

# ENVIRONMENT AND ENERGY

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Energy

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# Electricity prices for EU households and industrial consumers on 1 January 2006

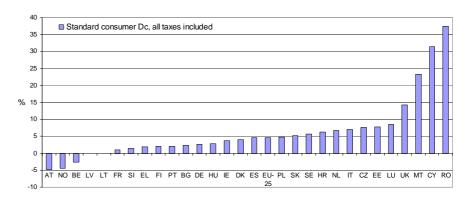
In 2005 EU-25 electricity prices rose by 5% on average for households and by 16% for industrial consumers

## **Highlights**

EU-25 electricity prices expressed in euro per kWh increased by 5% for households\* and by 16% for industrial consumers\* between January 2005 and January 2006.

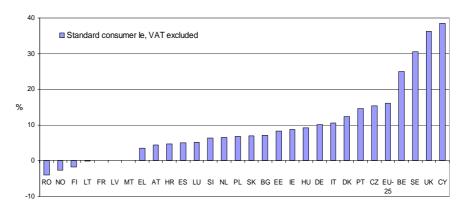
For households, the largest price increases among EU Member States between January 2005 and January 2006 were observed in Cyprus (31%), Malta (23%) and in the United Kingdom (14%).

Graph 1: Evolution of electricity prices for Households (standard consumer Dc\*) between January 2005 and January 2006 (in %)



For industrial consumers, the largest price increase during the same period occurred in Cyprus (38%) and in the United Kingdom (36%) while prices went down by 2% in Finland.

Graph 2: Evolution of electricity prices for industrial consumers (standard consumer le\*) between January 2005 and January 2006 (in %)



<sup>\*</sup> Throughout this publication, a reference to "households" will relate to standard household consumer Dc unless indicated otherwise. The same applies for industrial consumers which refer to standard industrial consumer le unless indicated otherwise.

See page 7 for methodological information on the classification of standard consumers.

## Electricity Prices January 2005 – January 2006

Table 1: Electricity prices for Households: January 2005 – January 2006 (in national currency per 100 kWh)

Standard consumer Dc: annual consumption of 3 500 kWh, all taxes included

	EU-25	BE	CZ	DK	DE	EE	EL	ES	FR	ΙE	ΙΤ	CY	LV	LT	LU
January 2005 January 2006	13.54 14.16	14.81 14.42	263.00 283.00	169.46 176.25			6.88 7.01	10.97 11.47	11.94 12.05	14.36 14.90	19.70 21.08	6.25 8.21	5.77 5.77	24.80 24.80	14.78 16.03
	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	HR	RO	NO

Table 1 illustrates the trend in household electricity prices between 1<sup>st</sup> January 2005 and 1<sup>st</sup> January 2006 for all EU Member States, Bulgaria, Romania, Croatia and Norway.

This shows that electricity prices for household consumers went up in 21 EU Member States, remained stable in Latvia and Lithuania, and decreased in Austria and Belgium.

The price increases in most countries are mainly due to an increase in the basic price.

The EU-25 aggregated electricity price for households (this aggregate is weighted by national consumption), shows an increase of 5% between January 2005 and January 2006.

Similar increases (between 3% and 6%) have been observed for other standard consumers.

Table 2: Electricity prices for Industry: January 2005 – January 2006 (in national currency per 100 kWh)

Standard consumer le: annual consumption of 2 000 MWh, VAT excluded

	EU-25	BE	CZ	DK	DE	EE	EL	ES	FR	ΙE	ΙΤ	CY	LV	LT	LU
January 2005 January 2006	7.45 8.65	7.75 9.69	182.00 210.00	53.17 59.76	9.03 9.94	7.38 7.99	6.45 6.68	7.21 7.57	5.78 5.78	9.30 10.11	10.93 12.08	4.71 6.52	2.85 2.85	17.21 17.20	8.51 8.95
	HU	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	HR	RO	NO

Table 2 illustrates the trend in electricity prices for industry for EU Member States, EU Candidate Countries and Norway between 1<sup>st</sup> January 2005 and 1<sup>st</sup> January 2006.

This shows that electricity prices for industrial consumers went up in 20 EU Member States, remained stable in France, Latvia, Lithuania and Malta and decreased in Finland.

The significant price increase in most countries is due to an increase in the basic price.

