ACER
European Union Agency for the Cooperation of Energy Regulators

ACER'S STRATEGY FOR ELECTRICITY NETWORK CODES AND GUIDELINES

1. INTRODUCTION

Motivation and objectives driving the strategy

Since its inception ACER mainly focused on the development and adoption of network codes and related terms and conditions or methodologies as the necessary first step towards the completion of the internal energy markets. Now that most of the regulatory framework is in place, ACER must move its attention to monitoring the effective implementation of the regulatory framework, and its effects on the internal energy market.

ACER aims to provide promptly an overview of the implementation status of network codes and related terms and conditions or methodologies. This overview will follow a transparent and inclusive process for identifying annual monitoring priorities. The ACER Board of Regulators will participate in this process, which will include in-depth monitoring assessments and may result in formal recommendations or opinions.

Overview of the strategy

Monitoring allows identifying the barriers for the completion of the internal Electricity market. Monitoring all aspects of the implementation of certain European rules allows assessing whether certain barriers result from non-implementation, incomplete or incorrect implementation of these rules, as well as their appropriateness to achieve set policy objectives.

This note defines the ACER's monitoring strategy for the Market Codes[1], the System Operation & Grid Connection Codes[2], as well as regulations and terms and conditions or methodologies (TCM) linked to these network codes.

The note details the scope and legal basis for ACER's monitoring activities in Section 2. In Section 3.2., the note explains the current situation and long-term monitoring objectives. The note details the process to reach those goals and objectives, with the involvement of the European Commission, National Regulatory Authorities and stakeholders in Section 0. Finally the note details in Section 4 how observations and conclusions reached in the context of the ACER monitoring activities will inform formal ACER recommendations and opinions.

Implementing the monitoring strategy will ensure a holistic and timely identification of potential barriers for the completion of the internal Electricity market as well as solutions to remove those barriers.

[1] Namely currently on Electricity Balancing, Capacity allocation and congestion management and on Forward Capacity Allocation. It will also cover the Network Codes on Demand Response.
[2] Namely currently on System Operation, Emergency and Restoration, Demand Connection, High-Voltage Direct Current Connections, and Requirements for Generators.

2. LEGAL BASIS FOR MONITORING – MANDATE AND SCOPE

Table 1: Overview of the legal basis for monitoring activities

	Mandate	Scope
Market codes	5(1)(e) ACER Regulation[3] 32(1) Electricity Regulation[4]	15 ACER Regulation 82 CACM Regulation[5] 63 FCA Regulation[6] 59 EB Regulation[7]
System Operation and Grid connection codes	5(1)(e) ACER Regulation 32(1) Electricity Regulation	14(3) System Operation Regulation[8] 52 Emergency and Restoration[9] 59 Rfg Regulation[10] 57 DCC Regulation[11] 76 HVDC Regulation[12]
Data collection	3(2) ACER Regulation	

Note: CACM: capacity calculation and congestion management – FCA: forward capacity allocation – EB : electricity balancing – Rfg : requirements for grid connection – DCC: demand connection – HVDC: High Voltage Direct Current

Article 5(1)(e) of the ACER regulation sets a mandate to 'monitor and analyse' 'implementation' and 'effects' of network codes and guidelines. **Article 32(1) of the Electricity Regulation** sets this mandate in relation to electricity network codes.

Article 3(2) of the ACER Regulation sets an obligation on *'Regulatory authorities, ENTSO-E, the regional coordination centres, the EU DSO entity, the transmission system operators and the nominated electricity market operators'*[13] to provide data relevant to ACER's monitoring activities.

Other articles listed in Table 1 under 'Scope' specify topics to be covered when monitoring implementations and effects of given network codes and guidelines.

