

**The Energy Regulatory Office's Price Decision No. 9/2008  
of 21 November 2008  
Laying down the prices of electricity and related services**

Under Section 2c of Act No. 265/1991 on the Competencies of the Czech Republic's Authorities in the Area of Prices, as amended, and under Section 17, Subsection 6(e) and Section 21, subsection 1 of Act No. 458/2000 on the Conditions for Business and State Administration in the Energy Industries and on Amendments to Certain Laws (hereinafter "the Energy Act"), as amended, the Energy Regulatory Office ['ERO'] hereby issues its Price Decision on the prices of electricity and related services.

**General Provisions:**

The prices specified in points (1) to (11) do not include tax on electricity a separate legal regulation <sup>1)</sup> and value added tax under a separate legal regulation <sup>2)</sup>.

The prices specified in points (1) to (11), applicable to final customers, shall also apply to electricity suppliers in the case that a supplier and final customer execute an agreement under Section 50, subsection 2 of the Energy Act.

**(1) Fixed prices and specified conditions for decentralised [distributed] generation:**

(1.1.) An electricity generator whose equipment is connected to the extra high voltage (VVN) level of the distribution system shall bill, under a contract, the distribution system operator serving the respective area **CZK 20/MWh** for each MWh of electricity actually supplied to the distribution system as metered at the electricity generator's delivery point.

(1.2.) An electricity generator whose equipment is connected to the high voltage (VN) level of the distribution system shall bill, under a contract, the distribution system operator serving the respective area **CZK 27/MWh** for each MWh of electricity actually supplied to the distribution system as metered at the electricity generator's delivery point.

(1.3.) An electricity generator whose equipment is connected to the low voltage (NN) level of the distribution system shall bill, under a contract, the distribution system operator serving the respective area **CZK 64/MWh** for each MWh of electricity actually supplied to the distribution system as metered at the electricity generator's delivery point.

(1.4.) In the event of electricity overflow from a local distribution system into a regional or another local distribution system the local distribution system operator shall bill, under a contract, the regional distribution system operator or the operator of the other local distribution system for each MWh of electricity actually supplied to the distribution system, as metered at the delivery point between the two distribution systems at the respective voltage level, a price for distributed generation under points (1.1) to (1.3).

**(2) The following fixed prices and specified conditions shall apply to the provision of system services by the transmission system operator:**

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<sup>1)</sup> Act No. 261/2007 on the Stabilisation of Public Budgets

<sup>2)</sup> Act No. 235/2004 on Value Added Tax

(2.1.) Fixed prices for the system services provided by the transmission system operator to the electricity market participants whose equipment is connected to the Czech electricity grid:

- a) For system services related to each MWh of the total quantity of electricity expressed in MWh under a separate legal regulation<sup>3)</sup> and transported by the distribution system operator to final customers whose equipment is connected to its distribution system, and for 'other consumption' by the distribution system operator under a separate legal regulation<sup>4)</sup>, with the exception of electricity bought outside the Czech electricity grid and consumed in island operation conclusively separated from the Czech electricity grid,

**CZK 141.01/MWh;**

The distribution system operator shall bill this price to the final customers, with the exception of the electricity generator's local consumption.

- b) For system services related to each MWh of the total quantity of electricity expressed in MWh and transported by the distribution system operator to final customers taking electricity from an originally separated island operation in the event of its full or partial connection to the Czech electricity grid, over and beyond the profile approved in the daily operations scheduling,

**CZK 705.05/MWh;**

The transmission system operator shall bill this price to the distribution system operator, however, for no more than 24 hours from the moment of the full or partial connection to the Czech electricity grid; after this period the price under (2.1)(a) shall be billed.

- c) For system services related to each MWh of the total quantity of the local consumption of 1st category generators and local consumption of 2nd category generators, generated in a facility with an installed capacity of over 100 kW,

**CZK 53.22/MWh;**

The transmission system operator, or the distribution system operator, shall bill this price to the electricity generator whose equipment is connected to the transmission / distribution system; the quantity consumed does not include the electricity consumed by the generator for pumping at pumped storage hydroelectric power stations.

- d) For system services related to each MWh of the total quantity of electricity expressed in MWh and taken by final customers from the transmission system,

**CZK 141.01/MWh;**

The transmission system operator shall bill this price to final customers taking electricity from the transmission system.

