

Codes Summary - July 2014 **(as at 23 July 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

The most recent meeting of the **CUSC Modification Panel** was held on **27 June 2014**.

The next Panel meeting will take place on **25 July 2014**.

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 has issued another consultation. **The Authority confirmed its minded to position to approve the "WACM2" proposal as recommended by the CUSC Panel, for implementation in April 2016**

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. The Panel voted against the Applicable CUSC Objectives for CMP222 and voted by majority 5 out of 9 that WACM1 better facilitates the Applicable CUSC Objectives and therefore should be implemented. **The Final CUSC Modification Report was sent to the Authority in June 2014.**

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 was presented at the CUSC Panel meeting on 25 April 2014 and it was agreed that CMP223 should proceed to Code Administrator consultation for a period of 4 weeks. The CUSC Panel agreed to a one week extension to the Code Administrator Consultation to account for an omission from the draft Legal text. **The CUSC Panel voted by majority that CMP223 WACM3 better facilitates the Applicable CUSC Objectives and so should be implemented. The Final Modification Report will be sent to the Authority in July 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. The CUSC Panel voted against the Applicable CUSC Objectives for CMP224 Original and the 3 Workgroup Alternative CUSC Modifications on 25 April 2014. The Panel voted by majority that CMP224 WACM1 better facilitates the Applicable CUSC Objectives and so should be implemented. The Final Modification Report was sent to the Authority in May 2014.

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. The Panel voted against the Applicable CUSC Objectives for CMP225 and voted unanimously that CMP225 should be implemented. **The Final Modification Report was sent to the Authority on 10 June 2014. The Authority approved CMP225 on 26 June and it was implemented on 10 July 2014.**

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. The Workgroup requested a one month extension to the timetable for CMP227 at the CUSC Panel meeting in May, which the CUSC Panel agreed to. **The CMP227 Workgroup Report will be presented at the August 2014 Panel meeting. The CUSC Panel granted another one month extension to the CMP227 timetable at the June CUSC 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. The CUSC Panel voted against the Applicable CUSC Objectives for CMP228 and voted unanimously that CMP228 should be implemented. **The objections window for CMP228 closed on 20th June with no objections received and CMP228 was implemented on 7 July 2014.**

CMFTP231 (Electricity Market Reform Preparation Costs) seeks to make consequential changes to the CUSC to reflect changes to the National Grid Electricity Transmission Licence which allow recovery of the costs incurred by NGET in preparation for performing its functions required under Electricity Market Reform (EMR). The CUSC Panel determined that CMP231 should be progressed through the Fast Track route and should be implemented. CMP226 Final Report was published on 30 June 2014, and the objection window commenced on this day for a period of 15 working days.

CMFTP232 (Demand Side Balancing Reserve and Supplemental Balancing Reserve Cost Recovery Restriction) seeks to make consequential changes to the CUSC to reflect changes to the National Grid Electricity Transmission Licence which restrict the recovery of the costs incurred through the use of the Demand Side Balancing Reserve (DBSR) and Supplemental Balancing Reserve (SBR). The CUSC Panel determined that CMP232 should be progressed through the Fast Track route and should be implemented. CMP232 Final Report was published on 30 June 2014, and the objection window commenced on this day for a period of 15 working days.

Grid Code

The most recent meeting of the **Grid Code Review Panel** was held on **16 July 2014**.

The next GCRP will take place on **17 September 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 **last met on 20 June 2014 and are due to hold their fourth meeting on 19 September 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 Report to the Authority, proposing changes to the Distribution Code and Engineering Recommendation G59, was submitted to Ofgem on 9 May 2014. The Workgroup are now progressing phase 2 of the work which involves looking at generators with registered capacity of less than 5MW. **The last workgroup meeting took place on June 2014 and the next meeting is scheduled for 24 July 2014.**

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. **The Report to the Authority was sent on 3 July 2014.**

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. **A second meeting was held on 24 March and dates are currently being discussed for the third meeting. The code is not making the anticipated progress with the Commission and there are no planned dates for further meetings of the Cross Border Committee which would discuss the draft code and ultimately vote on it.**

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 revised the report to address the issues highlighted in the Send Back letter and resubmitted the report on 29 April 2014. **GC0050 was approved by the Authority on 5 June 2014 and implemented on 1 July 2014.**

GC0062 Fault Ride Through The Grid Code sets out the requirements applicable to Generators and DC Converters 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 four meetings so far and are progressing through their Terms of Reference. **The next meeting is planned for 30 September 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 presented a draft Report to the Authority to the Grid Code Review Panel in May. The report proposes implementing a power available data feed to the National Grid Control Centre via SCADA data connections on all new windfarms from 1 April 2016. At the GCRP in May 2014, it was agreed that the Report needed more narrative and that more consideration was required to the issues raised. The Report is currently being updated and meetings are taking place to discuss the issues raised prior to the report being finalised and sent to the Authority for a decision.**

GC0074 GCRP Membership Following the 2013 election process for the Grid Code Review Panel (GCRP), a review of representation on the GCRP was proposed to recognise that the make-up of the industry, particularly the generation element, has changed significantly since the GCRP was first established. The aim of the review is to ensure appropriate and equitable representation of different sectors of the industry on the GCRP. **Two workshops have been held and the Industry Consultation was published on 4 July 2014 and will close on 1 August 2014. At their meeting in July, the GCRP agreed to put GC0074 on hold after the consultation closes whilst GC0086 is progressed, as GCRP Membership will form part of this review.**

