Regional Coordination Centre Post-Operation and Post-Disturbances Analysis and Reporting Methodology

in accordance with Article 37 (1) (i) of the Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity

--- 3 January 2022

Implementation date: See Article 10
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Regional Coordination Centre Post-Operation and Post-Disturbances Analysis and Reporting Methodology

ENTSO-E, taking into account the following,

Whereas

1. The Regulation (EU) 2019/943 on the internal market for electricity adopted by the European Union Parliament and of the Council of 5 June 2019 on the internal market for electricity (hereafter referred to as “Regulation”) was developed and adopted as part of the European Union’s Clean Energy Package for All Europeans.

2. Article 35 of this Regulation establishes (EU) 2019/943 provides for the establishment of regional coordination centres (RCCs) while Article 37 enlists the RCCs’ tasks and their roles. Article 37(1)(i) mandates the RCCs to carry out post-operation and post-disturbances analysis and reporting while Annex I of the Regulation (EU) 2019/943 provides further details.

   i. This document “6.1 sets out the methodology for Regional coordination centres shall investigate and prepare a report on any incident above the threshold Post-Disturbances Analysis and Reporting (hereafter referred to in point 4.2 (of Annex I in Regulation (EU) 2019/943). The regulatory authorities in the system operation region and ACER may be involved in the investigation upon their request. The report shall contain recommendations aiming to prevent similar incidents in the future.

   ii. 6.2 Regional coordination centres shall publish the report. ACER may issue recommendations aiming to prevent similar incidents in the future.”

3. This document “a methodology”), developed by the European Network of Transmission System Operators for Electricity (ENTSO-E), with consultations from RCCs, in accordance with the Regulation (EU) 2019/943 and in particular, Article 37(1)(i) and Article 37(5) on the obligation of the RCCs to carry out post-operation and post-disturbances analysis and reporting. This methodology provides definitions, describes the RCC Investigation, defines the RCC investigation threshold, explains the data collection process, prescribes the work of the Expert Panel and guides the RCCs in the process of preparation of the post-disturbances report. This document is hereafter referred to as the ‘methodology’.

4. The ENTSO-E’s methodology on the “Incident Classification Scale (ICS)” approved by ENTSO-E System Operations Committee on 04 December 2019 was used to support the development of the Regional Coordination Centre Post-Operation and Post-Disturbances Analysis and Reporting Methodology.

5. This methodology is subject to public consultation and ACER approval according to Article 27 of the Regulation (EU) 2019/943.

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2 OJ L 158, 14.6.2019, p. 54–124
3 All transmission system operators shall agree on a threshold above which the impact of actions of one or more transmission system operators in the emergency, blackout or restoration states is considered significant for other transmission system operators synchronously or non-synchronously interconnected.
6. According to Article 42(3) of Regulation (EU) 2019/943 on the internal market for electricity adopted by the European Union and of the Council of 5 June 2019, Article 42(3), the RCCs shall issue recommendations to the transmission system operators (TSOs) in relation to the tasks listed in points (c) to (p) of Article 37(1) or assigned in accordance with Article 37(2). Where, in accordance with the same article, a transmission system operator TSO decides to deviate from a recommendation as referred to in paragraph 1 issued by RCCs, it shall submit a justification for its decision to regional coordination centres RCCs and to the other transmission system operators TSOs of the system operation region without undue delay.\(^5\)

7. Non-European Union countries (Third countries), their Transmission System Operators (TSOs) and Regional Coordination Centres (RCCs) are not legally mandated to abide with processes described by this methodology however they are invited to follow it together by the EU Member States.

Title 1
Definitions and provisions

7. Article 1—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 Regulation (EU) 2019/943. ENTSO-E should facilitate cooperation between Union TSOs and third country TSOs and their RCCs concerning secure system operation.