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<sup>3)</sup> Public notice no. 541/2005 laying down the rules for electricity market organisation and the principles of pricing the electricity market operator's activities, and on the execution of certain other provisions of the Energy Act, as amended

<sup>4)</sup> Public notice no. 404/2005 on the essentials and structure of regulatory reports, including model forms, and the rules for compiling regulatory reports

- e) For system services related to each MWh of the total quantity of electricity expressed in MWh and taken by a generator from the transmission / distribution system, with the exception of the electricity consumed by the electricity generator directly for electricity generation or for heat & power generation, with the exception of the electricity consumed for pumping at pumped storage hydroelectric power stations, and with the exception of local consumption which is subject to charge under c) above,

**CZK 141.01/MWh;**

The transmission system operator, or the distribution system operator, shall bill this price to the generator whose equipment is connected to the transmission / distribution system.

**(3) The following fixed prices and specified conditions shall apply to the provision of transmission by the transmission system operator to distribution system operators, final customers, and generators, whose equipment is connected to the transmission system:**

(3.1.) Price for booking the capacity of the transmission system operator's transmission facilities:

DSO	Price for booking the capacity of the transmission system operator's transmission facilities, in CZK '000/month
E.ON Distribuce, a.s.	93,662
PREdistribuce, a.s.	27,017
ČEZ Distribuce, a. s.	189,298
ACTHERM, spol. s r.o.	103

(3.2.) The price for using the transmission system networks, for each MWh supplied over the transmission system operator's facilities to distribution system operators, final customers, and electricity generators, whose equipment is connected to the transmission system, including the demand taken by pumped storage hydroelectric stations in the pumping operating mode, shall be

**CZK 46.78/MWh.**

'Each MWh' supplied over the transmission system operator's facilities to distribution system operators shall be understood to be the balance at the interface between the transmission system and regional distribution systems.

**(4) The following fixed prices and specified conditions shall apply to the provision of distribution services by distribution system operators:**

(4.1.) The prices for booked capacity and for using the networks, and the specified conditions, have been laid down in accordance with a separate legal regulation. <sup>3)</sup>

(4.2.) The prices for booked capacity specified in (4.12) are prices for the maximum value of the 15-minute electrical power the customer may take at one demand take point [supply point] from the distribution system operator's facility.

(4.3.) The basic ways of connection for the purpose of determining the prices under this point (4) shall be understood to be the following:

- a) For new demand take points, connection by one line from one voltage node in the distribution system;
- b) For the existing demand take points, as-is connection as at 30 June 2003.

(4.4.) If the equipment of a local distribution system operator that has accepted the regional distribution system operator's prices under a separate legal regulation <sup>3)</sup> is connected to the distribution system operator's equipment at the high voltage level and distributes electricity to final customers after transformation on a different high voltage level the local distribution operator shall bill the supplied electricity quantity augmented by 2%. The electricity quantity so adjusted shall be the basis for calculating the payments for system services and network use, those to cover the extra costs incurred in support of electricity, and for the electricity market operator's clearing activity.

(4.5.) If a local distribution system operator that has accepted the regional distribution system operator's prices under a separate legal regulation <sup>3)</sup> distributes electricity to final customers at the same voltage level at which its equipment is connected to the distribution system operator's equipment it shall bill the final customers for the technical losses in the local distribution system in addition to the electricity quantity consumed. The amount of the technical losses shall be calculated as the difference between the actual values metered at inputs to the local distribution system and those metered at outputs from the local distribution system. Losses per demand take point shall be calculated at the ratio of a particular demand take point's consumption to the local distribution system's overall consumption. The electricity quantity so adjusted shall be the basis for calculating the payments for system services and network use, those to cover the extra costs incurred in support of electricity, and for the electricity market operator's clearing activity.

(4.6.) In the respective calendar month the procedures under (4.4) and (4.5) may not be applied simultaneously.

(4.7.) If electricity distribution is metered on the secondary side of the transformer the metered values of electricity shall be augmented by the transformation losses of active energy in the transformer

a) by an amount calculated under Appendix 1 hereto if the customer requests the distribution system operator to calculate the transformer losses and provides it with the information required for such calculation, or

b) by no more than by 2% for take from extra high voltage networks, and by no more than by 4% for take from high voltage networks.

The electricity quantity so adjusted shall be the basis for calculating the payments for system services and distribution system network use, those to cover the extra costs incurred in support of electricity, and for the electricity market operator's clearing activity under a separate legal regulation <sup>3)</sup>. It shall also serve for assessing compliance with the contractual values of the power factor and booked capacity of distribution networks.

