

# Regulation H2: Profile settlement etc.

March 2016

Version 5.11

**Effective as of 1 April 2016**

*'The regulations are available in Danish and English. In the event of discrepancies between the Danish and English version, the Danish version of the regulation is legally binding.'*

		USS	PHQ	SHR	DATE
		Sep. 2015	Sep. 2015	Mar. 2016	NAME
REV.	DESCRIPTION	PREPARED	REVIEWED	APPROVED	
		<b>16/04092-11</b>			

## Revision view

Chapter no.	Text	Version	Date
	Revised as draft pseudo-regulation in connection with the introduction of flex-settlement and the wholesale model.	5.0	May 2013
	Revised as pseudo-regulation in connection with the introduction of flex-settlement and the wholesale model.	5.1	July 2013
	Revised as pseudo-regulation in connection with the BRS work.	5.2	September 2013
	Revised in connection with the preparation for consultation, including definitions.	5.3	November 2013
6.7	Settlement of tariff wholesale service after reconciliation	5.4	December 2013
	Revised in accordance with consultation memo of 25 February 2014. The changes are shown in the regulation with track changes.	5.5	February 2014
	Revised due to flex-settlement.	5.6	May 2014
	Revised as a result of consultation in 2014.	5.7	August 2014
	Sanction overviews added.	5.8	October 2014
	Revised as a result of flex-settlement.	5.9	May 2015
	Revised as a result of consultation in 2015.	5.10	September 2015
	Document number and date updated after approval of the methods by the Danish Energy Regulatory Authority. Calculation example in section 6.3 is adjusted due to error.	5.11	March 2016

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## Reading instructions

This regulation contains all general and specific requirements for handling profile settlement, including reconciliation.

The requirements for handling metered data for profile-settled metering points are specified in Regulation D1: 'Settlement metering'.

The regulation is structured in such a way that **chapter 1** contains terminology and definitions used in the subsequent chapters.

**Chapter 2** contains the regulatory provisions of the regulation.

**Chapters 3 to 7** contain requirements for grid companies and Balance suppliers, including the obligation to check load shares and use the correct basis for customer account settlement.

Furthermore, the regulation describes how to calculate residual consumption, prepare and carry out reconciliation and how to carry out the associated recalculation of the settlement basis between grid operator and Balance supplier.

**Chapter 8** contains overviews of the relevant obligations and sanctions for the market participants.

The regulation is published by Energinet.dk and is available from:

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Denmark  
Tel. +45 70 10 22 44

The regulation can be downloaded from [www.energinet.dk](http://www.energinet.dk) in the main menu 'Electricity' under 'Regulations', 'Market regulations'.

## **1. Terminology and definitions**

### **1.1 Market participant**

*General term for parties, with the exception of customers and third parties, operating in the electricity market, ie grid companies, Balance suppliers, balance responsible parties (BRPs), transmission companies and transmission system operators (TSOs).*

### **1.2 Share quotient**

*The proportional figure for a balance supplier or balance responsible party (BRP) divided by the sum of load shares.*

### **1.3 Load shares**

*The most recently read or estimated electricity consumption measured in kWh per year for a profile-settled customer or group of customers in a grid area. Load shares are added together for all profile-settled customers in the relevant grid area.*

### **1.4 Working days**

*Working days as defined in Regulation D1: 'Settlement metering', appendix 3: Definition of working days.*

### **1.5 DataHub**

*An IT platform owned and operated by Energinet.dk. The DataHub handles metered data, master data, required transactions and communication with all market participants in the Danish electricity market.*

### **1.6 Electronic data interchange (EDI)**

*Structured electronic transfer of data between companies.*

### **1.7 Electricity supply grid**

*General term for public grids and direct electricity supply grids as defined in the Danish Electricity Supply Act (Elforsyningsloven).*

### **1.8 Balance supplier**

*A company which:*

*1) Energinet.dk has included as Balance supplier in the DataHub*

*2) and*

- sells electricity to customers and holds balance responsibility for the metering point, or*
- buys electricity from producers and holds balance responsibility for the metering point.*

### **1.9 Fixation**

*At the fixation time, the fixation determines a preliminary settlement basis for balance and wholesale settlement based on time series sent to the DataHub. Moreover, the residual consumption and thus the distribution curve are determined.*

### **1.10 Flex-settlement**

*Flex-settlement is used for metering points with an annual consumption of less than 100,000 kWh, where the grid operator continuously remote-reads and distributes hourly values, and where these values are used for balance settlement.*

### **1.11 Move-in/move-out**

*Change of customer for a metering point, which takes place either in the form of a move-in or a move-out.*

### **1.12 Consumption**

*Synonymous with 'ordinary consumption' (actual metered consumption) and calculated as the consumption in the electricity market. This does not include own consumption for electricity and CHP production as well as own production at small RE facilities exempt from metering.*

