

Emergency Instructions

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Operations and Trading

Introduction

- What is an Emergency Instruction?
- Code provisions relating to Emergency Instructions
- Circumstances prevailing on 19th May 2004
- Settlement consequences
- Proposed Code changes
- Summary

What is an Emergency Instruction?

BC 2.9 of the Grid Code

*“In certain circumstances (as determined by **NGC** in its reasonable opinion) it will be necessary, in order to preserve the integrity of the **GB Transmission System** and any synchronously connected **External System**, for **NGC** to issue **Emergency Instructions**. In such circumstances it may be necessary to depart from normal **Balancing Mechanism** operation in accordance with BC2.7 in issuing **Bid-Offer Acceptances**. **BM Participants** must also comply with the requirements of **BC3**.”*

What is an Emergency Instruction?

Examples of circumstances:

- Events on the GB transmission System
- maintain adequate 'negative' margin
- maintain adequate frequency sensitive units
- need to implement Demand Control
- need to invoke Black Start
- request provision of Maximum Generation Service

What is an Emergency Instruction?

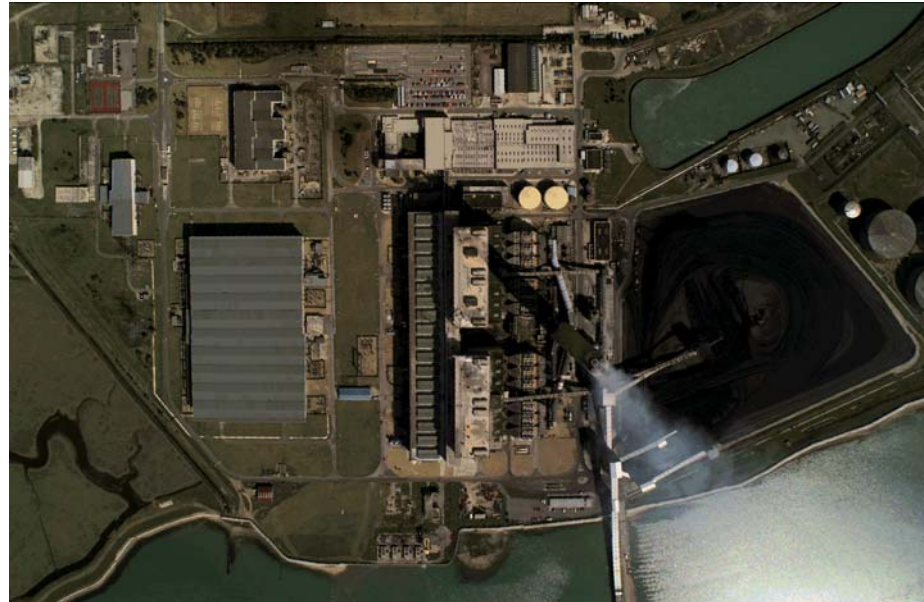
- BC2.9 of the Grid Code contains provisions for the issuing and implementation of Emergency Instructions
- An Emergency Instruction may require an action or response which is outside a BMU's submitted information - e.g. ramp rates, import or export limits etc
- Users will respond to Emergency Instructions issued by NGC without delay and using all reasonable endeavours to so respond
- Where NGC issues an Emergency Instruction to a BM Participant, it shall be treated as a Bid-Offer Acceptance

BSC provisions relating to Emergency Instructions

- BSC contains settlement arrangements for Emergency Instructions (section Q).
- A communication issued in accordance with BC2.9 of the Grid Code to a BM Unit shall be classed as a Bid-Offer Acceptance (BOA)
- This BOA treated the same as any other Bid or Offer in settlement:
 - Paid at prevailing bid/offer prices
 - Cost feeds into the calculation of imbalance prices
 - Cost recovered via NGC BSUoS charges

First Emergency Instruction to a BM Unit under NETA

- An otherwise normal day
- First Emergency Instruction under NETA was issued in respect of the BM Unit at Damhead Creek Power Station
- Issued at 12:51 on 19th May 2004
- What were the prevailing circumstances?



Circumstances prevailing on 19th May 2004

- NGC Site Engineer carrying out routine investigation related to the electrical interlocking system on NGT equipment.
- In taking measurements on a Current Transformer determined that one phase was showing signs of distress
- Current Transformer (CT) was an ABB design AOK420.
- Equipment on site installed in 2000 and was four years into its forty year life.