(4.8.) If electricity generation is metered on the transformer on the electricity generation side the overall metered values of electricity shall be reduced by the transformation losses of active energy in the transformer

a) by an amount calculated under Appendix 1 hereto if the generator requests the distribution system operator to calculate the transformer losses and provides it with the information required for such calculation, or

b) by no more than by 2% for take from extra high voltage networks, and by no more than by 4% for take from high voltage networks.

(4.9.) If a final customer's demand take point is connected from more than one voltage level the prices for booked capacity shall be applied to each voltage level separately for the basic way of connection under point (4.3).

(4.10.) The booked capacity of demand to be taken from a distribution system for delivery points between a local distribution system and a regional distribution system, or delivery points between local distribution systems, shall be contracted and evaluated for the aggregate of the delivery points within a single continuous delineated area of the local distribution system at each voltage level separately.

(4.11.) The price for booked capacity has been set for the basic way of connection at the main demand take / delivery point. In the event of reinforcing the distribution service by, for example, connecting another line from a different node in the distribution system, the prices for monthly capacity booking under (4.12) at such delivery point shall be paid for the power input metered, unless the contracting parties agree otherwise.

(4.12.) The price for booked capacity for demand to be taken from a distribution system shall be applied to a calendar year with a fixed monthly price for annual booked capacity, or to a calendar month with a fixed monthly price for monthly booked capacity, provided that the monthly price for annual booked capacity may be combined with the monthly price for monthly booked capacity in the respective calendar year. The annual booked capacity may be increased at the demand take point in the course of the calendar year, provided that the price for increased capacity shall be billed as from the calendar month for which the increase in annual booked capacity was applied. The annual booked capacity may be decreased at a demand take point no earlier than after 12 months from the last change thereof, unless the contracting parties agree otherwise. The price for booked capacity of a distribution system operator shall be as follows:

VVN – extra high voltage; VN – high voltage; NN – low voltage

DSO	Voltage level	Monthly charge for annual booked capacity, in CZK/MW/month	Monthly charge for monthly booked capacity, in CZK/MW/month
E.ON Distribuce, a.s.	VVN	51,544	61,789
	VN	120,237	144,137
PREdistribuce, a.s.	VVN	60,105	66,508
	VN	143,877	159,205
ČEZ Distribuce, a. s.	VVN	55,964	62,567
	VN	135,844	151,873
SV servisní, s.r.o.	VN	163,260	176,321

(4.13.) Capacity may only be booked by the last working day of the month that precedes the date from which the new value of booked capacity is to apply.

(4.14.) The price for exceeding booked capacity in a calendar month shall amount to four times the fixed monthly price for annual booked capacity under (4.12), related to each kW of the highest overstepping of the agreed maximum monthly value of the 15-minute electrical power. Where no annual booked capacity has been agreed for the respective month, the basis for pricing the overstepping of booked capacity shall be the price for monthly booked capacity under (4.12).

(4.15.) In the case of trial operation under a separate legal regulation <sup>3)</sup> the price for exceeding booked capacity under (4.14) shall not be charged. The difference between the agreed booked capacity and the maximum metered value of 15-minute electric power taken by the market participant shall be subject to the monthly price for monthly capacity booking under (4.12).

(4.16.) The price for exceeding booked capacity under (4.14) shall not apply to self-supplying generators in the case of increased demand taken from the distribution system over a

continuous period of up to four weeks in a year if the self-supplying generator notifies the respective distribution system operator thereof at least five weeks in advance, or unless it agrees otherwise with the respective distribution system operator. In this case the distribution system operator shall bill the self-supplying generator the difference between the metered and agreed capacity at a price corresponding to that for monthly booked capacity under (4.12).

(4.17.) The price for exceeding booked capacity under (4.14) shall not apply to self-supplying generators in the case of a short increase in demand taken from the distribution system, caused by a failure of supply from their own generating plant, for up to 48 trading hours in a month in aggregate, unless the self-supplying generator agrees otherwise with the respective distribution system operator. The self-supplying generator shall conclusively document the failure of supply from its own generating plant to the distribution system operator no later than on the second working day of the following calendar month. In this case the distribution system operator shall bill the self-supplying generator for exceeding booked capacity the difference between the metered and agreed booked capacity at a price corresponding to that for monthly booked capacity under (4.12).

(4.18.) If a self-supplying generator's equipment is connected to a local distribution system the provisions of points (4.16) or (4.17) shall also be used for the delivery points between this local distribution system and the regional distribution system in the case of a failure of the equipment or increased demand taken by the self-supporting generator if it meets the conditions set out in points (4.16) or (4.17).