### **1.13 Distribution curve**

*The distribution curve is calculated on an hourly basis per grid area as the fixed residual consumption divided by the sum of load shares for the month for the relevant grid area. The distribution curve is used for periodisation in connection with customer account settlement of profile-settled consumers.*

### **1.14 Distributed consumption**

*Distributed consumption is calculated as residual consumption \* load shares/sum of load shares (provisionally calculated consumption) per market participant for profile-settled metering points. Used in connection with refixation of balance and wholesale settlement.*

### **1.15 GLN no.**

*Global Location Number. Unique 13-digit identification number for a grid operator, Balance supplier or balance responsible party (BRP).*

### **1.16 Customer**

*The person(s) or entity(ies) that use a metering point and therefore are entitled to conclude legally binding agreements for this metering point, ie entitled to change supplier, report a move-out for the metering point etc. A customer can either be a legal or natural person.*

### **1.17 Change of supplier**

*Change of Balance supplier for a metering point.*

### **1.18 Metering point**

*A physical or defined (virtual) point in the electricity supply grid where electrical energy is metered, calculated as a function of several readings or estimated. A metering point is the smallest unit in the electricity market when calculating electrical energy for customers and market participants. A metering point is identified by a metering point ID.*

### **1.19 Grid area**

*A specific delimited area for which a licence has been granted to conduct grid activities under the Danish Electricity Supply Act and which is delimited against the adjacent electricity supply grids with 15/60 meters that are included in the DataHub's computations in the electricity market.*

### **1.20 Grid loss**

*The amount of energy consumed in the electricity supply grid. Measured as the difference between the amount of energy supplied to the electricity supply grid and the amount of energy supplied from the electricity supply grid.*

### **1.21 Grid operator**

*Company licensed to operate distribution grids.*

### **1.22 Mandatory limit**

*Limit for when a grid operator performs mandatory hourly settlement of metering points as stated in the explanatory notes for Section 72 (Danish Act no. 494 of 9 June 2004) concerning adjustment of the Default supply price and as described in further detail in this Regulation H2: 'Profile settlement etc.'*

### **1.23 Periodisation**

*Temporal distribution of read consumption by means of the distribution curve.*

### **1.24 Production**

*Synonymous with 'electricity production' or 'net production' and defined as gross production from the generator less own consumption for electricity and CHP production.*

### **1.25 Refixation**

*The recalculation and filing of the aggregated settlement basis in the form of a filed copy of the aggregations of the applicable time series sent to the DataHub at the time of refixation, which is described in further detail in Regulation D1: 'Settlement metering', chapter 4.*

### **1.26 Residual consumption**

*Total consumption in a grid area calculated on an hourly basis less the consumption of flex and hourly settled customers in the grid area.*

### **1.27 Continuous reading**

*The grid operator's reading of profile-settled consumption metering points takes place continuously, ie at regular intervals over the year, and is divided into reading groups, each of which is read, for example, once a year.*

### **1.28 Concurrent reading**

*The grid operator reads all profile-settled metering points simultaneously, eg once a year.*

### **1.29 Profile settlement**

*Covers settlement of all consumption in a grid area which is not subject to flex or hourly settlement. The consumption is distributed on the basis of a profile for the grid area as described in this Regulation H2: 'Profile settlement etc.' and involves, for example, metering points read annually by the customer and metering points where hourly values are remote-read without being used for balance settlement.*

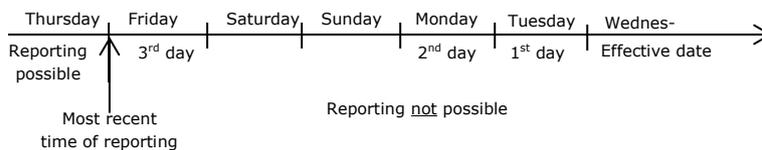
### **1.30 Effective date**

*Date and time for the day on which a change, eg a change of supplier, move-in/move-out or change of a price element, is to come into force. The time is always at the beginning of the day, at 00.00, on the relevant date as described in Regulation F1: 'EDI communication with the DataHub in the electricity market'.*

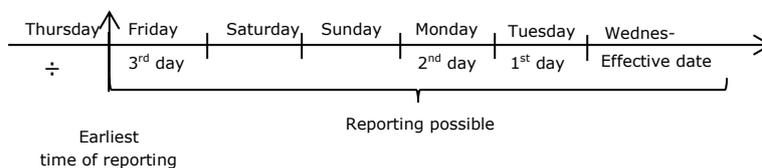
### 1.31 Time limits

Time limits define the latest or earliest time for receipt of, for example, messages in the DataHub as described in Regulation F1: 'EDI communication with the DataHub in the electricity market'. Time limits are always full days unless otherwise specified. The time limit is calculated from mid-night on the effective date.

