

Risk-Preparedness Plan for the Electricity Sector of the Republic of Austria

Risk-Preparedness Plan in accordance with Art. 10 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

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General information

Name of the competent authority responsible for the preparation of this plan

The competent authority that is responsible for the preparation of this plan is the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology, Directorate General VI, Department Crisis Management and Energy Intervention. The plan was prepared in cooperation with E-Control and the control area manager Austrian Power Grid AG (APG).

Member States in the region

In accordance with Art. 2 (16) Regulation (EU) 2019/941 “region” means a group of Member States whose transmission system operators share the same regional coordination centre as referred to in Art. 36 Regulation (EU) 2019/943.

The Republic of Austria is part of the Central Europe System Operation Region, which includes the following Member States¹:

- French Republic
- Kingdom of the Netherlands
- Grand Duchy of Luxembourg
- Hungary
- Slovak Republic
- Kingdom of Spain
- Republic of Romania
- Republic of Croatia
- Kingdom of Belgium
- Federal Republic of Germany
- Republic of Poland

¹ See Annex I to Decision No. 10/2020 of the European Union Agency for the Cooperation of Energy Regulators (ACER) of 6 April 2020 on the definition of system operation regions.

- Czech Republic
- Portuguese Republic
- Republic of Italy
- Republic of Slovenia

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1 Summary of the electricity crises scenarios

1.1 Electricity crisis scenarios identified at regional level

In accordance with Art. 6 (1) Regulation (EU) 2019/941 and based on the methodology specified in Art. 5 Regulation (EU) 2019/941 and approved by the Agency for the Cooperation of Energy Regulators (ACER) in decision No. 07/2020, the European Network of Transmission System Operators for Electricity (ENTSO-E) was responsible for identifying the most relevant regional electricity crisis scenarios. The regional electricity crisis scenarios were identified by means of a bottom-up process in which the respective national transmission system operators identified potential crisis scenarios and submitted them to ENTSO-E. ENTSO-E consolidated the proposals of the national transmission system operators and, on this basis, defined the following 31 regional electricity crisis scenarios:

Table 1 Regional electricity crisis scenarios in accordance with Art. 6 (1) Regulation (EU) 2019/941

Number	Regional electricity crisis scenarios
1	Cyber-attack – entities connected to electrical grid
2	Cyber-attack – entities not connected to electrical grid
3	Physical attack – critical assets
4	Physical attack – control centres
5	Threat to key employees
6	Insider attack
7	Solar storm
8	Volcanic eruption
9	Storm
10	Cold spell

Number	Regional electricity crisis scenarios
11	Precipitation and flooding
12	Winter incident
13	Fossil fuel shortage (including natural gas)
14	Nuclear fuel shortage
15	Local technical failure with regional importance
16	Multiple failures caused by extreme weather
17	Loss of ICT systems for real-time operation
18	Simultaneous multiple failures
19	Power system control mechanism complexity
20	Human error
21	Unwanted power flows
22	Serial equipment failure
23	Strike, riots, industrial action
24	Industrial/nuclear accident
25	Unforeseen interaction of energy market rules
26	Unusually big RES forecast errors
27	Pandemic
28	Heatwave
29	Dry period
30	Earthquake
31	Forest fire

1.2 Electricity crisis scenarios identified at national level

After identifying the regional electricity crisis scenarios, the competent authority of each Member State, i.e. the Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology for the Republic of Austria, was tasked with identifying the most relevant national electricity crisis scenarios in accordance with Art. 7 (1) Regulation (EU) 2019/941 by 7 January 2021. These must be consistent with the regional electricity crisis scenarios identified in accordance with Art. 6 (1) Regulation (EU) 2019/941.

The responsible Department Crisis Management and Energy Intervention in Directorate General VI of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology assessed the 31 regional electricity crisis scenarios in terms of their national relevance in collaboration with E-Control and the control area manager Austrian Power Grid AG. The scenarios identified as relevant for Austria in this are those that qualified as the most relevant national electricity crisis scenarios according to the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology in accordance with Art. 7 (1) Regulation (EU) 2019/941.

The preventive and preparatory measures set forth in Table 2 are being implemented by the transmission system operators in coordination with E-Control and the relevant partners in accordance with the valid laws. If any laws are referenced in Table 2, their enforcement falls under the responsibility of the competent national authorities respectively.

Table 2 National electricity crisis scenarios in accordance with Art. 7 (1) Regulation (EU) 2019/941

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
Outages/ asset failure	17	Loss of ICT (information and communications technology) tools or telecommunication infrastructure required for electric power system operation in or near real-time	10	Loss of control capability of the systems, no data acquisition, therefore no early detection of possible overloads, in case of outages no remotely controlled reconnection etc. – therefore high risk to the security of supply.	<ul style="list-style-type: none"> • Concepts for local (on-site) control; • Alternate means of communication (company radio transmission, satellite phones); • Separate (exclusive) data transmission lines – separate national and international communication networks (“Energy Supply Company intranet”, “electronic highway”, “ATOM”³); • Separate ICT infrastructure from the public telecommunications network for operations with corresponding emergency power supplies for major network operators and power generators.
	18	Simultaneous failure of high and extra-high voltage system elements	10	In case (N-1) safety criterion is heavily exceeded – possibility to result in major disruption up to a widespread power outage.	<ul style="list-style-type: none"> • Grid restoration concepts coordinated with all relevant partners; emergency concepts with relevant distribution system operators; • Spare parts concepts for lines, towers and other network assets; • Compliance with requirements of the Network Code on Electricity Emergency and Restoration (Commission Regulation [EU] 2017/2196) such as establishment of a system defence plan, use of adequate servicing and maintenance plans.

² The assessment of the national electricity crisis scenarios is based on the methodology for identifying regional electricity crisis scenarios developed by ENTSO-E and approved by ACER in decision No. 07/2020 of 6 March 2020.

³ All TSO operational and market operations network for non-real-time exchange.

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
	22	Serial equipment failure due to a systematic defect of system elements	1.2	Due to extensive inspection and maintenance concepts and the numerous measures taken, this scenario is now very unlikely to occur in Austria.	<ul style="list-style-type: none"> Regular inspection and maintenance, internal CIP (continuous improvement process) for evaluation of every single incident (grid analysis team) in place; Exchange on expert level between system operators within the working groups of Oesterreichs Energie (Association of Austrian Electricity Companies) for relevant system assets; Serial equipment failure can be identified and communicated in a timely manner due to international cooperation (between the respective CERTs – computer emergency response teams).
Lack of resources	13	Fossil fuel shortage (including natural gas)	10	Large and usually well filled gas storage facilities in Austria (highest risk at the end of the heating season depending on the filling level of the storage facilities); short-term shortages can be bridged by reducing the “line pack” (gas pressure) in gas pipes; actual gas scarcity can only happen if shortage lasts a longer period of time. Due to the current geopolitical situation, it cannot be ruled out that gas suppliers in the Russian Federation will continue to only deliver gas quantities lower than stipulated in the existing supply contracts; even a complete supply stop cannot be ruled out.	<ul style="list-style-type: none"> The Austrian federal government has taken a series of measures to facilitate the sufficient filling of the Austrian gas storage facilities and a reduction of the dependency on gas from the Russian Federation in response to the tense conditions on the gas markets: Creation of a strategic gas reserve based on section 18a ff GWG 2011 amounting to 20 TWh; Promotion of the diversification of natural gas sources in accordance with the Gas Diversification Act 2022 (GDG 2022); OMV has booked significant transport capacities for non-Russian gas for the gas year from October 2022 to September 2023. Due to successful participation in the annual auction for the transport of natural gas, OMV has capacities for a total of 40 TWh of gas. This step required comprehensive support from the federal government through the Gas Diversification Act. The bookings were made at the two transfer points Oberkappel and Arnoldstein. Here, natural gas from Norway and LNG from Italy and the Benelux region can be transported to Austria. OMV also owns a gas extraction facility in Norway. 40 TWh corresponds to around 45% of Austria’s total annual consumption of natural gas.

