

## **Reg. No. 448 of 7 May 2002: Regulations relating to the system responsibility in the power system**

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## **Regulations relating to the system responsibility in the power supply system**

### **Section 1. Purpose**

These regulations shall facilitate an efficient power market and a satisfactory quality of supply in the power system. The regulations shall ensure that the system responsibility is exercised in a socially efficient manner, including taking public and private interests that are affected into consideration.

### **Section 2. Scope**

These regulations shall apply to the system operator and anyone who fully or partly owns or operates grids, power generation facilities or organised marketplaces, as well as trading companies and end users.

### **Section 3. Definitions**

For the purpose of these regulations, the following definitions apply:

- a) *Operational failure*: automatic disconnection, enforced or unintentional disconnection or unsuccessful connection resulting from a fault in the power system.
- b) *Electricity spot market*: a market where contracts for hourly sales and purchases of electricity are traded for physical delivery the following day.
- c) *Elspot area*: a geographically limited area relating to the allocation of bids on the electricity spot market.
- d) *Bottleneck*: a situation that occurs when exchange requirements on the grid exceed the transfer limit.

- e) *Transmission limit*: maximum permitted transmitted active power in the transmission grid or on an individual transmission line.
- f) *Momentary balance*: equilibrium between total consumption and total production of electricity, taking into account the exchange of power with interconnected power systems.

#### **Section 4. Principles for exercising the system responsibility**

The system operator shall:

- a) provide frequency regulation and ensure momentary balance in the power system at all times,
- b) act in a neutral and non-discriminatory manner in relation to everyone covered by these regulations,
- c) develop market solutions which will help to ensure the efficient development and utilisation of the system,
- d) to the greatest possible extent make use of instruments which are based on market principles,
- e) coordinate and follow up the actions of licensees and end users in order to achieve a satisfactory quality of supply and efficient utilisation of the power system, and
- f) prepare and distribute information about power system-related matters that have a bearing on the power market, as well as matters of significance to the general quality of supply.

#### **Section 5. Bottlenecks and elspot areas**

The system operator shall define elspot areas in order to deal with major and long-term bottlenecks in the regional and central grid system.

The system operator shall normally define separate elspot areas when a shortage of energy is expected in a limited geographical area.

Other bottlenecks in the regional and central grid system should normally be dealt with by using the regulating power market. Any additional costs involved in deviating from the normal sequences employed by the regulating power market are to be covered by the system operator.

The system operator shall provide notification of defined elspot areas in reasonable time before they are used.

#### **Section 6. Trading limits**

The system operator shall determine maximum permitted limits for trading electricity between elspot areas on an hourly basis (trading limits).

The system operator shall provide notification of defined trading limits in reasonable time before they are used.

#### **Section 7. Transmission limits**

Licensees in the regional and central grid system shall prepare inventories showing the maximum transmission limits which apply to the various parts of their system. These inventories shall be presented to the system operator for approval.

The system operator may determine operational transmission limits in respect of the regional and central grid system. These transmission limits shall not exceed the maximum transmission limits which apply to the various parts of the system unless already agreed with the licensee.

The system operator is responsible for ensuring that the transmission limits set pursuant to the second paragraph are complied with.

**Section 8. *Bidding, production planning and output regulation***

When submitting bids in respect of each individual hour in the individual elspot areas, licensees shall ensure that they achieve the planned balance between their commitments and rights, including their own production.

The system operator shall obtain information from the entity with settlement responsibility to uncover systematic violations of the provisions contained in the first paragraph and report any non-compliance to the Norwegian Water Resources and Energy Directorate.

For each elspot area, licensees shall report to the system operator on a daily basis by 19.00 hours (7 pm), unless otherwise determined by the system operator, their own production schedules and accompanying regulation capacity and rotating reserves (for each station/station group) on an hourly basis for the next 24 hours.

Production schedules shall be prepared in accordance with the licensee's commitments and rights.

The system operator may call for small step-by-step changes to be made to a production schedule and for this to be specified using 15-minutes values if the desired change in production exceeds a limit established by the system operator.

The licensee undertakes to adhere to the submitted production schedules.

The licensee may change production schedules in accordance with decisions adopted by the system operator.

The system operator may advance or postpone planned production changes by up to fifteen minutes. The system operator shall pay for any losses incurred by the producer in this respect.

The system operator may instruct the licensee to adjust its production schedules to suit any limitations that have arisen in the transmission grid due to revisions or operational failures. The system operator determines how available capacity should be allocated among several licensees.

The system operator may determine limits for the regulation of planned output from DC links and for large individual users.

