



Status review on end-user price regulation

**Ref: E07-CPR-08-04
14-JUNE-2007**

Table of Contents

0. Executive summary	3
1. Introduction	3
1.1. Methodology	4
1.2. Objectives of the present status review	5
1.3. Main conclusions	5
2. Results	9
2.1. Analysis of market opening and regulation of prices	9
2.2. End-user price regulation objectives	14
2.3. Methods of regulation	15
2.4. End-user regulated energy price levels compared with wholesale prices and supply costs	16
2.5. Share of consumers with regulated prices – explanation	17
2.6. Transparency of the regulatory process	24
2.7. Selection of suppliers offering regulated prices	27
3. Case studies	28
<u>Denmark</u>	28
<u>France</u>	31
<u>Spain</u>	34

0. Executive summary

In many EU countries where there are incumbent electricity and gas companies, the state retains tight control on the electricity and gas prices charged to end-users, in order to protect customers. The price setting on the retail markets, which must be declared as a public service obligation, can have very negative consequences on the market structure. It is therefore important to assess the impact that maintaining end-user regulated prices would have on the development of competition.

The present survey is a starting point to assess this impact.

In a large number of countries both types of end-user prices co-exist: regulated prices and market prices. In 9 countries this concerns gas; in 17 countries, electricity. **In most of these countries, all customer segments can be supplied at regulated prices.**

This survey shows that, in these countries¹, **the share of eligible customers at regulated prices is more than 80%** for each segment concerned. This indicates that in these countries, there is a lack of competition in the retail market. End-user price regulation is one of the factors which hinder equal access of all suppliers to customers.

In many countries, the co-existence of regulated and market prices is clearly not a transitory measure, as it has been in place for many years.

In three of the countries, all suppliers are obliged to offer regulated prices. Of the others, only one has a totally transparent process to select regulated suppliers by open tender.

The regulation process varies greatly from one country to another. It is not always transparent.

These conclusions are developed more fully in the following section (1.3).

1. Introduction

2007 is an important year for the European Union internal energy market. In accordance with European Directives, all member states should have opened their electricity and gas markets to competition by July 1st at the latest.

The European Commission and ERGEG have decided to address issues which are of concern to customers, in order to create a secure and well functioning energy market which will be of benefit to them.

The European Directives state that « *member states may impose undertakings operating in the electricity [and gas] sector, in the general economic interest, and impose public service obligations relating to [...] price of supplies [...]. Such obligations shall be clearly defined, transparent, non discriminatory, verifiable and shall guarantee equality of access to EU electricity companies by national consumers.* »

¹ except 6 in gas and 4 in electricity (see page 18)

In the communication from the European Commission to the Council and the European Parliament on 10 January 2007 on the prospects for the internal gas and electricity market, it is clearly stated that: *“Well targeted universal and public obligations, including proportionate price regulation, must remain an integral part of the market opening process [...]. Many Member States have retained controls on end-user prices. Although price controls prevent suitable price signals being given to customers about future costs, targeted price regulation may be needed to protect consumers in certain specific circumstances, for instance in the transition period towards effective competition. They must be balanced so as not to prevent market opening, create discriminations among EU energy suppliers, reinforce distortions of competition or restrict resale”*.

In line with the above principles, in the framework of the Customer Protection Task Force (CPR TF), a **survey on end-user price regulation** was included in the ERGEG 2006 agenda.

By definition, an **end-user regulated price** is a price subject to regulation by a public authority, as opposed to an end-user price exclusively set by supply and demand. The regulation can take different forms such as setting or approval of price, price caps or various elements of these. The focus is on **end-user energy price regulation** in market segments which are also open to competition. “Energy price” refers solely to the “energy” part of the price, excluding costs of transport/distribution, taxes and VAT. End-user energy price regulation can refer to

- all customers within a certain customer category (“universal service” supply, “default” supply etc.)
- specific vulnerable customers
- customers who have lost their supplier (“supply of last resort”)

This report does not include the last two types of end-user energy price regulation.

1.1. Methodology

The survey on end-user price regulation was initiated by DG TREN. The ERGEG CPR TF was given the task to monitor and follow up the survey.

The objectives of the survey were to:

1. review the energy regulated price systems currently in place
2. analyse the effects of this regulation on market functioning and customer protection
3. evaluate the need for end-user price regulation over a transition period in a mature electricity and gas market

DG TREN appointed consultants to carry out the survey based on questionnaires. CPR TF collaborated with a large input of advice and opinions concerning the drafting of the questions. The questionnaires were sent to 27 European countries, plus Norway, in July 2006 and completed by their national regulators.

The countries consulted were: **Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and United Kingdom.**

Complete or partial responses were returned by all countries, except Estonia and Malta.

The present status review has been compiled using different sources: the consultants' draft report of 30.12.2006, the ERGEG national reports of 2006 and several regulators' annual reports.

Its purpose is the following:

- to draw its own additional conclusions from the initial survey in combination with other sources
- to highlight important aspects not yet reviewed
- to provide a solid factual base for drafting an ERGEG position paper.

1.2. Objectives of the present status review

The questions studied are the following:

- 1- Which countries have regulated prices in open market segments?
- 2- What are the objectives of regulation in each case?
- 3- What are the different regulation methods?
- 4- What is the level of end-user regulated energy prices in comparison with wholesale prices and supply costs?
- 5- What is the share of consumers being supplied at regulated prices within open market segments? How is this explained?
- 6- Are the regulation processes transparent?
- 7- Is the selection process of regulated suppliers transparent?

1.3. Main conclusions

This status review succeeds in giving a general overview of coexistence of open market segments and end-user price regulation in EU countries. However, it has not been possible to give any in-depth analysis of the various regulation methodologies. Moreover, the report gives no information corresponding to the third and fourth objectives.

In the following sections the main conclusions of the review are briefly stated. Further details as well as comprehensive tables showing the NRAs' responses to the questionnaires are available in chapter 2.

Which countries have regulated prices in open market segments?

Coexistence of open energy markets (with competition and eligible customers) and regulated energy prices is quite common among the 28 countries surveyed. In 9 countries on the gas-market there is such a coexistence for at least one of the four customer segments (types of customers) analysed. For the electricity market the figure is 17.

It should be noted that for most of the countries where energy markets coexist with regulated energy prices, all customer segments can be supplied at regulated prices. This means that, as a rule, this price-regulation is not confined to small customers.

In general this price regulation does not appear to be specifically transitional although the question is not reviewed in depth. However, a number of countries which opened their energy market early still have regulated prices. Furthermore, taking into account additional information, it is clear that very few regulated prices are ex ante transitional in the sense that they will be abolished at a certain date or when certain preconditions on the market are fulfilled.

What are the objectives of regulation in each case?

The political or regulatory objectives of retaining end-user price regulation in the open market vary among countries. The most frequent objective is customer protection – six countries indicate this as the sole objective. One aspect of customer protection seems to be to limit the profits of low cost incumbent suppliers (generators) when cross border trade tends to level out prices between countries. In other cases, another aspect seems to be to counteract potential negative impacts of a dominant position.

Fostering competition is mentioned as an objective by a number of countries although the responses do not give more explanatory details. However, it is clear from other information that the mechanism used in some cases is for price regulation to raise the national price level in order to attract new suppliers.

In general, from the explanations given by many countries, the basic objective of end-user price regulation is to achieve a balance between competition and customer protection.

In most cases the type of price-regulation used is maximum price setting.

What are the different regulation methods?

Unfortunately, the analysis which was carried out did not allow any comprehensive comparison of the specific methods of regulation used. However, in order to address this important question, 3 case studies were undertaken – on France, Denmark and Spain. These case studies are laid out in chapter 3. The main observations which reveal some important differences are the following:

- In principle, regulated prices in France and Spain should cover suppliers' costs. However, in practice, they are set by the minister(s) without taking this requirement into account.
Price regulation in Denmark is linked to market prices by capping profit margins at the same level as profit margins in the competitive market.
- Regulated prices in France and Spain are “all inclusive” prices, i.e. the combined costs of energy prices, network prices, marketing costs, running costs, etc. Regulated prices in Denmark are “energy only” prices.