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
					<p>This is a key step towards significantly reducing dependency on Russian natural gas deliveries;</p> <ul style="list-style-type: none"> • Possibility of self-storage for industry and the protection of the stored gas quantities in the case of energy intervention measures under the prerequisites in section 26a EnLG 2012; • Provisions in accordance with section 87 (6) GWG 2011: Conduction of a tendering procedure by the balance group coordinator upon instruction of the Federal Minister for Climate Action. The gas storage quantity to be maintained shall be specified in the instruction of the Federal Minister for Climate Action, and the current and forecast • storage filling levels, as well as imminent or existing impairments to or deficiencies in security of supply shall be taken into account. • Mandatory fuel stocks for power plants in accordance with section 28 (1) EBG 2012: To secure the electricity supply, operators of fossil-fuel-fired power plants shall maintain fuel stocks in a quantity that allows them, at any time, to continue to supply electrical energy at the maximum output capacity for a period of 30 days or to cover their own needs; • If intervention measures to safeguard natural gas supplies in accordance with section 4 EnLG 2012 become necessary, large gas customers in the energy sector should be excepted from consumption-restriction measures due to their system relevance in accordance with Submission to the Council of Ministers 26a/20; • The possibility of prioritisation of certain critical gas-fired power plants over the gas supply to certain categories of protected customers in accordance with Art. 11 (7) Regulation (EU) 2017/1938 (in the event of potential severe

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
					damage to the electricity system due to an imminent, severe gas shortage).
Human related threats/ malicious acts	1	Cyber-attack on critical ICT (information and communications technology) systems that are physically connected to the electricity supply system (transmission and distribution networks, power plants, major industrial facilities)	10	Various critical infrastructures within Austria and Europe are highly interconnected, also between different sectors – in case of an attack, the entire system can be affected.	<ul style="list-style-type: none"> • Regular training of staff on IT security; • Redundant connections between different locations; • Separate ICT infrastructure from the public telecommunications network for operations with corresponding emergency power supplies for major network operators and power generators; • Strict firewall and e-mail quarantine concepts; • Two-factor authentication, especially in case of remote access to critical ICT components; • The EU Network Code on Cybersecurity⁴ is currently being finalised at EU level; • Security measures from the NIS Ordinance (Annex 1)⁵, establishment of the Austrian Energy CERT (computer emergency response team); • Periodic and ad hoc training and further education of staff, regular simulator training of disruption and emergency scenarios; • Periodic training and proficiency and knowledge checks, organisational implementation through the division of

⁴ Network code on sector-specific rules for cybersecurity aspects of cross-border electricity flows.

⁵ Ordinance by the Federal Minister for the EU, Arts, Culture and Media laying down security measures and detailed provisions for the sectors and for security incidents under the Network and Information Systems Security Act (Network and Information Systems Security Ordinance – NIS Ordinance - NISV), Federal Law Gazette II No. 215/2019, as amended.

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
					competencies (redundancies in knowledge and the organisation).
	24	Severe industrial or nuclear accident with long-lasting radioactive or toxic pollution that causes unavailability of staff for a longer period (months or years)	10	If a critical number of key employees in network operations (operators, maintenance/repair personnel, operational planning experts, etc.) are not available, the ability to control is threatened, urgent repairs can no longer be carried out, and essential operational processes are severely impaired.	<ul style="list-style-type: none"> • Lockdown of control rooms in emergencies; • Emergency supplies are already in place; • Protective clothing/equipment is available; • Internal regulations for access to buildings (limitation of spreading), remote work has been made possible (wherever applicable); • Redundancy concepts with system and a certain degree of location redundancy of central control units (control centres).
	3	Physical attack against critical assets and critical infrastructure	6	Usually limited effect, but can lead to chain reactions in extreme cases or if particularly sensitive or crucial elements in the network are affected (consequential failures of critical components) up to widespread power outage.	<ul style="list-style-type: none"> • Modern physical security concept, project for further optimisation of physical security currently in implementation; • Ongoing coordination with partners on economically sensible and effective measures through international and national committees; • (N-1) structuring of the transmission system. • “(N-1) criterion” means the rule according to which the elements remaining in operation within a TSO’s control area after occurrence of a contingency are capable of accommodating the new operational situation without violating operational security limits.⁶
	4	Physical attack against control centres	4	Effects can initially be limited with a backup control centre; however, personnel can also be	<ul style="list-style-type: none"> • Backup control centre available;

⁶ See Art. 3 (2) no. 14 of Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation.

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
				threatened and, depending on the attack scenario, the crisis scenario can qualify as critical.	<ul style="list-style-type: none"> • Modern physical security concept, project for further optimisation of physical security currently in implementation; • Ongoing coordination with partners on economically sensible and effective measures through international and national committees; • Correspondingly trained personnel; • Personnel and material assistance through the Oesterreichs Energie troubleshooting platform.
	5	Threatening/blackmailing/abduction of key employees	4	The impact could be severe, but the likelihood is rather low.	<ul style="list-style-type: none"> • Security/alert mechanisms in place.
	6	Insider attack	4	May qualify as critical depending on the position, but a very good working atmosphere and a high level of caring awareness between managers and employees and between colleagues leads to the early detection of the “development of danger from within”.	<ul style="list-style-type: none"> • Criminal background check of certain key personnel; • Training of staff on the subject, national and international exchange of experience on the subject; • Observation of psychosocial factors – dual control principle for critical processes.

