

Code Administrator Meeting Summary

GC0147: Last resort disconnection of Embedded Generation – enduring solution

Date: 28 September 2020

Contact Details

Chair: Nisar Ahmed, National Grid ESO
Proposer: Rob Wilson, National Grid ESO

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Key areas of discussion

The Workgroup discussions are summarised according to agenda item:

CLEAN ENERGY PACKAGE ARTICLE 13 PARAGRAPH 7

- Rob Wilson stressed that emergency disconnection would only be used in an emergency and as a last resort in the event that no other commercial options / Balancing Mechanism (BM) actions were available to use.
- It was noted that although not explicit, on balance the ESO believes that A13, P7 doesn't apply:
 - 'Re-dispatching' implies a change of output rather than disconnection, but in the case of embedded generation, the ESO would not have dispatched the generator and could not redispatch it either
 - The ESO believes that a generator without TEC does not have firm access rights.
- The workgroup should explore how it can ensure that a generator within the BM, or that provides ODFM, would be excluded from emergency disconnection.
- One workgroup member noted concern that generators would be incentivised to join the BM and set their output to zero, to avoid facing the risk of emergency disconnection.

FREQUENCY OF DISCONNECTION

- The workgroup discussed the possibility that some generators would be disconnected repeatedly, in the event that emergency disconnection was used repeatedly, and they were on the top of the list in a DNO script. The concern was noted about it being the same ones that would therefore always be disconnected first.
- The option of cycling the scripts was discussed, although DNOs would not necessarily use scripts to carry out emergency disconnection
- Rob Wilson noted that emergency disconnection is a last resort and would not be a regular occurrence in the same way that demand control is hardly ever used.
- The ESO does not want to be too prescriptive in instructions to DNOs as these are emergency instructions to be used as a last resort only. Guidance should be as clear as possible whilst allowing DNOs the required flexibility to implement an instruction.

NOTICE PERIOD FOR DNOs AND GENERATORS

- A DNO representative indicated that having as much notice as possible would mean that the DNOs would be better able to adhere to any guidelines.

- The ESO view is that the notice period is likely to be at least half an hour, but in some circumstances, it might have to be more sudden, for example if an exporting interconnector were to trip during a low demand period. Although this might instead cause operation of generator protection or frequency sensitive mode (over-frequency) LFMS-O generator response

ANM (ACTIVE NETWORK MANAGEMENT)

- The workgroup discussed the likely increase in prevalence of ANM schemes - potentially a DNO could comply with an instruction but not get the desired result due to ANM schemes infilling.
- A question of whether emergency instructions could lock out the ANM scheme was raised
- The workgroup discussed whether any compensation put in place could deter generators from providing ODFM
- It was also noted that the possibility of it being considered unfair for generators without ANM schemes to be prioritised.
- The instruction could potentially refer to the required outcome of instructions in Mega Watt (MW) reduction – while at present in the GC0143 temporary solution the capacity to be disconnected is specified.

ODFM

- Increased use of ODFM would reduce or remove the risk of emergency disconnection being used. Ultimately if a significant proportion of embedded generation participated in ODFM or any replacement scheme then there would be no way that commercial mechanisms to resolve footroom issues could not be effective.
- ODFM was used on approximately 5 occasions during 2020, mainly in May, and successfully averted use of emergency disconnections.

CONSULTATION QUESTIONS / SUBJECTS TO INCLUDE

The workgroup discussed some general topics for consultation questions and noted that the following ideas would need to be discussed further to shape them into formal questions.

Should generators who are disconnected be compensated? What mechanism would this be done through?

Specific question on ANM would be needed

Notice periods - minimum level that should be adhered to under usual circumstances for DNOs and generators

What protections do generators have in place that would also apply in an emergency?

How do we ensure that all commercial avenues have all been pursued first such that emergency demand control is only used as a last resort?

Use of demand turn up as an alternative to emergency disconnection

Do we need DCUSA and BSC mods?

Actions Log

| Number | Action | Owner | Status |
|--------|--|------------------|--------|
| 1 | To send a summary to the workgroup regarding the ESO legal guidance | Rob Wilson | Open |
| 2 | To update the workgroup on the timeline and next steps for development on the OFDM replacement | Amy Weltevreden | Open |
| 3 | Review draft legal text before next workgroup | All | Open |
| 4 | Send revised doodle poll for week commencing 12 October for third meeting | Kirsten Shilling | Open |

Participants

| Attendees | Company | Position |
|---------------------|--|-----------------------------|
| Nisar Ahmed | Code Administrator National Grid ESO | Chair |
| Kirsten Shilling | Code Administrator National Grid ESO | Technical Secretary |
| Rob Wilson | National Grid ESO | Proposer & Workgroup Member |
| Andrew McLeod | Northern Powergrid | Workgroup Member |
| Andrew Vaudin | EDF | Workgroup Member |
| Amy Weltevredden | National Grid ESO | Presenter |
| Brian Morrissey | Scottish Hydro Electric Power Distribution Plc | Workgroup Member |
| Damien Clough | Elexon | Workgroup Member |
| Dr Isaac Gutierrez | Scottish Power Renewables (UK) Limited | Workgroup Member |
| Fungai Madzivadondo | Energy Networks Association | Workgroup Member |
| Graham Bone | Infinis Energy Services | Workgroup Member |
| Grant McBeath | SP Energy Networks | Workgroup Member |
| Graz Macdonald | Viridis Power | Workgroup Member |
| Jeremey Caplin | Elexon | Workgroup Member |
| Lisa Waters | Waters Wye Associates | Workgroup Member |
| Matthew Cullen | EON UK Plc | Workgroup Member |
| Paul Graham | Sembcorp Energy UK Limited | Workgroup Member |
| Richard Wilson | UK Power Networks | Workgroup Member |
| Bill D'Albertanson | UK Power Networks | Observer |
| Rachel Beaufoy | National Grid ESO Code Administrator | Observer |

For further information, please contact the Code Administrator.