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**COMMISSION OPINION**

**of 19.10.2022**

**under Regulation (EU) No 2019/941, on risk-preparedness in the electricity sector and  
repealing Directive 2005/89/EC, on the Risk-preparedness Plan submitted by the  
Competent Authority of Denmark to the European Commission.**

Only the Danish text is authentic

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## 1. PROCEDURE

Article 10 of Regulation (EU) 2019/941 of the European Parliament and of the Council of 5 June 2019 on risk-preparedness in the electricity sector and repealing Directive 2005/89/EC<sup>1</sup> (the "Regulation") requires the Competent Authority of each Member State to establish a Risk-Preparedness Plan ("RPP"). In accordance with Article 10(8) of the Regulation, the RPPs have to be updated every four years, unless circumstances require updates that are more frequent. The consultation between Competent Authorities and the Electricity Coordination Group provided for under Article 10(4) of the Regulation has to be carried out before the adoption of the RPP.

The RPP (as well as its updates) need to be based on the regional electricity crisis scenarios identified by ENTSO-E<sup>2</sup> pursuant to Article 6 of the Regulation as well as the national electricity crisis scenarios that each Competent Authority has to identify before the adoption of the RPP pursuant to Article 7 of the Regulation. The electricity crisis scenarios must be identified in relation to system adequacy, system security and fuel security and considering, among others, extreme natural hazards, accidental hazards and consequential hazards, including the consequences of malicious attacks.

The Competent Authority of Denmark, the Danish Energy Agency (DEA), notified its draft RPP to the Electricity Coordination Group for the purpose of the consultation required by Article 10(4) of the Regulation on 9 April 2021. DEA notified to the Commission on 5 January 2022 its final RPP.

After having assessed the RPP, in view of the criteria mentioned in Article 11 of the Regulation and the template provided for in the Annex to the Regulation, and having consulted the Electricity Coordination Group between 7 January and 31 January 2022, the Commission has the following remarks on the RPP.

## 2. COMMISSION'S ASSESSMENT OF THE RISK-PREPAREDNESS PLAN

The RPP submitted by DEA is quite comprehensive in the description of the national framework and measures. It describes a well-established process for assessing risks and vulnerabilities, with a particular focus on IT/OT in recent years, that includes all companies in

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<sup>1</sup> OJ L 158, 14.6.2019, p. 1–21.

<sup>2</sup> European Network of Transmission System Operators for Electricity.

the energy sector. It also refers to dedicated risk-preparedness coordinators or IT-risk preparedness responsible employees appointed in each company as the basis for cooperation with the transmission system operator during a crisis. The cooperation with other authorities, such as Police, Police Intelligence Service and the Center for Cybersecurity, is also reflected in the RPP.

The Commission welcomes in particular the efforts devoted to regional cooperation among the Nordic countries as described under section 3.2 of the RPP, such as the NordAM<sup>3</sup> and NordBER<sup>4</sup>, on contingency planning and crisis management. The Commission reminds Denmark that further work to deepen such cooperation is necessary in the light of the comments included in the sections below.

Nevertheless, the Commission considers that some elements of the RPP do not fully comply with the requirements of the Regulation.

## **2.1. Amendments to the Risk Preparedness Plan (RPP)**

### *2.1.1. Missing information on the electricity crisis scenarios*

Pursuant to Article 7 of the Regulation, each competent authority has to identify the most relevant national electricity crisis scenarios on the basis of at least certain risks (rare and extreme natural hazards, accidental hazards and consequential hazards, including malicious attacks and fuel shortages). These scenarios have to be consistent with the regional electricity crisis scenarios identified by ENTSO-E pursuant to Article 6 of the Regulation. The national and regional electricity crisis scenarios are the basis on which the Competent Authority has to establish the RPP in accordance with Article 10(1) of the Regulation, and the RPP must include a summary of the electricity crisis scenarios defined for the Member State and the region, in accordance with Article 11(1)(a) of the Regulation and point 1 of the Annex thereto.