8. In this respect, recital 70 Regulation (EU) 2019/943 further stresses the need for close cooperation with Member States, the Energy Community Contracting Parties and other third countries which apply Regulation (EU) 2019/943 or are part of the synchronous area of Continental Europe. This cooperation should cover all matters concerning the development of an integrated electricity trading region and ensure that no measures are taken that endanger the further integration of electricity markets or security of supply of Member States and Contracting Parties.

9. All TSOs of those synchronous areas neighbouring third country TSOs should endeavour where necessary to enter into agreements setting the basis for their technical cooperation and compliance with the relevant EU legislation.
Title 1
Subject matter, scope and definitions

Article 1
Subject matter and scope

1. This methodology establishes the process to carry out a post-operation and post-disturbances analysis and reporting performed by the RCCs.

2. The RCCs’ process to carry out the post-operation and post-disturbances analysis and reporting interacts with the process run by the ICS Expert Panel established for the investigation of incidents on scale 2 and scale 3 in accordance with the ICS Methodology. An RCC Investigation Subgroup is created within the ICS Expert Panel, in case the RCC Investigation Threshold defined in Article 5(1) is met.

Article 2
Definitions and interpretation

1. For the purpose of this document/methodology, the definitions included in the Article 3 of the Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation shall apply.

2. Additionally, the following abbreviations and definitions shall apply to this methodology:
   a. “ACER” refers to the European Union Agency for the Cooperation of Energy Regulators;
   b. “EAS” refers to the ENTSO-E Awareness System;
   c. “ENTSO-E” refers to the European Network of Transmission System Operators for Electricity;
   d. “ICS” means Incident Classification Scale;
   e. “ICS Methodology” refers to the applicable methodology on incident classification scale developed by ENTSO-E Incident Classification Scale Methodology, in accordance with Article 30(1)(i) of the Regulation (EU) 2019/943;
   f. “ICS Subgroup” refers to the group that is responsible for building and maintaining the ICS Methodology within the ENTSO-E. This group is responsible for the Incident Classification Scale (ICS) data collecting the necessary data;
   g. “ICS Expert Panel” refers to the Expert Panel that conducts the investigation on scale 2 and scale 3 incidents as described in the ICS Methodology.

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Article 2 — Subject matter and scope

1. This methodology establishes the process to carry out a post-operation and post-disturbances analysis and reporting performed by the Regional Coordination Centres (RCCs).

2. The investigation process for incidents on scale 2 and scale 3 is described in the ICS Methodology and performed by the ICS Expert Panel. The RCCs’ process to carry out the post-operation and post-disturbances analysis and reporting uses the existing Expert Panel of the ICS regarding the post-operation and post-disturbance analysis. An RCC Investigation Subgroup is created within the ICS Expert Panel, in case the RCC Investigation Threshold is met.
Title 2
RCC members and incident reporting

Article 3
RCC Investigation-member

1. Each RCC shall appoint an RCC SPOC and shall communicate this to the ICS Subgroup via email. The ICS Subgroup shall update the list of RCC SPOCs on an annual basis.

2. Each RCC SPOC shall nominate a main and a backup RCC member responsible to participate in the concerned RCC Investigation with the ICS Subgroup and the ICS Expert Panel.

3. RCCs shall nominate each RCC SPOC shall, via email, confirm with the ICS Subgroup the nominated RCC members within one week after the incident occurred and before classification of the incident.

4. The convenor of the ICS Subgroup shall, as soon as possible, inform the ENTSO-E ICS Subgroup on their appointed ICS Expert Panel of the nominated RCC members and share their contact details via email.

5. The RCC members shall analyse and assess, with the ICS Subgroup, if the RCC Investigation Threshold was met for that incident (see Article 4).

Article 4
Incident reporting and the RCC Investigation Threshold validation

1. TSOs shall report all incidents that are suspected to be classified as scale 2 or scale 3 incidents in accordance with the ICS Methodology, by using the ICS reporting process as prescribed in the ICS Methodology.

2. If a reported incident affects two or more TSOs, the ICS Subgroup shall classify the incident according to the ICS Methodology and invite all RCCs/RCC members to verify whether the RCC Investigation Threshold was met. The convenor of the ICS Subgroup shall send an email to invite, early on, the RCC members with an invitation to participate in a meeting where this is discussed.

