nationalgrid

Industry Consultation

Grid Code

B/12 Formalising Two Shifting Limit and other parameters

This consultation by the Electricity Balancing System Group seeks views on modifications to the Grid Code to make Two Shifting Limit and certain items of BC1.4.2(f) Other Relevant Data formal parameters.

This document is open for Industry Consultation. Any interested party is able to make a response in line with the guidance set out in Section 7 of this document.

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Responses by: COP Tuesday 24th April 2012

! High Impact:	Generators, National Grid
! Medium Impact:	
! Low Impact:	

Contents

Any Questions?

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National Grid

1   Executive Summary

1.1. A meeting was conducted on 1st June 2011 between National Grid[1] and the Grid Code Review Panel (GCRP) members to discuss and examine issues surrounding the status and definition of the Two Shifting Limit (TSL) parameter within the Grid Code, as a result of a previously raised concern over the interpretation and use, by National Grid, of the TSL parameter. As a result of these discussions, National Grid presented a paper to the 7th July 2011 GCRP meeting which resulted in a number of recommendations being made.

1.2. Following approval of these recommendations by the GCRP, the TSL issue was further debated at the Electricity Balancing System Group (EBSG). However, the EBSG was unable to agree a solution because of the differing views of EBSG members. The EBSG recommended to the GCRP that wider industry views should be sought via a written consultation.

1.3. The advantages for formalising TSL, or similar, as a parameter include that smaller Generators would benefit from reduced administrative costs and operational risk through passing responsibility for near real time operational optimisation and administration to National Grid. The risk of mistakes and omissions would subsequently be reduced as it would be easier, as well as cheaper, to manage standing operational data such as TSL rather than making continual dynamic data changes and submissions. Formal recognition of the parameter would enhance this process.

1.4. The disadvantages include that such a formalisation could be a move towards a central dispatch function and possible inefficient dispatch. As Generators were less able to shut down, National Grid would have to run other Generators at part load with a subsequent impact on market pricing.

1.5. By introducing this parameter that can extend past gate-closure, this would commit National Grid to balancing actions beyond the current Balancing Mechanism Window with the same Generator. As such, this could adversely impact other Balancing Mechanism (BM) participants and distort competition.

1.6. It was argued that TSL, as currently defined, is not a real technical parameter but more of a proxy for the cost of additional unit starts and the number of starts allowed between maintenance outages.

1.7. There was concern about increasing the dynamic parameter set that was reduced under the introduction of NETA, suggesting that the reversal of this situation could result in additional complex parameters being used for

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[1] The terms National Grid and NGET are interchangeably used in this document.

commercial, as opposed to operational, reasons, resulting in uneconomic operation, and possible distortion of market pricing and competition.

1.8. In addition to the TSL, this consultation considers formalising Station Synchronising Interval, Station De-Synchronising Interval and 'Last Time to Cancel Sync'[2] parameters.

1.9. The purpose of this consultation, which is based on the discussions at the EBSG, is to seek industry views on formalising TSL and various items of Other Relevant Data (BC1.4.2(f)(v)) and to establish a way forward as a result of comments received.

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[2] Station Synchronising and De-Synchronising Intervals are referenced in OC2 Appendix 2 (OC2.A.2.2 and OC2.A.2.3) and 'last time to cancel sync' is referenced in BC1.4.2(f)(v).

2 Introduction and Purpose

2.1. The concept of Other Relevant Data was introduced with the New Electricity Trading Arrangements (NETA) in 2001 and is defined in BC1.4.2(f). This consultation covers a sub-set of Other Relevant Data which is defined in paragraph (v) of BC1.4.2(f) as "details of any other factors which National Grid may take account of when issuing Bid-Offer Acceptances (BOAs) for a BM Unit (e.g. Synchronising or De-Synchronising Intervals, the minimum notice required to cancel a Synchronisation, etc)" – the significant word in this definition being "**may**". The concept of Other Relevant Data was introduced as part of an initiative to simplify the Dynamic Parameter set for NETA whose complexity was seen as being part of the problem with the Electricity Pool arrangements. Effectively, it covers those Electricity Pool parameters that were not adopted as formal Dynamic Parameters under NETA. The most common items of data submitted under this definition have included Two Shifting Limit (TSL), Station Synchronising Interval, Station De-Synchronising Interval, and 'last time to cancel sync'[3].