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
	2	Cyber-attack on critical ICT (information and communications technology) infrastructure of market participants (not physically connected to the transmission system)	1.2	As long as there is no direct (physical) connection to the network, there is no immediate threat to security of supply. A systematic attack on the ICT systems of market participants can, however, indirectly lead to a critical situation in the power supply (under certain circumstances, the market participants may not be able to or may no longer be able to assess their positions or balance the positions via NEMOS [nominated electricity market operators] and may not be able to process schedule references).	<ul style="list-style-type: none"> • Periodic training as well as proficiency and knowledge checks; • Organisational implementation through the division of competencies (redundancies in knowledge and the organisation). • Separate ICT infrastructure from the public telecommunications network for operations with corresponding emergency power supplies for major network operators and power generators; • Implementation of security measures at market participants (e.g. securing USB [universal serial bus] ports, data exchange, access with maintenance computer).
Natural hazards/ force majeure	9	Storm	10	Force majeure – can lead to malfunctions ranging from negligible up to severe damage with cascading failures and widespread power outage.	<ul style="list-style-type: none"> • Maintenance of spare parts stocks, especially for the rapid reconstruction of power poles and lines; • Analysis of endangered areas; • Correspondingly trained personnel; • Personnel and material assistance through the Oesterreichs Energie troubleshooting platform.
	11	Precipitation and flooding	10	Force majeure – can lead to malfunctions ranging from negligible up to severe damage	<ul style="list-style-type: none"> • Maintenance of spare parts stocks, especially for the rapid reconstruction of power poles and lines; • Analysis of endangered areas; • Correspondingly trained personnel;

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
				with cascading failures and widespread power outage.	<ul style="list-style-type: none"> Personnel and material assistance through the Oesterreichs Energie troubleshooting platform.
	12	Winter incident	10	Force majeure – can lead to malfunctions ranging from negligible up to severe damage with cascading failures and widespread power outage.	<ul style="list-style-type: none"> Maintenance of spare parts stocks, especially for the rapid reconstruction of power poles and lines; Analysis of endangered areas; Avalanche protection structures; Correspondingly trained personnel; Personnel and material assistance through the Oesterreichs Energie troubleshooting platform.
	16	Multiple failures caused by extreme weather	10	Force majeure – can lead to malfunctions ranging from negligible up to severe damage with cascading failures and widespread power outage.	<ul style="list-style-type: none"> Maintenance of spare parts stocks, especially for the rapid reconstruction of power poles and lines; Correspondingly trained personnel; Personnel and material assistance through the Oesterreichs Energie troubleshooting platform.
	27	Pandemic	10	<p>If a critical number of key employees in network operations (operators, maintenance/repair personnel, operational planning experts, etc.) are not available, the ability to control is threatened, urgent repairs can no longer be carried out.</p> <p>Unavailability of key operating personnel (power plant operators and dispatchers) is also critical regarding power plants (impairment of controllability and troubleshooting).</p>	<ul style="list-style-type: none"> Lockdown of control rooms in emergencies; Emergency supplies are already in place; Protective clothing/equipment is available; Internal regulations for access to buildings (limitation of spreading), remote work has been made possible (wherever applicable);

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
	28	Heatwave	4	Force majeure – can lead to malfunctions ranging from negligible up to severe damage with cascading failures and widespread power outage. Hydropower plants and thermal power plants (cooling water requirements) can experience severe feed restrictions during extreme cold, heat, or drought; overhauls and extreme heat can result in higher system loads in the summer, which could lead to higher powerline temperatures.	<ul style="list-style-type: none"> Maintenance of spare parts stocks, especially for the rapid reconstruction of power poles and lines.
	10	Cold spell	2	Force majeure – can lead to malfunctions ranging from negligible up to severe damage with cascading failures and widespread power outage; hydropower plants and thermal power plants (cooling water requirements) can experience severe feed restrictions during extreme cold, heat, or drought.	<ul style="list-style-type: none"> Maintenance of spare parts stocks, especially for the rapid reconstruction of power poles and lines; operational measures for de-icing are possible in some cases; Stockpiling and concept for the use of devices for heating temperature-sensitive components (to maintain the functionality of electronic components, control systems, etc.); Energy intervention measures if the prerequisites in accordance with section 4 EnLG 2012 are met; related exercises with relevant partners.
	29	Dry period	2	Risk of supply shortages; currently only a low risk due to (pumped) storage power plants and good import capacities from other countries to date. Hydropower plants and thermal	<ul style="list-style-type: none"> Contingency plans in place; Energy intervention measures if the prerequisites in accordance with section 4 EnLG 2012 are met; extensive and regular energy intervention exercises; Sufficient stockpiling of critical electronic components and strong physical security at the storage location.

Cluster	No	Short description of risk	Severity rating ²	Potential impact, comments	Preventive and preparatory measures
				power plants (cooling water requirements) can experience severe feed restrictions during extreme cold, heat, or drought.	
Technical complexity	19	Complexity of power system control mechanisms	10	Inevitable, immanent risk, that cannot be completely ruled out despite extensive measures.	<ul style="list-style-type: none"> Multi-site concept for the remote network control system with several fallback levels, backup control room available; even in the event of a total failure, the substations can be controlled locally if necessary; automatic network protection devices.
	25	Unforeseen incident/effect on the electricity market	4	Low risk due to the high sense of responsibility of the market partners in Austria.	<ul style="list-style-type: none"> Appropriately dimensioned control reserves and concepts for penalties in the event of deviations, strict regulations (the electricity market code)⁷ in Austria.
	26	Unusually large forecast errors for renewables	4	Can occur in very rare cases (e.g. in the event of large-scale wind turbine rotor blade icing).	<ul style="list-style-type: none"> Continuously optimised forecasts of wind power infeed and concepts for the early detection of rotor blade icing, concepts for limiting the forecast error when icing occurs.

⁷ The market rules are the body of legal and contractual rules and regulations that participants must observe to ensure that the electricity market operates in an orderly fashion. E-Control is required to draw up the market rules in consultation with the market players and to publish them in an appropriate format. The market rules are divided into general terms and conditions (GTC), the electricity market code (EMC), and technical and organisational rules for system operators and users (TOR), see [Market rules - www.e-control.at](http://www.e-control.at).

In accordance with Art. 7 (2) Regulation (EU) 2019/941, in identifying the national electricity crisis scenarios, the competent authority was required to consult the transmission system operators, the distribution system operators that the competent authority considers to be relevant, the relevant producers or their trade bodies, and the regulatory authority. Accordingly, the following institutions were sent a list of the most relevant national electricity crisis scenarios by letter dated 10 November 2020 with an invitation to submit comments (deadline 25 November 2020, extended to 1 December 2020):

- **The transmission system operators:** Austrian Power Grid AG; Vorarlberger Übertragungsnetz GmbH
- **The distribution system operators that the competent authority considers to be relevant (those distribution system operators were considered relevant who have a connection to the transmission system):** Wiener Netze GmbH; Netz Niederösterreich GmbH; Netz Burgenland GmbH; Netz Oberösterreich GmbH; Linz Netz GmbH; Energienetze Steiermark GmbH; Kärnten Netz GmbH; Salzburg Netz GmbH; TINETZ-Tiroler Netze GmbH; Vorarlberger Energienetze GmbH
- **The relevant producers or their trade bodies:** the following trade bodies were consulted: Oesterreichs Energie - Association of Austrian Electricity Companies; Wirtschaftskammer Österreich (Austrian Economic Chambers); Industriellenvereinigung (Federation of Austrian Industries)
- **Regulatory authority:** E-Control

The following institutions issued a statement on the submitted list of national crisis scenarios:

- Letter by Wiener Netze GmbH dated 19 November 2020: “Wiener Netze GmbH fundamentally agrees with the list and assessment of the national risks as well as its description of impacts and countermeasures, but would like to point out that a central statement through Oesterreichs Energie is being worked on.”
- Letter by Oesterreichs Energie - Association of Austrian Electricity Companies dated 27 November 2020, No. TA/CF – 18/2020, submitted once again on 20 April 2021 in the course of the consultation of the Draft Risk-Preparedness Plan in accordance with Art. 10 (1) Regulation (EU) 2019/941:
 - Oesterreichs Energie suggests additions to the measures for risk prevention and management described under “Preventive and preparatory measures”. These

suggestions were largely included in the list given under Table 2 by the Department Crisis Management und Energy Intervention.