The RPP describes a process whereby companies in the electricity sector prepare a risk and vulnerability assessment (ROS), looking at IT/OT vulnerabilities and non IT/OT vulnerabilities, that they submit to the DEA. Energinet, the Danish transmission system operator (TSO), prepares a full scale ROS for the entire electricity sector, considering also their own risks and vulnerabilities, and submits it to the DEA. The RPP then summarises the most critical areas discovered in the ROS that have been retained as national electricity crises scenarios according to a set of criteria, including their impact based on indicators such as LOLE<sup>5</sup> and EENS<sup>6</sup>. Some of this scenarios are described in some detail, such as those related to a cyberattack to entities connected to the electrical grid (e.g. compromised back-up), but for others the information remains very general. It is not possible to conclude from such descriptions what the concrete scenarios simulated have been, nor the identified estimated impacts. Also the RPP mentions a solar storm as part of the potential extreme weather events considered, but it is not described later in the scenario description nor indicated why it would not be relevant. Similarly, the RPP does not refer to fuel shortage scenarios, or explain why

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<sup>3</sup> Nordic Asset Management Forum

<sup>4</sup> NordBER is an electricity preparedness network for all Nordic energy and electricity preparedness authorities and system operators.

<sup>5</sup> Loss of Load Expectation

<sup>6</sup> Expected Energy Not-Served

they would not be relevant, even if the ROS prepared by Energinet seems to include an analysis on the matter.

The Commission considers that the RPP submitted by DEA needs to be amended to further describe all the national and regional scenarios considered. This information on the national scenarios is necessary to assess the completeness and effectiveness of the preventive and mitigating measures contained in the RPP. Moreover, this information is also relevant for other Member States, notably within the same region, to understand the potential impacts and shared challenges that a number of these scenarios may pose.

The Commission also considers that a refined assessment of the crisis scenarios is particularly necessary following the dramatic changes in the EU security situation as a result of the invasion of Ukraine by Russia. Consequently, the Commission takes the view that the RPP submitted by DEA needs to be updated in the light of these circumstances, focusing on geopolitical risks, dependence on fuels and on other supply chains from third countries (including fuel-switching possibilities) and spill over effects from other sectors into electricity (e.g. increase in electricity demand for heating purposes in the absence of other fuels for heating). The Commission reminds DEA that Article 10(8) of the Regulation already requires updating the RPP more frequently than every 4 years where circumstances so warrant.

The Commission recommends that the description of the scenarios includes:

- A clear link between the national and regional scenarios, including the assumptions for its selection and/or rejection.
- A description of the scope, including the national and regional characterization of the hazard.
- The characterization of the selected scenario, including the cross-sector and cross-border interdependencies, initial condition of the system prior to the initiating event, assets exposure and vulnerabilities (based on damage curves if available), and the time-horizon and assumptions applied.
- Account and timeline of events, including the description of initiating events and chain of events. The description should include the coping mechanisms and characterization of the response, including the applicable procedures and measures at national and regional level.
- Impacts on the electricity system and assets, including electricity flows and consequences. The assessment should include a quantitative analysis in terms of EENS<sup>7</sup>/LOLE<sup>8</sup> estimates and/or other quantitative values, as well as possible spill over effects to other sectors, e.g. to the gas sector.
- Specifically for scenarios on cyber-risks, include a reference to a framework including minimum and advanced cybersecurity requirements, procedures to follow in case of an incident, a description of the roles and interactions between the competent authority and the cyber-specific actors, such as CSIRT<sup>9</sup>, CERT<sup>10</sup> and

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<sup>7</sup> Expected Energy Not-Served (EENS) as defined in Article 2(1)(e) of the methodology for identifying regional electricity crisis scenarios established in accordance with Article 5 of the Regulation.

<sup>8</sup> Loss of Load Expectation (LOLE) as defined in Article 2(1)(g) of the methodology for identifying regional electricity crisis scenarios established in accordance with Article 5 of the Regulation.

<sup>9</sup> Computer Security Incident Response Team.

<sup>10</sup> Computer Emergency Response Team.

cyber-specific authorities (considering the link between sectorial response and national level and EU cyber response), and the links with cyber specific legislation.

- Climate change considerations, such as climate vulnerability and risks, including with a view to design preventive measures against the climate risks identified with a view to reducing exposure and vulnerability to the risks.

