

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 the national balance management in Finland and the general procedures which Fingrid Oyj (hereinafter Fingrid) applies as it maintains the electric energy balance in Finland. In addition, this document is based on the balance management of electricity systems guidelines given in the European Commission's regulation Electricity Balancing Guideline, COMMISSION REGULATION (EU) 2017/2195 (hereinafter EBGL).

These terms and conditions specify a balance responsible party's (hereinafter Balance Responsible Party) rights, obligations and responsibilities concerning the maintenance of the energy balance between energy generation and energy 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 a supply of electricity in which the supplier balances the difference between the customer's electricity production & procurement and electricity consumption & delivery by supplying deficit or by receiving the surplus during each hour.

Consumption Balance refers to a balance consisting of the Balance Responsible Party's total Production Plan, fixed deliveries, measured deliveries (actual consumption) and Consumption imbalance adjustments.

Nordic Imbalance Settlement (NBS) Handbook refers to the Nordic Imbalance Settlement (NBS) Handbook (Handbook), which is maintained by the Imbalance Settlement Unit on Fingrid's assignment and concerns Balance Responsibility and Imbalance Settlement. The handbook conforms to these terms and conditions and contains procedures that further define these terms, and a more detailed description of the implementation of an Imbalance Settlement.

Shared Power Plant refers to a power plant whose production is allocated hourly to the holders of power plant shares.

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.

Imbalance Settlement Period refers to the time unit in which the Balance Responsible Parties' imbalances are calculated.

The Imbalance Settlement Unit refers to the transmission system operator's operating unit, subsidiary or associated company which carries out the tasks related to the national Imbalance Settlement.

Balancing energy refers to the electrical energy provided by the Balance Services Provider used by transmission system operators for balancing the network.

Balance Responsible Party refers to a party in the electricity market with a valid Balance Agreement with Fingrid. In other words, the party's open supplier is Fingrid.

Balance Responsibility refers to the responsibility that the production and procurement of electricity of a electricity market participant cover its consumption and the supply of electricity during each hour. All participants in the electricity market have Balance Responsibility.

Energy Transactions refer to the Energy Transactions during the hour made by Fingrid for the purposes of balance management and, where appropriate, taking care of other system responsibilities.

Production Plan refers to the planned production before the delivery hour announced by the Balance Responsible Party for the delivery hour.

Production Balance refers to a balance consisting of the Balance Responsible Party's total Production Plan, realised production and Production imbalance adjustments.

2 National balance management

National balance management means the maintenance of energy balance between electricity generation and consumption in the entire Finland.

As part of system responsibility, Fingrid is responsible for maintaining a momentary balance between electricity production and consumption during each delivery hour.

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

3 Balance Responsible Party's energy balance and imbalance

Balance Responsible Party shall plan and control its energy purchases and deliveries so that the hourly imbalance remains reasonable with respect to Balance Responsible Party's scope of operations. Balance Responsible Party shall not use open deliveries for systematic energy purchases or deliveries. In assessing reasonable and systematic use, Fingrid looks at the Balance Responsible Party's abilities to maintain its energy balance in the electricity market and the recurrence of imbalances.

Balance Responsible Party shall immediately take the necessary corrective measures if an imbalance which is significant in relation to the size of its balance arises.

If Imbalance Settlement information indicates that Balance Responsible Party's energy balances are not in balance in a manner accepted by Fingrid, Balance Responsible Party shall immediately upon request give an account to Fingrid concerning the reasons for the imbalance, and take immediate action required by Fingrid in order to correct its imbalance.

4 Production Plans

4.1 Formation of Production Plans

Balance Responsible Party shall deliver to Fingrid hourly Production Plans of each Regulation Object concerning power plants included in its Production Balance. Regulation Objects 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 of all power plants of more than 100 MW.

Shareholder-specific Regulation Objects shall be established of a Shared Power Plant. 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. Shareholder-specific Regulation Objects do not need to be established of Shared Power Plants of less than 100 MW, if they do not take part in the regulation power market or if they are not used for making other regulation transactions.

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 this document, transmission area refers to the area where the planned production is located. There are two transmission areas in Finland, north and south of 64° latitude.

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 hourly Production Plans for the next delivery day in either Ediel or ENTSO-E message format no later than at 17:30. If the plans changes, Balance Responsible Party shall deliver the updated information to Fingrid without delay. The Production Plans used in the Imbalance Settlement shall be delivered to Fingrid no later than 45 minutes before the beginning of the delivery hour.