2.2. The initiating event for this consultation can be traced back to the Grid Code Review Panel (GCRP) meeting held on 18th November 2010 when Eggborough Power Limited (EPL) presented an item on National Grid's interpretation and use of the Two Shifting Limit parameter.

2.3. On the 1st June 2011, an industry group comprising National Grid and members of the GCRP met to discuss and examine the issues surrounding the TSL within the Grid Code. As a result of these discussions, National Grid presented a paper to the 7th July 2011 GCRP and the following recommendations were approved:

2.3.1. That Generators should in the short term use the existing BM parameters of Minimum Zero Time (MZT) and/or Bid-Offer Prices to manage multiple Synchronisations and De-Synchronisations on any given day.

2.3.2. That the task, of whether a more robustly defined Two Shifting Limit parameter should be implemented within the Grid Code and the consideration of the necessary IS system changes to make this visible to the market, is added to the Terms of Reference for EBS, if it isn't already.

2.3.3. That National Grid should create a Grid Code Associated Document on Two Shifting Limits, setting out a definitive position on the existing treatment of the Two Shifting Limit parameter. For the avoidance of doubt this will be that the parameter will not be used by

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[3] Two Shifting Limiting is defined in the Glossary and Definitions, the Station Synchronising and De-Synchronising Intervals are referenced in OC2 Appendix 2 (OC2.A.2.2 and OC2.A.2.3) and 'last time to cancel sync' is referenced in BC1.4.2(f)(v).

National Grid, and that pending the outcome of the deliberations of the EBS group, Generators should not submit it under any assumption that it will be applied to Balancing Mechanism actions[4].

2.4. Following the approval of the above recommendations, the TSL issue was debated at the Electricity Balancing System Working Group (EBSG). However, the EBSG was unable to agree a solution because of the differing views of its members. As a result, the EBSG recommended to the GCRP that wider industry views should be sought via a written consultation.

2.5. In addition to consulting on the TSL issue, the EBSG decided to take the opportunity to also consult on formalising some other items of Other Relevant Data that are frequently used i.e. Station Synchronising Interval (SSI), Station De-Synchronising Interval (SDI) and 'last time to cancel sync'.

2.6. The purpose of this consultation, which is based on the discussions at the EBSG, is to seek industry views on formalising various items of Other Relevant Data and to establish a way forward as a result of comments received.

3   Two Shifting Limit

3.1. The current definition of Two Shifting Limit (TSL) in the Grid Code Glossary and Definitions is "The maximum number of times in any Operational Day that a Genset may De-Synchronise." The definition of an Operational Day is "The period from 0500 hours on one day to 0500 hours on the following day." The TSL is referenced in OC2 (OC2.A.2.10) i.e. for operational planning purposes, but is not referenced in the Balancing Codes which specify the Balancing Mechanism process.

3.2. The definition of all other Dynamic Parameters in BC1.A.1.5 uses the term BM Unit rather than Genset (a pre-NETA term), therefore an updated definition would use BM Unit. In addition, at the time the current definition was written, all such units would have operated in Synchronism with the System Frequency, whereas Non-Synchronous Generating Units are now commonplace and therefore it is no longer appropriate to use the term Synchronise to indicate the commencement of active power import or export, or De-Synchronise for the cessation of active power import or export. An updated definition of Two Shifting Limit could be as follows: "The maximum number of times in any Operational Day that a BM Unit's active power output may transition to zero".

3.3. The proposal that the EBSG seeks views on is that TSL, or a similar parameter, should become a formal parameter under BC2.5.3.1 A similar

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[4] The Grid Code Associated Document '**Two Shifting Limit July 2011'** can be found on
http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/associateddocs/

parameter might, for example, seek to limit transitions from zero rather than transitions to zero, or it might seek to apply the limit over different timescales. There is also the question of whether the parameter should apply only to those transitions to/from zero that result from Bid-Offer Acceptances, or to all transitions to/from zero. Any Bid-Offer Acceptances issued by National Grid would be consistent with this parameter, subject to the provisions of the Grid Code and in particular BC2.7.2 ('Consistency with Export and Import Limits, QPNs and Dynamic Parameters').