- In France and Spain, regulated prices are set by the appropriate Minister with the regulator in an advisory role.
- In Denmark, the regulatory method as well as the setting of specific profit margin caps are decided by the regulator within the legal framework of the energy Acts.

What is the share of consumers being supplied at regulated prices within open market segments?

In cases where open market segments and end-user price regulation coexist, only a very limited number of customers, in general, have switched from regulated prices to competitive market prices. For most market segments, the share of customers remaining at regulated prices is more than 80% and in many segments nearly 100%.

However, for bigger customers there are examples of considerably fewer customers remaining at regulated prices.

It should be noted that these share figures are also influenced by the fact that in some countries it is not possible to switch back to regulated prices, although in most countries it is.

Are the regulation processes transparent?

The overall picture is that there are considerable differences between regulatory processes concerning the legal basis of methodology, the role of independent regulators, and the extent to which methodologies are published and auditable.

However, not all 28 countries answered these questions.

The methodology of end-user price regulation is defined in national legislation in 6 out of 7 countries for gas and 11 out of 15 countries for electricity.

It is the regulator who sets regulated prices or price caps in 6 out of 9 countries in gas and 10 out of 14 in electricity.

In the cases where it is the Minister who sets regulated prices or price caps, the role of the regulator in the price setting process can take various forms:

- The regulator might make a proposal to the Minister.
- The regulator might give an opinion on regulated prices.
- The regulator might define the methodology of price regulation.

Is the selection process of regulated suppliers transparent?

The survey showed a wide variation of methods to select suppliers offering regulated prices –even within the same country more than one method is often used.

Only in a few countries is the selection process seemingly “transparent” in the way that either all suppliers can offer energy at regulated prices (4 countries) or that suppliers are chosen based on open tender (1 country).

Questions on which no conclusions could be drawn

On a number of topics covered in the survey, it has not been possible to draw any firm conclusions. The main reasons for this are the lack of responses to these questions, differing interpretations of the questions among the respondents, or understanding that questions were not appropriately formulated or relevant questions were not asked.

The topics for which no conclusions could be drawn are:

- The price levels of regulated energy prices compared to market prices for the same customer segment
- More detailed information on supplier switching other than just the share of customers having switched away from regulated prices. This information could have included, among other things, the volume of energy consumed by customers who had switched. This could have given important additional information concerning the impact on the market.
- Entry of new suppliers in the markets

In addition, as mentioned above, the survey of the different methodologies used for end-user price regulation could only be based on 3 cases, as the questionnaires and the responses to these did not allow a comprehensive review.

As the above mentioned topics could not be addressed satisfactorily in the survey, it was not possible to go more deeply into assessing the impact that the various end-user price regulation models have on a well functioning energy market. Nor could the impact on customer protection be assessed.

2. Results

2.1. Analysis of market opening and regulation of prices

European data on open markets and end-user price regulation systems are presented below.

Comments

	Partially or totally open market with end-user price regulation in at least one open market segment	Partially or totally open market with no end-user price regulation	Closed market	Unavailable data	Countries with no gas
Gas	9	13	3	1	2
Electricity	17	9	1	1	

In most countries with end-user price regulation, **all customer segments can be supplied at regulated prices.**

This remains possible even after a long period following the final opening date (up to 9 years). There is no link between the existence of regulated prices and the final opening date.

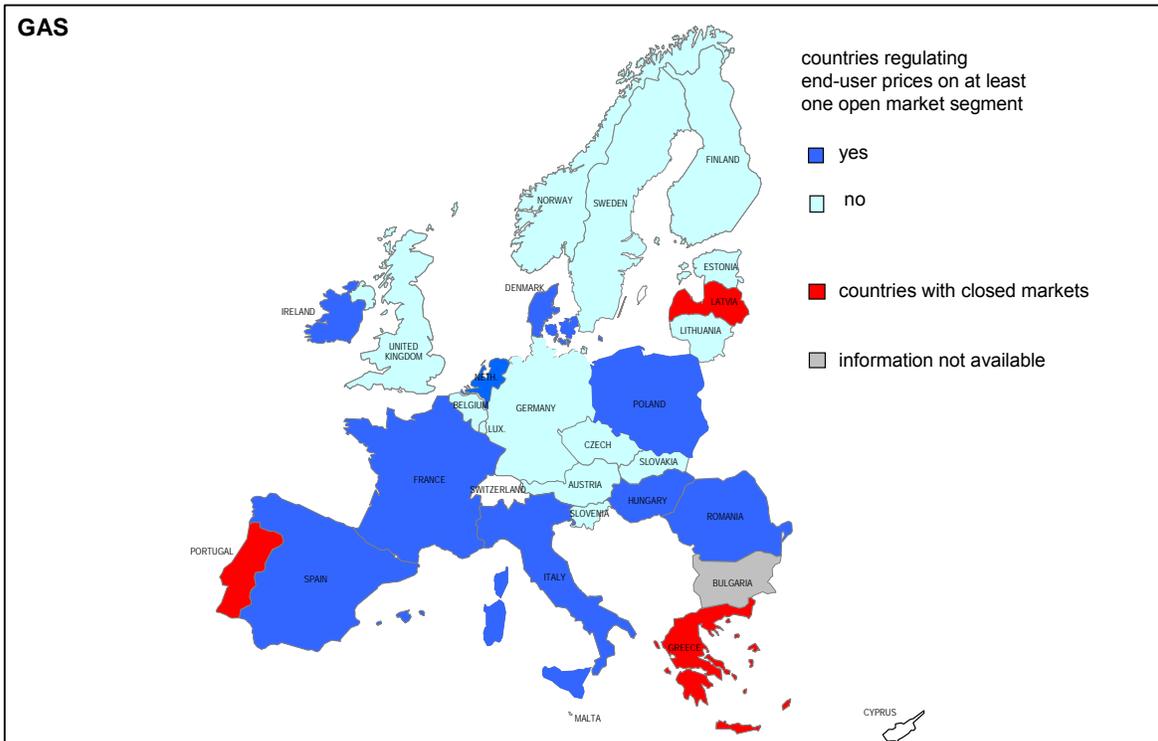
Gas

28 countries	Opening	Final opening date	End-user regulated prices in open market	Who can be supplied at end-user regulated prices	Observations
Germany	Complete	1998	NO		
United Kingdom	Complete	1998	NO		
Austria	Complete	2002	NO		
Italy	Complete	2003	YES	All customers	since October 2006, only household customers receive offers based on regulated prices
Spain	Complete	2003	YES	All customers except energy intensive	As from 1st July 2007, only customers less than 4 bar
Denmark	Complete	2004	YES	All customers	
Netherlands	Complete	2004	YES	Households and small businesses	For households and SME, the regulator defines confidential maximum reasonable regulated price per product and can oblige a supplier to apply this regulated price if its price is higher
Czech Republic	Complete	April 2007	NO		
Norway	Complete		NO		
Estonia	Except households	2007	NO		
Belgium	Except households	January 2007	NO		Opening in July 2007 for Brussels city
France	Except households	July 2007	YES	All customers	
Hungary	Except households	July 2007	YES	All customers	
Ireland	Except households	July 2007	YES	All customers except energy intensive	
Luxembourg	Except households	July 2007	NO		
Poland	Except households	July 2007	YES	All customers	
Romania	Except households	July 2007	YES	All customers	
Slovakia	Except households	July 2007	NO		
Slovenia	Except households	July 2007	NO		
Sweden	Except households	July 2007	NO		
Lithuania	Except households and small businesses	July 2007	NO		
Finland	Partly	NA	NO		Very little gas No networking with EU
Greece	Closed	2009*			Emerging market. Just open for power producers and cogenerators > 9 Mm3/year
Latvia	Closed	January 2010			No networking with EU
Portugal	Closed	from 2007 to 2010			Emerging market
Bulgaria	NA	NA	NA		

No gas in Cyprus (The legal framework exists. The gas market is open with an end-user price regulation).

