

# *Costs, prices and tariffs in EU electricity markets The Case of France*

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1- In the past few years, retail prices have been mainly driven by the accounting costs of the incumbent supplier

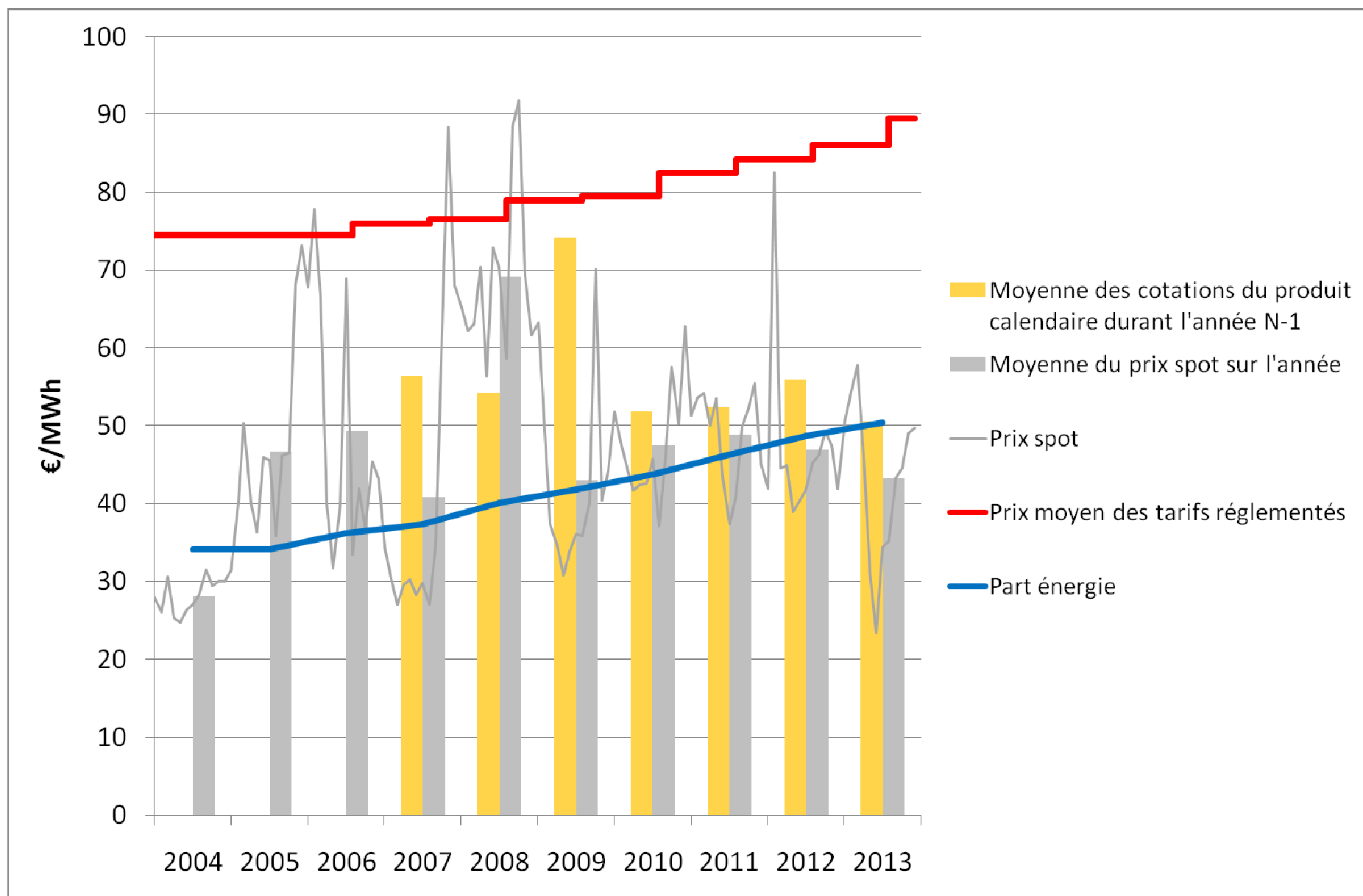
# Retail market historically dominated by regulated tariffs fixed according to the accounting costs of the incumbent supplier

Regulated prices set once a year by the government

- Incumbent's producing costs
- Transmission/ distribution tariffs
- Commercial / IT costs
- Taxes

