

P231: Black Start and Fuel Security Code Procedures under the BSC

Areas which involve the restoration of the Transmission System fall under the Grid Code and not the BSC. These have been included for completeness.

1.1 Overview of the Proposed Modification During a Black Start Recovery

The process to recover from a Transmission System shutdown is explained with reference to the 'Black Start Recovery' Diagram and accompanying explanations below.

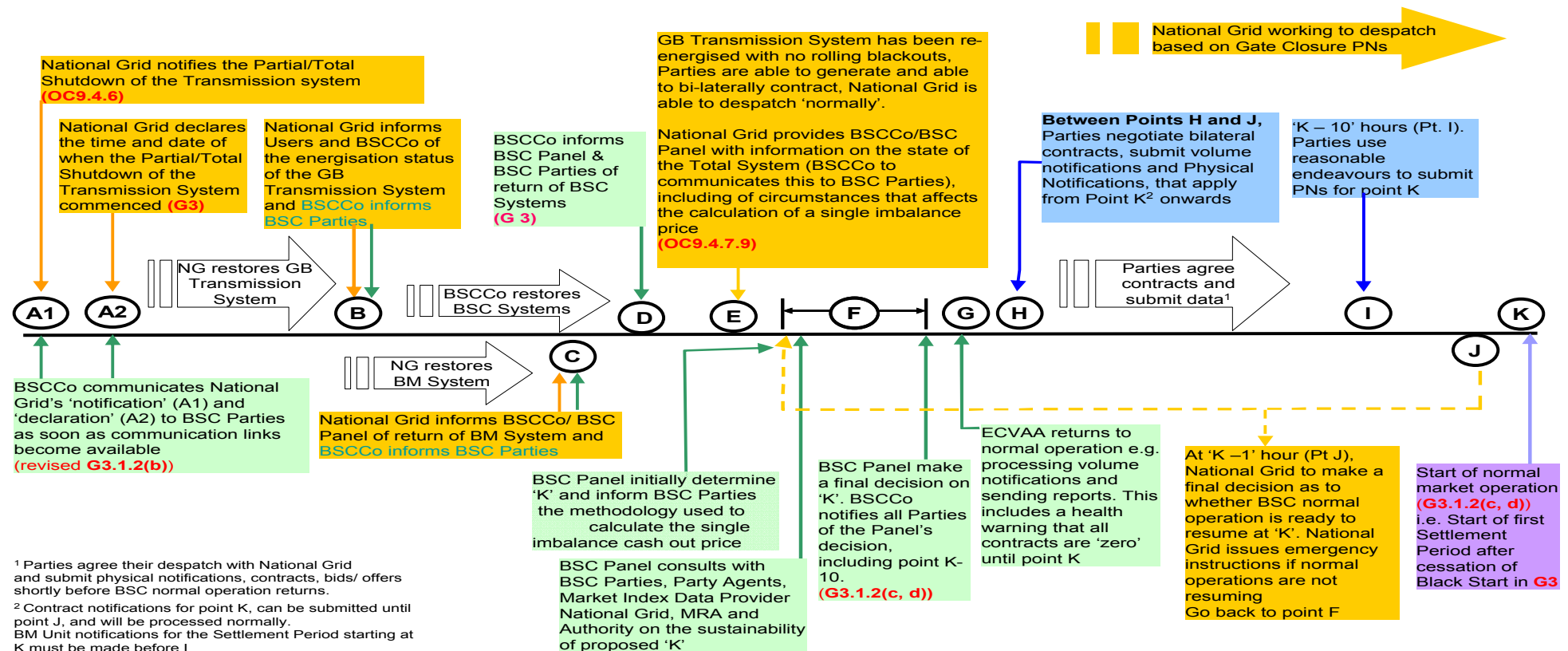
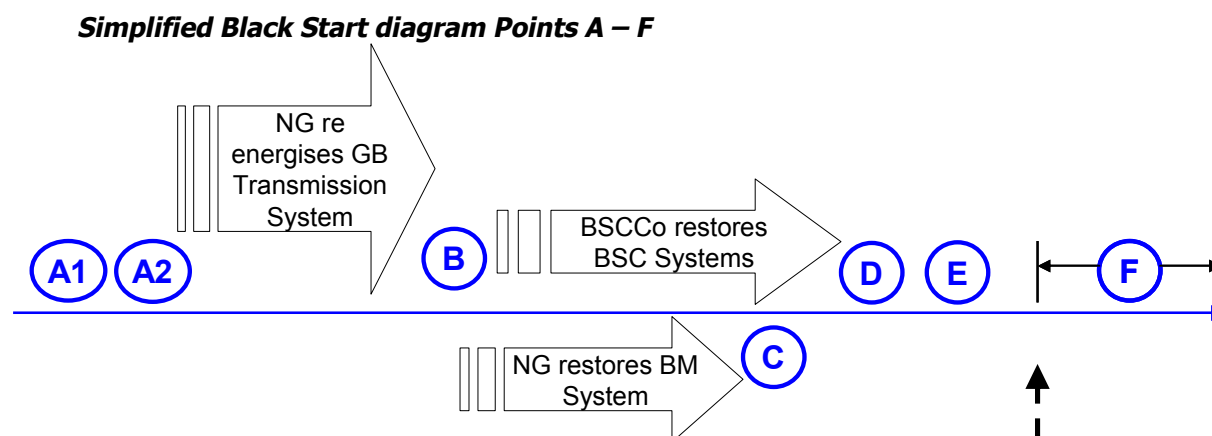