[3] Regulation (EU) 2019/942 of the European Parliament and of the Council of 5 June 2019 establishing a European Union Agency for the Cooperation of Energy Regulators.
[4] Regulation (EU) 2019/943 of the European Parliament and of the Council of 5 June 2019 on the internal market for electricity.
[5] Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management (CACM).
[6] Commission Regulation (EU) 2016/1719 of 26 September 2016 establishing a guideline on forward capacity allocation (FCA).
[7] Commission Regulation (EU) 2017/2195 of 23 November 2017establishing a guideline on electricity balancing (EB).
[8] Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation (SO).
[9] Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration (NC ER).
[10] Commission Regulation (EU) 2016/631 of 14 April 2016 establishing a network code on requirements for grid connection of generators (Rfg).
[11] Commission Regulation (EU) 2016/1388 of 17 August 2016 establishing a Network Code on Demand Connection (DCC).
[12] Commission Regulation (EU) 2016/1447 of 26 August 2016 establishing a network code on requirements for grid connection of high voltage direct current systems and direct current-connected power park modules (HVDC).
[13] ENTSO-E is the European association for the cooperation of transmission system operators; EU DSO stands for European Distribution system operators.

3. MONITORING MARKET, SYSTEM OPERATION AND GRID CONNECTION CODES

3.1 Definitions: implementation and effect monitoring

Article 5(1)(e) of the ACER Regulation refers to 'Implementation' and 'effects' monitoring.

Implementation monitoring seeks to identify if the regulatory framework is correctly in place. The basic level of implementation monitoring consists in a 'tick-the-box' assessment of the relevant provisions listed in a given regulation, guideline, or terms and conditions or methodologies. Basic implementation monitoring consists in a series of closed-ended questions corresponding to such relevant provisions.

This assessment has to be complemented with a detailed probing of technical measures in place, or 'in-depth' implementation monitoring, subject to prioritisation as described in section 0. In-depth monitoring consists in a detailed probing of technical measures in place.

Effects monitoring seeks to identify the effect of regulatory measures on markets. It consists in a series of technical and economic indicators.

3.2 State of Play – Monitoring

Table 2 provides an overview of ACER electricity monitoring reports published as of January 2023.

Table 2: Overview of the ACER electricity monitoring activities – Market Rules and System Operation & Grid Connection codes – January 2023

	Implementation monitoring	Effect monitoring
CACM, FCA	The first general monitoring report on the implementation of the CACM Regulation and the FCA Regulation was issued in 2019.	The ACER annual Market Monitoring Report analyses the effects of the early implementation activities of electricity market integration, such as: • market coupling in the day-ahead and intraday timeframe • introduction of flow-based capacity calculation • existence and quality of hedging opportunities in forward markets at different bidding zone borders in Europe • imbalance netting, and • other regional integration projects in balancing timeframe. **ACER's policy paper on the further development of the EU electricity forward market** (06/02/2023): Identifies problems of this market segment, among which market fragmentation and lack of integration are the main ones; and Recommends solutions (e.g. regional virtual trading hubs to pool liquidity). Such regional hubs need to be complemented by accessible transmission rights to cover the remaining risks of the market participants.
EB Regulation	As the implementation of the EB Regulation is still in a development stage and little effective implementation has taken place before 2019, ACER did not include any monitoring assessment of the EB Regulation so far.	
Grid Connection codes (Rfg, DCC, HVDC)	Since 2017, ACER has regularly published reports on the implementation of Grid connection codes[14]. The latest **Report on Monitoring the Implementation of the Grid Connection Network Codes** was published	The European Commission invited ACER to initiate the process to amend the existing EU network codes. In its **Policy Paper** published in September, ACER provided a high-level outline of the main areas to improve the

[14] https://www.acer.europa.eu/electricity/connection-codes/monitoring

	in November 2021. The document provides an updated analysis of the compliance issues identified in previous monitoring exercises.	Network Code on Requirements for Grid Connection of Generators and the Network Code on Demand Connection.
System Operation codes e.g. System Operation (SO) Regulation and Network Code on Emergency Response (NC ER)	**Report on the implementation of SO Regulation:** **ACER issued a report on the implementation of the Regulation in July 2022.** **Report on the implementation of the NC ER:** **ACER issued a report on the implementation of the Regulation in December 2021**.	**ACER Opinions on the SO Regulation:** The effects of the SO Regulation on the electric power system's behaviour are also indirectly demonstrated in **ENTSO-E's reports** based on the Incidents Classification Scale Methodology, on which ACER issued the following opinions: **ACER's Opinion No 04/2019 of 9 January 2019 on ENTSO-E Updated Common Incident Classification Scale. ACER's Opinion No 17/2014 of 19 September 2014 on ENTSO-E Incident Classification Scale Methodology 2014**. **ACER Opinions on the NC ER**: The effects of the Emergency and Restoration Network Code on the electric power system's behaviour are also indirectly demonstrated in **ENTSO-E's reports** based on the Incidents Classification Scale Methodology, on which ACER issued the following opinions: **ACER's Opinion No 04/2019 of 9 January 2019 on ENTSO-E Updated Common Incident Classification Scale.** **ACER's Opinion No 17/2014 of 19 September 2014 on ENTSO-E Incident Classification Scale Methodology 2014**.