3. The ICS Subgroup and the RCCs/RCC members shall assess whether the RCC Investigation Threshold was met using the initial available data collected pursuant to paragraph 1. This initial data will be updated with a more recent and accurate data, to the extent available, during the ICS Expert Panel meetings.

4. If, based on the initial data, it is confirmed that the RCC Investigation Threshold was met, at least one representative from the RCCs/RCC member shall participate in the ICS Expert Panel meetings for the applicable incident under investigation. The participating RCC(s) will represent the incident did not affect all RCCs in the Expert Panel. The ICS Expert Panel shall include at least one RCC member from each RCC whose region was not affected by the incident. In case all RCCs were affected, all RCCs shall agree on the RCC members that participate in the ICS Expert Panel meetings for the applicable incident under investigation.
In the factual report of the ICS Expert Panel, a final decision is made based on the analysis of incident data and sequence of events as to whether the RCC Investigation Threshold was met and include this information in the ICS Factual Report.
Title 3
Relevant incidents and data collection

Article 5
Incidents that classify for the RCC Investigation Threshold

1. The incident classifies as meeting the RCC Investigation Threshold if the following criteria are met:
   a. As a result of actions taken by a TSO being in Emergency, Blackout or Restoration system state, another TSO has moved from Normal or Alert System State to Emergency System State; and
   b. At least a scale 2 incident as defined by the ICS Methodology has been confirmed.

2. The occurrence of the “Emergency states” shall be re-assessed and validated by the ICS Expert Panel in the ICS Factual Report. This assessment is necessary to validate if the RCC Investigation Threshold was met.

3. The EAS shall remain an operational tool, that is created to inform other TSOs about the system states. The ICS Expert Panel shall validate whether the incident is relevant for the RCC Investigation by performing post-analysis. During the post-analysis the ICS Expert Panel shall determine the factual system states for the relevant control areas during the incident.

4. The RCC Investigation Threshold shall be confirmed in the ICS Factual Report, where the incident data and sequence of events is analysed.

Article 6
Data Collection

1. The RCC Investigation Subgroup, once it is established within the ICS Expert Panel, shall use data gathered by the ICS Expert Panel.

2. The RCC Investigation Subgroup shall define what additional data is necessary for each investigation, which can only be related to the RCCs’ tasks, which are indicated in accordance with Article 37 or Annex I of the Regulation (EU) 2019/943.

3. Data is necessary for each RCC Investigation. The data requested shall be specific for each incident.

4. Collection of additional data required for the RCC investigation is gathered by the RCC Investigation Subgroup.

5. The RCC Investigation Subgroup shall collect the additional data required from the RCCs and TSOs gathered through with a questionnaire provided by the RCC Investigation Subgroup. The ICS Expert Panel shall in turn circulate the questionnaire is distributed by the RCC Investigation Subgroup through the ICS Expert Panel.

3. The additional data required by the RCC Investigation Subgroup shall be provided by the requested with the concerned parties (RCCs and TSOs).
6.4. The concerned parties (RCCs and TSOs) shall, as soon as possible and ultimately within 14 calendar days, unless if of the receipt of the questionnaire, provide the RCC Investigation Subgroup with the additional data. If the gathering of the additional data would require via the questionnaire requires more time. Extended, the RCC Investigation Subgroup may extend the deadline has to be decided via email by the RCC Investigation Subgroup.
Title 4
RCC investigation, results and reporting

Article 7
Investigation handling

1. If reaching the RCC Investigation Threshold is confirmed in the factual report, a subgroup of the ICS Expert Panel called “the RCC Investigation Subgroup”, composed of the members nominated in accordance with Article 3, shall be created consisting of impacted RCCs under the ICS Expert Panel. Where the incident did not affect all RCCs and a neutral, the RCC that is whose region was not impacted by the incident. The neutral shall lead the ICS Expert Panel. In case all RCCs were affected, all RCCs shall agree on the RCC member that shall lead the RCC Investigation Subgroup.

