

Fingrid Oyj

Terms and conditions for providers
of Manual Frequency Restoration
Reserves (mFRR)

20.7.2022

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1 Introduction

This document defines the terms and conditions of Fingrid Oyj (hereinafter Fingrid) for the providers of reserve services needed to balance the electricity system (hereinafter Balancing Service Provider) in accordance with the Guideline on Electricity Balancing, Commission Regulation (EU) 2017/2195 (hereinafter EGBL).

Frequency Restoration Reserves (FRR) are reserves whose purpose is to restore the frequency to a nominal value of 50.0 Hz and release the activated Frequency Containment Reserves (FCRs). The frequency restoration reserves are divided into two reserve products, the automatic Frequency Restoration Reserve (aFRR) and the Manual Frequency Restoration Reserve (mFRR).

The terms and conditions on the procurement and maintenance of Manual Frequency Restoration Reserve (mFRR) stated in this document shall apply when the Balancing Service Provider participates in the Balancing Power Market and Balancing Capacity Market as well as in competitive tendering on the procurement of balancing capacity by means of Balancing Capacity Agreements.

2 Definitions

The following definitions are used in this document:

Automatic Frequency Restoration Reserve (aFRR) is a centrally controlled, automatically activating frequency restoration reserve, the purpose of which is to restore the frequency of the electricity system to the nominal frequency and to restore the power balance of the load-frequency control area to the design value.

Electronic order means that Fingrid orders a Balancing Bid submitted by the Balancing Service Provider on the Balancing Power Market. The order takes place by sending a message to the Balancing Service Provider.

Energy Fee refers to the compensation paid for the activation of the reserve.

Special Balancing means balancing ordered for some other purpose than balance management.

Capacity Fee refers to the compensation paid by Fingrid to a Balancing Service Provider for maintaining the reserve.

Capacity Bid means a bid submitted by a Balancing Service Provider to the competitive bidding process on the Balancing Capacity Market.

Manual Frequency Restoration Reserve (mFRR) is a manually activating frequency restoration reserve, the purpose of which is to restore the frequency of the electricity system to the nominal frequency and to restore the power balance of the load-frequency control area to the design value.

Margin Price Principle refers to a pricing principle in which the price of the most expensive accepted bid determines the price of all accepted bids.

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Pay as Bid Principle refers to a pricing principle in which the price of each accepted bid is determined by the bid itself.

Reserve Unit refers to a unit that fulfils the requirements concerning the provision of the reserve. A Reserve Unit can consist of one or more Reserve Resources.

A *Reserve Resource* refers to an individual resource capable of control; a power plant, consumption facility or electricity storage facility.

Balancing Capacity Market means weekly capacity markets maintained by Fingrid from which Fingrid procures Manual Frequency Restoration Reserve (mFRR).

Balancing Capacity Agreement means a longer-term agreement between Fingrid and the Balancing Service Provider on the provision of mFRR balancing capacity.

Balancing Capacity Bid means a Balancing Bid submitted by the Balancing Service Provider on the Balancing Power Markets pursuant to the Balancing Capacity Market or the Balancing Capacity Agreement, unless the text specifically restricts the bid to apply to only one of them.

A *Regulating Object* (RO) refers to an identifier used in imbalance settlement, indicating the balance information related to a bid on reserves.

Balancing Market Agreement means an agreement between Fingrid and the Balancing Service Provider which entitles the Balancing Service Provider to participate in the Balancing Power and Balancing Capacity Markets.

Balancing Power Market means markets maintained by Fingrid from which Fingrid procures Manual Frequency Restoration Reserve (mFRR).

Balancing Bid means a bid submitted by a Balancing Service Provider to the Balancing Power Market in accordance with the rules of the Balancing Power Market.

Frequency Restoration Reserve (FRR) refers to a reserve that is available for the restoration of the frequency of the electricity system to the nominal frequency and to restore the power balance of the load-frequency control area to the design value.

Frequency Containment Reserve (FCR) refers to a reserve that is available for the containment of frequency during an imbalance between electricity production and consumption.

Balancing Service Provider (BSP) refers to a market participant whose reserve-providing units or groups are able to provide balance services to transmission system operators. In this document, reserve suppliers are also called *Balancing Service Providers*.

