

**Grid Code
Modification
Recommendation Form**



Title of Recommended Proposal: Alert State Naming Convention as per NCER and SOGL

MPID: 301

Date:	26/01/2023
Recommended at GCRP Meeting No.:	EirGrid GCRP Meeting 09/11/2022
Grid Code Version:	Version 11
Grid Code Section(s) Impacted by Recommended Proposal:	<ul style="list-style-type: none"> • OC.9.4; • OC.9.5; • OC.9.6; • Definitions.

The Reason for the Recommended Modification:

Commission Regulation (EU) 2017/1485 establishing a guideline on electricity transmission system operation (SOGL) defined five system states to be used to monitor and communicate the state of Ireland’s transmission system. These system states are also used by Commission Regulation (EU) 2017/2196 establishing a network code on electricity emergency and restoration (NCER).

These SOGL system states have been aligned with EirGrid’s existing system alerts in an all-island business process, [BP_SO_9.2](#). This modification is required to align the Grid Code with the naming convention of these system alert states as per the SOGL and the NCER. Figure 1 below aligns the existing system alert states with the newly named system alert states as per the SOGL and the NCER.

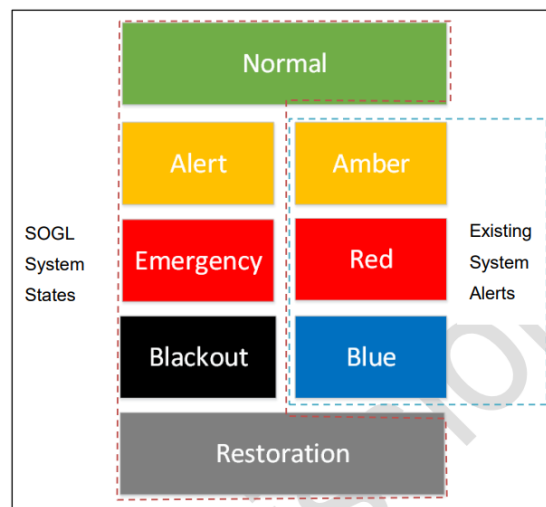


Figure 1: SOGL System States.

History of Progression through GCRPs, Working Group and/or Consultation:

MPID 301 was presented as a proposal at the EirGrid GCRP meeting, 09 November 2022.

No comments or objections were raised from the GCRP members.

The Grid Code modification was fully supported for issue to the CRU for their approval.

Summary Note of any Objections to the Recommended Change from GCRP Members or Consultation Responses:

No objections were raised at the meeting.

Outcome of any GCRP Meeting Actions Relating to the Recommended Modification:

One action was raised at the meeting:

EirGrid to ensure that any guidance instructions provided to market participants (DSUs) have been aligned with the SOGL system states.

Outcome of this action:

A post-meeting note has been provided in the meeting Minutes stating that System Operations, EirGrid, have confirmed that the guidance documents have been updated. A website link was also provided in the Minutes to the document 'Guideline for Generators and Demand Side Units during System States'. The document is available on the EirGrid Group website [here](#).

Red-line Version of Impacted Grid Code Section(s) - show proposed changes to text:

Deleted text in ~~strike-through red font~~ and new text highlighted in blue font

OC.9.4 System Alerts

OC.9.4.1 In the event of a **System Emergency Condition** or imminent shortfall of MW capacity, the **TSO** may issue any of several **Alerts** to the Generator, key **Transmission Stations, Distribution Control Centres and Demand Side Unit Operators**. These **Alerts** may include an ~~Amber-Alert~~ **Alert State**, ~~Red-Alert~~ **Emergency State** or ~~Blue-Alert~~ **Blackout State**, or other **Alerts** as may be agreed from time to time.

OC.9.4.2 **Alerts** will normally (except in the case of a failure of the **Electronic Alert System** when it will be given verbally) be transmitted to the **User** via the **Electronic Alert System**. The **Alert** shall cause an alarm in the receiving location, which must be

acknowledged by the **User** in accordance with their **Alert** procedures.

OC.9.4.3 ~~Amber-Alert~~ Alert State

OC.9.4.3.1 An ~~Amber-Alert~~ Alert State may be issued when a single **Event** would give rise to a reasonable possibility of failure to meet the **Power System Demand**, or of **Frequency** or **Voltage** departing significantly from normal, as per CC.8.2.1(a) and CC.8.3.1(a), or if multiple **Events** are probable due to prevailing weather conditions.

OC.9.4.3.2 Standing procedures to be activated in response to an ~~Amber-Alert~~ Alert State will be developed by the **TSO**, in consultation with **Users**, and notified to each **User** as appropriate. These standing procedures will not impose obligations on the **User** which are not already implicit in the **Grid Code**.

OC.9.4.3.3 Each **User** is responsible for internal procedures necessary to execute the standing procedures.