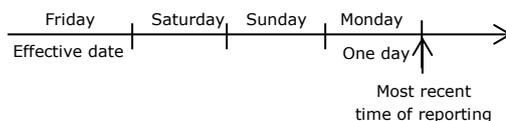
Up to/no later than three working days before the effective date:



No earlier than three working days before the effective date:



No later than one working day after the effective date:



### 1.32 Hourly settlement

Hourly settlement is used for metering points with an annual consumption exceeding 100,000 kWh, where the grid operator continuously remote-reads and distributes hourly values, and where these values are used for balance settlement.

### 1.33 15/60 metering

Metered data remote-read on a 15- or 60-minute basis used in connection with balance settlement. In Western Denmark, production/exchange is metered on a 15-minute basis, whereas consumption is metered on a 60-minute basis. In Eastern Denmark, metering is performed on a 60-minute basis only, except for the electricity production of new offshore wind farms (starting with Rødsand 2).

### 1.34 15/60 value

A metered value obtained from 15/60 metering.

## 2. Objective, scope and regulatory provisions

### 2.1 Objective and scope of the regulation

Under Section 7(1) and Section 8(1) of the Executive Order on transmission system operation and the use of the electricity transmission grid etc.<sup>1</sup> (Executive Order on transmission system operation (*Systemansvarsbekendtgørelsen*)), this regulation has been prepared following discussions with grid and transmission companies and Balance suppliers. It has also been subject to public consultation before being registered with the Danish Energy Regulatory Authority.

This regulation lays down detailed requirements for the relevant market participants in the Danish electricity market as regards handling of profile settlement.

The regulation is primarily aimed at grid companies and sets out the rules for handling the mandatory limit for hourly settlement etc. In addition, the regulation describes the rules aimed at Balance suppliers concerning reconciliation and the derived effects on customer account settlement.

This regulation is effective within the framework of the Danish Electricity Supply Act<sup>2</sup>.

### 2.2 Statutory authority

The regulation is issued under the authority of Section 28(2), items 7, 12 and 13, and Section 31(2) of the Danish Electricity Supply Act and Section 7(1), items 3 and 4, and Section 8(1), items 1-3, of the Executive Order on transmission system operation.

### 2.3 Sanctions

The regulation sets out a number of obligations which the market participants comprised by the regulation must meet; see chapter 2.1 above.

If a market participant grossly or repeatedly violates its obligations, Energinet.dk may issue injunctions in accordance with Section 31(3) of the Danish Electricity Supply Act. In the event of failure to comply with an injunction, Energinet.dk may decide to fully or partially exclude the market participant from using Energinet.dk's services until the market participant complies with the injunction. If Energinet.dk becomes aware that obligations in relation to the grid operator's licensed activities have been violated, Energinet.dk will inform the Danish Minister for Energy, Utilities and Climate thereof.

If the market participant's obligations concern information about electricity metering as stated in Section 22(3) of the Danish Electricity Supply Act and these obligations are not met, this may result in an injunction being issued as stated in Section 85 c(1) of the Danish Electricity Supply Act and possibly in daily or weekly default fines being imposed by the Danish Energy Regulatory Authority under Section 86(1) of the Danish Electricity Supply Act.

Chapter 8 contains a detailed description of the procedure for sanctions as well as overviews of the relevant obligations and sanctions for the market participants.

The overviews specify only the sanctions that follow from the Danish Electricity Supply Act in the event of non-fulfilment of a market participant's obligations. If non-fulfilment of the market partici-

<sup>1</sup> Executive Order no. 891 of 17 August 2011 on transmission system operation and the use of the electricity transmission grid etc.

<sup>2</sup> Consolidated Act no. 1329 of 25 November 2013 on the Danish Electricity Supply Act as amended

part's obligations also entails violation of other legislation, this may result in other sanctions permitted under such rules.

## 2.4 Complaints

Under Section 7(3) and Section 8(3) of the Executive Order on transmission system operation, complaints about the regulation can be lodged with the Danish Energy Regulatory Authority, Carl Jacobsens Vej 35, 2500 Valby, Denmark.

Complaints about how Energinet.dk has enforced the provisions of the regulation can also be lodged with the Danish Energy Regulatory Authority.

If decisions made by Energinet.dk result in the deregistration of a market participant as a user of the DataHub, the market participant which the decision concerns can also demand that such decision be brought before the courts; see Section 31(5) of the Danish Electricity Supply Act.

## 2.5 Effective date

This regulation comes into force on 1 April 2016 and replaces Regulation H2: 'Profile settlement etc.', March 2013.

Questions and requests for additional information can be directed to Energinet.dk's contact for this regulation as stated on Energinet.dk's website [www.energinet.dk](http://www.energinet.dk).

