

**JORNADAS – DEBATE DEL CEEP**  
**LOS SERVICIOS DE INTERES GENERAL, PILARES DEL MODELO EUROPEO**  
**UNIVERSIDAD DE COIMBRA**  
**DEBATE SOBRE EL FUTURO DE EUROPA**

*“GARANTIZAR LOS SIG: CONSTRUIR UN MARCO ADECUADO PARA LAS  
EMPRESAS; REGULACION, EVALUACION, SUBSIDIARIDAD”*

**D<sup>a</sup> M<sup>a</sup> LUISA HUIDOBRO Y ARREBA**  
**PRESIDENTA DE OMEL**

**Coimbra, 6 de Marzo de 2003**



# CONTENT

---

- 1. Public service obligations and customer protection for the internal market in electricity. Common position adopted by the council with a view of the adoption of a new Directive.**
- 2. Member State responsibilities.**
- 3. Security of supply.**
- 4. Customer protection.**
- 5. Economic cohesion, environmental protection and demand-side management measures.**
- 6. Transeuropean electricity exchanges in the single European market.**
- 7. Role of the markets and Power Exchanges regarding public service obligations.**

**1. PUBLIC SERVICE OBLIGATIONS AND  
CUSTOMER PROTECTION FOR THE INTERNAL  
MARKET IN ELECTRICITY. COMMON POSITION  
ADOPTED BY THE COUNCIL WITH A VIEW OF  
THE ADOPTION OF A NEW DIRECTIVE (ART. 3)**

## **PUBLIC SERVICE OBLIGATIONS AND CUSTOMER PROTECTION**

### **ART. 3 (I)**

---

- 1. <<Member States shall ensure, on the basis of their institutional organisation and with due regard to the principle of subsidiarity, that, without prejudice to paragraph 2, electricity undertakings are operated with the principles of this Directive with a view to achieving a competitive and sustainable market in electricity, and shall not discriminate between these undertakings as regards either rights or obligations.>>**
- 2. <<Having full regard to the relevant provisions of the Treaty, in particular Article 86 thereof, Member States may impose on undertakings operating in the electricity sector, in the general economic interest, public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies and environmental protection, including energy efficiency and climate protection. Such obligations shall be clearly defined, transparent, non-discriminatory and verifiable. In relation to security of supply, energy efficiency/demand-side management and for the fulfilment of environmental goals, as referred to in this paragraph, Member States may introduce the implementation of long-term planning, taking into account the possibility of third parties seeking access to the system.>>**

## **PUBLIC SERVICE OBLIGATIONS AND CUSTOMER PROTECTION**

### **ART. 3 (II)**

---

- 3. <<Member States shall ensure that all household customers, and, where Member States deem it appropriate, small enterprises, (namely enterprises with fewer than 50 occupied persons and an annual turnover or balance sheet not exceeding EUR 10 million), enjoy universal service, that is the right to be supplied with electricity of a specified quality within their territory at reasonable prices. To that end, Member States may appoint a supplier of last resort. Member States shall impose on distribution companies an obligation to connect customers to their grid under terms, conditions and tariffs set in accordance with the procedure laid down in Article 23(2).**

**The first subparagraph shall be implemented in a transparent and non-discriminatory way and shall not impede the opening of the market provided for in Article 21.>>**

- 4. <<When financial compensation, other forms of compensation and exclusive rights which a Member State grants for the fulfilment of the obligations set out in paragraphs 2 and 3 are provided, this shall be done in a non-discriminatory and transparent way.>>**

## **PUBLIC SERVICE OBLIGATIONS AND CUSTOMER PROTECTION**

### **ART. 3 (III)**

---

5. <<Member States shall take appropriate measures to protect final customers, and shall in particular ensure that there are adequate safeguards to protect vulnerable customers, including measures to help them avoid disconnection. In this context, Member States may take measures to protect final customers in remote areas. They shall ensure high levels of consumer protection, particularly with respect to transparency regarding contractual terms and conditions, general information and dispute settlement mechanisms. Member States shall ensure that the eligible customer is in fact able to switch to a new supplier. As regards at least household customers, these measures shall include those set out in Annex A.>>
6. <<Member States shall ensure that electricity suppliers specify in or with the bills and in promotional materials made available to final customers:
  - (a) The contribution of each energy source to the overall fuel mix of the supplier over the preceding year;
  - (b) At least the reference to existing reference sources, such as web-pages, where information on the environmental impact, in terms of at least emissions of CO<sub>2</sub> and the radioactive waste resulting from the electricity production from different energy sources, is publicly available .With respect to electricity obtained via an electricity exchange or imported from an undertaking situated outside the Community, aggregate figures provided by the exchange or the undertaking in question over the preceding year may be used.  
Member States shall ensure that appropriate mechanisms are put in place, e.g. by the supplier, to verify the reliability of the information on the fuel mix.>>

## **PUBLIC SERVICE OBLIGATIONS AND CUSTOMER PROTECTION**

### **ART. 3 (IV)**

---

- 7. <<Member States shall implement appropriate measures to achieve the objectives of social and economic cohesion, environmental protection, which may include energy efficiency/demand-side management measures and means to combat climate change, and security of supply. Such measures may include, in particular, the provision of adequate economic incentives, using, where appropriate, all existing national and Community tools, for the maintenance and construction of the necessary network infrastructure, including interconnection capacity.>>**
- 8. <<Member States may decide not to apply the provisions of Articles 6, 7, 20 and 22 insofar as their application would obstruct the performance, in law or in fact, of the obligations imposed on electricity undertakings in the general economic interest and insofar as the development of trade would not be affected to such an extent as would be contrary to the interests of the Community. The interests of the Community include, amongst others, competition with regard to eligible customers in accordance with this Directive and Article 86 of the Treaty.>>**
- 9. <<Member States shall, upon implementation of this Directive, inform the Commission of all measures adopted to fulfil universal service and public service obligations, including consumer protection and environmental protection, and their possible effect on national and international competition, whether or not such measures require a derogation from this Directive. They shall inform the Commission subsequently every two years of any changes to such measures, whether or not they require a derogation from this Directive.>>**



## **2. MEMBER STATE RESPONSIBILITIES.**

## MEMBER STATE RESPONSIBILITIES (I)

---

- 1. Member States shall ensure that electricity undertakings are in accordance with principles of the Directive with a view to achieving a competitive and sustainable market electricity and not discriminate between these undertakings.**
- 2. Having full regard to the relevant provisions of the treaty, in particular art. 86, Member States may impose on undertakings operating in the electricity sector, in the general economic interest public service obligations which may relate to security, including security of supply, regularity, quality and price of supplies and environmental protection, including energy efficiency and climate protection:**
  - **Clearly defined.**
  - **Transparent.**
  - **Non discriminatory and verifiable.**
- 3. Universal service shall be implemented in a transparent and non discriminatory way and not impede the opening of the market provided for in art. 21.**
- 4. In case of financial compensations or exclusive rights, this shall be done in a non-discriminatory and transparent way.**

### 5. Security of supply:

- Long-term planning may be introduced by member states.
- Energy efficiency/demand-side management measures can be used to achieve the objective of security of supply.
- Adequate economic incentives can be provided, using all existing national and community tools for the maintenance and construction of the necessary network infrastructure, including interconnection capacity.
- Information to the European Commission.
- Monitoring of security of supply.

### 6. Environmental Protection including energy efficiency and climate protection:

- Long term planning, taking into account the possibility of third parties seeking access to the systems.
- Information and transparency about the environmental impacts.
- Energy efficiency/demand side measurements.
- Specifications in the bills of the contribution of each energy source by the supplier of by the power exchange.

### 7. Customer protection.

- Public service obligations may relate to regulatory, quality and price of supplies
- All households customers and where Member States deem it appropriate, small enterprises, enjoy universal service: right to be supplied with electricity of a specified quality at reasonable prices.
- It is possible to appoint a supplier of last resort.
- Member State shall impose on distribution companies an obligation to connect customers to their grid.
- Protection of vulnerable customers.
- Transparency regarding contractual terms and conditions, general information and dispute settlement mechanisms.
- The eligible customer is in fact able to switch to a new supplier.
- New supplier.
  - Minimum specifications in the contracts.
  - Information of any intention to modify contractual conditions.
  - Information about applicable prices and tariffs.
  - Wide choice of payment methods.
  - The consumer shall not be charged for changing supplier.
  - Transparent, simple and inexpensive procedures for dealing with complaints.
  - Information about the rights regarding universal service.

### **3. SECURITY OF SUPPLY.**

## SECURITY OF SUPPLY (I)

---

→ **Issues that contribute to the security of supply at the same time favour deregulation and energy market development in competition**

- **Building new power plants and an appropriate treatment of the capacity reserve**
- **Development of the transmission and distribution network**
- **Increase the commercial capacity through the international interconnections**



