

Electricity prices – Price systems 2006

2007 edition

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CONTENT

I. INTRODUCTION	7
II. PRICE SYSTEMS IN THE MEMBER STATES OF THE EUROPEAN UNION	9

INTRODUCTION

Since 1 July 1991, a Community procedure has been in force, under Council Directive 90/377/EEC, for improving the transparency of gas and electricity prices charged to industrial end-users.

In accordance with Article 1(2) of that Directive, this note sets out a summary of the price systems applying in 2006 and supplements the information provided in the half-yearly "Statistics in Focus".

The liberalisation of the electricity market is on-going. Directive 96/92/EC of December 1996 concerning the common rules for the internal market in electricity constituted a milestone at EU level. A political agreement on completing the liberalisation process was reached in November 2002: despite various derogations granted to certain countries, the objective was to make all non-households eligible by 1 July 2004 and all customers by 1 July 2007. The content of this publication also reflects the changes that have occurred in this respect.

The survey on which the study is based was conducted by the Statistical Office of the European Communities and would not have been possible without the cooperation of the administrations, institutes, companies and associations responsible for the electricity sector, to whom we express our sincere thanks for their work on this edition.

SYMBOLS AND ABBREVIATIONS

V	Volt
kV	Kilovolt (= 1 000 V)
A	Ampere
kVA	Kilovoltampere
kW	Kilowatt
kWh	Kilowatthour
GWh	Gigawatthour (10^6 kWh)
MW	Megawatt (10^3 kW)
EUR	Euro (€)
Cent	Euro cent (1/100 EUR)
DKK – øre	Danish Crown – øre = 1/100 DKK
HUF	Hungarian Forint
SEK	Swedish Crown
SKK	Slovak Crown
PLN	New Polish Zloty
GBP	Pound Sterling (£)
ROL	Romanian Leu
NOK – øre	Norwegian Crown – øre = 1/100 NOK

BELGIUM

1. General framework

The maximum prices for electricity are fixed by the Federal Minister for Economic Affairs in accordance with the Law of 29 April 1999 on the organisation of the market in electricity and the Law of 22 January 1945 on economic regulations and prices. Ministerial decisions, which are taken following an opinion by the Electricity and Gas Regulatory Commission (CREG), may affect the sales prices which apply to final customers. There is also a specific maximum price schedule reserved for protected domestic customers on low incomes or in precarious situations.

Connection charges to the transmission and distribution networks and for use thereof are submitted by the network operators to the CREG for approval. These charges should be drawn up in accordance with the general tariff structures set by the Royal Decrees of 4 April 2001 (transmission) and 11 July 2002 (distribution).

Since 1 July 2004, the electricity market has been liberalised for all non-domestic customers. In the Flemish Region, domestic customers are also eligible. In the Walloon Region and the Brussels-Capital Region, domestic customers became eligible on 1 January 2007.

2. Pricing of electricity

2.1. Industrial consumers

Electricity prices for industrial consumers are made up of the following components:

- the energy price
- the transmission price
- the distribution price.

Sales of electricity to industrial users are settled by bilateral contracts or by the suppliers' tariffs. They are generally made up of a fee, a price linked to the offtake (kW) and a price which is proportionate to the electricity consumed (kWh) at normal, off-peak and, as the case may be, peak hours.

The transmission price covers:

- tariffs for using the transmission network :
 - tariffs for subscribed demand and supplementary demand;
 - the tariff for operating the system.
- tariffs for ancillary services :
 - the tariff for primary frequency regulation, secondary regulation within the Belgian zone and for the black-start service;
 - the tariff to offset quarter-hourly imbalances;
 - the tertiary reserve tariff;
 - the voltage control and reactive power tariff;
 - the congestion control tariff.

The distribution price covers:

- tariffs for using the distribution network:
 - tariffs for subscribed demand and supplementary demand;
 - the tariff for operating the system;
 - the tariff for measurement and metering.
- tariffs for ancillary services:
 - the voltage control and reactive power tariff;
 - the tariff to compensate network losses;

- the tariff for not following an accepted programme.

2.2. Domestic consumers

For eligible domestic customers (Flemish Region), the tariff methodology is similar to that described for industrial consumers, except it is presented in a simplified form when it comes to setting the energy price (whether or not a standing charge is required and the application of a day-time unit price per kWh and, as the case may be, a night-time price).

For non-eligible domestic customers (Walloon Region and Brussels-Capital Region), the tariffs are regulated until 31 December 2006 (Ministerial Decree of 12 December 2001) and are as described below.

The standard tariff comprises an annual charge and a single price per kWh.

The tariff comprises an annual charge (higher than for the standard tariff), a day-time kWh price identical to the standard tariff, and a lower night-time kWh price.

The exclusive night-time tariff applies to equipment permanently connected to a separate circuit than is activated by remote control for 9 hours per night; it comprises an annual charge and a lower price per kWh than the night-time rate with the two-rate tariff.

Moreover, some specific categories of customer (recipients of the "integration income", disability allowance etc.) may benefit from standard or two-rate social tariffs, involving exemption from the annual charge with the standard tariff and a free 500 kWh per year (Ministerial Decree of 15 May 2003).

3. Taxes on electricity

Sales of electricity are subject to 21% VAT.

An "energy contribution" [*cotisation sur l'énergie*] of 0.19088 cent per kWh in 2006, introduced under a law of 22 July 1993, is levied on low-tension supplies, except in the case of customers benefiting from specific social tariffs.

A federal contribution, which stood at 0.18987 cents per kWh in 2006, is applied to cover the operating costs of the CREG and certain federal public service obligations.

Charges and/or surcharges are also levied in order to fund regional public service obligations (social measures and measures to promote the rational use of energy, renewable energy sources and/or high-quality co-generation plants).

BULGARIA

1. General framework

The Energy Law (promulgated in State Gazette No 107 of 9 December 2003) regulates the social aspects of the generation, import and export, transmission, transit transmission and distribution of electricity. In connection with the latest change to the Energy Law (as amended in State Gazette No 74 of 8 September 2006), a Resolution was published on 29.12.2006 which defines the 'Trade rules on electrical energy'. These rules outline the transition from trade at regulated prices to trade at freely negotiated prices.

The electricity market in Bulgaria is based on a model of bilateral contracts with a balancing market.

Liberalisation of the market started on 18.09.2004 with the registration of the first schedule for power delivery at freely negotiated prices.

Eligible customers should not have overdue payments under power sale agreements with the public supplier and/or public distributors and should have annual consumption of electricity during the first and the second stages of market liberalisation in excess of certain thresholds:

- from 01.07.2005 to 30.06.2006 – annual consumption in excess of 20 GWh;
- from 01.07.2006 to 31.12.2006 – annual consumption in excess of 9 GWh;
- from 01.01.2007 to 30.06.2007 – all consumers, excluding households;
- from 01.07.2007 – all consumers.

Regulated market

Public supplier – 1 /supplies electricity at high voltage/, public retailers/electricity distribution companies – supply electricity at medium and low voltage/ – 8

Liberalised market

Electricity System Operator - 1

Registered trade participants

- generators - 6 / of which 4 active/
- eligible costumers - 34 / of which 31 active/
- traders – 10 /of which 7 active/

2. Pricing of electricity

The State Energy and Water Regulatory Commission (SEWRC) is an independent regulatory body for electricity prices. For non-eligible costumers and households, SEWRC accepts the tariffs for electricity prices that the public supplier and electricity distribution companies invoice for the supply of electricity.

2.1. Industrial consumers

- The tariff for high voltage is for the whole country, with prices for peak, day and night periods.
- The tariffs for medium and low voltage are regional, with prices for peak, day and night periods.

2.2. Domestic consumers

The tariff for low voltage is regional, with prices for day and night periods.

3. Taxes on electricity

VAT is charged at a rate of 20%.

CZECH REPUBLIC

1. General framework

Electricity in the Czech Republic is produced mainly by the company CEZ (more than half of domestic generation) and by several major independent generators. It is transmitted by the transmission system operator CEPS.

Distribution is handled mostly by three regional distribution companies directly connected to the TSO, which between them cover the entire territory of the Czech Republic. Besides these regional distributors there are also small local distributors connected only to the DSOs that distribute electricity within areas specified in their electricity distribution licences.

The price of electricity (commodity) for all consumers is based on an agreement between the producer or trader and the customer and is a business secret.

Czech generators also export some of their production abroad.

On 1 January 2006 the Czech electricity market became fully liberalised; the last customer category, households, became eligible customers and acquired the right to select their supplier.

Typical of the Czech Republic's open electricity market is the fact that regulation of activities in which competition is feasible no longer exists. Only activities of a monopoly nature continue to be regulated. That same day saw the completion of the restructuring of major electricity market players, which had begun in 2003 – the merging of distribution companies and the outsourcing of certain services and the splitting-off of assets related to these services into separate companies. Since 1 January 2006 three major entities have been operating in the Czech Republic: the ČEZ Group, the E.ON Group, and the PRE Holding Group.

Effective also from 1 January 2006, distribution system operators with more than 90 000 customers (only regional distributors) have unbundled distribution from their other licensed activities, thereby meeting the Energy Act's requirement and transposing the relevant provisions of Directive 2003/54/EC on unbundling into Czech legislation.

Act No 458/2000 Coll., also called "The Energy Act", sets out the main legal conditions for electricity and natural gas business. Since 1 January 2001, the Energy Regulatory Office (ERO) set up under the Energy Act has been regulating the prices of electricity and natural gas instead of the Ministry of Finance.

The above-mentioned Act also defines the progress of electricity market liberalisation and determines 'eligible' consumers that can choose their electricity supplier.

Electricity market opening

- 1 January 2002 for all consumers with consumption of 40 GWh and more for one point of supply in 2001;
- 1 January 2003 for all consumers with consumption of 9 GWh and more for one point of supply in 2001;
- 1 January 2004 for all consumers with continuous metering, except households;
- 1 January 2005 for all consumers, except households;
- 1 January 2006 for all consumers.

The wholesale price of electricity (from producers) is not regulated. However, other components of the final price, such as transmission, system services, distribution and other charges, are fully regulated by the Energy Regulatory Office.

Prices for transmission, system services, distribution services and other regulated charges are calculated annually by the ERO and are published in the 'Energy Regulatory Gazette'.

2. Pricing of electricity

2.1. Industrial consumers

There are three basic types of consumers according to voltage level. They are divided into:

- category A – consumers connected to a very high voltage level (over 52 kV),
- category B – consumers connected to a high voltage level (between 1 kV and 52 kV)
- category C – consumers connected to a low voltage level up to 1 kV, except households.

Each eligible consumer's (industrial consumer) invoice has these regulated components ("network price"):

- distribution and possibly transmission charges (different for each voltage level and type of consumption);
- system services charges;
- charges for meeting the extra costs related to the purchase of electricity from renewable sources, combined heat and power, and secondary resources;
- market operator charges;

and the non-regulated price of electricity (generation).

2.2. Domestic consumers

Each eligible consumer's (household) invoice has these regulated components ("network price"):

- distribution charges, including fixed monthly standing charges, according to size of circuit-breaker, and payment for the distributed amount of electricity;
- system services charges;
- charges for meeting the extra costs related to the purchase of electricity from renewable sources, combined heat and power, and secondary resources;
- market operator charges;

and the non-regulated price of electricity (generation).

3. Taxes on electricity

VAT since 1 May 2004 is 19%.

DENMARK

1. General framework

Legal basis:

The Danish electricity market has been fully liberalised since 1 January 2003. Industrial and domestic consumers can buy their electricity freely on the market. However, transportation of electricity in the grid is subject to monopolies and therefore tariffs for transportation are subject to public regulation. Consumers who do not wish to change supplier of electricity will be supplied an electricity product for which the prices are subject to public regulation as well as the tariffs for transportation. The legal status is described in the Act on electricity supply.

2. Pricing of electricity

There is no standard national tariff in Denmark. Each distribution utility and trading company publishes its tariffs in addition to individual contracts.

2.1. Industrial consumers

Tariff/price components including rebates (energy charge, standing charge, transmission and distribution costs, etc.): the electricity price charged to the consumer breaks down into the following elements: an investment contribution (once-and-for-all payment), a standing charge (typically adjusted to voltage - sometimes an impact charge is levied which is a payment per ampere) and the payment for the electricity. The payment for the electricity is split into the following elements: commercial electricity (freely tradable electricity), public service obligation charge and finally transport of electricity (grid and distribution tariffs).

Factors affecting tariffs/prices (supply voltage, demand levels, interruptibility clauses, off-peak/peak periods, etc.): in the case of most utilities, larger consumers are offered time-of-day tariffs. Generally speaking, Danish end-use tariffs are not dependent on the end-use sector but on the kV-level of the connection to the grid and to some extent on the quantity of consumption.

2.2. Domestic consumers

Tariff/price components including rebates: domestic consumers are subject to the same price components as industrial consumers; but differences in voltage and impact are not relevant to domestic consumers.

Factors affecting tariffs/prices: consumers can choose between different kinds of electricity. A contract can be entered into with the supplier which fixes the price for a specific period. This is usually more expensive than the spot price but it secures against price fluctuations.

Special social tariffs: there are no social tariffs in Denmark.

3. Taxes on electricity

The tax on electricity is € 0.078 (57.6 øre) per kWh, which is supplemented by a carbon dioxide tax of € 0.012 (9 øre) per kWh. VAT is 25 pct. Rules governing exceptions and reimbursement differ for the two kinds of tax. Most VAT-registered companies are exempted from the electricity tax except for electricity used for space heating. Only domestic consumers with electrically heated houses used throughout the year with a consumption of more than 4 000 kWh qualify for a tax reduction. Rules for reimbursement of the carbon dioxide tax are linked to the production process at plant level. Companies are eligible for a 75% refund on electricity used for heavy-industrial processes, a 10% refund on light-industrial processes and no refund on electricity used for heating. Domestic consumers do not qualify for any reimbursements.

GERMANY

1. General framework

The German electricity market has been fully liberalised since 1998. The legal texts regulating the electricity market are the following (in the course of 2005, a change in the regulatory system will take place in order to implement EU Directive 54/2003(EC)):

- the Energy Industry Act of 24 April 1998,
- the agreement between associations on the criteria for determining network tariffs for electrical energy (VV II+) of December 2001,
- the Federal Regulation on Electricity Tariffs (BTOElt) of 18 December 1989,
- other laws and regulations:
 - the Regulation on the general conditions for the supply of electricity to contractual customers (AVB EItV) of 21 July 1979, as last amended on 5 April 2002,
 - the Regulation on concession fees for electricity and gas (Concession Fee Regulation - KAV) of 9 January 1992, as last amended on 22 July 1999,
 - the Act on renewable energies in the electricity sector (Renewable Energy Act – EEG 2004) of 21 July 2004,
 - the Act on the maintenance, modernisation and expansion of combined heat and power (Combined Heat and Power Act – KWKG 2002) of 19 March 2002.

2. Pricing of electricity

2.1. Industrial consumers

Prices and supply conditions for these customers are governed by the principle of contractual freedom. The legal relations between electricity supply utilities and special contract customers are based on individual electricity supply contracts concluded by the parties involved.

In relation to purchase conditions up to a certain level of power demand which can still be met with medium voltage (up to ca. 20 kV), standard contracts have evolved which may be tailored in part to satisfy customer-specific requirements. These contracts are generally made up of the following three price components:

- the demand rate for the maximum annual demand,
- the energy rate for each kWh consumed (generally broken down into peak and off-peak prices),
- the standing charge to cover the cost of providing and reading meters and invoicing.

Electricity supply contracts are also subject to the provisions of the General Terms and Conditions Act (*AGB-Gesetz*) of 9 December 1976.

The drafting of these contracts can allow for every conceivable variation, with factors such as the voltage level of the grid from which the electricity is taken, the expected demand and volume of consumption, the time of peak demand, the time when the electricity is received and the interruptibility of supply at the electricity supply utility's discretion all playing a role. Contracts can also be concluded which contain different prices for summer and winter. Supplements or refunds are also often agreed for the consumption of reactive energy.

Approximately 66% of industrial customers have chosen a new supplier; the remaining customers have entered into new contracts with their old suppliers.

2.2. Domestic consumers

In Germany there is a special form of the general tariff for low-voltage supplies which is based on the Federal Regulation on Electricity Tariffs (BTO Elt) and offers the following: compulsory tariff (two-part tariff with price components for consumption and demand; uniform energy rate in consumer sectors with and without power measurement and for the various types of demand. In order to determine the demand charge, the volume of power demanded is either measured or estimated. The compulsory tariff contains an average price limit which may not be exceeded. An off-peak rate is also offered, which can only be chosen in addition to the compulsory tariff. This form of tariff is not restricted to specific electrical equipment, and a surcharge is often calculated for electricity consumption outside off-peak hours (generally at night). Since the liberalisation of the German electricity market, "special" price agreements have also emerged with individually agreed contract periods and periods of notice. Nearly 25 % of domestic customers have chosen such a special contract with their local supplier. For customers with a small business the comparable figure is 50%. More than 5% of both customer groups have a new supplier.

