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## **RULES FOR THE MAINTENANCE OF READINESS FOR USE OF POWER PLANT UNITS COVERED BY THE PEAK LOAD CAPACITY SYSTEM, FOR THE USE OF SUCH POWER PLANT UNITS, AND FOR MAKING THE ELECTRICITY PRODUCED AVAILABLE TO THE MARKET**

Fingrid or its subsidiary Finextra (hereinafter Fingrid) sets the following rules for maintaining the availability of power plant units included in the peak load capacity system, for the use of such power plant units, and for making the electricity produced available to the market.

These rules apply to the power plant unit and to the holder of the power plant (hereinafter Producer) and to a share in a jointly-owned power plant and the holder of such share.

### **1 MAINTENANCE OF READINESS FOR USE OF A POWER PLANT UNIT**

#### **1.1 General rules**

A power plant unit must fulfil the requirements of Section 8 of the Finnish Peak Load Capacity Act (117/2011).

The Producer shall maintain the technical functioning of the power plant unit at the level required by the following availability times:

- In the winter period of 1 December to 28 February, the start-up time is a maximum of twelve (12) hours.
- At other times, the start-up time is a maximum of one (1) month.

During the winter period, the power plant unit must be capable for a run time of at least 200 hours at the full power specified in the peak load capacity agreement.

The Producer shall agree on the timing of repairs influencing the 12-hour start-up availability of the power plant unit with Fingrid.

The Producer shall ensure that the power plant unit has valid agreements concerning electricity transmission.

The Producer must arrange its operations such that it is entitled to participate in the balancing power market in accordance with the valid rules of the balancing power market.

#### **1.2 Operating personnel**

The Producer shall ensure that it has sufficient personnel in terms of quantity and expertise to carry out the obligations laid down in these rules.

#### **1.3 Fuel supply**

The power plant unit must have sufficient fuel for the winter period to ensure a total of at least 200 hours of production at full power.

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## 1.4 Emissions permit and rights

The power plant unit must hold a valid emissions permit.

The Producer is responsible for ensuring that the power plant unit has sufficient statutory emission allowances to meet the actual production volume, in accordance with the schedule relating to the reporting of annual emissions and to the invalidation of the allowances.

## 1.5 Environmental permits

The power plant unit must hold a valid environmental permit which allows the unit to act as a peak load capacity reserve as required by these rules.

## 1.6 Trial operation before the winter period

The power plant unit must carry out a successful trial operation annually during a period of time agreed upon separately with Fingrid no more than one month before the 12-hour start-up readiness commences. The purpose of the trial operation is to ensure the technical functioning of the power plant unit and the expertise of the operating personnel. During the trial operation, the plant must be synchronised with the grid and it must produce over 80% of the electrical power offered by the plant to the peak load capacity system for at least one hour. The trial operation must not exceed 12 hours, unless a justified reason has been given in advance.

The Producer shall be responsible for the execution and costs of the trial operation. The proceeds from electricity sales received by the Producer for the trial operation do not affect the compensation of readiness for use as referred to in section 5.

## 1.7 Possibility of trial operation during the winter period

To ensure a power plant unit's 12-hour start-up readiness, Fingrid may conduct a trial operation of the power plant once during the winter period. Fingrid will inform the Producer of the trial at least 12 hours before the trial operation.

During the trial operation, the plant must be synchronised with the electricity grid and it must produce the power plant's minimum power for at least one hour. The trial operation must not exceed 12 hours, unless a justified reason has been given in advance.

The Producer shall be responsible for the execution and costs of the trial operation. The proceeds from electricity sales received by the Producer for the trial operation do not affect the compensation for maintaining availability as referred to in section 5.

A trial operation carried out during the winter period will be deducted when calculating the 200 hours of availability referred to in section 1.1 of the rules.