(4.19.) The price for exceeding booked capacity under (4.14) shall not apply to the local distribution system operator when the overstepping of the agreed booked capacity in the respective month is lower than or equal to 10%. For exceeding booked capacity within this allowance, the regional distribution system operator or the local system operator shall apply the fixed monthly price for monthly booked capacity under (4.12). In the event of exceeding the agreed booked capacity by more than 10% the price under (4.14) shall be charged for the total overstepping of the agreed booked capacity.

(4.20.) The price for exceeding booked capacity under (4.14) shall not apply to providers of ancillary services if the exceeding of the agreed booked capacity is directly related to the provision of ancillary services under a separate legal regulation<sup>3)</sup>.

(4.21.) The fixed price for exceeding booked power input under a separate legal regulation<sup>5)</sup> for a final customer's or distribution system operator's demand take point agreed in the connection agreement, shall be four times the fixed monthly price for monthly booked capacity under (4.12). The distribution system operator shall make the evaluation on a monthly basis and the evaluation shall relate to the highest value of the overstepping of the booked power input agreed. Customers for whom booked power input has been reduced under a separate legal regulation<sup>5)</sup> shall not pay the charge for exceeding booked power input under this provision.

(4.22.) The prices for network use under (4.24) and (4.25) shall apply to all electricity actually delivered to the final customer's demand take point or to the electricity generator's delivery point or to the delivery points between the regional and local distribution systems agreed in the connection agreement.

(4.23.) If a final customer's demand take point or a local distribution system's delivery point is connected from more than one voltage level the price for network use shall be applied to each voltage level separately.

(4.24.) Prices for using a distribution system operator's networks over 1 kV:

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<sup>5)</sup> Public notice no. 51/2006 on the conditions for connection to the electricity grid

DSO	Voltage level	Prices for using extra high voltage (VVN) and high voltage (VN) networks, including the contribution to distributed generation and for facilitating payments, in CZK/MWh
E.ON Distribuce, a.s.	VVN	63.44
	VN	118.72
PREdistribuce, a.s.	VVN	60.32
	VN	94.10
ČEZ Distribuce, a.s.	VVN	58.10
	VN	102.75
SV servisní, s.r.o.	VN	123.37

(4.25.) Single-component price for using the services of a regional distribution system operator's networks over 1 kV at the high voltage level:

DSO	Single-component price for using high voltage networks, including the contribution to distributed generation and for facilitating payments, in CZK/MWh
E.ON Distribuce, a.s.	4,928.20
PREdistribuce, a.s.	5,849.18
ČEZ Distribuce, a.s.	5,536.51

If a customer elects a price under this point such price shall apply for at least 12 months. If a customer elects a price under this point the prices under (4.12) and (4.24) shall not be charged.

(4.26.) The price for booked capacity shall be billed between regional distribution system operators at voltage levels over 52 kV as follows:

	Monthly price for annual booked capacity between regional distribution system operators at voltage levels over 52 kV, in CZK/month
<i>Payer</i>	<i>Recipient: ČEZ Distribuce, a.s.</i>
E.ON Distribuce, a.s.	9,668,084
PREdistribuce, a.s.	26,950,832

(4.27.) The price for network use between regional distribution system operators at voltage levels over 52 kV shall be

**CZK 46.78/MWh.**

This price applies to all electricity metered at delivery points between the respective regional distribution systems.

(4.28.) The price for electricity distribution at voltage levels lower than 52 kV and higher than 1 kV between regional distribution system operators shall be charged in accordance with points (4.12) and (4.24).

(4.29.) If during a calendar month a new customer is connected the price for booked capacity shall be paid proportionally to the ratio of the number of days on which the capacity is used to the number of days in the calendar month of the connection.

(4.30.) For customers taking electricity from the high voltage levels and having storage or direct electric heaters, or taking electricity for irrigation or for ice rinks, where the proportion of the installed power input for service water heating and for storage / direct electric heating, for

irrigation, or for cooling is at least 80% of the total installed power input and where cut-out control by the distribution system operator is installed, the booked capacity shall be evaluated at the time when the appliances or apparatus for service water heating, storage / direct electric heating, irrigation and cooling are cut out, unless the customer and the distribution system operator agree otherwise.

(4.31.) If the parameters of electricity supply quality set out in the respective standard <sup>6)</sup> are not kept at a demand take point the prices specified under (4.12) and (4.24) or the prices under (4.25) shall be the maximum prices.

