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REG. no. 301 of 11 March 1999: Regulations governing metering, settlement and coordinated action in connection with electricity trading and invoicing of network services.

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Regulations governing metering, settlement and coordinated action in connection with electricity trading and invoicing of network services.

Chapter 1. Introductory provisions

Section 1-1. *Purpose*

These regulations shall ensure that electricity providers are given access to the transmission grid and arrange matters so that it will be easy for end users to change electricity provider.

These rules shall ensure an efficient settlement of regulating power, exchange of information during a change of provider and transmission of settlement data.

The rules require that a grid company, acting as an impartial player, shall facilitate an efficient exchange of information during changes of providers, metering and settlement so that the competition in the power market will be as efficient as possible in accordance with the purpose of the Energy Act.

The rules for invoicing network services are aimed at making households more aware of their electricity consumption.

Section 1-2. Scope

The rules in these regulations apply to a change of electricity provider, metering, settlement, coordinated action in connection with electricity trading, invoicing of network services, invoicing of electrical energy, and joint invoicing of grid services and electrical energy.

These regulations do not regulate rights and obligations under private law that are in accordance with the rules in these regulations.

Section 1-3. Definitions

In these regulations we use the following definitions:

Installation address: the address of the site where an installation with a metering point is located.

APERAK (Application error and acknowledgement message): an Ediel message that is used to confirm that messages have been received and that their content is understood by the receiving application. APERAK is defined in an implementation guide that can be obtained from the Norwegian Water Resources and Energy Directorate or the Ediel System Support.

Settlement data for regulating power balance: sum per hour of the hourly metered values of the individual entity with balancing responsibility added to the said entity's volume share of the adjusted system load profile per hour.

Entity with settlement responsibility: the entity charged with settlement responsibility pursuant to section 4-3 of the Energy Act.

Entity with balancing responsibility: a trading licensee for whom regulating power is settled in the grid company's power grid. Entities with balancing responsibility may also be end users and grid companies that are responsible in the regulating power market.

CONTRL: EDIFACT message used to accept or reject entire Ediel exchanges, based on errors in EDIFACT syntax. CONTRL is defined in the Ediel functional description that can be obtained from the Norwegian Water Resources and Energy Directorate or the Ediel System Support.

Ediel: Standard for electronic communication adapted for the electricity industry.

Household: user of electrical energy at a metering point in a permanent residence. Cabins and recreational dwellings are not regarded as permanent residences.

Load: the total amount of power that is fed into a power grid.

System load profile: system load input by the hour.

Adjusted system load profile: the difference between the grid company's system load profile less transmission losses and withdrawals from the metering points that are settled on the basis of hourly metered values.

Provider: a trading licensee who sells electrical energy to an end user. End users who trade in organised markets are also providers.

Marketplace licensee: a company that in accordance with a licence for an organised marketplace is responsible for the organisation or operation of a marketplace for trade in electrical energy, cf. section 4-5 of the Energy Act.

MSCONS (Metered service consumption report): an Ediel message used in the transmission of settlement data from a grid company to an electricity provider and from a grid company to the settlement centre for regulating power. MSCONS is defined in an implementation guide that can be obtained from the Norwegian Water Resources and Energy Directorate or the Ediel System Support.

Metering point ID: unique identification of a metering point based on the EAN standard, Global Service Relation Number (GSRN).

Transmission losses: the hourly loss of energy in a power grid.

Grid company: trading licensee who owns a transmission grid or is responsible for network services.

Network services: one or more of the following:

1. transmission of power, including operation and maintenance of and investment in grid installations
2. tariffing
3. metering, settlement and customer service

4. supervision and safety
5. co-ordination of operations
6. required contingency measures
7. required power system planning.

Organised market: a market for trade in electrical energy that is regulated through section 4-5 of the Energy Act.

PRODAT (Product data message): an Ediel message that is used in the exchange of data between a grid company and a provider in connection with a change of provider, etc. PRODAT is defined in an implementation guide that can be obtained from the Norwegian Water Resources and Energy Directorate or the Ediel System Support.

Percentage distribution: a distribution by per cent of the adjusted system load profile for each individual entity with balancing responsibility.