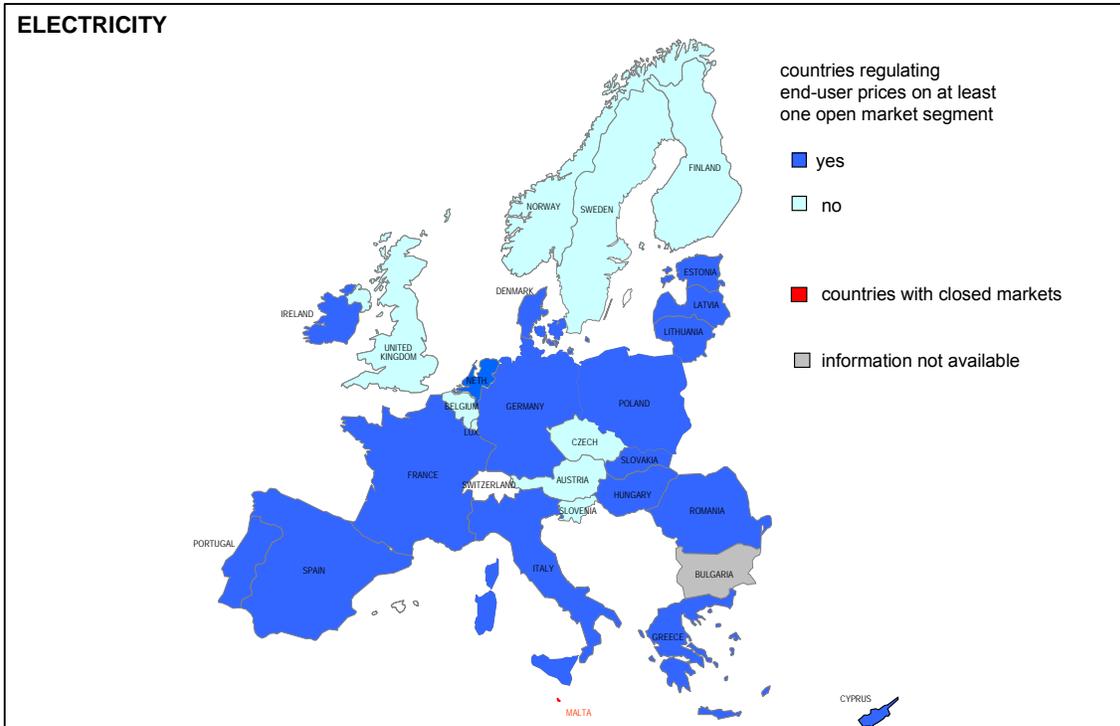
No gas in Malta

* 2030 for some geographical areas served by regional gas distribution companies under a concession regime



Electricity

28 countries	Opening	Final opening date	End-user regulated prices in open market	Who can be supplied at end-user regulated prices	Observations
United Kingdom	Complete	1990	NO		
Norway	Complete	1995	NO		
Sweden	Complete	1996	NO		
Finland	Complete	1997	NO		
Germany	Complete	1998	YES	households and small businesses < 10 MWh/an	The regulation of electricity end-user prices will expire on July 1st 2007.
Austria	Complete	2001	NO		
Denmark	Complete	2003	YES	Households and small businesses	
Spain	Complete	2003	YES	All customers	
Netherlands	Complete	2004	YES	Households and small businesses	For households and SME, the regulator defines confidential maximum reasonable regulated price per product and can oblige a supplier to apply this regulated price if its price is higher
Ireland	Complete	2005	YES	All customers	
Czech Republic	Complete	2006	NO		
Portugal	Complete	2006	YES	All customers	
Belgium	Except households	January 2007	NO		Opening in July 2007 for Brussels city
France	Except households	July 2007	YES	All customers	
Greece	Except households	July 2007	YES	All customers	Price regulation for dominant supplier
Hungary	Except households	July 2007	YES	All customers	
Italy	Except households	July 2007	YES	All customers	
Latvia	Except households	July 2007	YES	All customers	
Lithuania	Except households	July 2007	YES	All customers	
Luxembourg	Except households	July 2007	NO		
Poland	Except households	July 2007	YES	All customers	
Romania	Except households	July 2007	YES	All customers	
Slovakia	Except households	July 2007	YES	All customers	
Slovenia	Except households	July 2007	NO		
Estonia	Only for intensive and small businesses	2009	YES	All customers	
Cyprus	Except households and small businesses	2014	YES	All customers	Derogation accorded by European commission
Malta	Closed				Derogation requested from European commission
Bulgaria	NA	NA	NA	NA	



2.2. End-user price regulation objectives

From here on, the countries studied are those **which have regulated prices in at least one end-user open market segment (9 in gas, 17 in electricity).**

Regulation has several aims. The principal ones indicated by the regulators are to protect customers and to foster competition.

Most countries share the same objective of customer protection.

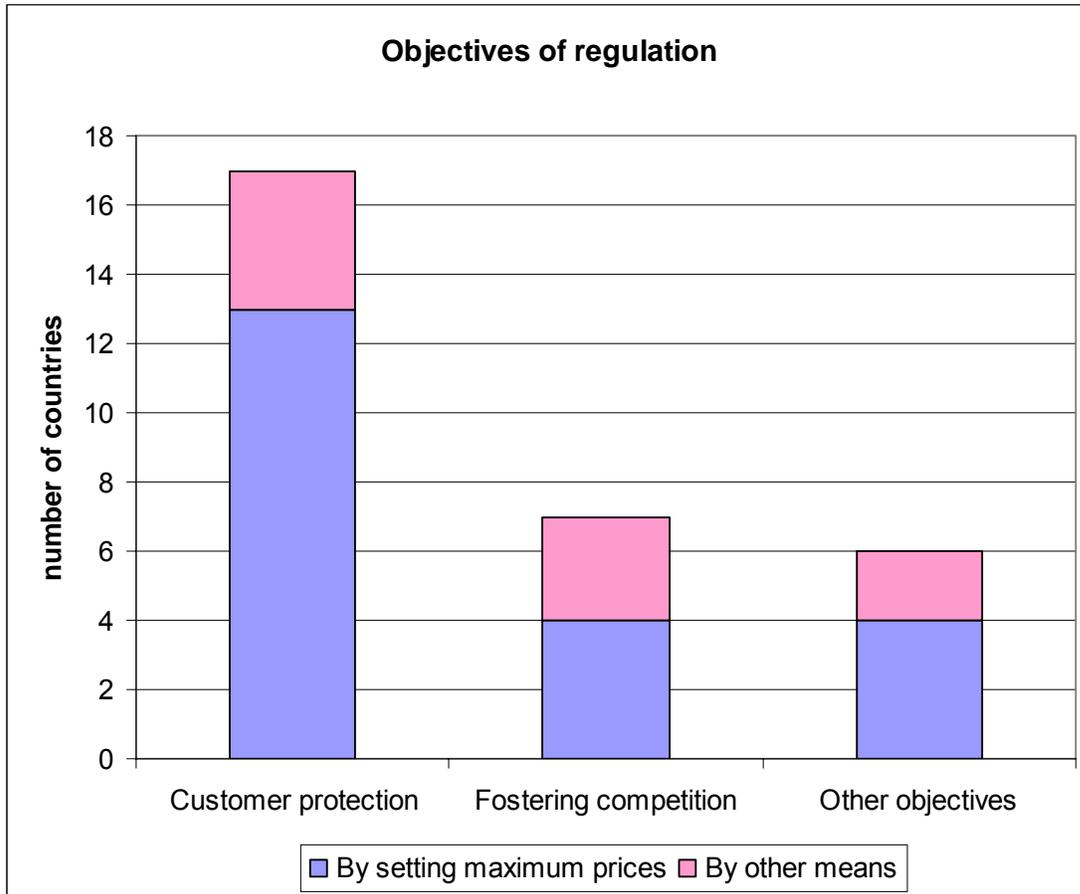
Objective	By setting maximum prices	By other means
Customer protection	Denmark, France, Germany, Hungary, Italy, Latvia, Lithuania, Netherlands, Poland, Romania, Slovakia, Slovenia, Spain	Cyprus, Greece, Ireland, Portugal
Fostering competition	Italy, Lithuania, Netherlands, Romania	Cyprus, Ireland, Portugal
Other	Germany, Hungary, Italy, Poland	Ireland, Portugal

For Bulgaria and Estonia: NA

Six countries have only a single objective, to protect customers: Denmark, France, Greece, Latvia, Slovakia and Spain.