Figure 1: Black Start Recovery Diagram where: **orange boxes** are **National Grid** obligations/inputs, **Green boxes** are **BSCCo / BSC Panel** obligations/inputs and **Blue boxes** are **BSC Party** obligations/ inputs. The **purple box** denotes the **start of normal BSC market operations**.

1.2 Black Start Recovery Diagram Notes.

This note should be used alongside the Black Start Transition Diagram. A simplified Transition Diagram has been included below:



POINT A1 – Existence of a Black Start Period

- National Grid will contact power stations with the ability to 'Black Start', to begin the restoration of the Transmission System. This is not an instruction from National Grid, but rather part of general communication between National Grid and 'Black Start capable' power stations.
- National Grid will work towards restoring the GB Transmission System (period A1 to B).
- National Grid will inform BSCCo that a Total/Partial Shutdown is in existence and that the market has entered a Black Start Period (National Grid will subsequently inform BSCCo, in its reasonable opinion, of the time and date of the Shutdown, known as Point A2).
- After receipt of National Grid's notification, BSCCo will communicate this to all BSC Parties and BSC Agents as soon as normal communication channels¹ become available.

¹ This is likely to be via email, ELEXON Circular or the posting of information on the BMRS website. Normal communication between BSCCo and the industry might be difficult at the start of the Black Start Period as the 'electricity grid' will begin to be re-energised and any available communication channels could suffer from congestion/unavailability. Therefore ELEXON may only be able to communicate the commencement of the Black Start Period once the electricity grid is totally/ almost re-energised.

- Where data is not available Settlement Runs will be delayed in accordance with Sections T1.4.2 and T1.4.5 of the BSC. The corresponding Payment Runs will also be delayed in accordance with Section N.6.6 of the BSC.

POINT A2 – National Grid declaration of time and date

- Based on their investigations, National Grid will declare the indicative start time and day of the Total/Partial Shutdown to users of the Grid Code and BSCCo.
- After receipt of National Grid's declaration, BSCCo will communicate this declaration as the start of the Black Start Period to all BSC Parties and BSC Agents.

POINT B – Energisation of the Transmission System

- When the GB Transmission System is energised, National Grid will inform BSCCo.
- BSCCo will pass this information on to BSC Parties, via normal communication channels, with the caveat that the market is still suspended and individuals may not have power, hampering their ability to receive those communications.