Regulating power balance: the deviation between the fed-in and/or withdrawn volume of power and the purchase and/or sales obligations for each entity with balancing responsibility.

Regulating power market: market for handling imbalances in the Norwegian power supply system in the hour of delivery.

End user: a purchaser of electrical energy who does not resell it.

Ediel System Support: an entity with settlement responsibility that is responsible, pursuant to its licence, for the operation and maintenance of and guidance concerning Ediel messages referred to in these regulations.

Section 1-4. *Electronic exchange of information*

a. *Exchange protocol*

Pursuant to these regulations, Ediel messages may be transmitted and received using the X.400 protocol. Use of other protocols may also be agreed.

b. *Acknowledgement messages*

CONTRL and APERAK acknowledgement messages may be transmitted and received. A negative CONTRL shall always be transmitted in the event of an error in EDIFACT syntax. A negative APERAK shall always be transmitted in the event of an error in the Ediel message. An acknowledgement message shall not be transmitted upon reception of an acknowledgement message. An acknowledgement message shall be transmitted upon request on receipt of Ediel messages. Acknowledgement messages shall be transmitted within one work day.

c. *Approval by Ediel System Support*

Approval by Ediel System Support is required in order to be able to exchange Ediel messages pursuant to these regulations.

d. *Ediel System Support's address register*

Updated address information must be registered in Ediel System Support's address register in order to be able to exchange Ediel messages pursuant to these regulations.

Chapter 2. Commencement and termination of electricity supply, and change of electricity provider etc.

Section 2-1. *Commencement of electricity supply upon establishment of new installations, relocation, etc.*

In the cases where an end user has an electricity supply contract with a provider that will deliver to the new metering point, the provider may transmit a message about commencement of supply, cf. section 2-4 (notification of change of provider).

The grid company shall inform end users who do not have an electricity supply contract about the providers that provide electricity in the grid area or the places where end users can find an impartial overview of electricity providers.

Section 2-2. *Implementation of change of provider and commencement of supply*

An end user has a right to change electricity provider.

Change of provider and commencement of supply shall occur on Mondays. The delivery period for contracts on supplies to end users shall be adapted accordingly.

There shall be a written electricity supply contract between electricity provider and end user before notification of change of provider is sent. The requirement that the contract shall be entered into in writing does not prevent the contract from being entered into by electronic communication.

The grid company is obligated to carry out a change of provider once it has received notification pursuant to section 2-4.

The electricity provider is obligated to show the electricity supply contract to the grid company upon request.

Section 2-3. *Special conditions when entering into electricity supply contracts by means of electronic communication*

When entering into an electricity supply contract via electronic communication, the electricity provider is obligated to obtain the end user's metering point ID and date of birth or organisation number. The electricity provider is obligated to show this information and likewise the electronic electricity supply contract to the grid company upon request.

Section 2-4. *Notification of change of provider*

The provider who shall take over the supply contract shall send notification of change of provider to the grid company.

Notification shall be received by the grid company no later than the Monday three weeks before the change of provider.

The notification shall include:

- a) metering point ID,
- b) supply commencement date,
- c) end user's name and postal address, and
- d) installation and invoicing address, if different from the end user's postal address.

Section 2-5. *Notification of change of provider to the provider taking over the supply contract*

Grid companies shall send notification of a change of provider to the provider taking over the supply contract no later than one week before the change of provider.

The notification shall include:

- a) metering point ID,
- b) meter number,
- c) supply commencement date,
- d) the installation's expected annual volume,
- e) the settlement method used (adjusted system load profile or hourly metering),
- f) priority (prioritised or disconnectable installation),
- g) the end user's name, postal address and installation address,
- h) invoicing address, if the invoicing address is different from the end user's postal address.
- i) information about whether the household is required to pay value added tax.

If the metering point is settled on the basis of adjusted system load profile, the notification shall also include:

- j) meter and/or settlement constant,
- k) number of digits in the meter's counter,

- l) date of the first periodic meter reading,
- m) frequency of meter reading.

Section 2-6. *Notification of change of provider to the provider terminating the supply contract*

Grid companies shall send notification of a change of provider to the provider terminating the supply contract no later than one week before the change of provider.