Examples of other objectives:

- Poland: to balance interests between energy companies and energy and fuel customers ;
- Italy: to harmonize the economic and financial goals of electricity and gas operators with general social goals, environmental protection and the efficient use of resources.



2.3. Methods of regulation

The methods of regulation were covered by a number of questions either relating specifically to the methods used e.g. cost based or benchmarked, or more general, open questions. The responses given illustrated the wide variety of methods, but they did not allow a more in-depth analysis or comparison.

Although further information on this important topic was needed, the CPR TF took the decision not to ask the countries to complete the questionnaire a second time. However, three countries – France, Denmark and Spain – were used as case studies and their methods of regulation are explained in chapter 3.

Main observations from the case studies

- In principle, regulated prices in France and Spain should cover suppliers' costs. However, in practice, they are set by the minister(s) without taking this requirement into account.
Price regulation in Denmark is linked to market prices by capping profit margins at the same level as profit margins in the competitive market.
- Regulated prices in France and Spain are "all inclusive" prices, i.e. the combined costs of energy prices, network prices, marketing costs, running costs, etc. Regulated prices in Denmark are "energy only" prices.
- In France and Spain, regulated prices are set by the appropriate Minister with the regulator in an advisory role.
- In Denmark, the regulatory method as well as the setting of specific profit margin caps are decided by the regulator within the legal framework of the energy Acts.

2.4. End-user regulated energy price levels compared with wholesale prices and supply costs

New entrants who do not have power generation capacities or long term gas contracts buy energy on the wholesale markets (OTC, Exchanges). To be able to make competitive offers in open market segments with regulated prices, wholesale price levels must be lower than regulated energy price levels. Thus, the level of end-user regulated energy prices is not the only data taken into account for analysing obstacles to the market opening process. For instance, end-user regulated electricity prices can recover supply costs, including capital expenditures, although their level may still be lower than wholesale prices.

Initially, the questionnaire asked for the level of end-user regulated energy prices compared to wholesale prices and supply costs.

Because of the low response and the difficulty in answering these questions, the CPR TF decided that no further efforts would be made to upgrade this data. It was difficult to gather information concerning wholesale prices in many countries.

The lack of data concerning obstacles to market opening makes it difficult to draw satisfactory conclusions.

2.5. Share of consumers with regulated prices – explanation

This section is an explanation of the share of consumers at regulated prices on open markets, taking into account all the factors affecting it. But, as has been previously indicated, the lack of data concerning wholesale prices and recovery of supply costs by end-user regulated prices prevents any satisfactory conclusions being drawn.

However, for all countries² with available data, in each open market segment where both regulated and market end-user prices coexist, more than 80% of end-users are supplied at regulated prices. This indicates that in these countries, there is a lack of competition on the retail market.

There is no link between reversibility, (i.e. customers who return to end-user regulated prices) and **the share of customers at regulated prices**. This is due to the fact that this share also depends on the level of regulated prices compared with that of market prices.

Explanatory notes for:

France

- For electricity, the majority of intensive end-users switched to the market when it first opened, when wholesale market prices – and consequently end-user market prices – were low. The non-reversibility rule explains why the percentage is still low, whereas wholesale prices plus access tariffs have increased and are now higher than end-user regulated prices.
- For gas, in the energy intensive end-user segment, new entrants are able to offer competitive prices because end-user regulated prices in this segment are linked to the fuel price index, as are prices of long term supply contracts.

Denmark

- In order to minimise any negative impact on the competitive market, price regulation is linked to wholesale market prices in accordance with Danish legislation.

² except

gas

- France for energy intensive end-users
- Denmark, Italy and Romania for medium to large and energy intensive end-users
- Ireland for small businesses and medium to large end-users
- Spain for all market segments

electricity

- France for energy intensive end-users
- Spain and Italy for medium to large and energy intensive end-users
- Hungary for energy intensive end-users

Italy

- Gas contracts at regulated prices remain valid until the expiry date or until the customer switches to a market price contract, with no possibility of returning to regulated prices. Since October 2006, supply contracts based on regulated prices must be offered only to household customers as an alternative choice to any other contractual offers made by suppliers.
- The opening of the electricity market has allowed suppliers to develop greater flexibility on the offer side, in particular for medium to large and energy intensive end-users, enabling those customers to actively choose new supply conditions which satisfy their specific requirements.

Spain

For electricity, wholesale market prices were low in 2003 and 2004. In 2005 and 2006, wholesale market prices plus access tariffs increased more rapidly than end-user regulated prices for medium to large businesses and energy intensive end-users. Customers should stay at least one year in the liberalised market. This is the reason why the percentage is still quite high. It is important to highlight that, from the 1st January 2007, high voltage customers are not allowed to return to the regulated market.

GAS 9 countries with end-user regulated prices in at least one open market segment				
closed market				
open market with end-user regulated prices				
open market with no end-user regulated prices				
DENMARK				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	2004	2004	July 2000, for consumption > 300 000 m3	
End-user regulated prices	Y	Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices	99%		< 1%	
Reversibility	Y	Y	Y	Y
FRANCE				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2004	2003	2000
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		89%	89%	47%
Reversibility		N	N	N
HUNGARY				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2004	July 2004	July 2004
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		87%		
Reversibility		Y	Y	Y
IRELAND				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	2004	2001/2002	1999/2000
End-user regulated prices		Y	Y	N
% of eligible customers who are supplied at end-user regulated prices		NA	NA	
Reversibility		Y	Y	

GAS 9 countries with end-user regulated prices in at least one open market segment				
ITALY				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	2003	2003	2000	2000
End-user regulated prices	Y	Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices	98%	90%**	7%**	
Reversibility	Y	N	N	N
*situation on 31/12/2005 **contracts at regulated prices remain valid until expiring date or until customer switching to a market price contract Small businesses: non-household customers with annual consumption less than 200.000 m3 Medium to large businesses + energy intensives: non household customers with annual consumption more than 200.000 m3				
POLAND				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	January 2004	January 2004	July 2000
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		100%	100%	100%
Reversibility		Y	Y	Y
ROMANIA				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	January 2007	2004/2006	2001/2003
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		25%	0%	0%
Reversibility		Y	Y	Y
SPAIN				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	2003	2002	2000/2001	1998/1999
End-user regulated prices	Y	Y (*)	Y (*)	N
% of eligible customers who are supplied at end-user regulated prices	66%	54%	8%	
Reversibility	Y	N	N	
As from 1 July 2007, only customers of less than 4 bars can be supplied at end-user regulated prices. Since January 2007, no reversibility for all categories of businesses (*)in accordance with the Ministerial Order of 1 January 2007, regulated prices for consumers in these categories will cease after 1 July 2007				

In **Netherlands**, for households and SME, the regulator defines confidential maximum reasonable regulated price per product and can oblige suppliers to apply this regulated price if their price is higher.

ELECTRICITY : 17 countries with end-user regulated prices in at least one open market segment				
closed market				
open market with end-user regulated prices				
open market with no end-user regulated prices				
CYPRUS				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED		May 2004	May 2004
End-user regulated prices			Y	Y
% of eligible customers who are supplied at end-user regulated prices			100%	100%
Reversibility			NA	NA
DENMARK				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	January 2003	January 2003	2001	1998
End-user regulated prices	Y	Y	N	N
% of eligible customers who are supplied at end-user regulated prices	95%	95%		
Reversibility	Y	Y		
Only not hourly metered customers could be supplied at end-user regulated prices by a default supplier. This segment corresponds approximately to households and small businesses.				
ESTONIA				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED			1998
End-user regulated prices				Y
% of eligible customers who are supplied at end-user regulated prices				95%
Reversibility				Y
FRANCE				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2004	2003	2000
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		86%	94%	25%
Reversibility		N(*)	N(*)	N(*)
(*) Since January 2007, all customers who have chosen a market offer can have an end-user regulated price for a maximum of two years.				
GERMANY				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	1998	1998	1998	1998
End-user regulated prices	Y	Y	N	N
% of eligible customers who are supplied at end-user regulated prices	NA	NA		
Reversibility	Y	Y		
Only small businesses with annual consumption lower than 10 MWh can be supplied at end-user regulated prices.				