### *2.1.2. Missing information on regional and bilateral measures for cooperation and assistance among Member States*

Pursuant to Article 15 of the Regulation, Member States have to cooperate in a spirit of solidarity in order to prevent or manage crises. Where they have the technical ability, Member States have to offer each other assistance by means of regional measures (with Member States within their region) and bilateral measures (with Member States to which they are directly connected but do not belong to the same region). Such regional and bilateral measures must be described in the RPP in accordance with Articles 12 and 15 of the Regulation and point 3(2)(b) of the Annex thereto, as well as the national measures necessary to implement them pursuant Article 11(1)(j) of the Regulation.

The RPP submitted by DEA refers under section 3.2.b) on regional and bilateral measures to the ‘Nordic SOA (System Operation Agreement)’ and SAFA (Synchronous Area Framework Agreement). It also indicates that the DEA together with the authorities from the Nordic and Continental Synchronous Areas will analyse whether further measures should be agreed and which financial agreements need to be made. DEA also announces that Denmark is currently working with the relevant authorities in Germany and the Netherlands on a Memorandum of Understanding (MoU), as an interim solution, until technical, financial and financial arrangements are established. In the meantime, the Danish RPP describes a set of principles and actions that Denmark will apply.

While the Commission welcomes the principles and actions already established by Denmark and the work to develop a MoU, these fall short of the requirements of Article 15 of the Regulation. Also, absent further information, it is unclear whether the SOA and the SAFA would meet the requirements for cooperation and assistance described in Article 15 of the Regulation. A System Operation Agreement is often limited to the content of the network codes and not going beyond operation rules, as it appears to be the case for the Nordic SOA, based on publicly available information. Consequently, on its own, it would fall short of the requirements of Article 15 that require cooperation and assistance for the ultimate purpose of protecting public safety and personal security, going thus beyond the typically technical requirements contained in a SOA.

The Commission considers that the Danish RPP has to be amended to include and describe in detail the provisions to comply with the obligation to establish regional and bilateral measures required by the Regulation and how these would actually meet the requirements of Article 15 of the Regulation. Where such provisions fall short of the requirements of the Regulation, the RPP would need to be amended to include the necessary additional provisions (legal, technical and financial arrangements) to meet the requirements established in the Regulation.

### *2.1.3. Other missing items*

The Regulation also requires that:

- Member States consult a certain number of relevant stakeholders before they establish their RPP pursuant to Article 10(1) of the Regulation. The RPP must describe the

mechanism used and the results of the consultations carried out for the development of the RPP, in accordance with point 5 of the Annex to the Regulation.

- Competent authorities test periodically the effectiveness of the procedures developed in the RPPs for preventing electricity crises, including the mechanisms to share information and cooperate, carry out biennial simulations of electricity crises and include in the RPP a calendar for the biennial regional (and if applicable also national) real time response simulations of electricity crisis, procedures agreed and actors involved. (Articles 12(1)(d) and (3) of the Regulation and point 6 of the Annex thereto).

The RPP notified by DEA indicates that the RPP has not been consulted with other stakeholders except for Energinet. DEA argues that such consultation was not necessary as the RPP is largely based on Energinet's RPP for the electricity sector to which many stakeholders have access. However, absent further information, it appears that not all entities that have to be consulted pursuant to Article 10(1) of the Regulation have access to Energinet's RPP, notably the relevant organisations that represent the interests of industrial and non-industrial customers. Moreover, the RPP does not indicate either whether the stakeholders with access to Energinet's RPP have the possibility to issue comments nor whether and how their input has been considered.

The RPP submitted by DEA indicates that Energinet is legally required to test the RPP at least once every 2 years and that DEA also participates in tests on risk preparedness in a Nordic context. However, no concrete calendar is provided for any of such tests.

The Commission takes the view that the RPP submitted by DEA has to be amended to include the missing information indicated above. Moreover, and given the current exceptional circumstances, the Commission recommends that DEA accelerate any calendar for the mandatory tests on the effectiveness of the procedures developed in its RPP. These tests should be carried as soon as possible and with a focus on winter 2022-2023. They should cover regional and national measures and communication and coordination protocols, in cooperation with neighbouring countries within the region. These tests should help improve the existing measures and the mechanisms for cooperation and communication, and identify additional national and regional measures (the latter preferably jointly with regional partners).

