

**Appendix 1**

**HANDBOOK CONCERNING BALANCE RESPONSIBILITY AND  
IMBALANCE SETTLEMENT**

**PART 1:  
FINGRID OYJ'S GENERAL TERMS AND CONDITIONS CONCERNING  
BALANCE MANAGEMENT**

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## 1 Introduction

This document contains the terms and conditions related to national balance management in Finland and the general procedures that Fingrid Oyj (hereinafter Fingrid) applies as it maintains the electric power balance in Finland. This document was written on the basis of the provisions of the Electricity Market Act concerning system responsibility and balance management, Regulation (EU) 2019/943 of the European Parliament and of the Council on the internal market for electricity, and Commission Regulation (EU) 2017/2195 establishing a guideline on electricity balancing (hereinafter the EBGL).

These terms and conditions specify the rights, obligations, and responsibilities of a balance responsible party (hereinafter Balance Responsible Party) concerning the maintenance of the power balance between power production and power consumption.

### 1.1 Definitions

The following definitions are used in this document:

**Open delivery** refers to the supply of electricity in which the electricity supplier provides its customer with all the electricity it needs, as well as the supply of electricity in which the supplier balances the difference between the customer's electricity production and procurement and its electricity consumption and delivery by supplying the imbalance or by receiving the surplus during each imbalance settlement period.

**Nordic Imbalance Settlement (NBS) Handbook** refers to the Nordic Imbalance Settlement (NBS) Handbook (Handbook), which is maintained by the imbalance settlement unit on assignment from Fingrid and concerns balance responsibility and imbalance settlement. The handbook conforms to these terms and conditions, and it contains procedures that further define these terms and a more detailed description of the implementation of imbalance settlement.

**Shared power plant** refers to a power plant whose output is allocated to the holders of power plant shares in each imbalance settlement period, in accordance with the handling of shared power plants.

**Intraday Market** refers to an electricity marketplace where parties trade in electricity sold and purchased for that day.

**Transmission Area** means the geographical area where power plants, consumption facilities and energy storage facilities are located. Finland has three Transmission Areas: south, central and north. The geographical locations of the transmission areas are shown on the map of Transmission Areas on Fingrid's website.

**Regulation object** refers to a group of one or more generators and production units in a single transmission area. A Regulation Object can contain only one type of production (wind, water, nuclear, etc.). There can only be one Balance Responsible Party per Regulation Object.

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

**Imbalance adjustment** refers to an energy volume representing the imbalance power from a balancing service provider and applied by the connecting transmission

system operator for an imbalance settlement period to the concerned balance responsible parties, used for the calculation of the imbalance of these balance responsible parties.

**Imbalance settlement** refers to a financial settlement mechanism for charging or paying balance responsible parties for their imbalances.

**Imbalance settlement period** refers to the time unit for which the balance responsible parties' imbalances are calculated.

**Imbalance settlement unit** refers to the operating unit, subsidiary, or associated company of the transmission system operator with system responsibility that carries out the tasks related to the national Imbalance Settlement.

**Imbalance power** refers to the electrical energy provided by the balance service provider and used by transmission system operators for balancing the network. In this document, **balancing energy**.

**Balance responsible party** refers to the electricity market party that is responsible for the said market party's imbalances. They have a valid balance agreement with Fingrid. In other words, the party's open supplier is Fingrid.

**Balance responsibility** refers to the responsibility for ensuring that a party's production and procurement in an electricity trade cover its consumption and the supply of electricity during each imbalance settlement period. All parties to electricity trades have a balance responsibility.

**Power transactions** refer to the power transactions made by Fingrid during the imbalance settlement period for the purposes of balance management and, where appropriate, taking care of other system responsibilities. An imbalance adjustment is recorded in the imbalance settlement for power transactions, applied to the balance responsible parties concerned during the imbalance settlement period, and used to calculate the said balance responsible parties' imbalances.

**Production plan** refers to the planned production for the imbalance settlement period announced by the balance responsible party before the imbalance settlement period.

**Day-Ahead Market** refers to an electricity marketplace where parties trade in electricity sold and purchased for the next day.

## 2 National balance management

National balance management refers to the maintenance of the power balance between electricity production and consumption in Finland as a whole.

As part of its system responsibility, Fingrid is responsible for maintaining a momentary balance between electricity production and consumption during each imbalance settlement period.