3.4. <u>Arguments for the proposal</u>

3.4.1. It is believed that technical limits that impact how and when a plant can respond to any National Grid instructions should be formally recognised and adhered to. It makes far more sense, in trying to run an economic and efficient system, for National Grid to be able to give instructions to BM Units that it knows they can technically deliver on, while encouraging plant to offer economic prices within their operational parameters.

3.4.2. It was argued that a formal TSL would allow Generators to signal to National Grid that once started the plant is extremely expensive and technically risky to restart. Generators should be able to notify National Grid of the ability of their unit to perform multiple starts, Synchronisations and/or De-Synchronisations. The creation of a firm TSL parameter does not alter the Generator's ability to signal that it does not wish to run, it simply alters the process from being a series of BM Unit parameter changes to becoming a fixed notification, under the Grid Code, if the Generator prefers that form of notification. It is key to understanding this issue to recognise that to some types of generation this is a real business risk and as such carries costs with it.

3.4.3. In practical terms the current arrangements mean; Units offer power into the Balancing Mechanism (BM) at a price with its technical parameters (a true reflection of how fast they can alter output, availability, etc.). If the plant is then called it can then give a longer notice to Minimum Zero Time. If National Grid then instructs it off, it then has to give extremely high offer prices, set its Maximum Export Limit (MEL) to zero or provide a longer Minimum Non-Zero Time (MNZT). The effect is that National Grid can lose plant margin during the day, as false availability signals are sent, or prices can become significantly higher, as plants use the BM data to signal operational issues to National Grid.

3.4.4. The reason prices rise is because many Units have limits on the number of starts between outages, for a mix of technical, safety and commercial reasons e.g. making it more expensive to undertake numerous additional starts, pull outages forward, or risk additional forced outages. Again this can have a knock on effect on plant

margin. Unless these Units are very careful not to get numerous starts, in a winter with significant peaking plant usage, those flexing Units will have to go on outages earlier than planned. If outages cannot be properly managed, as Generators try to spread outages over the year, clumping of outages will push up not only balancing costs, but forward power prices will also increase.

3.4.5. The ability to signal in advance to National Grid the limited flexibility in the plants, their prices will be lower and National Grid will have a clear idea of actual plant margin in any given day. This may mean they hold more plant part loaded in the middle of the day, but the overall cost will be lower. This would suggest that the increasing volumes of intermittent generation and the impact that has on the need for flexibility is going to require additional plant to be held on part loaded in any event.

3.4.6. It is recognised that it is possible to use the Dynamic Data under the Balancing and Settlement Code (BSC) to signal to National Grid the ability to operate within certain timescales. However, for a small company, with limited operational staff, the persistent altering of BM data, rather than being able to put in standing data, is onerous. It also likely that human error could occur and the penalties on the Generator if then issued with instructions it cannot deliver can be severe. By placing the Two Shifting Limits on a formal footing will reduce risks and costs for smaller players to the benefit of competition. New entrants would also find it easier to enter the market if managing the operational risks is made cheaper and easier.

3.4.7. The use of high offer prices to signal a desire not to run also runs the risk of regulatory investigations, with associated costs, as well as reputational risk. With the proposed Transmission Constraint Licence condition, the risks of being called at a high price only to find Generators were behind a constraint increase the regulatory risks.

3.4.8. Could consolidate resources.

3.4.9. Would reduce the risk of mistakes and omissions.

3.5. Arguments against the proposal

3.5.1. It is proposed that National Grid as System Operator should be obliged to recognise Two Shift Limit as a BM Unit parameter, being defined as the number of times the BM Unit may shut down in an Operational Day. Since this data would extend beyond the current Gate Closure period it would necessitate National Grid committing to balancing actions by accepting Bids and Offers for periods after the end of the Settlement Period for which Gate Closure has most recently occurred ("the wall"). Whilst this action may be favourable to the BM Unit concerned, it may adversely affect other BM Participants by:

3.5.2. Foreclosing the Balancing Mechanism to other, potentially cheaper, BM Units.

3.5.3. Increasing BSUoS costs for all BM Participants as a result of balancing actions being committed to irrespective of movements in System Buy or System Sell.