- The proposal of Oesterreichs Energie to also include the scenarios no. 2, 19, 22, 25, and 26 as national electricity crisis scenarios in the Risk-Preparedness Plan was accepted.
- Oesterreichs Energie also proposed the higher ranking of the crisis scenarios no. 2, 5, 10, 22, 28, and 29. In the context of the national evaluation of the regional electricity crisis scenarios, Austria rated the regional risks the highest on average compared to other EU Member States. Considering the resilience of the Austrian energy system compared to other EU Member States and in the interests of coherence with the national assessment of the regional electricity crisis scenarios, a further increase of the rating would not be proportionate.

2 Roles and responsibilities of the competent authority

The Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology is the national competent authority in Austria in accordance with Art. 3 (1) of Regulation (EU) 2019/941 and is as such responsible for carrying out the tasks provided for in this Regulation. None of the tasks assigned to the competent authority in accordance with Regulation (EU) 2019/941 were delegated to other bodies.

3 Procedures and measures in the electricity crisis

3.1 National procedures and measures

3.1.1 Preventive and preparatory measures

The preventive and preparatory measures can be seen in Table 2.

3.1.2 Manual load shedding in accordance with Article 22 of the Network Code on electricity emergency and restoration

3.1.2.1 Distinction from energy intervention measures

Commission Regulations (EU) 2017/1485⁸ and (EU) 2017/2196⁹ constitute a detailed rulebook governing how transmission system operators and other relevant stakeholders should act and cooperate to ensure system security. Those technical rules should ensure that most electricity incidents are dealt with effectively at operational level.¹⁰

In accordance with Art. 11 (1) Regulation (EU) 2017/2196, every transmission system operator is required to develop a system defence plan. The system defence plan in accordance with Art. 11 (5) lit. b) v) Regulation (EU) 2017/2196 shall include a procedure for manual load shedding. In Austria, Oesterreichs Energie/Defence Plan expert pool drafted the system defence plan for Austria.¹¹ The manual load shedding procedure described there is applied in the event of acute significant faults and risks to network security, and when there are imminent or present load coverage problems. Faults that go

⁸ Commission Regulation (EU) 2017/1485 of 2 August 2017 establishing a guideline on electricity transmission system operation.

⁹ Commission Regulation (EU) 2017/2196 of 24 November 2017 establishing a network code on electricity emergency and restoration.

¹⁰ See recital 5 of Regulation (EU) 2019/941.

¹¹ ÖSTERREICHS ENERGIE/Defence Plan expert pool: Systemschutzplan Österreich – Technische Maßnahmen zur Vermeidung von Großstörungen und Begrenzung ihrer Auswirkungen, 2021.

beyond simple incidents in the electricity system or that cannot be rectified effectively at operational level can trigger energy intervention measures if the prerequisites in accordance with section 4 EnLG 2012 are met.

3.1.2.2 Manual load shedding procedure

The manual load shedding procedure is described in more detail in Annex 13.3 to the Austrian system defence plan.

Basically, depending on the severity of the emergency and the degree of under-coverage, specifications are made for the scope of the required manual load shedding by the control area manager Austrian Power Grid AG. These specifications are primarily distributed according to technical necessity to the distribution system operators with a direct connection to the transmission system in each province using an outage-proof digital communication medium (Austrian Awareness System). Attention is paid to a sufficient remaining level of reserves for the "automatic under-frequency load shedding" – as a remaining automatic measure of last resort – (i.e. up to around 50% of those loads that are intended for automatic under-frequency load shedding would be used for manual load shedding).

Article 22 (3) Regulation (EU) 2017/2196 specifies that every distribution system operator must disconnect the indicated demand without undue delay after being notified by the control area manager of the requirement to shed load, with indication of the amount of demand to be disconnected. The same applies to all downstream distribution system operators after they have been prompted by the upstream distribution system operator to disconnect demand.¹²

After the notification on required manual load shedding, the control area manager will provide ad hoc information on the cause of the fault to the control centre of the affected transmission system operators and directly connected distribution system operators by e-mail as soon as possible. The situation surrounding the event is depicted by the control

¹² ÖSTERREICHS ENERGIE/Defence Plan expert pool: Systemschutzplan Österreich – Technische Maßnahmen zur Vermeidung von Großstörungen und Begrenzung ihrer Auswirkungen, 2021, Annex 13.3, item 4.2.1.

area manager. Communication to the public is handled in a coordinated manner by all involved parties under the direction of the control area manager.¹³

3.1.3 Procedures to be followed in the cases of an electricity crisis including the corresponding schemes on information flows

The legal basis for national measures in the event of an electricity supply crisis is formed by the Federal Law on Intervention Measures to Safeguard Energy Supplies (Energy Intervention Powers Act 2012 – EnLG 2012), Federal Law Gazette I No. 41/2013, as amended.

The Energy Intervention Powers Act 2012 differentiates between intervention measures

- for solid/liquid energy products (sections 7 to 12)
- to safeguard electricity supplies (sections 14 to 25a)
- to safeguard natural gas supplies (sections 26 to 35a)

Orders imposing intervention measures regarding energy products, and safeguarding supplies of electrical energy and natural gas shall, without exception, be enacted separately from each other (section 5 [1] EnLG 2012).

The Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology is responsible for the assessment of whether there is an energy intervention case after hearing the Energy Intervention Council.

If there is an energy intervention case, the Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology issues an energy intervention measure order in which energy intervention measures are stipulated.

The Energy Intervention Powers Act 2012 sets forth which measures can be stipulated in an energy intervention measure order.