In addition to these rates, there are also specific low-voltage rates for certain types of electrical equipment such as heat pumps and electric storage heating appliances (also for large hot water boilers) whose energy rates are lower than the off-peak rates.

3. Taxes on electricity

Electricity supplies in Germany are subject to the normal rate of VAT, which in 2006 was 16%. Industrial, commercial and other customers who are entitled to deduct input VAT can deduct VAT when calculating their own tax liability. Since 1 April 1999, an electricity tax has been levied as part of the environmental tax reform and this is also subject to VAT. Since 1 January 2003, the normal rate has been 2.05 cent/kWh. 50% tax reductions are granted for the traction current for the local and long-distance public rail network. Industrial and agricultural enterprises pay 60% of the full rate, and the same reduction applies to night storage heaters installed before 1 April 1999.

ESTONIA

1. General framework

The main legal act regulating the Estonian electricity market is the Electricity Market Act (which came into force on 1 July 2003). This Act regulates the generation, transmission, sale, export, import and transit of electricity, as well as the economic and technical management of the power system. The Act sets out the principles for the operation of the electricity market based on the need to ensure an effective supply of

electricity at reasonable prices while meeting environmental requirements and the needs of customers, and on the balanced, environmentally clean and long-term use of energy sources.

State supervision of compliance with this Act and with legislation established on the basis thereof, including on the operation of the electricity market and the activities of market participants, is carried out by the Energy Market Inspectorate pursuant to the procedure provided for in the Act and in other legislation.

Under the Act, the following are subject to approval by the Energy Market Inspectorate:

- prices for electricity generated from oil shale mined in Estonia by a producer possessing generating installations with a total net capacity of at least 500 MW,
- weighted average prices for electricity sold within the framework of the selling obligation of the network operator, and the standard terms and conditions for the sale of electricity,
- prices for oil shale sold by an undertaking engaged in the mining thereof in Estonia,
- network charges of network operators, except connection charges, charges for the amendment of conditions and transmission charges for the transit of electricity, and the standard terms and conditions for the provision of network services.

In setting the transmission charge, a network operator must guarantee that market participants who have paid a connection charge and a charge for use of the network connection are ensured that electricity will be transmitted throughout the entire system.

An eligible customer is a customer who uses at least 40 GWh of electricity for their own purposes in a calendar year through one connection point.

During the negotiations on accession to the EU, Estonia agreed to a transitional period for opening up 35% of its electricity market by 31 December 2008. The EU stated in the annexes to the Treaty of Accession that it accepted Estonia's wish not to open up the electricity market until 2012 for social, environmental, regional and economical reasons, i.e. on account of the need to change the oil shale sector. In the summer of 2004, additions to the Directive on common rules for the internal market in electricity (Council Directive 2004/85/EC) took effect, providing for the opening-up of 35% of the Estonian electricity market from 31 December 2008 and its complete liberalisation from 31 December 2012.

2. Pricing of electricity

Most electricity tariffs have a two-component structure depending on power demand and energy consumption. All tariffs are published.

2.1. Industrial consumers

The factors affecting charges are:

- supply voltage (0.38/0.22 kV, 6-35 kV),
- ordered capacity (kW),
- installed capacity (kW),
- time of day.

The tariffs are grouped into packages enabling consumers to select the most suitable one (with or without the options of time-of-the-day rates, capacity charges, etc.): eight packages at 0.38 (0.22) kV and four packages at 6–35 kV voltage level.

Tariff rates have also been introduced for reactive energy, transmission and distribution services. There are also tariffs for consumers connected directly to the transmission grid, and for capacity reserve.

2.2. Domestic consumers

The factors affecting charges are:

- number of phases (1 or 3 phases);
- value of nominal current or current setting of protective circuit breaker at place of consumption (A),
- time of day.

The tariffs are grouped into six packages enabling consumers to select the most suitable one (with or without the options of time-of-the-day rates, fixed charges).

There are no special social tariffs.

3. Taxes on electricity

Sales of electricity are subject to 18% VAT.

IRELAND ¹

1. General framework

An electricity Regulation Bill was published on 1 December 1998, which laid down the introduction of competition in electricity generation and supply in Ireland. In July 1999, this Bill was enacted as the Electricity Regulation Act and the Commission for Electricity Regulation (CER) was established. The CER is an independent body responsible for licensing and regulating the generation and supply of electricity, authorising construction of new generating plant and overseeing third party access to ESB's transmission and distribution systems.

The first step in opening the market took place on 19th February 2000. At this stage, customers whose consumption of electricity at any single premises in any twelve-month period was estimated or calculated as 4GWh or greater were considered eligible consumers, i.e. entitled to purchase electricity from any licensed supplier.

The ESB (Electricity Supply Board) transmission business was separated in order to create a newly independent State-owned company appointed as independent Transmission System Operator.

Since 19 February 2004, electricity users with an annual energy requirement greater than 0.1GWh have been free to choose their own electricity supplier.

While the electricity prices charged (Public Electricity Supply PES) by the ESB are approved by the Commission for Energy Regulation (CER), independent suppliers in the marketplace are free to offer their own tariffs to eligible customers, combined with a range of additional services such as flexible billing, energy management services etc.

Full market opening of the electricity market happened in February 2005.

¹ Price system 2007

2. Pricing of electricity (public electricity supply)

2.1. Industrial/Commercial consumers

* Small commercial and industrial premises

General Purpose Tariffs

<i>1st January 2007</i>	<i>General Purpose</i>	<i>General Purpose Nightsaver</i>
Standing Charge	€ 149.65	€ 160.60
Standing Charge for Autoproducers	€ 77.38	€ 77.38
Night Storage Standing Charge	€ 8.03	
PSO Levy	€ 0	€ 0
Day Units €/kWh (up to 47,815 kWh annually)	€ 0.1705	€ 0.1736
Remaining Day Units €/kWh	€ 0.1625	€ 0.1598
Night Units €/kWh	€ 0.0695	€ 0.0695
Wattless €/kVAh (in excess of 1/3 of day + night kWh per bill)	€ 0.00756	€ 0.00756

All prices exclude VAT @ 13.5%. Night units recorded 11pm to 8am Wintertime and 12 midnight to 9am Summertime.

Low Voltage, Low Load Factor Tariff.

<i>1st January 2007</i>	<i>Low Voltage, Low Load Factor</i>
Standing Charge	€ 1025.65
Standing Charge for Autoproducers	€ 333.61
Maximum Import Capacity per kVA of MIC	€ 25.55
Excess Capacity	
<i>per kVA – non quarter hour meters (per 2 months)</i>	€ 12.78
<i>per kVA –quarter hour meters (per month)</i>	€ 10.65
PSO Levy	€ 0
Day Units €/kWh (Summer)	€ 0.1595
Day Units €/kWh (Winter)	€ 0.1867
Night Units €/kWh (Summer)	€ 0.0680
Night Units €/kWh (Winter)	€ 0.0680
Wattless €/kVAh (in excess of 1/3 of day + night kWh per bill)	€ 0.00692

Low Voltage Maximum Demand.

<i>1st January 2007</i>	<i>Low Voltage Maximum Demand</i>
Standing Charge	€ 1025.65
Standing Charge for Autoproducers	€ 333.61
Maximum Import Capacity per kVA of MIC	€ 25.55
Excess Capacity	
<i>per kVA – non quarter hour meters (per 2 months)</i>	€ 12.78
<i>per kVA –quarter hour meters (per month)</i>	€ 10.65
Maximum Demand per kW (30 kW minimum)	
<i>Summer (Mar – Oct)</i>	€ 0.0920
<i>Winter (Nov – Feb)</i>	€ 0.1100
PSO Levy	€ 0
*Block 1 Day Units €/kWh (Summer)	€ 0.1457
*Block 1 Day Units €/kWh (Winter)	€ 0.1680
Block 2 Day Units €/kWh (Summer)	€ 0.1060
Block 2 Day Units €/kWh (Winter)	€ 0.1395
Night Units €/kWh (Summer)	€ 0.0680
Night Units €/kWh (Winter)	€ 0.0680
Wattless €/kVAh (in excess of 1/3 of day + night kWh per bill)	€ 0.00692

*Block 1 day units – first 2099 kWh consumed annually.

* Medium and large commercial and industrial premises

Medium and High Voltage.

<i>1st January 2007</i>	<i>Medium Voltage 10/20kV STOD</i>	<i>High Voltage 38kV STOD</i>	<i>High Voltage 110kV STOD</i>
Standing Charge	€ 3041.91		€ 7,377.38
<i>Tailed</i>		€ 14,340.12	
<i>Looped</i>		€ 40,798.97	
Standing Charge for Autoproducers			
<i>Tailed</i>	€ 834.39	€ 3,800.75	-
<i>Looped</i>	-	€ 3,801.11	-
Networks Unauthorised Usage Charge per MWh in excess of MIC	-	-	€ 642
Maximum Import Capacity per kVA of MIC	€ 26.28	€ 21.17	€ 12.41
Excess Capacity	€ 6.73	€ 3.31	-
Unit Prices			
<i>Summer weekday day</i>	€ 0.1110	€ 0.1100	€ 0.1066
<i>Summer weekend day</i>	€ 0.0943	€ 0.0935	€ 0.0906
<i>Summer night</i>	€ 0.0536	€ 0.0532	€ 0.0515
<i>Winter weekday peak</i>	€ 0.2999	€ 0.2970	€ 0.2881
<i>Winter weekday off peak</i>	€ 0.1667	€ 0.1651	€ 0.1601
<i>Winter weekend day</i>	€ 0.1292	€ 0.1280	€ 0.1241
<i>Winter night</i>	€ 0.0659	€ 0.0654	€ 0.0633
Wattless €/kVAh (in excess of 1/3 of day + night kWh per bill)	€ 0.00609	€ 0.00567	

Summer – Mar to Oct inclusive. Winter Nov to Feb inclusive.

2.2. Domestic consumers

Domestic Charges

1 st January 2007	Urban	Urban Nightsaver	Rural	Rural Nightsaver
Standing Charge	€ 87.60	€140.16	€ 116.80	€ 177.39
Night storage heating standing charge	€ 8.03	€ 8.03	€ 8.03	€ 8.03
General Units	€ 0.1435	€ 0.1435	€ 0.1435	€ 0.1435
Night Units	€ 0.0705	€ 0.0705	€ 0.0705	€ 0.0705

Annual charges, all prices exclude VAT. VAT levied @ 13.5%

3. Taxes on electricity

Electricity is subject to VAT at a rate of 13.5%.

GREECE

Greece has not provided an update of electricity price systems referring to year 2006.

SPAIN

1. General framework

Since 1 January 1998, pursuant to the Law on the Electricity Sector, power supply has gradually been liberalised, leaving qualified consumers free to enter into contracts by direct access to the market or subject to various forms of contract developed as the market was developing.

Since 1 January 2003, all electricity consumers in Spain are qualified consumers and are free to choose their electricity supplier.

This liberalisation of electricity supply is made possible by:

- free access to transport and distribution networks for qualified consumers (all consumers) via the system of regulated transit tolls in the form of access tariffs;
- the creation of the role of commercial supplier. The law defines commercial suppliers as legal persons with access to transport or distribution networks who buy and sell electricity only on the liberalised market to qualified consumers or to other operators.

Under the Law, "eligible consumer" status is determined according to annual consumption by point of supply or plant. The timetable for liberalisation began in 1998 for consumers consuming more than 15 GWh per year and for rail transport operators, including metropolitan railways. The schedule for all consumers to achieve qualified status in various stages is as summarised in the following table:

TIMETABLE FOR LIBERALISING CONSUMPTION	
1.1.1998	Consumers of > 15 GWh per annum Rail operators, including metropolitan railways
1.1.1999	Consumers of > 5 GWh per annum
1.4.1999	Consumers of > 3 GWh per annum
1.7.1999	Consumers of > 2 GWh per annum
1.10.1999	Consumers of > 1 GWh per annum
1.7.2000	Consumers of > 1 GWh per annum or with supplied voltage of 1kV
1.1.2003	All consumers

Therefore, in 2001 and up to January 2003, “eligible consumers” were those with an annual consumption of higher than 1 GWh or with supplied voltage of 1kV, and rail transport operators, including metropolitan railways.

Up to 31 December 2006 the tariff system included full supply tariffs for consumers that have continued to contract their supply on the regulated market rather than making use of their option to contract on the liberalised market, and access tariffs for consumers who have contracted on the liberalised market. Nonetheless, in future the majority of consumers will contract on the liberalised market, with elimination of existing full supply tariffs and maintenance the access tariffs system. There will only be last resort tariffs for these consumers, as included under the provisions of Article 3(3) of Directive 2003/54/EC. The scheduled timetable for the gradual elimination of full supply tariffs will be established as part of the revision of the Electricity Sector Law, which is currently before Parliament and is scheduled to enter into force in 2007.

2. Pricing of electricity

Since 1 January 1998, the supply tariffs for electric power have applied to consumers without eligible status and to those with eligible status who do not exercise their rights as such.

Electricity tariffs are defined as single-rate maximum tariffs which apply to all final consumers across the entire national territory. Up to 2005, prices were updated every financial year. In 2006 the prices for full supply tariffs were updated both in January and in July, while prices for access tariffs were only reviewed in January. Once the average tariff is calculated, it is distributed over the different tariffs.

The different tariffs and the conditions under which these apply were established in 1983 and adjusted up to 1987, when the system was implemented in its entirety. Subsequent minor changes have permitted the system to be improved and made more flexible.

A new Royal Decree dated 27 December 2002 on the methodology for the approval of reference tariffs (R.D. 1432/2002) was approved. This Royal Decree established a maximum annual increase for average tariffs. In June 2006, this way of proceeding was modified by a Royal Decree-Law, which established that the annual maximum tariff increase would depend on the costs included in the calculation. These new provisions were applied to the price revision that entered into force in July 2006.

Up to 31 December 2006, the general tariff system was structured around certain general tariffs depending on the voltage supplied and the use made of the contracted power (which may apply to any type of user) and certain specific tariffs for public lighting, irrigation, traction and distribution (solely applicable to existing small distributors during a transitional period), large subscribers and domestic tariffs 1.0 and 2.0. The first four depend on the use of power or the conditions of supply. The latter two include the form of consumption.

The above-mentioned general tariff system was modified in the tariff revision introduced by Royal Decree 1634/2006, which has been in application since 1 January 2007. Some specific tariffs (traction and public lighting) have disappeared since 1 January 2007 and another specific tariff (irrigation) is due to be eliminated

as of 1 July 2007. The domestic tariffs were also revised on the basis of the amount of contracted power. In line with the measures for the gradual elimination of full supply tariffs, it was also established in Royal Decree 1634/2006 that high-voltage consumers that had opted to contract in the liberalised market would no longer have the option of contracting full supply tariffs after 1 January 2007.

The basic charge for electricity consumption has two components, one based on power demand and the other on energy consumption. This basic charge is subject to supplements or discounts corresponding to the existing additional four tariff components: time factor, reactive power factor, seasonality and interruptibility. Electricity bills also include any charges for renting metering equipment and taxes.

The above-mentioned additional tariff components are as follows:

- The time component takes the form of a discount or supplement in EUR based on the form of consumption and the average power use on the corresponding scale. There are five different time periods, and consumers are entitled to choose whichever best suits their needs.
- The reactive power component aims to minimise the consumption of reactive power by approximating the power factor ($\cos \varphi$) to the unit. It is based on certain percentage supplements and discounts depending on the power factor, and is applied to the entire basic charge. It ranges from a 4% discount for $\cos \varphi = 1$ to a 47% supplement for $\cos \varphi = 0.5$. This option is not available to subscribers covered by tariffs 1.0 and 2.0.
- The seasonality component takes account of different power costs at different times of the year, and aims to level out the system load curve. It provides for a 10% discount on the energy tariff for power consumption in the low season (May, June, August and September) and a 10% supplement during the high season (January, February, November and December).
- The interruptibility component changes the general conditions of contract for electricity for large subscribers in general High Voltage tariffs (contracted power in peaks and troughs > 5 MW) in that, in return for certain discounts, customers undertake to reduce their demand and not to exceed a pre-established power level (P_{\max}) during periods when the supplier so requests.

3. Taxes on electricity

As of 1 January 1998, a new special tax on electricity is levied, which replaces the charge included in the tariff for assistance to coal mining. The base for this new tax is the charge for electricity multiplied by a coefficient of 1.05113. The rate is 4.864%. This tax applies nationwide, and the amount thereof is also subject to VAT.