POINT C² (B to C) – Restoration of National Grid's BM system

- National Grid will work to restore its BM systems, which are capable of communications with Grid Code users. Grid Code users and BSCCo will be informed when the systems have been restored and are therefore available and capable of operation.
- BSCCo will pass this information onto BSC Parties.

POINT D² (B to D) – Restoration of BSC Systems

- BSCCo will work with BSC Agents to restore the BSC systems. When the BSC systems are restored, BSCCo will inform the BSC Panel and BSC Parties that the BSC systems are available and capable of operating.

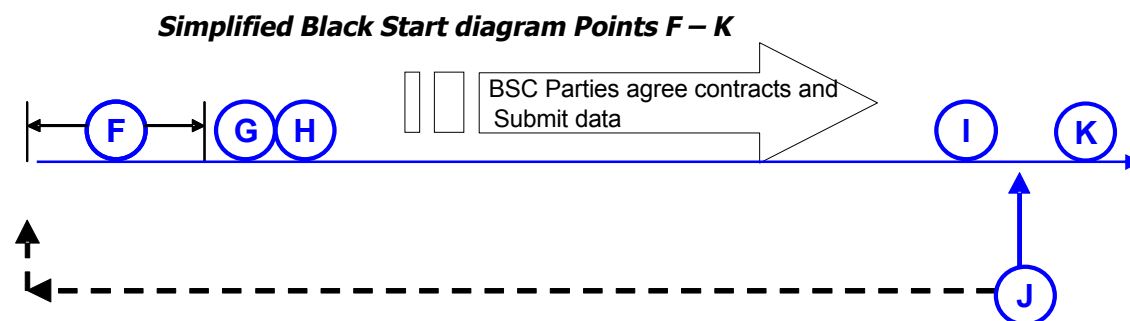
POINT E – Stabilisation of the Transmission System

- At this point, the GB Transmission System has been re-energised with no rolling black outs. Generators are able to generate sufficient electricity to meet demand and are under instructions of National Grid.
- National Grid will inform BSCCo and Grid Code users that, to the best of its knowledge, the events which gave rise to the Black Start no longer exist and the market is capable of operating normally. BSCCo will convey the information contained in these updates to the BSC Panel and BSC Parties via normal communication channels.

² Note: Points C and D may occur before or after point E.

POINT F – Panel determination of the return to normal operations

- At the start of Point F, the BSC Panel will determine a proposed time and date for normal BSC market operations to resume. This is 'Point K' on the diagram.
- The BSC Panel will consult with BSC Parties, Party Agents, Market Index Data Provider, National Grid, Meter Registration Agent (MRA) and the Authority on the proposed timetable for the resumption of normal BSC market operations.
- Following feedback received during the consultation, the BSC Panel will make a final decision on when normal market operations resume (Point K), subject to National Grid's 'Go-Live' confirmation.
- BSCCo will inform all BSC Parties of time of return to normal operation under the BSC (Point K).

**POINT G: ECVAA returns to normal operations**

- The ECVAA will return to normal operations. Therefore Volume Notifications submitted by Parties will be processed and reports issued to Parties. This will include the forward contract report (ECVAA-I022) which is issued daily to each Contract Trading Party summarising notifications received relating to that Contract Trading Party for the next seven days. This will therefore show Parties their contract position following point K at K – 7 days. A health warning will be placed on the BMRS to remind Parties that all contract positions are zero until normal market operations resume (at Point K).

POINTS H - J: Submission of Party Data to National Grid and BSC Systems (Bids and Offers, Volume Notifications and Physical Notifications)

- It is expected that BSC Parties will begin negotiating bilateral contracts.

- Between Points H and J (K-1hr) Parties can submit Volume Notifications and Bid/ Offer data in relation to the first and subsequent Settlement Periods after Point K.
- Between Points H and I (K-10 hrs) Parties should submit Physical Notifications to reflect their required physical position at Point K.