The regulation is registered with the Danish Energy Regulatory Authority pursuant to Section 73 a of the Danish Electricity Supply Act, Section 1 of the Executive Order on grid companies', regional transmission companies' and Energinet.dk's methods for determining tariffs etc.<sup>3</sup> (*Bekendtgørelse om netvirksomheders, regionale transmissionsvirksomheders og Energinet.dk's metoder for fastsættelse af tariffer m.v.*) and Section 7(2) and Section 8(2) of the Executive Order on transmission system operation.

<sup>3</sup> Executive Order no. 1085 of 20 September 2010 on grid companies', regional transmission companies' and Energinet.dk's methods for determining tariffs etc.

### 3. Mandatory limit for hourly settlement

#### 3.1 General

The mandatory limit for hourly settlement is an annual consumption of 100,000 kWh per metering point<sup>4</sup> determined as the most recently metered electricity consumption in a period of 12 consecutive months. To determine the annual consumption of new installations, grid companies estimate the annual consumption.

All metering points with an annual consumption lower than the mandatory limit must be flex-settled if a remote-read electricity meter has been installed at the metering point that can measure consumption on an hourly basis.<sup>5</sup>

In special cases, grid companies may make exceptions from the mandatory limit with the effect that annual consumption exceeding the mandatory limit that applies to the grid area becomes subject to flex-settlement anyway. Flex-settlement may, for example, be used for street lighting without a meter, where consumption is estimated based on information about power and actual delivery hours.

<sup>4</sup> Verdo Hillerød El-net A/S, VOS-Net A/S, Struer Forsyning Elnet A/S and Ringkøbing Skjern Forsyning A/S have a mandatory limit of 50,000 kWh.

<sup>5</sup> The transition from the current profile for flex-settlement can be initiated as per 1 July 2016 and phased in according to the plans from the individual grid companies and the market rules described in Regulation H1, chapter 8.

## 4. Residual consumption and distribution curve

The residual consumption of a grid area is calculated on an hourly basis as total consumption in the grid area (net supply from the surrounding grid areas plus local production) less total consumption for flex and hourly settled metering points in the grid area. This is calculated in kWh with three decimal places as other hourly metered consumption.

Residual consumption thus comprises total consumption at the profile-settled metering points plus grid loss, 'Settlement metering', chapter 7.4. It is up to the individual grid operator to decide whether the grid loss in the 30-60 kV grid should be included as hourly settled consumption or included in residual consumption.

The grid loss included in residual consumption is calculated by:

1. Fixation or refixation as the share quotient for grid loss multiplied by the fixed or refixed residual consumption.
2. Reconciliation as the refixed residual consumption minus the periodised consumption at the 'ordinary' profile-settled metering points.

One residual consumption per grid area is used, regardless of how many grid areas the grid operator covers.

Residual consumption is used for settlement in several contexts:

1. The BRP's share of the residual consumption ('distributed consumption') is used in connection with balance settlement as a preliminary calculation of the consumption for the profile-settled metering points as mentioned in chapter 5.
2. The residual consumption is used as a preliminary calculation of the consumption for the profile-settled metering points in connection with wholesale settlement until reconciliation is carried out approximately 15 months after the month of operation.

Energinet.dk computes the fixed and refixed residual consumption in the DataHub. The fixed residual consumption for each grid operator is published on Energinet.dk's website.

The distribution curve for a grid area is calculated on an hourly basis as the fixed residual consumption divided by the sum of load shares for the month for the grid area; see chapter 5. The distribution curve is used for the periodisation of the read consumption data in connection with reconciliation and customer account settlement as mentioned in chapters 6 and 7.

A market participant may at any time transmit residual consumption and distribution curve via the DataHub.

## 5. Load shares and distributed consumption

### 5.1 General

In connection with balance and wholesale settlement, Energinet.dk estimates the consumption per market participant for profile-settled metering points, also referred to as 'distributed consumption'. The 'distributed consumption' for each Balance supplier is included in the reconciliation as described in chapter 6. It is calculated on the basis of residual consumption and load shares as described below.

### 5.2 Load shares and estimated annual consumption

#### 5.2.1 Principles

The estimated annual consumption is an estimate fixed by the grid operator according to the following principles:

1. Basically, the estimated annual consumption is equal to the latest measured 12-month consumption for the metering point in question and stated as kWh/year. Correspondingly, for grid loss, it is equal to the grid loss for the past 12 months' reconciliation.
2. If the actual reading period deviates from 365/366 days, the estimated consumption will be corrected to a full-year figure.
3. For new installations, the estimated annual consumption is fixed by the grid operator, possibly based on a notification from the Balance supplier.
4. If a balance supplier on behalf of a customer requests the grid operator to change the estimated annual consumption, the grid operator may update the estimated annual consumption in the DataHub.

