraphs 4C.8 or 4C.9 must, in the case of the licensee, and should, in so far as is practicable in the case of any other Party, give particulars of:
- (a) the event to which the notice relates and the reason(s) why the person giving the notice considers this event to be an income adjusting event;
 - (b) the amount of any change in costs and/or expenses that can be demonstrated by the person giving the notice to have been caused or saved by the event and how the amount of these costs and/or expenses has been calculated;
 - (c) the amount of any allowed income adjustment proposed as a consequence of that event and how this allowed income adjustment has been calculated; and
 - (d) any other analysis or information which the person submitting the notice considers to be sufficient to enable the Authority and the relevant parties to fully assess the event to which the notice relates.
- 4C.11 If the Authority considers that the analysis or information provided in sub-paragraphs 4C.10(a) to 4C.10(d) above is insufficient to enable both the Authority and the relevant parties to assess whether an income adjusting event has occurred and/or the amount of any allowed income adjustment that should be approved, the Authority can request that the

supporting evidence be supplemented with additional information that it considers appropriate.

- 4C.12 A notice of an income adjusting event shall be given as soon as is reasonably practicable after the occurrence of the income adjusting event, and, in any event, not later than three months after the end of the Period p or the Relevant Year t in which the income adjusting event occurred.
- 4C.13 The Authority will make public, excluding any confidential information, any notice of an income adjusting event following its receipt.
- 4C.14 Any notice submitted to the Authority under either paragraphs 4C.8 or 4C.9 above should clearly identify whether any of the information contained in the notice is of a confidential nature. The Authority shall make the final determination as to confidentiality having regard to:
- (a) the need to exclude from disclosure, so far as is reasonably practicable, information whose disclosure the Authority considers would or might seriously prejudicially affect the interests of a person to which it relates; and
 - (b) the extent to which the disclosure of the information mentioned in sub-paragraph 4C.14(a) is necessary for the purposes of enabling the relevant parties to fully assess the event to which the notice relates.

Part E2: The Authority's determination

- 4C.15 Following consultation with relevant parties, including the licensee, BSC Parties and CUSC Parties, the Authority shall determine:
- (a) whether any or all of the costs and/or expenses given in a notice pursuant to paragraphs 4C.8 or 4C.9 were caused or saved by an income adjusting event; and
 - (b) whether the event or circumstance has increased or decreased the value of IBC_t by more than the threshold amount, save in the case of sub-paragraph 4C.6(c) where the threshold amount shall not apply; or
 - (c) in respect of an event occurring in Period p, whether the event or circumstance has increased or decreased the value of IBC_p (bearing the meaning of that term in this licence as at 31 March 2013) by more than £2,000,000; and
 - (d) if so, whether the amount of the proposed income adjustment ensures that the financial position and performance of the licensee are, insofar as is reasonably practicable, the same as if that income adjusting event had not taken place, and if not, what allowed value of income adjustment would secure that effect.
- 4C.16 In relation to the Relevant Year t or Period p, the allowed income adjustment shall be:

- (a) the value determined by the Authority under paragraph 4C.15 above; or
- (b) if the Authority has not made a determination under 4C.15 above within three months of the date on which notice of an income adjusting event was provided to the Authority, the amount of the allowed income adjustment proposed as a consequence of the event in the notice given to the Authority under sub-paragraph 4C.10(c); or
- (c) in all other cases zero, including situations where the Authority has not made a determination under 4C.15 above within three months of the date on which notice of an income adjusting event was provided to the Authority and the Authority has, before the end of that three month period, informed the relevant parties that the Authority considers that the analysis or information provided in accordance with paragraphs 4C.10 and 4C.11 is insufficient to enable the Authority and relevant parties to assess whether an income adjusting event has occurred and/or the amount of any allowed income adjustment.

4C.17 The Authority's decision in relation to any notice given under paragraphs 4C.8 or 4C.9 shall be in writing, shall be copied to the licensee and shall be in the public domain.

4C.18 The Authority may revoke an approval of an income adjusting event and allowed income adjustment with the consent of the licensee, following consultation with the licensee and relevant parties. Revocation of any income adjusting event and allowed income adjustment shall be in writing, shall be copied to the licensee and shall be in the public domain.