The above shows ACER's significant monitoring efforts to date. Going forward, ACER will provide an updated and complete overview of the implementation status of CACM, FCA and EB Regulations and their respective TCMs. ACER will also clarify the process to select the implementation and effects monitoring priorities, which would deserve a more in-depth assessment;

3.3 Using Risk Assessment to Prioritise Monitoring Activities for Market rules and System Operation & Grid Connection codes

ACER must prioritise urgent monitoring obligations while also fulfilling all of its other responsibilities. Any prioritisation of tasks related to monitoring needs to be weighed off against available resources. For this reason, ACER will consider the automation of monitoring tasks whenever it can.

Furthermore, ACER conducts a risk assessment to determine the frequency and order of monitoring tasks for relevant regulations, network codes, guidelines, and TCMs. This assessment is updated yearly.

3.3.1 Implementation monitoring prioritisation

Article 5(1)(e) of the ACER Regulation outlines ACER's obligations for Implementation monitoring. It does not set a yearly scope for such monitoring. Implementation monitoring involves a significant volume of work. However, it does not need to be repeated on an annual basis. It must be repeated when the rule that was monitored is amended.

ACER uses a risk assessment to identify and prioritise areas of greatest potential risk and impact to focus its yearly implementation monitoring.

The risk assessment sets priorities according to rules described in Table 2.

Table 3: Priority-setting for implementation monitoring

NO RISK	LOW RISK	HIGH RISK	HIGHEST RISK
The previous monitoring exercise showed full implementation.	The NC, GL or TCM is undergoing amendments that render any implementation monitoring obsolete.	Monitoring exercise showed partial implementation or was not updated for several years.	• The NC, GL or TCM is a high priority for ACER* (e.g. cross-border capacities, market design, bidding zone reviews, REMIT**) • Implementation is very incomplete; or • The affected geographical area is significant.
The monitoring does not need to be repeated.	The monitoring is de-prioritised.	The monitoring is prioritised.	The monitoring is prioritised and short-listed.

*Note: *as defined in the ACER work programme or programming document; **when certain rules (e.g. balancing) are particularly subject to breaches in the Regulation on Wholesale Energy Market Integrity and Transparency (REMIT).*

Higher risks justify earlier and more frequent implementation monitoring, reported through yearly implementation monitoring reports.

As a general approach, ACER intends to systematically perform a 'tick-the-box' implementation monitoring exercise[15] on relevant regulations, network codes and TCMs. Such implementation exercise should be completed for all relevant topics by 2024 at the latest.

ACER conducts in-depth implementation monitoring when the effects monitoring indicates the presence of barriers to market integration[16]. The in-depth monitoring focuses on understanding how specific guidelines, network codes, terms and conditions or methodologies related to the identified barrier are being implemented in member states.

In-depth implementation monitoring is considered on a case-by-case basis. It is subject to a vetting process, as described in sub-section 3.3.3.

3.3.2 Effects monitoring prioritisation

Article 5(1)(e) of the ACER Regulation sets a mandate for monitoring and analysing the implementation and effects of the Market rules and TCMs, System Operation & Grid Connection codes and TCMs, and Grid Connection Network codes.

System Operation & Grid Connection codes-related monitoring is further based on a list of the relevant information to be communicated by ENTSO-E to ACER in accordance with Article 14(2) of the System Operation Guideline. Article 15 of the ACER Regulation sets a scope for market monitoring related to the Market Codes.

[15] See subsection 3.1
[16] See subsection 3.3.2

ACER may prioritise certain items from the ACER Regulation and System Operation & Grid Connection codes annually, and potentially de-emphasize or exclude others based on a risk assessment.

