

**CAP144 CONSEQUENTIAL CHANGES – EMERGENCY INSTRUCTION TO EMERGENCY
DE-ENERGISE
Paper by National Grid**

Introduction

1. CUSC amendment proposal 144 (CAP144) - Emergency Instruction to Emergency De-Energise seeks to extend the compensation provisions for removal of access that were developed under CAP048.
2. The circumstances under which the CAP144 type compensation payment would be made are limited and are clearly defined. This event is defined in the CUSC as an Emergency Deenergisaion instruction. CAP144 proposal identifies consequential Grid Code changes required to reference the 'CAP144 event' as defined within the CUSC.
3. It is anticipated that CAP144 Amendment Report will be sent to the Authority for determination w/c 10th September 2007. Ofgem is expected to make a decision by mid October.
4. The original proposal has been joined by four alternative proposals. However, these alternative proposals do not alter the circumstances for the initiation of the compensation payment, but focus on the compensation payment itself. Therefore, all CAP144 alternatives have the same Grid Code change requirements regardless of which one is accepted by Ofgem.
5. Therefore the implementation of the Grid Code changes is dependent on Ofgem accepting one of the variations of CAP144.

Background

6. CAP144 was raised to mitigate the risk associated with the controlled shut down of a generating station in anticipation of an impending removal of system access. The circumstances associated with a CAP144 event are well defined to ensure that the circumstances are limited to a particular type of incident i.e. the impending removal of access due to National Grid equipment problems.
7. Current arrangements mean that for an emergency instruction to remove a generator from the system, the generator would receive their associated Bid price up to the wall.
8. The original CAP144 proposal proposed that the affected generator receives a market based price for the removal of the generation, in line with the CAP048 payments. Working and consultation alternatives to CAP144 look to change the compensation methodology.
9. The CAP144 defined circumstance is listed below:
 - a) There is reasonable cause to suspect that a piece of transmission equipment is distressed or in an unsafe condition; and
 - b) Circumstances mean that the equipment is likely to cause damage or injury, and where it should be immediately disconnected from the transmission system; and
 - c) If it were not disconnected in a controlled manner then an automatic trip would be highly likely; and
 - d) Were the piece of transmission equipment to be automatically disconnected, it would have been the sole cause of disconnecting the BMU in question and would be compensated by an Interruption Payment.

10. CAP144 proposal suggests that an additional definition is included in the Grid Code as a defined emergency instruction.
11. The CAP144 consultation included draft Grid Code legal text for information. As each of the CAP144 alternatives has the same emergency instruction text, the proposed Grid Code change is the same. There were no comments received on the draft Grid Code text during the CAP144 consultation.

Proposal

12. It is proposed that a consultation is initiated on the proposed Grid Code changes that may be implemented if CAP144 is accepted by Ofgem.
13. It is anticipated that Ofgem will make a decision on CAP144 during October.

Recommendations

14. The GCRP is invited to:
 - a) note the impending CAP144 Ofgem decision
 - b) discuss the legal text
 - c) agree that the legal text should be sent for consultation

ATTACHMENT A – Proposed Legal Text Changes

New definition in Glossary & Definitions

“Emergency Deenergisation Instruction” as defined in the CUSC

BC2 Changes

- BC2.9.1.2 Examples of circumstances that may require the issue of **Emergency Instructions** include:-
- (a) **Events** on the **GB Transmission System** or the **System** of another **User**; or
 - (b) the need to maintain adequate **System** and **Localised NRAPM** in accordance with BC2.9.4 below; or
 - (c) the need to maintain adequate frequency sensitive **Gensets** in accordance with BC2.9.5 below; or
 - (d) the need to implement **Demand Control** in accordance with OC6; or
 - (e) (i) the need to invoke the **Black Start** process or the **Re-Synchronisation of De-Synchronised Island** process in accordance with OC9; or
(ii) the need to request provision of a **Maximum Generation Service**; or
(iii) the need to issue an Emergency Deenergisation Instruction.
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BC2.9.2.5 In the case of BC2.9.1.2 (e) (iii) where **NGET** issues an **Emergency Deenergisation Instruction** payment will be dealt with in accordance with the **CUSC**.

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BC2.9.3 Examples of Emergency Instructions

- BC2.9.3.1 In the case of a **BM Unit** or a **Generating Unit**, **Emergency Instructions** may include an instruction for the **BM Unit** or the **Generating Unit** to operate in a way that is not consistent with the **Dynamic Parameters**, **QPNs** and/or **Export and Import Limits**.
- BC2.9.3.2 In the case of a **Generator**, **Emergency Instructions** may include:
- (a) an instruction to trip one or more **Gensets** (excluding **Operational Intertripping**); or
 - (b) an instruction to trip **Mills** or to **Part Load** a **Generating Unit** (as defined in the Glossary and Definitions and not limited by BC2.2); or
 - (c) an instruction to **Part Load** a **CCGT Module** or **Power Park Module**; or

- (d) an instruction for the operation of **CCGT Units** within a **CCGT Module** (on the basis of the information contained within the **CCGT Module Matrix**) when emergency circumstances prevail (as determined by **NGET** in **NGET's** reasonable opinion); or
- (e) an instruction to generate outside normal parameters, as allowed for in 4.2 of the **CUSC**; or
- (f) an instruction for the operation of **Generating Units** within a **Cascade Hydro Scheme** (on the basis of the additional information supplied in relation to individual **Generating Units**) when emergency circumstances prevail (as determined by **NGET** in **NGET's** reasonable opinion); or
- (g) an instruction for the operation of a **Power Park Module** (on the basis of the information contained within the **Power Park Module Availability Matrix**) when emergency circumstances prevail (as determined by **NGET** in **NGET's** reasonable opinion); or
- (h) **An Emergency Deenergisation Instruction.**

BC2.9.3.3 Instructions to **Network Operators** relating to the **Operational Day** may include:

- (a) a requirement for **Demand** reduction and disconnection or restoration pursuant to **OC6**;
- (b) an instruction to effect a load transfer between **Grid Supply Points**;
- (c) an instruction to switch in a **System to Demand Intertrip Scheme**;
- (d) an instruction to split a network;
- (e) an instruction to disconnect an item of **Plant** or **Apparatus** from the **System**; or
- (f) an **Emergency Deenergisation Instruction**.