Part F: Transmission Owner incentives

4C.19 Where there is a failure to agree between the licensee and a Transmission Owner in relation to:

- (a) whether a change to the outage plan is an Outage Change as defined in paragraph 4C.20; or
- (b) the net costs reasonably incurred by the Transmission Owner as a result of an Outage Change

the licensee shall provide the Authority such information as the Authority may reasonably request in relation to such disagreement.

4C.20 An "Outage Change" is a change notified to a Transmission Owner by the licensee on or after week 49 to the outage plan, as updated from time to time in accordance with the STC, other than:

- (a) a change to the outage plan requested by a Transmission Owner (the "original change"); and

- (b) such changes notified to the Transmission Owner by the licensee which:
- (i) the licensee and the Transmission Owner agree are necessary in order to give effect to the original change, or
 - (ii) where there is a failure to agree, the Authority determines are necessary in order to give effect to the original change; and
 - (iii) without prejudice to sub-paragraphs 4C.20(a) and 4C.20(b) above, any change to the outage plan notified to the Transmission Owner by the licensee which the licensee and the Transmission Owner agree is not an Outage Change under this licence condition (a “non-chargeable outage change”). For the avoidance of doubt, any costs and/or expenses incurred by the licensee in relation to a non-chargeable outage change will not be considered by the Authority to be a reasonable cost or expense in relation to an outage cost adjusting event notified by the licensee under paragraph 4C.25.

4C.21 For the purposes of paragraph 4C.19 and paragraph 4C.20, “outage plan” and “week 49” shall have the same meanings as defined or used in the STC.

4C.22 The Outage Change cost allowance (NC_t) shall be calculated in accordance with the following formula:

$$NC_t = (ON_t + ONTRU_t) \times RPIF_t$$

where:

ON_t means an allowance for payments by the licensee in respect of Outage Changes and has the value £1,146,800 (in 2009/10 prices) for the Relevant Year t unless determined otherwise by the Authority;

$ONTRU_t$ has the value zero in Relevant Years 2013/14 and 2014/15 and in each subsequent Relevant Year means the revenue adjustment made in Relevant Year t in respect of the actual value of the Retail Prices Index in Relevant Year t-2 minus the assumed value of the Retail Prices Index in Relevant Year t-2, as derived in accordance with paragraph 4C.23 of this condition; and

$RPIF_t$ has the value given to it by Special Condition 3A (Restriction of Transmission Network Revenue).

4C.23 For the purposes of paragraph 4C.22, $ONTRU_t$ is derived in accordance with the following formula:

$$ONTRU_t = \left(\frac{RPIA_{t-2} - RPIF_{t-2}}{RPIA_{t-2}} \right) \times \frac{NC_{t-2}}{RPIF_{t-2}} \times PVF_{t-2} \times PVF_{t-1}$$

where:

$RPIA_{t-2}$ has the value given to it by Part C of Special Condition 3A;

$RPIF_{t-2}$ has the value given to it by Part C of Special Condition 3A;

NC_{t-2} means the Outage Change cost allowance as derived in accordance with paragraph 4C.22 of this condition; and

PVF_t has the value given to it by Part C of Special Condition 3A.

4C.24 An outage cost adjusting event in Relevant Year t may arise from either of the following:

- (a) where the actual costs incurred by the licensee in making outage changes are, or where the licensee's reasonable expectation of the actual costs in making outage changes will be either less than or in excess of ON_t in each case by more than £300,000 (the "outage threshold amount") or such other figure as the Authority has specified for the Relevant Year where ON_t has the value ascribed to it in paragraph 4C.22 above; and
- (b) an event or circumstance other than that in paragraph 4C.24(a) above which is, in the opinion of the Authority, an outage cost adjusting event and is approved by it as such in accordance with paragraph 4C.31.

Part F1: Notice of proposed outage cost adjusting event

4C.25 Where the licensee considers, and can provide supporting evidence that, in respect of Relevant Year t , there have been costs and/or expenses that have been incurred or saved by an outage cost adjusting event, then the licensee shall give notice of this event to the Authority.

4C.26 A notice provided to the Authority under 4C.25 shall give particulars of:

- (a) the event to which the notice relates and the reason(s) why the licensee considers this event to be an outage cost adjusting event;
- (b) the amount of any change in costs and/or expenses that can be demonstrated by the licensee to have been caused or saved by the event and how the amount of these costs and/or expenses has been calculated;

- (c) the amount of any allowed outage cost adjustment proposed as a consequence of that event and how this allowed outage cost adjustment has been calculated; and
- (d) any other analysis or information which the licensee considers to be sufficient to enable the Authority and the relevant parties referred to in paragraph 4C.31 to fully assess the event to which the notice relates.

