



Annex – System Operator Ruleset distinguishing Constraint and Curtailment

This annex sets out EirGrid and SONI's proposed classification of dispatch down events as constraint and curtailment. It has consistently been EirGrid and SONI's position that it is not possible at all times to unambiguously determine or classify the exact quantities of constraint and curtailment. In EirGrid and SONI's response to SEM-12-028 published alongside this paper, EirGrid and SONI make clear that it is only if the ruleset as proposed is accepted and therefore *de facto* becomes the definition of a constraint or curtailment event for the purposes of their classification in market settlement, that potentially different treatment of constraint and curtailment events can be accommodated.

The ruleset as proposed is an *ex ante* assessment of the system conditions pertaining against which it is necessary to issue a dispatch down instruction. In assessing the system conditions, control engineers are aided and supported by contingency analysis software and stability assessment tools in operation in the control centres. These tools help diagnose potential overloads both pre- and post-network fault and/or the likelihood of system conditions occurring where the overall levels of wind penetration may lead to reduced system stability or breach of operating policies and standards. The decisions are informed by the tools and the various rules in place in both control centres such that the arrangements will be applied consistently and will ensure that no undue discriminatory treatment is afforded one party over another, as indeed is a more general requirement of both EirGrid and SONI's licences. The system will at all times be operated in accordance with the Operational Security Standards and Operational Policies pertaining.

To that end to following ruleset definition is proposed.

Operational Rule for determination of Constraint or Curtailment

The assessment of the system and system conditions for the determination of constraint and curtailment events will be carried out in real-time based upon the sequence of events as experienced by and seen by the Control Centre. Given this, and if an event gives rise to the need to dispatch down wind generation:

*If the Control Centre assumed it had control over every wind farm on the island of Ireland and the security issue presented could only be resolved by reducing the output of one or a small group of wind farms then that reduction is **deemed a constraint** and logged as such.*

*If the Control Centre assumed it had control over every wind farm on the island of Ireland and the security issue presented could be resolved by reducing the output of any or all of the wind farms then that reduction is **deemed a curtailment** and logged as such.*

For the avoidance of doubt, if there are multiple control decisions that need to be made, at a given point in time, for curtailment and constraint reasons, the constraint decisions must be dealt with first.

When the constraint has been dealt with any remaining wind farms that need to have their output reduced will be curtailed.

This latter point is consistent with the framework as set out in SEM-11-105 which specified that constraints should be dealt with first. It is worth noting that all classifications will be electronically recorded when the systems are in place to implement SEM 011-62 as identified in the report provided to the Regulatory Authorities.

In applying the ruleset the following should be noted:

1. It is the ruleset that defines the designation of a dispatch down event as constraint or curtailment
2. It is an *ex ante* ruleset and does not deem to assess what would have been the categorisation had events after the time the *ex ante* assessment was made been taken into account.
3. The ruleset is developed on the premise that dispatch is pro rata, and that pro rata dispatch can be supported. While this approach may be reasonable at the current point in time, in the future, with potentially differing levels of service provision and contribution to system stability from different wind generation units as technology evolves, this may need to be further examined to determine its continued feasibility/ appropriateness.

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