

**HOURLY MARKET AGREEMENT NO. XX/2012 FOR  
FREQUENCY CONTROLLED NORMAL OPERATION RESERVE  
AND FREQUENCY CONTROLLED DISTURBANCE RESERVE  
parties  
RESERVE HOLDER OY  
and  
FINGRID OYJ**

## **1 PURPOSE OF AGREEMENT**

XXXX (hereinafter Reserve Holder) and Fingrid Oyj (hereinafter Fingrid) have made the following hourly market agreement (hereinafter Agreement) concerning Reserve Holder's contribution to the hourly market of frequency controlled reserves needed as Fingrid's system reserves.

In operations covered by this Agreement, the contracting parties shall follow the Application Instruction for the maintenance of reserves, appended to this Agreement.

## **2 VALIDITY OF AGREEMENT**

This Agreement will enter into force once both parties have signed it.

The application of this Agreement will begin on 1 January 2012.

The Agreement shall be valid until 31 December 2012.

## **3 REQUIREMENTS IMPOSED ON RESERVE CAPACITY**

The power plant machinery accepted for the maintenance of the frequency controlled normal operation reserve and disturbance reserve has to fulfil the following technical requirements, which are the same both in the annual market and hourly market.

### **3.1 Frequency controlled normal operation reserve**

The power plant machinery used for maintaining the frequency controlled normal operation reserve must regulate in accordance with its droop steplessly within a frequency range of 49.9 - 50.1 Hz so that the dead band in frequency regulation is at the most +/-0.05 Hz. The regulation must be activated in full within three minutes as a result of a frequency change of 0.1 Hz.

### **3.2 Frequency controlled disturbance reserve**

The power plant machinery used for maintaining the frequency controlled disturbance reserve must regulate almost linearly so that the activation begins when the frequency goes below 49.9 Hz and so that the entire reserve is activated at a frequency of 49.5 Hz. Half of the frequency controlled disturbance reserve has to activate within five seconds, and the entire reserve has to activate within 30 seconds at a stepped frequency change of -0.5 Hz.

### **3.3 Verification of regulation capability of machinery**

Reserve Holder has to use regulation tests carried out in accordance with the Application Instruction to indicate that the power plant machinery used as reserve fulfils the prescribed regulation capacity. The execution of regulation tests shall be agreed upon separately between Reserve Holder and Fingrid. Reserve Holder is responsible for the costs of the tests and Fingrid for its own personnel costs.

Reserve Holder shall verify the regulation capability of the power plant machinery whenever the machinery is modified in a manner which has an impact on its regulation capability. In this case, Reserve Holder is responsible for the execution of

the necessary tests in accordance with a testing specification presented in the Application Instruction.

The regulation capacity of power plant machinery verified by means of regulation tests is listed in Appendix 1. The regulation tests shall be repeated at minimum intervals of ten years.

## **4 RULES OF HOURLY MARKET**

Reserve Holder can participate in the hourly market maintained by Fingrid by means of the power plant machinery specified in Appendix 1.

Fingrid uses the hourly market whenever necessary for supplementary purchases once a day. There is a separate hourly market for the frequency controlled normal operation reserve and frequency controlled disturbance reserve.

If Reserve Holder has signed an annual agreement on the supply of reserves, Reserve Holder can only participate in the hourly market if the volume specified in the annual agreement has been supplied in full for the hour in question.

### **4.1 Bidding rules**

The maximum capacity of one bid for the frequency controlled normal operation reserve is 5 MW and for the frequency controlled disturbance reserve 10 MW.

The minimum capacity of one bid for the frequency controlled normal operation reserve is 0.1 MW and for the frequency controlled disturbance reserve 1 MW.

Reserve Holder can submit several bids. The bids cannot be linked to each other, and each bid is processed separately.

A bid must contain the following information:

- product (frequency controlled normal operation reserve or disturbance reserve)
- capacity (MW)
- price on availability (€/MW,h)
- hour.

The hourly bids shall be submitted to Fingrid electronically in accordance with Fingrid's guideline. Bids can be submitted for the hours in the next calendar day until 20.00 o'clock.

### **4.2 Processing of bids**

For each hour, Fingrid places the bids in the price order, with the principle of giving priority to the cheapest bid. If necessary, the bids are used in the price order, separately for the normal operation reserve and disturbance reserve. Bids with the same price are used in the order of receiving the bids. If necessary, a part of a bid can also be used. Fingrid confirms the transactions for the next calendar day by 22.00 o'clock.

### **4.3 Pricing of capacity**

The compensation to be paid to Reserve Holder is determined separately for each hour on the basis of the most expensive bid ordered so that there are separate prices for the frequency controlled normal operation reserve and disturbance reserve.