4C.27 If the Authority considers that the analysis or information provided in sub-paragraphs 4C.26(a) to 4C.26(d) above is insufficient to enable both the Authority and the relevant parties referred to in subparagraph 4C.31 to assess whether an outage cost adjusting event has occurred and/or the amount of any allowed outage cost adjustment that should be approved, the Authority can request that the supporting evidence be supplemented with additional information that it considers appropriate.

4C.28 A notice of an outage cost adjusting event shall be given as soon as is reasonably practicable after the occurrence of the outage cost adjusting event, and, in any event, not later than three months after the end of the Relevant Year in which it occurs.

4C.29 The Authority will make public, excluding any confidential information, any notice of an outage cost adjusting event following its receipt.

4C.30 Any notice submitted to the Authority under paragraph 4C.25 above should clearly identify whether any of the information contained in the notice is of a confidential nature. The Authority shall make the final determination as to confidentiality having regard to:

- (a) the need to exclude from disclosure, so far as is reasonably practicable, information whose disclosure the Authority considers would or might seriously prejudicially affect the interests of a person to which it relates; and
- (b) the extent to which the disclosure of the information mentioned in sub-paragraph 4C.30(a) is necessary for the purposes of enabling the relevant parties to fully assess the event to which the notice relates.

Part F2: The Authority's determination

4C.31 The Authority shall determine (after consultation with the licensee and such other persons as it considers desirable):

- (a) whether any or all of the costs and/or expenses given in a notice pursuant to 4C.25 were caused or saved by an outage cost adjusting event;
- (b) whether the event or circumstance has increased or decreased the licensee's relevant costs in making outage changes such that they will be either less than or in excess of ON_t in each case by more than the outage threshold amount; and

- (c) if so, whether the amount of the proposed outage cost adjustment ensures that the financial position and performance of the licensee are, insofar as is reasonably practicable, the same as if that outage cost adjusting event had not taken place, and if not, what allowed outage cost adjustment would secure that effect.

4C.32 In relation to the Relevant Year t , the allowed outage cost adjustment (IONT _{t}) for the purposes of paragraph 4C.1 shall be:

- (a) the value determined by the Authority under paragraph 4C.31 above; or
- (b) if the Authority has not made a determination under paragraph 4C.31 above within three months of the date on which notice of an outage cost adjusting event was provided to the Authority, the amount of the allowed outage cost adjustment proposed as a consequence of the event in the notice given to the Authority under 4C.26(c); or
- (c) in all other cases zero, including situations where the Authority has not made a determination under paragraph 4C.31 above within three months of the date on which notice of an outage cost adjusting event was provided to the Authority and the Authority has, before the end of that three month period, informed the licensee that the Authority considers that the analysis or information provided in accordance with paragraphs 4C.26 and/or 4C.27 is insufficient to enable the Authority to assess whether an outage cost adjusting event has occurred and/or the amount of any allowed outage cost adjustment.

4C.33 The Authority's decision in relation to any notice given under paragraph 4C.25 shall be in writing, shall be copied to the licensee and shall be in the public domain.

4C.34 The Authority may revoke an approval of an outage cost adjusting event and allowed outage cost adjustment with the consent of the licensee, following consultation with the licensee and relevant parties. Revocation of any outage cost adjusting event and allowed outage cost adjustment shall be in writing, shall be copied to the licensee and shall be in the public domain.

Part K: SO Methodologies and update provisions

4C.35 The licensee shall, in respect of Relevant Year t , establish, and publish the following SO Methodologies as approved by the Authority for determining Modelled Target Costs _{t} (as defined in paragraph 4C.40):

- (a) a methodology for determining the ex-ante or ex-post treatment of modelling inputs;

- (b) a methodology for modelling the costs of managing Transmission Constraints. This methodology should also include those ex-ante inputs which may be updated on 1 April ~~2014/2016~~ for the Relevant Year ~~2014/15~~ 2016/17; and
- (c) a methodology for the modelling of energy costs. This methodology should also include those ex-ante inputs which may be updated on 1 April ~~2014~~ 2016 for the Relevant Year ~~2014/15~~ 2016/17.