**Infrastructure constraints hinders security of supply and are an obstacle for the energy market**

## SECURITY OF SUPPLY (II)

---

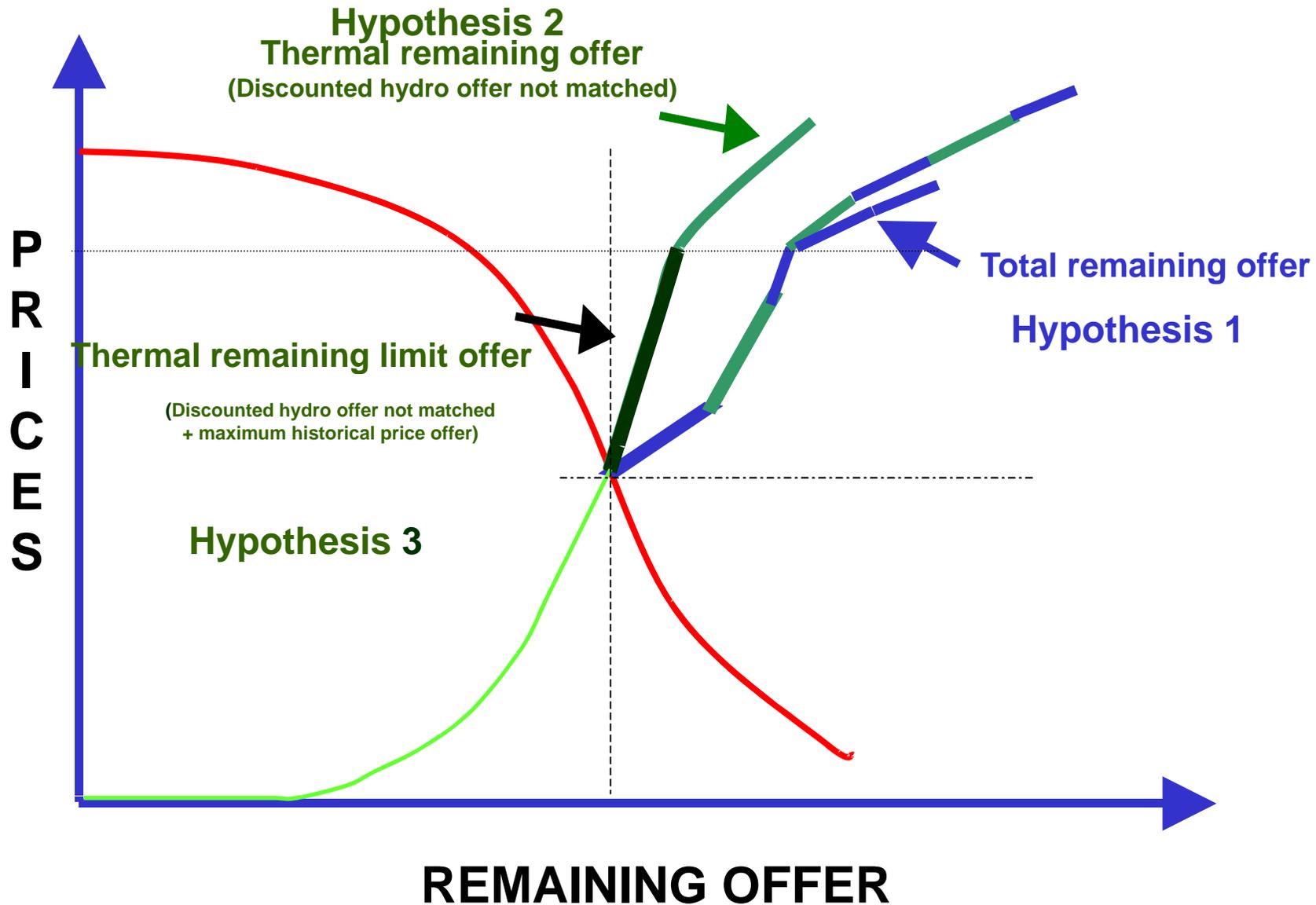
- An energy market that works properly give appropriate signals to their market participants
  - New investments in Power plants
  - Network development planning guidelines, in transmission regulated systems
  - New investments in network elements, if the transmission system is not regulated
- The organized market have to provide the same access conditions to all participants to the different trading contracts
- A correct price formation in the organized markets require
  - Market liquidity and transactions with different horizons
  - Sufficient high number of buyers and sellers

## SECURITY OF SUPPLY (III)

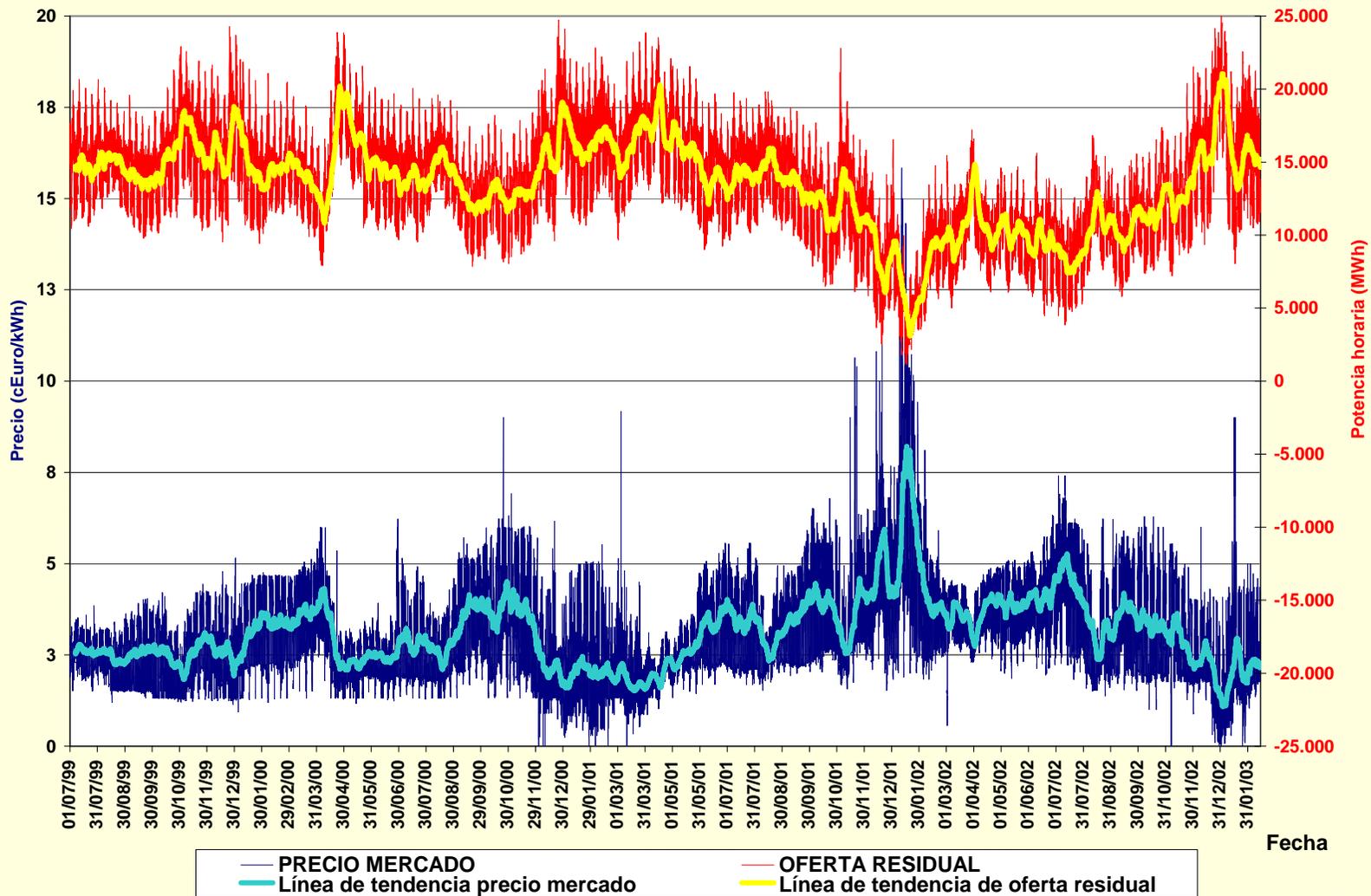
---

- Are investment decisions in power plants and transmission equipment independent ?
  - Both activities organized in competition
    - **Vertically integrated companies.** → A power plant and a transmission line do not substitute each other in many cases
    - **Non integrated companies.** → Could this model work in a highly meshed network system?
  - Production organized in free competition and transmission system regulated in access tariffs and development planning
    - **Vertically integrated companies.** → How will the interrelation between tariffs and competition be solved ?
    - **Non integrated companies.** → Market signals will provide power plant development and the regulated planning should provide for the necessary transmission lines
- Do very long term power supply or capacity reservation contracts guaranty supply or capacity ?

