

## **Process for the Report of Embedded Generation Loss as a Result of ROCOF or Significant System Incidents**

### **Summary**

1. This document summarises the procedure for reporting the loss of embedded generation as a result of a sudden change in frequency or other significant incidents.
2. Some embedded generation is protected by rate of change of frequency (RoCoF) relays. If these relays operate during a low frequency incident the resulting loss of embedded generation could make the frequency incident worse. Similarly, if generation is lost due to a Significant System Disturbance, the loss of the embedded generator could make the disturbance worse.
3. In order to increase knowledge of the tripping of this generation, National Grid has agreed to notify each DNO when a RoCoF incident or Significant System Disturbance has occurred that may lead to embedded generation tripping. RoCoF incidents typically involve an instantaneous loss of infeed or generation of 1000 MW or more resulting in a frequency below 49.8 Hz, or any Bipole trip of approximately 1000 MW. Significant System Disturbances include events such as a three-phase fault.
4. This does not prevent a DNO, who experiences co-incident tripping of a number of embedded generators, asking National Grid if a RoCoF incident or Significant System Disturbance has occurred. The process described in this document is in addition to that carried out under sections OC7 and OC10 of the Grid Code and it does not replace or alter any other Grid Code obligations on the User or National Grid.

### **Process**

5. Following such an incident, National Grid shall send the appropriate details by fax (as set out in Attachment 1) to the nominated control room of all DNOs.
6. After receipt of the fax referred to in paragraph 5 above and as soon as reasonably practicable thereafter, each DNO shall confirm to National Grid, whether they are aware of any embedded generation within their system which has tripped by faxing the appropriate details (as set out in Attachment 2) to National Grid.
7. If at a later date the DNO discovers that embedded generation within their system did trip or that additional embedded generation within their system tripped then it shall (as soon as reasonably practicable) resend the form (as set out in Attachment 2) by fax to National Grid with the updated information.
8. This information will then be collated by National Grid and presented annually to the Grid Code Review Panel.

### **Attachments**

*Attachment 1 shows a standard fax form to be used for notification to DNOs of system incidents likely to lead to the tripping of embedded generation.*

*Attachment 2 shows a standard fax form to be used by DNOs to return information on generation tripping to National Grid.*

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## Fax

### NOTIFICATION OF POSSIBILITY OF TRIP OF GENERATION DUE TO

- i) OPERATION OF RATE OF CHANGE OF FREQUENCY (RoCoF) RELAY  
OR
- ii) SIGNIFICANT SYSTEM DISTURBANCE

**TO:**

**FROM: NATIONAL GRID POWER SYSTEM MANAGER, ENCC, WOKINGHAM**

At (hh:mm:ss) on system conditions occurred that could have led to the tripping of generation.

Please notify to National Grid whether you are aware of embedded generation within your system which has tripped **or** confirm that no such generation has tripped. Additionally, if at some later date it transpires that generation did trip at the above time, please re-fax the attached form.

Please do this by filling in the form provided by National Grid (copy attached) for this purpose. Faxes should be sent to National Grid at the following fax number (using either CTN or Public Service Telephone Network):

780-3171 (CTN)  
0118 936 3171 (Public Service Telephone Network)

or

780-3097 (CTN)  
0118 936 3097 (Public Service Telephone Network)

## Fax

### NOTIFICATION OF POSSIBILITY OF TRIP OF GENERATION DUE TO

- i) OPERATION OF RATE OF CHANGE OF FREQUENCY (RoCoF) RELAY  
OR
- ii) SIGNIFICANT SYSTEM DISTURBANCE

**To:** Technical Strategy Manager, ENCC Wokingham.

**From:** .....(Please Complete)

Following the incident that occurred at ..... on ..... we are aware of the following embedded generation within our system tripping.

[If no such generation tripped please write "NONE" in the first "Grid Supply Point box".]

1 Grid Supply Point	2 MW lost [see note below]	3 Associated Connected Demand Lost (MW)	4 Time of Trip, Where Known

[Please photocopy sheet and continue on photocopied sheet or sheets if necessary.]

**NB** The information in column 3 relates to demand associated with the generation site(s) allowing the determination of net effect.

In column 2 please indicate whether the figure written is actual generation lost (A), estimated generation lost (E) or the size of generator (G) by entering the appropriate letter after the figure.