4C.36 The licensee may prepare and submit proposals for revised SO Methodologies in respect of the Relevant Year ~~2014/15~~ 2016/17 to the Authority by 31 December ~~in Relevant Year~~ 2015 for approval by the Authority by 31 March ~~in the Relevant Year~~ 2016 and for implementation at the commencement of the the Relevant Year ~~2014/15~~ 2016/17. The licensee shall:

- (a) send a copy of the proposed revised SO Methodologies to the Authority and to any person who requests a copy; and
- (b) not revise any SO Methodologies referred to in 4C.35 until the Authority directs the licensee to make the revisions.

4C.37 If the Authority approves and directs the changes to the SO Methodologies, the licensee shall revise the SO Methodologies and shall publish the revised SO Methodologies on its website.

4C.38 If the licensee considers that an error or errors have arisen which prevent the SO Models from appropriately reflecting the SO Methodologies referred to in 4C.35, or if the licensee considers that an input error or errors into the SO Models have arisen as a result of information provided by any third party, the licensee shall notify the Authority of the error or errors and the materiality of the error or errors and will promptly seek to correct the error or errors. The Authority will have until three months after any notice has been submitted to direct the licensee to remove the correction to the error or errors.

Part L: Terms used in the Balancing Services Activity revenue restriction

4C.39 For the purpose of 4C.4 of Part D of this condition, the terms MT_t , SF_t and CB_t shall be selected against the appropriate value of IBC_t (which shall be determined in accordance with paragraph 4C.5 of Part D of this condition) from Table 3 below:

Table 3:

IBC_t (£million)	MT_t (£million)	SF_t	CB_t (£million)
$IBC_t <$ (Incentive Target $Cost_t - 100$)	0	0	3025
(Incentive Target $Cost_t - 100$) $\leq IBC_t <$ (Incentive Target $Cost_t$)	Incentive Target $Cost_t$	2530 %	0

IBC_t (£million)	MT_t (£million)	SF_t	CB_t (£million)
(Incentive Target Cost _t) = IBC _t	IBC _t	0	0
(Incentive Target Cost _t) <= IBC _t < (Incentive Target Cost _t + 100)	Incentive Target Cost _t	3025 %	0
IBC _t >= (Incentive Target Cost _t + 100)	0	0	- 3025

4C.40 For the purposes of paragraph 4C.39, Incentive Target Cost (in £ million) in respect of Relevant Year t shall be calculated in accordance with the following formula:

$$\text{Incentive Target Cost}_t = \text{Modelled Target Costs}_t + \text{BSTC}_t$$

where:

Modelled Target Costs_t means the target cost (in £ million) to the licensee of procuring and using balancing services (being the external costs of the Balancing Services Activity) derived in accordance with the SO Methodologies referred to in paragraph 4C.35. The SO Models and data used by the licensee to determine Modelled Target Costs shall be as agreed between the Authority and the licensee in respect of Relevant Year t; and

BSTC_t means the target cost for the licensee for Black Start in respect of Relevant Year t, which shall have the value as set out in Special Condition 4G.

In respect of any Relevant Year t commencing on or after 1 April ~~2015~~ 2017, the terms MT_t, SF_t and CB_t shall be set to zero.

Special Condition 4D: Restriction on contracting with BSC parties

- 4D.1 The licensee shall not enter into any contract with a BSC Party for the provision of balancing services for the management of Transmission Constraints under which that BSC Party shall agree with the licensee any condition to be applied to the prices at which it will submit offers or bids in the Balancing Mechanism in respect of any BM Unit.
- | 4D.2 This prohibition shall continue in force until 31 March 201~~7~~⁵ unless the Authority gives notice to the licensee that it shall end on an earlier date.