Imbalance Power refers to the electrical energy provided by the Balancing Service Provider that is used by transmission system operators for balancing the network. This document uses the term *Balancing Energy* for imbalance power.

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Day-Ahead Market refers to an electricity market place that trades in electricity sold and purchased for the next day.

3 Procurement of reserves

The reserves are procured in accordance with Article 157 of the Guideline on System Operation, COMMISSION REGULATION (EU) 2017/1485 (hereinafter SOGL). The obligations concerning the maintaining of a manual Frequency Restoration Reserve are specified between the Nordic transmission system operators pursuant to SOGL Article 157.

In order to balance electricity production and consumption, Fingrid orders Manual Frequency Restoration Reserve from the Balancing Power Market. Fingrid uses the Balancing Capacity procured by means of Balancing Capacity Agreements and from the Balancing Capacity Market to ensure that there is at all times a sufficient volume of Frequency Restoration Reserve to maintain the power balance between production and consumption.

4 Requirements for a Balancing Service Provider

A party that has access to Reserve Unit(s) that fulfil(s) the requirements laid down in section 5 can become a Balancing Service Provider.

The Balancing Service Provider shall make a Balancing Power Market Agreement with Fingrid before they can participate in the Balancing Power and Balancing Capacity Markets. The Balancing Capacity Agreements are made on the basis of a separate competitive tendering process.

In order to participate in the Balancing Power and Balancing Capacity Markets and the competitive tendering of Balancing Capacity Agreements, a Balancing Service Provider must be an owner of a Reserve Resource and act either as an open supplier or a balance responsible party for the Reserve Resource. A Balancing Service Provider must have the consent of the owner of the Reserve Resource for the use of the reserve pursuant to the Balancing Power Market Agreement or Balancing Capacity Agreement. Upon Fingrid's separate request, the Balancing Service Provider shall deliver the consent of the owner of the Reserve Resource to Fingrid.

The Balancing Service Provider or its authorised representative shall be available for Fingrid to contact at least during the periods for which the Balancing Service Provider has submitted Balancing Bids.

5 Requirements imposed on the Reserve Unit

Pursuant to SOGL Article 159, the Balancing Service Provider must demonstrate that the Reserve Unit reported as reserve is in compliance with the required control capacity by means of prequalification tests laid down in the document, *Verification and Prequalification Process and Technical Requirements for manual Frequency Restoration Reserves (mFRR)* published by Fingrid.

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The Reserve Unit shall be located within Fingrid's system responsibility area¹.

The activation of the Reserve Unit at full power must be possible within 15 minutes of the order. It must be possible to activate the bid at the offered power during the entire operating hour. The minimum order period for a bid is 1 minute. Transactions on the Balancing Power Market are based on physical changes in the power output.

In addition, any Reserve Unit offered for the competitive tendering of the Balancing Capacity Market and Balancing Capacity Agreements must be available for electronic order and must be capable of at least three hours of continuous activation. After the order, the Reserve Unit is allowed a rest period, the duration of which is the same as the last activation but at least three hours and at most six hours.

6 Aggregation of Reserve Resources

Reserve Resources may be aggregated under the following conditions:

- The aggregated Reserve Resources must be located in the same regulation area² (North/South)
- The aggregated Reserve Resources must reside in the balance of the same balance responsible party.

An exception to these rules is that Reserve Resources located in different balancing areas may be aggregated, if the minimum capacity of the Balancing Bid would not otherwise be met in the balancing area.

The name of the Reserve Unit in the Balancing Bid contains a Regulating Object (RO) by which the Balancing Bid is allocated to a certain balance and balancing area. A shared RO ID may be created in the Balancing Power Market. The RO used in the Balancing Power Market does not need to be specific to a production type or power plant. Thus, the Reserve Resources located in the same balancing area of the same balance area can be aggregated by assigning them a single RO that contains the Reserve Resources to be aggregated.

If a Balancing Bid contains aggregated Reserve Resources from different balancing areas or a share of a shared power plant, the Balancing Bid must itemise the power volumes in sub-bids for regulating areas by using different ROs. The aggregated sub-bids are linked to each other by the aggregation link number (1–10).

¹ Finland excluding the autonomous region of Åland.

² Latitude 64 divides Finland into the Southern and Northern regulation areas.

