

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 power balance in Finland.

These terms and conditions specify Balance Responsible Party's (hereinafter Balance Responsible Party) rights, obligations and responsibilities concerning the maintenance of the power balance.

2 National balance management

National balance management means the maintenance of power 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 power balance and imbalance

Balance Responsible Party shall plan and control its power 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 power purchases or deliveries.

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 power 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 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. The definition for regulation object can be found in the valid *Nordic Imbalance Settlement (NBS) Handbook* published by Imbalance Settlement.

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 reserve transactions.

The production types specified in the valid *Nordic Imbalance Settlement (NBS) Handbook* published by 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, Balance Responsible Party shall deliver to Fingrid 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

Balance Responsible Party shall supply Fingrid with preliminary production plans for the next delivery day 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 Balance Responsible Party, 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, Balance Responsible Party can update the production plans for the period of the disturbance.

4.4 Staggered production plans

Balance Responsible Party shall supply Fingrid with 15-minute correction plans if 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 balance deviation resulting from the staggered production plans is handled in the imbalance settlement as a power 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 by means of an adequately early notice or opposite power transactions.

5 Power transactions during the hour

5.1 Hour change regulation

In order to reduce problems encountered at the change of the hour in the Nordic or Finnish power 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 Balance Responsible Party from this transfer is corrected by means of a power transaction between Fingrid and 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:

- Elspot FIN day market price corrected 10 per cent more advantageous to Balance Responsible Party, or
- price regulation of power.

If the Elspot FIN day 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 Other power transactions

Balance Responsible Party and Fingrid can make a power transaction during a delivery hour if Fingrid finds that a power transaction is necessary in view of the power system. The volume of power and the starting moment of the transaction shall be agreed when making the transaction. The transaction finishes at the hour change if neither party of the transaction cancels it before this. The power transaction is priced individually in

each case. Power transactions can be made of both production and consumption, and they are always recorded during the delivery hour in question.

5.3 Handling of reserve electricity in imbalance settlement

Fingrid procure reserves based on separate agreements. The 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 production balance or consumption balance of the Balance Responsible with the national imbalance settlement.

The energy calculation principles and compensation criteria are agreed upon in agreements between Fingrid and the reserve suppliers.

Fingrid procures its reserves according to non-discriminatory and market based procedures. The valid principles of procurement can be found on Fingrid's website.

6 Procedure in exceptional situations

6.1 Management of power shortage situations in the power system

Operation in power shortage situations is based on the instruction for the management of power shortage situations in the Finnish power system (Suomen sähköjärjestelmän tehopulatilanteiden hallinta – ohje), 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 a strained power balance, power shortage and serious power shortage, 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 in the power system

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 the 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 the 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 imbalance power.

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 imbalance power. No separate transaction is agreed of such a change in production or loads. The compensation for the measures carried out is taken into account as part of the imbalance power transaction.

7 Communications

Fingrid shall be able to reach Balance Responsible Party or its authorised representative 24 hours a day every day of the year. The persons or authorised representative specified in Balance Responsible Party's contact information shall be entitled, in a manner that binds 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 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 Balance Responsible Party and total production plan calculated by Fingrid.
- Hourly energy information on hourly power transactions between Balance Responsible Party and electricity market participants included in its balance responsibility on one hand and Fingrid on the other hand.

The information can also be reported as Ediel messages.