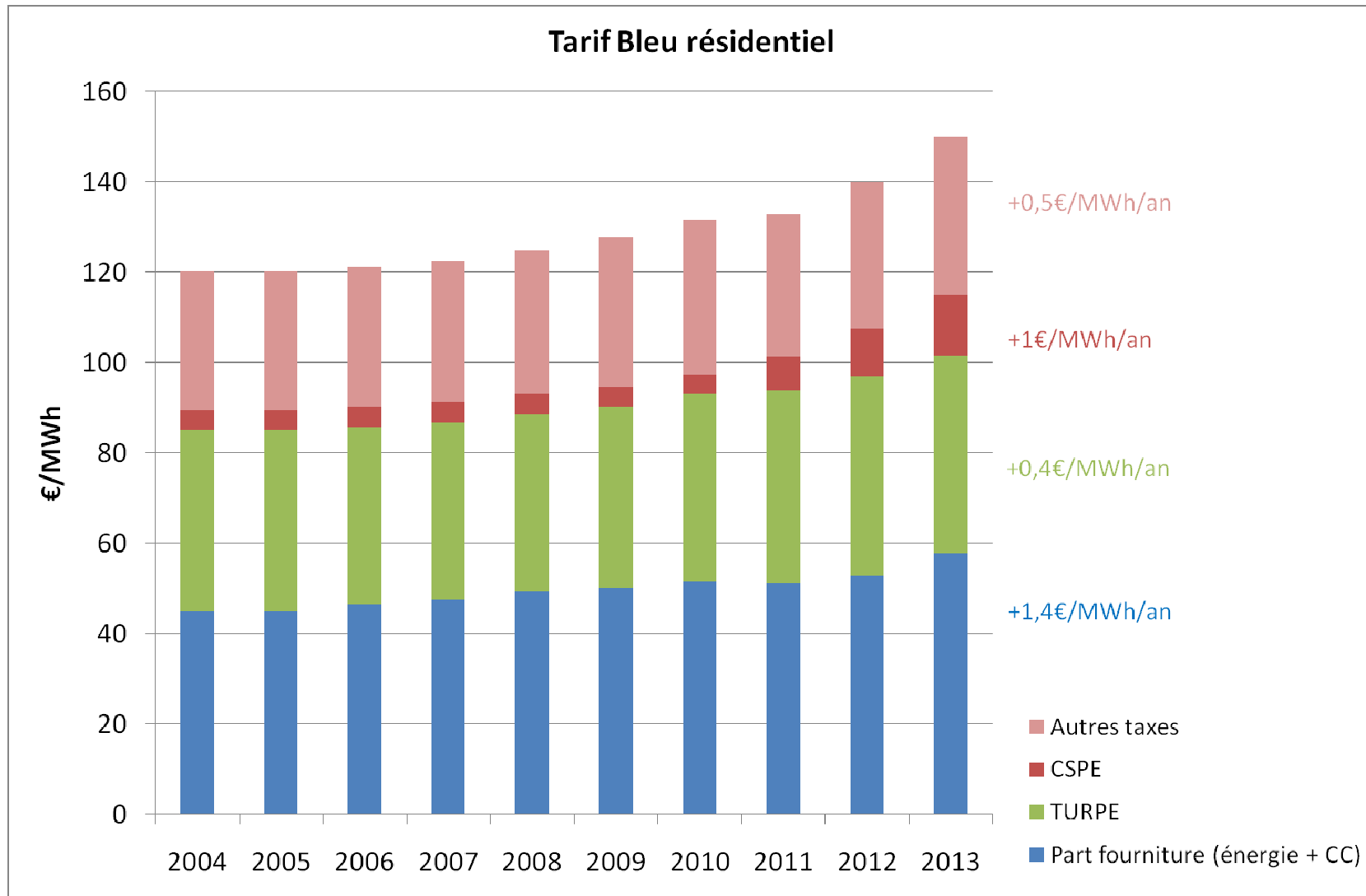
# Evolution of electricity tariffs in France from 2004

## Comparison with wholesale prices (calendar & day-ahead)



# Evolution of electricity tariffs in France from 2004

- Good proxy for the evolution of electricity *prices*



In the past, before-tax price evolutions have mainly reflected the evolution of accounting costs