Balance management is managed on a joint Nordic level so that the quality requirements set for frequency are fulfilled and system security is not endangered.

## 3 Balance Responsible Party's power balance and imbalance

The Balance Responsible Party shall plan and control its power purchases and deliveries so that the imbalance during the imbalance settlement period remains reasonable

with respect to the scope of the Balance Responsible Party's operations. The Balance Responsible Party shall not use open deliveries for systematic power purchases or deliveries. In assessing reasonable and systematic use, Fingrid looks at the Balance Responsible Party's abilities to maintain its power balance in the electricity market and the recurrence of imbalances.

The Balance Responsible Party shall immediately take the necessary corrective measures in the event of an imbalance that is significant in relation to the size of its balance.

If imbalance settlement information indicates that the Balance Responsible Party's power balance is not in balance in a manner accepted by Fingrid, the Balance Responsible Party shall provide Fingrid, upon request, with details of the reasons for the imbalance without delay and shall take any immediate action required by Fingrid to correct its imbalance. Failure to take the required action shall be considered a material breach of contract.

## **4 Production plans**

The Balance Responsible Party shall provide Fingrid with production plans for each regulation object in each imbalance settlement period concerning the power plants included in its balance. The accuracy of the production plans in relation to the total volume of electricity produced must be reasonable, taking into consideration the predictability of the mode of production.

Reasonable accuracy shall be evaluated by comparing the production plan received most recently within the acceptable time limits with the balance responsible party's actual production volume.

If the production plans are not reasonably accurate, the Balance Responsible Party must provide Fingrid, upon request, with details of the reasons without delay and must take the action required by Fingrid to rectify its production plans.

Fingrid shall be entitled to publish quality details related to the production plans of balance responsible parties.

### **4.1 Formation of production plans**

The regulation objects related to production plans consist of one or more power plants of the same production type located in the same transmission area.

A separate regulation object shall be established for all power plants of at least 100 MW. Power plants rated at under 100 MW may be consolidated into one regulation object.

Shareholder-specific Regulation Objects shall be established for Shared Power Plants with an output of at least 100 MW. If Shared Power Plants are used to participate in reserve markets, shareholder-specific Regulation Objects shall also be established for Shared Power Plants with an output of less than 100 MW. The Balance Responsible Party of each shareholder of a Shared Power Plant shall deliver the shareholder-specific Production Plan of a Shared Power Plant to Fingrid, itemised by the Regulation Objects. If so separately agreed, the Balance Responsible Party of a Shared Power Plant can deliver, on behalf of the Balance Responsible Parties of the other shareholders, their shareholder-specific Production Plans to Fingrid.

The Balance Responsible Party is responsible for assigning production units within its balance responsibility to regulation objects and production plans no later than 14 full days before the first day of delivery (reported to Fingrid). The production types specified in the valid *Nordic Imbalance Settlement (NBS) Handbook* published by the Imbalance Settlement Unit shall be used in the establishment of a Regulation Object.

In addition to what has been described above, the Balance Responsible Party shall deliver to Fingrid, upon request, an up-to-date itemised list of the power plants included in the Regulation Objects. If the information changes, Balance Responsible Party shall deliver the updated information to Fingrid without delay.

Fingrid has a right to demand Production Plans, which differ from those described above, for the needs of power system management.

#### 4.2 Delivery of production plans

The Balance Responsible Party shall supply Fingrid with preliminary production plans for the imbalance settlement period covering the next delivery day no later than at 17.30. If the plans change, the Balance Responsible Party shall deliver the updated information to Fingrid without delay, no later than 45 minutes (T-45) before the start of the hour of operation concerned. The value of the submitted production plan shall be the average power planned for the imbalance settlement period (MW).

The production plan must be available to Fingrid by the deadline. The most recent information received before the deadline always supersedes earlier information on the same matter.

In addition, the Balance Responsible Party may update the production plans no later than 25 minutes before the start of the imbalance settlement period when trading in the intraday market after T-45.

The reporting of production plans shall comply with the applicable revision of the *Reporting production plans and information exchange* guideline published on Fingrid's website.

In the event of disturbances in message communications experienced by a Balance Responsible Party, the Balance Responsible Party shall immediately inform Fingrid's Main Grid Control Centre of the problems and deliver the Production Plans by email to Fingrid's Main Grid Control Centre within the deadlines specified under section 4.2.