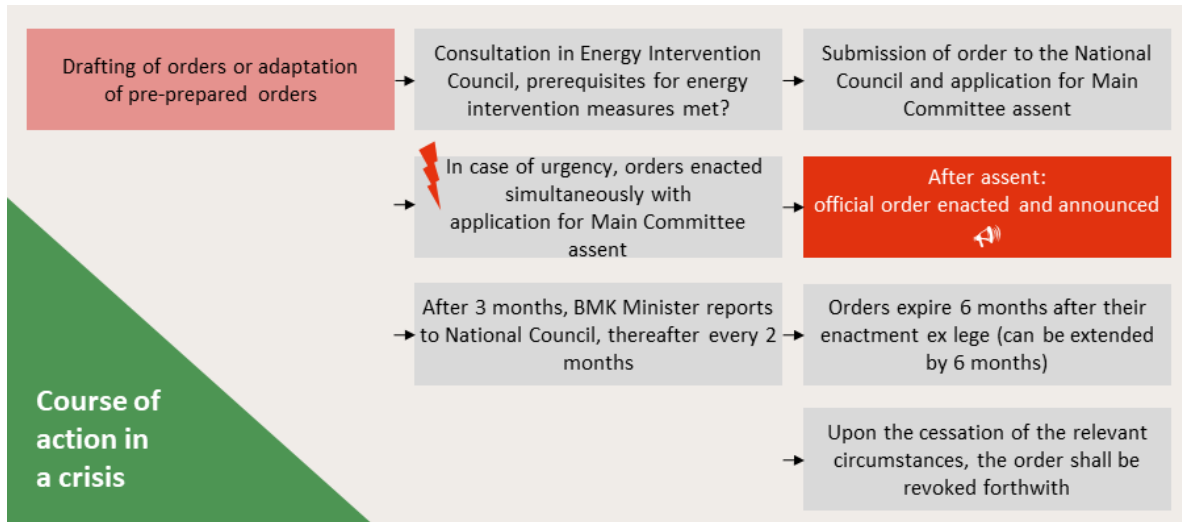
¹³ ÖSTERREICHS ENERGIE/Defence Plan expert pool: Systemschutzplan Österreich – Technische Maßnahmen zur Vermeidung von Großstörungen und Begrenzung ihrer Auswirkungen, 2021, Annex 13.3, item 4.2.2.

3.1.3.1 Course of action in the event of an electricity crisis

- Consultations are held with experts of the regulator, the provincial governments, the affected power supply companies, and further stakeholders in advance.
- Drafting of an energy intervention measure order, any necessary adaptations to pre-prepared orders.
- Advice to the Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology in the Energy Intervention Council. The Council is composed of 3 representatives of the BMK; 1 representative each of the Federal Chancellery (BKA), the Federal Ministry for European and International Affairs (BMEIA), the Federal Ministry of Finance (BMF), the Federal Ministry of the Interior (BMI), the Federal Ministry of Defence (BMLV), the Federal Ministry of Labour and Economy (BMAW), and the Federal Ministry for Agriculture, Forestry, Regions and Water Management (BML); 2 representatives each of the Austrian Federal Economic Chamber, the Austrian Chamber of Agriculture, the Austrian Federal Chamber of Labour, the Austrian Trade Union Federation, and the Federation of Austrian Industries; 1 representative of E-Control; 1 representative of each province; 1 expert each on the petroleum industry, energy wholesaling and retailing, and gas and heating supply; 1 representative of Österreichs E-Wirtschaft; and 1 representative each of the political parties represented in the Main Committee of the National Council. One of the main tasks of the Energy Intervention Council is to discuss whether the prerequisites for the application of energy intervention measures in accordance with section 4 EnLG 2012 are met.
- Submission of the energy intervention measure order to the National Council and application for the Main Committee's assent.
- In case of urgency, orders requiring the assent of the Main Committee of the National Council shall be enacted simultaneously with the application for the Committee's assent.
- After assent, the order is enacted and announced.
- After 3 months, the Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology is required to submit a report to the National Council on the functioning of the intervention measures taken and thereafter at intervals of 2 months.
- Energy intervention measure orders expire 6 months after their enactment ex lege.
- Should the end of the crisis situation not be foreseeable after 6 months, an extension of up to 6 months is possible, requiring the assent of the Main Committee of the National Council.

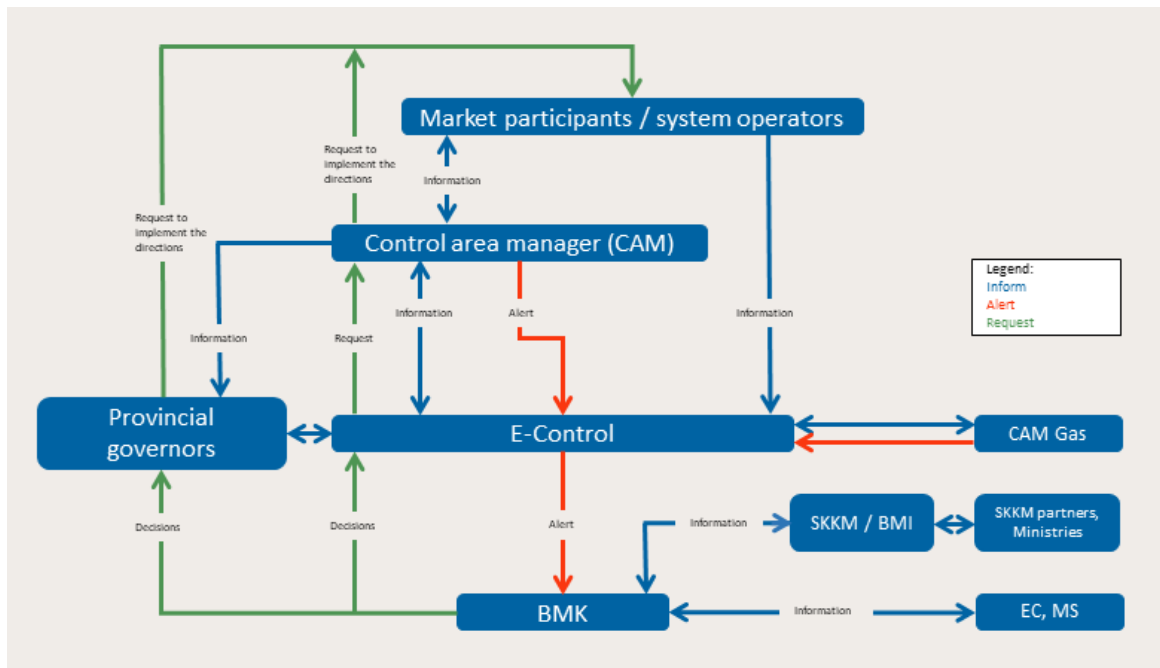
- Upon the cessation of the circumstances giving rise to the orders, the latter shall be revoked forthwith.

Figure 1 Course of action in a crisis



3.1.3.2 Information flow in the operational implementation of energy intervention measures

Figure 2 Information flow in the operational implementation of energy intervention measures



3.1.4 Measures to mitigate electricity crises

The cases in which energy intervention measures can be taken are regulated in section 4 (1) EnLG 2012. According to these provisions, energy intervention measures can be applied:

- to avert imminent or overcome actual disruptions¹⁴ of Austrian energy supplies, insofar as these disruptions
 - do not represent seasonal shortages
 - cannot be averted or overcome at all, in a timely manner or at reasonable cost by means of market-based measures (section 4 [1] no. 1 EnLG 2012) or

¹⁴ An imminent disruption within the meaning of section 4 (1) no. 1 first case EnLG 2012 can be assumed if a near-term disruption of the energy supply in Austria cannot be ruled out with sufficient certainty, which can also be the case if it can be feared that a (present) state without disruptions will rapidly turn into a situation with disruptions.