The EU-25 aggregated electricity price for industrial consumers (this aggregate is weighted by national consumption), shows an increase of 16% between January 2005 and January 2006.

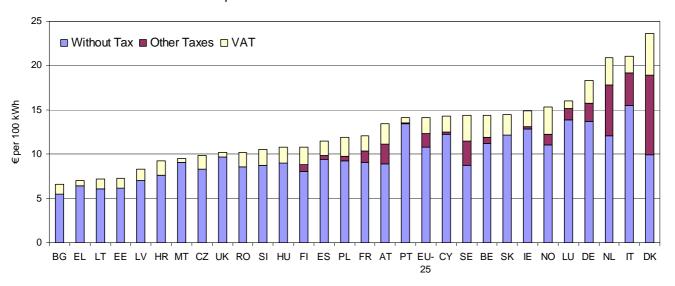
Similar increases (between 10% and 19%) have been observed for other standard consumers.



## Composition of the electricity prices

Graph 3: Composition of electricity prices for domestic consumers on 1 January 2006 (in euro per 100 kWh)

Standard consumer Dc: annual consumption of 3 500 kWh



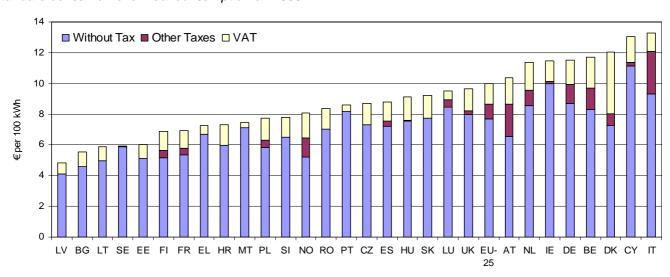
For household consumers, electricity prices on the 1 January 2006 were the most expensive in Denmark, Italy and the Netherlands.

The lowest prices in the EU for households were found in Greece, Lithuania and Estonia.

As of 1 January 2006, the EU-25 average price (this price is weighted with 2004 national consmuption) is EUR 14.16 per 100kWh.

Graph 4: Composition of electricity prices for industrial consumers on 1 January 2006 (in euro per 100 kWh)

Standard consumer le: annual consumption of 2 000 MWh



For industrial consumers, electricity prices including all taxes on 1 January 2006 were the most expensive in Italy, Cyprus and Denmark.

The lowest electricity prices for industrial consumers in the European Union can be found in Latvia, Lithuania and Sweden.

As of 1 January 2006 the EU-25 average price (weighted by 2004 annual national consumption for the industrial sector) is EUR 10.01 per 100kWh.



## Share of taxes in the final price

## Table 3: Share of taxes in electricity prices as of 1 January 2006

Standard consumer Dc, annual consumption of 3 500 kWh

Standard consumer le, annual consumption of 2 000 MWh

#### Share of taxes in household prices:

#### Basic Other V.A.T **All Taxes** price **Taxes** € per 100 kWh % MT 9.04 4.7 0.00 0.45 UK 9.71 0.00 0.49 4.8 PT 13.40 0.10 0.60 5.0 6.43 EL 0.00 0.58 8.3 LU 13.90 1.22 0.91 13.3 ΙE 12.85 0.27 1.78 13.8 CY 12.25 0.23 1.83 14.4 LT 6.09 0.00 1.09 15.2 EE 6.20 0.00 1.11 15.2 LV 7.02 0.00 1.27 15.3 CZ 8.29 0.00 1.56 15.8 SK 12.16 0.00 2.32 16.0 RO 8.59 0.00 1.64 16.0 BG 5.52 0.00 1.08 16.4 HU 8.96 0.00 1.79 16.7 SI 8.74 0.00 1.75 16.7 HR 7.59 0.00 1.63 17.7 ES 9.40 0.48 1.59 18.0 BE 11.23 0.69 2.50 22.1 PL 9.23 0.52 2.15 22.4 EU-25 10.78 1.55 1.83 23.9 FR 9.05 1.34 1.66 24.9 FΙ 8.09 0.74 1.95 25.0 DE 13.74 2.05 2.53 25.0 IT 15.48 3.68 1.92 26.6 NO 11.01 1.26 3.06 28.2 AT 8.94 2.23 2.23 33.3 SE 8.76 2.72 2.87 39.0 NL 12.07 5.71 3.09 42.2 DK 9.97 8.93 4.72 57.8