In the event of disturbances in Fingrid's message communications or in the receiving system, the production plans shall be received by the system after the disturbance is over. If messages received during the disturbance have disappeared as a result of the disturbance, the Balance Responsible Party can update the Production Plans for the period of the disturbance.

#### 4.3 Staggered Production Plans

A Balance Responsible Party shall supply Fingrid with 15-minute correction plans if the Balance Responsible Party's total production change between two hours exceeds 200 MW. In this case, the planned production change shall be made symmetrically on both sides of the hour change and brought forward to begin 15 minutes before and postponed to end 15 minutes after the hour change (three equal power changes).

The imbalance resulting from the staggered production plans shall be handled for the purposes of imbalance settlement as a power transaction, with a price of zero and a volume corresponding to the volume of electricity produced or not produced as a result of the staggering. The correction plan is therefore not included in the total production plan.

The Balance Responsible Party shall deliver its correction plans to Fingrid no later than 25 minutes before the next hour change.

If necessary, Fingrid can cancel the staggering in situations in which the staggering is predicted to impair the maintenance of power balance in the power system. Fingrid shall agree upon this with the Balance Responsible Party by telephone before the hour change, and the necessary reverse power transactions shall be recorded between the Balance Responsible Party and Fingrid.

## **5 Power transactions during imbalance settlement periods**

Fingrid makes power transactions during each imbalance settlement period for the purposes of balance management and, where appropriate, handling other system responsibilities.

### **5.1 Hour-shift regulation**

In order to reduce problems encountered at the change of the hour in the Nordic or Finnish electricity system, Fingrid has the right to transfer the planned production changes to begin 15 minutes before or after the planned moment. The imbalance inflicted on a Balance Responsible Party from this transfer is corrected by means of a Power Transaction between Fingrid and the Balance Responsible Party, where the electricity volume corresponds to the volume of electricity produced or not produced as a result of the transfer. For a justified reason, the Balance Responsible Party shall be entitled to refuse the implementation of hour-shift regulation.

When Fingrid purchases hour-shift regulation from the Balance Responsible Party, the price shall be one of the following, whichever is more advantageous to the Balance Responsible Party:

- The price in the Finland bidding area of the day-ahead market adjusted to be 10 per cent more advantageous to the Balance Responsible Party, or
- The up-regulation price specified in the terms and conditions for providers of manual Frequency Restoration Reserves (mFRR).

When Fingrid sells hour-shift regulation to the Balance Responsible Party, the price shall be one of the following, whichever is more advantageous to the Balance Responsible Party:

- The price in the Finland bidding area of the day-ahead market adjusted to be 10 per cent more advantageous to the Balance Responsible Party, or
- The down-regulation price specified in the terms and conditions for providers of manual Frequency Restoration Reserves (mFRR).

If the prices in the Finland bidding area of the day-ahead market for the hours at the hour change differ from each other, the price of the hour which is more advantageous to the Balance Responsible Party shall be used.

## 5.2 Handling of Balancing Energy in Imbalance Settlement

Fingrid procures reserves from Balancing Service Providers based on separate agreements. The balancing energy created in the activation of the frequency containment reserve for normal operation and the automatic frequency restoration reserve shall be calculated for each imbalance settlement period, and the impact shall be offset from the power balance of the Reserve Unit's Balance Responsible Party in the national imbalance settlement.

The balancing energy calculation principles and compensation criteria are defined in the reserve agreements between Fingrid and the Balancing Service Provider.

In the procurement of reserves, Fingrid follows the principles of impartiality and non-discrimination. The procurement of the reserves is founded on market-based procedures. The valid principles of procurement can be found in the documents concerning the terms and conditions of the Reserve Providers.

## 6 Procedure in exceptional circumstances of the power system

### 6.1 Control of electricity shortage and overproduction situations

Operation in electricity shortage situations is based on the instruction for the management of power shortage situations in the Finnish electricity system (*Suomen sähköjärjestelmän sähköpulatilanteiden hallinta*), published by Fingrid on its website.

If the electricity production and consumption situation becomes compromised, a Balance Responsible Party shall check the Production Plans and consumption forecasts and deliver the updated information to Fingrid.

In situations where an electricity shortage or overproduction is possible or the risk of an electricity shortage is great, and in an electricity shortage or a serious overproduction situation, a Balance Responsible Party is responsible for managing its own power balance and for controlling production and consumption in accordance with the instructions issued by Fingrid's Main Grid Control Centre.