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7 Rules of the Balancing Power Market

7.1 Submitting Balancing Bids

The Balancing Bids shall be submitted in Fingrid's electronic reserve trading system (Vaksi web) in accordance with Fingrid's separate guideline, *Fingrid's reserve trading and information exchange*.

Balancing Bids may not be submitted earlier than 31 days before the operating hour that is the subject of the bid. A Balancing Service Provider may change and cancel Balancing Bids up until 45 minutes before the start of the operating hour, after which the bids will become binding. After that, Fingrid may also ask the Balancing Service Provider to submit additional Balancing Bids after this.

A Balancing Bid must contain the following information about the Reserve Unit:

- Power (MW), separately for up-regulation and down-regulation bids
- Price, separately for an up-regulation and down-regulation bid (€/MWh)
- Reserve Unit Name³
- Information about the reserve, if the Balancing Bid is a peak load reserve bid or a reserve power plant bid
- Aggregation link number (1–10), if the Balancing Bid combines different ROs
- hour (EET time zone).

Several Balancing Bids may be submitted for a single Reserve Unit. An incomplete Balancing Bid will be ignored on the Balancing Power Market.

The minimum capacity of each Balancing Bid is 5 MW. Balancing Bids shall be submitted at an accuracy of 1 MW.

If a Balancing Bid can be activated electronically, the Balancing Service Provider may submit an up-regulation and a down-regulation bid of less than 5 MW per hour of operation. For such cases, the minimum capacity of the Balancing Bid is 1 MW.

7.2 Processing of bids

For each hour of use, Fingrid submits Finland's Balancing Bids to the Nordic Balancing Power Market, which creates a Nordic list of bids by arranging bids in price order: for the up-regulation bids, the cheapest Balancing Bid is placed on top and for the down-regulation bids the most expensive Balancing Bid on top.

³ In the Balancing Power Market Agreement, the Reserve Units are assigned names, ROs and balancing areas (North/South). The sub-bids of an aggregated Balancing Bid use the names of the Reserve Resources.

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For balance management and frequency maintenance, the Balancing Bids (excluding peak load reserve bids and reserve power plant bids) are used in price order. If a Balancing Bid cannot be used due to the state of the power system or because of information system problems, the Balancing Bid with the lowest price will be chosen from the Nordic list of bids.

Fingrid can also order Balancing Bids for special regulation. Special regulation means a bid that Fingrid orders from the Balancing Power Market for another reason than balance management. For this purpose, Fingrid uses Balancing Bids suitable for the transmission situation, and these bids are not necessarily used in price order.

8 Rules of the Balancing Capacity Market

Fingrid procures balancing capacity from the Balancing Capacity Market by means of weekly competitive tendering. The length of each procurement period is one calendar week in the CET time zone.

The tendering schedule is as follows:

Day	Time of Day (EET)	Event
D-4 (Thursday)	12:00	Deadline for Capacity Bid submission
D-3 (Friday)	12:00	Fingrid publishes its decision to purchase from the Balancing Capacity Market
D-1 (Sunday)	11:00	Balance Capacity Bids must be submitted for the 1st day of the procurement period
D (Monday)	1:00	The 1st day of the procurement period begins

In the Balancing Capacity Market, the Balancing Service Provider commits to offering to the Balancing Power Market the reserve volume that was accepted in the tendering process for the duration of the procurement period, and Fingrid will pay a Capacity Fee for the Balancing Service Provider for this.

8.1 Bidding rules

The maximum capacity for a single Capacity Bid is 50 MW, and the minimum capacity is 1 MW. Capacity Bids shall be submitted at an accuracy of 1 MW. The Balancing Service Provider must indicate separately in the Capacity Bid, if the Capacity Bid must be treated as an undivided bid.

A Balancing Service Provider can submit several Capacity Bids. The bids must not be linked to each other, and each bid is processed separately. A Capacity Bid must contain the following information:

- Product (up- or downregulation)
- Capacity, constant for one week (MW/week)
- Capacity Fee, constant for one week (€/MW/h)

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- Regulation Area (South/North).

Capacity Bids are submitted to Fingrid's electronic reserve trading system (Vaksi web). The process for submitting Capacity Bids is described in the instruction, *Fingrid's reserve trading and information exchange*.

8.2 Processing of bids

Fingrid's purchase decision will optimise a low procurement cost, taking into account the prices and capacities (MW) of the Capacity Bids received in the competitive tendering process and the alternative procurement sources for Frequency Restoration Reserves available for Fingrid.