**(5) The price for meeting the extra costs incurred in support of electricity from renewable sources, combined heat & power, and secondary sources**

(5.1.) The price for meeting the extra costs related to support of electricity from renewable sources, combined heat & power, and secondary sources shall be

**CZK 52.18/MWh.**

The transmission system operator / distribution system operator shall charge this price for the electricity quantity consumed by final customers, generators or the transmission system operator / distribution system operator, including the final customers' consumption in island operation in the Czech Republic, which is conclusively separated from the electricity grid, with the exception of electricity for pumping at pumped storage hydroelectric power stations and process house load and losses in the transmission and distribution systems.

(5.2.) The monthly charges to cover the extra costs of support for electricity from renewable sources, combined heat & power, and secondary sources between the transmission system operator and distribution system operators shall be billed as follows:

	Covering the extra costs of the purchase of electricity from renewable sources, combined heat & power, and secondary sources, in CZK/month	
	<i>Recipient</i>	
<i>Payer</i>	ČEPS, a.s.	ČEZ Distribuce, a.s.
E.ON Distribuce, a.s.	139,153	11,409,344
PREdistribuce, a.s.	255,467	20,946,097

**(6) The following fixed prices and specified conditions shall apply to the activities of the electricity market operator (Operátor trhu s elektřinou, a.s.):**

(6.1.) The prices for the electricity market operator's activities have been determined in accordance with a separate legal regulation <sup>3)</sup>.

(6.2.) The fixed prices for the clearing activity are as follows:

- a) **CZK 50,000** for the registration of the entity subject to clearing ('cleared entity'); this charge is billed on a one-off basis to the cleared entity for registration;
- b) **CZK 1,000/month** is the annual charge for the clearing activity; the charge is billed to every registered cleared entity;
- c) **CZK 4.75/MWh** is the charge for clearing; the charge shall be billed for all electricity consumed by final customers, generators or the transmission system operator / distribution system operator, with the exception of electricity for pumping at pumped storage hydroelectric power stations and process house load and losses in the

<sup>6)</sup> ČSN EN 50 160

transmission and distribution systems, and further for electricity consumed by final customers in island operation in the Czech Republic, which is conclusively separated from the Czech electricity grid, and in a delineated island operation abroad, which is connected to the Czech electricity grid.

(6.3.) The fixed price for providing actual values to market participants under a separate legal regulation <sup>3)</sup> is **CZK 1,000/month**. This price shall be paid by the registered market participants who are not entities subject to clearing and who use, under a contract with the electricity market operator, the actual values for invoicing purposes.

(6.4.) The price under (6.3) shall be billed by the electricity market operator to a registered electricity market participant in the months in which the participant was registered with the electricity market operator for at least one day and at the same time was not an entity subject to clearing. Should a registered electricity market participant become a cleared entity for a part of a month only the price under (6.2)(b) shall be billed to it for that month.

(6.5.) The fixed price for the sum of electricity quantities bought and sold in all trading hours of a calendar month via the organised block market and the organised daily market shall be **CZK 1/MWh**.

**(7) Prices of electricity supplied by a supplier of last resort, and specified conditions:**

(7.1.) The maximum price of energy supplied by a supplier of last resort to final customers in the household category under a separate legal regulation <sup>7)</sup> is composed of a standing charge, a charge for the supplied quantity of energy at the high rate, and a charge of the supplied quantity of energy at the low rate, amounting to:

Supplier of last resort	Demand category according to the distribution tariff assigned	Standing charge (CZK/month)	Charge for the quantity of energy supplied at the high rate (CZK/MWh)	Charge for the quantity of energy supplied at the low rate (CZK/MWh)
E.ON Energie, a.s.	D01d, D02d	48	1,960	-
	D25d, D26d	48	2,430	1,409
	D35d	48	2,682	1,816
	D45d	48	2,467	1,935
	D55d, D56d	48	2,467	1,935
	D61d	48	2,575	1,678

<sup>7)</sup> Section 12 a, subsection 1 of the Energy Act

Supplier of last resort	Demand category according to the distribution tariff assigned	Standing charge (CZK/month)	Charge for the quantity of energy supplied at the high rate (CZK/MWh)	Charge for the quantity of energy supplied at the low rate (CZK/MWh)
Pražská energetika, a.s.	D01d, D02d	45	2,044	-
	D25d, D26d	45	2,098	1,414
	D35d	45	2,103	1,697
	D45d	45	2,109	1,792
	D55d, D56d	45	2,109	1,775
	D61d	45	2,510	1,635
ČEZ Prodej, s.r.o.	D01d, D02d	40	1,776	-
	D25d, D26d	40	2,163	1,245
	D35d	40	2,285	1,551
	D45d	40	2,233	1,712
	D55d, D56d	40	2,176	1,716
	D61d	40	2,329	1,555