#### Share of taxes in industrial prices:

	Basic price	Other Taxes	V.A.T	All Taxes
	•	€ per 100 kWh	,	%
SE	5.87	0.06	0.00	1.0
MT	7.11	0.00	0.35	4.7
PT	8.17	0.00	0.41	4.8
EL	6.68	0.00	0.60	8.2
LU	8.45	0.50	0.54	11.0
IE	9.98	0.13	1.37	13.1
CY	11.14	0.22	1.68	14.6
EE	5.11	0.00	0.91	15.1
LV	4.09	0.00	0.73	15.1
LT	4.98	0.00	0.90	15.3
CZ	7.31	0.00	1.39	16.0
RO	7.04	0.00	1.34	16.0
SK	7.73	0.00	1.47	16.0
SI	6.51	0.00	1.30	16.6
BG	4.60	0.00	0.92	16.7
UK	7.99	0.23	1.44	17.3
HU	7.53	0.08	1.52	17.5
ES	7.21	0.36	1.22	18.0
HR	5.96	0.00	1.36	18.6
FR	5.33	0.45	1.13	22.9
EU-25	7.71	0.94	1.36	23.0
DE	8.71	1.23	1.59	24.5
FI	5.17	0.46	1.23	24.6
PL	5.81	0.52	1.39	24.7
NL	8.55	1.02	1.81	24.9
BE	8.30	1.39	2.03	29.2
IT	9.34	2.74	1.21	29.7
NO	5.20	1.26	1.60	35.5
AT	6.53	2.10	1.72	36.9
DK	7.24	0.77	4.05	40.0

Table 3 shows the proportion of taxes in the overall electricity price for household and industrial consumers.

The first column corresponds to the prices excluding all taxes. The figures displayed in columns 2 and 3 are absolute tax contributions in euro per 100 kWh. The last column shows the relative share of all taxes in the final electricity price.

#### **Household consumers**

For household consumers, the relative amount of tax contribution is the lowest in Malta and in the United Kingdom where a relatively low VAT rate is applied to the basic price and no energy or other taxes are applied.

The highest taxes are charged in Denmark where more than half of the final price is made up of taxes. <u>Industrial consumers</u>

For industrial consumers, the lowest taxes can be found in Sweden, Malta and Portugal.

A significant proportion of taxes in the final price is observed in Denmark, Austria and Norway.

It should be noted, however, that in many countries VAT registered companies are exempt from VAT or have it reimbursed. As these special arrangements are difficult to quantify (it may differ from region to region within industrial sectors), these reductions are not taken into consideration in this survey.



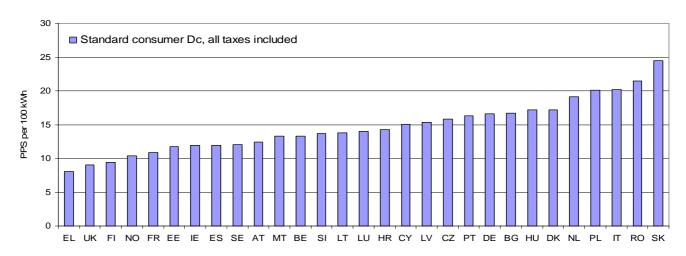
## **Prices in Purchasing power standards**

Table 4: Prices in PPS per 100 kwh (Households: Dc, all taxes included; Industry: le, VAT excluded)

	BE	CZ	DK	DE	EE	EL	ES	FR	ΙE	IT	CY	LV	LT	LU	HU
Households (Dc)	13.33	15.81	17.17	16.65	11.78	8.01	11.95	10.92	11.95	20.23	15.01	15.37	13.77	13.97	17.14
Industry (le)	8.96	11.73	5.82	9.04	8.23	7.63	7.88	5.24	8.11	11.59	11.92	7.58	9.55	7.80	12.13
	MT	NL	AT	PL	PT	SI	SK	FI	SE	UK	BG	HR	RO	NO	
Households (Dc)	13.26	19.15	12.47	20.05	16.30	13.71	24.48	9.38	12.06	9.05	16.69	14.28	21.50	10.37	
Industry (Ie)	9.93	8.78	8.03	10.67	9.45	8.51	13.08	4.90	4.98	7.29	11.65	9.24	14.81	4.37	