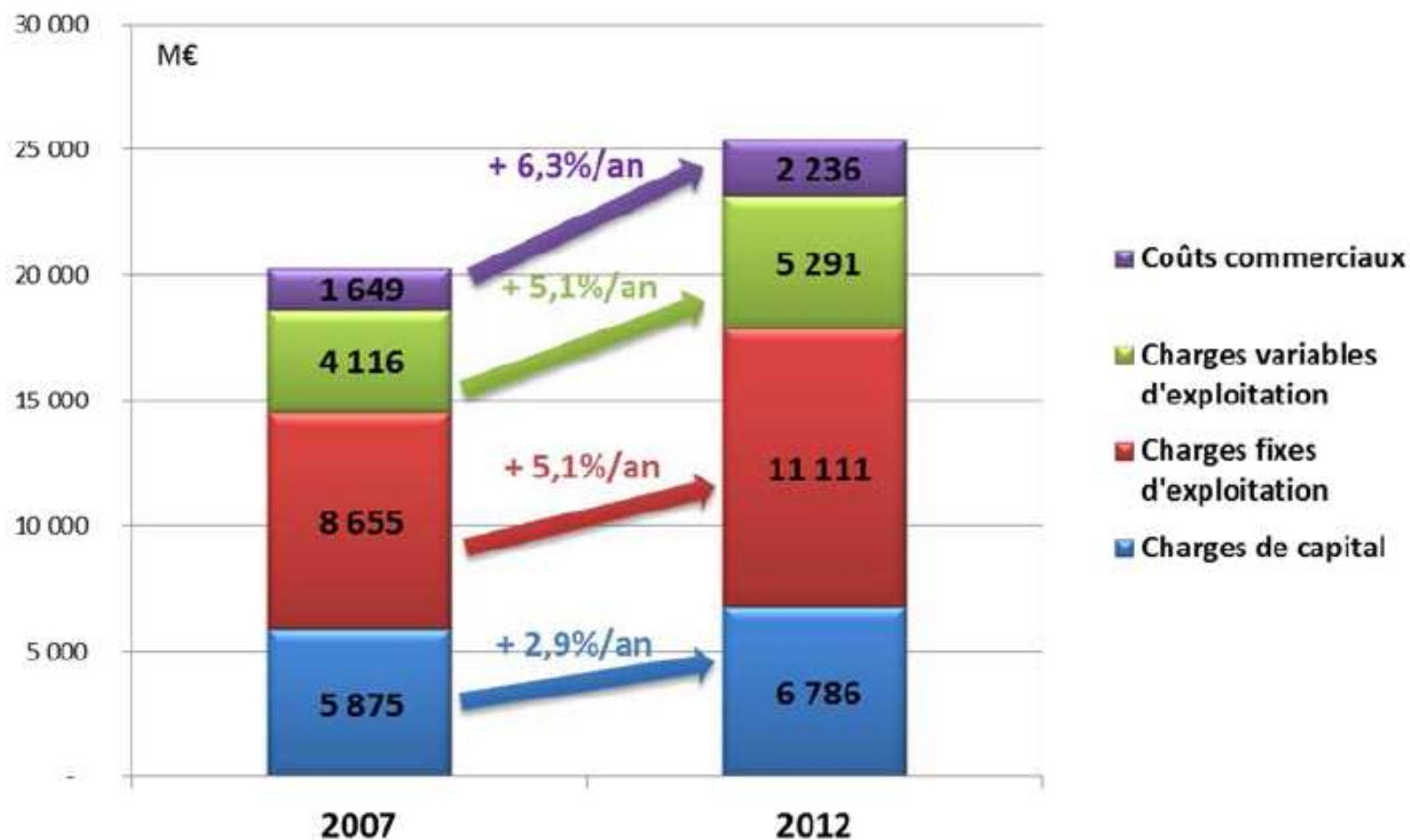
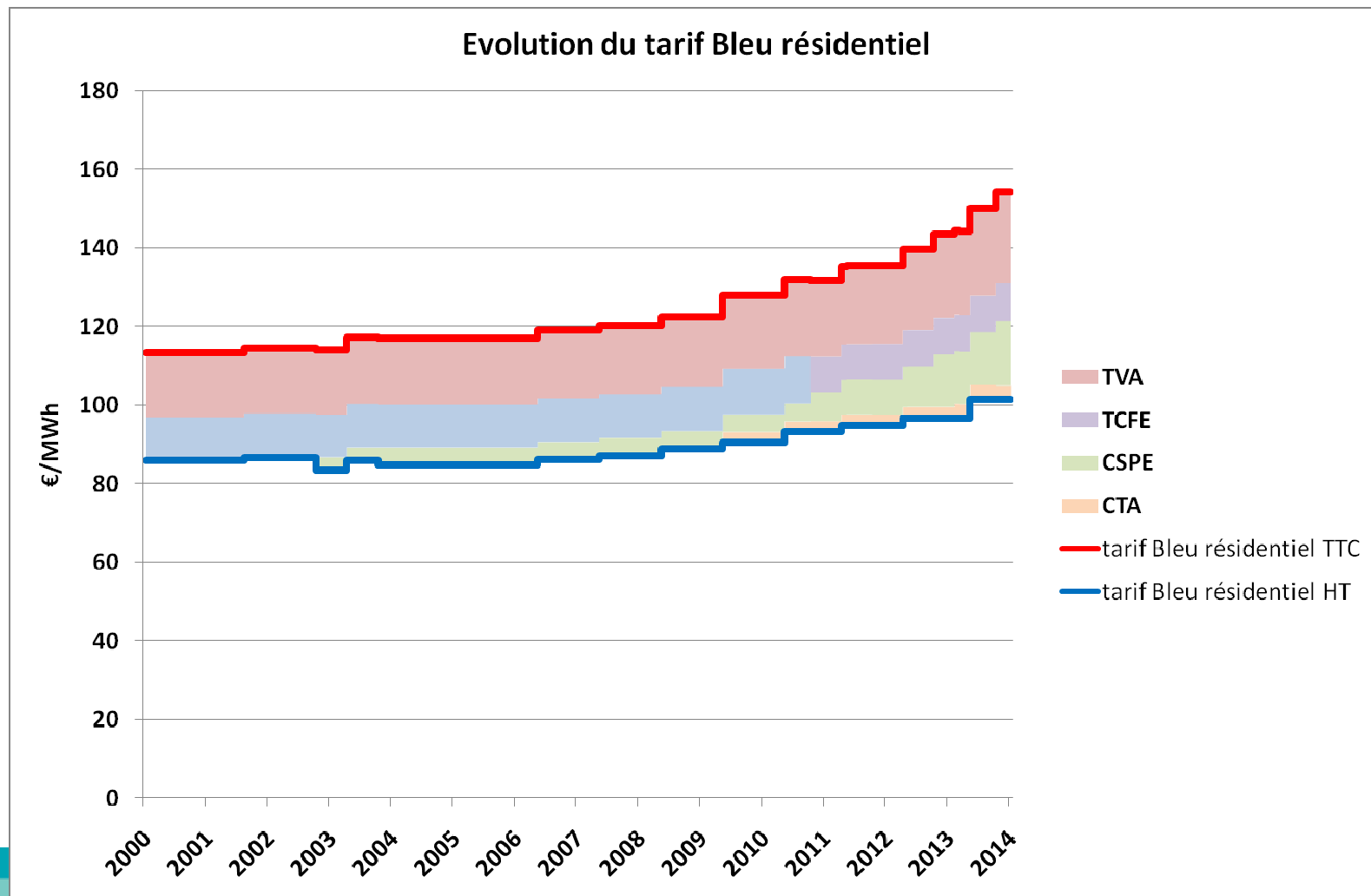