The notification shall include:

- a) metering point ID,
- b) end user's name and postal address,
- c) supply contract termination date.

Section 2-7. *Termination of supply contract*

The provider shall notify the grid company about the termination of electricity supply in cases where the termination is not due to a change of provider. The notification of termination shall be sent no later than the Monday two weeks before the termination of the electricity supply.

The notification shall include:

- a) metering point ID,
- b) end user's name and postal address, and
- c) supply contract termination date.

Section 2-8. *Electronic exchange of information*

Notification pursuant to the provisions of this chapter shall be transmitted via the Ediel message PRODAT.

Chapter 3. Metered values

Section 3-1. *Responsibility for metered values*

The grid company is responsible for all metered values from the metering points that are in its grid.

Section 3-2. *Metering point ID*

The grid company shall use a metering point ID for all metering points in its grid.

Section 3-3. *Reading of metering points*

Grid companies are responsible for seeing that energy consumption and/or energy flow at the metering point is metered and read.

All metering points shall be read at least once each calendar year and refer to Mondays. If readings are made more frequently, these readings shall also refer to Mondays.

Metering points for households with an expected annual electricity consumption higher than 8,000 kWh shall be read once every third, every second or every month (periodic reading). Periodic reading shall refer to Mondays. The periods between readings shall be approximately the same. The first periodic meter reading shall be made on the first Monday after year-end.

Metering points shall be read upon change of provider and upon termination of electricity supply.

Metering points with an expected annual energy withdrawal or energy input greater than 100,000 kWh shall be read every hour (hourly metering).

Section 3-4. *The grid company's and end user's right to hourly metering*

An end user may request hourly metering.

The grid company may meter by the hour in any and all cases.

Section 3-5. *Stipulation of meter value and hourly values*

If taking a meter reading in accordance with section 3-3 entails unreasonable expense or inconvenience for the grid company, the meter value may be stipulated.

When the grid company is unable to take hourly values in accordance with section 3-3, paragraph five and section 3-4, the meter values shall be stipulated on the basis of the previous week's values unless the grid company and the end user agree on some other arrangement.

Section 3-6. *Covering the costs of hourly metering*

If there is hourly metering of energy withdrawals in accordance with section 3-3, paragraph five, the costs shall be covered by the grid company.

If there is hourly metering of energy input in accordance with section 3-3, paragraph five, the costs shall be covered by the party responsible for the energy input.

If an end user requests hourly metering in accordance with section 3-4, paragraph one, the grid company may require the end user to cover the additional costs associated therewith.

If the grid company meters by the hour in accordance with section 3-4, paragraph two, the grid company shall cover the additional costs associated therewith.

Section 3-7. *Transmission of metered data*

Within four weeks after a meter reading or stipulation of a meter value in accordance with section 3-3, paragraphs two, three, four and five and section 3-5, the grid company shall transmit metered data to the provider that delivers power at the metering point. If there is a change of provider, metered data shall be transmitted to both the provider taking over the supply contract and the provider terminating the supply contract.

The transmission shall include:

- a) metering point ID,
- b) meter number,
- c) the consumed volume at the metering point during the settlement period,
- d) specification of whether the settlement data are metered or stipulated,
- e) the settlement period's starting and closing dates.

If the metering point is settled according to the adjusted system load profile, the transmitted data shall also include the meter reading at the start and close of the settlement period.

Section 3-8. *Transmission of hourly values to providers*

Within three work days after the close of the settlement week, the grid company shall transmit to the provider the hourly withdrawals in kWh/h for the previous week for every single metering point for which the provider is settled in accordance with section 3-3, paragraph five and section 3-4.

Section 3-9. *Notification of meter replacement*

Within two weeks after the replacement of an electricity meter, a grid company shall send notification of the replacement of the meter to the electricity provider that supplies power at the metering point.

The notification shall include:

- a) metering point ID,

- b) end user's name and postal address,
- c) date of meter replacement,
- d) the settlement method used (adjusted system load profile or hourly metering),
- e) meter number of the new meter,
- f) meter number of the old meter.