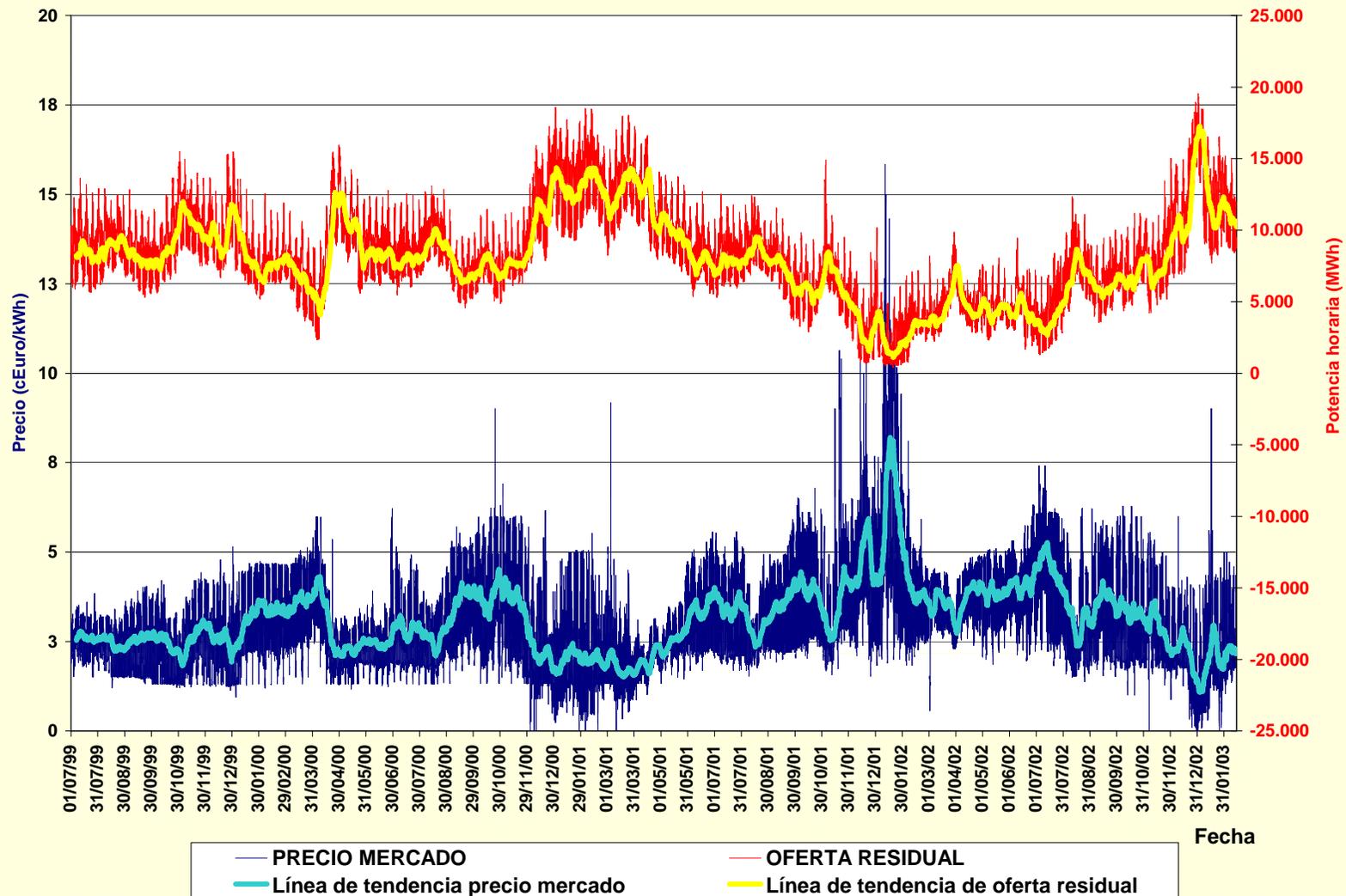
## UNDERSTANDING REMAINING OFFER



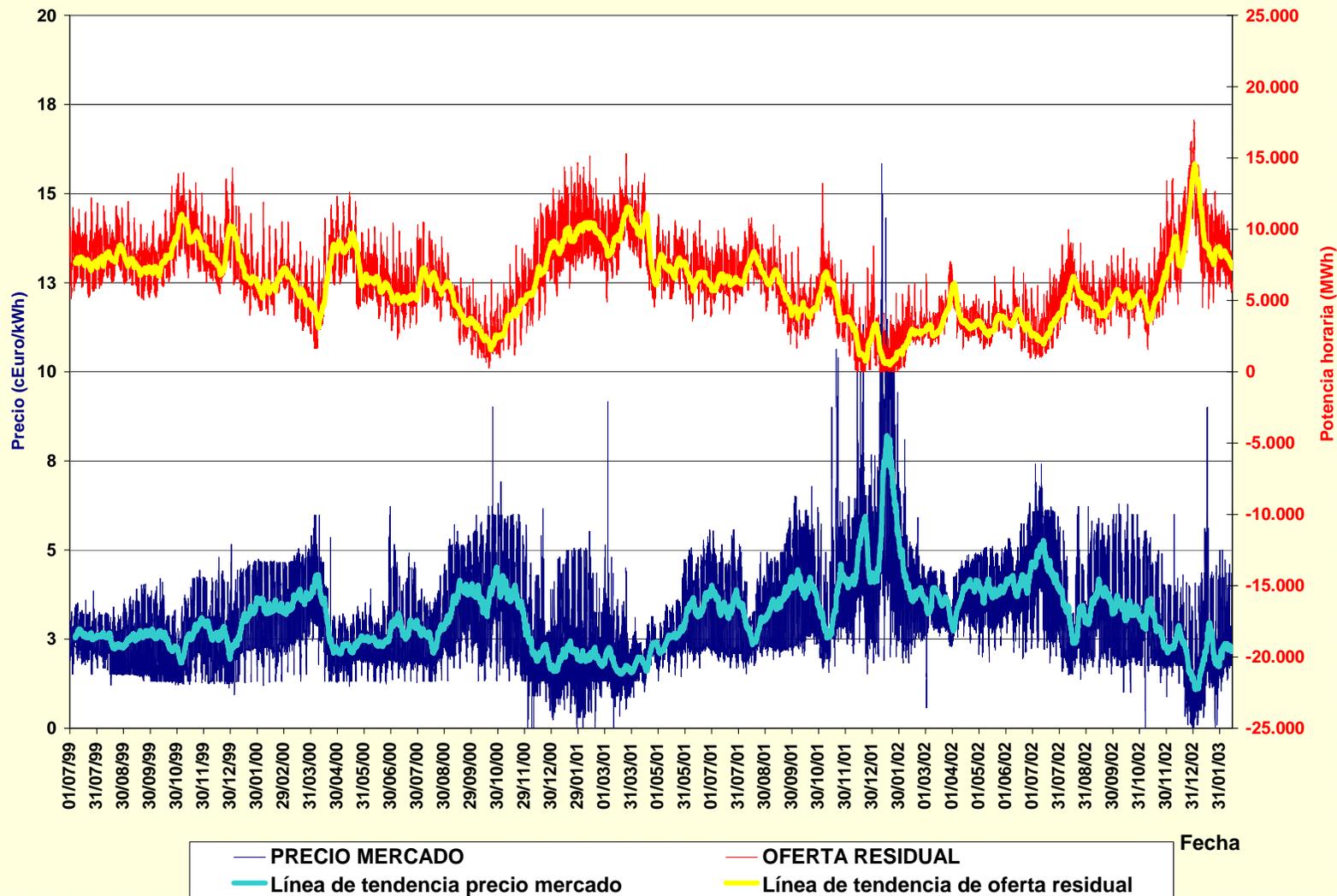
### PRECIO DEL MERCADO Y OFERTA RESIDUAL HIPÓTESIS 1



### PRECIO DEL MERCADO Y OFERTA RESIDUAL HIPÓTESIS 2



### PRECIO DEL MERCADO Y OFERTA RESIDUAL HIPÓTESIS 3



# DEMAND SIDE MANAGEMENT?

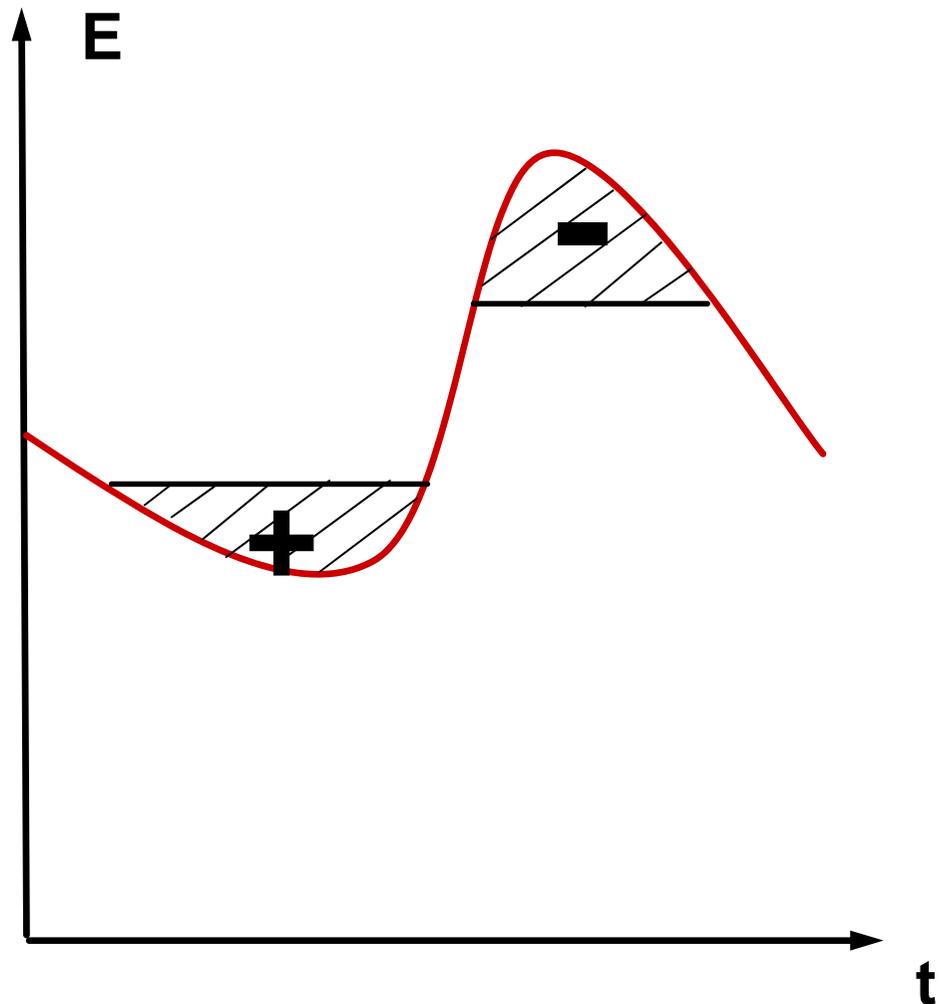
---

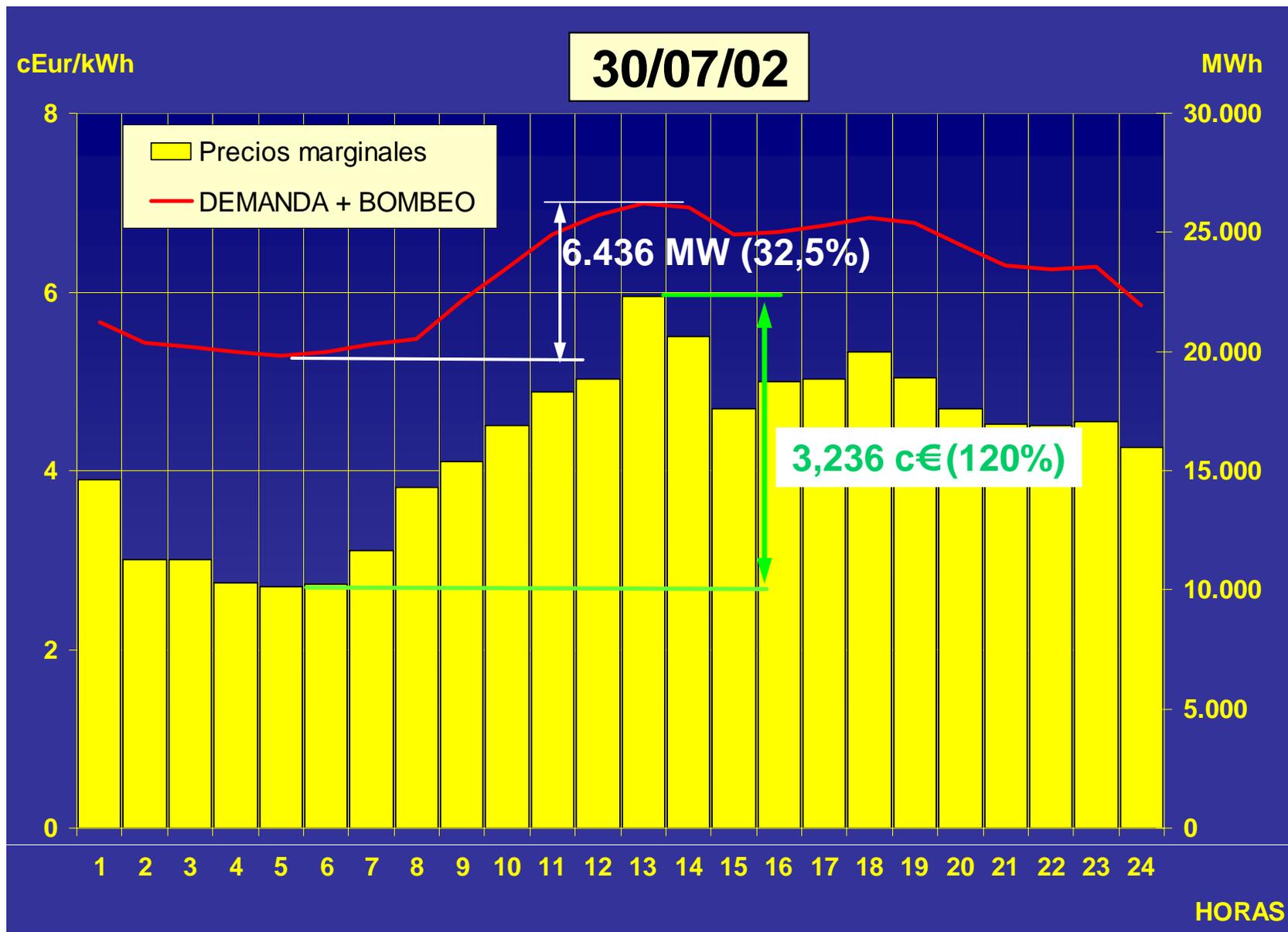
## Objective:

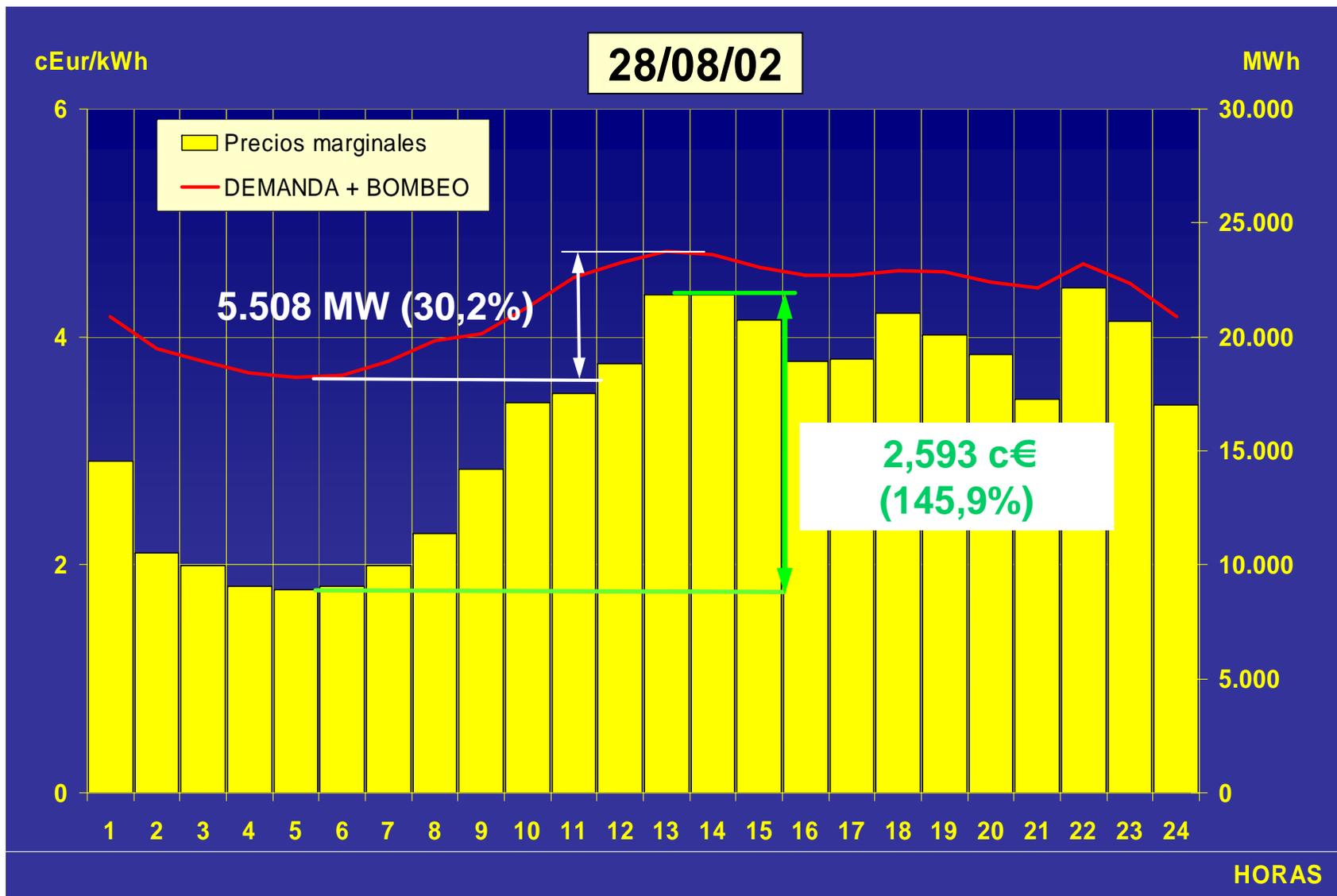
- Consumption decrease in pick hours.
- Increase of consumption in valley hours

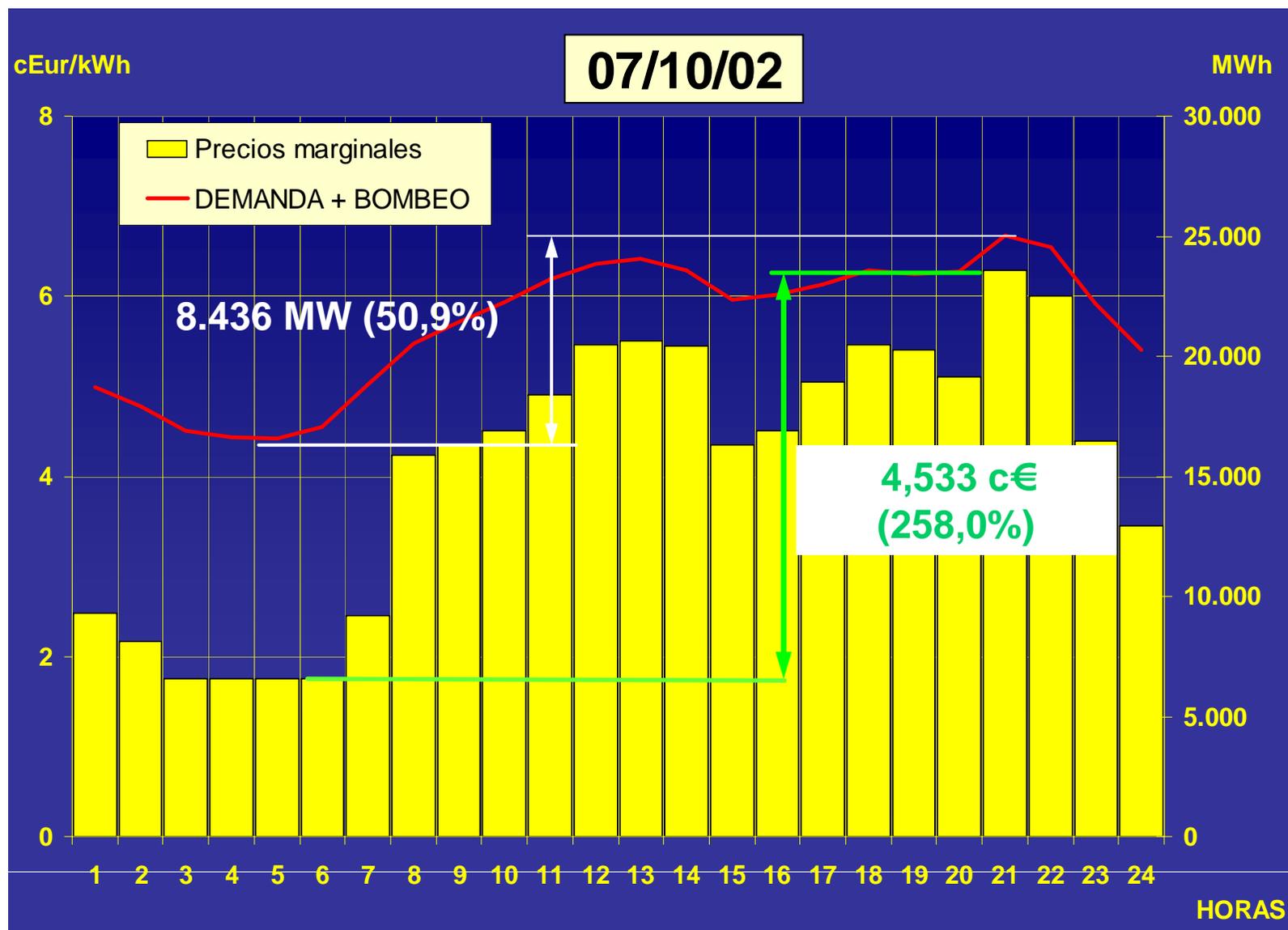
## Consequences:

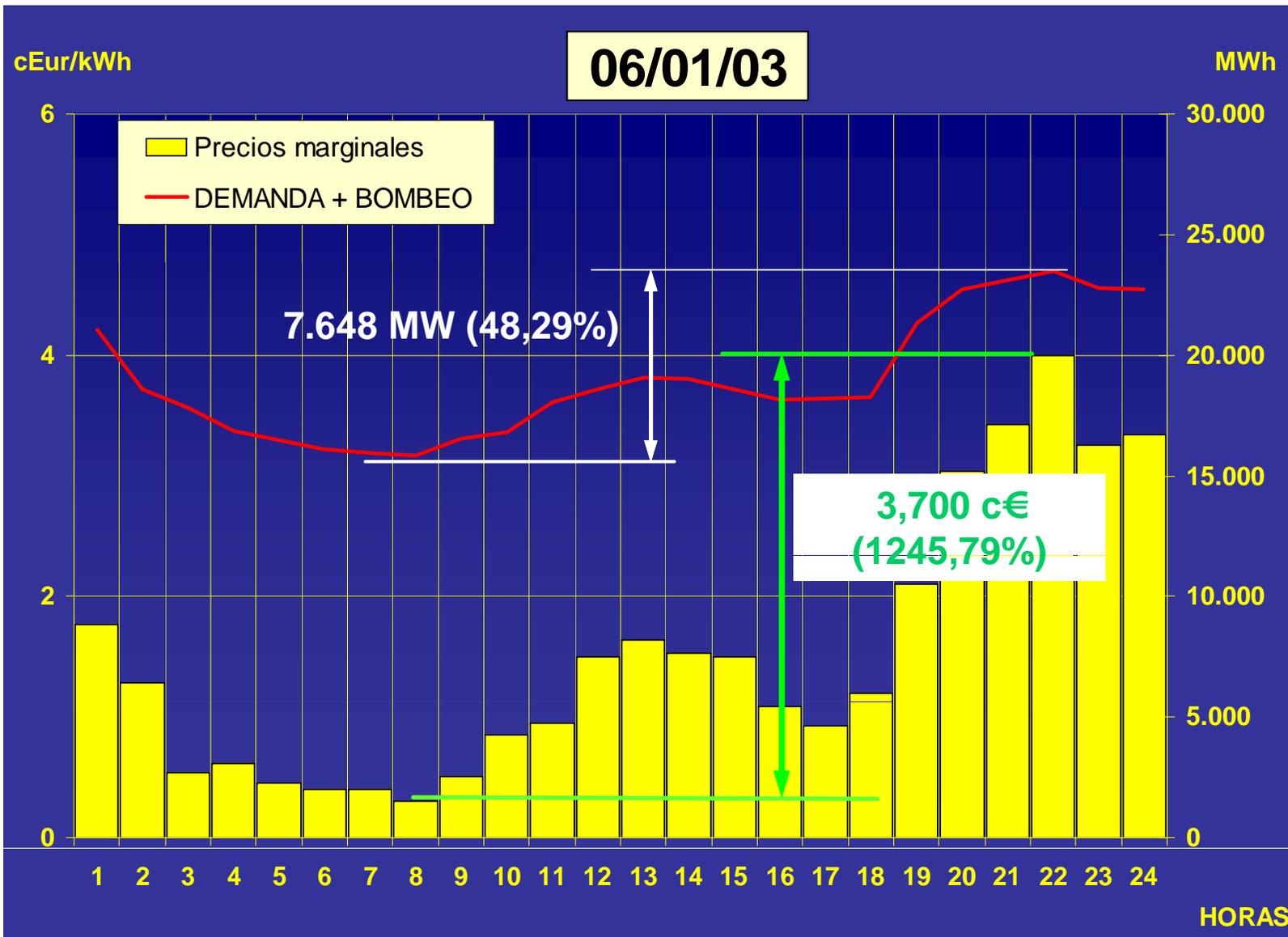
- Reduction of the demand for capacity
- Bigger supplies of generation capacity in pick hours
- Production cost decreases
- Price decreases
- Environmental protection advantages