3.5.4. Reducing transparency and increasing complexity of the Balancing Mechanism.

3.5.5. It may be argued that, in most circumstances, the Generator is better placed than National Grid to manage compliance of its BM Units with Dynamic Parameters that extend beyond "the wall". From a Generator's perspective, relying on National Grid to ensure such compliance over a period significantly longer than the Gate Closure period would create a dependency that would be difficult to manage. In addition, it may introduce unnecessary conflicts between PN submissions and BOAs and also operational constraints. Data submissions currently provided for within Balancing Code 2 provide adequate means for the Generator to achieve the required outcome without introducing additional obligations on National Grid and adversely affecting other BM Participants.

3.5.6. This moves towards a central despatch function.

3.5.7. Some participants want to avoid start-ups. Start-up can easily be avoided by setting MEL to zero for the requisite period once the unit has shutdown. TSL concerns shutdowns and not start-ups.

3.5.8. Clarity as to why existing parameters such as Minimum Zero Time and Notice to Deviate from Zero are onerous.

3.5.9. There are reasons why the dynamic parameter set was reduced when NETA was introduced, and obligations on National Grid to honour dynamics when issuing instructions (Bid-Offer Acceptances) were relaxed. This proposal would be reversing these reasons.

3.5.10. The more parameters there are, and the more complex/conditional they become, the more opportunity there could be to use them to force otherwise uneconomic plant to run, or to influence or potentially distort market prices.

3.5.11. Shutting down a generating unit, like cutting off demand, is always possible, and in some cases necessary, whatever the preferred operation might be. Any dynamic parameter that tries to limit this is really a commercial parameter.

3.5.12. The more semi-commercial parameters there are, the more difficult it could be for National Grid to make truly economically efficient decisions, as feasible options may become reduced.

3.5.13. If participants can't shut down, National Grid must run everyone part-loaded (as far as individual minimum stable levels allow), cashout

prices become decoupled from the periods in which imbalances occur, with feedback to market prices. This may appear appealing and/or efficient, however in practice is not efficient.
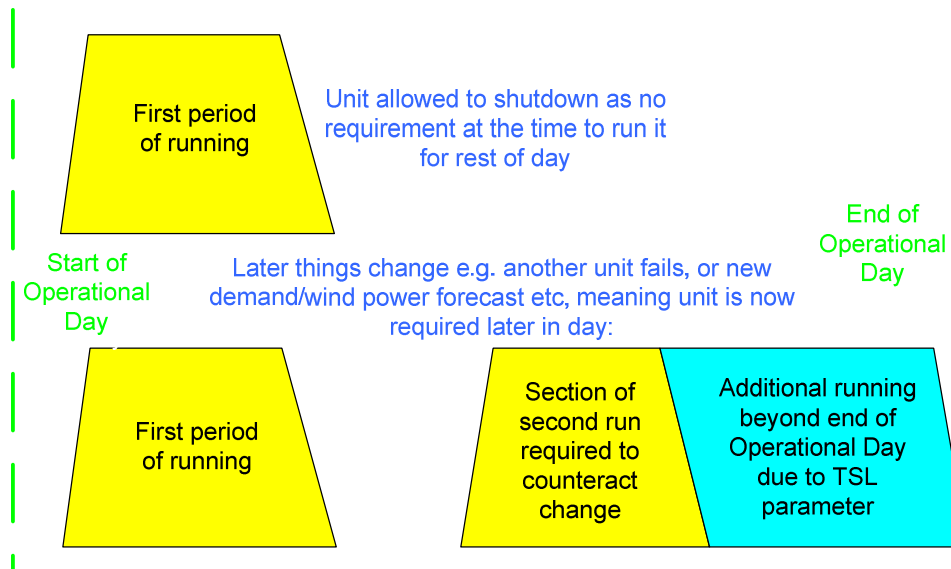
3.5.14. Inefficient despatch could have reputational implications and may lead to onerous regulatory action, as seen in the past. To achieve efficiency what is required is the price/cost for the individual actions that are required to meet imbalances.

National Grid Comments:

3.5.15. TSL, in the existing and proposed definitions, is not a real technical parameter – there is no rationale for a unit suddenly becoming capable of starting up or shutting down at the start of an Operational Day i.e. 05:00 hours, where it was unable to one minute before.