If a Balancing Service Provider requires that the bid be processed undivided, the bids might not necessarily be selected in price order. Instead, Fingrid will seek the lowest procurement cost in the overall procurement. Capacity Bids that have the same price and capacity will be processed in the order they have arrived.

9 Rules for balancing capacity procured with Balancing Capacity Agreements

Fingrid can procure balancing capacity with a Balancing Capacity Agreement by arranging a competitive tendering procedure as necessary. A notification about the competitive tendering will be posted on Fingrid's website and the time allocated for submitting the bids is at least one month from the start of the tendering procedure. The product to be procured (up- or downregulation capacity) is determined in the tendering procedure.

A Balancing Service Provider who has a valid Balancing Capacity Agreement undertakes to offer balancing capacity to the Balancing Power Market for the duration of the agreement period.

9.1 Bidding rules

A bid must contain the following information:

- Capacity, constant for the contract period (MW)
- Capacity Fee (€/MW/h)
- Agreement period
- Readiness to start (date).

The minimum capacity of a single bid is 5 MW. A bidder can submit several bids. The bids shall be submitted at an accuracy of 1 MW.

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9.2 Processing of bids

The procurement decisions concerning the adjustment capacity are made in order to achieve the lowest possible procurement cost in the overall procurement of Frequency Restoration Reserves.

10 Reporting and monitoring of reserve maintenance

10.1 Real-time data

Fingrid uses real-time data to monitor the activation of the reserves. The Balancing Service Provider shall at their own expense submit to Fingrid an active power measurement of the Reserve Unit or other real-time data that enables Fingrid to verify the activation. The real-time exchange of information is subject to Fingrid's application guideline *Real-time exchange of information*.

The update interval for real-time data exchange must not exceed 60 seconds.

10.2 Balancing Service Provider's reporting to balance responsible party

If a Balancing Service Provider is not the balance responsible party of the Reserve Resource, the Balancing Service Provider shall inform the balance responsible party of the Reserve Resource of the control use of the Reserve Resource no later than when a Balancing Market Agreement or Balancing Capacity Agreement has been concluded. In addition, the Balancing Service Provider is obligated to report the volume of the ordered bids to the balance responsible party.

11 Processing of energy

Balance trade creates a delivery of energy between Fingrid and the balance responsible party of the Reserve Resource. The hourly energy generated from this is calculated as the product of the ordered balancing power and the operating time.

Balance trades affect the balance of the balance responsible party of the Balancing Service Provider, and the balancing energies thereby created are automatically taken into account in the imbalance settlement of the balance responsible party of the Balancing Service Provider. Fingrid reports the volume of the Balancing Energy to the balance responsible party in the Fingrid extranet service after the operating hour within 13 days.

12 Fees

12.1 Energy Fee on the Balancing Power Markets

When Fingrid orders an up-regulation from a Balancing Service Provider on the Balancing Power Market, Fingrid pays the Balancing Service Provider an Energy Fee that corresponds to the purchased balancing power. The Energy Fee is calculated by multiplying each hour of the amount of energy ordered from the Balancing Service Provider by the up-regulation price of the hour. The up-regulation price is the price of the most expensive up-regulation bid ordered (Margin Price Principle); however, at

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least the price for the bidding area of Finland in the Day-Ahead Market during the hour in question.

When Fingrid orders a down-regulation from a Balancing Service Provider on the Balancing Power Market, Fingrid charges the Balancing Service Provider an Energy Fee that corresponds to the balancing power sold by Fingrid. The Energy Fee is calculated by multiplying each hour of the amount of energy delivered by Fingrid by the down-regulation price of the hour. The down-regulation price is the price of the cheapest down-regulation bid ordered (Margin Price Principle), which can be no more than the price for the bidding area of Finland in the Day-Ahead Market during the hour in question.

Any special regulations are priced in accordance with the Balancing Bid (Pay-as-Bid principle). However, the price for an up-regulation bid that is used for special regulation purposes is at least the same as the up-regulation price of the hour. Similarly, the price for a down-regulation bid that is used for special regulation purposes, does not exceed the down-regulation price of the hour.

The Energy Fee for a Balance Capacity Bid is determined the same way as in an order for any other Balancing Bid. Energy Fees do not affect the Capacity Fee paid to the Balancing Service Provider.