Special Condition 4E: Requirement to Conduct a Review and Continue to Develop Enduring Models for Forecasting the Costs of Procuring and Using Balancing Services

- 4E.1 The purpose of this condition is to require the licensee to review the SO Models and develop enduring models which are able to meet a number of Objectives (as defined in paragraph 4E.3 of this condition) in respect of forecasting the costs expected to be incurred by the licensee in procuring and using balancing services (being the external costs of the Balancing Services Activity).
- 4E.2 The licensee shall review the ability of the SO Models to achieve the Objectives set out in paragraph 4E.3 of this Special Condition and shall develop enduring models accordingly which seek to achieve the Objectives to be implemented on 1 April ~~2015~~2017.
- 4E.3 For the purposes of this condition, the “Objectives” to which the licensee must have regard when developing the enduring models include, but are not limited to:
- (a) developing forecasts of the target costs of the Balancing Services Activity with a forward projection of eight years;
 - (b) ensuring the enduring models are suitable for forecasting the external costs of the Balancing Services Activity undertaken by the licensee and having regard to any changes in the role of the licensee in the conduct of the Balancing Services Activity;
 - (c) developing enduring models which seek to attain optimum performance with regards to the carrying on of the Balancing Services Activity; and
 - (d) enabling industry participants to have a greater understanding of the projected level of the future costs of the Balancing Services Activity.
- 4E.4 The licensee shall update and engage with interested parties for the purposes of developing the enduring models at relevant industry fora, including but not limited to its Operational Forum Meetings. Where the Authority or the licensee considers it appropriate, the licensee shall conduct a consultation with interested parties (for not less than 28 days) in respect of the review.

4E.5 The Authority may, from time to time, request the licensee to provide information regarding the progress of the review.

4E.6 The licensee shall comply with all the requirements of this condition in a timely fashion and in good faith.

Special Condition 4F: Requirement to Develop Enduring Methodologies for the Purposes of Identifying a Target for the Costs of Procuring and Using Balancing Services

- 4F.1 The purpose of this condition is to require the licensee to develop enduring methodologies for the purpose of enduring arrangements for the setting of a revenue restriction on external costs of the Balancing Services Activity.
- 4F.2 The licensee shall conduct a review of the SO Methodologies in order to introduce enduring methodologies which meet the following objectives:
- (a) developing forecasts of the target costs of the Balancing Services Activity with a forward projection of eight years;
 - (b) ensuring the enduring methodologies are suitable for forecasting a target of the costs of the Balancing Services Activity undertaken by the licensee and having regard to any changes in the role of the licensee in the conduct of the Balancing Services Activity; and
 - (c) enabling industry participants to have a greater understanding of the projected level of future costs of the Balancing Services Activity.
- 4F.3 In developing the enduring methodologies, the licensee shall:
- (a) consult with interested parties on the enduring methodologies for not less than 28 days (the consultation period);
 - (b) submit to the Authority after the close of the consultation period any proposed revisions to the SO Methodologies (the revisions) which would be needed to introduce the enduring methodologies no later than 31 December ~~2014~~2016; and
 - (c) implement the revisions to take effect from 1 April ~~2015~~2017 unless prior to that date the licensee is directed not to implement the revisions by the Authority.

Special Condition 4G: Black Start Cost Incentive

4G.1 The purpose of this condition is to determine the values relating to the external costs for Black Start service provision (BSTC_t) in each Relevant Year t.

4G.2 For the purposes of paragraph 4C.40 of Part L of Special Condition 4C (Balancing Services Activity Revenue Restriction on External Costs), BSTC_t shall take the values set out in Table 1 below, unless revised in accordance with paragraph 4G.4 below:

Table 1:

Relevant Year	BSTC _t
1 April 2013 <u>2015</u> to 31 March 2014 <u>2016</u>	£21.05 <u>£22.35</u> million
1 April 2014 <u>2016</u> to 31 March 2015 <u>2017</u>	£21.45 <u>£22.35</u> million

4G.3 The licensee may prepare and submit proposals to the Authority for revisions to the value of BSTC_t which is to be applied in the Relevant Year ~~2014/15~~ 2016/17 by 31 December ~~2013~~ 2015 to reflect any increase or decrease in the costs that the licensee expects to incur in that Relevant Year in respect of:

- (a) Warming generators that are contracted to provide a Black Start service;
- (b) Capital Contributions to ~~New Providers~~ providers of Black Start services; and
- (c) contracts for the availability of Black Start services ~~from New Providers~~.

4G.4 The Authority shall approve some or all of the revisions to the value of BSTC_t and shall direct any changes to the value of BSTC_t which shall be deemed to be included in Table 1 in paragraph 4G.2 by 31 March ~~2014~~ 2016 by virtue of the direction where it is satisfied that the proposals for revisions to the BSTC_t are efficient and will provide long term value for electricity consumers.