**Section 9. *Regulation capacity and power reserves***

The system operator may instruct the licensee to provide regulation capacity and accompanying rotating reserves within the technical limitations of the production units. The system operator shall pay the licensee for this. Such payments shall reflect the costs incurred by the licensee in respect of the instructions imposed on it and provide a reasonable profit.

The system operator shall have adequate power reserves at its disposal at all times.

**Section 10.** (Repealed by Regulations No. 1532 of 30 November 2004, effective 1 January 2005)

**Section 11.** *Regulating power market*

The system operator shall operate and develop a regulating power market in order to deal with deviations from planned production and expected consumption during the operational hour, as well as other undesirable situations in respect of the power system.

If it is obvious that the market is failing to set socio-economically efficient prices within a limited geographical area, the system operator may suspend offers on the regulating power market and make use of declared volumes at prevailing electricity spot prices for the area. In such an event the bidder shall be informed of this.

**Section 12.** *Critical operational situations and operational failures*

The licensee shall draw up a plan for the efficient restoration of normal operations of its own installations in the event of operational failures occurring in the regional and central grid system and connected production units. The plan shall be presented to the system operator for approval.

The system operator shall co-ordinate intervention in the event of operational failures affecting several licensees.

The system operator shall determine who is to undertake frequency regulation in areas which are temporarily without any physical connection to adjacent transmission grids.

In critical operational situations, the system operator may requisite capacity by demanding that all available production and consumption should be declared in the regulating power market after the price on the electricity spot market has been set.

In the event of operational failures, the system operator may call for all available regulation power in the production system in order to restore normal operations. The price of non-declared production shall be set at the regulating power market price for the elspot area, unless otherwise agreed.

**Section 13.** *Involuntary curtailment of demand*

The licensee shall draw up plans for dealing with the involuntary curtailment of demand. These plans shall be presented to the system operator for approval.

In exceptional operational situations, the system operator may instruct the licensee to carry out a brief involuntary curtailment of demand. Such instructions shall comprise the load to be shed and the expected duration, and may also specify which customer groups should be disconnected.

The reconnection of demand may not take place unless approved by the system operator.

In the event of involuntary load curtailment being undertaken in accordance with this section, the system operator is considered to be the responsible licensee in accordance with Section 9-3 of Regulations No. 302 of 11 March 1999 relating to financial and technical reporting, income caps for network operations and tariffs.

**Section 14.** *Planning and commissioning of technical installations in the power system*

The licensee shall inform the system operator about plans for new installations or changes in its existing installations that may affect other licensees in regard to the operation and utilisation of the regional and central grid system. New installations or changes may not be commissioned without the approval of the system operator.

**Section 15. *Voltage regulation and exchange of reactive power***

The system operator may set voltage limits and limits for the exchange of reactive power in the regional and central grid system.

Production units connected to the regional and central grid system shall contribute by producing reactive power within the units' technical limitations. The system operator shall pay for the costs incurred in respect of the instructed production of reactive power over and above the limits agreed between the system operator and the producers.

The licensee shall comply with the limits set in accordance with the first paragraph. The licensee shall notify the system operator about operational situations where the imposed limits cannot be complied with. In such situations the system operator shall co-ordinate any necessary measures. The system operator may demand that the costs incurred in respect of such measures shall be paid by the licensee responsible in accordance with this paragraph.

**Section 16. *Grid connection diagram***

The system operator may set the switch positions needed to operate the regional and central grid system at any one time (grid connection diagram).

Planned connections which may affect the operation of the regional and central grid system shall be reported to the system operator when other licensees are affected by such connections. The system operator decides whether or not connection can be made.

**Section 17. *Co-ordination of operational shutdowns***

The licensee draws up plans for the efficient implementation of operational shutdowns at its own installations in the regional and central grid system and production units that are connected to it. The plans for operational shutdowns that can affect other licensees shall be submitted to the system operator for a decision by no later than two weeks prior to the planned operational shutdown.

The system operator shall co-ordinate the licensees' planned operational shutdowns in the regional and central grid system and production units which are connected to it. No one may implement an operational shutdown without the approval of the system operator.

The system operator may reprioritise operational shutdowns that have already been determined at its own initiative or in accordance with an enquiry from the licensee. The additional costs incurred in respect of such reprioritisations shall be paid by the party who initiated reprioritisation.

**Section 18. *Metering and reporting***

The system operator may instruct the licensee to send him the metering data and reports that are necessary for the efficient operation and utilisation of the power system.

**Section 19. *Earth current compensation***

The system operator may determine which earth-current compensation solution should be used in the regional and central grid system.

**Section 20. *Protection and relay planning***

The system operator may determine type, locations and settings of protection and reconnection equipment in the regional and central grid system and production units that are connected to it (relay plans).

The licensee is responsible for providing satisfactory protection in its own installations, including the implementation of relay plans.