## **5 REPORTING AND FOLLOW-UP OF RESERVE MAINTENANCE**

Reserve Holder shall deliver to Fingrid the real-time, history and invoicing data as specified in the Application Instruction.

Fingrid has the right to verify the regulation capacities of power plant machinery covered by this Agreement as far as the regulation settings and step responses are concerned.

If follow-up carried out by Fingrid indicates that it is obvious that Reserve Holder has not maintained the regulation capacities specified in Appendix 1, Reserve Holder shall provide an account requested by Fingrid concerning the shortcomings of reserve maintenance within 30 days.

If the account requires a verification of the regulation capability by means of measurements made at Fingrid's demand and if the measurements indicate that the machinery fulfils the requirements laid down in this Agreement, Fingrid shall be responsible for the costs of the measurements.

## **6 FEES**

Fingrid shall pay compensation to Reserve Holder for Reserve Holder's contribution to the maintenance of the frequency controlled normal operation reserve and disturbance reserve in the hourly market.

### **6.1 Capacity fee**

The capacity fee is determined in accordance with item 4.3 separately for the frequency controlled normal operation reserve and disturbance reserve.

#### **6.1.1 Participation in the hourly market alone**

Fingrid shall pay Reserve Holder compensation on the basis of the volumes verified by means of measurements; however, at the most for trading agreed within the hourly market.

If the reserve capacity verified by means of measurements is below trading carried out in the hourly market, Fingrid shall pay Reserve Holder compensation on the basis of the capacity verified by means of measurements. Reserve Holder shall pay Fingrid 30 per cent of the price in the hour in question in compensation for capacity not supplied.

#### **6.1.2 Participation in both the annual and hourly market**

Fingrid shall pay Reserve Holder compensation on the basis of the volumes verified by means of measurements; however, at the most for the total volume agreed in the annual agreement and within the hourly market.

Fingrid only pays compensation for Reserve Holder's participation in the hourly market if the volume specified in the annual agreement has been supplied in full for the hour in question.

If the reserve capacity verified by means of measurements is below the reserve plan and the total volume of hourly trading, Fingrid shall pay Reserve Holder compensation on the basis of the verified capacity. Reserve Holder shall pay Fingrid 30 per cent of the hourly price for the hour in question for capacity not supplied.

## **6.2 Energy fee**

Fingrid shall pay an energy fee to Reserve Holder's balance provider for the reserve electricity purchased by Fingrid. This energy fee is calculated in accordance with the Application Instruction by multiplying the calculatory energy in the production balance caused by the frequency controlled normal operation reserve during each hour by the up-regulating price for each hour.

Fingrid charges an energy fee from Reserve Holder's balance provider for the reserve electricity sold by Fingrid. This energy fee is calculated in accordance with the Application Instruction by multiplying the calculatory energy in the production balance caused by the frequency controlled normal operation reserve during each hour by the down-regulating price for each hour.

## **7 TERMS OF PAYMENT**

### **7.1 Capacity fee**

Reserve Holder shall send Fingrid an invoice concerning the maintenance of reserves in the previous month on the 10th day of each month or on the following first weekday. The due date of an invoice shall be 14 days from the date of the invoice. The date of the invoice is the sending date of the invoice, which shall be indicated on the invoice.

### **7.2 Energy fee**

The energy fee is taken into account monthly in the balance settlement of Reserve Holder's balance provider, in conjunction with balancing power invoicing. Fingrid informs Reserve Holder of the amount of the energy fee.

### **7.3 Complaints**

When necessary, a contracting party shall make complaints regarding the invoice in writing. The other party shall inspect the invoice and send the necessary correction invoice without delay. The complaint does not exempt a party from the payment obligation by the due date unless otherwise agreed upon in each case.

### **7.4 Interest on arrears**

If a payment to be made by a contracting party is delayed, the party in question shall pay the annual penalty interest stated on the invoice from the due date to the date of receipt of the payment. The annual penalty interest is in accordance with the valid Interest Act.

## **7.5 Value-added tax**

In addition to the fees specified in this Agreement, Fingrid shall pay Reserve Holder the value-added tax valid at any given time.

## **7.6 Reserve Holder's reimbursement obligation**

If verification in accordance with item 5, other test in accordance with this Agreement, or follow-up by Fingrid indicates that the reserve maintained by Reserve Holder has been considerably smaller than what has been agreed or if the regulation capability of the power plant machinery differs from the terms and conditions of this Agreement or from the values stated in Appendix 1, Reserve Holder shall reimburse the fees paid by Fingrid in so far as they have been based on a reserve volume which is higher than in reality.