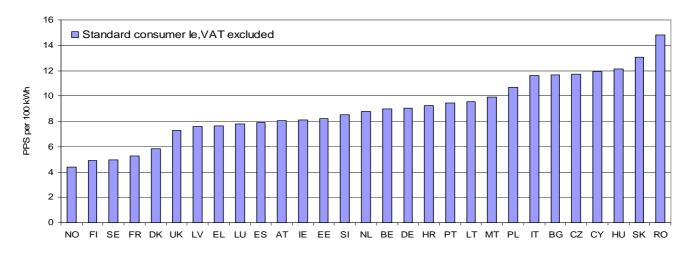
Graph 5: Prices in PPS for domestic consumers per 100 kWh as of 1 january 2006

Standard consumer Dc: annual consumption of 3 500 kWh, all taxes included



Graph 6: Prices in PPS for industrial consumers per 100 kWh as of 1 January 2006

Standard consumer le: annual consumption of 2 000 MWh, VAT excluded



In graphs 5 and 6, Purchasing Power Standards (PPS) are used to make alternative international comparisons. PPS is an artificial common reference currency unit that eliminates price level differences between countries.

One PPS thus buys the same given volume of goods/services in all countries.

From this comparison, it follows that, relative to the cost of other goods and services, electricity for household consumers is the most expensive in Slovakia, Romania, and Italy, and is for instance about two to three times the price that the inhabitants of Greece or UK have to pay.



## **EU-15 trend in electricity prices**

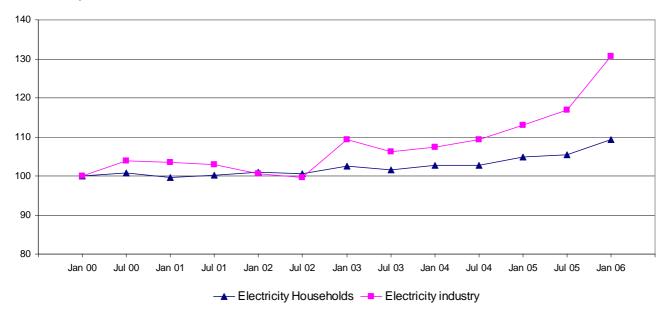
Table 5: Prices in euro per 100 kWh (Households: Dc, all taxes included; Industry: Ie, VAT excluded)

	Jan 2000	Jul 2000	Jan 2001	Jul 2001	Jan 2002	Jul 2002	Jan 2003
Households ( Dc )	13.22	13.32	13.17	13.25	13.36	13.29	13.55
Industry ( le )	6.72	6.98	6.95	6.91	6.76	6.70	7.34
	Jul 2003	Jan 2004	Jul 2004	Jan 2005	Jul 2005	Jan 2006	
Households ( Dc )	13.43	13.58	13.57	13.85 <sup>e</sup>	13.94 <sup>e</sup>	14.44 <sup>e</sup>	
Industry ( le )	7.14	7.21	7.35	7.60 <sup>e</sup>	7.85 <sup>e</sup>	8.78 <sup>e</sup>	

e: estimates (data based on 2004 electricity consumption)

Graph 7: Trend in EU-15 electricity prices (Households: Dc, all taxes included; Industry: le, VAT excluded)

Index January 2000 = 100



Graph 7 shows the trend in electricity prices for household and industrial consumers over the last 6 years.

As some of the 10 new Member States started reporting electricity prices only since 2004, only EU15 average prices are shown in this graph.

#### Household consumers

Electricity prices for households remained stable during the 2000-2005 period. The price increase between July 2005 and January 2006 is mainly due to an increase in basic electricity prices and not related to increased taxes.

#### Industrial consumers

As VAT is often deductible for industrial and commercial consumers, subject to the general tax system, the graph looks at the development of industrial electricity prices excluding VAT but including other taxes, duties and levies applicable in individual countries.

From 2000 to 2002, the average price paid by industry at EU-15 level for a kWh of electricity remained stable. Between July 2002 and January 2003 a remarkable price increase has been observed. Between July 2005 and January 2006, industrial electricity prices for this standard consumer increased by 16%. This price development is significant when compared with that for households.