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## 2 USE OF A POWER PLANT UNIT FOR THE NEEDS OF THE POWER SYSTEM

### 2.1 General rules

Fingrid and the transmission system operator in Sweden (hereinafter Svk) apply uniform principles to the availability of peak load capacity in the electricity market and to the use of peak load capacity so as to ensure the optimal use of peak load capacity in the Nordic power system and to minimise the market impacts of the peak load capacity arrangement<sup>1</sup>.

The power plant unit will be started up either on the basis of the day-ahead market or by a separate request from Fingrid.

### 2.2 Variable costs

In order to estimate the variable production costs, the Producer shall supply Fingrid with the cost data (hourly cost, €/MWh) of each power plant unit at least on a monthly basis. When calculating the variable production costs, fuel costs and the value of the emission allowances required by production (€/MWh) are taken into account.

The Producer shall additionally, on a monthly basis (hourly cost €/h), supply Fingrid with the cost information for maintaining raised start-up readiness for each power plant unit. The cost of maintaining raised start-up readiness cannot exceed the variable production costs.

On the basis of the Producers' suggestions, Fingrid accepts annually the statistic(s) used as the basis for the fuel costs and the method of determining the value of emission allowances.

### 2.3 Fixed costs

The fixed start-up cost of a power plant unit (€/start-up) is determined on the basis of a bid submitted to the Energy Authority by the Producer and on the basis of a procurement decision on peak load capacity made by the Energy Authority.

In addition, the Producer shall provide Fingrid with the fixed cost of raised start-up readiness per power plant unit (€/raise in start-up readiness). The fixed cost of the raised start-up readiness of a power plant unit cannot exceed its fixed start-up cost.

### 2.4 Peak load capacity on the day-ahead market

#### 2.4.1 Submitting and processing bids

During the winter period, Fingrid formulates a single offer on the peak load capacity comprised of Finnish power plants for the day-ahead electricity market. Fingrid offers the

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<sup>1</sup>The Danish transmission system operator Energinet.dk is planning to introduce peak load arrangements similar to the peak load capacity. If Energinet.dk joins the procedures applied to the entry into and use of the peak load capacity reserve in Finland and Sweden, the peak load capacity located in Denmark will be taken into account in compliance with similar principles.

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full peak load capacity available at any given time for Finland's bidding area during the hours 04–24 (CET).

The peak load capacity bid is taken into account in the day-ahead market price calculation if no balance between demand and supply is reached with the available market-based bids made.

Peak load capacity in Finland and Sweden is activated in the day-ahead market according to the ratio of the peak load capacities offered mutually between the countries, within the available transmission capacity.

Once the bid is activated, the nominated electricity market operator (hereinafter Power Exchange) for Finland's bidding area shall set a price on the peak load capacity that corresponds to the price cap in the day-ahead market<sup>2</sup>.

#### 2.4.2 Activation of peak load capacity

When a peak load capacity bid is activated, the Power Exchange shall notify Fingrid of the volume of the activated peak load capacity.

Fingrid and Svk decide on the power plants to be started. The decision covers the transmission restrictions within the countries, potential changes in cross-border transmission capacities between the countries, the minimum power ratings and starting times of peak load capacity, and other technical and economic preconditions. The goal is to start those power plant units which, within the framework of the above preconditions, produce the activated peak load capacity volume reported by the Power Exchange at the lowest costs.

Fingrid informs the Producer of the starting of a power plant. Fingrid and the Producer shall agree on the details pertaining to starting and stopping. Fingrid and the Producer conclude a fixed transaction on the energy volume per Fingrid's notification.

When a power plant unit starts for just one hour, the Producer and Fingrid can agree on a fixed transaction for the preceding hour in order to ensure the electricity production of the power plant unit in the hour in question. The Producer is responsible for the costs of imbalance resulting from the starting and stopping of the power plant.

#### 2.5 Starting and stopping peak load capacity at Fingrid's request

The Producer is obligated to start up a power plant unit covered by the agreement whenever Fingrid requests this either for the needs of the peak load capacity system or for other needs relating to the management of system responsibility. When Fingrid requests the start-up of a power plant unit, the Producer shall start the power plant unit to the agreed power rating and conclude a fixed transaction on it with Fingrid.

