

Codes Summary - April 2014 **(as at 23 April 2014)**

This document provides a summary as to latest developments concerning the various other Industry Codes. Further detailed information can be found at:

<http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/>

CUSC

CMP201 (Removal of BSUoS Charges from Generators) - CMP201 seeks to align GB market arrangements with those prevalent within other EU member states. This will deliver more effective competition and trade across the EU and so deliver benefits to all end consumers. It is proposed that Balancing Services Use of System (BSUoS) charges, which are currently charged to all liable CUSC parties on a non locational MWh basis, are removed from GB generators. This will effectively align the GB 'generation stack' with those in other EU markets, thus facilitate equitable competition with generation in other EU markets which are not subject to such charges. CMP201 was presented to CUSC Modifications Panel on 16 December 2011 who agreed that it should follow the Standard CUSC Modifications process via a Workgroup and the Workgroup report to be presented back to the Panel in April 2012. At the CUSC Panel meeting on 24 February 2012, a one month's extension was granted to the original timetable to allow for the Workgroup to carry out further work on the Workgroup consultation and also to allow for a longer consultation period. A further month's extension was agreed at the CUSC Panel meeting on 27 April 2012 to allow for further analysis to be carried out. Upon identifying an error in one of the calculations contained within the final Workgroup Report, National Grid requested that the Panel reject the Report at their June 2012 Panel meeting in order to rectify the error and liaise with the Workgroup and Ofgem. The error was been corrected and the changes discussed and agreed by the Workgroup and the final Workgroup Report was presented to the CUSC Panel at their meeting in July 2012. At September 2012's CUSC Panel meeting, the Panel voted that CMP201 Original and the two Workgroup Alternative CUSC Modifications all better facilitate the Applicable CUSC Objectives, with a preference for the Original to be implemented. On the 25 October 2012, the Authority issued a "Send Back" direction, asking for further work to be carried out by the Workgroup after which a further Code Administrator Consultation will be published. A further Code Administrator Consultation was issued and the Final Modification Report was sent to the Authority for decision on the 9 May 2013.

CMP213 (Project TransmiT TNUoS Developments). CMP213 was raised by National Grid as a result of the direction to NGET by the Authority following their Significant Code Review on electricity transmission charging arrangements. CMP213 is made up of three main elements: Network Capacity Sharing, Inclusion of HVDC in the charging calculation, and Inclusion of islands links into the charging methodology. The Panel agreed for CMP213 to progress to a Workgroup through the standard route and to report back to the December 2012 CUSC Panel as it was felt that a minimum of 6 months would be required for the Workgroup phase. At the CUSC Panel meeting on the 25 January it was agreed for the CMP213 to receive a one month extension for the Workgroup Report to be presented to a Special CUSC Panel meeting in April 2013. CMP213 was submitted to the Authority for decision on 14 June 2013. **The Authority issued an update letter on 14 March 2014 explaining that a decision on CMP213 will be delayed due to substantial analysis provided in response to the previous consultation. The Authority plan to issue another consultation shortly.**

CMP222 (User Commitment for Non-Generation Users) seeks to introduce enduring user commitment arrangements for sites where there is an offtake of electricity from the transmission system (excluding generation site supplies), specifically interconnectors, distribution network Grid Supply Points (GSPs) and directly connected loads. These arrangements should not seek to indemnify sunk costs, but to provide an incentive on users to signal their intentions early and

hence allow Transmission Owners (TOs) to avoid inefficient investment. It is also intended that they be proportionate to the number and materiality of the users involved. CMP222 was presented to the CUSC Modifications Panel on 27 September and the CUSC Modifications Panel agreed that CMP222 should proceed to a Workgroup. **CMP222 was granted two extensions to its original timetable. The Panel accepted the CMP222 Workgroup Report and directed that it should proceed to Code Administrator Consultation for a period of 4 weeks.**

CMP223 (Arrangements for Relevant Distributed Generators under the Enduring Generation User Commitment) seeks to address an unintended consequence of the application of CMP192 and related terms under Section 15 of the CUSC. As a consequence of the rules, distribution connected generators deemed to have an impact on the transmission network are faced with undue discrimination in the way that liability and security terms and conditions are set and how the sums are calculated and passed on. CMP223 was presented to the CUSC Modifications Panel on 27 September and the CUSC Modifications Panel agreed that CMP223 should proceed to a Workgroup. **CMP223 has been granted three extensions to its original timetable. The Workgroup is due to report back to the CUSC Panel on 25 April 2014.**