(7.2.) The maximum price of energy supplied by a supplier of last resort to final customers in the small business category under a separate legal regulation <sup>6)</sup> is composed of a standing charge, a charge for the supplied quantity of energy at the high rate, and a charge of the supplied quantity of energy at the low rate, amounting to:

Supplier of last resort	Demand category according to the distribution tariff assigned	Standing charge (CZK/month)	Charge for the quantity of energy supplied at the high rate (CZK/MWh)	Charge for the quantity of energy supplied at the low rate (CZK/MWh)
E.ON Energie, a.s.	C01d, C02d, C03d	48	2,338	-
	C25d, C26d	48	2,565	1,637
	C35d	48	2,551	2,017
	C45d	48	2,685	2,148
	C55d, C56d	48	2,685	2,148
	C62d	48	1,598	-
Pražská energetika, a.s.	C01d, C02d, C03d	55	2,506	-
	C25d, C26d	55	2,618	1,758
	C35d	55	2,521	2,190
	C45d	55	2,675	2,274
	C55d, C56d	55	2,675	2,257
	C62d	55	1,820	-
ČEZ Prodej, s.r.o.	C01d, C02d, C03d	45	2,030	-
	C25d, C26d	45	2,257	1,435
	C35d	45	2,230	1,784
	C45d	45	2,329	1,876
	C55d, C56d	45	2,370	1,909
	C62d	45	1,337	-

(7.3.) The maximum price of energy supplied by a supplier of last resort to final customers, with the exception of households and small business customers under a separate legal regulation <sup>8)</sup>, shall be

**CZK 3,030/MWh.**

(7.4.) If the supplier of last resort provides electricity supplies under an agreement pursuant to a separate legal regulation <sup>9)</sup> it shall also bill the price for distribution, the price for covering the extra costs incurred in support of electricity from renewable sources, combined heat & power, and secondary sources under (5), the price for system services and the price for the electricity market operator's clearing activity under (6.2)(c).

**(8) Maximum prices of reactive energy for final customers, and specified conditions:**

(8.1.) The distribution service prices specified herein have been set on the assumption that with a view to providing for the technical safety and operation of the electricity grid, all electricity supplies shall be made with the value of the lagging power factor ranging from 0.95 to 1.00, unless the final customer and the respective distribution system operator agree otherwise. The power factor shall be evaluated at each demand take point at which electricity is taken from the distribution system at the VVN and VN voltage levels.

(8.2.) For metering reactive energy, and for the purpose of calculating the power factor,  $\cos \varphi$ , the results of the measurements of active and reactive energy taken over the same intervals of time shall be used. To determine the interval for demand take points with type A or B metering under a separate legal regulation <sup>10)</sup> the values of the continuous 15-minute readings of active and reactive energy shall be used. The power factor for demand take points with type A and B metering shall be evaluated round the clock. For demand take points with type C metering under a separate legal regulation <sup>10)</sup> the power factor shall be evaluated in the time determined by the distribution system operator.

(8.3.) The return supply of reactive energy shall be metered round the clock.

(8.4.) The readings of reactive energy in kVArh and active energy in kWh for the period under review in the respective band of continuous metering under (8.2) shall be used for calculating the respective

$$\text{tg } \varphi = \frac{\text{kVArh}}{\text{kWh}} \quad \text{and the corresponding } \cos \varphi.$$

(8.5.) Added to the metered values of inductive reactive energy shall be the transformer's no-load reactive losses in kVArh, as shown in the following table (in the case of no compensation for the transformer's no-load reactive losses) while the transformer's active losses when the meter is installed on the transformer's secondary side under a separate legal regulation <sup>3)</sup> shall be added to the active energy.

Rated capacity of the transformer (kVA)	Monthly value of transformer's reactive losses in a one-hour band (kVArh)		
	up to 22 kV	35 kV	110 kV
less than 250	-	-	-
250	145	160	-

<sup>8)</sup> Section 12a, subsection 6 of the Energy Act

<sup>9)</sup> Section 7, subsection 1(a), point 2 of public notice no. 541/2005

<sup>10)</sup> Public notice no. 218/2001 laying down the details of electricity metering and technical data transmission, as amended

Rated capacity of the transformer (kVA)	Monthly value of transformer's reactive losses in a one-hour band (kVArh)		
	up to 22 kV	35 kV	110 kV
400	183	207	-
630	230	249	-
1,000	289	320	-
1,600	365	404	-
2,500	989	989	-
4,000	1,339	1,339	-
6,300	1,918	1,918	-
10,000	2,739	2,739	2,739
16,000	4,140	4,140	4,140
25,000	6,088	6,088	5,707
40,000	7,914	7,914	7,914
63,000	-	-	11,505

The above values shall be multiplied by the number of the hours for which the reactive energy take was metered. If the actual value of the transformer's rated capacity is not included in the above table the value of the reactive losses in a transformer having the nearest lower rated capacity shall be used.