According to item 4, the Balance supplier is obliged to inform the grid operator of any changes in estimated annual consumption without undue delay.

On the basis of the load shares for each metering point, Energinet.dk computes the following via the DataHub:

1. Proportional figure per Balance supplier = the sum of load shares for the profile-settled metering points to which the supplier in question supplies electricity.
  - 1.1 Together with the above, the sum of load shares per tariff is also calculated for the profile-settled metering points supplied by the Balance supplier.
2. Proportional figure per BRP = the sum of load shares for the profile-settled metering points for which the BRP in question holds balance responsibility.
3. Sum of load shares per grid area = the sum of load shares for the profile-settled metering points in the grid area.

The sum of load shares for all Balance suppliers will always be equal to the sum of load shares for all BRPs.

All sum totals above are calculated per grid area.

The ratio between load shares per Balance supplier/BRP and the sum of load shares is called the 'share quotient' for the Balance supplier/BRP in question.

The following additional rules apply to load shares:

1. Load shares are updated by Energinet.dk before the first day of each month as specified in chapter 5.2.2.
2. With one exception only, load shares for a month are not changed before the end of a month; see below.
3. Only load shares and the sum of load shares will be communicated, not share quotients.

The exception mentioned in item 2 concerns a situation where a balance supplier goes bankrupt. In such a situation, load shares are redistributed to the new Balance suppliers relative to the calculated percentage per Balance supplier. The same applies to load shares for the affected BRPs. Consequently, only a redistribution of already calculated load shares for the month in question takes place.

### 5.2.2 Practical procedure

Energinet.dk calculates load shares for each Balance supplier and for each BRP for the subsequent month by copying the estimated annual consumption specified by the grid operator for each metering point in the master data for each metering point.

Energinet.dk checks the calculated load shares in respect of:

1. Whether the development in the sums of load shares per Balance supplier and BRP is plausible.
2. Whether the sum of load shares per grid operator roughly corresponds to the residual consumption.
3. Whether load shares exist for consumption metering points (including grid loss) above the mandatory limit for hourly settlement, which are not expected.
4. Whether load shares exist for exchange or Production metering points.

Regardless of these checks, the grid operator is solely responsible for the correctness/consistency of the basic data (eg estimated annual consumption) as per Regulation I, 'Master data', whereas Energinet.dk is responsible for making correct calculations based on the data available.

On account of item 3, the grid operator must indicate in the master data whether consumption above the mandatory limit is permitted for a metering point. This may be grid loss and ordinary metering points, which, in connection with the latest statement, had a consumption of > 95% of the limit value.

If Energinet.dk finds anything deviating from expectations in items 1-4 above, the relevant grid operator will be notified thereof. The grid operator must then correct any errors in the basic data within five working days.

The process for the implementation of any corrections takes place according to the following schedule:

1. Energinet.dk computes via the DataHub load shares per metering point for the following month no later than 13 working days before the end of a month. If Energinet.dk discovers any unexpected deviations, the relevant grid operator will be notified thereof on the same day.
2. If a grid operator updates load shares due to errors discovered after the check in item 1 and informs Energinet.dk thereof no later than eight working days before the end of a month, a recalculation of the load shares is activated for the grid area concerned.
3. Via the DataHub, Energinet.dk sends load shares and the sum of load shares to Balance suppliers and BRPs no later than seven working days before the end of a month.
4. Balance suppliers and BRPs may report errors in the submitted load shares up until four working days before the end of a month.

5. Via the DataHub, Energinet.dk resends load shares to Balance suppliers and BRPs no later than two working days before the end of a month.
6. After this period, the load shares for the coming month are final.

If serious errors are identified under item 5, Energinet.dk may, under item 6, choose to reuse the load shares for the current month as a makeshift solution. In that case, all market participants involved will be notified of the reason for this.

### 5.3 Distributed consumption

Energinet.dk calculates the fixed and refixed distributed consumption per BRP on the basis of load shares and the fixed or refixed residual consumption.

The hourly distributed consumption for BRP X in grid area Y in the month in question is calculated by simple pro rata as:

$$\frac{\text{load shares for BRP X}}{\text{total load shares in grid area Y}} * \text{residual consumption in grid area Y}$$

– or in other words, as share quotient \* residual consumption.

The distributed consumption per Balance supplier is calculated in the same way.

Furthermore, the distributed consumption per tariff type per Balance supplier is calculated as:

$$\frac{\text{load shares for tariff A for balance supplier X}}{\text{total load shares in grid area Y}} * \text{residual consumption in grid area Y}$$

## 6. Reconciliation

### 6.1 General

The purpose of reconciliation is to correct the difference between refixed distributed consumption applied for the balance settlement and the actual, read consumption that is not available until later. It is thus used for Energinet.dk's settlement with the Balance suppliers in the form of a redistribution between the Balance suppliers.