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<sup>2</sup>The price cap in the day-ahead market is currently €3000/MWh. Article 41 of Commission Regulation (EU) 2015/1222 establishing a guideline on capacity allocation and congestion management requires that a maximum and minimum price be proposed for the day-ahead electricity market within 18 months after the regulation enters into force. After approval by the regulatory authorities, the minimum and maximum prices shall be complied with, and the peak load capacity pricing will be updated accordingly.

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When a power plant unit is no longer required for the needs of the power system, Fingrid shall inform the Producer of the stopping of the power plant unit at least one hour in advance.

## 2.6 Pricing of fixed transactions

If a power plant unit is started, a fixed transaction is carried out using the variable production costs, which are calculated in accordance with section 2.2. The fixed start-up costs referred to in section 2.3 shall also be added to the fixed transaction price.

The Producer shall send Fingrid an invoice for the fixed transaction on the 4<sup>th</sup> day of the subsequent month or on the first weekday after the 4<sup>th</sup> day of the month. Fingrid shall pay the fixed transaction invoice within two months.

## 2.7 Peak load capacity on the balancing power market

When peak load capacity is running, the Producer is obligated to submit an up-regulating bid marked as a peak load capacity bid to the balancing power market on the available production capacity concerning the specific power plant unit, taking into account the power increase capacity of the specific power plant unit.

The Producer places peak load capacity bids on the balancing power market under the name of a separate balancing power market party and marks the balancing power bids as peak load capacity bids.

The Producer shall offer capacity on the balancing power market at a price of 3,000 €/MWh or, if the price exceeds €0,000 €/MWh, at the variable production cost calculated for the power plant unit per section 2.2.

Fingrid activates the necessary volume from these bids after all the voluntary balancing power bids have been activated. All balancing power bids, including the peak load capacity bids, are taken into account when setting the price of balancing power.

Fingrid shall pay the Producer for an activated bid in accordance with the variable production costs referred to in section 2.2.

## 2.8 Use of the peak load capacity reserve outside the winter period

If Fingrid decides to start up a power plant unit outside the winter period, sections 2.5–2.7 shall apply. In such cases, Fingrid first collects a peak load capacity fee corresponding to the realised costs for the electricity consumption for the starting month in question, and thereafter pays the Producer within two months of the starting month.

Use of the peak load capacity beyond the winter season does not affect the compensation for maintaining availability referred to in section 5.

## 2.9 Raising the start-up readiness of the peak load capacity

During the winter period, Fingrid may request that the Producer raise the start-up readiness of a power plant unit. Fingrid and the Producer shall agree on the duration of

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and details related to raising the start-up readiness, taking into account the power plant unit's technical preconditions.

The goal of raising the start-up readiness is to ensure the availability of a power plant unit for managing the power balance or for other needs related to the management of system responsibility.

Start-up readiness is raised at least 12 hours before the projected need for electricity production. Fingrid pays the fixed cost of raising the start-up readiness to the Producer in accordance with section 2.3 and the cost of maintaining start-up readiness in accordance with section 2.2.

In the event that the start-up readiness is raised and Fingrid decides to start the power plant unit's electricity production, section 2.5 shall apply. In such cases, Fingrid deducts the fixed cost of raising the start-up readiness from the fixed start-up cost.

### **3 USE OF A POWER PLANT UNIT FOR THE PRODUCER'S OWN NEEDS**

Electricity production for the Producer's own needs is not covered by the obligation of public service referred to in the Peak Load Capacity Act, so this can only take place during extraordinary situations, such as in the event of serious damage to the Producer's other power plants in Finland. Such use of the power plant unit must not jeopardise the fulfilment of the public service obligation. These extraordinary situations may take place at times other than between 1 December and 28 February.