VAT is charged at a rate of 16%.

FRANCE ²

1. General framework

Only selling prices to non-eligible customers are controlled. Non-eligible customers receive the tariffs in force. Eligible customers may retain their tariff if they prefer it to one of the new price offers.

Commercial offers to eligible customers

In accordance with Directive 1996/92, the Law of 10 February 2000 offered large industrial consumers of electricity (over 16 GWh per annum) a free choice of electricity supplier, and thus the possibility to negotiate commercial offers compiled in relation to electricity market prices. This threshold has gradually been lowered and since 1 July 2004 all non-domestic clients have been eligible, i.e. all industrial customers, SMEs-SMIs and professionals, which is some three million customers. The market will be opened up completely as of 1

² Price system 2007

July 2007, when the 27 million domestic customers will also become eligible. Law No 2006-1537 of 7 December 2006 introduced the complete opening-up of the market with effect from 1 July 2007.

By choosing to exercise this eligibility, consumers forfeit their rights to the EDF's regulated tariff scheme. The commercial offers made vary considerably depending on the size of the customer.

In general, the tariffs offered to customers who have exercised their eligibility are based on the level of prices as observed on the French electricity exchange Powernext. For small non-domestic customers (annual consumption less than 7 GWh per annum), some suppliers' price offers are dovetailed with the levels of the corresponding regulated tariffs, perhaps with discounts or additional services. Moreover, most suppliers offer "green" packages where, by paying a supplement of up to €3/MWh, it is guaranteed that all or part of the electricity consumed by the customer corresponds to the same quantity of green energy purchased or produced by the supplier.

2. Pricing of electricity

Components of tariff prices

Electricity tariffs have a two-component structure comprising a fixed charge based on the subscribed demand and various energy prices which vary according to seasonal or time-of-day tariff periods for an average year of 8 760 hours.

Factors affecting tariff prices

The tariffs suggest ways of cancelling or modulating subscribed demand. There are several ways of modulating subscribed demand within the tariff periods. In such cases the demand actually invoiced is charged at a lower rate, calculated on the basis of the subscribed demand in peak periods plus any subscribed demand supplements in the other tariff periods, to which a reduction coefficient is then applied. Customers can therefore reduce their bills by cancelling their specified demand during one or more periods.

However, the reference quantities specified in the Directive 90/377/EEC do not provide for modulations of subscribed demand, and only the basic tariff is used to calculate this reference consumption. Customers may take out cancellation options to benefit from their capacity not to consume during peak periods (the TEMPO option and the EJP option).

2.1. Industrial consumers

In January 2007, 15.8% of the eligible sites had invoked their eligibility and 5.9% were being supplied by an alternative supplier.

Green tariff

In general the green tariff is intended for customers connected to the HVA and HVB regions. These customers have subscribed demand of 250 kVA or above. This tariff comes with two options: fixed tariff period (basic) or variable peak tariff period (EPJ, modulable).

The profile of a "green tariff" customer determines the choice of sub-category: A5 or A8 for those under 10 MW, Green B for between 10 and 40 MW and Green C for more than 40 MW.

The tariff applied depends on the duration of use of the subscribed demand (short, average, long or very long use), but remains at the discretion of the customer.

Subscribed demand is measured in units of active power (kW) for each of the seasonal or time-of-day tariff periods.

Reactive energy is supplied free of charge:

- up to the equivalent of 40% of the active energy consumed ($\text{tg } \Phi = 0.4$) during peak hours in December, January and February and during high-load hours in November, December, January, February and March;

- without limit during off-peak hours in November, December, January, February and March and throughout all of April, May, June, July, August, September and October.

During periods in which restrictions apply, the reactive energy consumed in excess of $\text{tg } \Phi = 0.4$ is invoiced monthly on the basis of current price lists.

Yellow tariff

Generally speaking, the yellow tariff is intended for customers whose subscribed demand is between 36 and 250 kVA. The tariff comes with two options, basic option or EPJ option, each with four tariff periods and four prices per kWh. These customers are connected to the LV region.

Subscribed demand is measured in terms of apparent power (kVA). Since it therefore takes account of installed capacity, there is no separate invoicing for reactive energy. It is, however, in the customer's own interests to keep his/her power factor within reasonable limits so as to avoid excessive subscribed demand for apparent power, the basis on which the standing charge is calculated.

Blue tariff

The blue tariff is intended for customers with a subscribed rating of 36 kVA or less connected to the LV region.

A number of options are available, comprising one, two or six tariff periods, which have either fixed tariff periods (basic option, off-peak) or variable peak tariff periods with short advance notice (tempo option, only for individual domestic customers). There is no invoicing for reactive energy, nor for when demand is exceeded (the power demanded by the installation is limited by the circuit-breaker).

2.2. Domestic consumers

The 27 million domestic customers are mainly connected at less than 36 kVA, and thus subscribe to the blue tariff described above.

Special social tariffs

Since 1 January 2005, there has been a special electricity tariff scheme for poor consumers. Thus, by virtue of the Decree of 8 April 2004, any person who meets certain material conditions may be given the chance to benefit from a reduced tariff for electricity. This reduction amounts to between 30% and 50% of the subscription charge and amount consumed, up to 100 kWh per month. In addition, special assistance to customers experiencing difficulties is provided under an agreement between the EDF, the non-nationalised distributors and the government social services.

2.3. Transitional regulated tariff for market adjustment

Law No 2006-1537 on energy of 7 December 2006 introduced a transitional regulated tariff for market adjustment, known as the "return tariff" (*tarif de retour*) by amending the Law of 9 August 2004 (Article 30-1 and 30-2). This "return tariff" is calculated by taking the regulated tariffs and applying an increase that differs according to the category of client. The rates of increase are as follows:

- blue tariffs: 10%;
- yellow tariffs: 20%
- green tariffs: 23%.

All eligible customers who submitted an application before 1 July 2007 will avail of the "return tariff" for a maximum period of two years from the date of the initial application. So as to ensure that all suppliers can supply customers at the "return tariff", a compensation mechanism has been introduced. This mechanism is based on both the public service electricity contribution (CSPE) and a new hydraulic/nuclear tax on producers with hydraulic/nuclear output over 2000 MW (i.e. EDF and CNR).

3. Electricity prices

Electricity prices on the open market (the over-the-counter market, the index for which is provided by Platts and the organised market, the prices of which develop on the Powernext electricity exchange) have increased very significantly since 2003. While prices were stable in the 2001-2002 period (~€20-25/MWh),

they increased significantly with effect from 2003, reaching a peak in mid-2006 at more than €60/MWh, and recently stabilised at around €50/MWh.

This trend has often been explained by a reduction in peak production margins. However, French output increased between 2002 and 2006 and exports remained stable, which suggests that the physical stresses often discussed are not particularly important. This trend should instead be linked to that in the German market (a market sensitive to raw materials such as coal and gas), which plays a decisive role in influencing the French market.

4. Taxes on electricity

The taxes on electricity are VAT, for supplies of less than 250 kVA, local taxes and, since 1 January 2003, the CSPE, which stood at €4.5 /MWh on 1 January 2007.

VAT is charged at 5.5% on the subscription (or fixed charge), 19.6% on the “energy” component net of taxes and 19.6% on the amount of local taxes

ITALY

1. General framework

The European Directive 96/92/EC of 19/12/1996 established rules on the liberalisation of the European electricity market in order to achieve a competitive and non-discriminatory situation in generation, transmission and distribution.

This Directive has been implemented in Italy by Decree Law No 79 of 16/03/1999, establishing the conditions of electricity market liberalisation and, consequently, the reorganisation of Enel S.p.A. and its role and its productive capacities.

Hence, the activities of production, import, export, distribution, purchase and sale that do not come under State monopoly have been privatised.

Generation

Decree Law No 79/99 established that as of 1 January 2003 any company can produce or import, directly or indirectly, more than 50% of the entire electricity produced or imported in Italy.

Sale

Sale activity can be engaged in by anyone having available electricity. Privatisation of the electricity market has introduced the role of “trader”. A trader is someone who purchases electricity wholesale and sells it to end consumers, without having any another activity linked to the electricity system.

Consumer demand

Decree Law No 79/99 subdivided consumers into “eligible consumers” and “regulated consumers”. The former can buy electricity on the free electricity market, while the latter can purchase electricity only through the distributor that is operative in their respective territorial area.

At the beginning of the liberalisation process, “eligible consumers” had to meet certain parameters linked to a certain consumption per year. By 2004 all consumers could be classified as “eligible”, except domestic consumers. They will however become “eligible” by 2007, the year established by the relevant European Directive for the total privatisation of the electricity markets in all European countries.

Regulation

Electricity activities are regulated by the “Authority for Electricity and Gas” set up by Law No 481 of November 1995.

Its main duties are to:

- define a transparent tariff system based on pre-defined criteria;
- protect customers in respect of the price, quality and supply of electricity;
- ensure maximum publicity of the service conditions and avoid any discrimination between customers;
- approve the tariff proposals of companies;
- propose schemes or changes in single licences or authorisation acts to the Ministry of Industry.

Distribution

This activity has been assigned until 2007 to operators that were active before the liberalisation process. Distributors are obliged to connect any consumers who so request to their networks. Distributors sharing with local authorities can ask Enel S.p.A. to repurchase distribution services in areas where they have unrolled this activity for at least 20% of consumers. By 1 January 2031, distribution will be at local level, favouring competition.

Transmission

Transmission and dispatching activities were reserved for the Italian State (Ministry of Treasury) and were assigned to the “Transmission System Operator (GRTN)”. The GRTN is a public entity formed as an S.p.A. The GRTN was formed by separating activities linked to electricity transmission and dispatching from Enel S.p.A. Law No 290 (27 October 2003) unified the property with the national transmission grid. The Ministry of Treasury retains ownership of the GRTN.

The national transmission grid extends over more than 40 000 km and includes the complete grid at very high voltage (380 and 220 kV) and parts of the grid at high voltage (120 and 150 kV). The grid also includes the interconnections with foreign countries.

The GRTN has formed two companies:

- The Single Buyer, which is a non-profit company responsible for continuous, safe and cheap supply to the captive market. On the basis of yearly consumption forecasts, it stipulates purchase contracts with generators and sale contracts with distributors in order to ensure a single tariff for captive customers. The Single Buyer became operational on 1 April 2004.
- The Market Operator, which is a company responsible for market organisation, and ensures neutrality, transparency, objectivity and competition among generators and fair management of adequate availability of power reserves. The non-statutory “electricity exchange” became operational in July 2004. The electricity exchange is formed by two markets: the ‘day-before’ market and the ‘adjustment’ market. The electricity exchange is an important tool for giving transparent prices to companies and end consumers.

Enel SpA

Enel SpA remains the biggest electricity company in Italy.

Enel produces and distributes electricity principally in Europe, North America and Latin America.

Enel has 53000 MW of productive power and 32 million electricity customers; it has around 2.3 million shareholders and its exchange capitalisation is around €50 bn.

Currently, Enel has started replacing, for all its consumers, the traditional electromagnetic meters with electronic meters that can read consumption in real time and manage agreements remotely. This innovation has made it possible to propose seasonal time-of-day tariffs that offer savings in the evening hours and at the weekend.

As at December 2006, Enel had launched a programme of investment of €4.1bn through to 2011; this is directed towards growth of renewable sources and developments of new technologies in favour of the environment.

After liberalisation of the electricity market, Enel SpA was divided into a holding company and separate companies, each designed to engage in different activities connected with the electricity market.

Enel SpA is currently made up of :

- **Enel Holding SpA**, which has strategic tasks and coordinates the other companies.
- **Enel Market Italy Division SpA**, whose mission is to provide an integrated supply of products and services in electricity and gas. Enel Market Division combines the sale of electricity and gas both on the free market and on the regulated market, public and artistic lighting and plant engineering and franchising.
- **Enel Italy Infrastructure and Network SpA**, whose mission is to manage the electricity and gas distribution networks with the aim of maximum efficiency and quality of the services provided to consumers.
- **Generation and Italy Energy Management SpA**, whose mission is to produce and supply electricity to the wholesale market at competitive prices using the best technologies and operating with maximum security in respect of the environment.

The new electricity tariff regulation as of 1 January 2007

(As per the guidelines set out by the Authority for electricity and gas)

At the end of December 1999 the Authority for Electricity and Gas issued a set of measures aimed at defining a new electricity tariff structure.

The Authority has defined the following nine classes of consumers:

- low-voltage domestic consumers
- low-voltage public lighting
- low-voltage eligible consumers for any use
- low-voltage captive consumers for any use
- medium-voltage public lighting
- medium-voltage eligible consumers for any use
- medium-voltage captive consumers for any use
- high-voltage eligible consumers
- high-voltage captive consumers

The main features of the new regulation are:

- Correspondence between tariffs and costs: the electricity price paid by consumers must correspond with the average costs borne by utilities to distribute electricity. Unlike the previous tariff regulation, the new regulation avoids discrimination and cross-subsidies.
- Correspondence between tariffs and service quality: the Authority has set parameters for the quality of service throughout the entire national territory.
- Replacement of the administrative tariff with a system of “tariff options”. The tariffs were formerly set by the Government; now the “tariff options” give utilities companies the possibility of tailoring tariffs to consumers’ specific requirements.

Tariffs for domestic consumers are set by the Electricity Authority. Tariffs for other users are set by distributors in accordance with the criteria and parameters established by the Authority for each class of consumer. These are the same all over the country. This enables distributors to offer non-discriminatory tariffs to all their clients with the same supply characteristics.

The new system is based on tariff constraints intended as the maximum price (excluding taxes) applicable by distributors/suppliers to their captive customers. These constraints are such as to ensure the coverage of both electricity supply costs and system burdens and all costs borne in the general interest.

The constraints consist of:

- a fixed ceiling on yearly tariff receipts that distributors are allowed to collect from all customers belonging to the same category (compliance with this constraint is verified “ex post” at the end of the year);
- a maximum amount of tariff revenue from a single customer of a given category (verification “ex ante”).

Each distributor is free to offer tariff options to its clients by way of a trade policy code that ensures the necessary transparency and correctness. All options refer to a supply service with characteristics and conditions that comply with the standards laid down by the Authority.

Tariffs must be subject to the Authority’s approval.

2. Pricing of electricity

2.1. Industrial consumers

From 1 January 2000 onwards the new tariff regulation also applied to “non-domestic” consumers. After an interim period, during which the previous tariff was discounted by a certain percentage laid down by the Authority, tariffs were set by distributors within limits established by the Authority. The substantial changes introduced by the new regulation were applied gradually in 2000 and 2001.

Operators must offer at least one base-tariff option for each category of consumers. Special tariff options can also be offered.

The operators:

- offer the base and special tariff options and define their structure;
- set the level of the base tariff options in accordance with the V1 and V2 constraints;
- set the level of the special tariff options in accordance with the V1 constraint;
- submit tariff options to the Energy Authority and state compliance with these two constraints.

The **V1 constraint** puts a ceiling on the yearly tariff receipts that distributors can collect from customers belonging to the same class. Verification that the tariff options offered to each class of customers are consistent with the V1 constraint is carried out at the end of the year (ex post). If the limit is exceeded in any given year, the utilities must reimburse the corresponding amounts to the excess revenues (plus an additional bonus) in consumers’ bills the following year.

The **V2 constraint** protects the individual customer and is only applicable to the base tariff option. This constraint puts a ceiling on the amount that any distributor is allowed to receive from a single customer belonging to the same class. Verification of tariff consistency with the V2 constraint is made by the distributor before making its offer (ex ante).

Obviously, the final electricity price also includes taxes and “system charges”.

2.2. Domestic consumers

Tariffs are set by the Authority. The new regulation will come into force when tariff “D1” is applied to all domestic consumers.

As this is a major change in comparison to the tariff in force up to December 1999, transition to the new rules will be gradual. In the interim period, the “D2” tariff will temporarily apply for domestic resident consumers up to 3 kW and “D3” will apply for the remaining domestic consumers.

Enel S.p.A., like other electricity companies, can offer domestic consumers special options and possibilities. These special options must however be approved by the Authority.

3. Taxes on electricity

Taxation on electricity supplies in Italy as of 1 January 2006

Electricity supplies in Italy are subject to taxation according to the utilisation and category of consumers.

Domestic users

State tax of €0.47/kWh, excluding the first two blocks (150 kWh a month) for supplies to domestic consumers up to 3 kW.

Local tax of €1.86/kWh, excluding the first two blocks (150 kWh a month) only for supplies to domestic consumers up to 3 kW.

For domestic consumers up to 3 kW who exceed consumption of 150 or 220 kWh a month when demand is up to 1.5 or 3 kW respectively, the benefit is progressively reduced by the number of kWh exceeding the above-mentioned limits.