3.5.16. TSL seems to be a proxy for the cost of additional unit starts and for the number of starts allowed between unit maintenance outages. If one of the concerns is recovering the cost of additional starts, then it would be more efficient to address this directly e.g. with a start-up price, rather than indirectly with a parameter whose effect is to say "I won't start-up again at any price". National Grid is sympathetic to the issues that Generators have in managing the number of starts between multi-year maintenance outages. However, converting this multi-year limit into a daily one constrains the utilisation to the average. In practice the unconstrained utilisation would vary with a number of factors e.g. weather (for both customer demand and renewable generation), plant margin etc. It may be low for a period, high for another period and moderate for another. Having a daily limit would constrain the periods of high utilisation, even though the average utilisation was acceptable.

3.5.17. A TSL parameter would also lock National Grid into unit commitment decisions for up to a day, even though forecasts of renewable generation output would continue to be revised throughout the day and market participants would re-schedule and re-price their units during the day. Such a situation would make it difficult to ensure secure, economic and efficient operation. It may have been acceptable to have a TSL under the Pool Arrangements, when key data was fixed a day in advance for the whole Operational Day, but not under NETA with a Balancing Mechanism window of one hour and significant volumes of renewable generation. This diagram illustrates a sequence of events that could arise with a TSL parameter – in this case it is set to one i.e. one shutdown allowed in an Operational Day:

First period
of running

Unit allowed to shutdown as no
requirement at the time to run it
for rest of day

End of
Operational
Day

Start of
Operational
Day

Later things change e.g. another unit fails, or new
demand/wind power forecast etc, meaning unit is now
required later in day:

First period
of running

Section of
second run
required to
counteract
change

Additional running
beyond end of
Operational Day
due to TSL
parameter

3.6. Consultation Questions

Q1. Are you in favour of adopting a parameter similar to Two Shifting Limit as a Dynamic Parameter under paragraph BC2.5.3.1 of the Grid Code? Please tell us the reasons for your response.

Q2. Do you have any views on whether, if adopted, Two Shifting Limit should limit transitions **from** zero (Synchronisations) or transitions **to** zero (De-Synchronisations)? Please tell us the reasons for your response.

Q3. If Two Shifting Limit was adopted, do you have any views on the timescales over which it should apply e.g. Operational Day, week, year etc? Please tell us the reasons for your response.

Q4. If adopted, should Two Shifting Limit apply to only those transitions to/from zero that result from Bid-Offer Acceptances, or to all transitions to/from zero i.e. including those as a result of submitted Physical Notifications and Maximum Import and Export Limits? Please tell us the reasons for your response.

Q5. In the interim period (prior to any formal Code changes), should National Grid to take into account the Two Shift Limit when issuing Bid-Offer Acceptances? Please tell us the reason for your response.

4   Station Synchronising and De-Synchronising Intervals

4.1. Similar to TSL, Station Synchronising Interval (SSI) and Station De-Synchronising Interval (SDI) were formal parameters under the Electricity Pool arrangements that were superseded by NETA in 2001. Under NETA, values of SSI or SDI can be submitted as Other Relevant Data under BC1.4.2(f)(v) "which NGET **may** take account of". Following the introduction of NETA, the vast majority of multi-BMU Power Stations continued to submit values of SSI and SDI to National Grid, and National Grid complies with this data when issuing Bid-Offer Acceptances.

4.2. However, unlike TSL, there are no longer definitions of SSI and SDI in the Grid Code Glossary and Definitions. There are definitions in OC2 Appendix 2, but these seem problematic as they refer to Synchronising Group, which is not a formal parameter in the Balancing Codes, and to them being fixed values whereas Dynamic Parameters by definition are not fixed. Proposed definitions, using the concept of Power Station instead of Synchronising Group and transition to/from zero to cover the characteristics of Non-Synchronous Generating Units, are as follows:

4.2.1. Station De-Synchronising Interval, expressed in minutes, being the minimum time between BM Units at a Power Station transitioning to operate at zero.

4.2.2. Station Synchronising Interval, expressed in minutes, being the minimum time between BM Units at a Power Station transitioning from operation at zero.

