Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (Text with EEA relevance)

COMMISSION REGULATION (EU) 2017/1485

of 2 August 2017

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(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity and repealing Regulation (EC) No 1228/2003[(1)], and in particular Article 18(3)(d) and Article 18(5) thereof,

Whereas:

(1) A fully functioning and interconnected internal energy market is crucial for maintaining security of energy supply, increasing competitiveness and ensuring that all consumers can purchase energy at affordable prices.

(2) Regulation (EC) No 714/2009 sets out non-discriminatory rules governing access to the network for cross-border exchanges in electricity with a view to ensuring the proper functioning of the internal market in electricity.

(3) Harmonised rules on system operation for transmission system operators ('TSOs'), distribution system operators ('DSOs') and significant grid users ('SGUs') should be set out in order to provide a clear legal framework for system operation, facilitate Union-wide trade in electricity, ensure system security, ensure the availability and exchange of necessary data and information between TSOs and between TSOs and all other stakeholders, facilitate the integration of renewable energy sources, allow more efficient use of the network and increase competition for the benefit of consumers.

(4) To ensure the operational security of the interconnected transmission system, it is essential to define a common set of minimum requirements for Union-wide system operation, for the cross-border cooperation between the TSOs and for utilising the relevant characteristics of the connected DSOs and SGUs.

(5) All TSOs should comply with the common minimum requirements on procedures necessary to prepare real-time operation, to develop individual and deliver common grid models, to facilitate the efficient and coordinated use of remedial actions which are necessary for real-time operation in order to maintain the operational security, quality and stability of the interconnected transmission system, and to support the efficient functioning of the European internal electricity market and facilitate the integration of renewable energy sources ('RES').

Changes to legislation: *Commission Regulation (EU) 2017/1485 is up to date with all changes known to be in force on or before 28 December 2020. There are changes that may be brought into force at a future date. Changes that have been made appear in the content and are referenced with annotations. (See end of Document for details) View outstanding changes*

(6) While there are currently a number of voluntary regional cooperation initiatives in system operations promoted by TSOs, formalised coordination between TSOs is necessary for operating the Union transmission system in order to address the transformation of the Union electricity market. The rules for system operation provided for in this Regulation require an institutional framework for enhanced coordination between TSOs, including the mandatory participation of TSOs in regional security coordinators ('RSCs'). The common requirements for the establishment of RSCs and for their tasks set out in this Regulation constitute a first step towards further regional coordination and integration of system operation and should facilitate the achievement of the aims of Regulation (EC) No 714/2009 and ensure higher security of supply standards in the Union.

(7) This Regulation should set out a framework for the mandated cooperation of TSOs via the appointment of RSCs. RSCs should issue recommendations to the TSOs of the capacity calculation region for which it is appointed. TSOs should, individually, decide whether to follow or not the recommendations of the RSC. The TSO should remain responsible for maintaining operational security of its control area.

(8) Rules on operational training and certification are required in order to guarantee that system operator employees and other operational staff are skilled and well trained and that the system operator employees in real-time operation are certified to operate the transmission system in a secure way during all operational situations. The rules on training and certification strengthen and formalise existing best practices amongst TSOs and ensure that minimum standards are applied by all TSOs in the Union.

(9) Operational testing and monitoring requirements aim at ensuring the correct functioning of the elements of the transmission system, the distribution system and of the grid users' equipment. Planning for and the coordination of operational tests are necessary to minimise disruptions in the stability, operation and economic efficiency of the interconnected system.

(10) In view that planned outages impact grid stability also outside of a TSO's control area, each TSO should, within the scope of operational planning, monitor the feasibility of planned outages for each time-frame and where necessary, coordinate outages with and between TSOs, DSOs and SGUs when those outages have an impact on cross-border flows affecting the operational security of the transmission systems.

(11) The operational and scheduling processes required to anticipate real-time operational security difficulties and develop relevant remedial measures involve timely and adequate data exchange. Therefore, such exchange should not be hampered by any barriers between the different actors involved.

(12) One of the most critical processes in ensuring operational security with a high level of reliability and quality is the load-frequency control ('LFC'). Effective LFC can be made possible only if there is an obligation for the TSOs and the reserve connecting DSOs to cooperate for the operation of the interconnected transmission systems as one entity and for providers' power generating modules and providers' demand facilities to meet the relevant minimum technical requirements.

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(13) The provisions on LFC and reserves, aim at setting out clear, objective and harmonised requirements for TSOs, reserve connecting DSOs, providers' power generating modules and providers' demand facilities in order to ensure system security and to contribute to non-discrimination, effective competition and the efficient functioning of the internal electricity market. The provisions on LFC and reserves provide the technical framework necessary for the development of cross-border balancing markets.

(14) In order to ensure the quality of the common system frequency, it is essential that a common set of minimum requirements and principles for Union-wide LFC and reserves are defined as a basis for both the cross-border cooperation between the TSOs and, where relevant, for utilising characteristics of the connected generation, consumption and distribution systems. To that end, this Regulation addresses the LFC structure and operational rules, the quality criteria and targets, the reserve dimensioning, the reserve exchange, sharing and distribution and the monitoring related to LFC.

(15) Synchronous areas do not stop at the Union's borders and can include the territory of third countries. The Union, Member States and TSOs should aim for secure system operation inside all synchronous areas across the Union. They should support third countries in applying similar rules to those contained in this Regulation. ENTSO for Electricity should facilitate cooperation between Union TSOs and third country TSOs concerning secure system operation.