4G.5 The licensee may, by the end of the Relevant Year t, prepare and submit a notification to the Authority of any costs in respect to that Relevant Year t as a result of any payments it has made, or expects to make to New Providers in respect of Feasibility Studies which it considers should be recovered by means of BSFS_t under the term BXext_t in paragraph 4C.1 in Part A of Special Condition 4C.

4G.6 The Authority shall approve and direct recovery of the costs by three months after the end of the Relevant Year t by means of the BSFS_t term where it is satisfied that the payments were, or will be efficiently incurred and will provide long term value for electricity consumers. The Authority shall direct any consequential changes to the value of BSFS_t under the term BXext_t in paragraph 4C.1 in Part A of Special Condition 4C.

Special Condition 4H: Wind Generation Forecasting Incentive

4H.1 The purpose of this condition is to establish arrangements to determine the incentive payment that the licensee shall derive by means of the term $RFIIR_t$ under the term $BXext_t$ in 4C.1 of Special Condition 4C (Balancing Services Activity Revenue Restriction on External Costs) as a result of the financial incentive placed upon the licensee to improve the accuracy of its forecast of the amount of Wind Generation Output in the period from 1 April ~~2013~~ 2015 to 31 March ~~2015~~ 2017.

4H.2 The incentive payment (in £ million) which the licensee shall derive from the Wind Generation Forecasting Incentive, $RFIIR_t$ in respect of Relevant Year t shall be derived from the following formula:

$$RFIIR_t = \sum_{m=1}^{12} MRFI_m$$

where:

$MRFI_m$ means the monthly wind generation forecasting incentive revenue in respect of the relevant month m and shall be derived from the following formula:

If $\frac{RFIO_m}{RFIIF_m} \leq 1.25$:

$$MRFI_m = RFICAP_m \left(1 - \frac{RFIO_m}{RFIIF_m} \right)$$

If $\frac{RFIO_m}{RFIIF_m} > 1.25$:

$$MRFI_m = \text{MAX} \left[-0.25RFICAP_m - 0.5\text{million} \text{LOG}_{10} \left(\frac{RFIO_m}{1.25RFIIF_m} \right), RFIFLO_m \right]$$

~~$$MRFI_m = \text{MAX} \left[RFICAP_m \left(1 - \frac{RFIO_m}{RFIIF_m} \right), RFIFLO_m \right]$$~~

where:

$RFIIF_m$ means the Wind Generation Forecasting Incentive target factor for the relevant month m in respect of Relevant Year t and takes the value specified in Table 1:

Table 1:

Period	m value	RFIF _m value
1 April 2013 <u>2015</u> to 30 September 2013 <u>2015</u>	m=1,2,3,4,5,6	0.0475 <u>0.0325</u>
1 October 2013 <u>2015</u> to 31 March 2014 <u>2016</u>	m=7,8,9,10,11,12	0.0625 <u>0.0475</u>
1 April 2014 <u>2016</u> to 30 September 2014 <u>2016</u>	m=1,2,3,4,5,6	0.0450 <u>0.0325</u>
1 October 2014 <u>2016</u> to 31 March 2015 <u>2017</u>	m=7,8,9,10,11,12	0.0600 <u>0.0475</u>

RFICAP_m

means the Wind Generation Forecasting Incentive cap for the relevant month m in respect of each Relevant Year t and shall take the value ~~£0.25 million;~~ £0.20 million in the periods 1 April 2015 to 30 September 2015 and 1 April 2016 to 30 September 2016 and shall take the value £0.30 million in the periods 1 October 2015 to 31 March 2016 and 1 October 2016 to 31 March 2017;

RFIFLO_m

means the Wind Generation Forecasting Incentive floor for the relevant month m in respect of each Relevant Year t and shall take the value - ~~£0.25 million; and -£0.20 million in the periods 1 April 2015 to 30 September 2015 and 1 April 2016 to 30 September 2016 and shall take the value -£0.30 million in the periods 1 October 2015 to 31 March 2016 and 1 October 2016 to 31 March 2017; and~~

RFIO_m

means the average of the hourly Wind Generation Forecasting Error achieved by the licensee in each relevant month m in respect of each Relevant Year t and shall be derived from the following formula:

$$RFIO_m = \frac{1}{N} \sum_{n=1}^N RFIO_n$$

where:

N is the total number of hours within the relevant calendar month m; and

RFIO_n is the percentage mean absolute error between the licensee's Day Ahead Forecast and the actual Wind Generation Output in respect of

hour n for the relevant calendar month m and is derived from the following formula:

$$RFIO_n = \frac{|RFIT_n - RFIP_n|}{RFIC_n}$$

where:

$RFIT_n$ means the total Day Ahead Forecast (excluding that relating to Wind Generators accepted as bids and offers in the Balancing Mechanism) produced by the licensee in respect of hour n for the relevant month m.