## 2.2 Other comments

Apart from the substantive remarks presented above, the Commission would like to draw the attention of DEA, to some other elements of the submitted RPP, which do not raise legal concerns in terms of their compatibility with the elements mentioned in Article 13(2)(a) to (f) of the Regulation, but which may provide useful guidance to the Competent Authority for future amendments of the RPP.

- The RPP mentions that the load-shedding plans must ensure uniformity in regards to the consumers. The RPP could further explain how this criterion was established and how it addresses the objective of economic efficiency.<sup>11</sup>

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<sup>11</sup> Article 11.6.b of the emergency and restoration network code (OJ L 312, 28.11.2017, p. 54–85) establishes that the measures contained in the system defense plan have to be economically efficient

- The comparability and readability of the RPP would improve if the RRP established a link between the 5 contingency levels (from white to red) defined in Denmark and the early warning and electricity crisis referred to in Article 14 of the Regulation.
- The RPP should clarify that DEA will notify the European Commission and the ECG as required by Article 14 of the Regulation (i.e. early warnings and crisis declarations). The RPP only indicates now that DEA will inform the competent authorities in neighbouring countries and quotes some provisions from Regulation (EU) 2017/1938 concerning measures to safeguard the security of gas supply<sup>12</sup>.
- The RPP should clarify under point 3.1.b what the socioeconomic and environmental considerations determined by the TSO and the criteria for the calculations for the preventive and preparatory measures are.
- The RPP should be a stand-alone document, therefore, appendix 1 and 2, mentioned in the RPP, should be added to the RPP, or at least a public version of them in case these contain confidential information.
- While the RPP does not refer to preventive or mitigating measures that could have an impact on greenhouse gas (GHG) emissions (e.g. back-up fossil fuel generation or the deployment of additional fossil fuel capacity), the Commission reminds DEA that such measures should be listed in the RPP if they existed. In such case, the Commission also recommends that the risk/impact on GHG emissions is quantified and assessed to determine the alignment of the RPP with the climate neutrality goal.

### 3. CONCLUSION

Based on the above assessment, and in view of Article 13(2)(c) of the Regulation, the Commission concludes that some elements of the RPP submitted by DEA do not comply with certain provisions of this Regulation.

The Commission requests DEA to amend the RPP taking duly into consideration all the concerns expressed by the Commission in the present opinion and notify the amended RPP to the Commission within three months of receipt of this opinion, pursuant to Article 13(3) of the Regulation. In view of the circumstances following Russia's invasion of Ukraine, the Commission recommends to prioritise the focused update of the RPP described in section 2.1.1, the test on the effectiveness of the procedures developed in the RPP referred to in section 2.1.3, the missing information on regional and bilateral measures for cooperation and assistance among Member States described in section 2.1.2 and the detailed description of national electricity crisis scenarios described in section 2.1.1. The Commission urges DEA to describe and assess the actions to reduce gas consumption in the power sector, as called upon in the Communication "Save gas for a safe winter",<sup>13</sup> while ensuring security of electricity supply. Furthermore, the Commission urges Denmark to take into consideration the Council Recommendation, proposed by the European Commission on 18 October 2022, on a coordinated approach to strengthen the resilience of critical infrastructure in the EU, and, in particular, the results of the stress tests of critical infrastructure foreseen therein.

The Commission's assessment expressed in this opinion is without prejudice to any position it may take *vis-à-vis* Denmark as regards the compatibility of national measures with EU law,

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<sup>12</sup> OJ L 280, 28.10.2017, p. 1–56

<sup>13</sup> COM(2022) 360 final

including in the context of infringement proceedings and the enforcement of European Union competition rules, including State aid rules.

The Commission will publish this opinion. The Commission does not consider the information contained herein to be confidential, in particular as it relates to the RPP which is publicly available. DEA is invited to inform the Commission within five working days following receipt of the opinion whether it considers that it contains commercially sensitive information, the confidentiality of which is to be preserved.

Done at Brussels, 19.10.2022

*For the Commission*  
*Kadri SIMSON*  
*Member of the Commission*