ELECTRICITY : 17 countries with end-user regulated prices in at least one open market segment				
G R E E C E				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2004	February 2001	February 2001
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		100%	99%	98,5%
Reversibility		Y	Y	Y
H U N G A R Y				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2004	July 2004	January 2003
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		100%	95%	4%
Reversibility		Y	Y	Y
I T A L Y				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2004	2002	1999
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices*		96%	58%	16%
Reversibility		Y	Y	Y
*situation on 31/12/2005 Small businesses: non-household customers supplied in LV; Medium to large: non-household customers supplied in MV; Energy intensive: non-household customers supplied in HV				
I R E L A N D				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	February 2005	February 2004	2002	February 2000
End-user regulated prices	Y	Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices	98%	51%	14%	
Reversibility	Y	Y	Y	N
L A T V I A				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2004	July 2004	July 2004
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		100%	100%	100%
Reversibility		Y	Y	Y
L I T H U A N I A				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2004	July 2004	2003
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		100%	100%	~100%
Reversibility		Y	Y	Y

ELECTRICITY : 17 countries with end-user regulated prices in at least one open market segment				
P O L A N D				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2004	January 2000	September 1998
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		100%	99%	90%
Reversibility		Y	Y	Y
P O R T U G A L				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	September 2006	february 2004	1999-2002	21 June 1995
End-user regulated prices	Y	Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices	99,7%	80,4%	90,4%	98,5%
Reversibility	Y	Y	Y	Y
R O M A N I A				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	July 2006	2004	2000
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		NA	NA	NA
Reversibility		Y	Y	Y
S L O V A K I A				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	CLOSED	January 2005	January 2005	January 2005
End-user regulated prices		Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices		NA	NA	NA
Reversibility		N	N	N
S P A I N				
	Households	Small businesses	Medium to large businesses	Energy Intensive
Market opening	January 2003	January 2003	2000	1998
End-user regulated prices	Y	Y	Y	Y
% of eligible customers who are supplied at end-user regulated prices	90%	81%	60%	
Reversibility	Y	N	N	N
As from 1 st July 2007, only customers of less than 1kVA could be supplied at end-user regulated prices.				
Since January 2007, no reversibility for high voltage customers.				

In **Netherlands**, for households and SME, the regulator defines confidential maximum reasonable regulated price per product and can oblige suppliers to apply this regulated price if their price is higher.

2.6. Transparency of the regulatory process

For countries with available data, the tables below show considerable differences between regulatory processes.

- **In accordance with the legal framework, the regulator or the Minister sets regulated prices.**

In the case where the Minister makes the decision, the regulator contributes to the decision-making process by:

- **either** making a proposal to the Minister concerning regulated prices which the Minister either approves or rejects
 - **or** giving an opinion or drawing up a consultative report on regulated prices
 - **or** defining the method and the rules for setting regulated prices
- The end-user regulated price setting method is published by either the regulator or the legislator, or both (although this is not always done³).
 - Moreover, the method of calculation is not always auditable.

³ In Netherlands, the maximum reasonable end-user price is strictly confidential to prevent market distortions by the regulator.

GAS : 9 countries with end-user regulated prices in at least one open market segment						
Not fully transparent process						
Transparent process						
Regulated price setting methodology is <u>fully auditable</u> if the regulator can access all confidential data concerning costs and contracts required for the calculation process						
A proposal can only be approved or refused						
Countries	Who sets end-user regulated prices ?	Role of the regulator (*)	End-user regulated price setting methodology is		Calculation process is fully auditable	Observations
			defined and published in legislation	published by the regulator		
Denmark	The regulator	Defines and applies the regulated price-setting methodology and sets regulated prices	Y	Y	Y	
France	The Ministries of industry and energy	Gives a consultative opinion on proposed regulated prices	Y	N	N	
Hungary	The minister	Makes a proposal	NA	NA	NA	
Ireland	The regulator	Sets regulated prices	NA	NA	NA	
Italy	The regulator	Sets regulated prices	Y	Y	Y	
Netherlands	The regulator	Sets the maximum reasonable end-user price	Y	Y	Y	The Maximum Reasonable end-user price is strictly confidential to prevent market distortions by the regulator.
Poland	The regulator	Sets regulated prices	Y	Y	Y	
Romania	The regulator	Sets regulated prices	Y	Y	Y	
Spain	The Council of Ministers	Draws up a consultative report	N	N	N	Annual bill concerning regulated price-setting and gas supply formula are published. Cost plus methodology.

(*) or independent public authority in charge of setting end-user regulated prices

For information: In Cyprus (no gas yet), the legal framework is in place, the regulator sets the regulated prices. The end-user setting price methodology is defined and published in legislation and published in the law. The calculation process is not fully auditable.

ELECTRICITY: 17 countries with end-user regulated prices in at least one open market segment

Not fully transparent process						
Transparent process						
Regulated price setting methodology is <u>fully auditable</u> if the regulator can access all confidential data concerning costs and contracts required for the calculation process						
A <u>proposal</u> can only be approved or refused						
Countries	Who sets end-user regulated prices ?	Role of the regulator (*)	End-user regulated price setting methodology is		Calculation process is fully auditable	Observations
			defined and published in legislation	published by the regulator		
Cyprus	The regulator	Sets regulated prices	Y	Y	N	
Denmark	The regulator	Defines and applies the regulated price-setting methodology and sets regulated	Y	Y	Y	
Estonia	NA	NA	NA	NA	NA	
France	The Ministers of industry and energy	Gives a consultative opinion to the proposal of the ministry	N	N	N	
Germany	Federal state price supervision authorities	Approves the end-user prices	Y	Y	Y	
Greece	The Minister of development	Gives a consultative opinion to the proposal of the ministry	N	N	N	
Hungary	NA	NA	Y	Y	N	
Ireland	The regulator	Defines the methodology of calculation of regulated prices and sets regulated prices	N	Y	Y	
Italy	The regulator	Defines the methodology of calculation of regulated prices and sets regulated prices	Y	Y	Y	
Latvia	The regulator	Defines the methodology of calculation of regulated prices and sets regulated prices	Y	Y	Y	
Lithuania	NA	Approves weighted average price for electricity sold to non-eligible customers		Y	Y	
Netherlands	The regulator	Sets the maximum reasonable end-user price	Y	Y	Y	The Maximum Reasonable end-user price is strictly confidential to prevent market distortions by the regulator.
Poland	The regulator	Sets regulated prices	Y	Y	Y	
Portugal	The regulator	Sets regulated prices	Y	Y	Y	Published legislation only determines General Interest Costs, non-market related**
Romania	The regulator	Sets regulated prices	Y	Y	Y	
Slovakia	The regulator	Sets regulated prices	Y	Y	Y	
Spain	The Minister of industry	Draws up a consultative report	N	N	N	

(*) or independent public authority in charge of setting end-user regulated prices

**In the sequence of high price increases the government published new legislation concerning general interest costs (non-market based) that included:

- i) a decrease in some of the general interest costs
- ii) a dilution over a longer period of time for the payment of this general interest costs
- iii) a cap on the price increase, applicable in 2007 only, for the smaller of the domestic consumers.

2.7. Selection of suppliers offering regulated prices

Suppliers offering regulated prices (for electricity and/or gas)

Regulated entities	All suppliers	Selected suppliers
Number of countries	4	12
Countries	Cyprus, Italy*, Netherlands, Slovakia	Denmark, France, Germany, Greece, Hungary, Ireland, Latvia, Lithuania, Poland, Portugal, Romania, Spain

(*) Gas: only for supply offers to household customers
For Bulgaria and Estonia: NA

The supplier assigned to universal service or public service obligations is obliged to offer regulated prices. In several countries this supplier is considered to be the default supplier.