$RFIP_n$ means the total actual Wind Generation Output (excluding that relating to Wind Generators accepted as bids and offers in the Balancing Mechanism) in hour n in the relevant month m.

$RFIC_n$ means the total Wind Generation Capacity (excluding that relating to Wind Generators accepted as bids and offers in the Balancing Mechanism) in hour n in the relevant month m.

4H.3 For the purposes of the terms $RFIT_n$, $RFIP_n$ and $RFIC_n$ above, each is the total (in MW) of all Wind Generators with installed Operational Metering for the hour n.

4H.4 No later than 15 working days after the end of each month m in the Relevant Year t, the licensee shall notify the Authority of the following in respect of that month:

(a) the overall Wind Generation Forecasting Error achieved ($RFIO_m$);

(b) the total Day Ahead Forecast ($RFIT_n$) for each hour;

(c) the total actual Wind Generation Output ($RFIP_n$) for each hour; and

(d) the total Wind Generation Capacity ($RFIC_n$) for each hour.

4H.5 The licensee shall publish an additional forecast of Wind Generation output no later than 05:00 hours on the day before the day to which the forecast relates.

Special Condition 4I: Requirement to Report on System Transmission Losses

- 4I.1 The purpose of this condition is to require the licensee to publish certain information regarding Transmission Losses on the National Electricity Transmission System. The licensee shall publish the information specified in this condition on its website.
- 4I.2 The licensee shall publish and maintain an up to date explanation of how Transmission Losses are taken into account when carrying out the Balancing Services Activity.
- 4I.3 The licensee shall publish as soon as is reasonably practicable, monthly data showing the total volume of historic Transmission Losses and an indication of the cost of Transmission Losses from the National Electricity Transmission System.
- 4I.4 The licensee shall publish information, or provide details of the location of information, which:
 - (a) identifies and explains the expected drivers that may impact the total volume of expected Transmission Losses on the National Electricity Transmission System over the course of the next ten years; and
 - (b) a description of how the licensee takes expected Transmission Losses over the course of the next ten years into account when undertaking its planning activities in relation to the Balancing Services Activity.

Special Condition 4J. The System Operator Innovation Roll-out Mechanism

Introduction

- 4J.1 The purpose of this condition is to determine any appropriate revisions to Roll-Out Values (“ROV_t”) relating to SO Innovation Roll-out Costs recovered by the licensee under the term BXext_t for the purposes of paragraph 4C.1 of Special Condition 4C (Balancing Services Activity Revenue Restriction on External Costs).
- 4J.2 ROV_t shall take the values as set out in Table 1 below (which shall be determined in accordance with Part E of this condition).

Table 1:

Relevant Year	ROV _t
2013/14 <u>2015/16</u>	0
2014/15 <u>2016/17</u>	0

- 4J.3 The value of ROV_t relating to a particular Relevant Year represents the total amount of the licensee’s SO Innovation Roll-out Costs that the licensee is allowed to recover as determined by the Authority for that Relevant Year.
- 4J.4 The application of the mechanisms in this condition provides for:
- (a) the licensee to propose adjustments to the value of ROV_t in respect of the Relevant Years ~~2014/15~~ 2015/16 and 2016/17;
 - (b) determinations by the Authority in relation to proposals by the licensee under subparagraph 4J.4(a); and
 - (c) the direction, where applicable, of a revised value of ROV_t in relation to the Relevant Years ~~2014/15~~ 2015/16 and 2016/17.
- 4J.5 ~~D~~etermination and direction of a revised value of ROV_t, where applicable, will result in an adjustment to the value of BXext_t as derived for Relevant Year t for the purposes of paragraph 4C.1 of Part A of Special Condition 4C and shall be deemed to be set out in Table 1 in paragraph 4J.2 by virtue of that direction.