Figure 1 : Evolution des coûts comptables de production et de commercialisation sur la période 2007-2012

# CSPE (contribution for the public service of electricity) also accounts for a significant part of price increases

- CSPE is a specific tax borne by electricity consumers aimed at financing: support to renewables and cogeneration, price perequation with overseas territories, as well as measures against energy poverty)
- It now represents around 13% of the cost of electricity for households.



# Towards a new method for setting regulated tariffs

- A process that started in 2010

## Objectives:

- Ensure contestability of regulated tariffs
- Allow all customers to continue to benefit from the competitiveness of nuclear electricity
- Increase incentive for the incumbent supplier to optimise costs
- Increase transparency for end consumers

1st step : give access to nuclear electricity at costs for alternative suppliers

2nd step: ensure contestability of tariffs through a more transparent method



## 2- « ARENH » : a regulated access to nuclear electricity at cost

# The French electricity market in 2008

- **A dominant actor (EDF) in the generation sector**
  - No real perspective for change (except for hydro concessions), especially in case of lifetime extension instead of replacement
  - Costs significantly lower than market prices thanks to existing nuclear plants
- **Alternative suppliers were not in a position to make competitive offers**
  - Electricity tenders were organized regularly at the request of the Competition authority.
  - But market prices differed from real costs for the historical supplier and much more with regulated tariffs
- **Large customers, who had switched to market offers at the beginning of the liberalisation process were exposed to high market prices**
  - Introduction of a “return” regulated tariff (TaRTAM) for these customers. TaRTAM could be offered by all suppliers, and was financed by a tax on nuclear and hydro production.
  - Market opening at a stand-still.
- **2 infringement procedures with the EU Commission**