Local tax of €2.04 /kWh on any consumption in second homes (e.g. holiday homes, etc.).

Value Added Tax (VAT) of 10% is applied to the entire amount of the bill, including taxes.

Supplies to premises other than homes

State tax of €0.31/kWh applied to customers with monthly consumption up to or equal to 1 200 000 kWh.³

Local tax of €0.93/kWh applied to consumption of up to 200 000 kWh per month.⁴

Value Added Tax (VAT) of 10% is applied to the extractive manufacturing, print, editorial and similar industries while other consumers are charged at a rate of 20%. VAT is calculated on the whole amount of supply (taxes included) and is recoverable by non-ultimate consumers.

In addition to the above taxes, the final price considers the following “system charges”:

- **A2:** expressed in €/kWh and €/client per year, covers the costs of dismantling nuclear plants and decommissioning nuclear fuels;
- **A3:** expressed in €/kWh and €/client per year, covers the costs of providing incentives for generating electricity from renewable sources;
- **A4:** expressed in €/kWh and €/client per year, covers the costs of supplying electricity at statutorily imposed discounted tariffs to certain customers (primarily the Italian State-owned railway company and Terni company);
- **A5:** expressed in €/kWh and €/client per year, finances research and development activities;
- **A6:** expressed in €/kWh and €/client per year, was introduced by the Authority on 1 January 2001 to cover “stranded costs”. In the transition to an open electricity market, it allows coverage of costs incurred by electricity utilities under the former monopoly that could not be recovered under a deregulated market;
- **UC₁:** expressed in €/kWh, covers imbalances in the equalisation mechanisms;
- **UC₃:** expressed in €/kWh, covers imbalances in the equalisation of transmission and distribution costs and integration mechanism;
- **UC₄:** expressed in €/kWh, covers the integration of small and medium-sized enterprises;
- **UC₅:** expressed in €/kWh, covers the difference between theoretical and effective losses;
- **UC₆:** expressed in €/kWh and €/client per year, provides for a charge for quality service;
- **MCT:** expressed in €/kWh, covers charges for nuclear plants.

³ The electrical energy used as raw material in industrial electrochemical processes is not subject to taxation.

⁴ Local districts can increase this tax up to €1.14 per kWh.

System charges are partially offset by contributions from producers that generate electricity from hydroelectric and geothermal sources.

The components described above as “system charges” can be changed every three months, in line with fuel charges from the Authority for Electricity and Gas.

CYPRUS

1. General framework

For the full transposition of Directive 96/92/EC concerning common rules for the internal market in electricity, the Regulation of Electricity Market Law No 122(I) of 2003 and a full set of implementing legislation concerning market rules, licensing, consumer protection and grid rules have been approved and became fully effective as of May 2004. This Law has now been amended by Law No 239(I) of 2004 in order to harmonise national legislation with the provisions of the new electricity Directive 2003/54/EC.

The Cyprus Energy Regulatory Authority (CERA) has been established under this law. CERA is an independent authority, responsible for the development and sustainability of healthy competition in the electricity market, as well as for the licensing of all activities relating to the construction of power stations and the generation, distribution and supply of electricity. In addition, an independent Director for the Transmission System Operator Unit has been appointed by the Council of Ministers.

In accordance with a Ministerial Order issued by the Ministry of Commerce, Industry and Tourism, as from 1 May 2004, 35% of the electricity market has been opened up to competition. Consumers whose consumption of electricity on any single premises in the last twelve months is equal to or greater than 0.35 GWh are considered eligible consumers, i.e. entitled to purchase electricity from any licensed supplier.

With regard to the further opening up of the electricity market, Cyprus was granted on the 25 September 2006 by the European Commission a derogation under Article 26 of Directive 2003/54/EC, on the basis of the definition of “small isolated system”. The derogation expires for all the non domestic customers on 1 January 2009 and for all the domestic customers on 1 January 2013, at which point the whole of the electricity market of Cyprus will be open to competition.

The Electricity Authority of Cyprus (EAC) remains a vertically integrated semi-governmental organisation. It owns and operates the three power stations on the island and also still owns all of Cyprus’ electricity networks.

On 1 August 2003, a renewable and energy-saving scheme levy of 0.13 cypents (22 euro cents) per kWh was imposed on electricity consumption for all consumers.

A new electricity tariff system based on marginal costing was introduced in March 2003, replacing the previous system which was based on historic costs.

A new tariff methodology reflecting actual costs as far as possible, including a legitimate profit, was approved by CERA. CERA is currently reviewing a preliminary proposal of new tariffs submitted by the EAC.

2. Electricity pricing

The tariff system for all consumers is uniform throughout the country.

2.1. Industrial consumers

The factors affecting charges are the:

- supply voltage (low 500 volts or less, medium 11 kV, high 66/132 kV),
- usage,
- maximum demand,
- load factor,
- time of day,
- fuel adjustment clause for kWh charged.

Industrial low voltage bi-monthly tariffs

These tariffs apply to low voltage electricity supplied where the load entitlement of the consumer's premises does not exceed 50 kVA:

- a two-part tariff comprising a bi-monthly fixed charge and a flat energy rate (tariff 25),
- a two-part tariff comprising a bi-monthly fixed charge and an energy rate which varies according to the time of day (tariffs 26 and 27).

Industrial low voltage maximum demand tariffs

These tariffs apply to low voltage electricity supplied where the load entitlement of the consumer's premises exceeds 50 kVA:

- a three-part tariff comprising a monthly fixed charge, a maximum demand charge and an energy rate both based on the load factor (tariff 71). Load factors are classified in three ranges: 0-30%, 31-60%, 61-100%,
- a three-part tariff comprising a monthly fixed charge, a maximum demand charge and an energy rate both based on load factor and time of day (tariff 72).

Monthly medium voltage maximum demand three-part tariff

This tariff applies to electricity supplied at medium voltage.

There is one three-part tariff (tariff 73) comprising:

- a monthly fixed charge,
- a maximum demand charge based on the time of day and the load factor,
- an energy rate based on the time of day and the load factor.

Monthly high voltage maximum demand three-part tariff

This tariff applies to electricity supplied at high voltage 66 or 132 kV.

There is one three-part tariff (tariff 83) comprising:

- a monthly fixed charge,
- a maximum demand charge based on the time of day,
- an energy rate based on the time of day.

2.2. Domestic consumers

The factors affecting charges are the:

- usage
- time of day
- fuel adjustment clause for kWh charged.

Four tariffs apply:

- a two-part tariff comprising a bi-monthly fixed charge and an energy rate both depending on the level of consumption (tariff 05),
- a two-part tariff comprising a bi-monthly fixed charge and an energy rate based on the time of day (tariffs 06 & 07),
- a two-part social tariff, for low income families and families with four or more children, comprising a bi-monthly fixed charge and an energy rate both depending on the level of consumption (tariff 08).

3. Taxes on electricity

Taxes include VAT at a rate of 15% and a levy for the promotion of renewable energy sources and energy conservation at a rate of 0.13 cents per kWh.

LATVIA

1. General framework

The tariffs for energy generation, network services and sales are based on methodologies approved by the Public Utilities Commission (the Regulator).

The Regulator is also the institution that approves tariffs for generation, transmission, distribution and for end-users.

Liberalisation of the electricity market is determined by the Cabinet of Ministers regulation entitled "Rules governing eligible electricity users". Since 1 July 2004 all electricity consumers except households have been entitled to choose their own supplier. Full liberalisation of the electricity market will be complete by 1 July 2007.

Up to 2007, none of Latvia's electricity consumers had switched supplier.

2. Electricity pricing

As mentioned above, the Regulator approves transmission and distribution tariffs, as well as end-user tariffs applied to all customers that have not used their right to choose a supplier. These tariffs comprise the:

- price for electricity,
- component for subsidised energy generation,
- transmission and distribution network services,
- supply service.

2.1. Industrial consumers

Tariffs are differentiated on the basis of the following factors:

- supply voltage (0.4 kV lines, 0.4 kV buses, 6-20 kV lines, 6-20 kV buses, 110 kV),
- usage time (day zone, night zone and maximum hours),
- level of contracted maximum load.

2.2. Domestic consumers

Tariffs are differentiated on the basis of the following factors:

- the level of input safety equipment supplied at current values;
- usage time (day and night zones).

3. Taxes on electricity

Tariffs include VAT only at a rate of 18%.

LITHUANIA

1. General framework

The following legal acts of the Republic of Lithuania regulate electricity prices:

- Law on Energy (2002, No IX-884)
- Law on Electricity (2000, No VIII-1881)
- (for prices for electricity transmission and distribution services and their respective maximum price thresholds) Price setting methodology of public electricity prices, price of public supply service and their respective maximum price thresholds. Both were approved by the National Control Commission for Prices and Energy on 30 August 2004.

Under Lithuanian law, prices for electricity sold by producers and independent suppliers and prices for reserve capacity are not regulated, unless the producer or independent supplier controls over 25% of the market share. The price regulation mechanism in such cases and the mechanism applied for balancing electricity are set by the National Control Commission for Prices and Energy, which determines price caps both for the transmission, distribution and public supply services and for public electricity. The specific prices and tariffs for the transmission, distribution, public supply services and public electricity are set and adjusted by the service supplier. The fees for the connection of customer equipment to the network are approved by the National Control Commission for Prices and Energy in accordance with the principles of non-discrimination as regards customers, network development and the efficient use of electricity.

The main electricity suppliers in Lithuania are the joint stock companies *AB Rytų skirstomieji tinklai* (Eastern Distribution Networks) and *AB „VST“* (Western Distribution Networks). These are public companies supplying electricity at consumer tariffs determined by approved regulations, whereas independent suppliers supply electricity to eligible customers at contractual prices.

Since 1 July 2004, eligible status has been given to all customers (except domestic), and as of 1 July 2007 all customers in Lithuania will become eligible and will be able to choose an electricity supplier for a given quantity of electricity at a contractual price. They will be able to purchase electricity directly from independent suppliers at an agreed price or from the public suppliers *AB Rytų Skirstomieji Tinklai* and *AB „VST“* at prices approved by the National Control Commission for Prices and Energy.

Relations between eligible customers and selected suppliers cover only the area of electricity production and are not related to the sphere of electricity transmission and distribution.

Eligible customers have the right to conclude electricity supply contracts with suppliers and producers holding an independent supplier's licence, and operating both on the territory of the Republic of Lithuania and in other countries. When concluding electricity supply contracts with suppliers, eligible customers have to conclude contracts for electricity transport services with the transmission or distribution system operators, depending on whose network customers' equipment is connected to.

2. Electricity pricing

The price caps (whether for industrial or domestic consumers) are determined by the National Control Commission for Prices and Energy in accordance with the Law on Energy, Law on Electricity and the methodologies for setting price caps. The methodologies are worked out and approved by the National Control Commission for Prices and Energy.

The price caps for the transmission, distribution and public supply services are set for a three-year regulatory period, and the price caps for public electricity for a one-year regulatory period. Prices and tariffs for electricity supplied by the joint stock companies *AB Rytų skirstomieji tinklai* and *AB „VST“* are set by the board decisions of those companies, but must not breach price caps.

There are three groups of electricity customers:

- **group No 1** – residents, consuming electricity in homes, household buildings, apartments, guest houses, holiday homes, garden plots, garages, garden communities and garage buildings, residential apartment blocks, associated activities of partners and individuals, management of residential apartment blocks (including guest houses) and common amenities in these homes,
- **group No 2** - customers (excluding those in group No 1), whose maximum capacity is 30 kW or less,
- **group No 3** - customers (excluding customers in groups No 1 and No 2), whose maximum capacity is over 30 kW.

The price cap for public electricity is the sum of the producers' forecast electricity selling price plus the price caps for the transmission service, distribution service and the public supply service and is set by the National Control Commission for Prices and Energy. In the event of changes to the above components of the price caps for public electricity, the price is amended accordingly.

The price caps for the transmission, distribution and public supply services set by the National Control Commission for Prices and Energy are subject to annual revision in the event of changes to forecasting or data on the quantity of electricity sold or transported, the annual inflation rate, taxes payable by the service provider, or other factors beyond the service provider's control used to set these prices.

The price caps for transmission services are set or recalculated no later than three months before the regulatory period started and the price caps for distribution, public supply services and public electricity no later than two months before the start of the regulatory period or the start of the respective year of the regulatory period.

Once the price caps are set by the National Control Commission for Prices and Energy, the specific prices and tariffs for transmission, distribution, public supply services and public electricity are decided upon and modified by service providers. The weighted average of prices and tariffs set by service providers within the regulatory period must not exceed the relevant price caps.

At the end of each year of the regulatory period, the National Control Commission for Prices and Energy ensures that the annual weighted average of prices and tariffs set by service providers has not exceeded the price caps. Should the National Control Commission for Prices and Energy find that the weighted average of prices and tariffs set by the service provider during the previous year of the regulatory period has exceeded the relevant price caps, it has the right to commit the service provider to reducing prices and tariffs accordingly.

Tariff/price components

The following tariffs are applied to the three groups of electricity consumers:

- the one-price tariff is a single price for the public transmission and distribution of one active electricity kilowatt-hour (kWh) to a customer service,
- the two-component tariff combines the capacity component and the energy component (undifferentiated, covering two time zones or differentiated by time intervals).

The capacity component is the monthly price for one kW eligible for consumption by a customer.

The energy component (undifferentiated, covering two time zones or differentiated by time intervals) is the price for one active electricity kilowatt-hour supplied to the customer.

Factors affecting tariffs/prices

The final price for end-users may differ depending on the voltage of the electricity networks supplying their electricity.

Group No 1 customers can choose to pay according to either one time zone tariff or two different time zone tariffs.

Group No 2 customers can also choose tariffs on the basis of either the capacity component and the undifferentiated energy component or the capacity component and the two different time zone energy component.

Group No 3 customers can also choose tariffs on the basis of either the capacity component and the undifferentiated energy component or the capacity component and the energy component determined by different time intervals.

The two different time zone tariff consists of the daytime and night time tariffs as well as Saturday and Sunday tariffs:

- the daytime tariff is the price per active electricity kilowatt-hour transmitted, distributed or supplied to the customer from 7 a.m. to 11 p.m. from Monday to Friday inclusive,
- the night time tariff and Saturday and Sunday tariff is the price per active electricity kilowatt-hour transmitted, distributed or supplied to the customer from 11 p.m. to 7 a.m. from Monday to Friday and around the clock on Saturdays and Sundays.

The tariff determined by different time intervals consists of the electricity tariffs for periods when the energy system is under minimum, medium or maximum loads as well as at weekends.

The maximum load time intervals for individual months are as follows:

- during October, November, December, January, February and March – from 8 a.m. to 11 a.m. and from 6 p.m. to 8 p.m.,
- during April and September - from 9 a.m. to 12 a.m. and from 7 p.m. to 9 p.m.,
- during May, June, July and August – from 9 a.m. to 12 a.m.

Minimum load time intervals are from 11 p.m. to 7 a.m.

Public holiday and weekend intervals apply during public holidays and around-the-clock at weekends (minimum load time intervals excluded).

Average load time intervals apply during the remaining periods not covered by the above.

2.1. Industrial consumers

According to the standard consumer groups (Ia–Ii) two customers group (No 2 and No 3) are included by the joint stock companies *AB Rytų Skirstomieji tinklai* and *AB „VST“*.

The electricity distribution networks apply three pricing plans (depending on the division between the capacity component and the energy component) for industrial customers in group No 2 and No 3. Industrial consumers receiving their electricity from networks running at under 110 kV but not under 6 kV are free to select any one of them, depending on the nature of their electricity consumption. If the consumer omits to select a tariff plan, the first tariff plan is applied.

If customers exceed their maximum capacity they must pay the electricity company for the surplus by applying the triple capacity component price in accordance with the Electricity Supply and Use Procedure, as approved by the Minister of Economy of the Republic of Lithuania. Should the user submit a request to overrun their maximum capacity, this is increased in accordance with the Procedure of Incorporation of Electricity Consumers and Energy Enterprises (Networks, Mechanisms and Systems) of the Producers of the Operating Energy Enterprises, as approved by the Minister of Economy of the Republic of Lithuania.

2.2. Domestic consumers

Domestic consumers are included under Group No 1 customers. The electricity tariffs set for this group depend on whether electric cookers are installed in residential buildings and whether individual electricity consumption exceeds 12 000 kWh.

Residential apartment blocks, property managers, associated activity partners, etc. purchasing electricity from 0.4 kV electricity networks for the general use of the apartment block (for the lighting of common areas of access such as stairwells and cellars, lift operation, etc.) or for the needs of guest-house apartment blocks are given a 5% discount on the electricity tariffs where the apartment block residents and the electricity supplier have not concluded a separate agreement on the collection of money, processing or supply of information or other services associated with the payment for the electricity supplied. This discount is not given to the customer, at the discretion of the supplier, in the event that the customer does not pay for the electricity on time or does not observe the commitments relating to the distribution or supply of the electricity.