(8.6.) If  $\cos \phi$  ranges from 0.95 to 1.00 the final customers shall not pay any surcharge. If the power factor calculated from the metered values is lower than 0.95 the final customers shall pay a surcharge to the distribution system operator as follows:

Range of tg φ	Power factor cos φ	Surcharge %	Range of tg φ	Power factor cos φ	Surcharge %
$\frac{\text{kVArh}}{\text{kWh}}$			$\frac{\text{kVArh}}{\text{kWh}}$		
0.311 - 0.346	0.95	-	1.008 - 1.034	0.7	37,59
0.347 - 0.379	0.94	1,12	1.035 - 1.063	0.69	39,66
0.380 - 0.410	0.93	2,26	1.064 - 1.092	0.68	41,80
0.411 - 0.440	0.92	3,43	1.093 - 1.123	0.67	43,99
0.441 - 0.470	0.91	4,63	1.124 - 1.153	0.66	46,25
0.471 - 0.498	0.9	5,85	1.154 - 1.185	0.65	48,58
0.499 - 0.526	0.89	7,10	1.186 - 1.216	0.64	50,99
0.527 - 0.553	0.88	8,37	1.217 - 1.249	0.63	53,47
0.554 - 0.580	0.87	9,68	1.250 - 1.281	0.62	56,03
0.581 - 0.606	0.86	11,02	1.282 - 1.316	0.61	58,67
0.607 - 0.632	0.85	12,38	1.317 - 1.350	0.6	61,40
0.633 - 0.659	0.84	13,79	1.351 - 1.386	0.59	64,23
0.660 - 0.685	0.83	15,22	1.387 - 1.423	0.58	67,15
0.686 - 0.710	0.82	16,69	1.424 - 1.460	0.57	70,18
0.711 - 0.736	0.81	18,19	1.461 - 1.494	0.56	73,31
0.737 - 0.763	0.8	19,74	1.495 - 1.532	0.55	76,56
0.764 - 0.789	0.79	21,32	1.533 - 1.579	0.54	79,92
0.790 - 0.815	0.78	22,94	1.580 - 1.620	0.53	83,42
0.816 - 0.841	0.77	24,61	1.621 - 1.663	0.52	87,05
0.842 - 0.868	0.76	26,32	1.664 - 1.709	0.51	90,82
0.869 - 0.895	0.75	28,07	1.710 - 1.755	0.5	94,70
0.896 - 0.922	0.74	29,87	Higher than 1.755	Lower than 0.5	100,00
0.923 - 0.949	0.73	31,72			
0.950 - 0.977	0.72	33,63			
0.978 - 1.007	0.71	35,58			

(8.7.) The surcharge shall be determined as the product of the highest 15-minute power output read for the period under review, the price for booked capacity at the respective voltage level and the relevant surcharge rate (surcharge rate in % as per the table in (8.6) divided by 100) and as the sum of the charge for network use at the respective voltage level and the price of energy as per the following table, multiplied by the relevant surcharge rate (surcharge rate in % as per the table in (8.6) divided by 100) and the quantity of electricity for the period under review.

DSO	Fixed price of energy in CZK/MWh for calculating the surcharge for failure to keep the agreed power factor
ČEZ Distribuce, a.s.	1,826
E.ON Distribuce, a.s.	1,990
PREdistribuce, a. s.	2,002

The price of annual booked capacity under (4.12) shall be deemed to be the price of booked capacity. If no annual booked capacity is agreed for a particular month the price of monthly booked capacity under (4.12) shall be the basis for calculating the surcharge.

(8.8.) The distribution system operator shall charge the customer **CZK 400/MVArh** for unsolicited supply of reactive energy to its network.