Circumstances prevailing on 19th May 2004

- Contacted asset expert for advice - possibility of HV insulation integrity breakdown
- Possibility of failing in an unsafe manner - our experts advised that CT switched out of service immediately
- Due to the close proximity of the Power Station car park and Administration Block, NGC staff liaised with Power Station staff to restrict access

Circumstances prevailing on 19th May 2004

- NGC Control room was asked to switch equipment out of service.
- It was necessary to stop Damhead Creek Power Station exporting to the Transmission System.
- Issued an Emergency Instruction to Damhead Creek to de-synchronise by controlled de-load as soon as possible i.e. outside of its submitted dynamic parameters
- Following de-synchronisation the distressed equipment was safely switched out of service and isolated from the system.

Circumstances prevailing on 19th May 2004

- Analysis performed on distressed equipment
- Tests revealed secondary capacitor had failed
- Dissolved gas analysis revealed integrity of insulation was unaffected
- Equipment switched back in service after a total of 36 hours
- Post event review confirmed that the most prudent actions were taken
- If the same fault happened under the same circumstances, we would act in the same way.

Settlement consequences

Processing of 'Emergency Instruction' Bid Acceptance

- Confirmed Emergency Instruction was issued
- Settlement implications estimated based on £-9999/MWh Bid price
- Approximate cost of Bid was £3.5M, System Sell Price would be in the order £ -6000/MWh
- Confirmed that there was no other alternative mechanism available but for NGC to issue a BOA
- Ofgem was informed of the situation

Settlement consequences

Implementing Bid Acceptance into BSC Settlement

- Damhead Creek Power station changed hands - new owners Scottish Power
- Acceptance data relating to Emergency Instruction confirmed by Scottish Power
- Missed Initial Settlement Run for submitting Bid Acceptance data into BSC Settlement
- BSC only allows a subsequent change to settlement data via the BSC Trading Disputes Committee (TDC).

Settlement consequences

Implementing Bid Acceptance into BSC Settlement

- Therefore Trading 'Dispute' raised by Damhead Creek Ltd to allow the inclusion of agreed Bid Acceptance Data into Settlement.
- ELEXON calculated the likely impact and informed Affected Parties.
- TDC heard the 'Dispute' on 19 August 2004 and agreed that a settlement error had occurred.
- TDC directed that the agreed Bid Acceptance should be included in the R3 Reconciliation run in December 04.

Settlement consequences

Estimated Financial Implications

For NGC

Total Bid Payment from NGC to Damhead Creek of £3.55M
(included in incentivised balancing costs)

For Market Participants

	Previous SSP	New SSP	Previous BSUoS Price	New BSUoS Price
27	£14.99	£-96.68	£0.44	£22.62
28	£14.95	£-5870.87	£0.43	£73.67

Proposed Code Changes

BSC Modifications raised to date

P172, P171 raised by British Gas Trading

- Gives NGC the ability to tag an Emergency Instruction as a 'system' action (P172).
- P171 would apply retrospectively to allow NGC to tag Damhead Creek Bid Acceptance as a 'system' action
- Allows removal of price of BOA from calculation of imbalance prices
- Market participants would still pay full cost of BOA through BSUoS charges

Proposed Code Changes

BSC Modifications raised to date

P173, raised by NGT

- Treats EIs outside of the normal BM arrangements as a Contingency event such as Manifest error, Black Start, Fuel Security Period, etc.
- Still treats EI as a 'BOA' in settlement retaining 'volume' benefits.
- Applies an alternative price, determined by the BSC Panel using existing arrangements relating to Avoidable Costs
- Ensures an appropriate level of remuneration, ultimately paid for by market participants through BSUoS charges
- Appropriate price will still feed through to the calculation of imbalance prices.
- Compatible with P171/P172

Proposed Code Changes

What is the current status?

- All three modifications were requested to be treated as 'Urgent' under the BSC.
- Elexon did not recommend urgent treatment.
- BSC Panel directed a 3 month assessment at its September meeting.
- Final reports will be with Ofgem for decision in January 2005 at the earliest.
- Still a risk that a similar situation could happen again.

Summary

- NGC will issue Emergency Instructions in certain situations to maintain the integrity of the system
- When these situations arise our primary concern is the safety of customers, staff and public and the integrity of the system.
- The Codes say that the Emergency Instruction shall be treated as a Bid Offer Acceptance.
- The prevailing unit Bid prices (-£9,999/MWh) resulted in a £3.55 million Bid cost.
- Modifications have been raised to address settlement issues