If Reserve Holder neglects to provide the account requested by Fingrid in accordance with item 5 by the deadline, Reserve Holder shall reimburse the fees based on this Agreement for the examination period covered by the account in terms of both the frequency controlled normal operation reserve and the frequency controlled disturbance reserve.

## **8 FORCE MAJEURE**

In the event of force majeure, the contracting parties have the right to restrict the maintenance of reserves or to interrupt it entirely.

Cases of force majeure are deemed to cover events which Reserve Holder could not have prevented through reasonable caution and which make the maintenance of reserves specified in this Agreement impossible or impair it essentially or otherwise make it unreasonable.

Cases of force majeure include war, country's internal unrest, mischief, sabotage, explosion, fire, long-term fault at a power plant, storm or other exceptional weather conditions, general interruption in traffic, strike or stoppage of a key employee group, lock-out ordered by an employer organisation, measures by authorities, or other reason with as significant and unusual consequences.

Reserve Holder shall inform Fingrid of the occurrence of force majeure as well as of its end without delay. For this period, Fingrid shall not be obliged to pay the fees specified in this Agreement to Reserve Holder.

## **9 DAMAGES**

The contracting parties are not liable for damage or loss which is the result of performances covered by this Agreement unless the damage or loss is indicated to have been caused by more than slight negligence of a contracting party or person(s) employed by it. The contracting parties are not liable to each other for indirect or consequential damage or loss, such as unreceived profit, loss of production, damaged raw material, restarting of production, or damage or loss caused by a contracting party to a third party.

## **10 ELIMINATION OF DISPARITY**

If reasons beyond the contracting parties lead to an evident disparity in the performance of the contractual obligations, the parties shall negotiate on the adjustment of the fees or other terms of the Agreement and agree on a solution to eliminate the disparity. Such reasons include changes in financial or commercial circumstances, changes taking place in legislation, measures by authorities, or other reasons which could not have reasonably been taken into account when preparing this Agreement.

## **11 TRANSFER, AMENDMENT AND TERMINATION OF AGREEMENT**

### **11.1 Transferring the Agreement**

A contracting party is allowed to transfer this Agreement to a third party through the written consent of the other contracting party.

### **11.2 Amending the Agreement**

Wherever possible, the contracting parties shall agree in advance on the impacts of significant changes in the features of power plant machinery on the volume of reserves maintained. All amendments shall be made in writing in two original copies, provided with the appropriate signatures.

If the use of power plant machinery covered by this Agreement finishes or changes essentially as a result of changes taking place at the power plant in question, the machinery shall be omitted from the maintenance of reserves. Reserve Holder shall agree on the omission of power plant machinery from the scope of the Agreement with Fingrid well in advance.

This Agreement can also be supplemented through a supplementary agreement between Reserve Holder and Fingrid if the scope or terms of the service covered by this Agreement do not fulfil the changes in reserve maintenance caused by official regulations, changes in the rules for the maintenance of reserves in the Nordic power system or other similar reason. In the event that an agreement conforming to the new regulations or rules is not achieved in negotiations between the contracting parties, Fingrid has a right to terminate this Agreement at a period of notice of three months.

### **11.3 Cancellation of Contract**

A contracting party has the right to cancel this Agreement if the other party has essentially breached this Agreement. Essential breaches include neglecting the maintenance of reserves, conscious changing of regulation settings so that the regulation capacity is changed significantly, and neglecting to provide the account specified under item 5.

## **12 DISPUTES**

Any potential disputes caused by this Agreement, which cannot be solved through mutual negotiations, are to be solved by the Helsinki District Court as the first instance if the contracting parties do not agree in writing on another procedure.

**13 CONFIDENTIALITY**

A contracting party is allowed to surrender confidential information related to this Agreement to a third party only through the written consent of the other party. If a contracting party is liable to surrender information to authorities, the other party shall be informed of such surrender.

**14 OTHER TERMS OF AGREEMENT**

Each contracting party shall contribute to the implementation of this Agreement. The contracting parties shall provide each other without delay with the necessary information required by the application of this Agreement, aiming at as automatic data transfer as possible.

Reserve Holder shall inform its balance provider of the existence of this Agreement.

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This Agreement has been drawn up and signed in two identical copies, one copy for each party.

dd mmmmm 2011

RESERVE HOLDER

Helsinki, Finland, dd mmmmm 2011

FINGRID OYJ

Appendices:

1. Power plant machinery and its regulation capacity
2. Application Instruction for the maintenance of frequency controlled power plant reserves