CMP224 (Cap on the Total TNUoS Target Revenue to be recovered from Generation Users) has been raised by National Grid Electricity Transmission and seeks to put a cap on the annual generation TNUoS revenue so that the average annual transmission charges payable by the generator always stay within the range specified by the EC regulation. Linking this cap to the range specified by the regulation mitigates risk of any future revisions to this range. This would ensure that National Grid always remains compliant with the EC Regulation. CMP224 was presented to the CUSC Modifications Panel on 27 September and the CUSC Modifications Panel agreed that CMP224 should proceed to a Workgroup. At the November CUSC Panel meeting, Panel members agreed to a one month extension to the original timetable. **CMP224 is progressing through the agreed timetable.**

CMP225 (Consequential changes following implementation of the Third Package and other miscellaneous changes) has been raised by National Grid Electricity Transmission and seeks to make amendments to CUSC Section 8 to enable the Authority to raise modifications to the CUSC that it considers necessary to comply with or implement the Electricity Regulation and/or any relevant legally binding decisions of the European Commission and/or Agency. CMP225 was presented to the CUSC Modifications Panel on 29 November and the CUSC Modifications Panel agreed that CMP225 should proceed to a Workgroup. **The Panel accepted the CMP225 Workgroup Report and directed that it should proceed to Code Administrator Consultation for a period of 4 weeks.**

CMP227 (Reduce the G:D split of TNUoS charges, for example to 15:85) is proposing to change the split of total TNUoS charges between generation and supply from the current 27:73 to a lower share of charges for generators, suggested to be 15:85, which corresponds with the approach modelled under Project TransmiT. However, other splits which reduce the proportion of TNUoS charges paid by generators could also be considered by the Workgroup. CMP227 was presented to the CUSC Modifications Panel on 28 February and the CUSC Modifications Panel agreed that CMP227 should be developed by a Workgroup and set an initial Workgroup timetable of 5 months to report back to the July 2014 Panel meeting.

CMP228 (Definition of “Qualified Bank”) seeks to make changes to the definition of ‘Qualified Bank’ to include ‘trade credit insurance company’, thereby increasing the number of prospective providers of security available to Users. CMP228 was presented to the CUSC Modifications Panel on 28 February and the CUSC Panel determined that CMP228 meets the Self-Governance criteria and should progress directly to Code Administrator Consultation for a period of 3 weeks.

Grid Code

The most recent meeting of the **Grid Code Review Panel** was held on 19 March 2014.
The next GCRP will take place on 21 May 2014.

GC0028 Constant Terminal Voltage

Under CC.6.3.4 of the Grid Code, Generating Units, Power Park Modules, DC Converters and OTSDUW Plant and Apparatus are required to be capable of providing their full reactive capability within the voltage range of $\pm 5\%$ at 400kV, 275kV and 132kV and lower voltages.

In addition, CC.6.3.8(a)(i), of the Grid Code requires Generating Units to be installed with a continuously acting automatic excitation control system to provide constant terminal voltage control of the Generating Unit without instability over the entire operating range. A number of Generators have expressed concern over National Grid's interpretation of these requirements relating to operation at constant terminal voltage and sought further clarification. The Workgroup met on 29 January 2014 and 4 April 2014.

GC0038 Electricity Balancing System Group (EBSG)

The scope of this group is limited to that of the Electricity Balancing System, and the Balancing Mechanism and Ancillary Services data and instructions that it will support. The group will consider the changes requested by the industry in response to National Grid's consultations and also any changes that are offered as part of the standard vendor system. The group has established two subgroups EBSIT (focusing on IT issues) and EBSMSM (focussing on Multi Shaft modelling). The last EBSG meeting took place in on 13 July 2012. The EBSG was given an update to the EBS Multi Shaft Modelling (MSM) Subgroup. The main action of this subgroup is to work up a "straw man" configuration modelling proposal and bring this back to EBSG and GCRP in due course. There is no forecast on when this might be presented at this time. A regularly updated EBS Project Plan is now presented at each EBSG meeting, giving an overview of events and milestones. This supported discussion around release dates for EBS and how these would consider release dates for Elexon. The last meeting was held on Thursday 13 December 2012 in Warwick. The EBSG have presented two Grid Code issue papers to the January GCRP. Reactive and Frequency Report Fax Form Information and New and Revised Balancing Code Parameters and Instructions will both be developed further by the EBSG before proceeding to Industry Consultation. GC0068, the New and Revised Unit data industry consultation was published on 4 November 2013 and closed on 3 December 2013. Responses were broadly supportive with a suggestion to split implementation of GC0068 to enable earlier delivery of the fax form changes (which are not contingent on EBS go-live). This split implementation was supported by EBSG and was progressed in the Final Report to Authority which was approved on 3 March 2014. GC0068 will be implemented in two stages: we have agreed an implementation date of 1 July 2014 for changes to Reactive Power and Frequency Response Fax Forms in BC2; following this, the remaining changes to the Grid Code and Data Validation, Consistency and Defaulting Rules relating to the Balancing Code data, parameters and instructions, will be implemented in line with the go-live date of EBS. The last EBSG was held on 6 March 2014 where it was agreed that the EBS MSM subgroup would be revisited to consider future possibilities and changes. The next EBSG is due to be held in September 2014.