The default supplier is the supplier to which a customer is attributed when the customer has not chosen any supplier.

Selection of suppliers

Several countries responded that they had two or three different procedures for selecting suppliers who offer regulated prices. The table below indicates the principal procedures, although these may be combined with other procedures (for example: selecting a supplier by open tender requires carrying out an economic analysis).

Procedure	Economic analysis	Open tender	By request	All suppliers	Other
Number of countries	1	1	9	4	1
Countries	Latvia	Hungary	Denmark, Germany, France, Ireland, Lithuania, Poland, Portugal, Romania, Spain	Cyprus, Italy, Netherlands, Slovakia	Greece (dominant supplier)

For Bulgaria and Estonia: NA

The meaning of “by request” was not understood in the same way by all countries. For some countries, this was understood as the suppliers requesting authorisation to supply at regulated prices; for others this was understood as the public authority designating the suppliers which must sell at regulated prices.

3. Case studies

Denmark

All Danish energy customers of both electricity and gas have access to private contracts for energy supply on the retail market at end-user market prices. However, customers must actively choose a supplier and accept a supply contract to enter the competitive energy retail market.

“Passive” customers (excluding electricity customers with a yearly consumption of more than 100.000 kWh), i.e. customers who do not actively choose a supplier, are automatically supplied by the supply company holding a licence for “obligation to supply” for that geographical region (“default supply”). A customer having actively chosen another supplier can return to the supply company holding the licence for “obligation to supply” on normal “obligation to supply” terms, if he does not renew his supply contract or does not engage in a contract with another supplier on the competitive market when his supply contract expires.

Any customer having lost his supplier, i.e. due to bankruptcy of the supplier, will also be supplied by the supply company holding the licence for “obligation to supply” for that geographical region (“supplier of last resort”) on normal “obligation to supply” terms until he actively chooses another supplier.

Energy retailers apply for a licence of “obligation to supply” for a certain geographical area over a fixed period - generally 5 years. The entire geographical area of Denmark is covered by such licences. In practice only the incumbent retailers in each geographical area applied for and were granted such licences when the present Electricity and Gas Supply Acts came into force. Thus, the retail market for households and small business customers is dominated by incumbent suppliers.

The political motivation for issuing licences for “obligation to supply” and for regulating the supply prices was the wish to protect customers in case competition on the retail market did not function satisfactorily. In order to minimize any negative impact on the competitive market, price regulation is linked to the wholesale market price in accordance with Danish legislation.

Electricity

Small business customers have had market access since January 2003.

Only template customers - i.e. customers not on hourly metered consumption - are covered by this comprehensive customer protection system. As all customers with an annual consumption of more than 100,000 kWh must be on hourly metering, the system covers most **household and small business customers**.

In accordance with the Electricity Supply Act, the regulation of energy prices for “obligation to supply” customers must reflect market price levels (for similar consumer segments and terms of supply). DERA has implemented this general requirement in the following way: by comparing non-regulated prices with Nord Pool Spot prices and taking profiling into consideration, a mark-up or gross margin of the competitive market is identified. This mark-up constitutes the cap of mark-ups identified for the notified “obligation to supply prices” of individual supply companies. If mark-ups exceed the cap, prices must be lowered accordingly.

Every quarter DERA calculates the tariff cap for all "obligation to supply" companies and publishes it on the DERA website around the middle of that quarter. Each supply company sets its own tariffication and has to submit it to DERA ex ante for each quarter. These are also published on the DERA website. If this price exceeds the cap it must be lowered when invoicing. If it is below the cap no adjustment needs to be made.

The DERA calculation principles are available on the DERA website.

Around 5 per cent of household and small business customers have switched supplier.

Most hourly metered customers are **medium, large and energy intensive businesses**. These customers must, in principle, actively choose their supplier (no “default supply”). However, if such a customer loses his supplier, i.e. due to bankruptcy of the supplier, he will be supplied by the supply company holding the licence for “obligation to supply” for that geographical region (“supplier of last resort (SLR)”).

In this case the calculation of regulated energy prices is based on Nord Pool Spot area price plus costs of balancing and administration in accordance with the Electricity Supply Act. DERA has implemented this by calculating the average level of 'authorised' balancing and administration costs based on costs from preceding periods

From 2000 to 2004, electricity under “obligation to supply” terms could only be supplied by legally unbundled companies. Since 2005, both types of electricity supply, i.e. “obligation to supply” electricity and electricity supplied in the competitive market, can be supplied by the same company. Thus, electricity suppliers comply with their “obligation to supply” by including the predefined SLR/default products specified by legislation in their product portfolio.

Gas

Small business customers have had market access since January 2004.

For all categories of customers, “obligation to supply” covers both “default supply” and “supplier of last resort”. However, in practice, most hourly metered customers (above 300.000 NM3/year) buy gas in the competitive market.

In accordance with the Gas Supply Act, profits from regulated “obligation to supply” prices must be reasonably relative to turnover and to economic efficiency of gas purchasing and other costs. DERA has implemented this rule in the following way:

For each company with a licence for "obligation to supply", the profit is capped according to a permitted rate of return on equity capital. This rate of return depends on the benchmarked efficiency of the individual company. If the company's economic performance is better than average during the regulation period it can earn a higher rate of return, and vice versa.

The permitted rate of return on equity capital for gas suppliers with "obligation to supply" is determined by DERA based on the risk-free interest of the financial market plus a risk element.

DERA calculation methods are available on the DERA website.

About 1 per cent of households and small business customers have switched supplier. Bigger customers who have switched supplier represent approximately 80 per cent of gas-consumption in this category.

“Obligation to supply” activities can only be carried out by companies which are legally competent to do so (legal unit). Such companies cannot carry out other types of supply activity.

France

The French gas and electricity markets are currently open to all consumers, except households. The markets will be totally open on 1 July 2007.

All eligible consumers (from small businesses to energy intensive end-users) are supplied with end-user regulated prices on condition that they do not opt for a market offer. However, reversibility is not allowed. The law of 7 December 2006 allows end-user regulated prices to continue for all consumers after 1 July 2007 (complete market opening).

Decisions concerning any changes in end-user regulated prices are taken by the Ministers of Economy and Energy. The regulator, the CRE, is systematically consulted. Once the CRE has given its opinion, the Ministers decide on and publish an end-user regulated price update. However, the Ministers are not bound to take the CRE's opinion into account, as has often been the case in the past few years.

Electricity

The suppliers who have the obligation to supply at regulated prices are designated by law. The incumbent suppliers are:

- Electricité de France (EDF), dominant market player whose annual production is higher than the national annual consumption,
- 160 local distribution companies which supply approximately 5% of national energy.

The law stipulates that **end-user regulated prices must cover all EDF's or local suppliers' costs**. These include:

- network costs (transport and distribution) established on the basis of a WACC calculation of return and covered by the network tariff (independent of the supplier),
- supply costs: generation/provisioning⁴ costs, marketing costs and customer management.

Over the past few years, end-user regulated prices have not always been updated according to these economic principles. For instance, in 2002, the implementation of network tariffs necessitated a complete revision of end-user regulated prices, but this was repeatedly postponed. Moreover, the secondary law does not specify the economic principles for calculating end-user regulated energy prices. This results in a non-transparent regulation process.