Reconciliation is conducted on a monthly basis by Energinet.dk.

The basis for the reconciliation is an hourly-based calculation model, for which reason the read consumption is periodised on the basis of the distribution curve in order to be included in the calculation.

In connection with the computation of periodised consumption, the following is taken into account:

- Change of supplier, including as a result of a move-in/move-out.
- Correction of incorrect changes of supplier.
- Establishment and cancellation of metering points.
- Switch from profile settlement to flex or hourly settlement.

### 6.2 Procedure

Reconciliation is conducted according to the following principles:

1. The periodised consumption for the profile-settled metering points is computed per metering point per hour and added for each Balance supplier.
2. Periodisation is made between all readings used for settlement. If, for instance, the ordinary annual reading is made in December and another reading is made in May because of a change of supplier, separate periodisation in the two periods December to May and May to December is required.
3. Periodisation is made using the distribution curve for the relevant grid area.
4. The periodised grid loss per hour is computed as the refixed residual consumption minus the sum of the periodised consumption for all other profile-settled metering points.
5. The periodised consumption per Balance supplier is subtracted from the Balance supplier's refixed distributed consumption.
6. The difference is settled using the Elspot price in the price area in question.
7. Based on the periodised consumption per metering point, the tariff wholesale service is also settled per Balance supplier.

Item 4 implies that reconciliation is a redistribution of the refixed residual consumption between Balance suppliers, including the Balance supplier of grid loss.

Energinet.dk checks the reconciliation before invoicing, for example:

- That it is a zero-sum game within each grid area.
- That the grid loss is relatively stable.
- That relatively few kWh are transferred between Balance suppliers.

If Energinet.dk discovers matters during its checks which deviate more than expected, Energinet.dk will contact the grid operator. The checks mentioned do not change the fact that it is the grid operator that is responsible for the basic metering data in the reconciliation as described in Regulation D1: 'Settlement metering', chapter 5.1.1 and chapter 8.2.1.

If necessary, the reconciliation will be recalculated.

### 6.3 Calculation example

The procedure is illustrated in the following calculation example. Three hours within the same 24-hour period are examined where the distribution of the consumption is based on the share quotients per supplier in the relevant month. In addition, it is assumed that:

- There are three Balance suppliers, BS1-BS3, with BS3 also supplying a grid loss.
- A metering error has been detected between fixation and refixation, which on refixation results in a correction of residual consumption in hours 1-3 on the day in question. A change of supplier has been implemented from BS2 to BS1 through periodisation, which has moved part of the consumption from BS2 to BS1 in hour 00-01.
- The various types of consumption are specified in the order they are calculated.

Hour	22-23	23-24	00-01	
<b>Share quotient</b>				
BS1	15%	15%	15%	
BS2	60%	60%	60%	
BS3	25%	25%	25%	
<b>Fixed residual consumption</b>				
<b>Total</b>	40	50	40	
<b>Total load shares</b>				
<b>Total</b>	10000	10000	10000	
<b>Distribution curve</b>				
<b>Total</b>	0,004	0,005	0,004	The distribution curve is calculated as fixed residual consumption divided with the total load shares for the grid area
<b>Refixed residual consumption (RRC)</b>				
BS1	5,85	7,2	5,85	The distribution of consumption is based on the share quotients per supplier in the relevant month. The sum of the residual consumption is corrected due to meter errors in the specific hours.
BS2	23,4	28,8	23,4	
BS3	9,75	12	9,75	
<b>Total</b>	39	48	39	
<b>Periodised consumption (PC)</b>				
BS1	7,8	9,8	10,0	BS1, BS2 and BS3 is the read consumption per. balance supplier and periodised using the distribution curve. Redistribution from BS2 til BS1 in hour 00-01 due to a change of supplier.
BS2	20,1	25,1	17,9	
BS3	10,0	12,5	10,0	
<b>Total</b>	37,9	47,4	37,9	
<b>Grid loss</b>				
BS3	1,1	0,6	1,1	Grid loss= $\Sigma$ RRC- $\Sigma$ PC
<b>Difference</b>				
BS1	2,0	2,6	4,2	Diff=PC+Grid loss-RRC Positive values is a result of a higher consumption per balance supplier than anticipated in the refixed residual consumption. Grid loss has been taken into account in the difference for BS3.
BS2	-3,3	-3,7	-5,5	
BS3	1,3	1,1	1,4	
<b>Total</b>	0,0	0,0	0,0	The total always equals 0
<b>Wholesale spot price</b>				
DKK/MWh	290	330	300	Nordpool spot price in the specific hour
<b>Reconciliation</b>				
BS1	565,5	858	1245	
BS2	-957	-1221	-1650	
BS3	391,5	363	405	
<b>Total</b>	0	0	0	The total always equals 0
Values are given in MWh				

#### **6.4 Time limits for reconciliation**

The time limits for performing reconciliation depends on whether the grid operator's profile-settled customers are remote-read on a concurrent or a continuous basis. The following time limits apply in these two cases:

##### *Continuous reading*

The reconciliation for any given month must be completed within 15 months after the end of the month in question. For instance, the reconciliation for January 2012 must therefore be completed by 30 April 2013, ie within 15 months after the end of January 2012.