#### > ESSENTIAL INFORMATION - METHODOLOGICAL NOTES

#### **Standard Consumers**

In order to compare electricity prices between different countries and to observe price differences for different consumption volumes, typical standard consumers are defined, both for household and for industrial consumers.

For household consumers, 5 typical consumers are defined within the consumption range of 600 kWh to 20 MWh per year. For Industrial consumers, a similar set of standard consumers is defined within the range of 30 MWh to 70 GWh per year.

information for other standard consumers as defined below are available on Eurostat's website.

#### Standard consumers for households:

Standard consumer	Annual consumption					
Standard Consumer	Total	of which by night				
Da	600 kWh	-				
Db	1 200 kWh	-				
Dc	3 500 kWh	1 300 kWh				
Dd	7 500 kWh	2 500 kWh				
De	20 000 kWh	15 000 kWh				

#### Standard consumers for industry:

Standard consumer	Annual consumption	Maximum demand
la	0.03 GWh	30 kW
lb	0.05 GWh	50 kW
Ic	0.16 GWh	100 kW
ld	1.25 GWh	500 kW
le	2.00 GWh	500 kW
lf	10.00 GWh	2 500 kW
lg	24.00 GWh	4 000 kW
lh	50.00 GWh	10 000 kW
li	70.00 GWh	10 000 kW

For the European Union as a whole, it is however not possible to define a unique typical household

The information provided in this publication

concentrated mainly on medium standard consumers (Dc for households and le for industry) but price

consumer e.g. for a family with 3 or 4 persons.

#### **EU** averages

EU-25 = weighted average for the following 25 countries: Belgium, Czech Republic, Denmark, Germany, Estonia, Greece, Spain, France, Ireland, Italy, Cyprus, Latvia, Lithuania, Luxembourg, Hungary, Malta, Netherlands, Austria, Poland, Portugal, Slovenia, Slovakia, Finland, Sweden and the United Kingdom.

## **Exchange rates**

Prices for the standard consumers are given in national currencies, PPS (purchasing power standard, annual estimated value) and in euro (average value for January 2006).

### Conversion table in PPS and euro

			1 PPS =	1 EUR =				1 PPS =	1 EUR =
Belgium	BE	(EUR)	1.08	1.00	Malta	MT	(MTL)	0.31	0.43
Czech Rep.	CZ	(CZK)	17.90	28.72	Netherlands	NL	(EUR)	1.09	1.00
Denmark	DK	(DKK)	10.26	7.46	Austria	AT	(EUR)	1.07	1.00
Germany	DE	(EUR)	1.10	1.00	Poland	PL	(PLN)	2.27	3.82
Estonia	EE	(EEK)	9.71	15.65	Portugal	PT	(EUR)	0.86	1.00
Greece	EL	(EUR)	0.88	1.00	Slovenia	SI	(SIT)	183.24	239.49
Spain	ES	(EUR)	0.96	1.00	Slovakia	SK	(SKK)	22.18	37.49
France	FR	(EUR)	1.10	1.00	Finland	FI	(EUR)	1.15	1.00
Ireland	IE	(EUR)	1.25	1.00	Sweden	SE	(SEK)	11.08	9.31
Italy	IT	(EUR)	1.04	1.00	United Kingdom	UK	(GBP)	0.77	0.69
Cyprus	CY	(CYP)	0.55	0.57	Bulgaria	BG	(BGN)	0.77	1.96
Latvia	LV	(LVL)	0.38	0.70	Croatia	HR	(HRK)	4.76	7.38
Lithuania	LT	(LTR)	1.80	3.45	Romania	RO	(ROL)	1.90	4.00
Luxembourg	LU	(EUR)	1.15	1.00	Norway	NO	(NOK)	11.88	8.04
Hungary	HU	(HUF)	157.26	250.71					



<sup>\*</sup>Methodological information on: http://europa.eu.int/estatref/info/sdds/en/sirene/energy\_sm2.htm

## Further information:

## Reference publications

Title Gas and electricity market statistics

Catalogue No KS-71-05-392-EN-C

Price 30 EUR

## Data: EUROSTAT Website/Home page/Environment and energy/Data



Environment Energy

Main indicators - Energy Statistics (ES)

Energy Statistics (ES) - quantities

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