

# Nordic System Operation Agreement (SOA) – Annex Operational Planning (OP)

## – Appendix Operational Planning Coordination (OPC)

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V1	11/12/2019	11/12/2019	SOA OP Appendix Operational Procedure for Nordic Outage Planning Coordination (OPC) – Initial version
	11/12/2024		A minor textual adjustment has been made, changing "RSC" to "RCC"
V2	04/02/2026	04/02/2026	Updated to reflect changes and developments since the initial version

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# 1 Background

This document is the common operational procedure of Nordic transmission system operators, Fingrid, Energinet, Svenska kraftnät, Statnett and Kraftnät Åland (hereafter referred to as "Nordic TSOs") and Nordic Regional Coordination Centre (hereafter referred to as "Nordic RCC") for regional outage planning coordination (hereafter referred to as OPC) within Nordic outage coordination region (hereafter referred to as "Nordic OCR" as defined in chapter 4.2 of OP Annex) in accordance with article 83 of SO Regulation.

## 2 Objective

Outages having impact on the transmission capacity or operational security between the transmission systems shall be coordinated timely in advance between the Nordic TSOs.

Nordic TSOs performs thereby with the support of Nordic RCC regional OPC for different time horizons, in order to coordinate and monitor the availability status of at least all relevant assets within the Nordic OCR to ensure sufficient transmission capacity and to assess operational security of the Nordic transmission system.

Unless otherwise decided by Nordic TSOs, the term "outage plan" shall be used since it reflects the existing situation in Nordic outage planning coordination instead of the term "availability plan".

## 3 Roles and Responsibilities

Several roles are involved in the regional OPC. The Nordic TSOs are the main stakeholders of the coordination process. Nordic RCC supports the regional OPC process of the Nordic TSOs.

Distribution system operators (hereinafter referred to as "DSOs") and outage planning agents (hereinafter referred to as "OPA") are other relevant stakeholders in the regional OPC.

The roles and responsibilities of Nordic TSOs and Nordic RCC are described in more detail below.

### 3.1 Nordic TSOs

The Nordic TSOs operate the transmission systems and are responsible for the operational security within their control area. All Nordic TSOs participate in the Nordic regional OPC of Nordic OCR and apply this Operational Procedure for Outage Planning Coordination.

The main responsibilities of the Nordic TSOs in the regional OPC are the following:

- Share all relevant information amongst Nordic TSOs and to Nordic RCC on at least all relevant assets.
- Assess the relevance of assets and provide yearly update of the lists of relevant assets for Nordic OCR;
- Plan and coordinate outage of at least all relevant assets and establish preliminary and a final outage plans for at least all relevant assets in the Nordic OCR;

- Coordinate with Nordic RCC and relevant Nordic TSOs to resolve outage planning incompatibilities (hereinafter referred to as "OPI") by applying appropriate measures;
- Inform all relevant stakeholders about lists of at least all relevant assets and final outage plans;
- Exchange information and when necessary, coordinate in Y-5 timeframe on relevant projects with Nordic RCC and relevant Nordic TSOs.

## 3.2 Nordic RCC

Nordic RCC supports Nordic TSOs in regional OPC within Nordic OCR.

The main responsibilities of Nordic RCC in the regional OPC are the following:

- Plan and administrate the physical- and online meetings of Nordic regional OPC for Year-Ahead and Week-Ahead coordination, as well as the yearly update of relevant assets (RAOCM);
- Perform operational security analysis to identify and assess OPIs and propose solutions to Nordic TSOs to solve OPIs;
- Coordinate analysis on OPIs with other regional security coordinators (hereinafter referred to as "RCC") of adjacent OCRs;
- Prepare in coordination with Nordic TSOs an annual report about the number of OPIs detected during the regional OPC and submit it to ENTSO-E.

## 4 Nordic outage planning coordination

### 4.1 Long-term outage planning coordination

All Nordic TSOs shall exchange information in Y-5 timeframe on relevant projects with impact on regional OPC and known outage plans of at least relevant assets, and, when necessary, Nordic TSOs shall coordinate this with each other. (SOGL 83(4))

All Nordic TSOs shall assess the availability plans of at least all relevant assets from production and consumption owners according to articles 4, 7 and 15 of Regulation on submission and publication of data in electricity markets ((EU) No 543/2013). This shall be done at least two years before the start of the year ahead OPC and then every year until the start of the year-ahead OPC. (SOGL 93)

Each TSO shall analyze their own long-term outage plans in order to detect any OPIs. All TSOs shall coordinate their assessment of long-term outage plans when they affect cross-border operational security. All Nordic TSOs in cooperation with Nordic RCC shall propose solutions for solving OPIs.

## 4.2 Year-Ahead outage planning coordination

### 4.2.1 Definition and update of list of relevant assets

Each Nordic TSO shall assess the relevance of assets such as power generating modules, demand facilities and grid elements applying the methodology for assessing the relevance of assets for outage planning coordination pursuant article 84 SOGL (hereinafter referred to as "RAOCM"). All TSOs shall define the list of at least all relevant assets for power generating modules, demand facilities and grid elements subject to regional OPC within Nordic OCR. (SOGL 85) (SOGL 87)

- Each Nordic TSO shall consider chapter 5.3 and 5.4 of RAOCM when determining relevant assets connected outside its control area whose outage can threaten the system security of its control area (RAOCM 5(3)) (RAOCM 5(4));
- Each Nordic TSO shall reassess the relevance of assets every year. All TSOs shall update the list of relevant assets before 1 August of each calendar year (SOGL 86) (SOGL 88).