- to take emergency measures pursuant to decisions by the governing bodies of international organisations¹⁵ where this is necessary to fulfil obligations under international law (section 4 [1] no. 2 EnLG 2012) or
- to the extent that an obligation to provide solidarity in accordance with Art. 13 Regulation (EU) 2017/1938¹⁶ applies (section 4 [1] no. 3 EnLG 2012) or
- to the extent that an obligation to provide assistance in the form of regional or bilateral measures in accordance with Art. 15 Regulation (EU) 2019/941 applies (section 4 [1] no. 4 EnLG 2012).

In accordance with section 4 (2) EnLG 2012, the objective of energy intervention measures is:

- in the case of section 4 (1) no. 1, to safeguard the fulfilment of essential energy requirements including those of national defence, the undisturbed production of goods and provision of services, and the supply of the general public and other consumers;
- in the case of section 4 (1) no. 2, to permit the fulfilment of obligations under international law to take emergency measures pursuant to decisions by the governing bodies of international organisations;
- in the case of section 4 (1) no. 3, to permit the fulfilment of obligations under Union law to provide solidarity in accordance with Art. 13 Regulation (EU) 2017/1938;
- in the case of section 4 (1) no. 4, to permit the fulfilment of obligations under Union law to provide assistance in the form of regional or bilateral measures in accordance with Art. 15 Regulation (EU) 2019/941.

The intervention measures that can be taken to secure the electricity supply are listed exhaustively in the Energy Intervention Powers Act 2012. The pertinent legal regulations can be found in section 14 in conjunction with sections 16 to 22 EnLG 2012:

- Directions to generators, system operators, balance group coordinators, balance group representatives, and electricity wholesalers and retailers regarding the

¹⁵ These are obligations that must be fulfilled by the Republic of Austria either on the basis of the IEP Agreement, Federal Law Gazette No. 317/1976, or as a Member State of the European Union, see the comments on EnLG 2012, explanatory remarks to the government bill 1962 24. LP 5.

¹⁶ Regulation (EU) 2017/1938 of the European Parliament and of the Council of 25 October 2017 concerning measures to safeguard the security of gas supply and repealing Regulation (EU) No 994/2010.

generation, transmission, distribution, wholesaling, and retailing of electrical energy (section 14 [1] no. 1 in conjunction with section 16 EnLG 2012)

- Appeals and directions to final consumers regarding the allocation, withdrawal, and use of electrical energy, as well as the exclusion of consumers from the withdrawal of electrical energy (section 14 [1] no. 2 in conjunction with section 17 EnLG 2012)
 - Orders under section 14 (1) no. 2 EnLG 2012 shall make provision for the supply of the available electrical energy to final consumers according to the degree of urgency. In particular, such orders may determine that final consumers may, without additional procedures, be temporarily excluded from deliveries or that such deliveries may be limited. If necessary, E-Control may be empowered to separately regulate final consumers with an average monthly consumption of over 500,000 kWh over the past 12 months (so-called large gas customers).
- Regulations regarding the supply of electrical energy to and from EU member states and third countries (section 14 [1] no. 3 in conjunction with section 18 EnLG 2012)
- Regulations regarding the operation of electricity generating stations and permission to breach emission limits (section 14 [1] no. 4 in conjunction with section 19 EnLG 2012)
 - When applying this energy intervention measure, due regard shall be paid to avoiding hazardous environmental impacts. Contravening regulations shall not be applied for the duration of the validity of these orders.
- The granting of permission for deviations from the requirements of other legislation regarding renewable energy sources, insofar as such deviations are necessary to safeguard the supply of electrical energy (section 14 [1] no. 5 in conjunction with section 20 EnLG 2012)
- Regulations on the procurement of energy from renewable sources in accordance with the Green Electricity Act 2012, Federal Law Gazette I No. 75/2011, as amended, and of renewable electricity in accordance with the Renewable Energy Expansion Act, Federal Law Gazette I No. 150/2021, as amended (section 14 [1] no. 6 EnLG 2012)
- Determination of consumption quotas for the provinces (section 14 [1] no. 7 in conjunction with section 21 EnLG 2012)
- Directions to
 - a) Generators operating combined heat and power plants with a maximum thermal capacity of at least 50 MW or an annual heat output of at least 300 GWh; and
 - b) District heating companies operating heating stations and district heating power plants with a total maximum thermal output of at least 50 MW or an annual heat output of at least 300 GWh, requiring the substitution of natural gas with other energy sources, insofar as this is technically possible, and the reduction of the

- feed temperature for injections into the district heating network (section 14 [1] no. 8 in conjunction with section 22 EnLG 2012)
- Appeals to district heating customers in relation to the use of district heating (section 14 [1] no. 9 in conjunction with section 22 EnLG 2012)

The provisions of section 14 (1) no. 1 in conjunction with section 16 EnLG 2012 and section 14 (1) no. 3 in conjunction with section 18 EnLG 2012 shall not be applied to power plants that render system services and cover peak loads within control areas if the provision of system services and the coverage of peak loads is not sufficiently ensured in the respective control area through cross-control-area utilisation of these power plants for the purposes of overcoming the crisis.

Energy intervention measures may only be taken to the extent and for a duration necessary to avert or overcome the disruption, to provide solidarity in accordance with Art. 13 Regulation (EU) 2017/1938, to provide assistance in the form of regional or bilateral measures in accordance with Art. 15 Regulation (EU) 2019/941, or to fulfil obligations under international law to take emergency measures pursuant to decisions by the governing bodies of international organisations. The inviolability of property and freedom to practise a trade or occupation may only be infringed if the objectives specified in section 4 (2) EnLG 2012 cannot be achieved in any other way (section 4 [4] EnLG 2012). Less invasive energy intervention measures (such as appeals for the sparing use of energy, regulations regarding facility operations and permission to breach emission limits) shall take precedence over more significant interventions (such as exclusion from or restrictions on supply with electrical energy).

3.1.5 Implementation of energy intervention measures

The preparation and coordination of the intervention measures to be taken in the Austrian control areas in case of need falls under the responsibility of E-Control (section 15 [1] EnLG 2012 in conjunction with section 5 of the Energy Control Act – E-ControlG, Federal Law Gazette I No. 110/2010, as amended). The operational implementation of the measures enacted by order under sections 16 to 20 EnLG 2012, on the basis of the criteria set out in the intervention orders, is the responsibility of the control area managers acting in conjunction with the system operators, balance group coordinators, balance group representatives, and electricity wholesalers and retailers, which shall coordinate their activities in the interests of a uniform approach throughout the federal territory. The control area manager in Austria is Austrian Power Grid AG (APG).