OC.9.4.4 ~~Red-Alert~~ Emergency State

OC.9.4.4.1 An ~~Red-Alert~~ Emergency State may be issued when, other than as provided for in OC.10, the **Frequency** or **Voltage** has deviated significantly from normal, or **User's Demand** has been disconnected, or, in the period immediately ahead there is a high probability of failing to meet the **Power System Demand** or to maintain normal **Voltage**.

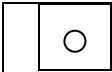
OC.9.4.4.2 Standing procedures to be activated in response to an ~~Red-Alert~~ Emergency State will be developed by the **TSO**, in consultation with **Users**, and notified to each **User** as appropriate.

~~OC.9.4.4.3 Standing procedures to be activated in response to a **Red-Alert** Emergency State will be developed by the **TSO**, in consultation with **Users**, and notified to each **User** as appropriate.~~

OC.9.4.5 ~~Blue-Alerts~~ Blackout State

OC.9.4.5.1	The issuing of a Blue-Alert Blackout State other than as provided for in OC.9.5.4, by the TSO signifies that either a Partial Shutdown or a Total Shutdown of the Power System has taken place.
OC.9.4.5.2	Standing procedures to be activated in response to a Blue-Alert Blackout State will be developed by the TSO , in consultation with Users , and notified to each User as appropriate. These standing procedures will not impose obligations on the User which are not already implicit in the Grid Code .
OC.9.4.5.3	Each User is responsible for internal procedures necessary to execute the standing procedures. In developing internal procedures to apply following the activation of Blue-Alert Blackout State standing procedures, each User shall consult with the TSO .
OC.9.5	Power System Restoration
OC.9.5.1	The Power System Restoration Plan will be developed and maintained by the TSO in consultation with the DSO and other Users as appropriate. The TSO will promulgate the Power System Restoration Plan in accordance with Prudent Utility Practice .
OC.9.5.2	The procedure for Power System Restoration shall be that notified by the TSO to the User at the time of a Partial Shutdown or Total Shutdown . Each User shall abide by the TSO's instructions during the restoration process, subject to safety of personnel and the TSO's and the User's Plant and Apparatus .
OC.9.5.3	It shall be the responsibility of the User to ensure that any of its personnel who may reasonably be expected to be involved in Power System Restoration are familiar with, and are adequately trained and experienced in their standing instructions and other obligations so as to be able to implement the procedures and comply with any procedures notified by the TSO under OC.9.5.2.
OC.9.5.4	The TSO shall in consultation with each User and on at least one occasion each year, issue a Blue-Alert Blackout State to the User for the purposes of assisting training. The content of the tests shall be notified in advance to the User , and a date and time for execution of the tests shall be agreed. The User must, acting in

accordance with **Good Industry Practice**, co-operate with any such testing.



OC.9.5.5 **Generators** shall not be permitted to reconnect to the **Transmission System** after an incidental disconnection caused by a **Transmission System** disturbance, unless specified otherwise by the **TSO**. **Generators** shall not be permitted to install automatic reconnection systems, unless specified otherwise by the **TSO**.

OC.9.6 De-Energisation of the User's plant by the TSO

OC.9.6.1 **De-Energisation** of a **User's Plant** and **Apparatus** is also provided for in OC.4.5.6. It may be effected at any time and from time to time if and to the extent that the **TSO**, acting in accordance with **Prudent Utility Practice**, considers it necessary in order to provide for safe and secure operation of the **Transmission System** within prescribed standards, including:

- (i) during a **System Emergency Condition**;
 - (ii) during **Power System Restoration**; and
- following the issue of a **Blue-Alert Blackout State**.

Definitions

Alert	An Red-Alert Emergency State , an Amber-Alert Alert State or a Blue-Alert Blackout State or other alert warning as agreed pursuant to OC9 (Emergency Control and Power System Restoration)
Amber-State Alert State	An Alert issued by the TSO to the Users when a single Event would give rise to a reasonable possibility of failure to meet the Power System Demand , or of Frequency or Voltage departing significantly from normal or if multiple Events are probable due to prevailing weather conditions.
Red-Alert Emergency State	An Alert issued by the TSO to the User in the circumstances set out in OC9
Blue-Alert Blackout State	An Alert issued by the TSO signifying that either a Partial Shutdown or a Total Shutdown of the Power System has taken place.

Green-line Version of Impacted Grid Code Section(s) - show proposed final text:

OC.9.4 System Alerts

OC.9.4.1 In the event of a **System Emergency Condition** or imminent shortfall of MW capacity, the **TSO** may issue any of several **Alerts** to the Generator, key **Transmission Stations, Distribution Control Centres** and **Demand Side Unit Operators**. These **Alerts** may include an **Alert State, Emergency State** or **Blackout State**, or other **Alerts** as may be agreed from time to time.