All TSOs shall update the list of all relevant assets in the ENTSO-E Pan-European Tool Element list. (SOGL 85) SOGL 87)

### 4.2.2 Deadlines for year-ahead regional outage planning coordination

All Nordic TSOs agree on the following timeframes for year-ahead regional OPC on at least all relevant assets (SOGL 94):

- Provision of year-ahead outage plans proposals by OPAs other than TSO or DSO before 1 August of each calendar year (SOGL 94);
- Provision of year-ahead outage plans proposals by Nordic TSOs before 1 October of each calendar year;
- Provision of preliminary year-ahead outage plans before 1 November of each calendar year (SOGL 97);
- Provision of final year-ahead outage plans before 1 December of each calendar year (SOGL 99).

### 4.2.3 Coordination of outage planning with DSOs

Each Nordic TSO shall coordinate the outage planning of relevant assets with affected DSOs.

### 4.2.4 Provision of year-ahead outage plan proposals

Each Nordic TSO shall take into account the outage plans proposals by OPAs other than TSO or DSO when establishing the year-ahead coordination of relevant grid elements. (SOGL 95)

Each Nordic TSO shall assess the request from an OPA for amendment of an outage plan and coordinate with the other Nordic TSOs if necessary. (SOGL 95)

#### 4.2.5 Year-ahead coordination of outage plans

The year-ahead coordination of the Nordic outage plans is performed in the middle of October of each year in a joint meeting of all TSOs and Nordic RCC.

Nordic TSOs shall thereafter provide the preliminary year-ahead outage plans for all Nordic relevant assets to ENTSO-E Pan-European Tool before 1 November of each calendar year. (SOGL 97)

#### 4.2.6 Validation of year-ahead outage plans

The validation of year-ahead outage plans shall be accomplished before 1 December of each calendar year. (SOGL 98)

All Nordic TSOs in cooperation with Nordic RCC shall perform operational security analyses taking into account all the preliminary year-ahead outage plans in order to detect any OPIs. Nordic RCC shall coordinate the analyses with other RCCs if necessary. Nordic RCC in cooperation with all Nordic TSOs shall establish a list of detected OPIs.

All Nordic TSOs in cooperation with Nordic RCC shall propose and assess solutions for solving OPIs. If necessary, Nordic RCC shall coordinate the analyses with other RCCs. Each Nordic TSO shall consider proposed solutions and if agreed update the year-ahead outage plans accordingly in order to solve any OPIs. All Nordic TSOs in cooperation with Nordic RCC shall continue the coordination until all OPIs have been resolved or incompatibilities are acceptable and manageable in real-time operation.

Each Nordic TSO shall provide the final year-ahead outage plans for all internal relevant assets to the other TSOs, to Nordic RCC and to ENTSO-E Pan-European Tool before 1 December of each calendar year.

### 4.3 Updates to the final year-ahead outage plans

Each Nordic TSO shall be able to launch a request for amending the final year-ahead outage plan of a relevant asset. The requesting TSO shall prepare a proposal for amendment to the year-ahead outage plan and shall submit its proposal to the other TSOs. (SOGL 100)

All concerned Nordic TSOs shall coordinate and assess the proposal for amendment to the year-ahead outage plan prior to a coordination process with Nordic RCC. If necessary, all concerned Nordic TSOs in cooperation with Nordic RCC shall perform operational security analyses considering the requested amendment to the final year-ahead outage plan in order to detect any OPIs. If necessary, Nordic RCC shall coordinate the analyses with other RCCs.

All concerned Nordic TSOs in cooperation with Nordic RCC shall propose and assess solutions for solving any OPIs. All concerned Nordic TSOs shall confirm the final solutions for solving the outage planning incompatibilities. The requesting TSO shall withdraw the request for amendment to the final year-ahead outage plan in case no solution has been found for solving the OPIs.

All concerned Nordic TSOs shall consider confirmed solution and update the year ahead outage plan accordingly. Each TSO shall provide the updated outage plan to the other concerned Nordic TSOs, Nordic RCC and to ENTSO-E Pan-European Tool. The updated outage plan shall always be considered in the OPC process.

#### 4.4 Nordic week-ahead and month-ahead outage planning coordination

All Nordic TSOs have agreed to establish a week-ahead outage planning coordination between the Nordic TSOs and Nordic RCC in order to confirm and if necessary, to update the year-ahead outage plans before real-time execution. (SOGL 83)

Each Nordic TSO shall ensure that the year-ahead outage plan is up-to-date and shall provide an updated outage plan to the other concerned TSOs, Nordic RCC and to ENTSO-E Pan-European Tool. If necessary, all Nordic TSOs in cooperation with Nordic RCC shall detect based on the latest available outage plans any OPIs and propose solutions for updates to the outage plans

Week-ahead OPC shall take place in a weekly conference call between the Nordic TSOs and Nordic RCC. The objective of this call is to confirm the updated year-ahead-plan and to identify any unforeseen changes to the plan. Any changes to the year-ahead-plan shall be exchanged in the call.

The results of the week-ahead OPC shall be documented by Nordic RCC and provided to Nordic TSOs<sup>1</sup>.

Each Nordic TSO shall inform its neighboring Nordic TSOs about forced outages and any other outages which have not been considered neither in the year-ahead planning nor in the week-ahead planning and which could have an impact on the neighboring grid. Forced outage means the unplanned removal from service of a relevant asset for any urgent reason. In case of forced outage, a coordination/assessment shall be performed between the affected Nordic TSOs. The concerned Nordic TSOs shall inform Nordic RCC about the forced outage when appropriate.

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<sup>1</sup> Details of such a weekly conference call will be agreed upon in an operational instruction.