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 held their inaugural meeting on 15 May 2014 and **are meeting again on 7 August 2014.**

GC0083 European Transparency Regulation Implementation The European Transparency Regulation (ETR) sets out a requirement for the publication of a common set of data relating to generation, transmission and electricity consumption. It places an obligation on primary owners to submit this data to a central information transparency platform via the Transmission System Operators (TSOs). Although much of the data required is already collected by National Grid under

existing industry framework processes, three articles of the regulation will require the provision of additional information. National Grid would like to amend the Grid Code to facilitate the collection of the additional data required for the implementation of ETR which is set for 4 January 2015. The Industry Consultation was published on 24 June 2014 and closes on 21 July 2014.

GC0086: Grid Code Open Governance. This was raised at the July GCRP and seeks to introduce the principles of Open Governance into the Grid Code that currently exist in the CUSC. This includes, amongst other aspects, the introduction of Self-governance, an Urgency Process, an Independent Chair, and most importantly it allows for parties other than NGET to raise a modification to change the Grid Code. Open Governance in the Grid Code has previously been acknowledged by Ofgem in their Code Governance Review Phase 2 as being beneficial. The GCRP agreed that this issue should progress to a Workgroup and the first meeting is being scheduled for the beginning of September 2014.

SQSS

The most recent meeting of the **SQSS Panel** was held on 4 June 2014. The next SQSS Panel will take place on 6 August 2014.

GSR008: Regional Variations and Wider Issues: This includes a number of proposed amendments such as: adjusted n-1-1 contingency requirements; the use of dynamic ratings; the assumed reactive power output of generation...etc... This modification was passed to the Authority for a decision in October 2011. Due to the length of time this has been awaiting a decision from the Authority, they have advised that this may now need to be re-consulted upon. We are actively engaging with the Authority but are still awaiting their final conclusions.

GSR010: Review of Onshore Entry Criteria: This aims to revise the requirements for new onshore generation with different levels of connection security based upon the generation capacity and load factor. This modification is on-going. An industry consultation has been carried out and further views are being sought from the industry before a decision is made as to how best to proceed with this proposal.

GSR011: Review of Offshore Networks: This considers the offshore criteria for larger windfarms such as the Round 3 developments. Recently new issues have been uncovered with respect to this modification. These continue to be addressed. However, it is still hoped that this modification shall be submitted to the Authority for a decision shortly.

GSR012: Interconnectors: This considers a consistent treatment of interconnectors when planning their local connections and their impact on wider infrastructure requirements. This modification has only recently started and a working-group has only just been established.

GSR014: Offshore Requirements at Onshore Substations: This considers the onshore substation requirements (one or two switch-bays) where offshore cables connect to the onshore network. It is hoped that this modification shall be released for industry consultation shortly.

GSR015: Normal Infeed Loss Risk: This proposes to reword the definitions of infeed loss risks to avoid increased costs being incurred to procure additional frequency response until additional risks arise. This modification was submitted to the Authority for a decision on 10 March 2014. The Authority has subsequently responded that they believe the proposed NETS SQSS wording causes a loss of necessary detail. We are therefore working to address this issue.

GSR016: Application of Scaling Factors and the Inclusion of Embedded Wind in NETS SQSS Chapter 4 Studies: This aims to determine more realistic dispatch levels for generation,

including embedded generation, in local and wider system capability studies. The working-group presented its initial conclusions to the NETS SQSS Review Panel in June 2014. The working-group aims to bring their final report to the August 2014 NETS SQSS Review Panel.

GSR017: Treatment of Switch Faults in Operational Timescales: This is reviewing the risk of switch faults and determining the extent to which switch faults should be secured against given the changing mix of generation and reductions in system strength. The working-group is to report its conclusions to the NETS SQSS Review Panel in August 2014.

GSR018: Sub-Synchronous Oscillations (SSO): The NETS SQSS Review Panel agreed to progress work to develop and clarify the transmission licensees' responsibilities with respect to sub-synchronous oscillation issues. An initial meeting and teleconference was held week commencing 17th February 2014, following which, the NETS SQSS Review Panel agreed to establish a working-group. This is currently in the process of being established and isn't expected to report on its conclusions until April 2015.

GSR019: Single vs. Double Busbars: It has been suggested that current interpretation of the NETS SQSS mandates the use of a double busbar (or equivalent) arrangement for the first onshore substation for offshore transmission system connections. However, a Cost Benefit Analysis (CBA) performed by DONG Energy aims to demonstrate that this requirement is not the most economic and efficient solution for all offshore wind-farm connections. It has therefore been proposed that this interpretation within the NETS SQSS for the need to have double busbar substation arrangements is addressed and subject to NETS SQSS Review Panel assessment, this deterministic requirement be removed if no net benefit can be demonstrated for this configuration of switchgear when considering the specific characteristics of offshore generation connections. A workshop was held 23rd May 2014 to further discuss these proposals. Subsequently a working-group has been established, which aims to present their initial conclusions at the August 2014 NETS SQSS Review Panel.

AMALGAMATED ELECTRICITY CODES MODIFICATION REPORT

As at 23 July 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/>

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

BSC Amendments can be found on the following website:

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