4.3. The proposal that EBSG seeks views on is that SSI and SDI should become formal parameters under BC2.5.3.1. Any Bid-Offer Acceptances issued by National Grid would be consistent with these parameters, subject to the provisions of the Grid Code and in particular BC2.7.2.

4.4. There is also the supplementary question of whether there should be an upper limit on the values of SSI and SDI.

4.5. **Arguments for the proposal**

4.5.1. From an operational viewpoint SSIs and SDIs allow the Power Station to inform National Grid of the required interval between starts of successive individual generating units within a Power Station, or shutdowns of individual generating units.

4.5.2. The reasons why compliance with these parameters by National Grid is of benefit to a Power Station are varied. For instance, CCGT plants have environmental limitations imposed by the Environment Agency which must be complied with; these stop more than one Gas Turbine operating in a mode of operation at any one time (modes which are passed through during start-up and shutdown). There may be similar constraints on Coal and Oil Plant.

4.5.3. Formalising and reporting these parameters and requiring National Grid to adhere to submitted SSI and SDI when issuing instructions would accurately reflect the limitation of the Power Station, and provide transparency to the market.

National Grid Comment:

4.5.4. National Grid routinely complies with the SSI and SDI parameters submitted as Other Relevant Data and expects to continue to do so. Formalising these parameters would provide certainty to Generators and National Grid as to the circumstances in which these parameters would be complied with. It would define the data that can be

submitted, which would support its use in optimisation algorithms to make non-discriminatory unit commitment decisions and would also allow this data to be published as market information.

4.6. <u>Arguments against the proposal</u>

    4.6.1. It would be extremely difficult to define SSI and SDI in the Grid Code for committed treatment in the BM. This data should continue to be submitted under Other Relevant Data (BC1.4.2(f)) and treated by National Grid under the provisions of BC2.7.2 (b) and using reasonable endeavours. In any event, the intervals and times specified in this data should not exceed 90 minutes (i.e. maximum extent of the Balancing Mechanism Window).

4.7. <u>Consultation Questions</u>

Q6. Are you in favour of formalising the Station Synchronising Interval and Station De-Synchronising Interval parameters under paragraph BC2.5.3.1 of the Grid Code? Please tell us the reasons for your response.

Q7. Do you have any comments on the proposed definitions for Station Synchronising Interval and Station De-Synchronising Interval as stated in sections 4.2.1 and 4.2.2 of this consultation?

Q8. Do you have any views on whether there should be an upper limit on the values of Station Synchronising Interval and Station De-Synchronising Interval and what that upper limit should be?

5   Last Time to Cancel Sync

5.1. Generating Units generally have a point of no-return in their start-up procedure beyond which the start may not be cancelled e.g. when steam has been applied to the turbine. BC1.4.2(f)(v) refers to a "minimum notice required to cancel a Synchronisation", but other than that, this parameter is not referred to in the Grid Code. Like SSI and SDI, "minimum notice required to cancel a Synchronisation" may be submitted as Other Relevant Data "which NGET may take account of". As with SSI and SDI, the majority of Power Stations submit this data to National Grid and National Grid complies with these values when issuing Bid-Offer Acceptances.

5.2. As well as the question of whether this parameter should become a formal parameter, there is also a long standing question of its applicability. There is broad agreement that it is the minimum notice that National Grid is required to give to cancel or delay a Synchronisation indicated by a Physical Notification transitioning from zero. However, there is also the question of the appropriate parameter to be used when the PN is not zero, but the BM Unit has been operating at zero as a result of being issued Bid-Offer Acceptances, and the intention is to Re-Synchronise the BM Unit at some point. Notice to Deviate from Zero (NDZ) is not applicable as it