If the Producer wishes to use the power plant unit for its own needs, separate consent is required from Fingrid in these extraordinary cases. Upon receiving consent, the Producer is responsible for all costs related to the recommissioning, starting, operation and decommissioning.

If the Producer uses the power plant unit exceptionally beyond the period of 1 December to 28 February for its own needs, Fingrid shall not pay the Producer maintenance compensation for those days on which the power plant unit has been in the Producer's own use.

Use of the power plant for the Producer's own purposes will incur the loss of the maintenance compensation for the entire day in question. The amount of daily maintenance compensation shall be calculated by dividing the maintenance compensation for the entire agreement period by the number of days in the agreement period.

### **4 HANDLING OF PRODUCED ELECTRICITY IN IMBALANCE SETTLEMENT**

The Producer is responsible for the power plant unit's imbalance settlement.

In addition, the electricity produced by the power plant unit, realised transactions in accordance with section 2, and use of the produced electricity for the Producer's own needs shall be handled in a separate settlement. The Producer shall submit a separate monthly settlement report to Fingrid for all those periods during which the power plant unit

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has been in production or during which peak load capacity has been activated in the day-ahead market.

The separate settlement is used for continuously calculating the deviation arising from an imbalance between production and sales; the Producer is responsible for the purchase and sales of imbalance power required to cover this imbalance.

## **5 MAINTENANCE COMPENSATION FOR READINESS FOR USE**

Maintenance compensation for readiness for use of peak load capacity is determined on the basis of a bid submitted to the Energy Authority by the Producer offering the power plant unit to the system and on the basis of a procurement decision on peak load capacity made by the Energy Authority.

Compensation for maintaining availability is paid only for the winter period (1 Dec–28 Feb).

Compensation for maintaining availability is paid to the Producer monthly in arrears. The Producer shall send an invoice concerning the maintenance of availability on the 4<sup>th</sup> day of the subsequent month or on the first weekday after the 4<sup>th</sup> day of the month. Fingrid shall pay the maintenance compensation within two months of the date when the invoice was sent.

## **6 UNAVAILABILITY OF POWER PLANT UNIT**

### **6.1 Reports**

The Producer is obligated to inform Fingrid, the Power Exchange and the Energy Authority without delay of changes in the start-up readiness of the power plant unit and of other issues which may limit the use of the power plant unit or prevent it altogether, such as a failure of the power plant unit. In addition, the Producer is obligated to make market announcements as required by legislation.

### **6.2 Fees**

Fingrid shall withhold for the time being the maintenance compensation for readiness for use referred to in section 5 for the period of time when the power plant unit is not available to the peak load capacity system as specified in section 1 of these rules. During the winter period, maintenance compensation for readiness for use will be withheld for unavailability lasting a minimum of one hour in a day for the entire day in question. The amount of daily maintenance compensation shall be calculated by dividing the maintenance compensation for readiness for use for the entire agreement period by the number of days in the agreement period.

Fingrid will report all the payments that are withheld as well as the reasons for withholding them to the Energy Authority for assessment on the basis of section 16 of the Peak Load Capacity Act. In accordance with the final judgement of the Energy Authority, Fingrid shall either refund the withheld payments (in part or in full) or take them into account in the recovery of compensation per the Energy Authority's judgement.

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## **7 INFORMATION EXCHANGE AND REPORTING**

The production of a power plant unit covered by the agreement shall be measured in real time by Fingrid's operation control system.

The Producer shall report the following information to Fingrid and the Energy Authority:

- The planned timing of trial operation and a report on the trial operation, covering the matters stated in section 1.6.
- Measures for maintaining readiness for use during both maintenance periods within 2 weeks from the finishing of the relevant period.
- All events which have prevented the 12-hour start-up readiness of a power plant unit, all failed starts and disturbances during the unit's operating period must be reported without delay and reports must be sent no later than 2 working days after the event.
- Fuel reports always after finished production periods.

Fingrid has the right to publish the realised electricity production of a power plant unit covered by the agreement, as well as the realised sales volumes on the day-ahead and balancing power markets.