**(9) Fixed balancing price for clearing the differences between the values of the actual consumption obtained from readings, and values determined using typical profiles:**

The fixed balancing price for clearing the differences between the values of the actual consumption obtained from readings and the values determined using typical profiles under a separate legal regulation <sup>3)</sup> shall be

**CZK 1,908/MWh.**

**(10) Fixed unit price of electricity under the special clearing regime in states of emergency:**

The fixed unit price of electricity under the special clearing regime in states of emergency under a special legal regulation <sup>3)</sup> shall be

**CZK 1,985/MWh.**

**(11) Fixed prices for regulating [balancing] energy supply and fixed price for imbalance clearing**

(11.1.) The fixed price for positive regulating energy supplied by units that in the respective trading hour had only secondary control activated shall be, under a separate legal regulation, <sup>11)</sup>

**CZK 2,350/MWh.**

The provider of the regulating energy shall bill this price to the electricity market operator.

(11.2.) The fixed price for negative regulating energy supplied by units that in the respective trading hour had only secondary control activated shall be, under a separate legal regulation, <sup>11)</sup>

**CZK 1/MWh;**

The provider of the regulating energy shall bill this price to the electricity market operator.

(11.3.) The fixed clearing prices, in CZK/MWh, charged by the electricity market operator under separate legal regulations <sup>12), 13)</sup> are as follows:

- a) If in the respective trading hour the system imbalance is negative or equal to zero the fixed clearing price is calculated using the formula

$$C = 2,350 + 5.5 * S ,$$

- b) if in the respective trading hour the system imbalance is positive the fixed clearing price is calculated using the formula

$$C = 1 + 3.5 * S,$$

where S is the absolute value of the system imbalance in MWh.

**(12) Effect**

This Price Decision shall come into effect on 1 January 2009.

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<sup>11)</sup> Appendix No. 5, point 3 of public notice no. 541/2005

<sup>12)</sup> Appendix No. 5, point 4(a) of public notice no. 541/2005

<sup>13)</sup> Appendix No. 5, point 5 of public notice no. 541/2005

Energy Regulatory Office Chairman

Josef Firt *m.p.*

## Appendix 1 to ERO Price Decision No. 9/2008

### Calculation of losses for metering located on the secondary side of transformers

The value of actual transformation losses depends on the following:

- a) Parameters of the transformer, namely:
  - transformer rating,  $S_{Tn}$  (kVA, MVA),
  - rated no-load loss,  $\Delta P_0$  (kW), and
  - rated load loss,  $\Delta P_k$  (kW); and
- b) transformer load characterised
  - by values  $P_z(t)$  and  $Q_z(t)$  with continuous type A or B metering
  - with type C metering, by annual consumption  $W$  (kWh, MWh) and metered (agreed) maximum load,  $S_{max}$  (kVA, MVA), or  $P_{max}$  (kW, MW) and  $\cos \phi_{max}$

On the basis of the data on a given transformer and load, transformation losses shall be calculated as follows:

$$P_{zT \max} = \Delta P_0 + \Delta P_k \left( \frac{S_{\max}}{S_{Tn}} \right)^2$$

$$W_{zT} = \Delta P_0 \cdot T_p + \Delta P_k \left( \frac{S_{\max}}{S_{Tn}} \right)^2 \cdot T_{\Delta},$$

where  $S_{\max}$  shall be determined as follows:

- with continuous type A or B metering, as the largest value of  $S_z(t)$   
 $\{(S_{zT \max} = \max[\sqrt{(P_z(t)^2 + Q_z(t)^2)}])\}$ ,
- with type C metering, as the peak apparent power corresponding to the metered or agreed load ( $P_{\max}/\cos\phi_{\max}$ ).

$T_{\Delta}$  shall be determined as follows:

- with continuous type A or B metering, as:

$$T_{\Delta} = \frac{\sum S_z(t)^2}{S_{\max}^2} = \frac{\sum P_z(t)^2}{P_{\max}^2},$$

- with type C metering:

$$T_{\Delta} = T_p \cdot \left[ 0.2 \cdot \frac{T_{\max}}{T_p} + 0.8 \cdot \left( \frac{T_{\max}}{T_p} \right)^2 \right],$$

where  $T_{\max}$  shall be calculated from the total measured energy  $W$ .

$$T_{\max} = \frac{W}{P_{\max}}$$

Losses  $w_{zT}$  shall then be calculated in percentage terms (%):

- for continuous A or B metering:

$$w_{zT}(\%) = \frac{W_{zT}}{\sum P_z(t)} \cdot 100$$

- for type C metering

$$w_{zT}(\%) = \frac{W_{zT}}{P_{\max} \cdot T_{\max}} \cdot 100$$

**The electricity market participants shall furnish the transformer parameters and load values in their request for the calculation of actual losses.**