The first customer group tariff is also applied for the electricity supplied to buildings or accommodation intended for various social groups (apartment blocks, guest houses, children's homes, asylums, foster homes, matrimonial homes, rectories, convents, etc.).

Special social tariffs

A 50% reduced tariff is applied for residents of the regions surrounding the Ignalina Nuclear Power Plant and to persons (and their families) injured in the struggle for the freedom of the Republic of Lithuania and the violent events which occurred on 11-13 January 1991.

3. Taxes on electricity

The only tax levied on electricity is VAT, currently applied at a rate of 18%.

LUXEMBOURG

1. General framework

The current tariffs in the Cegedel network for the sale of supplies to non-eligible customers are set out in the amendment of 15 December 2006 to the agreement of 30 June 2004 between the Government and Cegedel.

The law of 24 July 2000 introduced a regulatory authority. This function is carried out by the *Institut Luxembourgeois de Régulation*.

The tariffs for using the network are published after the Ministry of the Economy has approved an opinion from the *Institut Luxembourgeois de Régulation*.

The eligibility of customers is determined as follows:

From 1 July 2004, all professional customers and all distributors are eligible, regardless of the volume of consumption and voltage.

From 1 July 2007, domestic consumers will become eligible and the Luxembourg electricity market will be 100% open.

2. Pricing of electricity

2.1. Eligible professional consumers: 220/65/20/0.4 kV

Supplies to professional customers and distributors are not subject to published contracts.

2.2. Low-voltage domestic and professional consumers

The tariffs offered are as follows:

single tariff: monthly subscription per supply point and price per kWh

double tariff: monthly subscription per supply point, daytime price per kWh and night-time price per kWh

day/night tariff with recorded demand: price per kW for the maximum semi-hourly demand recorded in the course of the year, daytime price per kWh and night-time price per kWh. The tariff distinguishes two categories of consumers by annual duration of use: < 3000 h and > 3000 h.

The duration of use is the relationship expressed in hours between total annual consumption in kWh and the maximum annual demand in kW.

For customers with storage heating, it is only the maximum demand during the daytime period which is taken into consideration.

– For the double tariff and the day/night tariff with recorded demand:

daytime kWh: Consumption between 06.00 and 22.00 from 1 January to 31 December

night-time kWh: Consumption between 22.00 and 06.00 from 1 January to 31 December

The customer pays a monthly charge for the rental, maintenance and reading of the meter and the provision of information on the values recorded.

Cegedel's price structure makes no provision for special social tariffs.

3. Taxes on electricity

The following taxes and levies are added to the selling price for electricity:

- the “electricity tax” which has to be paid by all end users at a rate determined by the level of annual consumption;
- a levy paid to the “compensation fund” which is collected from all medium- and low-voltage end users at an amount per kWh set each year by the *Institut Luxembourgeois de Régulation*. The “compensation fund” seeks to ensure that the costs involved in carrying out public service obligations are fairly distributed amongst all network operators;
- 6% VAT.

HUNGARY

1. General framework

The principles of electricity price setting, the actual public end-user prices and the regulated electricity system usage prices are laid down and issued in Ministerial Decrees. With regard to the liberalisation process of the electricity market, non-residential customers are all eligible, which means that they have the right to purchase electricity from the free market.

2. Electricity pricing

2.1 Non-residential consumers

Average prices for non-residential consumers in the following classes are based on annual consumption:

- small business and professional activities (under 50 MWh)
- small enterprises (between 50 and 500 MWh)
- small/medium-sized enterprises (between 500 and 2000 MWh)

- medium-sized enterprises (between 2 000 and 18 000 MWh)
- large enterprises (between 18 000 and 70 000 MWh).

The price per kWh decreases the larger the class of consumption.

Non-residential consumers of public-market electricity have a regulated two-element tariff system (standing or one or two time zone capacity charges plus one or two time zone energy charges). Transmission, distribution and system operation costs, as well as electricity ("product") costs, are included.

Factors affecting regulated end-user average prices:

- contracted capacity, demand level (load factor),
- voltage level,
- timing of consumption (peak, off-peak).

Non-residential consumers of free-market electricity also have to pay regulated system usage prices (transmission, distribution and system operation tariffs), but they purchase electricity from the free market.

2.2. Domestic (residential) consumers

Domestic consumers are non-eligible; they have regulated pure energy tariffs. Prices are based on annual consumption in the following classes:

- small (under 2 000 kWh),
- medium (between 2 000 and 5 000 kWh),
- large (between 5 000 and 10 000 kWh),
- very large (over 10 000 kWh).

Factor affecting average prices: possible choice of cheaper, but controlled, separately measured (off-peak, or night) tariff, in parallel with general (all-day) tariff. The average price decreases the larger the controlled, separately measured consumption rate.

3. Taxes on electricity

VAT: 20%; Energy tax (for non-residential consumers): 186 HUF/MWh.

MALTA

1. General framework

The electricity price system in Malta is regulated with tariff structures and methodologies requiring the approval of the Malta Resource Authority and the Government Minister responsible for resources.

Tariffs are published by legal notice and included in legislation known as the Electricity Supply Regulations (the ESR). The ESR distinguishes between Domestic consumers, Commercial Consumers and Industrial Consumers while tariffs generally consist of a fixed element, a unit rate on consumption and a surcharge that is periodically adjusted to reflect changes in the cost of generation.

The electricity prices in Malta are set by Enemalta (with the approval of the Minister for Investment, Industry and Information Technology and of the Minister for Resources and Infrastructure), through the powers conferred by article 39 of the Enemalta Act."

2. Electricity pricing

2.1. Domestic consumers

Domestic rates may be found in the First Schedule of the ESR.

A fixed meter rate is charged while consumption is charged in blocks of progressive tariffs that increase with usage. A surcharge is applied on consumption. An consumption allowance is made for the number persons in a household is allowed while further rebates are granted for social assistance cases.

2.2. Commercial and Industrial consumers

Commercial and Industrial consumers are respectively charged under the Second and Third Schedules of the ESR.

These consumers are charged a higher meter rent than domestic consumers while unit tariffs differ for commercial consumers, hotels and industrial users. Larger consumers may opt for KVah and /or time of use tariffs. A surcharge is also applied on consumption but the surcharged levied on hotels and factories is capped.

3. Taxes on electricity

VAT at 5% is levied on electricity tariffs.

NETHERLANDS

1. General framework

Legal basis

According to The Electricity Act 1998 (Elektriciteitswet 1998) the electricity market was liberalised in stages.

Liberalisation was implemented in the following stages:

- major consumers, with an available installed capacity of at least 2 MW: with effect from 1 January 2001;
- intermediate users, with a maximum transmission value of more than 3 x 80A and an available installed capacity of no more than 2 MW: with effect from 1 January 2002;
- small consumers, with a maximum transmission value of 3 x 80A: with effect from 1 July 2004.

The process of liberalization was completed at the 1th of July of 2004. From 1 July 2004, the electricity companies were split into a network company, a supply company and a meter company. These companies charge the consumer for the services they provide. The network component of the charge is, in accordance with the electricity act 1998, regulated by the Office of Energy Regulation (DTe), whereas the supply and meter component are not regulated. As part of its regulation of the network component, the Dte lays down maximum charges and its regulatory role extends to all types of consumer.

In addition to the network, supply and reading charges, the consumer also has to pay duties and VAT.

The Electricity Act 1998 has been amended a number of times since its adoption, also with regard to the planned stages of liberalization and the further implementation of the various regulatory tasks.

2. Pricing of electricity

Network tariffs

The network tariff comprises a component for transmission and system services and a charge for the maintenance of the connection. For each of these components, and for each of the various market segments, the maximum tariff is set by the Dte for each network company. For each market segment, the

network tariff comprises a fixed rate plus separate charges per kilowatt-hour, per contracted kilowatt, and on the basis of the maximum kW value. Examples of market segments are the purchasers of high-tension electricity (110-150 kV), medium-tension customers and small users with a transmission value of less than 3 x 25A. Small users are further subdivided into connections with two meters, allowing separate measurement of day and night supply, and connections with only a single meter. Metering is not covered by tariff regulation.

Supply tariffs

With effect from 1 July 2004, supply tariffs are not regulated for any consumer.

Meter tariffs

With effect from 1 July 2004, meter tariffs, including standing charges, are not regulated for any consumer. The meter company component covers the cost of providing and reading meters.

3. Taxes on electricity

The duty on electricity is known as the energy tax (energiebelastung). The energy tax complies with the requirements of the EU Directive on energy taxation (2003/96/EC).

For 2006, the following energy tax was payable:

–	<= 10 000 kWh	0,0705 €/kWh
–	> 10 000 - <= 50 000 kWh	0.0343 €/kWh
–	> 50 000 - <= 10 mio kWh	0.0094 €/kWh
–	> 10 mio kWh, non-business	0.0010 €/kWh
–	> 10 mio kWh, business	0.0005 €/kWh

From 1 January 2003, lower energy tax rates were charged on "green" or "climate-neutral" electricity. These lower rates ceased to apply on 1 January 2005.

In addition to the energy tax, consumers pay what is known as the MEP levy. This is an annual levy on each connection and is intended to promote the production of electricity from environmentally-friendly sources. In 2006, this levy amounted to € 52.

For each connection, there is a rebate on the duty to be paid. This is a fixed amount for each 12-month consumption period and in 2006 amounted to € 145. The rebate has been granted since 2001 and replaced the zero-duty rating used up to 2000 for the first 800 kW of annual electricity consumption. The reduction is topped up by an amount that compensates for the MEP levy. In 2006, the additional amount was exactly the same as the levy, i.e. € 52. Accordingly, the total rebate in 2006 was €197(excluding VAT).

19% VAT is charged on the entire amount of the electricity bill, with the exception of the MEP levy. VAT is also charged on the entire amount of the rebate, including that part intended to compensate for the MEP levy. In effect, this means that a VAT rate of less than 19% applies to the electricity bill as a whole.

AUSTRIA

1. General framework

In Austria, the EU Directive on the internal market in electricity (2003/54/EC), which provides for the creation of a competitive electricity market, has been implemented by the Electricity Sector and Organisation Act (*Elektrizitätswirtschafts und -organisationsgesetz*) (EIWOG), as amended by the Energy Liberalisation Act (*Energieliberalisierungsgesetz*) (cf. Federal Law Gazette I Nos 149/2002 and 106/2006). Since 1 October 2001, the electricity market has been completely liberalised on the basis of regulated third party access to the system.

The *Energie-Control Kommission* is responsible for establishing fixed prices for the tariffs for system access either *ex officio* or on application, primarily by means of Regulations. Before any price is set, investigative proceedings must be conducted during which the parties concerned must be heard and the Advisory Committee on Electricity consulted.

2. Pricing of electricity

Supply contracts are concluded between suppliers and customers (for large consumers on an individual basis).

Small customers are generally supplied at the published prices, while large customers have the possibility of negotiating directly with suppliers on the price and other supply conditions.

Local operators generally propose all-inclusive prices to the small customers (domestic and commercial) in their traditional area, i.e. the prices cover both energy and network costs. New suppliers or operators from outside the traditional area focus only on the energy components. The end user is then faced with a variety of offers. Given that many small consumers (including commercial ones) are still poorly informed, an electricity-price calculator [*Tarifrechner*] has been developed and is available, for example, on the *E-Control* website. Not all operators use this system, however.

A comparison of the energy prices offered by local operators, or those offered by the local operator and the cheapest suppliers in each instance, reveals substantial differences. Despite the possibility of making savings of up to 30% (up to € 75 per year for an average household) by changing to a cheaper supplier than the local operator (energy price), the percentage of customers who switch over is still low single figures, despite the significant increases in the energy prices recently introduced by many companies – particularly in the second half of 2006.

It is, however, becoming increasingly apparent that the greater the volume of consumption, the more energy prices move in the direction of the wholesale prices, which is why this segment has also recently seen substantial price increases.

The tariffs for using the electricity networks are set by the *Energie-Control Kommission*, by means of Regulations, as fixed prices based on costs. Despite several reductions in the network tariffs and an ongoing system of incentives, however, there are still substantial differences in the level of network tariffs.

3. Taxes on electricity

A tax has been levied on the supply and consumption of electricity since 1 June 1996 (electricity tax). The tax is calculated on the basis of the amount of electricity in kWh supplied or consumed. This tax is levied at a rate of € 0.015 (1.5 cents) per kWh.

Until the end of 2003, companies were entitled to reimbursement of the portion of their energy taxes on gas and electricity that exceeded 0.35% of their net output. Until the end of 2001, this reimbursement had been granted only to those companies whose main activity was manufacturing. From 1 January 2002, this possibility to claim reimbursement was extended to all companies.

The reimbursement scheme was changed as of 1 January 2004 as a result of the implementation of Directive 2003/96/EC (Energy Tax Directive): on the one hand, the reimbursement threshold was raised to 0.5% of net output, and secondly all forms of energy used for heating purposes (gas, coal, heating fuels, etc.) were brought into the reimbursement scheme alongside electricity. In addition, the minimum levels of taxation prescribed in Directive 2003/96/EC (electricity: € 0.5 per kWh) must be observed.

The electricity tax is a component of the VAT base (20%). The basis on which VAT is assessed includes not just the supply of energy, but also use of the network, taxes, surcharges, etc.

A number of surcharges are levied in addition to the taxes. Until 31 December 2006, end users had to pay surcharges to support green electricity generating plants and combined heat and power plants. Since

1 January 2007, end users have been charged a metering fee (of € 15 per year for network level 7 (domestic customers). Some municipalities or *Bundesländer* also levy a consumption tax for the use of public land.

POLAND

1. General framework

Depending on the level of competitiveness of the electricity-market segment in question, electricity prices are regulated by tariffs laid down by the President of the Energy Regulatory Office (regulated segments) or are dictated by market forces (competitive segments).

The legal basis used by electricity, transmission, distribution and/or supply companies to calculate prices is the Ordinance of the Minister of the Economy and Labour of 23 April 2004 concerning the detailed rules on the calculation of tariffs and the settlement of payments in electricity trading.

The Energy Law allows electricity-sector companies to present a new tariff for approval to the President of the Energy Regulatory Office on their own initiative or at the request of the regulatory body. A company may be exempted from the process of tariff approval if it sells electricity in a competitive segment of the market. The exemption may be applied to all or part of company's activities.

In the case of bilateral contracts in competitive segments, settlement procedures and prices are set by the contracting parties. Usually these are linked to current market prices and market fluctuations. The prices quoted in bilateral contracts are usually higher than spot prices.

Bilateral contracts are the main form of retail and wholesale trading in electricity in competitive segments. Electricity trading is in such cases conducted directly between market players through electricity sales contracts.

Bilateral contracts concluded on the hourly and daily electricity market (schedule-related) are based on the hourly price and quantity of electricity sales on each day of the term covered by the contract.

2. Pricing of electricity

2.1. Industrial consumers

Industrial consumers of electricity are supplied at high, medium and low voltages. The largest consumers purchase electricity at high voltage, under "A" group tariffs: A_{21} , A_{22} , A_{23} . Numerous other industrial enterprises are supplied at medium voltage, under "B" group tariffs: B_{11} , B_{21} , B_{22} , B_{23} .

The tariffs are made up of the following components:

Tariff A_{21} :

Cc- whole-day-and-night price for active electricity [PLN/MWh]

A- fixed subscription fee [PLN/month]

Z- variable component based on the transmission rate [PLN/MWh]

S – fixed component based on the transmission rate [PLN/kW/month]

S_s – system component rate [PLN/MWh]

Tariff A_{22} :

The price for active electricity [PLN/MWh] is broken down into:

- C_s – peak-hours price

- C_{ps} – off-peak-hours price.

A – fixed subscription fee [PLN/month],

Z – the variable component based on the transmission rate [PLN/MWh] is broken down into:

- Z_s – peak-hours rate component

- Z_{ps} – off-peak-hours rate component

S – fixed component based on the transmission rate [PLN/kW/month]

S_s – system component rate [PLN/MWh]

A₂₃:

The price for active electricity [PLN/MWh] is broken down into:

- Cs – price applied in morning peak hours
- Csp – price applied in afternoon peak hours
- Cp – price applied for the rest of day and night

A – fixed subscription fee [PLN/month]

Z – the variable component based on the transmission rate [PLN/MWh] is broken down into:

- Zs – component applied in morning peak hours,
- Zsp – component applied in afternoon peak hours,
- Zp – component applied for the rest of day and night,

S – fixed component based on the transmission rate [PLN/kW/month]

S_s – system component rate [PLN/MWh]

For tariffs B₁₁ and B₂₁, the whole-day-and-night price applies, as do the variable and fixed transmission components and the subscription fee. In the B₂₂ tariff, the price of electricity and the variable transmission component are divided into two time periods: peak and off-peak.

