

REAL-TIME INFORMATION EXCHANGE

Contents

1	INTRODUCTION	3
2	INFORMATION REQUIRED FROM THE CUSTOMER CONCERNING THE MAINTENANCE OF SYSTEM SECURITY IN THE MAIN GRID	3
3	INFORMATION SUPPLIED BY FINGRID TO THE CUSTOMER	3
4	NATURE OF INFORMATION EXCHANGE	4
5	INTERFACES OF INFORMATION EXCHANGE	4
5.1	Operation control systems	4
5.2	Remote terminal units of substations	4
5.3	Other information exchange methods	4

Real-time information exchange

1 INTRODUCTION

This instruction shall be applied to the real-time information exchange related to the maintenance of system security and to the technical implementation and definition of real-time information exchange. The detailed information to be exchanged shall be agreed upon separately with each customer to the extent that Fingrid or the Customer requires the information in maintaining power system security. The Customer shall provide, or the Customer shall require a third party connected to the Customer's network to provide, the necessary information to Fingrid. A list of real-time information exchange is maintained in Fingrid's extranet service.

The Contracting Party responsible for delivering real-time information shall be responsible for the specification, procurement, maintenance and telecommunication costs of information exchange up to the interface conforming to article 3.

2 INFORMATION REQUIRED FROM THE CUSTOMER CONCERNING THE MAINTENANCE OF SYSTEM SECURITY IN THE MAIN GRID

- Active power, reactive power and voltage measurement data on the network as well as status information on switching devices. This applies to the information on those parts of the network which are in parallel operation with the main grid and, when so agreed upon with the Customer, information on substations connected to the main grid.
- Real-time active power and reactive power measurement information on individual generators of at least 10 MW and status information on circuit breakers. The measurement information shall primarily be delivered as a net measurement.
- With generators of 1-10 MW, the above measurement information can be supplied as a producer-specific sum. The measurement information shall primarily be delivered as a net measurement. Information on wind power production shall be delivered separately from other production.
- Real-time information does not need to be delivered on individual generators of below 1 MW or on reserve power plants used for securing electricity supply.

3 INFORMATION SUPPLIED BY FINGRID TO THE CUSTOMER

Fingrid shall provide the Customer with the following information upon request:

- Real-time active power and reactive power measurements and status information on the Customer's connecting bay.
- Status information on Fingrid's transmission line bays, bus voltages and status information on the circuit breakers of compensating equipment at the Customer's connecting substation.
- Alarms in a scope to be agreed upon separately
- If the Customer is connected to Fingrid's grid through a branch line, the above information on substations located at the ends of the trunk line shall be supplied.
- Real-time information on substations shall be delivered to the Customer only in the event that the information does not include third-party measurement information. This

Application instruction

information may be submitted if the Customer acquires the necessary permit from the third party in question.

The control possibilities of switching devices in bays subject to a right of use shall be agreed upon separately.

4 NATURE OF INFORMATION EXCHANGE

The update interval of real-time information exchange shall be 3 minutes or more frequent.

In fault situations, the Contracting Party that finds a fault in the information exchange shall inform the other Contracting Party of the situation. The Contracting Party in charge of providing the information takes care of correcting the fault in co-operation with the other Contracting Party.

5 INTERFACES OF INFORMATION EXCHANGE

The information exchange techniques mentioned below shall be used in the exchange of information between Fingrid and the Customer.

5.1 Operation control systems

The real-time information exchange between the Contracting Parties' systems shall mainly use the FEN network. The protocols to be used in real-time information exchange are Elcom (TASE.1), ICCP (TASE.2) or IEC 60870-5-104. In the IEC 60870-5-104 protocol, Fingrid can only receive information.

5.2 Remote terminal units of substations

At a substation in the main grid, both Contracting Parties may have their own remote terminal units or a shared remote terminal unit provided with separate telecommunications links any necessary links for the provision of various data.

Potential information exchange between the remote terminal units shall always be agreed upon separately. Remote terminal units are used for transferring linked operation control information from a substation.

5.3 Other information exchange methods

Subject to separate agreement, other methods of exchanging information are possible, provided that they are technically reliable and cost-effective.