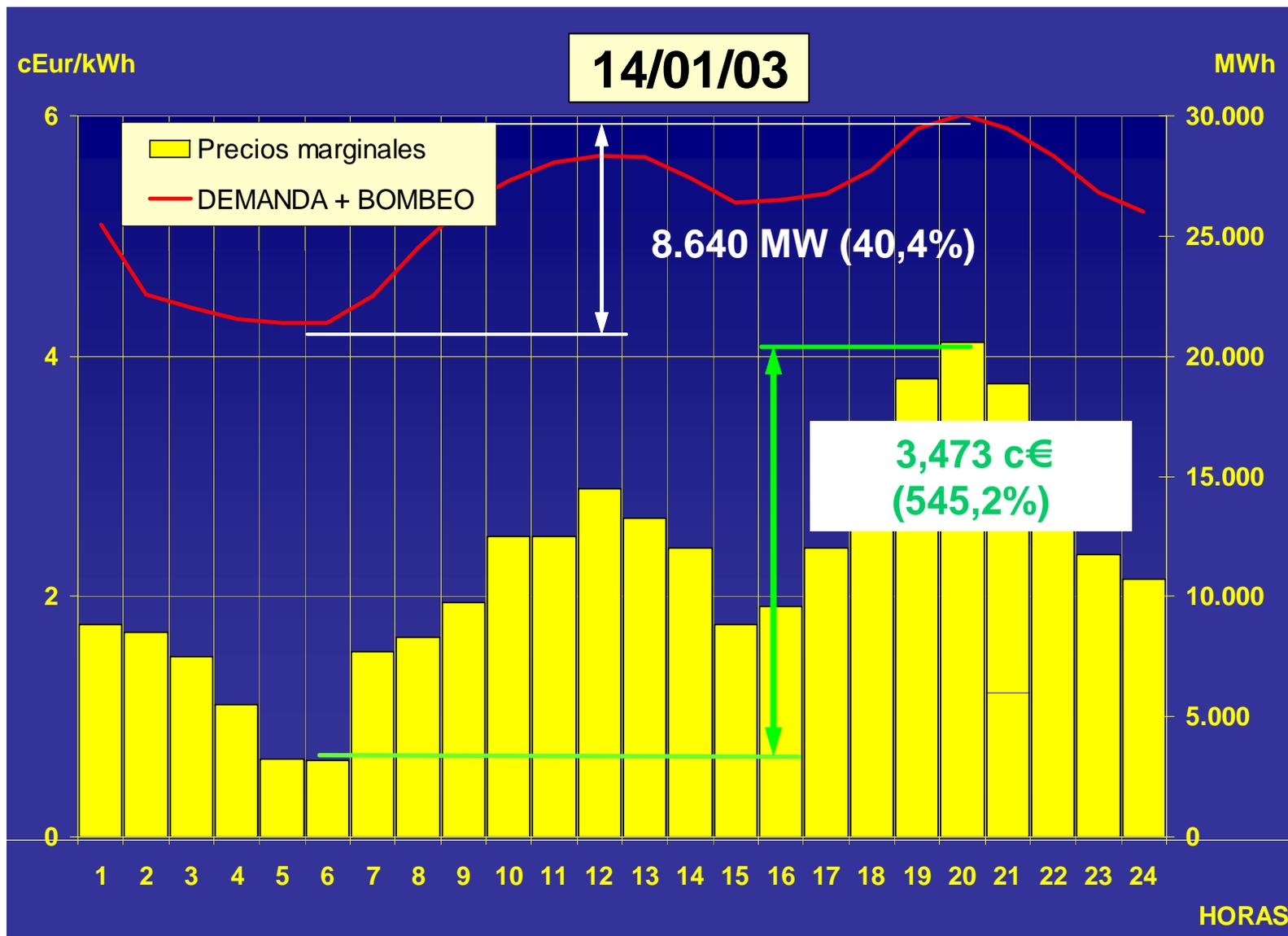












## **4. CUSTOMER PROTECTION.**

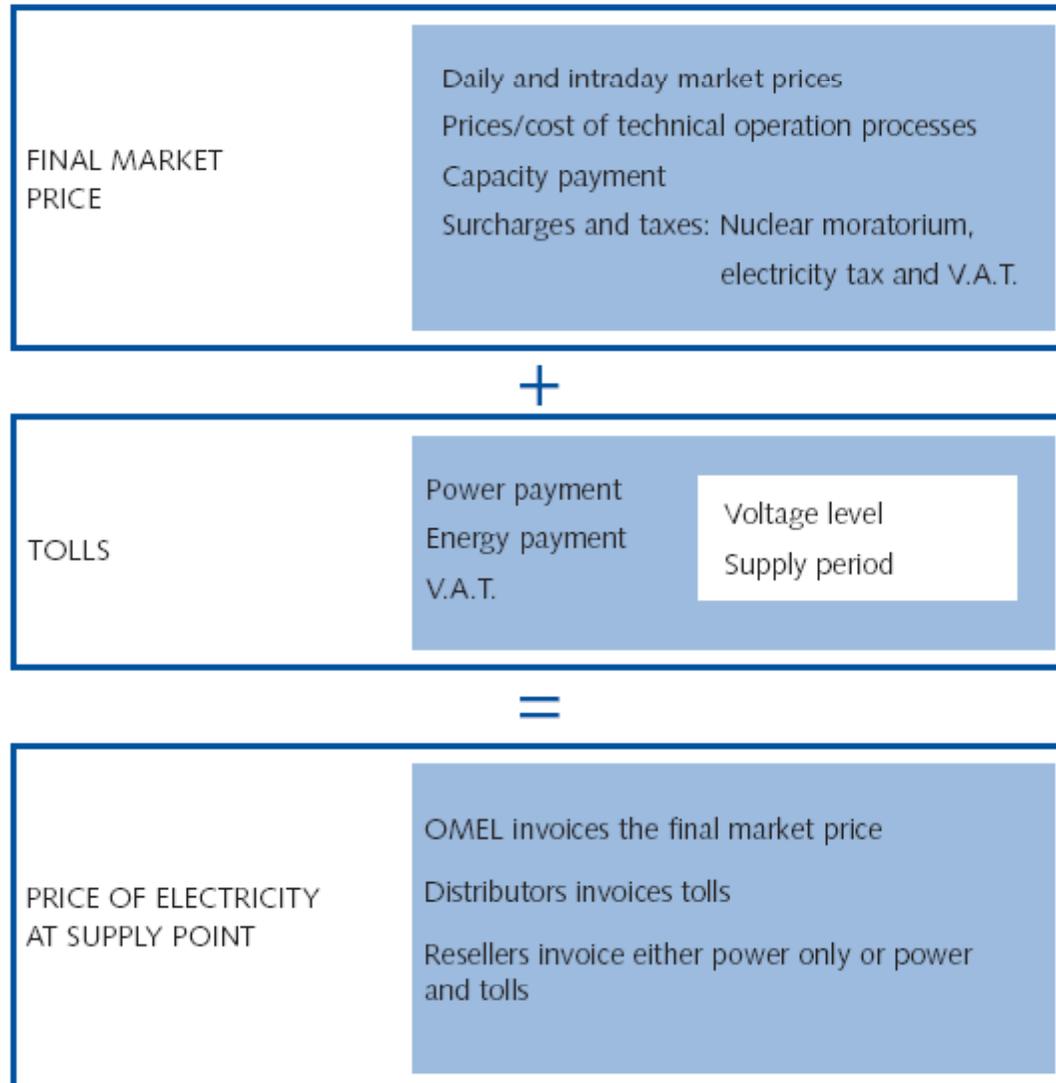
# CUSTOMER PROTECTION

---

- As far as security standards and quality of supply are concerned, both activities subjected to regulations. This regulations should be harmonize at the community level.
- The right to connect to the network is a crucial issue both for consumer protection and development of the competition in the electricity market.
- Markets can produce price references important enough to protect all customer if the number of supply undertakings and the quality of competition in the market are reasonable.
- A complete separation between wholesale markets and retail markets is inefficient for a proper protection of consumers.