##### *Concurrent reading*

For all months in a given reading period, the reconciliation must be completed within six months after the expiry of the reading period in question. If the reading period coincides with the calendar year, reconciliation must be made by 30 June the following year. If the reading period is instead the first quarter, for example, reconciliation must be made by 30 September the same year.

#### **6.5 Documentation**

Once reconciliation is complete, Energinet.dk sends invoices to all Balance suppliers involved. Invoices specify the following on a monthly basis:

- Energinet.dk's CVR no.
- Name + grid area ID of the grid operator.
- Reconciliation period (month and year).
- Sum of load shares per Balance supplier and grid area.
- Refixed residual consumption and corresponding distributed consumption.
- Periodised consumption.
- Difference between the periodised consumption and the refixed distributed consumption.
- Weighed average of the settlement price per day weighed against the above difference.

A monthly invoice is also prepared for concurrent reading and reconciliation for a whole year.

The Balance supplier may have access to the relevant data basis in the DataHub, for instance periodised consumption per metering point.

If a supplier suddenly stops supplying electricity as a consequence of bankruptcy etc., Energinet.dk may perform an extraordinary and final reconciliation for the relevant Balance supplier. The reconciliation is in such case performed when meter reading data are available for all the supplier's metering points in each grid area.

#### **6.6 Settlement of tariff wholesale service after reconciliation**

The periodised consumption for the profile-settled metering points which is calculated in connection with the reconciliation, including the calculated grid loss, is used to calculate the tariff wholesale service per Balance supplier after the reconciliation; see Regulation H3: 'Settlement of wholesale services and taxes', chapter 5.

## **7. Periodisation in connection with customer account settlement of profile-settled customers**

If the Balance supplier uses periodisation of read consumption in the customer account settlement, for instance due to new tariffs, it should always be done using the distribution curve. Thus, as a general rule, the exact same values are applied for reconciliation and customer account settlement, except for the customer's non-performance.

In the event of the customer's non-performance, it may become necessary to make a final settlement of the customer account above the normal settlement period and before the distribution curve for the last few days is available. In such cases, periodisation must be made using the distribution curve for the same working days the week before.

In exceptional cases, this will constitute a minor deviation between the customer account settlement and the subsequent reconciliation for the relevant customer and Balance supplier.

## 8. Overview of obligations and sanctions

The regulation sets out a number of obligations which the market participants comprised by this regulation must meet; see chapter 2.1.

Two tables have been inserted below, which specify the provisions that are subject to sanctions and to which market participant the rule applies.

### **Overview 1: Sanctions relating to market participant obligations which follow from Section 31(2) or Section 22(3) of the Danish Electricity Supply Act**

*Sanctions relating to obligations which follow from Section 31(2) of the Danish Electricity Supply Act – applicable to market participants with the exception of grid companies*

If market participants grossly or repeatedly violate their obligations that follow from Section 31(2) of the Danish Electricity Supply Act, Energinet.dk may issue injunctions in accordance with Section 31(3) of the Danish Electricity Supply Act. In the event of failure to comply with an injunction, Energinet.dk may decide to fully or partially exclude market participants from using Energinet.dk's services until the market participants comply with the injunction. The sanctions imposed by Energinet.dk as a result of the market participants' violation of their obligations under the regulation are thus based on Energinet.dk's statutory obligation to ensure the functioning of the market, including the use of Energinet.dk's services.

The assessment of whether a company grossly or repeatedly violates its obligations must in practice be based on a procedural approach:

- If the TSO discovers that obligations have been violated, the TSO sends a message to the relevant company concerning the non-fulfilment of the obligation(s). The company will also be requested to rectify the situation within a time limit of eight working days.
- If the time limit of eight working days is not met, a new reminder is sent by registered mail addressed to the company's CEO containing an ultimate time limit of eight working days for remedying the violation(s). The reminder will also state that failure to meet the time limit will lead to a gross violation of the company's obligations and to the company being excluded from using Energinet.dk's services.

Decisions made under Section 31(3) of the Danish Electricity Supply Act will thus be based on the above reminder procedures and an objective observation of non-compliance with the time limits set.