GC0035 Frequency Changes during Large Disturbances and their impact on the Total System

The Frequency Changes during Large Disturbances and their impact on the Total System Workgroup was established by Grid Code Review Panel (GCRP) at the May 2012 GCRP meeting. The workgroup will review the expected behaviour of the Total System when subject to frequency changes during large disturbances with particular focus on the rate of change of frequency. The workgroup will also review the findings of the frequency response technical subgroup and assess their implications, take account of relevant international practice and the approach taken in European code development and evaluate the costs, benefits and risks of any actions necessary to maintain or improve current levels of resilience to frequency changes under future system conditions. The first Workgroup was held on 26 October 2012 and have met a

further 7 times. The Workgroup have published an open letter to the Industry informing interested parties of the likely setting changes and inviting them to an Industry Workshop. The workgroup hosted two industry seminars, one in Scotland on 25 April 2013 and one in London on 8 May 2013. The Workgroup presented their workgroup report to the July GCRP. The Workgroups proposals recommend changing all Rate of Change of Frequency Protection Relays on Generators between 5 and 50MW to 1Hzs^{-1} measured over 500ms. In conjunction with the Industry Consultation, the Workgroup are hosting two industry seminars to engage with affected parties. The seminars are scheduled for Monday 9 September in London and Monday 16 September in Glasgow. The Workgroup are now investigating sub 5MW generators and inverter type technologies. The Industry Consultation closed on 27 September 2013 and 18 responses were received. The licensees, the Workgroup and National Grid worked through the responses and revised the proposal accordingly. The Licensees recommendation is that Rate of Change of Frequency (RoCoF) protection settings should be changed at new and existing distributed generators in stations of registered capacity of 5MW and above to 1Hzs^{-1} , using a delay setting of 500ms, with the exception of synchronous generators commissioned before 1 July 2016, where a minimum setting of 0.5Hzs^{-1} is permissible. The specific criteria to be applied should be stipulated in both the Distribution Code and Engineering Recommendation G59. A second consultation took place during Spring 2014. The Licensees are working through the responses and will submit the Report to the Authority shortly.

GC0042 Information on Embedded Small Power Stations for the Purposes of Developing, Planning and Operating the Transmission System.

This Workgroup was established at the May 2012 GCRP meeting. The Workgroup will; review information currently provided by Network Operators to NGET concerning Embedded Small Power Stations, review how this information is used, identify any inconsistencies between how Small Power Stations connected to User's networks can be accounted for and identify any information which is necessary and not provided or information that is provided but is not necessary. The Workgroup first met on the 4 December, and have subsequently met on 3 separate occasions. The implementation date for information to be submitted was agreed to be the Calendar Week 24 data submission beginning 2015. It was noted that there may be a need to gather some of the proposed data items prior to the implementation date of 2015 to satisfy the European Transparency regulation. This could be enacted via a staged implementation in the Grid Code or a separate information request. The Workgroup favoured implementing a single process change for the 2015 target date rather than the staged approach. The Workgroup presented their findings to the GCRP in September 2013 and the Panel agreed with the proposed changes. A joint Grid Code and Distribution code consultation was published on 25 February and closed on 25 March 2014 with 4 responses received. National Grid are working through the responses and drafting the Report to the Authority.

GC0048 Joint GCRP/DCRP Workgroup on Application / Implementation of the Requirements for Generators

The Requirements for Generators (RfG) European Network Code is targeted by the European Commission to complete comitology, the process by which it will be written into European law, in Q1 2014. It will then take precedence over GB law and associated Industry Codes.