### 6.2 Management of serious disturbances

Operation in the serious disturbances of the power system is based on the general instruction for the clearing of serious disturbances in the power system (*Sähköjärjestelmän vakavien häiriöiden selvittämisen yleisohje*), published by Fingrid on its website. Electricity shortage and overproduction situations are handled according to chapter 6.1.

In serious disturbances of the power system, Fingrid's Main Grid Control Centre provides a Balance Responsible Party with the necessary instructions for balance management during the disturbance. In these cases, a Balance Responsible Party shall maintain its electricity balance in accordance with the instructions provided until the Main Grid Control Centre gives further instructions.

In serious disturbances, Fingrid activates first the unused bids available in the regulation power market as well as the available fast disturbance reserve. If the serious disturbance can be brought under control through these means, the principles of a normal state are applied to the processing and pricing of the imbalance.



If the power system cannot be restored to the normal state through the above measures due to the severity or nature of the disturbance, Fingrid's Main Grid Control Centre has the right to give power plants instructions concerning active power and reactive power, have other reserves in the system started and disconnect loads. The measures carried out have a direct impact on a party's measured deliveries and thus on the amount of the imbalance. The imbalance caused by such a single production restriction to the party's Balance Responsible Party is corrected in the hour of the restriction and in the following hour with a power transaction, with a price of zero in the imbalance settlement. Otherwise the imbalance is settled with the party's Balance Responsible Party according to the terms and conditions of the Balance Responsible Parties.

## **7 Communications**

Fingrid must be able to reach a Balance Responsible Party or its authorised representative 24 hours a day every day of the year. The persons or authorised representative specified in the Balance Responsible Party's contact information shall be entitled, in a manner that binds the Balance Responsible Party, to receive notifications given by Fingrid and to take any immediate action relating to balance maintenance to which these terms and conditions oblige the Balance Responsible Party.

## **8 Fingrid's reporting to balance responsible parties**

Fingrid or Fingrid's service provider shall provide the authorised Balance Responsible Party with the energy data for the electricity transactions in each imbalance settlement period agreed upon between Fingrid and the electricity market parties included in its balance. Provisional data shall be submitted after the delivery hour, and final data no later than 13 days after the delivery day.

## **9 Breach of terms**

If a contracting party breaches the terms of the Agreement, the party must immediately provide the other contracting party with an explanation of the reasons for the breach and must begin taking remedial action.

If the breach is recurrent or otherwise material in nature, and the breach has not been remedied by a reasonable deadline set by the other party, the other party may cancel the agreement.

In addition, Fingrid shall be entitled to cancel the Agreement with immediate effect if the Balance Responsible Party is placed in liquidation, the equity capital of the Balance Responsible Party is registered as negative, or the Balance Responsible Party defaults on its payments, is declared bankrupt, shows other signs of insolvency, or otherwise grossly breaches the Agreement. Fingrid also has a similar right if the Balance Responsible Party does not have a valid Imbalance Settlement Agreement with the Imbalance Settlement Unit.

## **10 Damages**

The parties to the Agreement shall not be liable for damage caused by a performance within the scope of the Agreement, unless the damage is demonstrated to be the result of negligence by the party to the Agreement or one acting on its behalf, which cannot be considered to be minor. The parties to the Agreement shall not be liable to each other for indirect or consequential damages, such as loss of profits or damages

paid to a third party by a party to the Agreement, nor any other consequential damages, unless the damage has been caused intentionally or by gross negligence or by a breach of a confidentiality obligation.

## **11 Force majeure**

In the event of force majeure, Fingrid shall be entitled to limit the service provided under the Agreement or suspend it entirely, taking into consideration the requirements of compelling legislation.

Force majeure is an event that Fingrid could not have prevented with reasonable care and that renders Fingrid's performance under the Agreement impossible or fundamentally complicates it, or makes it financially or otherwise unreasonable.

Examples of force majeure include war, vandalism, sabotage, explosion, fire, extraordinary natural phenomenon, or another similarly significant and unusual event that causes either an outage in power production or such damage to the power production or transmission system that no reasonable contingencies could have been made under the principles generally applying to the Nordic power system.

Fingrid shall notify the Balance Responsible Party of the onset and cessation of force majeure without delay.