# A structural response : the NOME law to allow all customers to continue to benefit from the competitiveness of existing nuclear plants (1/2)

## ■ The NOME law (Dec. 7, 2010) is based on two pillars

- 1- Competition enhancing :
  - Regulated access to “historical” nuclear electricity (so called ARENH) for all alternative suppliers – allowing them to develop competitive offers to final consumers.
  - As a consequence, final consumers will continue to benefit from the competitiveness of existing nuclear plants, and will have access to more innovative offers thanks to competition.
  - The end of regulated tariffs for medium and large consumers (end of 2015)
- 2- Capacity obligation : obligation for every supplier – including new entrants – to participate to security of supply

## ■ Main decrees promulgated for the application of NOME law

- ARENH : decree signed and released on 20/05/2011
- Capacity mechanism : decree signed and released on 18/12/2012

# A structural response : the NOME law to allow all customers to continue to benefit from the competitiveness of existing nuclear plants (2/2)

- **A rational economic approach :**
  - Based on asymmetric regulation : new paradigm
  - Based on the « essential facilities » theory : abundance of power plants, but not reproducible by alternative suppliers ; important nuclear share in final consumers baseload consumption (78%), therefore no interchangeability possible with other production capacities...
- **Which could have been implemented with a tax based on the production of existing nuclear plants, as well...**
  - Efficient in economic terms
  - But it would have rolled over the nuclear income from the final consumer to the taxpayer (distributive policy complexity), and introduced volatility in prices paid by final consumers
- **Therefore, the “ARENH” has been preferred to enhance competition**

# The regulated access to the « historical » nuclear electricity « ARENH » (1/2)

## ■ Main features of the mechanism

- Alternative suppliers have access to electricity from EDF “historical” nuclear plants, at cost.
- Each supplier’s rights are calculated according to the consumption of their customers in France, including grids loss. They correspond (more or less) to its final customers baseload needs.
- Maximum of 100 Twh per year (25% of EDF nuclear production)

## ■ Monitoring of the system

- 2 ARENH “rounds” per year, where suppliers can request ARENH volumes
- Before each « round », the energy regulator (CRE) notifies to suppliers their rights, based on customers consumption forecasts.
- Ex-post controls by the regulator in order to verify that the volumes of ARENH delivered correspond to each supplier’s actual rights (recalculated on the basis of their customers’ actual needs). In case of extra volumes, suppliers concerned have to pay back the spread between ARENH and market price + a financial penalty

# The regulated access to the « historical » nuclear electricity « ARENH » (2/2)

## ■ ARENH price for the transition period 2011-2013

- As defined by the law and in order to guarantee price continuity for industrial consumers, ARENH was fixed at 40 €/MWh in 2011
  - at the same time, abolition of the TaRTAM (regulated tariff for industrial consumers)
- since January 2012, the ARENH price is fixed at 42 €/MWh taking into account new safety investments post-Fukushima