**Section 21. *System protection***

The system operator may demand the installation and use of equipment for automatic intervention in the power system in order to avoid breakdowns, or to increase transmission limits in the regional and central grid system (system protection). The system operator shall pay for the costs incurred in respect of such instructions.

The licensee may not implement, activate or deactivate system protection without the approval of the system operator.

**Section 22. *Fault analysis and statistics***

The licensee shall report to the system operator all operational failures in its own regional and central grid system and in the production units connected to it. The analysis shall include those investigations necessary for clarifying the events leading up to an incident, causes and consequences and conclude whether or not relevant protection and control functions have functioned satisfactorily.

The reporting format of the licensee shall be approved by the system operator.

The system operator shall coordinate the analysis in cases where several licensees are involved.

The system operator shall subsequently analyse and check all events reported according to the first paragraph.

The system operator shall ensure that all operational failures occurring in the regional and central grid system and in the production units connected to it shall be uniformly recorded.

The system operator shall distribute analysis results, and prepare and distribute statistics relating to operational failures in accordance with the first paragraph.

The licensee shall carry out a fault analysis when operational failures occur on its own distribution grid. The fault analysis may be limited to covering operational failures involving interruptions longer than three minutes in installations with a nominal voltage above 1000 V.

The result of the fault analyses shall be recorded in the recording system ensuing from current requirements specified for FASIT and SDI. The data and documentation of the fault analysis shall be saved for ten years.

**Section 22a. *Highly critical power situations***

The system operator is responsible for continually preparing and developing necessary means for handling periods with a highly critical power situation. The system operator shall inform the Norwegian Water Resources and Energy Directorate about means prepared according to this paragraph.

Means for handling periods with a highly critical power situation may not be implemented without a decision by the Norwegian Water Resources and Energy Directorate.

**Section 23.** *Duty to provide information*

Those covered by these regulations shall provide the system operator with the information that is necessary for carrying out the duties of the system operator, including taking the initiative to provide information about conditions in their own installations that are important for the safe operation, efficient utilisation and development of the power system.

**Section 24.** *The system operator's duty to disclose information*

The system operator shall provide information about matters of significance for the development of an efficient energy market.

The system operator shall inform licensees and system operators in other countries about matters that are necessary for the safe operation, efficient utilisation and development of their installations, as well as about matters which are of significance for the quality of supply in the area.

The system operator shall inform the Norwegian Water Resources and Energy Directorate about developments in the power system and the power and energy balance.

The system operator shall keep the Norwegian Water Resources and Energy Directorate informed about the status in accordance with sections 12 and 13.

**Section 25.** *Monitoring and inspection activities*

The Norwegian Water Resources and Energy Directorate shall monitor that the provisions laid down in these regulations are complied with.

Those covered by these regulations shall assist in carrying out monitoring activities according to the first paragraph. Among other things, this includes obtaining information and documentation that is necessary in order to conduct monitoring activities.

**Section 26.** *Instructions and compulsory fines*

Those affected by instructions issued by the system operator in accordance with its responsibility for the system are obliged to comply with these decisions.

The Norwegian Water Resources and Energy Directorate may issue those instructions necessary for implementing these regulations.

The Norwegian Water Resources and Energy Directorate may stipulate coercive fines for contravening orders issued pursuant to the second paragraph.

**Section 27.** *Payment*

Payment in accordance with the eighth paragraph of section 8, the first paragraph of section 9, the second and final paragraphs of section 15, the final paragraph of section 17 and the first paragraph of section 21 shall be determined by an agreement between the system operator and the licensees affected. Should they fail to reach agreement, the system operator shall reach a decision about the amount of the payment.

**Section 28.** *Relationship to the Public Administration and Freedom of Information Acts*

The Act of 10 February 1967 relating to procedure in cases concerning the public administration (Public Administration Act) and Act No. 69 of 19 June 1970 relating to public access to documents in the public administration (Freedom of Information Act) shall apply in cases where the system operator makes individual decisions.

Under these regulations the system operator's decisions may be appealed to the Norwegian Water Resources and Energy Directorate. Decisions in appeals cases may not be appealed.

Decisions made pursuant to section 5, section 6, the second paragraph of section 7, section 8, the first paragraph, first sentence of section 9, section 11, the second to fifth paragraphs of section 12, the second and third paragraphs of section 13, section 15, section 16, the second and third paragraphs of section 17, the second paragraph of section 21, as well as other decisions made by the system operator while exercising responsibility for the system, are exempt from Chapters IV-VI and VIII of the Public Administration Act.

**Section 29.** *Exemption*

In special cases, the Norwegian Water Resources and Energy Directorate may grant exemption from these regulations.

**Section 30.** *Entry into force*

These regulations shall enter into force on 17 May 2002.