POINT I: 10 hours to Point K

- This point is 10 hours before normal market operations resume. Parties should use reasonable endeavours to submit Physical Notifications for 'Point K', the restoration of normal BSC market operations. National Grid will then despatch plant to enable Parties to meet their required physical position at Point K. If a Party submits a revised Physical Notification after Point I, it may not be possible for National Grid to despatch the plant in order for the Party to meet this revised position.
- For subsequent Settlement Periods following the start of the normal market operation, the Parties should submit BMU data in accordance with BC1 of the Grid Code.

POINT J: Gate Closure for Point K and Final Decision

- National Grid will make a final decision as to whether it believes it is permissible to allow normal BSC operation to resume at 'Point K'.
- If National Grid do not believe it is permissible to restart normal market operations, it will need to submit a set of Emergency Instructions to every BM Unit informing them that BSC 'normal' operation will no longer be re-starting as envisaged, at 'Point K'. In this instance, the Black Start process moves back to 'Point F'. The Panel will propose a new start date and time for normal BSC market operations to resume.

POINT K: End of the Black Start/ restoration of normal market operations

- This is the point at which normal BSC market operations resume.
- At this point, Black Start provisions (Section G) no longer apply. The Balancing Mechanism and all BSC systems are operating normally.
- No specific rules are required for any subsequent Settlement Periods after 'Point K', e.g. Parties can submit revised Physical Notifications up to Gate Closure.

1.3 Duration and Communication of a FSC Event

In a FSC event, the Secretary of State issues FSC directions to Generators, who can claim exceptional costs. With this in mind, the BSC states that the FSC provisions supersede that of the BSC, and **a Party will not be in breach** of the BSC for following a FSC direction.

Generally (but not always), the Secretary of State issues instructions via National Grid, who informs the relevant Party. However, there is no means for BSCCo to be aware of FSC directions as the Secretary of State does not provide information on FSC directions to BSCCo.

To avoid a Party being placed in default if they have defaulted as a direct consequence of a FSC direction, the Party must notify BSCCo. BSCCo will not be liable for actions relating to any incomplete information.

Additionally National Grid will use its discretion to inform BSCCo that a FSC direction has been issued to a BSC Party.

1.4 Black Start Recovery Procedures

1.4.1 Transmission Company declaration of a shutdown (Points A – B on the Black Start Recovery Diagram)

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.4.1.1	When a Total/Partial Shutdown of the Transmission System occurs.	Inform BSCCo	Transmission Company	BSCCo		Electronic or other method as agreed
1.4.1.2	Following 1.4.1.1	Use reasonable endeavours to communicate National Grid's notification of a System Shutdown.	BSCCo	BSC Panel, BSC Parties and BSC Agents		Electronic or other method as agreed
1.4.1.3	Following 1.4.1.1 when the Transmission Company declares in its reasonable opinion the time that the Total/Partial Shutdown	Convert Transmission Company declaration to BSC Settlement Period and communicates to industry	BSCCo	BSC Panel, BSC Parties and BSC	National Grid to inform BSCCo of time and date of the Shutdown, BSCCo determines the Settlement Period.	Electronic or other method as agreed

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
	occurs			Agents		
1.4.1.4	Following 1.4.1.1	Provide updates on the energisation status of the GB Transmission System	Transmission Company	BSCCo		Electronic, or other method as agreed
1.4.1.5	Following 1.4.14	Communicate updates on the energisation status of the GB Transmission System	BSCCo	BSC Panel, BSC Parties and BSC Agents		Electronic, or other method as agreed

1.4.2 Restoration of Transmission Company's BM system (Point B on the Black Start Recovery Diagram)

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.4.2.1	When the Transmission Company's BM system has been restored	Inform BSCCo	Transmission Company	BSCCo		Electronic or other method as agreed
1.4.2.2	Following 1.4.2.1	Communicate updates on the status of the BM system.	BSCCo	BSC Panel, BSC Parties and BSC Agents		Electronic or other method as agreed