The implementation of intervention measures in relation to provincial consumption quotas in accordance with section 14 (1) no. 7 EnLG 2012 and the enactment of regulations in accordance with section 14 (1) no. 6 EnLG 2012 about the procurement of energy from renewable sources in accordance with the Green Electricity Act 2012 and about the use of renewable electricity in accordance with the Renewable Energy Expansion Act in the provinces falls under the responsibility of the provincial governors. A provincial governor may charge the designated control area manager in the respective province, as well as the system operators, balance group coordinators, balance group representatives and electricity wholesalers and retailers operating in such province with implementing the measures (section 21 [2] EnLG 2012).

In the implementation of intervention measures related to the provincial consumption quotas in accordance with section 14 (1) no. 7 EnLG 2012, the provincial governors are bound by the federally uniform distribution regulations provided that the electricity supply situation in the province does not allow for deviation from the federally uniform regulations without running the risk of failing to meet the energy saving target that must be met by the province. If the energy savings target is not met in the province, E-Control can order the necessary measures with binding effect for the province in question (section 21 [3] EnLG 2012).

Regarding the implementation of provincial consumption quotas, section 21 (5) EnLG 2012 stipulates that geographically circumscribed areas may be excluded from electricity withdrawal or cut off by order of provincial governors. This is referred to as an area-wide disconnection.

In accordance with section 21 (5) second sentence EnLG 2012, measures taken based on an order from the Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology in accordance with section 17 EnLG 2012 shall be taken into account in the event of area-wide disconnections.

3.1.6 Mechanisms used to inform the public about the electricity crisis

Energy intervention measure orders are announced in the Federal Law Gazette, and those enacted by the provincial governors in the respective provincial law gazette. If announcement in the Federal Law Gazette or the provincial law gazettes is not possible or not possible in a timely manner, the order will be announced in another manner – especially by radio, television, or other acoustic medium or publication in one or more

periodic publications that accept advertisements, especially daily newspapers – and also made available on the Internet (section 5 [4] EnLG 2012).

A brochure titled “Krisenvorsorgemanagement” (Crisis-Preparedness Management) has been published by the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology to inform the public about the mechanisms of crisis management in the energy system.¹⁷

3.1.7 Differentiation from matters of disaster relief

The national procedures and measures set forth in this Risk-Preparedness Plan in accordance with Art. 10 Regulation (EU) 2019/941 are based on the Energy Intervention Powers Act 2012.

These are discrete from matters of disaster relief, which largely fall under the responsibility of the provincial governments and are regulated by the laws stipulating disaster relief of the provinces.

The incident-related coordination of domestic measures to cope with interregional or international crises or catastrophes falls under the responsibility of the Federal Chancellery (see part 2 lit. A no. 1 of the Annex to section 2 of the Federal Ministries Act 1986 [BMG], Federal Law Gazette No. 76/1986, most recently amended by the law promulgated in Federal Law Gazette I No. 98/2022).

The coordination in matters of public crisis management and public disaster relief management falls under the responsibility of the Federal Ministry of the Interior (see part 2 lit. G no. 1 of the Annex to section 2 BMG).

¹⁷ Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (Pub.): Krisenvorsorgemanagement Gut vorbereitet: Bestandsaufnahme und Bewältigung möglicher Krisenszenarien im Bereich Energie, [Krisenvorsorgemanagement \(bmk.gv.at\)](https://www.bmk.gv.at).

3.2 Regional and bilateral procedures and measures

3.2.1 Agreed mechanisms for cooperation within the region and for ensuring appropriate coordination before and during the electricity crisis, including the decision-making procedures for appropriate reaction at regional level

In accordance with Art. 12 Regulation (EU) 2019/941, the Risk-Preparedness Plan shall include not only national measures, but also regional and, if appropriate, bilateral measures to ensure that electricity crises with cross-border impact are properly prevented or managed. Regional measures shall be agreed within the region concerned between Member States that have the technical ability to provide each other assistance in accordance with Article 15 Regulation (EU) 2019/941. For that purpose, the Member States may also form subgroups within a region.

The Republic of Austria shall conclude agreements on regional measures with the neighbouring EU Member States Germany, Italy, Czechia, Slovenia, and Hungary. Due to the absence of direct connection lines with Slovakia, there is no such obligation with Slovakia.

The existing regional cooperation mechanisms are described below. Intergovernmental agreements that are concluded in future will be taken into account in updates to this Risk-Preparedness Plan.

3.2.2 Regional cooperation relating to security of electricity supply under the framework of the Pentilateral Energy Forum and signing of a memorandum of understanding on risk-preparedness in the electricity sector

The Pentilateral Energy Forum (called the PENTA Forum in the following) is the framework for voluntary regional cooperation in Central Western Europe, consisting of Austria, Belgium, France, Germany, Luxembourg, the Netherlands, and Switzerland. The forum aims to work towards improved electricity market integration and security of supply. Jointly, PENTA countries cover more than a third of the EU population and more than 40% of EU electricity generation. The initiative aims to allow energy policy to evolve from a purely national focus to a regional approach. It allows for political backing to a process of regional integration towards a European energy market. To this end, the

Ministers for Energy of the Pentalateral countries regularly meet in order to discuss energy policy matters and give guidance on this regional cooperation. The work programme is implemented by the transmission system operators (TSOs), ministries, regulatory authorities, the European Commission and the market players who regularly meet in different support groups. This collaboration is formalized through the Memorandum of Understanding of the PENTA- Forum, signed on 26 June 2007 in Luxembourg.

Security of supply in the electricity sector has always been one of the most important pillars of collaboration within the PENTA-Forum. Therefore, in light of Regulation (EU) 2019/941, work has been undertaken since 2020 on a coordinated regional framework for cooperation in the PENTA region aimed at the prevention of, preparations for, and managing electricity crises in accordance with Art. 12 and Art. 15 Regulation (EU) 2019/941.

On 1 December 2021, a memorandum of understanding on risk-preparedness in the electricity sector was signed. The memorandum of understanding contains a commitment of the PENTA countries to exchange about aspects of risk-preparedness in the electricity sector and about national crisis management. In addition, electricity crisis scenarios that are relevant for the PENTA region are to be identified, and regular crisis exercises are to be held. The memorandum of understanding also contains the intention of the PENTA countries to offer each other assistance in the event of an electricity crisis by means of regional measures, where they have the necessary technical ability. The memorandum of understanding also contains a non-exhaustive list of regional measures that are to be fleshed out in detail in future. These include the cross-border usage of reserve capacities and flexible loads, the exchange about demand disconnection plans, the surveillance of the short-term security of electricity supply, coordinated information regarding saving appeals to the public, support with electric equipment, knowledge and expertise, and the usage of mobile generators.

3.2.3 Signing of a memorandum of understanding on risk-preparedness in the electricity sector between Austria, Germany, the Czech Republic, Slovakia, Poland, and Hungary

Consultations were held between Austria and Central Eastern European Member States on the basis of the PENTA memorandum of understanding on risk-preparedness in the electricity sector starting at the end of 2021. These efforts led to the signing of a

memorandum of understanding on risk-preparedness in the electricity sector by the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology of the Republic of Austria, the Ministry of Industry and Trade of the Czech Republic, the Federal Ministry for Economic Affairs and Climate Action of the Federal Republic of Germany, the Ministry of Innovation and Technology of Hungary, the Ministry of Climate and Environment of the Republic of Poland, and the Ministry of Economy of the Slovak Republic on 27 June 2022.