If the metering point is settled on the basis of the adjusted system load profile, the notification shall also include:

- g) meter and/or settlement constant for the new meter,
- h) the number of digits in the new meter's counter.

Section 3-10. *Quality assurance*

The grid company shall ensure the quality of the metered values and the handling of these values throughout the entire metered-value chain in its grid. It must be possible to document this quality assurance. The metered-value chain encompasses the entire metering installation including electricity meter, metering transformer and connection wires, plus all other registration, handling and transmission of both electronic and manual metered values to the provider, end user and entity with settlement responsibility.

If there is a break in communication with an end user's hourly meter, metered data for the previous week shall be used as stipulated values in accordance with section 3-5, unless the grid company and end user agree to some other arrangement. The error that arises shall be settled financially between the grid company and provider the first week after communication with the meter is restored.

Section 3-11. *Electronic exchange of information*

Notifications in accordance with the provisions of this chapter shall be transmitted via the Ediel message MSCONS with the exception of notifications referring to section 3-9, which shall be transmitted via the Ediel message PRODAT.

Chapter 4. Settlement of regulating power

Section 4-1. *Calculation of regulating power balance*

The entity with settlement responsibility shall calculate the regulating power balance for each entity with balancing responsibility.

The regulating power balance shall be calculated on the basis of settlement data from grid companies, purchase and/or sales obligations in organised markets and purchase and/or sales obligations outside of organised markets.

The regulating power balance shall be calculated for each hour and specified with a precision equivalent to kWh/h.

The regulating power balance shall be calculated for each price area in the regulating power market.

Section 4-2. *Payment obligations and credit balances in the regulating power market*

The entity with settlement responsibility shall calculate payment obligations or credit balances for each individual entity with balancing responsibility on the basis of each such entity's regulating power balance. Payment obligations or credit balances shall be based on the prices in the regulating power market.

Each individual entity with balancing responsibility shall be notified of payment obligations or credit balances within nine work days after the close of the settlement week.

Section 4-3. *The grid company's calculation of settlement data for a regulating power balance*

The grid company shall calculate settlement data for a regulating power balance for each entity with balancing responsibility.

The grid company is responsible for ensuring that the total withdrawal to and input from adjoining power grids, settled withdrawals and/or inputs for the individual entities with balancing responsibility in their grid and the total settled transmission losses at any given time are in balance. This shall be shown in the reporting of settlement data to the entity with settlement responsibility.

Section 4-4. *The grid company's transmission of settlement data*

For each entity with balancing responsibility in its grid, the grid company shall transmit settlement data for a regulating power balance to the entity with settlement responsibility.

The grid company shall send transmit its settlement data for a regulating power balance to each individual entity with balancing responsibility.

Settlement data for a regulating power balance shall be transmitted within three work days after the close of the settlement week. Settlement data for a regulating power balance shall be specified in whole kWh/h.

Section 4-5. *Purchase and sales obligations in organised markets*

The marketplace licensee shall transmit an overview of the individual entity with balancing responsibility's purchase and sales obligations in organised markets to the entity with settlement responsibility.

Purchase and sales obligations shall be transmitted within three days after the close of the settlement week.

Section 4-6. *Purchase and sales obligations outside of organised markets*

The entity with balancing responsibility shall transmit an overview of the entity with settlement responsibility's purchase and sales obligations outside of organised markets to the latter entity.

Purchase and sales obligations shall be specified in whole kWh/h.

Purchase and sales obligations shall be transmitted no later than three days after the close of the settlement week.

Section 4-7. *Agreement regarding settlement of regulating power*

The grid company and entity with settlement responsibility shall regulate matters in connection with the settlement of regulating power in a separate agreement.

The entity with balancing responsibility and the entity with settlement responsibility shall regulate matters in connection with the settlement of regulating power in a separate agreement.

Providers without balancing responsibility must be associated with a legal entity that has an agreement pursuant to paragraph two.

These agreements shall help promote an efficient power market and equal treatment of the parties in the market. The entity with settlement responsibility shall submit these agreements to the Norwegian Water Resources and Energy Directorate.

Section 4-8. *Fees*

The entity with settlement responsibility may collect fees from grid companies and entities with balancing responsibility for settlement of the regulating power balance.

