

**Grid Code Alternative Form**

# **GC0147 Alternative 3: Compensation for Embedded Generators subject to emergency disconnection**

**Overview:** This alternative sets out that compensation as detailed in the Clean Energy Package Regulation 2019/943 is to be payable to embedded generators that are affected by DNO implementation of emergency instructions received from the ESO as described in the GC0147 original solution.

To facilitate the payment of compensation by The Company, provisions are indicated to capture the data associated with any event and apply arrangements retrospectively in the unlikely event of the 'last resort' being used.

**Proposer:** Garth Graham, SSE Generation

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## What is the proposed alternative solution?

The proposed solution is to add two clauses to the original as follows:

BC2.9.2.7 In the case of BC2.9.1.2 (f), upon implementation of an **Emergency Instruction** by a **Network Operator** to carry out **Embedded Generation Control** then **The Company** will pay the related compensation (calculated in accordance with Article 13 of Regulation (EU) 2019/943, as amended from time to time in accordance with UK law) to an **Embedded Power Station** subject to such **Embedded Generation Control** and shall do so within 6 weeks from the implementing of the **Embedded Generation Control** instruction. The data associated with any such event will be communicated to **The Company** by the **Network Operators** implementing an **Embedded Generation Control** instruction as set out under OC6B.5.11 and will be retained by **The Company** until any such compensation arrangements have been fulfilled.

OC6B.5.11 Each **Network Operator** will supply to **The Company**:

- a) an estimate of the **Active Power** output reduction achieved, in MW, at the time of implementation for each Power Station where **Embedded Generation Control** is implemented; and
- b) the time **Embedded Generation Control** is implemented
- c) the time when the **Network Operator** confirms to the **Generator** that they can resume normal operations.

This information shall be supplied within a week of implementing the **Embedded Generation Control Instruction**.

## What is the difference between this and the Original Proposal?

The basis of clause BC2.9.27 noted above was discussed with the Workgroup to address the concerns raised by both Workgroup members and Workgroup consultation responses concerning the need for clarity in respect of the payment of compensation by the ESO where any embedded generators are redispatched on any instruction of the ESO to the DSO.

Other than the clauses above this alternative is identical to the original.

## What is the impact of this change?

Compensation has probably been the biggest topic discussed by the Workgroup. As a Workgroup member with knowledge of the European Network Codes and the Clean Energy Package I'm mindful of the sensitivity of the issue and the need to mitigate business risks for embedded generators, and also the discussions around whether compensation is a requirement of the Clean Energy Package (Article 13 and Article 2 of Regulation 2019/943).

It is clear, from Article 2(26), that any redispatching gives rise, according to Article 13(7), to the need for the payment of compensation to the redispatched embedded generator by the ESO, where the ESO is requesting that redispatching.

#### Article 2(26)

*“redispatching’ means a measure, including curtailment, that is activated by one or more transmission system operators or distribution system operators by altering the generation, load pattern, or both, in order to change physical flows in the electricity system and relieve a physical congestion or otherwise ensure system security”*

#### Article 13(7) [first sentence]

*“Where non-market based redispatching is used, it shall be subject to financial compensation by the system operator requesting the redispatching to the operator of the redispatched generation, energy storage or demand response facility except in the case of producers that have accepted a connection agreement under which there is no guarantee of firm delivery of energy.”*

It is set out in the original solution that an Emergency Instruction would only be used by the ESO as a last resort in an emergency and once all other commercial means were exhausted. Some parties, principally the ESO and network operators, feel that compensation does not feel compatible with a last resort situation and is not payable for equivalent demand control actions. However, as the Clean Energy Package (2019/943) makes clear, compensation is legally due where redispatching of non-market based generation occurs which is precisely what GC0147 is designed to do and therefore this alternative would ensure legal compliance by the ESO with its obligations.

In terms of the quantum of the appropriate compensation to be paid by the ESO, this should be calculated in accordance with Article 13(7):

#### Article 13(7) [second sentence]

*“Such financial compensation shall be at least equal to the higher of the following elements or a combination of both if applying only the higher would lead to an unjustifiably low or an unjustifiably high compensation:*

*(a) additional operating cost caused by the redispatching, such as additional fuel costs in the case of upward redispatching, or backup heat provision in the case of*

*downward redispatching of power-generating facilities using high-efficiency cogeneration;*

*(b) net revenues from the sale of electricity on the day-ahead market that the power-generating, energy storage or demand response facility would have generated without the redispatching request; where financial support is granted to power-generating, energy storage or demand response facilities based on the electricity volume generated or consumed, financial support that would have been received without the redispatching request shall be deemed to be part of the net revenues.”*

In terms of the timing for the payment of the compensation by the ESO to the affected (that is redispatched) embedded generators this should be paid by no later than 6 weeks after the implementing of the Embedded Generation Control instruction

Proposer's Assessment against Grid Code Objectives	
Relevant Objective	Identified impact
(a) To permit the development, maintenance and operation of an efficient, coordinated and economical system for the transmission of electricity	<b>Positive/Negative/None:</b> None
(b) Facilitating effective competition in the generation and supply of electricity (and without limiting the foregoing, to facilitate the national electricity transmission system being made available to persons authorised to supply or generate electricity on terms which neither prevent nor restrict competition in the supply or generation of electricity);	<b>Positive/Negative/None:</b> Positive
(c) Subject to sub-paragraphs (i) and (ii), to promote the security and efficiency of the electricity generation, transmission and distribution systems in the national electricity transmission system operator area taken as a whole;	<b>Positive/Negative/None:</b> Positive
(d) To efficiently discharge the obligations imposed upon the licensee by this license and to comply with the Electricity Regulation and any relevant legally binding decisions of the European Commission and/or the Agency; and	<b>Positive/Negative/None:</b> Positive
(e) To promote efficiency in the implementation and administration of the Grid Code arrangements	<b>Positive/Negative/None:</b> None

As with the original solution, a usable solution in a last resort emergency situation lessens the risk of any impact on security of supply during very low demand periods and has a clear positive impact therefore on objective (c).

By ensuring appropriate compensation there is a positive impact on (b) in facilitating competition but since an emergency instruction is a last resort to be used only on the exhaustion of all commercial alternatives (and it is hoped that it will never be used), so the impact to users will be very small. Given the expected rarity of this event this is a more efficient solution for compensation than the more onerous alternatives (such as participation in the BM or in any commercial service that may replace ODFM) which compels non-market based generators against their will (for if they wanted to they could join those mechanisms) to be continuous market participants (with all the associated costs and impacts to small parties) in order for them to be paid in the rare event they are redispatched.

Notwithstanding the concerns as to the legal compatibility of GC0147 Original in terms of the System Defence Plan (version 3) and the Risk Preparedness Plan for GB as discussed at the 6<sup>th</sup> Workgroup meeting; there is a positive impact on (d) as this ensures that the ESO complies with the legal duties set out in Article 2(26) and Article 13(7) of Regulation 2019/943 of the Clean Energy Package.

### When will this change take place?

**Implementation date:**

As per original

**Implementation approach:**

As per the original.

### Acronyms, key terms and reference material

Acronym / key term	Meaning