The assessment prioritises areas that pose the greatest potential risks to market integration. This includes areas where an already implemented rule has not been monitored yet, where recent adaptations were made to an implementation or where past monitoring has shown suboptimal effects. This is especially important for areas that ACER has identified as priorities in its programming document.

Such risk assessment further considers:

- recent market developments, e.g. the impact of important grid investments, or the 2022 energy crisis and associated emergency measures;
- changes affecting market operations, e.g. legal changes, changes in capacity calculation, configuration of the bidding zones…;
- how the different timeframes in which markets operate are affected by those changes, in order to focus on the timeframes that are most affected.

The list of areas that are prioritised for effect monitoring is subject to a vetting process, as described in sub-section 3.3.3.

3.3.3 Process for defining the annual monitoring priorities and stakeholders' involvement

ACER defines the annual monitoring priorities based on a risk assessment and resource availability. Those priorities are discussed first with all National Regulatory Authorities and the European Commission through the ACER Electricity Working Group (AEWG) and then with stakeholders, through the European Stakeholder Committees[17]. Their feedback is considered in finalising the list.

The final annual monitoring priorities is included in the annual AEWG's work plan. The monitoring priorities are subsequently discussed at the Board of Regulators.

4. RECOMMENDATIONS AND OPINIONS IN THE CONTEXT OF MONITORING (ALL MONITORING EXERCISES)

Implementation and Effects monitoring may result in ACER issuing recommendations and opinions. Recommendations and opinions are non-binding assessments of and solutions to a problem.

- **Recommendations** are non-binding acts meant to achieve certain ends without imposing a mandatory legal framework;
- **Opinions** are non-binding acts conveying an evaluation along with possible actions that can be taken with regard to a certain issue without imposing a mandatory legal framework.

Recommendations or opinions may be formal or informal.

A formal recommendation or opinion is a document adopted by ACER that is based on a legal provision and follows the process outlined in that provision, including any requirements for an opinion from the Board of Regulators. The scope and intended audience of the

[17] https://www.entsoe.eu/network_codes/esc/

recommendation or opinion are also determined by the legal provision. The content of the recommendation or opinion specifically addresses the conclusions from the monitoring exercise and aim thereby address the barriers for the completion of the internal Electricity market. Table 4 provides an overview of the legal basis for formal opinions or recommendations in the context of monitoring. Formal opinions or recommendations will be subject to a favourable opinion from the Board of Regulators when required according to Articles 22(5)(a) and 24(2) of the ACER Regulation.

Table 4: Overview on the legal basis for opinions and recommendations by acer in the context of monitoring

	Recommendation	Opinion
Article 3(1) R 2019/942: All issues	EP, Council, EC	EP, Council, EC
Article 4(6) R 2019/942 Incompliance of ENTSO-E, EU DSO, RCCs	ENTSO-E, EU DSO, RCCs	ENTSO-E, EU DSO, RCCs
Article 4(8) R 2019/942 Incompliance of ENTSO-E, EU DSO, RCCs	Recommendations to RAs	
Article 6(2) R 2019/942: Good practices	Recommendations to RAs, market participants	
Article 15(3) R 2019/943 Market monitoring		Opinion to EP, EC
Article 4(3) R 942/2019: ACER shall monitor the execution of the tasks of ENTSO-E		
Article 5(1)(e) R 2019/942: : Non-implementation of network codes/guidelines [ACER shall] monitor and analyse the implementation of the network codes		
Article 32(1) R 2019/943: Non-implementation of network codes by ENTSO-E ACER shall monitor the implementation by the ENTSO for Electricity of network codes developed under Article 59.		
Article 7(2) R 2019/942(c): RCCs	EP, Council, EC	EP, Council, EC
Article 7(2) R 2019/942(d): RCCs	RCC	RCC
Article 8 R 2019/942: NEMOs	EC	

A step in the monitoring process is to identify the topics and recipients for recommendations or opinions, and verifying if a legal basis for them exists.

If no legal basis is found, the issues can still be addressed informally, for example through a letter or press statement.

By default, ACER will issue all observations in the form of Opinions to the European Parliament and the European Commission based on Article 15(3) of the Electricity Regulation. Specific Recommendations and Opinions may be considered on a case-by-case basis, depending on the topic and the addressee.