If the Balancing Service Provider is a balance responsible party of a Reserve Resource, invoicing shall take place in connection imbalance settlement by eSett Oy. Otherwise, Fingrid or its service provider shall send an invoice to the Balancing Service Provider no later than in six weeks from the date of delivery. The due date shall be 14 days from the invoice date. Penalty interest for late payment shall be charged in accordance with the applicable revision of the Interest Act. If Fingrid accumulates a receivable of more than EUR 100,000, Fingrid may send the invoice immediately.

The Balancing Service Provider must submit any objections to the invoice in writing. Fingrid shall inspect the invoice and send the necessary correction invoice to the Balancing Service Provider without delay. The objection shall not release the Balancing Service Provider from its obligation to pay the invoice by the due date unless otherwise agreed upon in each case.

12.2 Capacity Fee on the Balancing Capacity Market

For each Capacity Bid accepted by Fingrid in the competitive tendering of the Balancing Capacity Market, the Capacity Fee is determined on the basis of the most expensive accepted bid (Margin Price Principle), taking into account the adjustment procedure for the Capacity Fee below.

Fingrid will adjust the Capacity Fee to be paid to the Balancing Service Provider within 14 business days from the end of each procurement period. In the adjustment, Fingrid takes into account the actual permanence of the Balance Capacity Bid from the Balancing Capacity Market during the procurement period and the sanctions laid down in 12.2.1.

The adjusted Capacity Fee is calculated as follows:

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$$Capacity\ Fee_{adjusted} = Capacity\ Fee * permanence\ coefficient - sanctions$$

Permanence is determined by an hourly review on the basis of the Balance Capacity Bids submitted by 11:00 (EET) of the previous day as follows:

$$permanence_{hour} = \frac{\text{Balance Capacity Bid (MW) submitted by 11:00 am the previous day}}{\text{Capacity Bid (MW) accepted by the Balancing Service Provider}}$$

Permanence may not exceed 100 % for any single hour. If the Balance Capacity Bid has not been submitted by 11:00 (EET) on the previous day, or has been deleted after 11:00 (EET) on the previous day or if the Balancing Service Provider cannot deliver the order requested by Fingrid as bid, the permanance for the hour is 0%. If the amount of the Balance Capacity Bid has been reduced after 11:00 o'clock on the previous day, the permanance is determined on the basis of the maintained Balance Capacity Bid. Examples of permanance determination are set out in Appendix 1 of these terms and conditions.

If the Balancing Service Provider also has a Balancing Capacity Agreement and the Balancing Service Provider has participated in the Balancing Capacity Market without maintaining in full the Balance Capacity Bid in accordance with both the Balancing Capacity Agreement and the Balancing Capacity Market during the adjustment period, the permanance is considered to be primarily fulfilled by the Balance Capacity Bid in accordance with the Balancing Capacity Agreement, as laid down in example 3 in Appendix 1 to these terms and conditions.

The permanance of the entire procurement period is the average of the hourly review, and it determines the permanance coefficient with a precision of two decimals linearly as follows:

Permanence	100%	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%
Permanence coefficient	1	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0

The adjusted Capacity Fee can be negative if the sanctions for the adjustment period exceed the Capacity Fee determined on the basis of actual permanance. In such a case, the Balancing Service Provider shall pay to Fingrid a sum corresponding to the negative Capacity Fee.

The Balancing Service Provider shall send Fingrid an invoice based on Fingrid's notification within 14 days of the notification.

12.2.1 Sanction for deleting a Balance Capacity Bid

If a Balancing Service Provider deletes a Balance Capacity Bid that conforms to the Balancing Capacity Market or reduces the bid after 11:00 o'clock on the previous day, the Balancing Service Provider shall pay to Fingrid a sanction for the amount of the bid. The sanction is determined by hour as follows:

$$sanction = the\ deleted\ or\ reduced\ bid\ amount * 10 * Capacity\ Fee\ for\ the\ hour\ or$$

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sanction = deleted or reduced bid amount x the price in the Finnish bidding zone on the Day-Ahead Market for the hour,

The sanction applied is the greater of the two.

12.2.2 Effect of the resting period

During the resting period referred to in section 5, the deletion or reduction of a Balance Capacity Bid will not cause sanctions, but the deletions and reductions do have an effect on the calculation of the permanence of the Balance Capacity Bid.