OC.9.4.2 **Alerts** will normally (except in the case of a failure of the **Electronic Alert System** when it will be given verbally) be transmitted to the **User** via the **Electronic Alert System**. The **Alert** shall cause an alarm in the receiving location, which must be acknowledged by the **User** in accordance with their **Alert** procedures.

OC.9.4.3 Alert State

OC.9.4.3.1 An **Alert State** may be issued when a single **Event** would give rise to a reasonable possibility of failure to meet the **Power System Demand**, or of **Frequency** or **Voltage** departing significantly from normal, as per CC.8.2.1(a) and CC.8.3.1(a) , or if multiple **Events** are probable due to prevailing weather conditions.

OC.9.4.3.2 Standing procedures to be activated in response to an **Alert State** will be developed by the **TSO**, in consultation with **Users**, and notified to each **User** as appropriate. These standing procedures will not impose obligations on the **User** which are not already implicit in the **Grid Code**.

OC.9.4.3.3 Each **User** is responsible for internal procedures necessary to execute the standing procedures.

OC.9.4.4 Emergency State

OC.9.4.4.1 An **Emergency State** may be issued when, other than as provided for in OC.10, the **Frequency** or **Voltage** has deviated significantly from normal, or **User's Demand** has been disconnected, or, in the period immediately ahead there is a high probability of failing to meet the **Power System Demand** or to maintain normal

Voltage.

OC.9.4.4.2 Standing procedures to be activated in response to an **Emergency State** will be developed by the **TSO**, in consultation with **Users**, and notified to each **User** as appropriate.

OC.9.4.5 **Blackout State**

OC.9.4.5.1 The issuing of a **Blackout State** other than as provided for in OC.9.5.4, by the **TSO** signifies that either a **Partial Shutdown** or a **Total Shutdown** of the **Power System** has taken place.

OC.9.4.5.2 Standing procedures to be activated in response to a **Blackout State** will be developed by the **TSO**, in consultation with **Users**, and notified to each **User** as appropriate. These standing procedures will not impose obligations on the **User** which are not already implicit in the **Grid Code**.

OC.9.4.5.3 Each **User** is responsible for internal procedures necessary to execute the standing procedures. In developing internal procedures to apply following the activation of **Blackout State** standing procedures, each **User** shall consult with the **TSO**.

OC.9.5 Power System Restoration

OC.9.5.1 The **Power System Restoration Plan** will be developed and maintained by the **TSO** in consultation with the **DSO** and other **Users** as appropriate. The **TSO** will promulgate the **Power System Restoration Plan** in accordance with **Prudent Utility Practice**.

OC.9.5.2 The procedure for **Power System Restoration** shall be that notified by the **TSO** to the **User** at the time of a **Partial Shutdown** or **Total Shutdown**. Each **User** shall abide by the **TSO's** instructions during the restoration process, subject to safety of personnel and the **TSO's** and the **User's Plant** and **Apparatus**.

OC.9.5.3 It shall be the responsibility of the **User** to ensure that any of its personnel who

may reasonably be expected to be involved in **Power System Restoration** are familiar with, and are adequately trained and experienced in their standing instructions and other obligations so as to be able to implement the procedures and comply with any procedures notified by the **TSO** under OC.9.5.2.

OC.9.5.4 The **TSO** shall in consultation with each **User** and on at least one occasion each year, issue a **Blackout State** to the **User** for the purposes of assisting training. The content of the tests shall be notified in advance to the **User**, and a date and time for execution of the tests shall be agreed. The **User** must, acting in accordance with **Good Industry Practice**, co-operate with any such testing.



OC.9.5.5

Generators shall not be permitted to reconnect to the **Transmission System** after an incidental disconnection caused by a **Transmission System** disturbance, unless specified otherwise by the **TSO**. **Generators** shall not be permitted to install automatic reconnection systems, unless specified otherwise by the **TSO**.

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OC.9.6.1 **De-Energisation** of a **User's Plant** and **Apparatus** is also provided for in OC.4.5.6. It may be effected at any time and from time to time if and to the extent that the **TSO**, acting in accordance with **Prudent Utility Practice**, considers it necessary in order to provide for safe and secure operation of the **Transmission System** within prescribed standards, including:

- (i) during a **System Emergency Condition**;
- (ii) during **Power System Restoration**; and
- (iii) following the issue of a **Blackout State**.

Definitions

Alert

An **Emergency State**, an **Alert State** or a **Blackout State** or other alert warning as agreed pursuant to OC9 (Emergency Control and Power System Restoration)

Alert State

An **Alert** issued by the **TSO** to the **Users** when a single **Event** would give rise to a reasonable possibility of failure to meet the **Power System Demand**, or of **Frequency** or **Voltage** departing

	significantly from normal or if multiple Events are probable due to prevailing weather conditions.	
Emergency State	An Alert issued by the TSO to the User in the circumstances set out in OC9	
Blackout State	An Alert issued by the TSO signifying that either a Partial Shutdown or a Total Shutdown of the Power System has taken place.	