*Sanctions relating to obligations which follow from Section 31(2) of the Danish Electricity Supply Act – applicable to grid companies*

If obligations which follow from Section 31(2) of the Danish Electricity Supply Act are violated and if these obligations concern the company's licensed activities, Energinet.dk must inform the Danish Minister for Energy, Utilities and Climate thereof in accordance with Section 31(3), second and third sentence, of the Danish Electricity Supply Act.

*Sanctions relating to obligations which follow from Section 22(3) of the Danish Electricity Supply Act – applicable to grid companies*

If obligations under Section 22(3) of the Danish Electricity Supply Act concerning electricity metering are violated, this may result in an injunction being issued as stated in Section 85 c(1) of the Danish Electricity Supply Act and possibly in daily or weekly default fines being imposed by the Danish Energy Regulatory Authority in accordance with Section 86(1) of the Danish Electricity Sup-

ply Act. If Energinet.dk becomes aware/is made aware that obligations under Section 22(3) of the Danish Electricity Supply Act have been violated, the violation will be dealt with according to the following formal procedure:

- If the TSO discovers that obligations have been violated, the TSO sends a message to the relevant company concerning the non-fulfilment of the obligation(s). Moreover, the violation will be reported to the Danish Energy Regulatory Authority for further investigation.

## **OVERVIEW 2: Sanctions relating to other market participant obligations with respect to use of the regulations**

If Energinet.dk becomes aware/is made aware of other violations of market participant obligations with respect to the use of the regulations, such violations will be reported to the Danish Energy Regulatory Authority or the Danish Energy Agency, depending on where the competence lies. In these cases, the violations do not impact Energinet.dk's duty to ensure the functioning of the market, including the use of Energinet.dk's services. It follows that Energinet.dk is not entitled to sanction the violations, and Energinet.dk will therefore register and report the violations to the Danish Energy Agency/Danish Energy Regulatory Authority. It will thus be up to the Danish Energy Agency/Danish Energy Regulatory Authority to determine if and what further action is required.

Grid operator is abbreviated GC, balance responsible party BRP and Balance supplier ES.

**OVERVIEW 1: Sanctions relating to market participant obligations which follow from Section 31(2) or Section 22(3) of the Danish Electricity Supply Act**

Chapter	Sanctioned rules	At whom is the rule aimed?	Sanctioning provision
5.2.1	According to item 4, the Balance supplier is obliged to inform the grid operator of any changes in estimated annual consumption without undue delay.	ES	Section 31(3), see Section 31(2), of the Danish Electricity Supply Act
5.2.2	If Energinet.dk finds anything deviating from expectations in items 1-4, the relevant grid operator will be notified thereof. The grid operator must then correct any errors in the basic data within five working days; see the following schedule for the overall process.	GC	Section 86(1) and Section 85 c(1), see Section 22(3), of the Danish Electricity Supply Act

## OVERVIEW 2: Sanctions relating to other market participant obligations with respect to use of the regulation

Chapter	Sanctioned rules	At whom is the rule aimed?
3.1	<p>All metering points with an annual consumption lower than the mandatory limit must be flex-settled if a remote-read electricity meter has been installed at the metering point that can measure consumption on an hourly basis.<sup>6</sup></p> <p>In special cases, grid companies may make exceptions from the mandatory limit with the effect that annual consumption exceeding the mandatory limit that applies to the grid area becomes subject to flex-settlement anyway. Flex-settlement may, for example, be used for street lighting without a meter, where consumption is estimated based on information about power and actual delivery hours.</p>	GC
5.2.1	<p>The estimated annual consumption is an estimate fixed by the grid operator according to the following principles:</p> <ol style="list-style-type: none"> <li>1. Basically, the estimated annual consumption is equal to the latest measured 12-month consumption for the metering point in question and stated as kWh/year. Correspondingly, for grid loss, it is equal to the grid loss for the past 12 months' reconciliation.</li> <li>2. If the actual reading period deviates from 365/366 days, the estimated consumption will be corrected to a full-year figure.</li> <li>3. For new installations, the estimated annual consumption is fixed by the grid operator, possibly based on a notification from the Balance supplier.</li> <li>4. If a balance supplier on behalf of a customer requests the grid operator to change the estimated annual consumption, the grid operator may update the estimated annual consumption in the DataHub.</li> </ol>	GC
7	<p>If the Balance supplier uses periodisation of read consumption in the customer account settlement, for instance due to new tariffs, it should always be done using the distribution curve. Thus, as a general rule, the exact same values are applied for reconciliation and customer account settlement, except for the customer's non-performance.</p>	ES GC

<sup>6</sup> The transition from the current profile for flex-settlement can be initiated as per 1 July 2016 and phased in according to the plans from the individual grid companies and the market rules described in Regulation H1, chapter 8.

