

Change proposal:	Grid Code 0044: Grid Code changes resulting from BSC modification P276		
Decision:	The Authority ¹ directs that the proposed changes to the Grid Code ² be made		
Target audience:	National Grid Electricity Transmission PLC (NGET), Grid Code users and other interested parties		
Date of publication:	19 July 2013	Implementation Date:	31 March 2014

Background to the change proposal

The Grid Code³ defines the circumstances under which a Partial or Total Shutdown⁴ of the electricity transmission system can be declared. There are two main methods for recovering the transmission system following the loss of electricity supply in a particular part of the network. The first is called a "Black Start"⁴. This involves the use of power plants which are able to operate without an external electricity supply to re-energise their local network and eventually power up other neighbouring plants. This process has not been used since the new electricity trading arrangements (NETA)⁵ were introduced in 2001. The second method, which is more commonly applied, is the use of other operational parts of the system to re-energise the affected part of the network. The electricity market is not automatically suspended if the latter mechanism is used.

The suspension of the electricity market under Black Start involves the suspension of the Balancing Mechanism (BM) and all contractual and credit positions, the application of an administrative Single Imbalance Price,⁶ and the central despatch of all generators by NGET. Using Black Start would therefore represent a significant level of disruption to market arrangements. Previous industry discussions under the governance of the Balancing and Settlement Code (BSC) (Standing Modification Group Issues 32⁷ and 42⁸ and Modification Proposals P231⁹ and P232¹⁰) noted that this level of disruption could be a disproportionate response if a Black Start was only required for a small, localised blackout. The Standing Modification Group for Issue 42 agreed that this represented a defect in the BSC. It was also noted that the BSC rules at that time had the potential to make NGET control room engineers reluctant to undertake a Black Start, even if it was the most efficient method of re-starting the system following a small shutdown, in order to avoid wider market disruption.

¹ The terms 'the Authority', 'Ofgem' and 'we' are used interchangeably in this document. Ofgem is the Office of the Gas and Electricity Markets Authority.

² This document is notice of the reasons for this decision as required by section 49A of the Electricity Act 1989.

³ The Grid Code represents the technical specifications and operational procedures required to efficiently and economically develop, maintain and run the transmission system.

⁴ As defined in the Grid Code: http://www.nationalgrid.com/NR/rdonlyres/5DFDEFEB-DDBC-4381-8DE5-4B2087AC6AC8/59910/04_GLOSSARY_DEFINITIONS_I5R3.pdf

⁵ When it was introduced in 2001, NETA applied to England and Wales. In 2005, the British Electricity Trading and Transmission Arrangements (BETTA) extended NETA to apply to GB.

⁶ Based on an average of the Imbalance Prices over the last 30 days, as set out in the BSC.

⁷ See: <http://www.elexon.co.uk/smg-issue/issue-32-black-start/>

⁸ See: <http://www.elexon.co.uk/smg-issue/issue-42-black-start-generator-defining-a-local-shutdown/>

⁹ See: <http://www.elexon.co.uk/mod-proposal/p231-black-start-and-fuel-security-code-procedures-under-the-balancing-and-settlement-code-bsc/>

¹⁰ See: <http://www.elexon.co.uk/mod-proposal/p232-black-start-and-fuel-security-compensation-and-single-imbalance-price-derivation/>

In July 2012, the Authority approved Balancing Settlement Code (BSC) modification P276 'Introduce an additional trigger/threshold for suspending the market in the event of Partial Shutdown'. Modification P276 introduced a minimum threshold trigger in which the BM is suspended under a Partial Shutdown. This trigger, defined in the BSC as the "Market Suspension Threshold", applies when:

- The shutdown has caused a drop in demand of more than 5% of the National Demand Forecast; or
- NGET is unable to accurately determine the decline in demand; or
- 72 hours have passed since the start of the Partial Shutdown.

The Grid Code does not reflect the changes introduced by P276. This will lead to inconsistencies in the Black Start provisions set out in the two codes from 31 March 2014, when the changes to implement P276 are to take effect in the BSC.

The change proposal

GC0044 was raised by NGET to ensure consistency between the Grid Code and the BSC in light of the changes introduced by P276.

