

# OC2 Outage Data

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OC2 Outage data is a key requirement of the Grid Code in enabling NGC to plan and operate the transmission system. Currently the data is provided by some generators on a BMU level and others on a generating unit level. As part of the OC1 and OC2 review it is proposed that this area is clarified so that data is provided on a generating unit level for all generators.

# Why does NGC need Unit level data?

There are three key areas where unit level data is required to ensure the security of the system:

1. Fault level analysis
2. Voltage stability analysis
3. System Stability analysis

# Why does NGC need Unit level data?

## 1. Fault level analysis

- Health and Safety issue
- Some sites require reconfiguration depending on generation
- Reconfiguration may only be possible at key times e.g. overnight/ weekend, therefore prior knowledge of the expected fault levels is key to ensuring the optimal system configuration
- Units within a CCGT module do not necessarily have an equal effect on the site fault levels

# Why does NGC need Unit level data?

## 2. Voltage Stability analysis

- System security issue
- Additional MVar support may be required for alternative sources
- Units within a CCGT module do not have the same reactive capability
- Only 6% of the CCGT modules have equal reactive capacity across the units within the module

# Why does NGC need Unit level data?

## 3. System Stability analysis

- System security issue
- Generation reductions may be required to ensure system security
- Units within a CCGT module do not have an equal effect on system stability

# Why does NGC need Unit level data?

- The number of modular type generators is increasing and will continue to increase significantly over the next 10 yrs
- As generators age the characteristics of the units tend to diverge due to different faults / maintenance cycles etc.
- Currently National Grid will use engineering judgement to determine the expected unit profile for those generators that do not provide generating unit level data
- This judgement can lead to inefficient operation or increased security risk due to the restricted information flow
- The data being requested should already be available to the generators

# Some facts and figures

- 138 “Large” BMUs submit OC2 data
- 105 of these are BMUs which represent 1 Generating Unit
- If the 33 Multi-Unit BMUs, 7 already submit Generating Unit level data
- 26 BMUs would be affected by the change
- 112 BMUs would be unaffected

## Some facts and figures (MW basis)

- 70% of the generation has a BMU at Generating Unit level
- 30% of the generation would be required to submit more detailed OC2 data, of which 23% of these already submit in this form
- Therefore 77% of generation will be unaffected by this issue.