1.4.3 Restoration of BSC systems (Point A-K on the Black Start Recovery Diagram)

Following the provisions in 1.4.1.1, the BSC systems will be affected in the following manner:

- a) Continue normal operation of the **BMRS** as far as is possible in the following manner
 - The BMRS would be used to provide industry with updates regarding the status of the Transmission System and other relevant systems;
 - Tibco messages would continue to be issued where possible;
 - A notice would be placed on the website stating that the indicative prices for Settlement Periods during a Black Start Period are not accurate; and
 - When the market returns to normal operation (i.e. point K) the BMRS would continue calculating indicative prices based on actual data received from National Grid.
- b) **ECVAA** should continue operating throughout the Black Start Period, where possible, as follows:
 - Where notifications are submitted, these will be processed and reports sent back;
 - 'Zero' data is sent to the SAA for Settlement Periods within the Black Start;
 - Credit default process switched off and Energy Indebtedness for all Parties set to Zero.
 - Submitted Volume Notifications would be processed in relation to Settlement Periods following point K
- c) **CDCA** to continue normal operations. This would include:
 - Collecting data throughout the Black Start Period where possible.
 - Aggregation runs carried out normally as far as possible.
- d) **SVAA** to continue normal operations as far as possible including:

- Calculation of Daily Profile Co-efficients;
- Volume Allocation runs carried out normally as far as possible³.

e) SAA runs would not be carried out until a Single Imbalance price has been determined by the BSC Panel

f) FAA Payment runs may be postponed in accordance with Section N6.6 of the BSC.

1.4.4 Restart of normal BSC market operations (Point F-K on the Black Start Recovery Diagram)

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.4.4.1	Following Transmission Company declaring the Transmission System is completely energised	Propose Point K, the restart of normal BSC market operations and consult with industry	BSC Panel	BSC Panel, BSC Parties, MRASCo, MIDP and BSC Agents		
1.4.4.2	When 1.4.4.1 is complete	BSCCo Panel to finalise Point K	BSC Panel			
1.4.4.3	Following 1.4.4.2	BSC Panel communicates decision of Point K	BSCCo	BSC Panel, BSC Parties and BSC Agents		Internal Process

³ This would be done in accordance with Section R of the BSC

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.4.4.4	If Panel decide that the market is not ready for the proposed Point K	BSC Panel to re determine Point K and consult with industry	BSCCo	BSC Panel, BSC Parties, MRASCo , MIDP and BSC Agents		Internal Process
1.4.4.5	Following 1.4.4.2 and no later than one hour before market go-live	Transmission Company to assess the state of the Transmission System	Transmission Company	BSCCo		Electronic or other method as agreed
1.4.4.6	If the Transmission Company declares that the Transmission System is not ready to resume normal operation	BSCCo communicates Transmission Company decision	BSCCo	BSC Panel, BSC Parties and BSC Agents		Electronic or other method as agreed
1.4.4.7	Following 1.4.4.6	BSC Panel to re determine Point K and consult with industry	BSCCo	BSC Panel, BSC Parties, MRASCo , MIDP and BSC Agents		Internal Process
1.4.4.8	If no declaration has been received and market proceeds to point K	Suspend all Black Start provisions. Market is operating normally	BSCCo	BSC Panel, BSC Parties and BSC		Electronic or other method as agreed

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
				Agents		

1.4.5 Settlement Calendar

REF	WHEN	ACTION	FROM	TO	INFORMATION REQUIRED	METHOD
1.4.5.1	If there is a delay in the timetable for the Settlement Calendar	Publish and notify the steps that would be undertaken to catch up with normal Settlement Calendar timescales	BSCCo	BSC Panel, BSC Parties and BSC Agents		Electronic or other method as agreed