# ELECTRICITY PRICE COMPONENTS

---

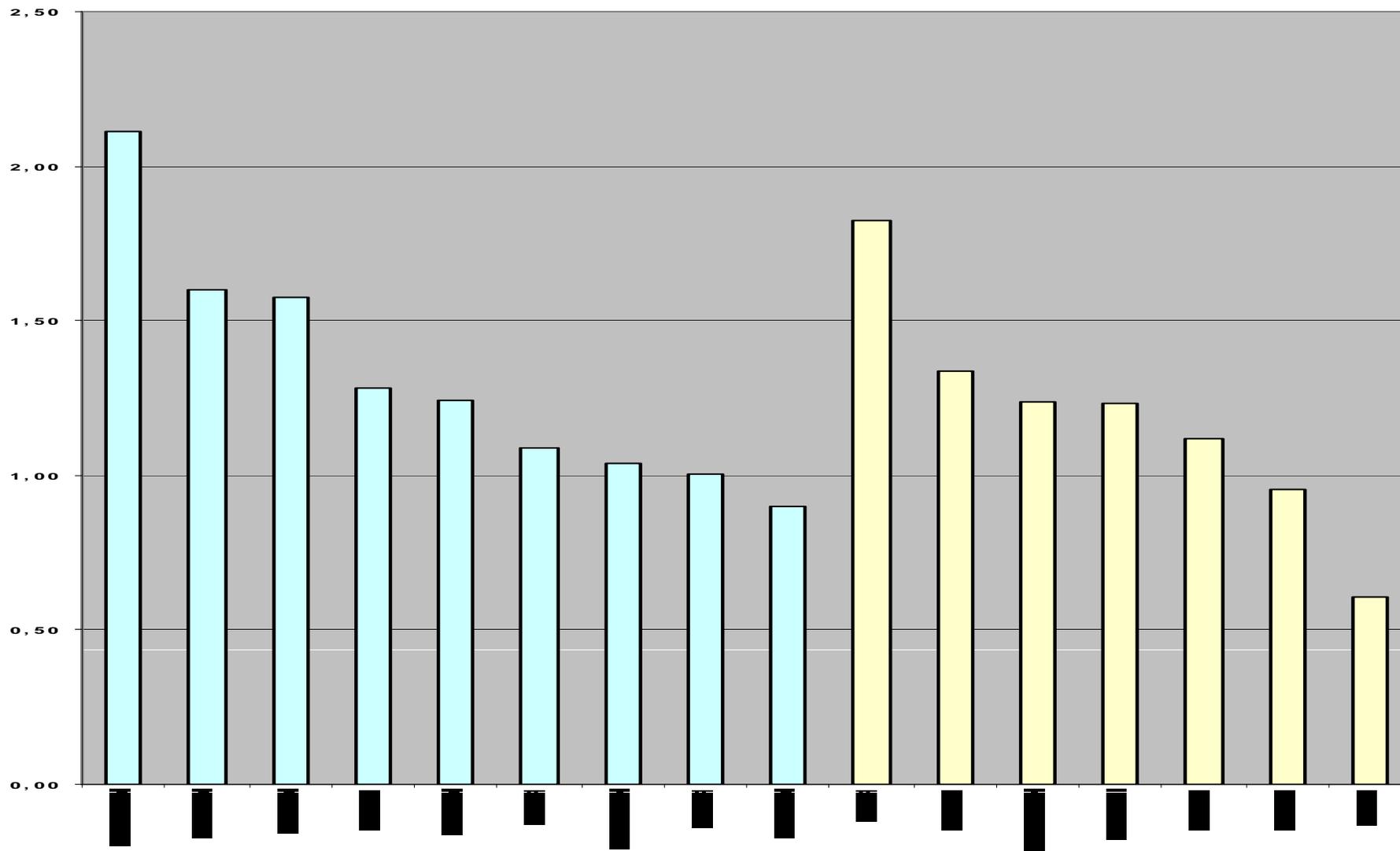


# CUSTOMER PROTECTION

---

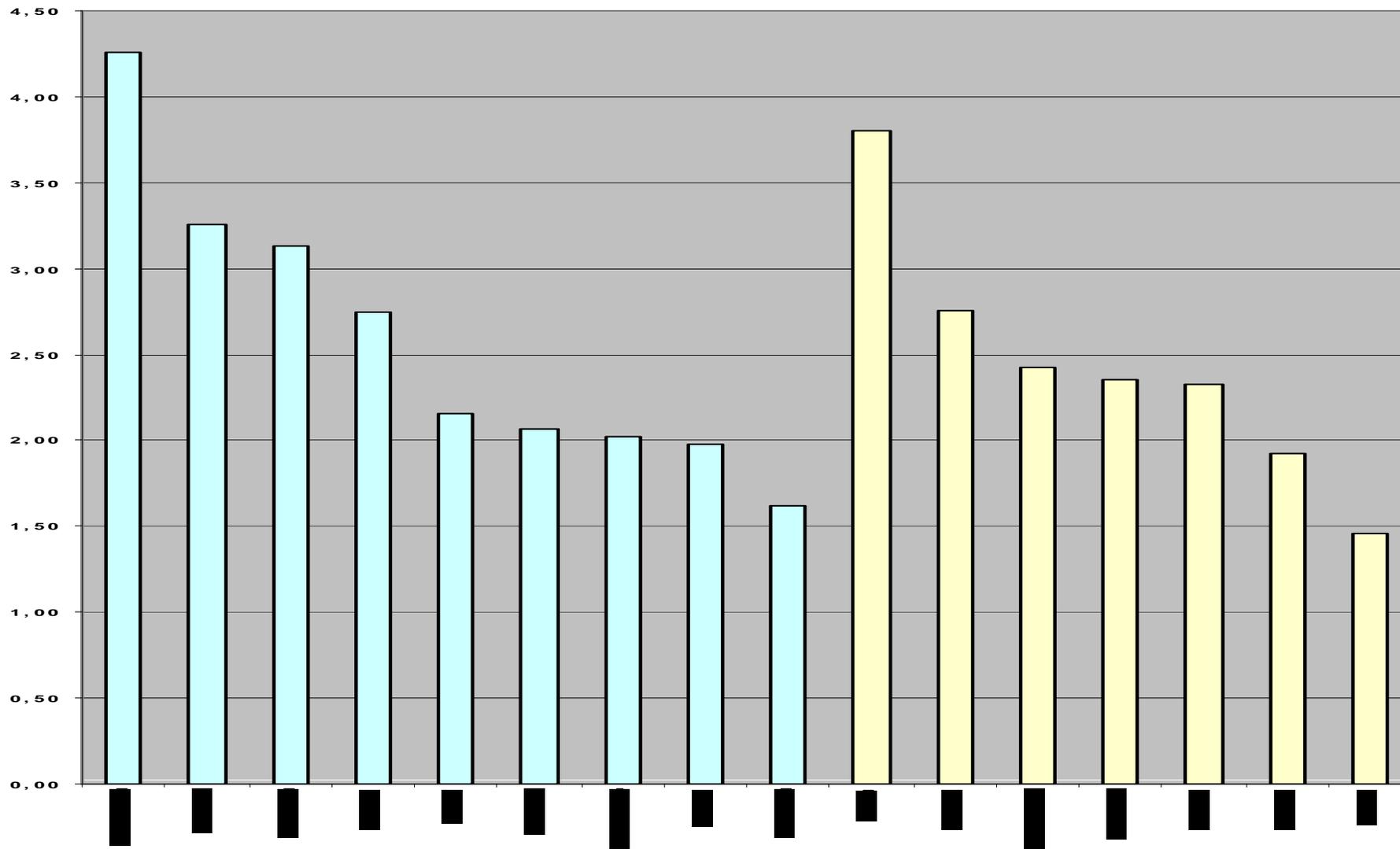
- Domestic consumer tariffs in the EU have important differences.
- Access to liberalized contracts is not the same in the member countries.
  - Consumers can only establish contracts with retailers.
  - Consumers can establish contracts also with producers or through power exchanges.

€/ día      **Gasto Diario de Electricidad a 1 de enero de 2002 (Informe Eurostat de mayo de 2002)**  
Consumidores Domésticos de 3.500 kWh / año



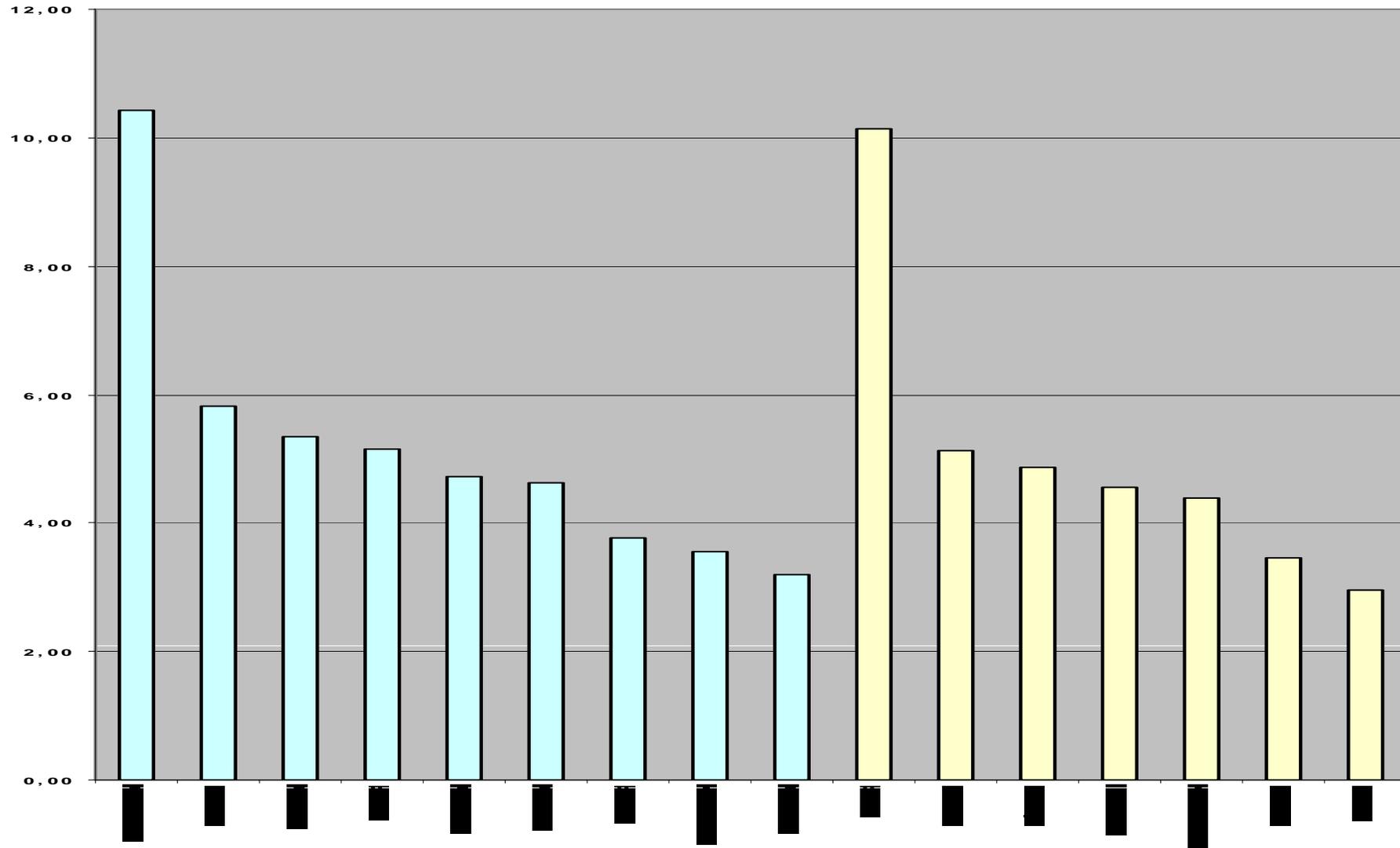
(\*) Países nórdicos: 10-20% han cambiado de suministrador  
 (\*\*) Austria y Alemania: 5-10% han cambiado de suministrador  
 (\*\*\*) Reino Unido: 30-50% han cambiado de suministrador  
 Fuente: Comisión Europea (Informe de octubre de 2002)