The establishment of a joint GCRP/DCRP Workgroup is required to progress national application/implementation of RfG including necessary code changes. There are complex structural issues (see appendix A) to consider in incorporating RfG into the GB codes. It is therefore proposed to set-up this Workgroup without delay and in advance of the completion of comitology. This will provide as much leadtime as possible for compliance and modifications to specifications and equipment. The Workgroup met for the first time in January 2014 and are progressing through their Terms of Reference.

GC0050 Demand Control

The Demand Control Workgroup will; review the need for, and requirements of, Demand Control Instructions, review the existing capabilities of the DNO's to implement Demand Control Instructions, take account of relevant international practice and the approach taken in European

Code development and evaluate the costs, benefits and risks of any actions necessary to ensure that DNOs can implement the required Demand Control Instructions in the required timescales under future system conditions. The Workgroup is currently reviewing the amount of Demand Reduction that would be achieved by Voltage Reduction. Historically, the assumption has been that a 3% Voltage Reduction would result in a 5% Reduction in Demand, a 6% Voltage Reduction a 10% Reduction in Demand. The Workgroup met for the first time on the 5th December 2012, and have subsequently met on 3 separate occasions. The next Workgroup meeting is planned to take place in November and the Workgroup will present their findings at January's GCRP. During October the Workgroup have been testing what actual reductions are likely through a series of exercises that explore the reductions achievable, as well as the time taken to realise them. These tests tested the inter-control room communications and functionality of DNO Control Systems. The Industry consultation was published on 30 January 2014 and closed on 28 February 2014 with 5 supportive responses received. The Report to the Authority was submitted for a decision on 7 March 2014. **The Authority determined that they could not make a decision on GC0050 as submitted so decided to Send Back the report. National Grid and the Workgroup are revising the report and will resubmit in due course.**

GC0062 Fault Ride Through

The Grid Code sets out the requirements applicable to Generators and DC Convertors to remain connected to the Transmission System for long duration voltage dips (ie longer than 140ms) and resume the export of Active Power as system voltage recovers. The issue is currently being investigated at a series of workshops and workgroup meetings. The Workgroup have held two meetings so far and National Grid is now progressing the agreed study work ahead of reporting to the next Workgroup meeting in May 2014.

GC0063 Power Available

Following discussions within the CBSG, in March 2012, the group initiated proposals to develop the concept of Power Available for wind farms. This concept proposes to use data, such as wind speed, to calculate the potential power that would have been produced by a wind farm if they did not have their output curtailed. This value could then be used to assist with the integration of intermittent generation into current balancing arrangements for example as a reference point for settlement of bid/offer acceptances rather than the current method of using the generator's Final Physical Notification (FPN). There is overlap between this and the High Wind Speed Shutdown Workgroup. The first meeting was held on the 11 September 2012. The Workgroup published a Workgroup consultation during December 2013 with 5 responses received. National Grid and the Workgroup considered the responses and published revised proposals in the Industry Consultation on 7 March 2014. **The Industry consultation closed on 7 April 2014 with 7 responses received. National Grid are working through the responses and drafting the Report to the Authority.**

GC0075 Hybrid Static Compensators

Power Park Module developers have been installing Hybrid STATCOM / SVC's, which provide a portion (typically 50% to 75%) of their reactive capability from switched reactors and capacitors. Some of these devices have restrictions preventing repeated switching in a short period which can be seen as inconsistent with the concept of "continuously acting" control which is required by the Grid Code. Interested parties believe clarification is required of the Grid Code requirements on these devices and that it would be beneficial to form a Workgroup to develop proposals for clearer and more appropriate requirements on Hybrid STATCOM / SVC performance. The Workgroup are requesting members and will meet in May 2014.

AMALGAMATED ELECTRICITY CODES MODIFICATION REPORT

As at 23 April 2014

This document contains the Modification Registers for the CUSC, STC, Charging & Grid Code and is correct as of the above date.

The most up to date versions may be found at the following websites:

STC: <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/STC/Modifications/>

CUSC: <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/CUSC/Modifications/>

TCMF: <http://www2.nationalgrid.com/UK/Industry-information/System-charges/Electricity-transmission-Charges/>

Grid Code: <http://www2.nationalgrid.com/UK/Industry-information/Electricity-codes/Grid-code/Modifications/>

BSC Amendments can be found on the following website:

www.elexon.co.uk/changeimplementation/ModificationProcess/ModificationReports/default.aspx