Ediel System Support may collect fees from grid companies, providers and entities with balancing responsibility for the operation and maintenance of and instruction about Ediel messages included in these regulations.

These fees shall cover the costs of efficient operation.

Section 4-9. *Electronic exchange of information*

Notification pursuant to the provisions of this chapter shall be transmitted via the Ediel message MSCONS.

Chapter 5. Settlement based on the grid company's system load profile

Section 5-1. *Use of adjusted system load profile*

Metering points that are not metered by the hour shall be settled on the basis of an adjusted system load profile.

Section 5-2. *Common adjusted system load profile*

Adjoining power grids may collaborate on reporting settlement data to the settlement centre. A common adjusted system load profile may be used.

Section 5-3. *Calculation of transmission losses*

In calculating hourly transmission losses for the calculation of the adjusted system load profile, a loss profile shall be used that is representative for the grid.

Section 5-4. *Calculation of power withdrawal for entities with balancing responsibility*

The grid company shall calculate a percentage distribution of expected annual power withdrawal per metering point that is not metered hourly. Based on the percentage distribution per metering point and the adjusted system load profile, the grid company shall calculate the power withdrawal that is not metered hourly for each individual entity with balancing responsibility in accordance with section 4-3.

Section 5-5. *Transmission of settlement data based on adjusted system load profile*

Within three work days after the close of the settlement week, the grid company shall transmit the hourly withdrawal that has been calculated using the adjusted system load profile to the entity with balancing responsibility. The hourly withdrawal shall be specified in whole kWh/h.

Section 5-6. *Transmission of information about expected withdrawal per metering point*

At least once every quarter, the grid company shall inform every single entity with balancing responsibility about the expected annual withdrawal for every metering point in the said entity's portfolio that is included in the basis for calculation of the percentage distribution (portfolio status). The information shall be transmitted to the entity with balancing responsibility within two weeks after the completion of a quarter.

The expected withdrawal for each metering point shall be specified in whole kWh.

Section 5-7. *Balancing settlement*

The grid company shall carry out a financial settlement among the entities with balancing responsibility in a power grid when the settlement is based on the adjusted system load profile. This settlement shall rectify the deviation between the estimated percentage distribution of the adjusted system load profile and the actual withdrawal from the metering points (balancing settlement).

The grid company shall keep an account for each entity with balancing responsibility. The account shall be updated after each meter reading by the value assigned to the deviation between metered electricity volume for each metering point and each metering point's share of the settled electricity volume based on the adjusted system load profile. The deviation shall be assigned a value according to the area price on the electricity spot market weighted with the adjusted system load profile in the period between the readings.

At a minimum, the account shall be settled at each year-end.

The grid company shall make the entities with balancing responsibility aware of their payment obligations and credit balances, and, if requested, the basis for these within six weeks after year-end.

Section 5-8. *Electronic exchange of information*

Notification pursuant to the provisions of this chapter shall be transmitted via the Ediel message MSCONS.

Chapter 6. Invoicing of households

Section 6-1. *Invoicing households on the basis of actual consumption*

Grid companies are responsible for seeing that households are invoiced pursuant to the rules in these regulations.

Households with an expected annual electricity consumption greater than 8,000 kWh shall be invoiced in arrears at least once every three months on the basis of meter readings, cf. section 3-3, paragraph three. The invoicing periods shall be of approximately equal duration.

Invoicing may be based on stipulated consumption if it is unreasonably expensive or inconvenient for the grid company to take a meter reading. It shall be stated on the invoice that the consumption is stipulated.

Between the invoicings pursuant to paragraph two, a household may also request to be invoiced on an on-account basis.

Another invoicing method may be used if the household's financial capacity makes it necessary or the expected annual electricity consumption is less than 8,000 kWh.

Section 6-2. *Requirements for formulating invoices to households*

The invoice shall be well-arranged and easy to understand.

Pursuant to section 6-1, paragraph two, the invoice shall include a graphical comparison of the consumption for the year in each individual settlement period with the corresponding period from the previous year.

The invoice shall include Enova SF's toll-free phone number for advice on energy conservation and switching to other energy sources.