GC0044 would make the following changes to the Grid Code:

- Amend the Code Glossary and Definitions (GD) to add definitions for "Baseline Forecast" and "Market Suspension Threshold". The definitions of both terms cross-refer to section G of the BSC;
- In Section BC, amend 2.9.2.2 paragraphs (ii), (iii) and add (iv) in order to specify that under a Black Start situation, with or without suspension of the BM, any NGET's instructions should be deemed to be Emergency Instructions, and do not need to be prefixed with the words "This is an Emergency Instruction"; and
- Amend OC9 to include separate references to Black Start situations where the BM is suspended and where the BM is not suspended. The proposed change also sets out that, under Partial Shutdown situations, the BM will only be suspended if the "Market Suspension Threshold" is met.

NGET consulted with industry on the proposed changes. Two industry participants responded to the consultation and both supported the changes. Elexon (the BSCCo) in particular noted that the proposed Grid Code changes would be consistent with the P276 legal text.

It is proposed that GC0044 would be implemented on 31 March 2014. This is consistent with the implementation date for P276.

NGET's recommendation

NGET submitted its Report to the Authority on 19 June 2013. NGET's report supports the implementation of the change proposal on the basis that it better facilitates the Grid Code Objectives (i), (ii) and (iii) and ensures the Grid Code also delivers the P276 solution.

The Authority's decision

We have considered the changes to the Grid Code proposed by NGET and the report to the Authority submitted on 19 June 2013. We have considered and taken into account the responses to NGET's consultation on the change proposal which are included in NGET's report to the Authority.¹¹ We have concluded that:

1. implementation of the change proposal will better facilitate the achievement of the objectives of the Grid Code¹²; and
2. approving the change is consistent with the Authority's principal objective and statutory duties¹³.

Reasons for the Authority's decision

We agree that GC0044 would better facilitate Grid Code objectives (i), (ii) and (iii) for the reasons set out below. We consider that there is no impact on objective (iv).

Objective (i) 'To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity'

Aligning the BSC and the Grid Code is necessary to keep the Black Start provisions consistent following the implementation of the changes under P276 on 31 March 2014.

By reflecting in the Grid Code the BSC materiality threshold for the suspension of the BM (the "Market Suspension Threshold"), the change proposal would allow the System Operator to use one of the balancing tools available to it in the event of a Partial Shutdown when it is economical and efficient to do so, without being constrained by concerns about triggering market suspension.

For these reasons, GC0044 would better facilitate this objective.

Objective (ii) 'To facilitate competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity)'

We agree that the proposed change will better facilitate this objective by ensuring that those BSC parties not directly involved in the Partial Shutdown are not unnecessarily exposed to uneconomic market disruption. In situations where the market is suspended, the SO has to centrally despatch generators, without live bids and offers in the BM. Keeping the BM open when possible allows BM participants to compete to supply the market at the best price, allowing the most efficient plant to be despatched via the live merit order.

Objective (iii) 'Subject to the objectives above, to promote security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole'

¹¹ Grid Code proposals, final reports and representations can be viewed on NGET's website at: <http://www.nationalgrid.com/uk/Electricity/Codes/gridcode/consultationpapers/>

¹² As set out in Standard Condition C14(1)(b) of NGET's Transmission Licence, see: http://epr.ofgem.gov.uk/document_fetch.php?documentid=14343

¹³ The Authority's statutory duties are wider than matters which NGET must take into consideration and are detailed mainly in the Electricity Act 1989 as amended.

This objective is facilitated by ensuring that market suspension is avoided. Market suspension would require NGET to undertake central despatch of all generators on the system, affecting not only the localised area where the Partial Shutdown has occurred. By avoiding market suspension, those generators not directly affected by the Partial Shutdown to continue to operate and compete with each other, ensuring the security of that area in an efficient and economic manner.

Decision notice

In accordance with Standard Condition C14 of NGET's Transmission Licence, the Authority hereby directs that change proposal Grid Code 0044: "*Grid Code changes resulting from BSC modification P276*" be made. The implementation date for these changes to take effect is 31 March 2014 to align with the changes to the BSC made by Modification P276.

Emma Kelso

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Signed on behalf of the Authority and authorised for that purpose