(16) In accordance with Article 8 of Regulation (EC) No 713/2009 of the European Parliament and of the Council[(2)], the Agency for the Cooperation of Energy Regulators (‘the Agency’) should take a decision if the competent regulatory authorities are not able to reach an agreement on common terms and conditions or methodologies.

(17) This Regulation has been developed in close cooperation with the Agency, ENTSO for Electricity and stakeholders, in order to adopt effective, balanced and proportionate rules in a transparent and participative manner. In accordance with Article 18(3) of Regulation (EC) No 714/2009, the Commission will consult the Agency, ENTSO for Electricity and other relevant stakeholders before proposing any amendment to this Regulation.

(18) The measures provided for in this Regulation are in accordance with the opinion of the Committee referred to in Article 23(1) of Regulation (EC) No 714/2009,

HAS ADOPTED THIS REGULATION:

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PART I

GENERAL PROVISIONS

Article 1

Subject matter

For the purpose of safeguarding operational security, frequency quality and the efficient use of the interconnected system and resources, this Regulation lays down detailed guidelines on:

(a) requirements and principles concerning operational security;

(b) rules and responsibilities for the coordination and data exchange between TSOs, between TSOs and DSOs, and between TSOs or DSOs and SGUs, in operational planning and in close to real-time operation;

(c) rules for training and certification of system operator employees;

(d) requirements on outage coordination;

(e) requirements for scheduling between the TSOs' control areas; and

(f) rules aiming at the establishment of a Union framework for load-frequency control and reserves.

Article 2

Scope

1 The rules and requirements set out in this Regulation shall apply to the following SGUs:

a existing and new power generating modules that are, or would be, classified as type B, C and D in accordance with the criteria set out in Article 5 of Commission Regulation (EU) 2016/631[(3)];

b existing and new transmission-connected demand facilities;

c existing and new transmission-connected closed distribution systems;

d existing and new demand facilities, closed distribution systems and third parties if they provide demand response directly to the TSO in accordance with the criteria in Article 27 of Commission Regulation (EU) 2016/1388[(4)];

e providers of redispatching of power generating modules or demand facilities by means of aggregation and providers of active power reserve in accordance with Title 8 of Part IV of this Regulation; and

f existing and new high voltage direct current (‘HVDC’) systems in accordance with the criteria in Article 3(1) of Commission Regulation (EU) 2016/1447[(5)].

2 This Regulation shall apply to all transmission systems, distribution systems and interconnections in the Union and regional security coordinators, except transmission systems and distribution systems or parts of the transmission systems and distribution systems located in islands of Member States of which the systems are not operated synchronously with Continental Europe (‘CE’), Great Britain (‘GB’), Nordic, Ireland and Northern Ireland (‘IE/NI’) or Baltic synchronous area.

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3 Where more than one TSO exists in a Member State, this Regulation shall apply to all TSOs in a Member State. Where a TSO does not have a function relevant to one or more obligations under this Regulation, Member States may, under the national regulatory regime, provide that the responsibility of a TSO to comply with one or some or all obligations under this Regulation is assigned to one or more specific TSOs.

4 The TSOs of Lithuania, Latvia and Estonia are, as long as and to the extent that they are operating in a synchronous mode in a synchronous area where not all countries are bound by Union legislation, exempted from the application of the provisions listed in Annex I to this Regulation, unless otherwise foreseen in a cooperation agreement with third country TSOs setting the basis for their cooperation concerning secure system operation pursuant to Article 13.

5 Where the requirements under this Regulation are to be established by a relevant system operator that is not a TSO, Member States may provide that instead the TSO be responsible for establishing the relevant requirements.

Article 3

Definitions

1 For the purposes of this Regulation, the definitions in Article 2 of Regulation (EC) No 714/2009, Article 2 of Commission Regulation (EU) 2015/1222[(6)], Article 2 of Commission Regulation (EU) 2016/631, Article 2 of Commission Regulation (EU) 2016/1388, Article 2 of Commission Regulation (EU) 2016/1447, Article 2 of Commission Regulation (EU) 2016/1719[(7)], Article 2 of Commission Regulation (EU) No 543/2013[(8)] on submission and publication of data in electricity markets and Article 2 of Directive 2009/72/EC of the European Parliament and of the Council[(9)] shall apply.

2 In addition, the following definitions shall apply:

(1) ‘operational security’ means the transmission system's capability to retain a normal state or to return to a normal state as soon as possible, and which is characterised by operational security limits;

(2) ‘constraint’ means a situation in which there is a need to prepare and activate a remedial action in order to respect operational security limits;

(3) ‘N-situation’ means the situation where no transmission system element is unavailable due to occurrence of a contingency;

(4) ‘contingency list’ means the list of contingencies to be simulated in order to test the compliance with the operational security limits;

(5) ‘normal state’ means a situation in which the system is within operational security limits in the N-situation and after the occurrence of any contingency from the contingency list, taking into account the effect of the available remedial actions;

(6) ‘frequency containment reserves’ or ‘FCR’ means the active power reserves available to contain system frequency after the occurrence of an imbalance;

(7) ‘frequency restoration reserves’ or ‘FRR’ means the active power reserves available to restore system frequency to the nominal frequency and, for a synchronous area consisting of more than one LFC area, to restore power balance to the scheduled value;