

<b>CUSC Amendment Proposal Form</b>	<b>CAP046</b>
<p><b>Title of Amendment Proposal:</b></p> <p>Mandatory Frequency Response (Calculation of Volumes)</p>	
<p><b>Description of the Proposed Amendment</b> (<i>mandatory by proposer</i>):</p> <p>The current mechanism for calculating the response energy volume that occurs, as a result of the provision of mandatory frequency response can be inaccurate. This amendment proposal seeks to improve the mechanism for the approximation of this volume.</p> <p>Two methods could be used to determine the volume:</p> <ol style="list-style-type: none"> <li>(1) The characteristic curve of the BMU could be used that tracks output with changing frequency.</li> <li>(2) An approximation for (1) could be used that produces, for each BMU, a new pair of tables (Power Delivery Data Tables, one for High Frequency Volume and one for Low Frequency Volume) based on the format of the High Frequency Response table. These would initially contain the same data as the current Primary and High Frequency Response tables.</li> </ol> <p>Method 1, although more accurate, is considered impractical. Therefore Method 2 is suggested for implementation. The Power Delivery Data Tables would be populated with data based on the stable output that is achieved by the BMU following a change in frequency. The effect of this would be to move the 10 second cut off for Primary and High Frequency Response to a different time, based on the time to achieve stable output.</p> <p><u>Note:</u> This proposed amendment seeks to implement the intention behind CUSC Amendment Proposal CAP009 as described in the CAP009 Amendment Report and acts as a direct replacement for it. This is explained further below.</p>	
<p><b>Description of Issue or Defect that Proposed Amendment seeks to Address</b> (<i>mandatory by proposer</i>):</p> <p>The current mechanism for reflecting response energy volume that occurs as a result of the provision of Mandatory Frequency Response, can be inaccurate.</p> <p>For certain types of plant the output of the plant continues to increase after the 10 second cut off in the current Primary and High Frequency Response tables. This proposal seeks to cut the link between the Primary and High Frequency Response Tables and the payment volume. A new set of tables would be produced that would more accurately reflect the energy produced when providing mandatory frequency response.</p> <p><u>Note:</u> National Grid recommends that this proposal is treated as an Urgent Amendment Proposal in order to ensure that the intentions of CAP009, CAP011 and CAP016 are implemented together, as described below.</p> <p>CUSC Amendment proposal CAP009 sought to improve the estimation of response energy volume delivered during the provision of Mandatory Frequency Response. After due debate, consultation and consideration the proposal was unanimously supported by the industry.</p> <p>However, due to other modifications (CAP016, CAP011) changing the CUSC, the drafting of the proposed CUSC text in the CAP009 Amendment Report is no longer compatible with the new baseline CUSC. National Grid has therefore had to recommend to the Authority that CAP009 be rejected, and has subsequently raised this new proposed amendment as a direct replacement.</p> <p>In summary this proposal seeks to ensure that the intentions behind CAP009, CAP011 and CAP016, which have already been debated within the industry and consulted upon, are implemented consistently through CUSC Section 4. This proposal is <u>not</u> intended to introduce material changes or new thinking beyond that described in the original Amendment Reports for CAP009, CAP011 and CAP016.</p>	

**Impact on the CUSC** (*this should be given where possible*):

Section 4.1.3 – Calculation of Volumes formulae. Amendment is required to reflect the revised tables that will be used for calculating the volumes for delivery of response energy as outlined above, and to re-instate Configuration Factors in the calculation of response energy.

Modification of the CUSC Mandatory Services Agreement to reflect the inclusion of Power Delivery Data Tables (one for High Frequency Volume and one for Low Frequency Volume) for each BMU.

**Impact on Core Industry Documentation** (*this should be given where possible*):

None.

**Impact on Computer Systems and Processes used by CUSC Parties** (*this should be given where possible*):

The proposed amendment will require modification to the payment calculation system (GENRES) used by National Grid to calculate the Frequency Response payments, preparations for which have already been made.

**Details of any Related Modifications to Other Industry Codes** (*where known*):

CAP009, CAP011, CAP016, BSC P71

**Justification for Proposed Amendment with Reference to Applicable CUSC Objectives\*\*** (*mandatory by proposer*):

The Transmission Licence obligates National Grid to purchase ancillary services from the most economical sources available to it having regard to the quantity and nature of the ancillary services.

The proposed amendment would better facilitate the efficient discharge of this licence obligation by aligning more accurately payments made with costs incurred, as the volume would be more accurately calculated.

This in turn will ensure that the most economic sources of Mandatory Frequency Response continue to make their full capacity available for despatch by National Grid.

<b>Details of Proposer:</b> Organisation's Name	National Grid Company plc
<b>Capacity in which the Amendment is being proposed:</b> (i.e. CUSC Party, BSC Party or "energywatch")	CUSC Party
<b>Details of Proposer's Representative:</b> Name: Organisation: Telephone Number: Email Address:	Mark Brackley National Grid Company plc 0118 9363364 <a href="mailto:mark.brackley@uk.ngrid.com">mark.brackley@uk.ngrid.com</a>
<b>Details of Representative's Alternate:</b> Name: Organisation: Telephone Number: Email Address:	John Greasley National Grid Company plc 024 76423190 <a href="mailto:john.greasley@uk.ngrid.com">john.greasley@uk.ngrid.com</a>
<b>Attachments (Yes/No):</b> If Yes, Title and No. of pages of each Attachment:	

**Notes:**

1. Those wishing to propose an Amendment to the CUSC should do so by filling in this "Amendment Proposal Form" that is based on the provisions contained in Section 8.15 of the CUSC. The form seeks to ascertain details about the Amendment Proposal so that the Amendments Panel can determine more clearly whether the proposal should be considered by a Working Group or go straight to wider National Grid Consultation.
2. The Panel Secretary will check that the form has been completed, in accordance with the requirements of the CUSC, prior to submitting it to the Panel. If the Panel Secretary accepts the Amendment Proposal form as complete, then he will write back to the Proposer informing him of the reference number for the Amendment Proposal and the date on which the Proposal will be considered by the Panel. If, in the opinion of the Panel Secretary, the form fails to provide the information required in the CUSC, then he may reject the Proposal. The Panel Secretary will inform the Proposer of the rejection and report the matter to the Panel at their next meeting. The Panel can reverse the Panel Secretary's decision and if this happens the Panel Secretary will inform the Proposer.

The completed form should be returned to:

Richard Dunn  
Panel Secretary  
Commercial Development  
National Grid Company plc  
National Grid House  
Kirby Corner Road  
Coventry, CV4 8JY

Or via e-mail to: [CUSC.Team@uk.ngrid.com](mailto:CUSC.Team@uk.ngrid.com)

(Participants submitting this form by email will need to send a statement to the effect that the proposer acknowledges that on acceptance of the proposal for consideration by the Amendments Panel, a proposer which is not a CUSC Party shall grant a licence in accordance with Paragraph 8.15.7 of the CUSC. A Proposer that is a CUSC Party shall be deemed to have granted this Licence).

3. Applicable CUSC Objectives\*\* - These are defined within the National Grid Company Transmission Licence under Section C7F, paragraph 15. Reference should be made to this section when considering a proposed amendment.