## ■ A transparent methodology to fix the price of ARENH from 2014

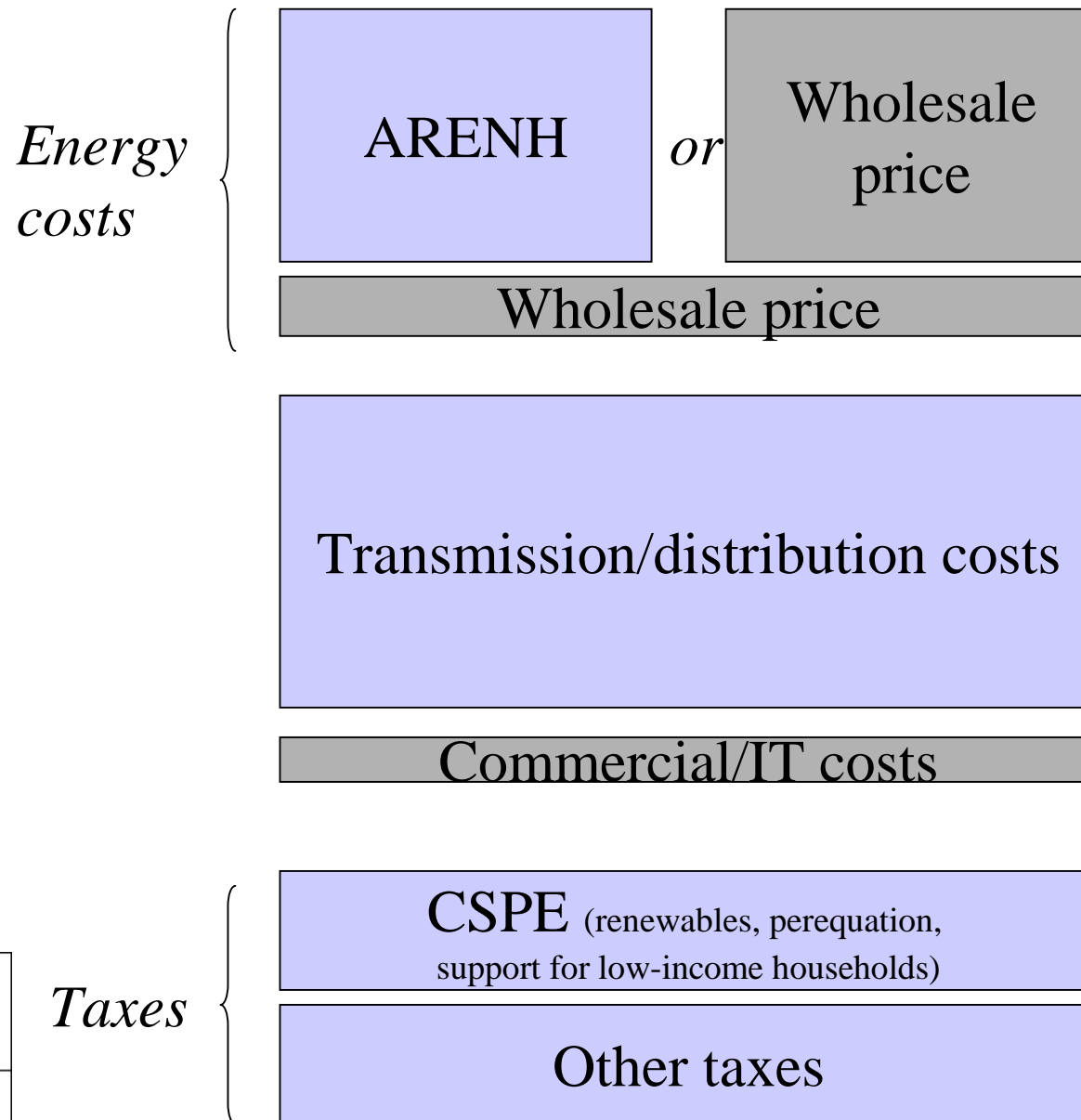
- From 2014, the ARENH price will be fixed by the energy regulator (CRE), according to a methodology which will be defined by decree.
- Expected level is 46€<sub>2014</sub>/MWh on average between 2014-2025.

## ■ ARENH in the context of low electricity prices

- ARENH was designed at a time when wholesale prices were expected to go up
- Currently ARENH is at parity with wholesale prices
- Could be higher than market prices in the future, as ARENH is supposed to cover the costs, but remains an option for alternative suppliers when prices go up again, and thus gives visibility to consumers on future retail prices.

### 3- Towards a more transparent methodology for regulated prices to ensure contestability

# Cost structure of a supplier (example of household customers)





# Progressive convergence of regulated tariffs in order to guarantee contestability

- **Regulated tariffs paid by final consumers used to be based on accounting costs**
- **The NOME law provides that they will be progressively calculated as the sum of the following components:**
  - transmission/distribution (TURPE – reflecting the cost of use of electricity grids),
  - generation (reflecting electricity supplying costs during peak and baseload period), calculated as the price of ARENH + additional supply cost,
  - Commercial / marketing / IT costs, including margin.
- **The aim is to reproduce the cost structure of a supplier, in order to guarantee the contestability of regulated tariffs**
- **Abolition of «yellow» and «green» regulated tariffs (for medium and large customers) by the end of 2015.**

# In the future, the energy component of the tariffs will be calculated based on ARENH and wholesale prices

- A new decree is currently under consultation
- The energy component will reflect both :
  - the price of ARENH, corresponding to the costs of existing nuclear plants;
  - Additional supplies (on top of ARENH) will be estimated on the basis of market prices.
- Aim:
  - Reproduce the cost structure of alternative suppliers
    - Minimise distortive effects linked to the existence of regulated prices
    - Avoid any price-scissors effect
  - Increase transparency
  - Incentivise the incumbent supplier to hold its costs in check

# Thank you