

(8) Priority dispatch and curtailment rules

Priority dispatch has been an important tool to facilitate renewable energy integration into the power system and address market failures including curtailment resulting from an inflexible power system. Curtailment remains one of the most significant challenges for renewable energy integration into weakly interconnected systems (Ireland, Spain). The problem also remains acute in countries such as Germany where the roll out of infrastructure is lagging behind the deployment of renewables and many conventional plants benefit from must-run obligations.

When considering removal of priority dispatch, a balance needs to be struck between the customers' interests, by ensuring competition, and the renewables investors', by reducing the risk associated with the volume of power to be injected into the grid. Priority dispatch should only be removed with the right market design that will allow curtailment to be properly valued by the market as a system service.

RECOMMENDATIONS

The post-2020 Renewables Directive and the revised Electricity Directive should:

- Clarify the cumulative conditions under which priority dispatch for newly installed renewable generators could be removed:
 - Priority dispatch for any other technology (including for indigenous primary energy and CHP) is removed, and must-run arrangements for conventional units are reduced to the technically necessary minimum;
 - Existence of liquid intraday markets with gate closure near real-time (CACM regulation);
 - Ensure renewable generators can fairly compete in balancing markets (Balancing guidelines); and
 - Grid infrastructure is developed and there is a satisfactory level of market transparency.
- Define curtailment and congestion management rules requiring system operators (TSO, DSO) to:
 - Be transparent: curtailment decisions must be well explained and reported by the system operators, and constitute a last resort measure;
 - Provide compensation for curtailed energy: the calculation method for the amount of spilled energy, corresponding cost and eventual compensation must be clear; and
 - Implement progressive operational procedures (e.g. advanced forecasting tools).
- Priority dispatch should continue to be applied for existing RES plants in order to maintain investor confidence. Alternatively, their right to priority dispatch could be transformed - on a voluntary basis - into a direct benefit of an equivalent value.

RATIONALE

1) Priority dispatch ensures that renewable producers are curtailed last and grid is being reinforced

In all the leading European countries on RES integration, wind power curtailment has been limited to less than 5%, despite high penetration ratios. TSOs in these countries had a clear incentive to suitably plan and operate their grids to accept large volumes of renewables (e.g. Ireland is increasing the cap for asynchronous production from 50% to 75%) as a result of priority dispatch provisions.

2) Curtailment has to be understood as a system service which needs to be remunerated

The service of dispatching-down power should be offered through the balancing market. Today, most wind power plants have the capability of providing downwards and upwards regulation, but this capability is not being used due to entry barriers to the balancing markets. As long as market rules do not allow them to participate, regulated compensation related to the foregone revenues are needed to limit market risk and ensure investment costs are not disproportionate.

Annex 1: Amendments to Directive 2009/72/EC

LEGEND:

NEW	new Article proposed by WindEurope
Blue text	new legal text proposed by WindEurope
Black text	existing legal text under Directive 2009/72/EC
[...]	comments by WindEurope

Article 15: Dispatching and balancing

[...]

3. A Member State shall require system operators to act in accordance with Article 16 of Directive 2009/28/EC when dispatching generating installations using renewable energy sources. ~~They also may require the system operator to give priority when dispatching generating installations producing combined heat and power.~~
4. ~~A Member State may, for reasons of security of supply, direct that priority be given to the dispatch of generating installations using indigenous primary energy fuel sources, to an extent not exceeding, in any calendar year, 15% of the overall primary energy necessary to produce the electricity consumed in the Member States concerned.~~

Article 37: Duties and powers of the regulatory authority

6. The regulatory authorities shall be responsible for fixing or approving sufficiently in advance of their entry into force at least the methodologies used to calculate or establish the terms and conditions for:

[...] NEW

- b. The provision of balancing services which shall be performed in the most economic manner possible and provide appropriate incentives for network users to balance their input and off-takes. The balancing services shall be provided in a fair and non-discriminatory manner and be based on objective criteria. **Curtailment of variable renewable energy should be considered as a service of dispatching down power and be remunerated accordingly via the balancing mechanism or a regulated compensation considering the foregone revenue and be settled close to the time when the curtailment occurs. The calculation method for the amount of spilled energy, corresponding cost and eventual compensation must be clear and plausibly assessed for all stakeholders; and**
9. The regulatory authorities shall monitor congestion management of national electricity systems including interconnectors, and the implementation of congestion management rules. To that end, transmission **and distribution** system operators or market operators shall submit their congestion management rules, including capacity allocation, to the national regulatory authorities. **They should include transparent rules for curtailment measures, including systematic justification, annual reporting and regular assessments of the cost-benefit of curtailment against reducing must-run obligations for conventional units.** National regulatory authorities may request amendments to those rules.

Annex 2: Amendments to Directive 2009/28/EC

LEGEND:

NEW	new Article proposed by WindEurope
Blue text	new legal text proposed by WindEurope
Black text	existing legal text under Directive 2009/28/EC
[...]	comments by WindEurope

Article 16: Access to and operation of the grids

[...]

2. Subject to requirements relating to the maintenance of the reliability and safety of the grid, based on transparent and non-discriminatory criteria defined by the competent national authorities:

[...]

- b) Member States shall ensure that when dispatching electricity generating installations, transmissions and distribution system operators give priority to generating installations using renewable energy sources in so far as the secure operation of the national electricity system permits and based on transparent and non-discriminatory criteria.
- c) Member States may only consider removing priority of dispatch for newly installed power plants provided that the following minimum regulatory and market conditions are fulfilled:
 - i. Priority of dispatch for any other technology is removed, and ensure must-run arrangements for conventional units are minimised;
 - ii. Liquid intraday markets provide renewables producers with trading opportunities close to real-time;
 - iii. Balancing markets provide a level playing field for the participation of renewables producers; and
 - iv. Congestions are prevented by an appropriate level of investments in grid infrastructure, in line with the ambition of 2030 integrated national energy and climate plans, and the implementation of appropriate grid and market-related operational measures.
- d) As long as conditions referred to in paragraph 2-c) are not met, curtailment can only be considered as a measure of last resort, systematically justified by the responsible system operators. To this end, Member States shall require both transmission and distribution system operators to adopt transparent curtailment and congestion management rules, including regulated compensation according to the foregone revenues for the volume of electricity curtailed, and regular reporting to the competent regulatory authority.
- e) When the conditions spelled out in article 16.2-c) are met, Member States shall ensure that curtailment of electricity from renewable energy sources is valued as a system service to can be remunerated trough the balancing market.

Annex 3: WindEurope position paper

- [Priority dispatch and curtailment](#), June 2016