For the purposes of national statistics, electricity prices for industrial consumers are collected and published in accordance with Council Directive 90/377/EEC of 29 June 1990 concerning a Community procedure to improve the transparency of gas and electricity prices charged to industrial end-users.

Smaller consumers are characterised by a maximum power demand in the range 30 kW to 10 000 kW, annual consumption from 30 MWh to 70 GWh, and an annual power utilisation factor between 1 000 and 7 000 hours.

The marker prices as well as the maximum and minimum prices are collected for the big industrial consumers with power capacities above 17.5 MW, in three power demand categories: between 17.5 MW and 37.5 MW, between 37.5 MW and 62.5 MW, and between 62.5 MW and 75 MW.

Small industrial consumers supplied at low voltage purchase electricity under the "C" group tariffs.

2.2. Domestic consumers

Electricity consumed by households is priced in Poland according to tariff groups adopted for the whole country, although the actual prices within the groups differ slightly depending on the distribution company.

The tariff groups are:

G - 11 – with one time period,

G - 12 – with two time periods, i.e. prices are divided into day and night categories.

In the case of the G-11 tariff, the amount due for electricity consumption is calculated on the basis of the following components:

Cc- whole-day-and-night price for active electricity [PLN/kWh],

A- fixed subscription fee [PLN/month],

Z- variable component based on the transmission rate [PLN/kWh].

S - fixed component based on the transmission rate [PLN/kW/month] depending on the type of electrical installation:

- S_{1f} - for single-phase installation,
- S_{3f} - for three-phase installation.
- S_s - system component rate [PLN/kWh]

I – average electricity consumption [kWh]

P – offtake power [kW]

For the G-12 tariff, the amount due for electricity consumption is calculated on the basis of the following components:

Price for active electricity [PLN/kWh], broken down into:

- C_d – price for daytime electricity,
- C_n – price for night time electricity.

A - fixed subscription fee [PLN/month],

Z - variable component based on the transmission rate [PLN/kWh], broken down into:

- Z_d - component corresponding to the daytime period,
- Z_n - component corresponding to the night time period,

S - fixed component based on the transmission rate [PLN/kW/month], broken down into:

- S_{1f} - for single-phase installation,
- S_{3f} - for three-phase installation.
- S_s - system component rate [PLN/kWh]

I – average electricity consumption [kWh]

I_n – average electricity consumption – night time [kWh]

I_d – average electricity consumption – daytime [kWh]

P – offtake power [kW]

For users whose payments are settled according to the G-11 tariff, the total annual electricity charge is calculated as follows ("I" means the quantity of electricity consumed):

- in the case of a single-phase installation:

$$O_{11_1f} = I * C_c + I * Z + A * 12 + S_{1f} * P * 12 + S_s * I$$

- in the case of a three-phase installation:

$$O_{11_3f} = I * C_c + I * Z + A * 12 + S_{3f} * P * 12 + S_s * I$$

For consumers using the G-12 tariff, the total electricity charge will be as follows:

- in the case of a one-phase installation:

$$O_{12_1f} = I_d * C_d + I_n * C_n + I_d * Z_d + I_n * Z_n + A * 12 + S_{1f} * P * 12 + I_d * S_s + I_n * S_s$$

- in the case of a three-phase installation:

$$O_{12_3f} = I_d * C_d + I_n * C_n + I_d * Z_d + I_n * Z_n + A * 12 + S_{3f} * P * 12 + I_d * S_s + I_n * S_s$$

3. Taxes on electricity

Currently the VAT rate for electricity is 22%.

Since 26 March 2002, excise duty has been charged for electricity at the rate of 0.02 PLN/kWh.

The duty is paid by electricity generators and importers, but is not applicable to electricity generated from renewable sources. The transfer of excise duty to the end-users takes place indirectly through the tariffs applicable to distribution companies approved by the President of the URE (Energy Regulatory Office). In the case of consumer tariffs, the excise duty is not included directly in the payment structure.

PORTUGAL

1. General framework⁵

The legislation governing the National Electricity System (SEN) was substantially restructured in 1995 and subsequently revised in 1997, in accordance with Directive 96/92/EC, to allow the coexistence of and some competition between the Regulated Market (MR), which provides the public electricity supply service, and the Liberalised Market (ML), which is open to market forces and which forms part of the Independent Electricity System (SEI).

The "Special" Generation Regime (PRE), also part of the SEI, is governed by specific legislation and includes the use of renewable resources (hydropower is limited to 10 MW of installed capacity), waste energy and combined heat-and-power generation. The MR is required to buy all the electricity generated in this way at favourable prices, given the evident environmental benefits.

⁵ This description does not cover the autonomous regions of Madeira and the Azores

The MR, responsible for public electricity supply, comprises the EDP Group (Generation and Distribution), REN (Dispatch and Transmission), and two independent power producers with installed capacity corresponding to approximately 16% of the EDP's generation plants.

The MR is characterised by long-term planning, competitive tendering for the construction and operation of new power stations, and strict regulation of the natural monopoly areas: transmission and distribution. Production prices are not directly regulated, but are established via Contracts for Acquisition of Energy (CAEs or PPAs - Power Purchase Agreements). Legislation has been published to abolish CAEs.

The ML operates subject to market rules and is not regulated, except for authorisation. It covers producers, distributors and customers. Non-binding producers and non-binding customers may connect via the MR networks but have to pay for access to those networks. They may, however, establish direct lines (non-binding distribution) between them, which may not be physically linked to the MR lines. All customers currently have eligible status.

There is an independent regulator, the Energy Services Regulatory Authority (ERSE), created under the 1995 legislation and in operation since 1997.

2. Pricing of electricity

Under legislation enacted in 1999, it falls to the ERSE to set annual tariffs and prices for low-voltage electricity, and quarterly tariffs and prices for other supply voltages.

Tariff Structure

Composition:

- Fixed tariff term prices
- Contracted power prices
- Peak time power prices (integrated in periods of 15 minutes)
- Active energy prices
- Reactive energy prices

Differentiation:

Supply voltage level: low voltage (BT), medium voltage (MT, for $1 < V \leq 45$ kV), high voltage (AT, for $45 < V \leq 110$ kV) and very high voltage (MAT, for $V > 110$ kV).

Use of power: no differentiation or short, medium and long-term.

Quarterly periods for the supply of electricity: without quarterly differentiation or Period I (from 1 January to 31 March), Period II (from 1 April to 30 June), Period III (from 1 July to 30 September) and Period IV (from 1 October to 31 December).

Hourly periods of electrical energy delivery: without hourly differentiation (simple energy tariff), 2 hourly periods (non-off-peak and off-peak), 3 hourly periods (peak, partial peak and off-peak) and 4 hourly periods (peak, partial peak, normal off-peak and super off-peak).

Tariffs to SEP Final Customers

BT social tariff: contracted power up to 2.3 kVA and simple energy tariff. Annual consumption cannot exceed 400 kWh.

BTN1 (N - Normal): contracted power up to 2.3 kVA and simple energy tariff.

BTN2: contracted power from 3.45 up to 20.7 kVA and optionally: simple energy tariff or 2 hourly periods.

BTN3: contracted power from above 20.7 up to 41.4 kVA and optionally: simple energy tariff or 3 hourly periods for medium or long use of power.

For BTN2 and BTN3, there are rebates for seasonal use (e.g. agriculture).

BTE (E - Special): contracted power above 41.4 kVA; peak time power price; fixed tariff term; 3 hourly periods and, optionally, medium or long use of power.

Public illumination: only the energy is charged at the simple energy tariff.

MT: fixed tariff term; contracted power; peak time power; quarterly periods and, optionally, 3 hourly periods or 4 hourly periods and short, medium or long use of power.

AT: fixed tariff term; contracted power; peak time power; quarterly periods; 4 hourly periods and, optionally, short, medium or long use of power.

MAT: fixed tariff term; contracted power; peak time power; quarterly periods; 4 hourly periods.

For contracted power up to 41.4 kVA, the billed power is the contracted power. For contracted power over 41.4 kVA, the billed power is the sum of the contracted power and the power at peak time (highest monthly value, in periods of 15 minutes).

For contracted power above 41.4 kVA, a charge is made for the consumption of reactive energy if the reactive energy in non-off-peak hours exceeds 40% of active energy consumption in the same period. The supply of reactive energy to the network in off-peak hours may be subject to a charge.

Customers using "charged" power (a weighted average of the contracted power and the power used, whichever gives the higher monthly value in 15 minute periods) of more than 2 000 hours per year and who have the possibility of reducing at least 4 MW of their load in periods defined by the distributor may opt for the interruptible tariff, which entails a monthly rebate, according to the value of the interruptible power of the customer.

3. Taxes on electricity

The main tax levied on electricity sales is VAT, currently at 5%.

Customers pay a monthly amount of €0.07 for domestic use, and €0.35 for non-domestic use, to cover the charge made by the Directorate-General for Geology and Energy for inspecting electrical installations.

ROMANIA

1. General framework

The Energy Act was issued in 1998 as Emergency Ordinance No 63/1998 and was replaced in 2003 by Law No 318/2003. With regard to setting the price of electricity sold to captive consumers, the law gives full power to the Romanian Energy Regulatory Authority (ANRE). The ANRE is also responsible for setting prices for network use, both for transmission and for distribution. These prices are established using transparent methodologies, and are published in the Romanian Official Gazette.

Under the Energy Act, pending full liberalisation of the market, tariffs should be the same for captive consumers throughout the country. These tariffs should be non-discriminatory and should cover all justified costs for generation, transmission, distribution and supply. They should also include a reasonable profit. Any cross-subsidy between categories of consumers and between electricity and co-generated heat is forbidden.

Market opening

Market opening is established by government decisions on ANRE proposals. In 2005, market opening was 83%, for all industrial users. Full market opening is scheduled for 2007.

In 2006, 1969 eligible consumers, representing about 47% of final electricity consumption, switched suppliers. On the competitive market, 50 suppliers were active in that year.

For electricity network use, a supplier must pay the regulated transmission tariff to the TSO (Transelectrica) and the regulated distribution tariff to the distributor. Each of the eight regional distribution companies has its own set of tariffs. Transmission tariffs have two components, L and G, and are established using a revenue cap methodology. Distribution tariffs are differentiated by voltage level, and are established using a price cap (price basket) methodology.

2. Pricing of electricity

The regulated electricity tariffs for captive consumers are uniform throughout the country. The tariffs include transmission, distribution and system services fees (the regulated tariffs for those activities).

2.1. Industrial consumers

Captive market

The Energy Act imposes a binomial tariff structure for all captive industrial consumers with contracted power over 30 kW. Also, no differentiation should be made for different uses of electricity.

The regulated tariffs for industrial consumers are differentiated according to:

- voltage level: low voltage, medium voltage, 110 kV,
- structure: monomial or binomial (monomial can be chosen only for contracted power under 30 kW),
- time of use.

Industrial captive consumers are free to choose from the following regulated tariffs:

Tariff A33 is the most complex tariff, with two components (power and energy) and three time-of-day charge bands: peak hours, off-peak hours, and remaining hours. The number of peak hours varies on a monthly basis, from four to eight hours per day. Consumers can choose from among three sets of values for power and energy according to their pattern of consumption. For this tariff there is also a set of values for consumers connected to the 220 kV grid.

Tariff A and tariff C also have a binomial structure, composed of a power fee (ROL/kW/year) and an energy price (ROL/KWh). The difference is that tariff A has the rates differentiated according to two time-of-use zones, for both power and energy, while tariff C is flat.

Two tariffs with only an energy component are also available for industrial consumers with contracted consumption below 30 kW (tariff B and tariff D). Tariff B is differentiated according to two time-of-use zones, while tariff D is not time-differentiated.

Industrial consumers whose consumption basket $\varphi < 0.92$ must pay for reactive power at a regulated tariff. If basket φ is lower than 0.65, a penalising factor of three is applied to the regulated tariff for reactive power. The regulated price for reactive power is differentiated according to voltage level.

Competitive market

Eligible industrial consumers can negotiate the energy price and the contractual rights and obligations directly with the suppliers. No restrictions are imposed on the negotiated price structure.

For transactions on the competitive market, suppliers must also pay:

- transmission network use,
- distribution network use,

- system services fee,
- market operator fee.

If the consumer has several contracts with different suppliers, then the consumer is in charge of these payments and the network use contracts.

2.2. Domestic consumers

A domestic consumer is free to choose from different regulated tariffs:

The social tariff is designed for domestic consumers with low income, and consequently with low electricity consumption.

The social tariff does not have a fixed component (subscription).

Average consumption of consumers who choose this tariff was about 46 kWh/month in 2006.

In June 2005, some improvements for the social tariff were implemented:

- The first block rate is applied for 2 kWh/day (about 60 kWh/month), at a lower price.
- A second block representing 1 kWh/day (another 30 kWh/month) is applied, also at a low price.
- The penalising rate is applied for electricity consumption over 90 kWh/month.
- The social tariff applies only to household consumers with a minimum family net revenue pro capita lower or equal to the minimum wage.

These measures have increased the efficiency of the social tariff as a tool for social protection.

The standard tariffs have two components:

- a fixed component, in ROL/day, for “reserved electricity”,
- an energy component, in ROL/kWh.

There are three standard tariffs, with different rates according to time of use for the energy component:

- standard tariff without time-of-day charge bands,
- standard tariff with two time-of-day charge bands,
- standard tariff with three time-of-day charge bands.

There is also a standard tariff without a fixed component and with only one rate for energy. This rate also includes the electricity sector’s fixed costs.

Tariffs based on power levels are also available. These tariffs have both a fixed component and an energy component, not differentiated by time of use. If consumption exceeds a certain threshold, the consumer is automatically disconnected. There are three such tariffs, each with a different threshold and different rates: 3 kW, 6 kW, and the third with no power limit.

All tariffs for domestic consumers are for consumption at low voltage, except the standard tariffs, where medium voltage rates are also available.

Domestic consumers can choose a tariff with time-of-day charge bands or a tariff based on power levels only if they are equipped, at their own cost, with a suitable electricity meter.

3. Taxes on electricity

VAT is applied to all electricity sold to final consumers. The VAT level is 19%.

Romania has established a schedule for gradually increasing taxes over the period 2007-2010, in accordance with Annex 1, Title VII – Special Taxes of the Fiscal Code, as amended by Law No 343/2006.

4. Category of consumption

In accordance with the provision of Article 1(3) of Council Directive 90/377/EEC, the corresponding volumes by category of consumption are as follows:

- for captive consumers the data for la – li categories are reported by the suppliers;
- for eligible consumers the volumes are spread for la – li categories, taking into account the structure (weight) of captive consumers and the consumption for each eligible consumer category.

The final structure of la – li categories for 2006 is as follows:

Category	(%)
la	7
lb	2
lc	6
ld	14
le	5
lf	17
lg	17
lh	4
li	28

For household consumers the structure for 2006 is:

Category	(%)
Da	5.5
Db	78
Dc	13
Dd	2.5
De	1

SLOVENIA

1. General framework

The internal market in electricity was created in April 2001 on the basis of the Energy Act adopted in 1999. All consumers with more than 41 kW of connected power received eligibility status. In accordance with Directive 2003/54/EC and following the amendment of the Energy Act, all non-household consumers became eligible as from 1 July 2004. The degree of market opening at the moment is 75%. The Energy Act provides for full opening by July 2007.

Deregulation of the Slovene electric power system clearly defined the activities of the production, transmission and distribution of electrical energy and introduced transparent differentiation between market-orientated (electricity sales, trade, services) and regulated activities (operation and development of networks).

The Energy Agency was established in 2000. It is an independent organisation which carries out specific tasks under the Energy Act, with the purpose of ensuring the transparent and non-discriminatory operation of the electricity and natural gas markets in the interests of all participants. It is responsible for setting prices for the use of electricity and natural gas networks, taking decisions in case of disputes and granting licences for performing energy-related activities.

There is only one holder of the licence for electricity transmission in Slovenia, which at the same time is the only holder of a licence for electricity transmission network operation.

There are 37 holders of licences for electricity distribution and 12 holders of licences for electricity distribution network operation.

2. Pricing of electricity

2.1. Industrial consumers

Electricity trade between eligible consumers in Slovenia is divided into bilateral trade and trade on the *Borzen* organised electricity market, established in 2002. Electricity sold on the *Borzen* market in 2005 represented 0.3% of final electricity consumption in Slovenia.

Eligible consumers negotiate and conclude contracts with suppliers for the sale and purchase of electricity, and with the network system operator for access to the network.