2. The regulatory authorities NRAs in the concerned system operation region and ACER may be involved in the investigation upon their request.

3. The ICS Expert Panel shall appoint a TSO representative that will participate in the RCC Investigation Subgroup. This TSO representative shall come from a TSO not impacted by the incident. In case all TSOs were affected, TSOs shall agree on the TSO member that shall participate in the RCC Investigation Subgroup.

4. The RCC Investigation Subgroup of the ICS Expert Panel shall investigate further the incident as per RCCs’ tasks in accordance with the Article 37 and Annex I of the Regulation (EU) 2019/943.

5. The RCC Investigation Subgroup shall meet regularly to analyse the incident related to the RCC tasks.

6. The method used to analyse the incidents shall be based on a well-known method such as the “fault tree analysis”.

7. The RCC Investigation Subgroup shall regularly update the ICS Expert Panel on its work, timeline, preliminary results and conclusions.

8. The ICS Expert Panel shall discuss with the RCC Investigation Subgroup about the preliminary results and conclusions of the RCC Investigation Subgroup and may ask for additional analysis or clarifications.

Article 8——
Results of the RCC investigation and reporting

1. The ICS Factual Report shall be prepared by the ICS Expert Panel at the latest 6 months after the end of the incident, and shall provide factual basis for the ICS Final Report as described in the ICS Methodology.
2. ICS Final Report, prepared by the ICS Expert Panel, shall contain the results of the investigation of
the scale 2 or scale 3 incident described in the ICS Methodology.

1.3. The conclusions of the RCC investigation shall be added in a dedicated chapter of the
ICS final report.

1.4. The RCC investigation conclusions shall include at least:
   a. a description of the functioning of the RCC(s) tasks affected by the incident and how
      these impacted the incident;
   b. explanations of the reasons for the incident;
   c. recommendations based on the findings of the RCC investigation with the aim
      to avoid future similar incidents.

2.5. The RCC investigation chapter of the ICS final report shall include only content related
to the RCC tasks, in accordance with Article 37 and Annex I of the Regulation (EU) 2019/943.


5.7. The Final Report of the RCCs shall publish the ICS Expert Panel Report, including the RCC investigation chapter, at latest by the publication of the Annual Incident Classification Scale report for the year in which the incident occurred.

**Article 9**

RCC recommendations

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1. The RCC Investigation Subgroup shall issue recommendations, in the RCC investigation chapter of the ICS final report. The aim of the recommendations is to prevent similar incidents in the future.

2. Recommendations shall be provided with respect to the RCCs’ tasks, in accordance with Article 37 and Annex I of the Regulation (EU) 2019/943.

3. Recommendations, not related to the RCC tasks, shall be gathered through the ICS Expert Panel Report.
Title 5
Implementation and language

Article 10
Implementation of the Proposal Methodology

1. The RCCs shall apply this methodology within 6 months from 1st of June 2022 or 6 months after the decision has been approved by ACER in accordance with Article 37(5) of the Regulation (EU) 2019/943 and published on ACER’s website, if ACER’s decision was issued after 1st of June 2022.

2. No later than ten months after the approval by ACER of this document, all TSOs of those synchronous areas neighbouring to third country TSOs not bound by Regulation (EU) 2019/943 shall endeavour to conclude with those third country TSOs agreements aiming at third country TSOs’ cooperation in the RCC Investigations and reporting of incidents that are suspected to be classified as scale 2 or scale 3 incidents in accordance with the ICS Methodology.

Article 11—
Language

1. The reference language for this Proposal methodology shall be English. For the avoidance of doubt, where TSOs or RCCs need to translate this Proposal methodology into their national language(s), in the event of inconsistencies between the English version published by ACER and any version in another language, the relevant TSOs or RCCs shall, in accordance with national legislation, provide the relevant national regulatory authorities with an updated translation of the Proposal methodology.

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