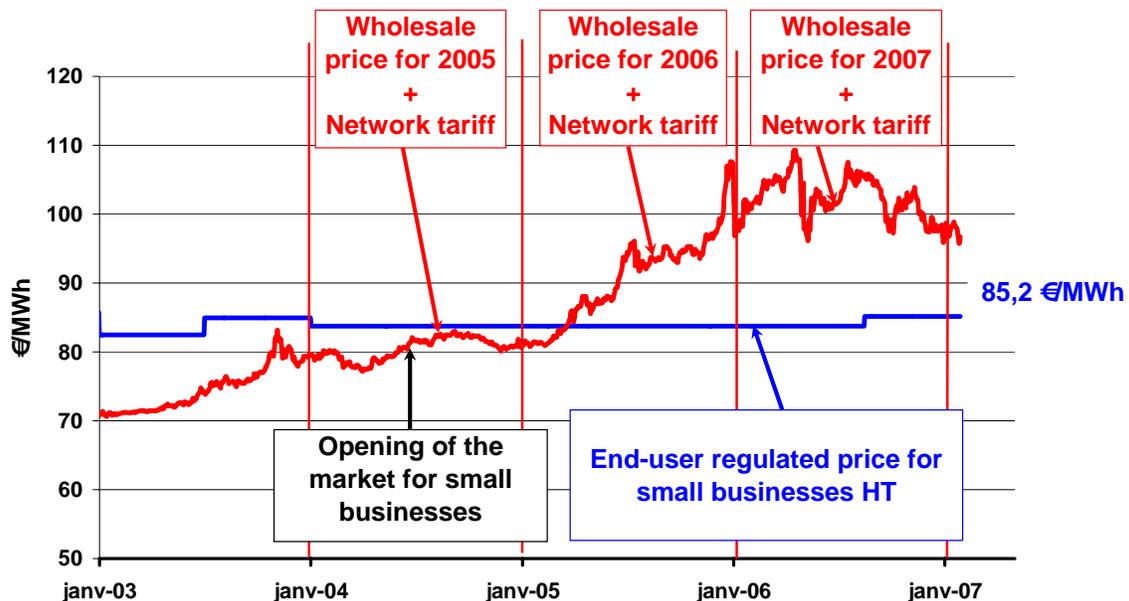
For each open market, wholesale market prices plus network tariffs have become significantly higher than end-user regulated prices (see example below concerning small businesses):

- alternative suppliers encounter obstacles to making competitive offers to small businesses: 84% of eligible customers still remain at end-user regulated prices ;
- the rate of switching to market offers is now static for energy intensives, large and medium businesses.

⁴Local distribution companies are supplied by EDF at regulated energy prices which are lower than end-user regulated energy prices.

Approximately 80% of EDF's production is nuclear. Nuclear generation costs are significantly below current wholesale prices (wholesale prices reflect marginal costs which in general are those of production plants, which have higher costs than nuclear plants). Therefore, end-user price regulation is considered a customer protection tool which enables customers to benefit from nuclear generation costs.

Electricity: Comparison between wholesale market price + network tariff and end-user regulated price for small businesses



Gas

Suppliers who supply at regulated prices are authorized by the Minister of Energy. These companies are the incumbent suppliers who were previously monopoly companies in their specific area, namely:

- Gaz de France (GDF), dominant market player covering most of France with near monopoly on long term supply contracts;
- Total Energie Gaz (TEGAZ), another dominant market player covering all the south-west of the country for customers connected to the transmission network ;
- 23 local distribution companies, supplying approximately 4% of national gas.

The law stipulates that **end-user regulated prices must cover all regulated suppliers' costs**. These include:

- network costs (transport and distribution), established on the basis of a WACC calculation of return and covered by the network tariff (independent of the supplier),
- storage cost, negotiated directly between suppliers and storage operators,
- supply costs: provisioning, marketing and customer management costs.

Calculation principles for end-user regulated prices are specified by the secondary law.

All suppliers submit a provisioning formula to the CRE and to the Ministers of Economy and Energy, which reflects their provisioning costs.

The formula is not made public but is audited by the CRE.

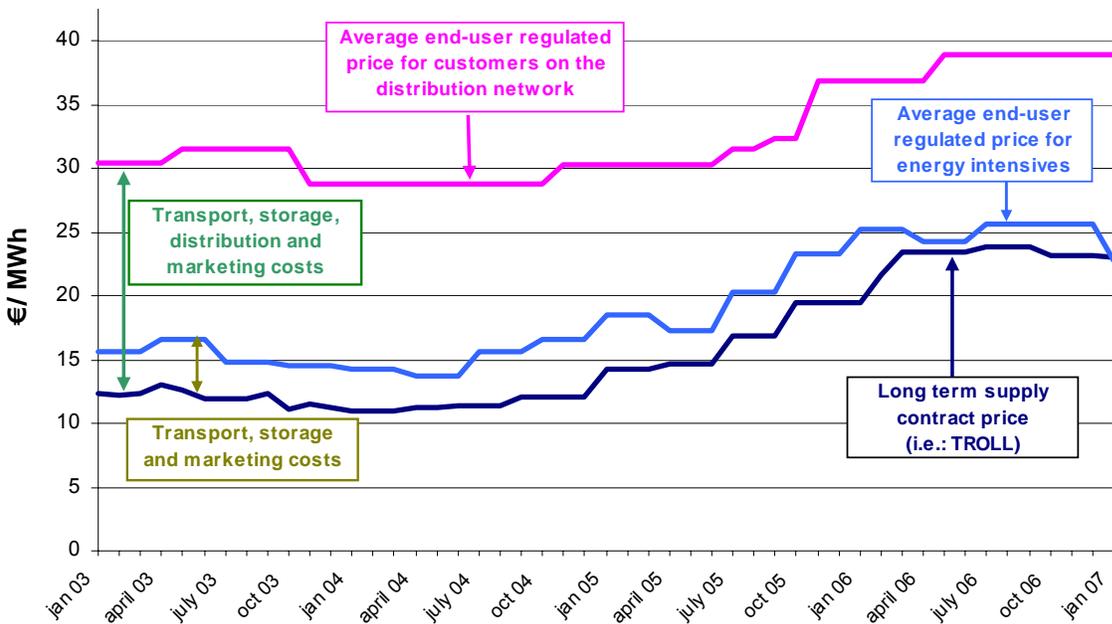
Every 3 months, suppliers propose regulated price revisions which are based on:

- the changes in their provisioning costs which are calculated according to the formula
- if relevant, changes in other costs (marketing, management) which must be justified.

Nevertheless, concerning GDF, end-user regulated prices on all open markets except energy intensives have not always been updated following this principle and have been frozen by the government since May 2006. This has restricted the development of competition since 87% of these customers are still supplied at regulated prices.

For energy intensives, regulated prices vary every three months, but there is no specific rule governing this apart from the law. Price movements are linked to those of long term supply contracts. This has allowed alternative suppliers to compete with regulated prices and to make competitive offers since only 47% of energy intensives are supplied at regulated prices.

Gas: Comparison between end-user regulated price and long term supply contract price



Spain

Spanish gas and electricity markets have been opened to all categories of consumers since 1st January 2003. Therefore, all consumers are eligible.

For both electricity and natural gas, the law stipulates that to determine regulated prices, the remuneration of activities must be calculated according to objective, transparent and non-discriminatory criteria. This acts as an incentive to improve management effectiveness as well as economic and technical efficiency relating to activities, and the quality of supply.

The law also establishes the methods of calculating the costs included in regulated prices, based on transparent criteria. However, it does not define the specific criteria to be used for allocating each cost in order to determine the various levels of regulated prices.

The decisions concerning end-user regulated prices are taken by the Minister of Industry, Tourism and Trade. The National Energy Commission (CNE) is consulted before the annual gas and electricity end-user regulated prices are published, although the Minister is not bound to take the CNE's opinion into account.

Electricity

There are two types of regulated prices,

- final tariffs for consumers who are in the regulated market (i.e. end-user regulated prices)
- access tariffs (including costs related to transmission and distribution plus other costs), paid by consumers in the open market.

