

## **Black Start**

(Paper by NGET to GCRP)

### **Introduction**

This paper is presented to the Grid Code review panel to present the necessary changes required to OC9.4 to bring Grid Code in line with the Balancing and Settlement Code (BSC) as a result of modification P231.

### **Modification P231 and subsequent changes**

The aim of Modification Proposal P231 was to improve transparency of the arrangements and obligations associated with a Black Start or Fuel Security Code (FSC) event held within the BSC.

P231 was raised by National Grid and the solution was based on the discussion from Issues 32 'Black Start' and 33 'Fuel Security Code'. As a result of introducing P231, the BSC now provides clearer processes for the industry to follow in the event of a Black start or FSC direction.

### **What is a Black Start**

A 'Black Start' is a recovery process for restoring electricity on the Transmission System. Power stations need electricity from the Transmission System to start up and maintain their generators. If the Transmission System collapses, power stations would be unable to keep their generators running and as a result power stations would stop producing electricity.

Certain power stations have contracts with the System Operator (National Grid) where they will be able to initiate a Black Start if the Transmission System collapses. These power stations do not require an external source of energy to produce electricity. In most instances, such power stations would use diesel generators (or aero engines) to start larger generators and start generating in small 'pockets' throughout the country. In turn these 'pockets' are gradually connected to each other until the Transmission System is fully energised.

### **What is a Fuel Security Code**

A FSC event occurs when the Secretary of State exercises his powers under Section 34 and 35 of the Electricity Act 1989, to direct power stations or Transmission Licenses (National Grid) to operate in specific ways (for example a power station could generate more or less energy in order to balance the electricity grid). A FSC 'direction' can be issued to one or multiple participants and a single FSC direction or several distinct FSC directions can be issued over the course of an event.

Unless specified by the Department for Energy and Climate Change (DECC), information regarding a security period will be declared by National Grid to all impacted parties e.g. Generators, Distributors and other stakeholders in accordance with the Fuel Security Code.

**Grid Code changes**

As a result of the changes made to the BSC when P231 was approved by Ofgem, some subsequent changes are required to the Grid Code. Appendix 4 of P231 Assessment Report flagged up these specific changes to bring Grid Code in line with the P231 solution, these are as follows:

- OC9.4.6 states that “in accordance with the provisions of the BSC, the BSCCo may determine the time with effect from which the Balancing Mechanism is suspended”. This is no longer correct, as P231 gave the Transmission Company responsibility for making this decision. Insert or amend current wording to ensure it shall be the responsibility of the Transmission Company to make a declaration of the start of a Total/ Partial shutdown.
- Possible new Grid Code requirement on National Grid to inform BSCCo when the Transmission System is energised
- Insert a new Grid Code requirement on National Grid to notify BSCCo “that the events which gave rise to the Black Start no longer exist and the market is capable of operating normally”.
- Insert a new Grid Code requirement on Parties to use reasonable endeavours to submit Physical Notifications ten hours prior to the end of the Black Start Period in preparation for normal operations

**Recommendation**

The GCRP is invited to agree that the changes discussed are required in order to bring the Grid Code in line with the BSC in relation to modification P231. National Grid will then raise a consultation paper on these proposals.