12.3 Capacity Fee pursuant to the Balancing Capacity Agreement

For each Capacity Bid approved by Fingrid in the competitive tendering, the Capacity Fee is determined on the basis of the approved bid (Pay-as-Bid Principle), taking into account the adjustment procedure for the Capacity Fee below.

Fingrid will adjust the Capacity Fee to be paid to a Balancing Service Provider for each week in the CET time zone. The adjustment period is one week and the adjustment is made monthly. In the adjustment, Fingrid takes into account the actual permanence of the Balance Capacity Bid under the Balancing Capacity Agreement during the period as well as the sanctions laid down in 12.3.1.

The adjusted Capacity Fee is calculated as follows:

$$\text{Capacity Fee}_{\text{adjusted}} = \text{Capacity Fee} * \text{permanence coefficient} - \text{sanctions}$$

Permanence is determined by an hourly review on the basis of the Balance Capacity Bids submitted by 12:00 (EET) of the previous week's Thursday as follows:

$$\text{permanence}_{\text{hour}} = \frac{\text{Balance Capacity Bid (MW) submitted by 12:00 on Thursday of the previous week}}{\text{Contracted volume (MW)}}$$

Permanence may not exceed 100 % for any single hour. If the Balance Capacity Bid has not been submitted by 12:00 (EET) on the previous day, or has been deleted after 12:00 (EET) on the previous day or if the Balancing Service Provider cannot deliver the order requested by Fingrid as bid, the permanence for the hour is 0%. If the amount of the Balance Capacity Bid has been reduced after 12:00 o'clock (EET) on the previous week's Thursday, the permanence is determined on the basis of the maintained Balance Capacity Bid. Examples of permanence determination are set out in Appendix 1 of these terms and conditions.

If several bids with different prices have been accepted from a Balancing Service Provider, the adjustment is made separately for each bid, and permanence is considered to be fulfilled primarily from the most affordable offers as described in example 6 of Appendix 1 to these terms and conditions.

If the Balancing Service Provider has also participated in the Balancing Capacity Market during the adjustment period without maintaining in full the Balance Capacity Bid in accordance with both the Balancing Capacity Agreement and the Balancing

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Capacity Market, the permanence is considered to be primarily fulfilled by the Balance Capacity Bid in accordance with the Balancing Capacity Agreement, as laid down in example 7 in the Appendix 1 to these terms and conditions.

The permanence of the entire adjustment period is the average of the hourly review, and it determines the permanence coefficient with a precision of two decimals linearly as follows:

Permanence	100%	95%	90%	85%	80%	75%	70%	65%	60%	55%	50%
Permanence coefficient	1	0.9	0.8	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0

The adjusted Capacity Fee can be negative if the sanctions for the adjustment period exceed the Capacity Fee determined on the basis of actual permanence. In such a case, the Balancing Service Provider shall pay to Fingrid a sum corresponding to the negative Capacity Fee.

The Balancing Service Provider shall send Fingrid an invoice based on Fingrid's notification within 14 days of the notification.

12.3.1 Sanction for deleting a Balance Capacity Bid

If a Balancing Service Provider deletes a Balance Capacity Bid that conforms to a Balancing Capacity Agreement or reduces the bid after 12:00 o'clock on the previous week's Thursday, the Balancing Service Provider shall pay to Fingrid a sanction for the amount of the bid. The sanction is determined by hour as follows:

sanction = the deleted or reduced bid amount x 10 x Capacity Fee or

sanction = deleted or reduced bid amount x the price in the Finnish bidding zone on the Day-Ahead Market for the hour,

The sanction applied is the greater of the two.

12.3.2 Effect of the resting period

During the resting period referred to in section 5, the deletion or reduction of a Balance Capacity Bid will not cause sanctions, but the deletions and reductions do have an effect on the calculation of the permanence of the Balance Capacity Bid.

12.4 Value-added tax and other indirect taxes and levies

In addition to the fees specified in this Agreement, value-added tax shall be added to the Balancing Service Provider's invoices at the applicable rate, along with any other taxes and levies imposed on the Agreement by the authorities.

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13 Breach of terms

13.1 Sanction

The Balancing Service Provider Shall pay Fingrid a sanction as described in sections 12.2.1 and 12.3.1.