The invoice shall contain a clear overview of the information that must be provided in order to carry out a change of electricity provider, cf. section 2-4, paragraph three.

Section 6-3. *Joint invoicing of network leasing and electrical energy*

In joint invoicing of network services and electrical energy, electrical energy shall be invoiced pursuant to the provisions that apply for invoicing network services.

The seller of network services and the seller of electrical energy shall be specified on the invoice.

Chapter 7. Impartiality, information, fees and outsourcing of services

Section 7-1. *The grid company's impartiality and duty to disclose information*

The grid company shall behave impartially to electricity providers and end users on all occasions, including with regard to:

- a) information about providers and the electricity market,
- b) handling of changes of provider,
- c) establishing new subscriptions,
- d) transmission of metered data,
- e) choice of invoicing routines,
- f) mandatory settlement and invoicing requirements.

The grid company shall handle information in a way that does not give any individual provider a competitive advantage.

The grid company shall inform end users about relevant matters related to change of provider, metering and settlement.

If requested, the grid company shall state the adjusted system load profile for the last calendar year and the providers that are entities with balancing responsibility in the grid company's power grid.

If requested, the grid company shall make all information that is mandatory pursuant to this chapter available in a commonly used electronic format, if the information is stored electronically.

Section 7-2. *Historical consumption data*

The grid company shall make historical consumption data available to end users upon request.

The grid company may request coverage of the costs of making consumption data available to end users.

Section 7-3. *Fees*

Unless otherwise specified by an individual provision, the grid company shall not charge fees or demand any payment above the normal tariff for services described in these regulations.

Section 7-4. *Outsourcing of services*

The grid company may allow a third party to provide services described in these regulations.

Chapter 8. Other provisions

Section 8-1. *Orders*

The Norwegian Water Resources and Energy Directorate may issue such orders as are necessary for the implementation of these regulations and the terms and conditions set in licences issued by the Norwegian Water Resources and Energy Directorate pursuant to the Energy Act.

Section 8A-1. *Rationing*

If the Ministry has implemented rationing pursuant to section 5A-2 of the Energy Act, the rationing authority may waive provisions specified in these regulations, including giving the orders that ensure that electricity rationing is carried out in a way that efficiently promotes the interests of society, so that the energy is utilised in the best possible manner, taking into account public and private interests.

Section 8-1b. *Special meter-reading, invoicing and information measures*

In overextended energy situations, the Norwegian Water Resources and Energy Directorate may order grid companies and electricity providers to introduce special meter-reading, invoicing and information routines.

Grid companies and electricity providers shall be able to go over to special routines within a reasonable deadline after an order has been approved pursuant to paragraph one.

Section 8-2. *Dispensation*

In special cases, the Norwegian Water Resources and Energy Directorate may grant dispensations from these regulations and the terms and conditions set in licences issued by the Norwegian Water Resources and Energy Directorate pursuant to the Energy Act.

Section 8-3. *Appeals*

Decisions made by the Norwegian Water Resources and Energy Directorate may be appealed to the Ministry. The appeal shall be addressed to the Ministry and submitted to the Norwegian Water Resources and Energy Directorate for preliminary processing.

Section 8-4. *Entry into force*

These regulations will enter into force on 1 April 1999.

Sections 6-1, 6-2 and 3-2, paragraph three will enter into force on 5 July 1999.

Section 8-5. *Transitional provisions*

Up to 1 June 2002, the meter number may be given instead of the metering point ID, pursuant to section 2-4, paragraph three, litra a.

Up to 1 June 2002, the grid companies may utilise self-defined metering point IDs, pursuant to section 3-2.

Up to 1 January 2003, settlement data for a regulating power balance shall be given in MWh/h with one decimal point, pursuant to section 4-1, paragraph three, section 4-4, paragraph three, and section 4-6, paragraph two.

Up to 1 January 2004, the deadline for the return of the APERAK message will be five work days, pursuant to section 1-4, litra b.

Up to 1 January 2004, the duty to read a metering point every hour will only apply to metering points with an expected annual energy withdrawal or energy input greater than 400,000 kWh, cf. section 3-3, paragraph five.