Consumers with fewer than 50 employees and an annual turnover below EUR 10 million have the possibility of opting for guaranteed supply. They do not then have the possibility of negotiating prices.

Tariff/price components

The end-use price of electricity for eligible consumers consists of the:

- price of the electricity supplied (bilateral contracts),
- price for the use of networks (regulated),
- excise duty,
- Value Added Tax.

The elements included in the price for network use are:

- use of transmission network,
- use of distribution network,
- ancillary services,
- operation of Energy Agency,
- preferential dispatching,
- maintenance of contract records.

They consist of a standing charge and/or an energy charge.

The prices for the first three components are set by the Energy Agency, those for the remaining components by the Government.

Factors affecting tariffs/

Components of bilateral contracts:

- unified price,
- high daily tariff, low daily tariff,
- different physical products:
 - base load energy,
 - intermediate load energy,
 - night energy,
 - hourly energy.

Depending on their technical possibilities (proper metering equipment) and their demand characteristics, consumers can decide on the most suitable electricity purchase scheme.

Prices for the use of the transmission and distribution networks are affected by the following factors:

- voltage level (high voltage: 400 kV, 220 kV, 110 kV, direct connection on transformation from high voltage/medium voltage, medium voltage: 35 kV, 20 kV, 10 kV, direct connection on transformation from medium voltage/low voltage, low voltage: 0.4 kV)
- season (high and medium voltage: high, middle, low season; low voltage: high and low season).

- time of day (high and low daily tariff).
- annual load (high voltage: $T > 6000$ h, $6000 > T \geq 2500$ h and $T < 2500$ h; medium voltage: $T \geq 2500$ h and $T < 2500$ h).

2.2. Domestic consumers

Household electricity prices are regulated by law under a Government regulation on the “Tariff System for Electricity Sales”.

The current tariff was introduced in July 2004.

Household consumers are divided according to their fuse rating:

- Group I: fuse rating 1x16 A and 1x20 A; subscribed demand up to 3kW
- Group II: fuse rating 1x25 A, 1x35 A, 3X16 A and 3X20 A; subscribed demand 7kW
- Group III: fuse rating 3x25 A; subscribed demand 10 kW.

Tariff/price components

The end-use price of electricity for household consumers consists of the:

- price of the electricity supplied,
- supplier costs,
- network use,.
- excise duty,
- Value Added Tax.

Prices for the first two components are set by the Government.

The components included in the price for network use are:

- use of transmission network,
- use of distribution network,
- system services,
- operation of Energy Agency,
- preferential dispatching,
- maintenance of contract records.

They consist of a standing charge and/or an energy charge.

The prices for the first three components are set by the Energy Agency, those for the remaining components by the Government.

Factors affecting tariffs/prices

The prices for electricity supplied to consumers are divided into two daily tariffs:

- high daily tariff (working days from 6.00 to 22.00) and
- low daily tariff (Saturdays, Sundays, national holidays (24 hours), and working days from 22.00 to 6.00 hours the following day).

They consist of a standing charge and an energy charge.

The prices for the use of transmission and distribution networks for households are affected by a single factor: the time of day (high and low daily tariff).

3. Taxes on electricity

In 2004, the excise duty for electricity was set to zero. VAT is set at 20%. It is recoverable for VAT registered companies.

SLOVAKIA

1. General framework

Since 1 January 2005, when new national legislation - implementing EU legislation - entered into force, the electricity market for industrial customers has been fully liberalised. Under the legislation in force, only the final price for households, i.e. for captive customers, is still regulated, up to 1 July 2007. After that date households will also become eligible customers with the right to choose their electricity supplier.

The final price of electricity consists of three basic components, these being the energy price (i.e. wholesale electricity price), system costs and network costs. The energy price for direct supply to industrial customers is established in the fully liberalised market, except for the price of electricity from renewable sources and from CHP (combined heat and power generation), which is set by the Regulator (Regulatory office for network industries). System services and system costs are regulated components of the final price.

2. Pricing of electricity

In general, the price for the final customer is established as follows:

Energy price (i.e. wholesale electricity price market-generated for industrial customers and regulated for households)	
+ system costs	
- tariff for system operation, tariff for system services	
+ network charges	
- charges for access to the transmission network and for transmission;	
- charges for access to the distribution network and for distribution)	
= final price without VAT	
+ VAT	
= final price including VAT	

2.1. Industrial consumers

The end-user price for industrial consumers

Basic power

+

System payments:

- tariff for system operation - includes costs of promotion of electricity generation from domestic coal, from renewable sources and from CHP – in SKK/MWh
- tariff for system services - includes costs for ensuring the stability and security of the network – in SKK/MWh

+

Grid payments:

- charges for access to the transmission network and for electricity transmission through the operator of the single national network. These charges are paid by regional distribution companies and customers directly connected to the transmission network – 400 kV and 220 kV. There are tariffs for:
 - reserved capacity – in SKK/MW
 - transmitted electricity – in SKK/MWh
 - losses in transmission grid – in SKK/MWh
- charges for access to the distribution network and for electricity distribution through the operators of distribution networks. These charges are paid by all customers connected to the network of a particular regional distribution company. There are tariffs for:
 - reserved capacity – in SKK/MW
 - distributed electricity – in SKK/MWh
 - losses in distribution grid – in SKK/MWh

The price of basic power is not regulated for industrial (eligible) consumers. The latter have the option of choosing their suppliers directly.

Regional distribution companies supply eligible customers, including electricity, depending on the voltage level (VHV, HV, LV) at which individual customers are connected to their networks.

2.2. Domestic consumers (households)

The pricing of end-user electricity for domestic consumers (households) is identical, only the basic power as part of the end-user price being regulated by the regulatory body. Tariffs for households are suggested by the distribution companies and confirmed by the regulatory body. These tariffs are a combination of a fixed payment (SKK/month) and a variable payment (SKK/MWh).

3. Taxes

The end-user electricity price is subject to 19% VAT. No other taxes are applied. The regulatory body approves prices without VAT. Taxes are not covered by regulatory powers.

FINLAND

1. General framework

The electricity market in Finland has been 100% liberalised since 1997.

The electricity companies set the tariffs and other conditions themselves. Network tariffs and retail tariffs have to be published. The Energy Market Authority (regulator) may intervene and ensure adjustments to ensure compliance with the electricity market legislation.

Until the end of 2004 the regulator had no power to provide network system operators in advance with any common or binding rules concerning methodology or revenue level. The regulator monitored the tariffs afterwards on a case-by-case basis (ex-post regulation).

The Electricity Market Act was changed at the end of 2004 and the regulatory framework was changed partially towards ex-ante regulation from the beginning of 2005. Since then the regulator has had power to confirm in advance by means of a decision the methodology for the reasonable pricing of network services. The methodology has been confirmed for a certain regulatory period. The first regulatory period has a length of three years covering years 2005-2007. The following regulatory periods have a length of four years. The regulator supervises thereafter at the end of each regulatory period whether the network system operators have followed the confirmed methodology (whether the pricing has been reasonable). The regulator also confirms ex-ante terms and conditions of network services.

The network system operators have an obligation to inform the regulator about the changes in their tariffs.

2. Pricing of electricity

In Finland there are separate tariffs for network services and electrical energy.

According to the Electricity Market Act the tariffs of network services (connection to the network, transmission and measurement of electricity) must be made public, and the pricing principles of network services must be equitable and non-discriminating. The pricing of network services must be based on a so-called postal stamp tariff system. According to this system, a customer connected to the network at one point, after having paid the necessary fees to the network system operator in question, has the right to use the entire Finnish electricity network from his connection point. The location of the customer within the

distribution system operator's geographical area of responsibility must not affect the tariffs of network services. The tariffs of network services differ from each other between different distribution system operators' networks, but customers cannot invite tenders. The network tariff is determined, among other things, by the quantity of electrical energy supplied to the customer, the power demand, and the voltage level at which the customer has been connected to the network. Lower voltage level network tariffs include also a part of the costs of the upper voltage level network.

As all customers in Finland are allowed to buy electricity from any retailer, the customers may also have negotiated tariffs. Electricity retailers should have public list prices for customers for which they have obligation to deliver. Obligation to deliver means that an electricity retailer in a major market position within the area of responsibility of a distribution system operator is the last resort supplier to consumers and other users of electricity whose place of use is equipped with main fuses of 3 x 63 amperes at maximum or whose place of electricity use receives annually no more than 100 000 kWh of electricity. The regulator doesn't fix or approve tariffs or pricing methodology for electrical energy.

There are 90 distribution system operators in Finland and there are also 13 separate regional network operators. All have their own tariffs. The common structures of these tariffs are described below.

2.1. Industrial consumers

Network tariffs for very large-scale industrial customers (connected to national grid at the 110 kV or above level) consist of a consumption fee, use-of-grid fee and connection point fee for the grid service. Connection point fee is in EUR/point, month and the other fees are in EUR/MWh. The consumption fee concerns the consumption of electric energy beyond the connection point between the customer and the grid operator. The consumption fee is specified separately for winter periods and for other times. Winter period is the period from 1 January to 31 March and from 1 November to 31 December, including these days. The use of grid fee concerns the volume of electric energy transmitted through the customer's connection point, specified separately for output from the grid and for input into the grid. The connection point fee concerns each physical connection.

Network tariffs for large-scale industrial consumers (connected to regional transmission network at the 110 kV) are quite often similar to the transmission tariffs in the national grid. The prices include both the costs of regional network and the fees for transmission in the national grid.

Network tariffs for medium-scale industrial consumers (connected to distribution network at the 0.4 kV or 6-70 kV level) consist normally of a fixed charge, a demand charge and several energy rates, typically two to four. The energy rates differ depending on the time of day or the time of year. There may also be a reactive demand charge.

Network tariffs for the smallest industrial consumers (connected to distribution network at the 0.4 kV level) typically consist of a fixed charge and one or two energy rates. Fixed charges typically depend on the size of the user's main fuse in rural areas. In larger urban areas the fixed charge is the same for all customers.

Electricity tariffs for industrial customers vary a lot among retailers. The public list prices for the smallest industrial customers consist normally of a standing charge, a demand charge and several energy rates. Some retailers have only energy rates in their tariffs. Other industrial customers have negotiated prices for electrical energy. Negotiated prices may have the same structure as the public list prices or these tariffs may for example be connected to the Nord Pool spot-prices (electricity exchange).

2.2. Domestic consumers

Network tariffs for the smallest domestic consumers (apartments or houses without electric heating) typically consist of a fixed charge and an energy rate. Fixed charges depend typically on the size of the user's main fuse in rural areas. In larger urban areas the fixed charge is usually the same for all customers.

Network tariffs for other domestic consumers (houses with electric heating) typically consist of a fixed charge and two energy rates. Fixed charges depend typically on the size of the user's main fuse in rural areas. In

larger urban areas the fixed charge is usually the same for all customers. The energy rates differ depending on the time of day or the time of year.

The public list prices of the electricity for domestic consumers have normally the same structure as the network tariffs. Some retailers have only energy rates in their tariffs. Negotiated tariffs for domestic consumers normally have the same structure as the public list prices.

In Finland there are no special social tariffs for electricity.

3. Taxes on electricity

The electricity taxation system in Finland is based on the taxation on consumption of electricity. The system has two separate electricity tax levels. Industrial customers and greenhouses pay 0.22 cent/kWh while others pay a higher rate of 0.73 cent/kWh. Electricity tax for industrial customers was decreased at the beginning of 2007. There is also a Precautionary Stock Fee of 0.013 cent/kWh for all customers.

Value added tax on electricity has been in effect in Finland since August 1986. The current rate is 22% and is recoverable for industrial customers.

SWEDEN

1. General framework

The electricity market was reformed on 1 January 1996. Competition was introduced for production and trade of electricity. Companies that perform transmission of electricity (local or regional monopolies) must be legally separated from companies producing, trading and selling electricity. All consumers were eligible in the new market if the consumption of electricity was measured by the hour. In November 1999 this requirement was abolished. Since then all consumers have the possibility to change electricity supplier without incurring costs.

The price of transmission of electricity is supervised by the Energy Markets Inspectorate. The Swedish Parliament decided on certain changes to the electricity act in the spring of 2002. One of the changes was an amendment to the criteria for reasonable network charge. According to the new regulations, reasonableness assessment should be based on the performance of the network company.

2. Pricing of electricity

2.1. Industrial consumers

The trade of electricity is settled either at the Nordic electricity exchange (Nord Pool) or through bilateral contracts between suppliers and consumers. In contracts, the price can be divided into different components and affected by different factors.

The price of electricity for industrial consumers consists of at least two parts:

The price of electrical energy (energy charge)
The price of network services (transmission charge)

Both parts can be divided into a fixed part and a variable part, which is related to the amount of electricity used.

2.2. Domestic consumers

The total electricity price for domestic consumers consists of:

- The price of electrical energy (energy charge)
- The price of network charges (transmission charge)
- Taxes (energy tax and VAT)
- Price of electricity certificates

Both the energy charge and the transmission charge can be divided into a fixed part and a variable part, which is related to the amount of electricity used.

The electricity suppliers set their prices without government regulation. As it is an open market, prices differ between different suppliers. Some suppliers give rebates to members of different organisations, employees of companies and inhabitants in their own municipality.

The total price of electricity varies between different consumer categories and between urban and rural areas. This is due to variations in the distribution costs, difference in taxation, subsidies, as well as the structure of the electricity market. The fixed price and the electricity price per kWh can depend on the size of meter fuse, consumption pattern and the amount of electricity use during one year.

For an average consumer with an electrically heated detached house, the composition of the electricity price was about 40 % electrical energy price, 18 % transmission and 40 % energy tax and VAT, and 2% electricity certificate price (as of 1 January 2006). Just over a third of the price may be affected by changing supplier in the competitive part of the electricity market.

3. Taxes on electricity

Industrial consumers

An energy tax is levied on electricity consumption in the manufacturing process of the industrial process. Since 1 July 2004 an energy tax of 0.005 SEK/kWh has been levied on industrial operations. To support efficient energy usage, new legislation was introduced on 1 January 2005. The law contains regulations that gives energy intensive companies a possibility to participate in a five-year programme becoming more energy efficient. In exchange, the companies are declared exempt from energy tax.

Domestic consumers

In 2006 domestic consumers paid an energy tax of 0.261 SEK/kWh on electricity consumption. Some regions in the northern part of Sweden have a reduction in energy tax and pay only 0.201 SEK/kWh. VAT on electricity, transmission of electricity and energy tax is 25%.

UNITED KINGDOM

1. General framework

Structure of the market

Full competition in the supply of electricity came into effect throughout Great Britain (GB) in May 1999: the former regional electricity companies (RECs) and other suppliers may, after obtaining a licence, supply electricity to consumers. Each supplier is obliged, except in specified circumstances, to supply any premises within its area requesting a supply. A number of the major generators also operate as suppliers in the competitive market. In recent years there has been a move towards vertical integration such that six companies now serve most of the electricity supply market in GB: Centrica, EDF Energy, E.On UK, RWE npower, Scottish Power and Scottish and Southern Energy.

On 1 October 2001, following licensing changes and transfer schemes approved by the Secretary of State under Schedule 7 of the Utilities Act 2000, companies were required to demerge into four separate licensed legal entities holding separate licences for generation, transmission, distribution and supply. At the same

time in England and Wales each of the then RECs split into separate licensed legal entities for distribution and supply.

Electricity in Northern Ireland is generated by three private companies: AES Kilroot, Premier Power and Coolkeeragh ESB. Transmission, distribution and public supply of electricity are the responsibility of Northern Ireland Electricity plc (NIE), a subsidiary of Viridian. Currently there are ten Second-Tier Suppliers licensed to supply non-domestic customers of electricity; at present only four of these licence holders are active in the market. Domestic market opening is scheduled to take place during 2007.

Supply and trading of electricity

A wholesale market for the bulk trading of electricity in England and Wales was established on 31 March 1990. This was the Electricity Pool which was controlled by its members and operated on a day to day basis by the National Grid Company (NGC). The members of the Pool competed in the generation of electricity for sale into the Pool by “bidding” the price, for each station, for each half hour period in the day ahead, at which they were prepared to sell electricity to the “Pool”. The NGC then scheduled power stations according to the prices bid, taking account of forecast demand and certain other constraints such as limits on transmission capacity.

The Electricity Pool in England and Wales was replaced by New Electricity Trading Arrangements (NETA) on 27 March 2001. The new trading arrangements are much more like those in other commodity markets. They comprise a series of bilateral markets (i.e. genuine two-side markets unlike the Pool) designed to encourage competition and liquidity and to remove distortions in the market.