13.2 Temporary exclusion of a Balancing Service Provider from the reserve market

Fingrid has the right to temporarily exclude a Balancing Service Provider from the Balancing Power and Balancing Capacity Market, if the Balancing Service Provider fails repeatedly without an acceptable reason to activate their Balancing Bid in accordance with Fingrid's order or otherwise breaches the terms and conditions in this document in spite of a written notice by Fingrid.

The duration of the temporary exclusion is from one to three months depending on the nature of the violation.

13.3 Cancelling the Agreement

In the event of a material breach of contract, Fingrid shall be entitled to terminate the Balancing Market Agreement as laid down in that contract or the Balancing Capacity Agreement as laid down in that contract.

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Appendix 1, examples of determining the permanence

1. Determination of hourly permanence on the Balancing Capacity Market

A 20 MW Capacity Bid has been approved from a Balancing Service Provider.

	Balance Capacity Bids (MW)		Perma- nence	Explanation
	D-1 by 11:00 o'clock	45 min before the hour of use		
00–01	20	20	100%	
01–02	30	30	100%	Permanence may not exceed 100%
02–03	10	10	50%	Bid 50% of the approved Capacity Bid
03–04	20	0	0%	Bid deleted
04–05	20	10	50%	Bid has been reduced

2. Determining the permanence coefficient on the Balancing Capacity Market

The average of hourly permanences from a week-long procurement period is

- 90%, permanence coefficient is 0,80.
- 86%, permanence coefficient is 0,72.
- 74.5%, permanence coefficient is 0.49.
- 20%, permanence coefficient is 0.

3. Determining permanence on the Balancing Capacity Market, when the Balancing Service Provider has a valid Balancing Capacity Agreement

The contractual volume in the Balancing Service Provider's Balancing Capacity Agreement is 10 MW. In addition, 10 MW has been approved from the Balancing Service Provider to the Balancing Capacity Market.

	Balance Capacity Bids in total (MW)	Permanence of the Bal- ancing Capacity Agree- ment	Permanence of the bid approved on the Balanc- ing Capacity Market
00– 01	20	100%	100%
01– 02	15	100%	50%
02– 03	10	100%	0%
03– 04	0	0%	0%

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4. Determination of hourly permanence of the Balancing Capacity Agreement

The Balancing Service Provider's contractual volume is 20 MW.

Balance Capacity Bids (MW)		Perma- nence	Explanation	
W-1 by Thursday 12:00	45 min before the hour of use			
00–01	20	20	100%	
01–02	30	30	100%	Permanence may not exceed 100%
02–03	10	10	50%	Bid 50% of the contractual volume
03–04	20	0	0%	Bid deleted
04–05	20	10	50%	Bid has been reduced

5. Determining the permanence coefficient on the Balancing Capacity Agreement

The average of hourly permanences from a week-long adjustment period is

- a) 90%, permanence coefficient is 0,80.
 - b) 86%, permanence coefficient is 0,72.
 - c) 74.5%, permanence coefficient is 0.49.
 - d) 20%, permanence coefficient is 0.
6. Determining the permanence of a Balancing Capacity Agreement, when several bids have been approved of a Balancing Service Provider, each with a different price

The following bids have been approved from a Balancing Service Provider:

- Bid 1: 10 MW 1 €/MW/h
- Bid 2: 10 MW 2 €/MW/h

Balance Capacity Bids in total (MW)	Permanence of bid 1	Permanence of bid 2	
00– 01	20	100%	100%
01– 02	15	100%	50%

20.7.2022

02–			
03	10	100%	0%
03–			
04	0	0%	0%

7. Determining the permanence of a Balancing Capacity Agreement when the Balancing Service Provider has also participated in the Balancing Capacity Market during the adjustment period

The contractual volume in the Balancing Service Provider’s Balancing Capacity Agreement is 10 MW. In addition, 10 MW has been approved from the Balancing Service Provider to the Balancing Capacity Market during the adjustment period.

	Balance Capacity Bids in total (MW)	Permanence of the Balance Capacity Bid made in accordance with the Balancing Capacity Agreement	Permanence of the Balance Capacity Bid approved on the Balancing Capacity Market
00–			
01	20	100%	100%
01–			
02	15	100%	50%
02–			
03	10	100%	0%
03–			
04	0	0%	0%