A Production Plan delivered shall be available to Fingrid by the deadline. The most recent information received before the deadline always supersedes earlier information on the same matter.

The reporting of Production Plans shall take place in accordance with either the valid instruction *Ediel-sanomavälityksen yleiset sovellusohjeet* (General application instructions for Ediel messaging) or, when using ENTSO-E and ebiX message formats in accordance with the Nordic Imbalance Settlement (NBS) model, their valid relevant instructions and *Nordic Imbalance Settlement (NBS) Handbook*. The instructions can be found on Fingrid's and eSett Oy's websites. Moreover, Fingrid's separate guidelines shall be followed.

4.3 Correction of errors in the Production Plans

A Production Plan always gives a positive figure. If Balance Responsible Party reports a Production Plan with a negative figure to Fingrid and the plan can no longer be corrected within the deadlines specified under item 4.2, the value zero (0) shall be used as the Production Plan in the Imbalance Settlement.

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 primarily through the Fingrid's balance Extranet or by e-mail to Fingrid's Main Grid Control Centre within the deadlines specified under item 4.2.

In the event of disturbances in Fingrid's message communications or in the receiving system, the Production Plans are received to 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.

4.4 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 energy changes).

The balance deviation resulting from the staggered Production Plans is handled in the Imbalance Settlement as a Energy Transaction in the Production Balance with a zero price, in which transaction the volume corresponds to the volume of electricity generated or not generated as a result of the staggering. The correction plan is therefore not included in the total Production Plan.

Balance Responsible Party shall deliver the correction plans to Fingrid no later than 45 minutes before the next hour change.

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

5 Energy Transactions during the hour

Fingrid undertakes Energy Transactions during the hour for the purposes of balance management and, where appropriate, taking care of other system responsibilities.

5.1 Hour change 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 Energy Transaction between Fingrid and the Balance Responsible Party, where the electricity volume corresponds to the volume of electricity generated or not generated as a result of the transfer. For a justified reason, Balance Responsible Party has the right to refuse the implementation of hour change regulation.

The price for hour change regulation is one of following prices which is most advantageous to Balance Responsible Party:

- FIN day-ahead market price corrected 10 per cent more advantageous to Balance Responsible Party, or

- price regulation of power.

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

5.2 Handling of Balancing Energy in Imbalance Settlement

Fingrid procures reserves from Reserve Providers based on separate agreements. The Balancing Energy created in the activation of frequency controlled normal operation reserve and automatic frequency regulating reserve shall be calculated on an hourly basis, and energies are removed from the energy balance of the Reserve Provider's Balance Responsible Party with the national Imbalance Settlement.

The calculation principles and compensation criteria for Balancing Energy are agreed in the reserve agreements between Fingrid and the Reserve Providers, and a more detailed description of the calculation principles of the Balancing Energy can be found in the documents concerning the terms and conditions of the Reserve Providers.

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 energy 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 energy 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.

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. No separate transaction is agreed of such a change in production or loads, and it is not treated as Balancing Energy in the Imbalance Settlement. As the measures are not considered as Balancing Energy to be removed in the Imbalance Settlement, the energy corresponding with the measures is considered an imbalance. Thus, the energy caused by the measures is transferred into the imbalance of the Balance Responsible Party, and the price of energy is determined according to the Imbalance Energy Price of each Imbalance Settlement Period and 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 presents the following hourly information in Fingrid's Extranet only to Balance Responsible Parties entitled to receive such information:

- Production Plans delivered by the Balance Responsible Party and total hourly Production Plan calculated by Fingrid.
- Hourly energy information on hourly Energy Transactions between the Balance Responsible Party and electricity market participants included in its Balance Responsibility on one hand and Fingrid on the other hand. Provisional data shall be presented after the delivery hour and final data no later than 13 days after the delivery day.

The information can also be reported as Ediel messages, if requested.

9 Breach of terms

In the event that the Balance Responsible Party does not comply with these terms and conditions, the Balance Responsible Party shall promptly provide the necessary explanations to Fingrid and take corrective action in accordance with section 3.

In the event of a material breach, Fingrid is entitled to terminate the Balance Agreement.

In addition, Fingrid is entitled to terminate the Agreement immediately if the Balance Responsible Party is placed in liquidation, the equity capital of the Balance Responsible Party is registered as negative, the Balance Responsible Party defaults on its payments, is declared bankrupt, shows other signs of insolvency, or otherwise grossly violates 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, for example, loss of profits or damages paid to a third party by a party to the Agreement, not any other consequential damages, unless the damage has been caused intentionally or by gross negligence or by a breach of a confidentiality obligation.