Part A: Features that qualify a SO Innovation Roll-out for additional funding

- 4J.6 The SO Roll-out by the licensee of a Proven SO Innovation will allow the licensee to receive additional funding in respect of the Relevant Year but only where the Authority is satisfied that the SO Roll-out:

- (a) will deliver Carbon Benefits or any wider environmental benefits;
- (b) will provide long-term value for money for electricity consumers;
- (c) will not lead to the licensee receiving commercial benefits (including benefits from other incentives in relation to the Balancing Services Activity) which are greater or equal to the costs of implementing the Proven SO Innovation in question within the Relevant Years 2014/15-2015/16 or 2016/17 as applicable; and
- (d) will not be used to fund any of the Ordinary SO Business Arrangements of the licensee.

Part B: Licensee's ability to propose a relevant adjustment

4J.7 The licensee may, by notices to the Authority, and in accordance with Parts C and D of this condition below, propose no more than three relevant adjustments within the meaning of paragraph 4J.8 of this condition to recover costs incurred in implementing an SO Roll-out up to a total of £10 million for the period from the date of submission of a notice under paragraph 4J.9 to 31 March 2017.

4J.8 A relevant adjustment is an adjustment:

- (a) which the licensee believes will enable it to recover SO Innovation Roll-out Costs associated with a single Proven SO Innovation that would not otherwise be recoverable under the Special Conditions; and
- (b) which applies only in respect of SO Innovation Roll-out Costs that have not yet been incurred.

Part C: Application windows for relevant adjustment proposals

4J.9 The licensee may propose a relevant adjustment or adjustments by notice served under Part B of this condition only in the period up to and including the date 3 months from this paragraph coming into force for the adjustment to ROV_t for SO Innovation Roll-out Costs which will take place in the Relevant Year 2015/16.

4J.94J.10 The licensee may propose a relevant adjustment or adjustments by notice served under Part B of this condition only in the period up to and including 31 March 2014 2016 for the adjustment to ROV_t for SO Innovation Roll-out Costs which will take place in the Relevant Year 2014/15-2016/17.

Part D: Other provisions relating to the licensee's proposal

4J.104J.11 A notice served by the licensee under Part B above must in all cases:

- (a) state any statutory obligations or any requirements of this licence to which the notice relates;
- (b) describe the Proven SO Innovation that the licensee proposes as an SO Roll-out;
- (c) propose the amount of the relevant adjustment and set out, by reference to the SO Innovation Roll-out Costs, the basis on which the licensee has calculated the relevant adjustment;
- (d) demonstrate how each of the criteria set out in Part A of this condition above will be fulfilled by the additional funding sought; and
- (e) propose relevant outputs or other end products against which the SO Roll-out will be assessed.

Part E: Authority's determination of a relevant adjustment

~~4J.114~~4J.12 Where the licensee serves a notice under Part B of this condition, the Authority must, within 3 months~~by 31 June 2014~~ determine whether the proposed relevant adjustment should result in a revision to the ROV_t subject to paragraph 4J.110 of this condition.

~~4J.124~~4J.13 In determining any relevant adjustment under Part E of this condition, the Authority will:

- (a) consult the licensee and other relevant parties;
- (b) determine whether the direction should include such other terms as the Authority considers appropriate; and
- (c) have particular regard to the purposes of this condition, and, the notice made under Part B of this condition.

Part F: Procedure for direction of revised ROV_t by the Authority

~~4J.134~~4J.14 Any revised value of ROV_t determined by the Authority in accordance with Part E of this condition will be directed by the Authority within 3 months of the licensee serving a notice under Part B of this Condition~~by no later than 31 June 2014~~ and shall be deemed to be set out in Table 1 in paragraph 4J.2.

~~4J.144~~4J.15 When issuing any directions under paragraph 4J.143 of this condition, the Authority will give notice to the licensee of all of the values that it proposes to direct.

~~4J.154~~4J.16 The notice referred to in paragraph 4J.154 of this condition will state that any revised ROV_t in respect of the Relevant Year is 2014/15 2015/16 and 2016/17 the period from 1 April 2014 2015 to 31 March 2015 2017 has been determined in accordance with Part E of this condition.

Schedule 2: Relevant Licence Holders⁴

National Grid Electricity Transmission plc

⁴ Electricity licence holders are listed at: <https://www.ofgem.gov.uk/publications-and-updates/all-electricity-licensees-registered-addresses>