The final tariffs mainly include the following costs:

- production costs
- transmission and distribution costs
- retailing (supply sales) costs
- permanent costs of the system
- supply diversification and security costs

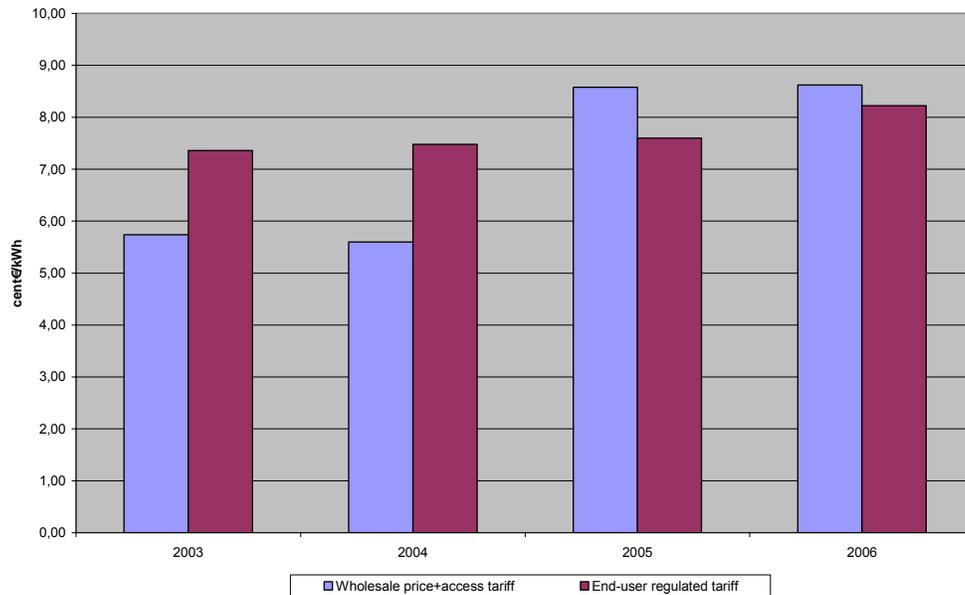
Access tariffs include the same costs as the final tariffs, except production costs.

Distributors have the obligation to supply the consumers in the regulated market at regulated prices. There are 5 major suppliers and approximately 300 small distribution companies.

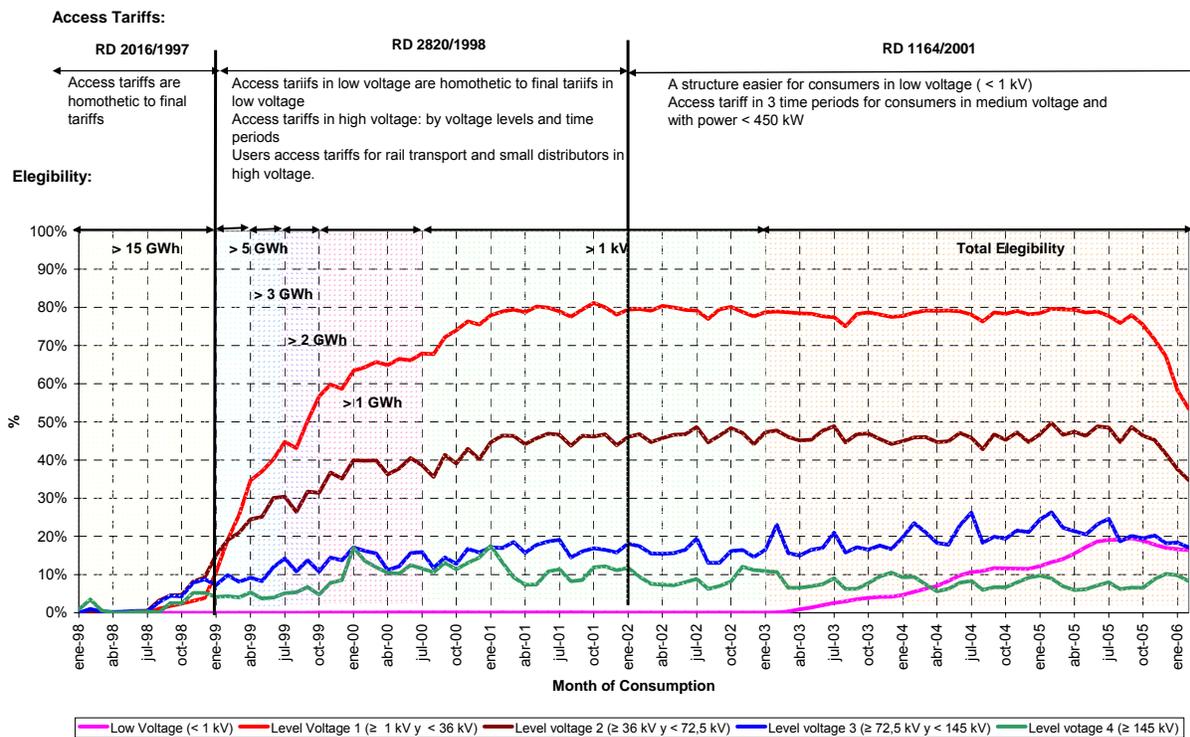
All consumers are supplied at final tariffs if they do not choose a market offer, but reversibility is only permitted for low voltage household consumers, with the restriction of staying in the liberalised market, at least for one year. Customers choosing the market option are obliged to continue with this option for at least one year. This prevents them from returning any earlier to the regulated market.

The wholesale market price was high in 2005 and 2006, so the wholesale market price plus access tariff were higher than end-user regulated prices during this period (see the example below concerning small industries). However, retailers could make a bilateral contract with a generator to purchase electricity, in order to bring down prices to a level lower than those in the wholesale market.

Graph 1. Comparison between wholesale price plus access tariffs and end-user regulated prices for small industries. 2003-2006



Graph 2. Distribution of energy consumption by access tariffs compared to total consumption by voltage levels in peninsular area. 1998-2006



Natural Gas

As from the 1 July 2007, end-user prices will be regulated for household consumers only. All industries (small, medium and energy intensives) will be obliged to purchase gas on the open market.

The tolls and fees for third party access to the gas system are set by Ministerial Decree and are calculated annually or whenever circumstances require additional adjustments to be made.

- a) Regasification toll⁵: This includes the right to use the necessary facilities for unloading ships, transportation of gas to liquefied natural gas (LNG) tanks, regasification or loading of LNG tankers and operating storage of LNG in a plant up to 10 days of daily contracted capacity.
- b) LNG storage fee: This is based on the contracted amount of gas storage.
- c) Transportation and distribution toll: This includes the right to use the necessary facilities to transport gas from the point of entry into the transportation network to the point of supply to consumers, as well as the use of an operating storage corresponding to 5 days of contracted transportation and distribution capacity. It is also charged for the supply of consumers connected to the local distribution networks which are supplied through satellite plants. The transportation and distribution toll is made up of a capacity reserve component and a pipe conveyance component.
 - a. *The transportation and distribution capacity reserve component* will be billed by the transportation company that is the titleholder of the installations wherever the point of entry of natural gas into the transportation and distribution system is located.
 - b. *The pipe conveyance component* will be billed by the distribution company that is the titleholder of the installations where the point of delivery of natural gas to the end user is located, to the agent with an access contract.
- d) Underground storage fee: This is based on the contracted amount of gas storage.

The end-user regulated prices include all the costs generated by consumers who purchase gas on the regulated market. They are cumulative and include the following:

- a) Conveyance: For each tariff level, this includes the average costs of regasification, transport, distribution and storage. The minimum compulsory security stocks and any corresponding losses and auto-consumption are taken into account in the calculation.
- b) Raw material: The government establishes, on the basis of the average cost of acquisition by the transporters, a public formula that determines the cost of the gas intended for regulated consumers. Every 3 months, the government recalculates this cost, taking into account the movement of international prices.
- c) Gas sales and purchases management by transporters, for the supply of distribution companies for their sales to regulated markets.
- d) Distribution activity
- e) Variations, if any, resulting from the application of the settlement arrangements from the previous year.
- f) Tariffs for supplying natural gas to end users, tolls and fees, include a surcharge to finance the National Energy Commission, and a fee to remunerate the technical manager of the system.

In 2006, consumers in the open market represented 85% of total natural gas consumption.

⁵ From 1st January 2007, the regasification toll has been split into the next three: regasification, loading of tankers and ships unloading.

Graph 3. Distribution of energy consumption by pressure levels. Year 2006