The key features of NETA are:

- a forwards market where generators are able to contract with suppliers and large customers for the physical delivery of electricity. Such contracts can be struck close to the time of delivery or a year or more ahead;
- screen-based short-term power exchanges to enable participants to refine their contract positions close to real time in the light of current information (e.g. on the weather);
- a balancing mechanism operating from 1 hour before real time in which the National Grid Company, as system operator (SO), accepts offers of and bids for electricity to enable it to balance the transmission system (NGC may also contract ahead for balancing services). However, the vast majority of trading takes place in the forward markets rather than in the Balancing Mechanism (BM) – less than 5% of electricity demand is accepted in the BM; and
 - a settlement process to deal with the financial settlement of balancing mechanism trades and to deal with those participants whose generation or consumption of electricity is out of balance with their notified position. The Balancing Mechanism is the means by which the SO balances the system between gate closure and real time for each half hour period. Participants whose contracted and physical positions are “out of balance” are subject to energy imbalance prices which are designed to reflect the costs of imbalances having to be resolved by NGC. These are known as the System Buy Price (which is paid by parties who are under-contracted) and the System Sell Price (which is paid to parties who are over-contracted).

On 1 April 2005, the England and Wales trading arrangements were extended to Scotland by the British Electricity Trading and Transmission Arrangements (BETTA). BETTA has created a single GB market for the trading of wholesale electricity, with common arrangements for access to and use of the GB transmission system. From 1 April 2005, NGC has become the System Operator for the whole of GB, while Scottish Power and Scottish and Southern Energy continue to own the transmission assets in Scotland.

The Northern Ireland Authority for Energy Regulation has recently embarked on a joint venture with the Irish Commission for Energy Regulation to develop an all-island Single Electricity Market. It is envisaged that an effective all-island electricity market will result in more efficient generation dispatch, lower cost of generation, facilitation of economies of scale and scope, competitively set energy prices, a predictable and stable trading

system, increased attractiveness for generation investment and supplier entry, increased security of supply, integrated system planning and shared costs of maintaining fuel diversity. The regulatory authorities have established a clear work programme and it is intended that the new market will be fully operational by November 2007.

Regulation of the industry

All companies supplying electricity in GB, apart from those qualifying for exemptions, are required to obtain licences from the Gas and Electricity Markets Authority (GEMA). GEMA is also responsible for ensuring that licence holders abide by the conditions laid out in their licences.

The Northern Ireland Authority for Energy Regulation (NIAER) has responsibility for regulating the industry in Northern Ireland on a day-to-day basis and is responsible for granting licences for the generation, transmission and supply of electricity.

Regulation of electricity prices

In both Great Britain and Northern Ireland the respective regulator has to be satisfied that any changes in the price of monopoly services proposed by a company are consistent with its licence conditions. Price control formulae contained within the licences link maximum allowed revenues in one year to those allowed in the previous year and the percentage change in the Retail Prices Index (RPI).

In GB there are no price controls in respect of electricity generation or supply, as these are subject to competition in full. A British-wide wholesale electricity market was introduced in 2005: BETTA. This created a competitive wholesale market through a common set of trading rules and arrangements for access to/use of the transmission system so that electricity can be traded across Britain. The previous arrangements in Scotland relied on administered prices, pegged to the England and Wales market prices, which reflected neither Scottish market conditions nor the excess generation capacity there. In addition, the previous rules inhibited the growth of renewable generation in Scotland because the local market was too small, and the market in England and Wales was expensive and complicated to access; the structure of the market and the ways in which the market rules operate in Scotland created barriers to entry, and the previous arrangements provided no straightforward access to the GB market for generation in Scotland, nor for generation in England and Wales to sell into Scotland.

BETTA also introduced a common transmission charging regime that was developed by National Grid in consultation with the industry and approved by GEMA in accordance with its statutory duties. The GB charging methodology reflects more closely the costs imposed by generators and customers in their use of the network and as such is intended to help competition in electricity generation and supply markets to operate properly across Britain; reflect the real costs of transmitting electricity; and send important signals about the differential costs of locating generators in different parts of the country, which in itself will influence decisions on which older power stations should close and where new stations should be located.

GEMA regulates the level and structure of the prices charged for using the monopoly networks and the quality of service provided by these networks. The transmission companies' (National Grid Electricity Transmission, Scottish Hydro-Electric Transmission and SP Transmission) price control arrangements are typically reviewed every five years; the next price control period begins in April 2007. At the price control review transmission licensees provide forecasts of capital and operating expenditure over the price control period, based on expected developments on the network and forecast generation connections, disconnections and demand growth. The regulator reviews these plans, consults and discusses these forecasts with transmission licensees and then GEMA makes proposals. These proposals set out GEMA's views on the revenues required by each transmission licensee to finance efficient levels of capital and operating expenditure for the next five years. Finally, modifications are made to each company's licence, to specify the amount of revenues the companies are allowed to recover.

The price controls covering electricity distribution have been reset to cover the period 2005-2010. They restrict the revenues that the distribution companies can charge to move broadly in line with inflation over this period, to accommodate a significant increase in investment. The price controls also provide incentives on the companies to improve quality of service and to accommodate increases in distributed generation. Charges for electricity distribution make up approximately 25 per cent of the overall electricity price.

In April 2001 price controls were lifted for Public Electricity Supplier domestic customers on direct debit tariffs. In April 2002 all remaining price controls were lifted. Thus the prices charged by suppliers to domestic customers in GB are no longer subject to regulatory price control.

Tariffs in Northern Ireland are fixed by NIE after consultation with the NIAER on an RPI - X formula, applying to a total revenue cap on the transmission and distribution business of NIE. The formula contains a weighted average of two components: a fixed component independent of the level of sales and a variable component which takes account of sales. The overall effect is to strengthen NIE's incentive to promote energy efficiency. The supply side of NIE's business is also regulated by an RPI - X formula.

The ability of NIE to pass through generation costs to customers is also regulated in a way which gives NIE an incentive to buy power as cheaply as possible.

2. Pricing of electricity

2.1. Industrial consumers

In England, Wales and Scotland, industrial and commercial customers can obtain their supply from a company of their choice. The price is determined for each individual customer and usually related to maximum demand, consumption and the seasonal and daily pattern of use. Depending on the supplier, options are sometimes available to larger industrial customers under which the contract price is related to the wholesale price. Customers of some supply companies can also negotiate Load Management terms whereby the price is lowered in return for an agreement to reduce load at peak periods.

As of March 2005 all non-domestic customers in Northern Ireland became eligible to choose their supply regardless of their annual consumption level.

2.2. Domestic consumers

Competition was introduced for domestic and smaller industrial and commercial customers, i.e., those consuming up to 100 000 kWh a year, over an eight month period from September 1998. By May 1999, all customers were able to choose their electricity supplier from a list of suppliers licensed by the industry regulator, Ofgem. At that time, all the Public Electricity Suppliers, as the dominant supplier within their own region, were still bound by supply price controls set by Ofgem. New entrant suppliers in the electricity market were not subject to price controls, the prices they charge to customers are a matter for individual companies to set. To date, over 12 million domestic electricity customers have exercised their right to change supplier.

There are three main types of payment method: the credit tariff, where customers receive quarterly bills in arrears, which applies to the majority of domestic sector sales; the direct debit tariff, where payments are usually made on a monthly basis, direct from the customer's bank account; and the domestic prepayment tariff, where customers pay in advance via a meter.

In addition to the three payment methods, domestic electricity customers can also choose between different tariffs depending on their pattern of consumption. The two most common ones are:

- Standard tariff:

Some companies still offer the traditional method of charging to customers, where a daily standing charge is charged separately from the unit charge for each kWh of electricity consumed. Many companies have now moved away from this system and now offer a two-rate unit charge without a separate daily standing charge. Effectively, a company will decide on the level at which the second unit rate will be applied. A customer will be charged one rate for the units used up to this level each quarter and will be charged the second unit price for all consumption over this level each quarter.

- Economy 7/White Meter tariff:

The main difference between an Economy 7/White meter tariff and a standard tariff is that the Economy 7/White Meter tariff offers cheaper electricity to customers between certain off-peak hours. This allows customers, particularly those who use electricity for heating, to benefit from cheaper prices during the night. It also helps the electricity companies balance the load more easily.

Since the liberalisation of the gas and electricity markets, many companies offer Dual Fuel tariffs, whereby customers who receive both gas and electricity from the same supplier benefit from a discount. This discount is usually a fixed amount per quarter or per year, and is in addition to any Direct Debit or prompt-payment discounts that the customer may be receiving.

Over the last 2 years, many companies have introduced fixed or capped tariffs to help customers cope with increasing gas/electricity prices. These tariffs fix a price, or fix a limit that the price will not rise above, for a certain period, usually 2 years. Some suppliers also make particular tariff offers to low-income or vulnerable customers.

3. Taxes on electricity

The Climate Change Levy came into effect from 1 April 2001 and applies to the non-domestic use of energy. The levy is one of a number of measures in the UK's Climate Change Programme to tackle climate change by encouraging energy efficiency across business as a whole, which will lead to lower greenhouse gas emissions. Energy intensive industries receive an 80% levy discount where they have committed to challenging energy saving targets in negotiated agreements with the Government. On average the Climate Change Levy increases the price of a unit of electricity by 7 per cent.

VAT is paid at a rate of 17.5% for non-domestic users and 5% for domestic users. VAT is deductible for industrial and commercial users subject to the general tax system.

The UK Government's key mechanism for promoting renewable electricity is the Renewables Obligation. This requires electricity suppliers to supply an increasing proportion of their electricity from renewable sources. Suppliers can meet their obligation by presenting Renewable Obligation Certificates (ROCs); by paying a buy-out fund contribution equivalent to £30/MWh (in 2002 rising each year with RPI); or a combination of the two. ROCs are currently issued to eligible renewable generators for each 1 MWh of electricity generated, these are then bought by supply companies to demonstrate their compliance with the Obligation. Renewable electricity is exempt from the Climate Change Levy and along with the Renewables Obligation will provide £1bn of support to the renewables industry a year by 2010. The cost of the Obligation is expected to be equivalent to an increase of some 5% in electricity prices by 2010 over actual 1999 prices. In 2006/07 suppliers are required to source 6.7% of their electricity sales from renewable generators; this proportion is presently scheduled to increase every year to 15.4% by 2015/16.

CROATIA

1. General Framework

The regulation on energy sector performance, adopted in December 2004, has been amended to include a new legal framework for the establishment of the electricity market in the Republic of Croatia. The Regulation on the electricity market establishes the schedule for Market Opening as follows:

- 1 July 2006 for customers with consumption of more than 9 GWh,
- 1 July 2007 for industrial customers,
- 1 July 2008 for all customers.

A new secondary legislative act was adopted in 2006, which regulates the electricity market, namely, the new General terms for Electricity Supply and a new Tariff System.

Electricity plants in the Republic of Croatia are mainly owned by the HEP Group members, the others belonging to independent producers (industrial co-generation, 50% share in TE Plomin, renewable sources). The energy produced is partly exported abroad. Electricity distribution is carried out by the national company, which covers the entire Republic of Croatia, HEP – Distribution System Operator – HEP-DSO. Electricity transmission is performed by the company HEP - Transmission System Operator – HEP-TSO). All these companies are HEP Group members.

2. Electricity Prices

By the end of 2006, the Croatian Energy Regulatory Agency (CERA) had adopted new tariff systems for activities related to electricity production, transmission, distribution and supply:

- Tariff system for electricity production, with the exception of eligible customers, without the amounts of tariff items
- Tariff system for electricity transmission, without the amounts of tariff items
- Tariff system for electricity distribution, without the amounts of tariff items
- Tariff system for electricity supply, with the exception of eligible customers, without the amounts of tariff items.

The Croatian government determines tariff items within the quoted tariff systems.

Tariff items for all customers throughout the entire territory of the Republic of Croatia are identical. Subsidising of socially jeopardised customers has been solved through special departments organised within the Ministry of Health and Social Welfare.

Energy prices for eligible customers consist of regulated a part (network utilisation fee) and a part which is freely negotiated between the supplier and the customer on the market (energy price).

Tariffs for household customers consist of a permanent fee and a part which depends on the electricity consumed, which varies depending on the time of day.

Industrial customers are divided into:

- High-voltage customers
- Medium-voltage customers
- Low-voltage customers (with power measurement, without power measurement and public lighting).

Tariff models for industrial customers, with the exception of compensation for the energy consumed according to the time of day, can also include compensation for committed power. This compensation for committed power is included in the tariff models both for consumers at higher voltage levels, and for customers consuming more energy at low voltage levels. Industrial customers also pay compensation for unused committed energy.

Permanent types of compensation include measurement services compensation and compensation for supply. All tariffs are announced to the general public and customers are free to choose the tariff model they prefer.

3. Taxes

Value added tax (VAT) of 22% is applied to electricity consumption.

NORWAY

1. General framework

Production and trade of electricity is fully liberalised. All consumers of electricity can choose their electricity supplier and change electricity supplier without any costs. The transmission of electricity is a natural monopoly, and consumers must pay grid rent to the local grid company. The Norwegian Water Resources and Energy Directorate sets the income limits for each grid company for a given period. The grid companies then adjust the grid rent according to this.

2. Pricing of electricity

2.1. Industrial consumers

Tariff/price components including rebates (energy charge, standing charge, transmission and distribution costs, etc.)

The pricing of electricity is split into two main parts:

- *The price of the commodity electricity.* This consists of one variable part, and for some of the suppliers a (relatively low) fixed part. Three main types of contracts are used:
 - 1. Contracts tied to spot price. The electricity price with this type of contract is normally defined by the spot price of electricity settled at the Nordic electricity exchange (Nord Pool), plus a mark-up and sometimes a fixed part.
 - 2. Variable price (not tied to spot price). The electricity price is set by the supplier and changed a few times each year, plus sometimes a fixed part.
 - 3. Fixed-price contracts. These are fixed-price contracts entered in the market for 1 year or longer. There are also some manufacturing industries with old fixed-price contracts not entered in the market.

In the services sector, 67 per cent had contracts tied to spot price in 2006, while 10 per cent had variable price contracts (not tied to spot price), and 23 per cent had fixed-price contracts. In the manufacturing industries, excl. energy-intensive manufacturing and pulp and paper industry, 33 per cent had contracts tied to spot price in 2006, while 1 per cent had variable price contracts (not tied to spot price), and 66 per cent had fixed-price contracts. In the energy-intensive manufacturing and pulp and paper industry more than 95 per cent had fixed-price contracts in 2004, while 5 per cent had contracts tied to spot price.
- *The price of the transmission (grid rent).* The grid rent consists of one fixed part and one variable part.

Factors affecting tariffs/prices (supply voltage, demand levels, interruptibility clauses, peak-off/peak periods, etc.)

Industries that are connected to the transmission net on a higher voltage level have lower grid rent than industries that are connected at a lower voltage level. The grid rent is also lower for non-priority than priority electricity. The grid company can stop the delivery of non-priority electricity at any time if, for example, the net is close to its capacity limit

2.2. Domestic consumers

Tariff/price components including rebates

These are the same as for industries, but the prices are higher. The grid rent can be very low for some of the energy-intensive manufacturing industries, while the grid rent for domestic consumers is higher.

For domestic consumers, variable price contracts (not tied to spot price) are by far the most common type of contract. An important reason for this is probably that this type of contract was used before the liberalisation, and people are used to it. In 2006, 57 percent had this type of contract, while 28 percent had contracts tied to spot price and 15 percent had fixed-price contracts. In 2006, 45 percent of the total price of electricity and grid rent including taxes was electricity, grid rent accounted for 26 percent and taxes for 29 percent (VAT and tax on electricity consumption).

Factors affecting tariffs/prices

There are differences in the price of electricity between different types of contracts. Some organisations also have made deals with electricity suppliers to give rebates to their members. Also, grid rent is different in different parts of the country. It is often lower in places where population density is higher.

Special social tariffs.

None.

3. Taxes on electricity

In 2006, the value-added tax (VAT) was 25 percent. Households in Nordland, Troms and Finmark (in the north of Norway) do not pay VAT for electricity. In addition, there is a special tax on the consumption of electricity. This was 10.05 øre/kWh in 2006 (VAT is calculated on top of this). Households in North-Troms and Finmark do not pay tax on the consumption of electricity.

Industries paid 10.05 øre/kWh, except for manufacturing, mining and production of district heating, which paid 0.45 øre/kWh. The reduced tax is only related to the production process. All industries in North-Troms and Finmark paid 0.45 øre/kWh in 2006.

European Commission

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Electricity prices – Price systems 2006

The publication *Electricity prices. Price systems 2006* describes the electricity markets in the 27 EU member states, Croatia and Norway. Details for the general market situation in each country are given as well as a description of the taxes and levies applied to electricity, both for domestic and industrial consumers.

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