only applies when the Physical Notification is zero. In practice, National Grid uses this Last Time to Cancel Sync parameter for this scenario, but there is no universal agreement on this. The specific use of the parameter in this scenario is as follows:
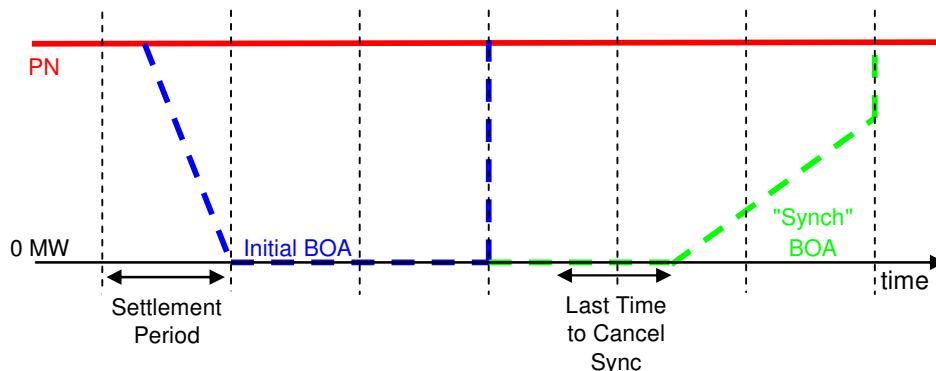
5.2.1. Take the Physical Notification profile, modify it by any Bid-Offer Acceptances issued, and cap it by Maximum Import or Export Limit and identify when the resultant moves from zero.

5.2.2. If this move from zero is nearer than the Last Time to Cancel Sync and the Minimum Zero Time (MZT) parameter has been satisfied, then the move away from zero is the firm Synchronisation time of the BM Unit, and no further Bid-Offer Acceptances may be issued to delay it.

5.2.3. Conversely, if the move from zero is further away than the 'Last Time to Cancel Sync', then further Bid-Offer Acceptances can be issued to delay the Synchronisation.

5.3. An associated question is what the maximum value of this parameter should be, given that the maximum extent of the Balancing Mechanism is 89 minutes and Bid-Offer Acceptances cannot be issued any further ahead than this. In particular, can a BM Unit be two-shifted if its Last Time to Cancel Sync parameter is greater than 89 minutes?

5.4. The proposal that EBSG seeks views on is whether the parameter 'Last Time to Cancel Sync' should become a formal parameter under BC2.5.3.1 ('Revisions to BM Unit Data'). Any Bid-Offer Acceptances issued by National Grid would be consistent with this parameter, subject to the provisions of the Grid Code and in particular BC2.7.2 ('Consistency with Export and Import Limits, QPNs and Dynamic Parameters')..

5.5. The proposed definition of the Last Time to Cancel Sync parameter is: expressed in minutes, being the notification time required to cancel or delay the Synchronisation of a BM Unit which is measured from the notification time to the time of the transition from zero of the Physical Notification of the BM Unit, modified by any prior Bid-Offer Acceptances and capped by the Maximum Import or Export Limit as applicable. Up to

three values of this parameter may be submitted, each being applicable for a specified range of values of Notice to Deviate from Zero.

5.6. Arguments for the proposal

5.6.1. BM Units have a 'no turning back' point, at which time they are committed to Synchronising the plant and at which shutting it down could increase the risk of damage. This may be due to the Gas or Steam Turbine being accelerated to nominal speed ready to Synchronise, or burners/mills/reactors put in service in order to raise boiler pressures.

5.6.2. Being able to specify a point in time when National Grid cannot change its mind is important in terms of plant integrity (wear and tear from starting up plant) and also to ensure that fuel costs incurred from Coal/Gas/Water/Fuel Rods use are recovered and reflected in the Balancing Mechanism.

National Grid Comment:

5.6.3. National Grid routinely complies with the Last Time to Cancel Sync parameter submitted as Other Relevant Data and expects to continue to do so. Formalising this parameter would provide certainty to Generators and National Grid as to the circumstances in which this parameter would be complied with and would allow this data to be published as market information.

5.7. Arguments against the proposal

5.7.1. There were no significant arguments against this proposal.

5.8. Consultation Questions

Q9. Are you in favour of formalising the Last Time to Cancel Sync parameter under paragraph BC2.5.3.1 of the Grid Code? Please tell us the reasons behind your response.

Q10. Do you have any comments on the proposed definition for Last Time to Cancel Sync as stated in section 5.5 of this consultation?

Q11. Do you have any views on whether there should be an upper limit on the value of Last Time to Cancel Sync and what that upper limit should be?