€/ día **Gasto Diario de Electricidad a 1 de enero de 2002 (Informe Eurostat de mayo de 2002)**  
**Consumidores Domésticos de 7.500 kWh / año**



(\*) Países nórdicos: 10-20% han cambiado de suministrador  
 (\*\*) Austria y Alemania: 5-10% han cambiado de suministrador  
 (\*\*\*) Reino Unido: 30-50% han cambiado de suministrador  
 Fuente: Comisión Europea (Informe de octubre de 2002)

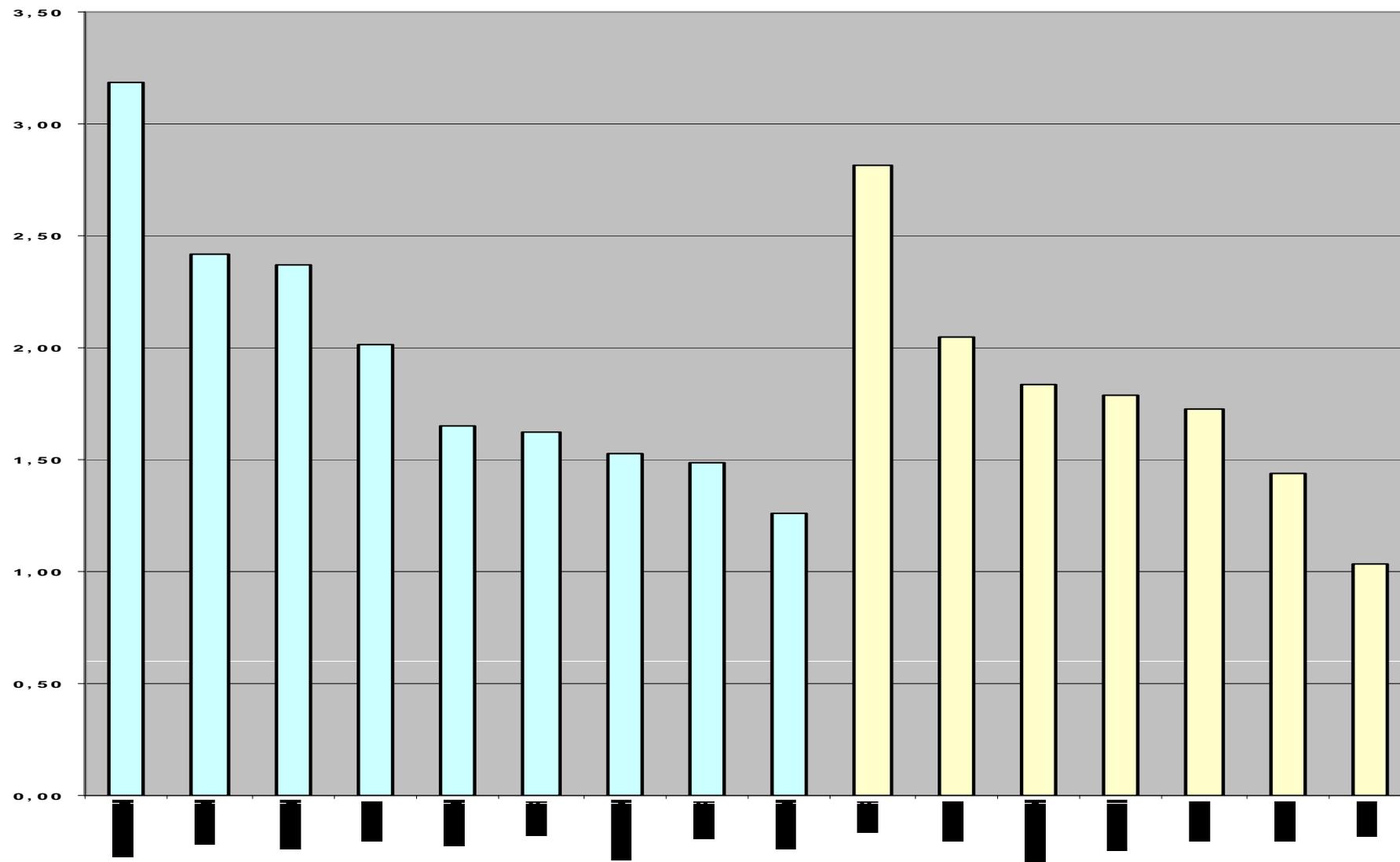
**Gasto Diario de Electricidad a 1 de enero de 2002 (Informe Eurostat de mayo de 2002)**  
Consumidores Domésticos de 20.000 kWh / año



(\*) Países nórdicos: 10-20% han cambiado de suministrador  
 (\*\*) Austria y Alemania: 5-10% han cambiado de suministrador  
 (\*\*\*) Reino Unido: 30-50% han cambiado de suministrador  
 Fuente: Comisión Europea (Informe de octubre de 2002)

**Gasto Medio Diario de Electricidad a 1 de enero de 2002**  
**Informe Eurostat de mayo de 2002**

€/ día



(\*) Países nórdicos: 10-20% han cambiado de suministrador  
 (\*\*) Austria y Alemania: 5-10% han cambiado de suministrador  
 (\*\*\*) Reino Unido: 30-50% han cambiado de suministrador  
 Fuente: Comisión Europea (Informe de octubre de 2002)

**5. ECONOMIC COHESION, ENVIRONMENTAL  
PROTECTION AND DEMAND-SIDE MANAGEMENT  
MEASURES.**



## **ECONOMIC COHESION, ENVIRONMENTAL PROTECTION AND DEMAND-SIDE MANAGEMENT MEASURES (I)**

---

- The electric power industry plays a critical role in our society on many levels.**
- It advances the European economic growth and promotes business development and expansion.**
- It provides solid employment opportunities to European workers and it enhances the quality of life for its users, and most importantly, it powers Europe.**
- It is a robust industry that contributes to the progress and prosperity of Europe.**

## **ECONOMIC COHESION, ENVIRONMENTAL PROTECTION AND DEMAND-SIDE MANAGEMENT MEASURES (II)**

---

- **There is room for making compatible incentives to renewable energies with market mechanisms.**
- **Regarding Demand side management measures, the demand response of final customers to real hourly prices derived from the market, provide an excellent incentive for saving energy and to move it from peak hours.**

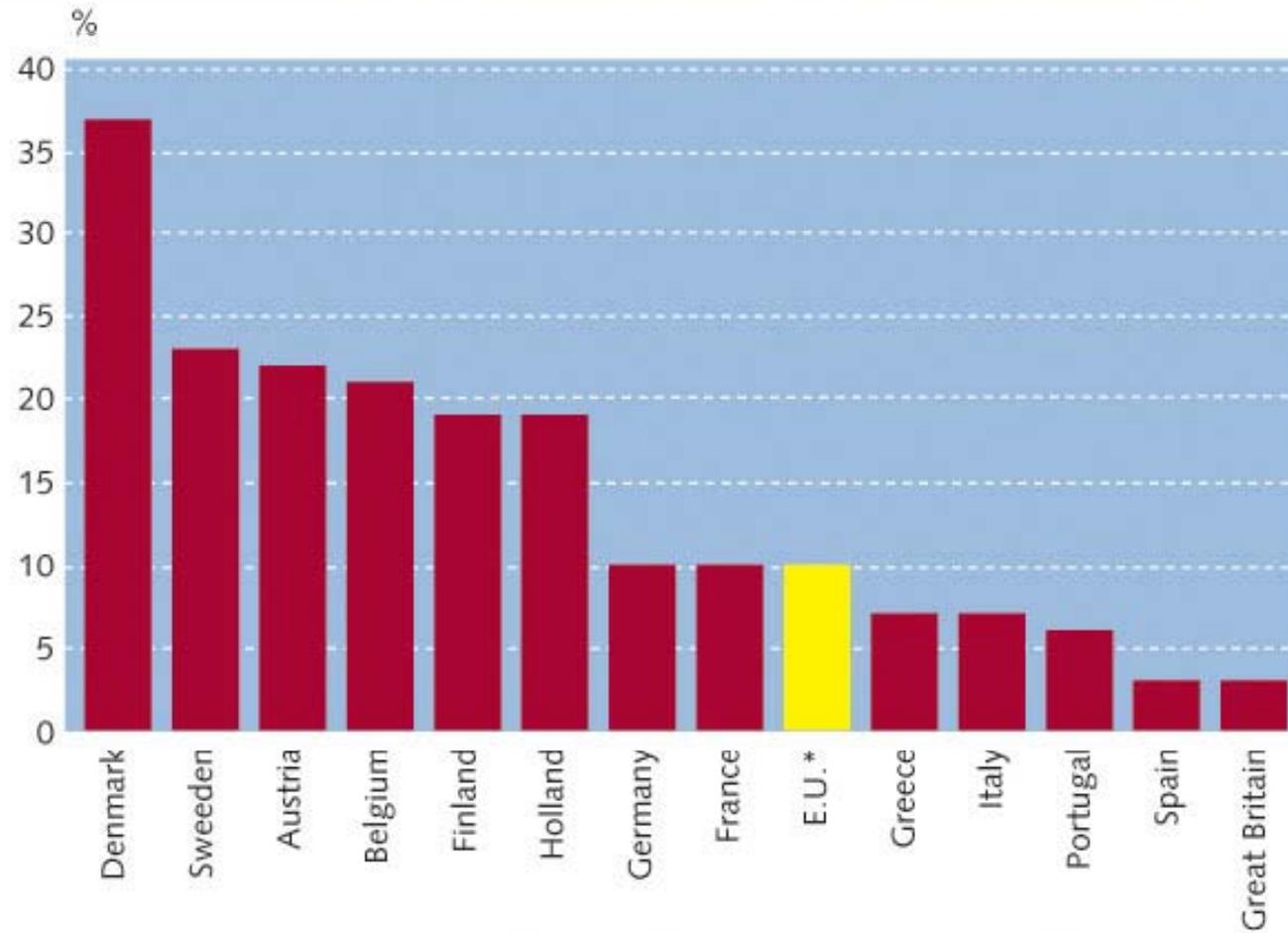
## **SOCIAL EFFECTS OF LIBERALIZATION**

---

- An efficient energy system is a big incentive to accelerate efficiency in other economic sectors and thus for employment increase.**
- However it is well known that for reaching this objective never the energy sector should be considered as a direct source for employment increase.**
- The liberalization promotes efficiency and gives new opportunities to create service companies in the area of the small and medium size companies.**
- Moreover, it could be taken into account that eliminating constraints, be very positive for increasing efficiency and reaching the full benefits from liberalization.**