The contents of the memorandum of understanding correspond largely to the items of the PENTA memorandum of understanding on risk-preparedness in the electricity sector, and include a regular exchange about aspects of risk-preparedness in the electricity sector and national crisis management. The memorandum of understanding also contains the intention of the signatory countries to offer each other assistance in the event of an electricity crisis by means of regional measures, where they have the necessary technical ability. It also contains a non-exhaustive list of regional measures that are to be fleshed out in detail in future. These include the cross-border usage of reserve capacities and flexible loads, the exchange of information about demand disconnection plans, the surveillance of the short-term security of electricity supply, the exchange of information regarding saving appeals to the public, support with electric equipment, knowledge and expertise, and the usage of mobile generators.

4 Crisis coordination centre

4.1 Designation

Department Crisis Management and Energy Intervention of Directorate General VI of the Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology.

4.2 Contact details

Address: Stubenring 1, A-1010 Vienna

E-mail: stabst-krima-el@bmk.gv.at

5 Emergency tests

5.1 National emergency tests

Section 15 (11) EnLG 2012 specifies that E-Control is authorised to order exercises based on the assumption of crisis scenarios every two years.

In addition, exercises are conducted in the context of National Crisis and Disaster Management (SKKM) – the coordination of which falls under the responsibility of the Federal Ministry of the Interior – that may also pertain to the energy sector depending on the scenario and object of the exercise.

The following national exercises were recently conducted in the electricity sector:

- HELIOS/SKKM exercise in 2019: The exercise was based on an electricity shortage and involved around 100 representatives of the federal ministries, provinces, first responder organisations, and critical infrastructure assets.
- Energie.21/SKKM exercise in 2021: The exercise was based on an extreme cold spell in Europe resulting in elevated electricity consumption and limitations on electricity generation. The exercise participants were composed of the relevant federal ministries BMK, BMI, BMLV, and BMAW and the provincial governments. The control area manager APG and E-Control were also represented.

5.2 Regional emergency tests

The memoranda of understanding on risk-preparedness in the electricity sector discussed in 3.2.2 and 3.2.3 contain the intention of the signatory countries to prepare and conduct regional crisis exercises to test, evaluate, and improve the effectiveness of the procedures set forth in the respective memorandum of understanding.

An electricity shortage exercise was conducted in Paris on 24 May 2022 based on the PENTA memorandum of understanding. The scenario was a multi-day cold spell in Western Europe including drought and a lack of wind. The focus was placed on mutual communication and the exchange of the existing crisis management systems in the respective PENTA countries.

6 Stakeholder consultation

The present Risk-Preparedness Plan was submitted to the following stakeholders from 16 to 23 November 2022 in accordance with Art. 10 (1) Regulation (EU) 2019/941:

- a) Major electricity and natural gas companies including the major generators or their trade bodies:

Oesterreichs Energie - Association of Austrian Electricity Companies;
Wirtschaftskammer Österreich (Austrian Federal Economic Chamber);
Industriellenvereinigung (Federation of Austrian Industries); Fachverband der Gas- und Wärmeversorgungsunternehmen (Association of Gas and District Heating Supply Companies)

- b) Relevant organisations that represent the interests of non-commercial electricity customers:

Bundesarbeiterkammer (Federal Chamber of Labour); Österreichischer Gewerkschaftsbund (Austrian Trade Union Federation)

- c) Relevant organisations that represent the interests of commercial electricity customers:

Wirtschaftskammer Österreich (Austrian Federal Economic Chamber);
Industriellenvereinigung (Federation of Austrian Industries); Landwirtschaftskammer Österreich (Austrian Chamber of Agriculture)

- d) Regulatory authority:

E-Control

- e) Transmission system operators:

Austrian Power Grid AG; Vorarlberger Übertragungsnetz GmbH

f) Relevant distribution system operators

(The operators with a direct connection to the transmission system were defined as relevant):

Wiener Netze GmbH; Netz Niederösterreich GmbH; Netz Burgenland GmbH; Netz Oberösterreich GmbH; Linz Netz GmbH; Energienetze Steiermark GmbH; Kärnten Netz GmbH; Salzburg Netz GmbH; TINETZ-Tiroler Netze GmbH; Vorarlberger Energienetze GmbH

Beyond the circle of stakeholders in accordance with Art. 10 (1) Regulation (EU) 2019/941, the Risk-Preparedness Plan was also submitted to the following federal ministries and institutions for consultation:

Federal Chancellery (BKA); Federal Ministry of Finance (BMF); Federal Ministry of the Interior (BMI); Federal Ministry of Labour and Economy (BMAW); Federal Ministry of Agriculture, Forestry, Regions and Water Management (BML); Federal Ministry for Social Affairs, Health, Care and Consumer Protection (BMSGPK); Verbindungsstelle der Bundesländer (Liaison Office of the Provinces); Städtebund (Austrian Association of Cities and Towns); Gemeindebund (Austrian Association of Municipalities)

Abbreviations

ACER	European Union Agency for the Cooperation of Energy Regulators
Art.	article
AT	Austria
BKA	Federal Chancellery
BMAW	Federal Ministry of Labour and Economy
BMF	Federal Ministry of Finance
BMI	Federal Ministry of the Interior
BMK	Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology
BML	Federal Ministry of Agriculture, Forestry, Regions and Water Management
BMSGPK	Federal Ministry for Social Affairs, Health, Care and Consumer Protection
i.e.	that is
EBG 2012	Federal Law on the Maintenance of Minimum Stocks of Petroleum and Petroleum Products (Oil Stockholding Act 2012), Federal Law Gazette I No. 78/2012, as amended
E-Control	Energie-Control Austria für die Regulierung der Elektrizitäts- und Erdgaswirtschaft (government regulator for electricity and natural gas markets in Austria)
EC	European Commission
EnLG 2012	Federal Law on Intervention Measures to Secure the Energy Supply (Energy Intervention Powers Act 2012), Federal Law Gazette I No. 41/2013, as amended
ENTSO-E	European Network of Transmission System Operators for Electricity
EU	European Union
ff	and the following
GDG 2022	Federal Law on the Promotion of the Exit from Russian Natural Gas and the Diversification of Natural Gas Procurement from Other Sources (Gas Diversification Act 2022), Federal Law Gazette I No. 95/2022, as amended
LP	legislative period
GWG 2011	Federal Law Enacting New Regulations for Natural Gas Management (Gas Management Act 2011), Federal Law Gazette I No. 107/2011, as amended
MS	Member State(s)
PENTA Forum	Pentalateral Energy Forum

RES	renewable energy sources
CAM	control area manager
SKKM	National Crisis and Disaster Management
TSO	transmission system operator
etc.	et cetera

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