## **8 AMENDMENTS AND REVISIONS TO THE RULES OF USE**

If these rules and terms must be changed due to legislative amendments or other measures by the authorities, the Energy Authority shall approve the changes before they enter into effect.

## **9 DISSOLUTION OF PEAK LOAD CAPACITY AGREEMENT, AND REFUNDING AND RECOVERY OF MAINTENANCE COMPENSATION**

The dissolution of the peak load capacity agreement and the refunding and recovery of maintenance compensation shall take place as stipulated in sections 16 and 17 of the Peak Load Capacity Act.

If the Producer intentionally violates the public service obligation, the Energy Authority may order the peak load capacity agreement to be dissolved and may require the Producer to refund the compensation that Fingrid has paid to the Producer by virtue of the agreement, if the peak load capacity agreement has been dissolved as stipulated in Section 16, Subsection 1 of the Peak Load Capacity Act or if the Producer has otherwise violated the peak load capacity agreement.

Appendix      Examples of peak load capacity activation in the bidding areas of Finland and Sweden on the day-ahead market

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## Appendix to the Rules of Use

### EXAMPLES OF PEAK LOAD CAPACITY ACTIVATION IN THE BIDDING AREAS OF FINLAND AND SWEDEN ON THE DAY-AHEAD MARKET

The examples presented in this appendix are based on a scenario where the transmission system operators of Finland and Sweden participate in a compatible activation procedure for the peak load reserve. If Denmark's TSO joins the compatible activation procedure for the peak load capacity, the peak load capacity in Denmark will be taken into account in a similar manner.

The peak load capacities given in the examples are for indicative purposes.

#### Activation

The total capacity of the peak load reserve that is available at any given time on the day-ahead market for a specific hour, considering the starting time, is offered in Finland by Fingrid, and in Sweden by Svenska Kraftnät.

In the day-ahead market, the peak load capacity in Finland constitutes one peak load capacity bid based on volume for the bidding area of Finland. Similarly, the peak load capacity in Sweden constitutes a peak load capacity bid based on volume for each of Sweden's bidding areas. A price is not set for peak load capacity bids.

The peak load capacity bid is taken into account in the day-ahead market price calculation if no balance between demand and supply is reached with bids made on market terms in the bidding areas of Finland and/or Sweden.

Peak load capacity in both Finland and Sweden is activated according to the ratio of the peak load capacities offered mutually between the countries, within the available transmission capacity, per the examples below.

#### **Example 1, The transmission capacity between Finland and Sweden does not limit activation of the peak load reserve**

Basic assumptions:

- Peak load capacity in Finland 600 MW
- Peak load capacity in Sweden 2000 MW
- In the day-ahead market, a balance is not achieved between demand and supply in Finland's and Sweden's price areas. The peak load capacity to be activated in order to achieve a balance is 200 MW.

Peak load capacity to be activated (total 200 MW):

a) Transmission restrictions within Sweden do not limit activation of the peak load capacity

- In Finland's bidding area 46.2 MW ( $200 \text{ MW} * 600/2600$ )
- In Sweden's bidding areas 153.8 MW ( $200 \text{ MW} * 2000/2600$ )

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b) The transmission restrictions within Sweden limit the available peak load reserve in Sweden to 1,000 MW

- In Finland's bidding area 75 MW ( $200 \text{ MW} * 600/1600$ )
- Sweden's bidding area 125 MW ( $200 \text{ MW} * 1000/1600$ )

**Example 2, No available transmission capacity from Sweden to Finland, peak load reserve required in Finland**

Basic assumptions:

- Peak load capacity in Finland 600 MW
- Peak load capacity in Sweden 2000 MW
- The capacity deficit in Finland's price area in the day-ahead market amounts to 200 MW.

Peak load reserves to be activated (total 200 MW):

- In Finland's bidding area 200 MW
- Sweden's bidding areas 0 MW