## **6. TRANSEUROPEAN ELECTRICITY EXCHANGES IN THE SINGLE EUROPEAN MARKET.**

RELATION BETWEEN ELECTRICITY INTERCONNECTIONS  
AND INSTALLED PRODUCTION CAPACITY (%)

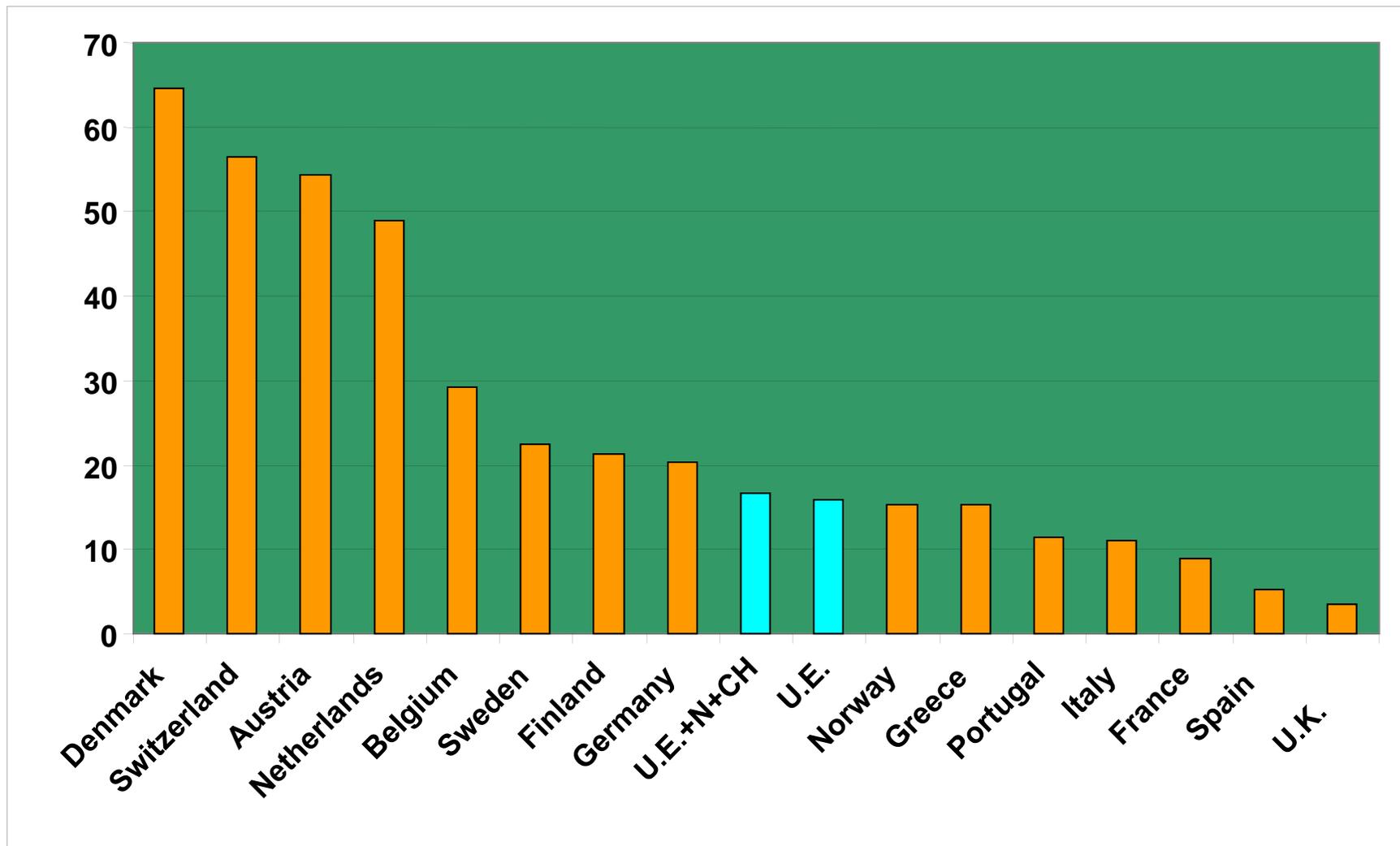


\* Compromise adopted in the Barcelona European Council

Sources: European Commission, Barcelona Council and self elaboration



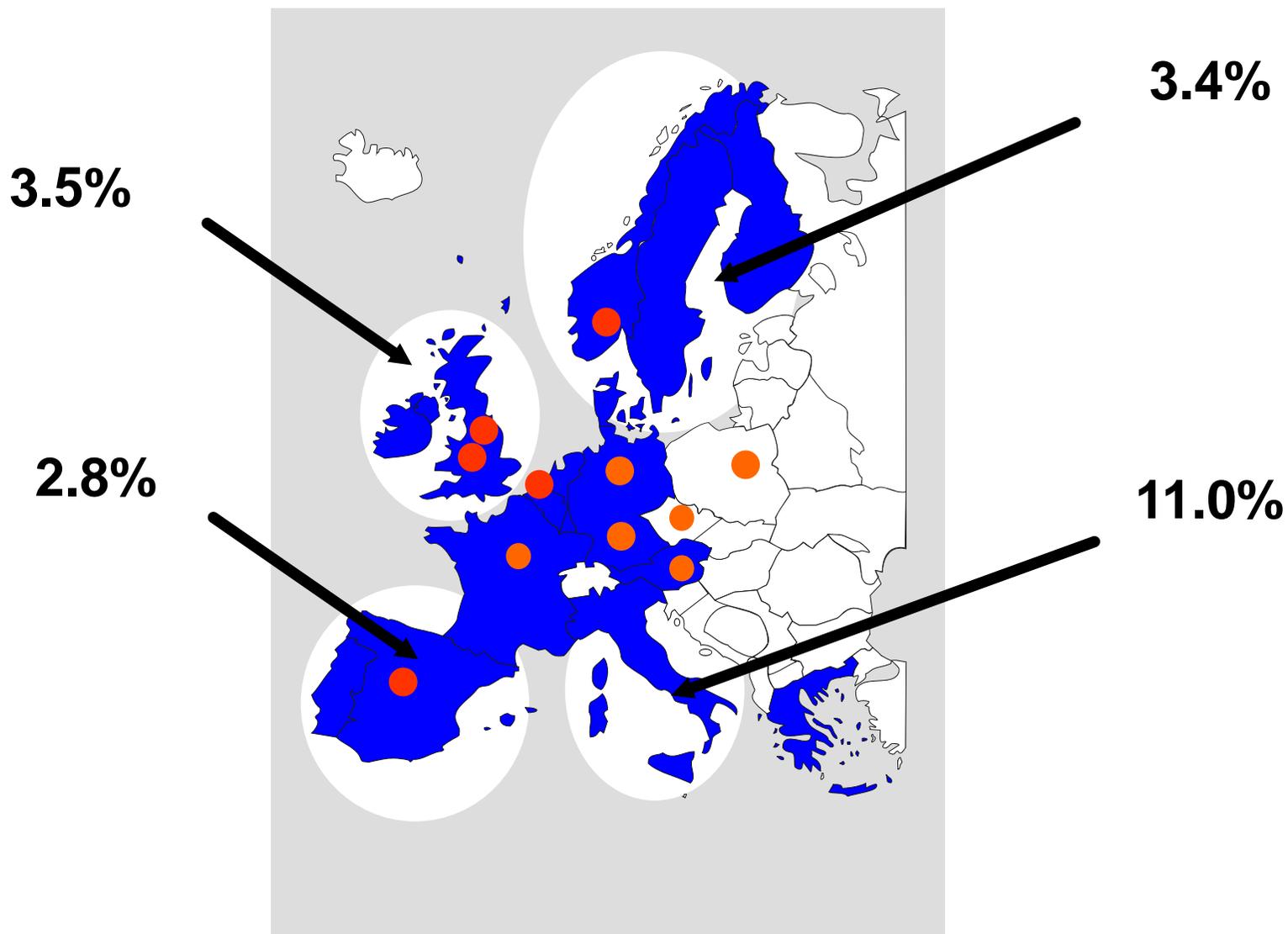
# RELATION BETWEEN COMMERCIAL CAPACITY AND PEAK DEMAND (%)



Sources: DGTREN, ETSO, Nordel and REE

- Morocco interconnection has been disregarded
- Capacities from Italy to Austria and to France and Switzerland, from Switzerland to Austria and from Switzerland to France are unknown.

## COMMERCIAL CAPACITY VERSUS PEAK DEMAND



Sources: DGTREN and ETSO

## BENEFITS TO THE WIDENING OF COMMERCIAL CAPACITY

---

- The widening of commercial capacity increases the security to be able to supply and at the same time increase the competition.
  - The reserve capacity increases because there is more available capacity in the system.
  - Allows and increase in offer and demand in the market, in other words the dimension of the system
  - Allows other agents to participate in the market and helps avoid any abuse in the European market.
- The size of each electrical area advises to have international commercial capacity of around 20% of the peak load.
- The exclusive rights over commercial capacity eliminate the benefits mentioned above, independent of the allocated method used.
  - Impedes the necessary diversification to guarantee supply.
  - Limits competition.

## TOWARDS AN INTEGRATED EUROPEAN NETWORK

---

- Free international transactions and transits require that agents can freely and efficiently use an integrated European network.
- Free international trading increases also security of supply and diversification of energy sources.
- Market operators should be considered as important institutions for the purpose of fulfilling the Directive objectives.

## **7. ROLE OF THE MARKETS AND POWER EXCHANGES REGARDING PUBLIC SERVICE OBLIGATIONS.**

- The organized markets are suitable organizations for making possible and increase transactions between producers, traders, distributors and consumers of electricity in equal and objective conditions as an alternative, together with bilateral contracts.
- These markets should provide the necessary liquidity and conditions to allow transactions with the appropriate characteristics and horizons for participants.
- Also organized markets can promote international transactions and they could potentially operate over multiple states.
- Cooperation between market operators can also contribute to create more trading opportunities along Europe, to solve congestions in an efficient way for price formation in the European single market.
- Organised markets are suitable places to connect wholesale prices and retail prices by allowing access to the market to all consumers, producers and retailers. These will protect prices of both segments from deviating between them.