Q12. Do you think that the Last Time to Cancel Sync parameter should be used to manage the notice required to re-synchronise a BM Unit which has a non-zero PN, but has been issued Bid-Offer Acceptances to keep it off? Please tell us the reasons for your answer and any alternative approaches that occur to you.

Q13. Are there any other parameters that should be formalised in addition to those already covered by this consultation? Please tell us the reason for your response.

6 Impacts & Assessment

6.1. Impact on National Electricity Transmission System (NETS)

    6.1.1. The proposals, whether adopted or rejected, will provide greater clarity and certainty around the treatment of the parameters concerned, ultimately preventing disputes arising between the parties.

6.2. Impact on Grid Code Users

    6.2.1. These proposals, whether adopted or rejected, will provide clarity and certainty to the Grid Code community around the treatment of the parameters concerned compared with their current status as Other Relevant Data that National Grid <u>may</u> take account of.

6.3. Impact on Greenhouse Gas emissions

    6.3.1. These proposals are unlikely to have any significant impact on Greenhouse Gas emissions.

6.4. Impact on Industry Documents

    6.4.1. Impact on core industry documents

These proposals will require modifications to the Grid Code, but no other core industry documents.

    6.4.2. Impact on other industry documents

These proposals may also impact Grid Code Associated Documents such as the Data Validation, Consistency & Defaulting Rules and the BMRA & SAA Interface Specification.

7 Responses

7.1. This section will contain a summary of responses received during the Industry Consultation and will be completed as part of the Report to the Authority.

7.2. The consultation questions are summarised at the end of this section.

7.3. Views are invited upon the proposals outlined in this consultation document, which should be received **by Tuesday 24th April 2012**.

7.4. Your formal responses may be:-

Posted to: Nick Sargent
                 Electricity Codes
                 Regulatory Frameworks
                 National Grid Electricity Transmission plc
                 National Grid House
                 Warwick Technology Park
                 Gallows Hill
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Summary of Consultation Questions

Q1. Are you in favour of adopting a parameter similar to Two Shifting Limit as a Dynamic Parameter under paragraph BC2.5.3.1 of the Grid Code? Please tell us the reasons for your response.

Q2. Do you have any views on whether, if adopted, Two Shifting Limit should limit transitions **from** zero (Synchronisations) or transitions **to** zero (De-Synchronisations)? Please tell us the reasons for your response.

Q3. If Two Shifting Limit was adopted, do you have any views on the timescales over which it should apply e.g. Operational Day, week, year etc? Please tell us the reasons for your response.

Q4. If adopted, should Two Shifting Limit apply to only those transitions to/from zero that result from Bid-Offer Acceptances, or to all transitions to/from zero i.e. including those as a result of submitted Physical Notifications and Maximum Import and Export Limits? Please tell us the reasons for your response.

Q5. In the interim period (prior to any formal Code changes), should National Grid to take into account the Two Shift Limit when issuing Bid-Offer Acceptances? Please tell us the reason for your response.

Q6. Are you in favour of formalising the Station Synchronising Interval and Station De-Synchronising Interval parameters under paragraph BC2.5.3.1 of the Grid Code? Please tell us the reasons for your response.

Q7. Do you have any comments on the proposed definitions for Station Synchronising Interval and Station De-Synchronising Interval as stated in sections 4.2.1 and 4.2.2 of this consultation?

Q8. Do you have any views on whether there should be an upper limit on the values of Station Synchronising Interval and Station De-Synchronising Interval and what that upper limit should be?

Q9. Are you in favour of formalising the Last Time to Cancel Sync parameter under paragraph BC2.5.3.1 of the Grid Code? Please tell us the reasons behind your response.

Q10. Do you have any comments on the proposed definition for Last Time to Cancel Sync as stated in section 5.5 of this consultation?

Q11. Do you have any views on whether there should be an upper limit on the value of Last Time to Cancel Sync and what that upper limit should be?

Q12. Do you think that the Last Time to Cancel Sync parameter should be used to manage the notice required to re-synchronise a BM Unit which has a non-zero PN, but has been issued Bid-Offer Acceptances to keep it off? Please tell us the reasons for your answer and any alternative approaches that occur to you.

Q13. Are there any other parameters that should be formalised in addition to those already covered by this consultation? Please tell us the reason for your response.

Q14. Are there any other comments you would like to make?