

# **The French energy savings certificates system**

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**March, 23<sup>th</sup> 2006**

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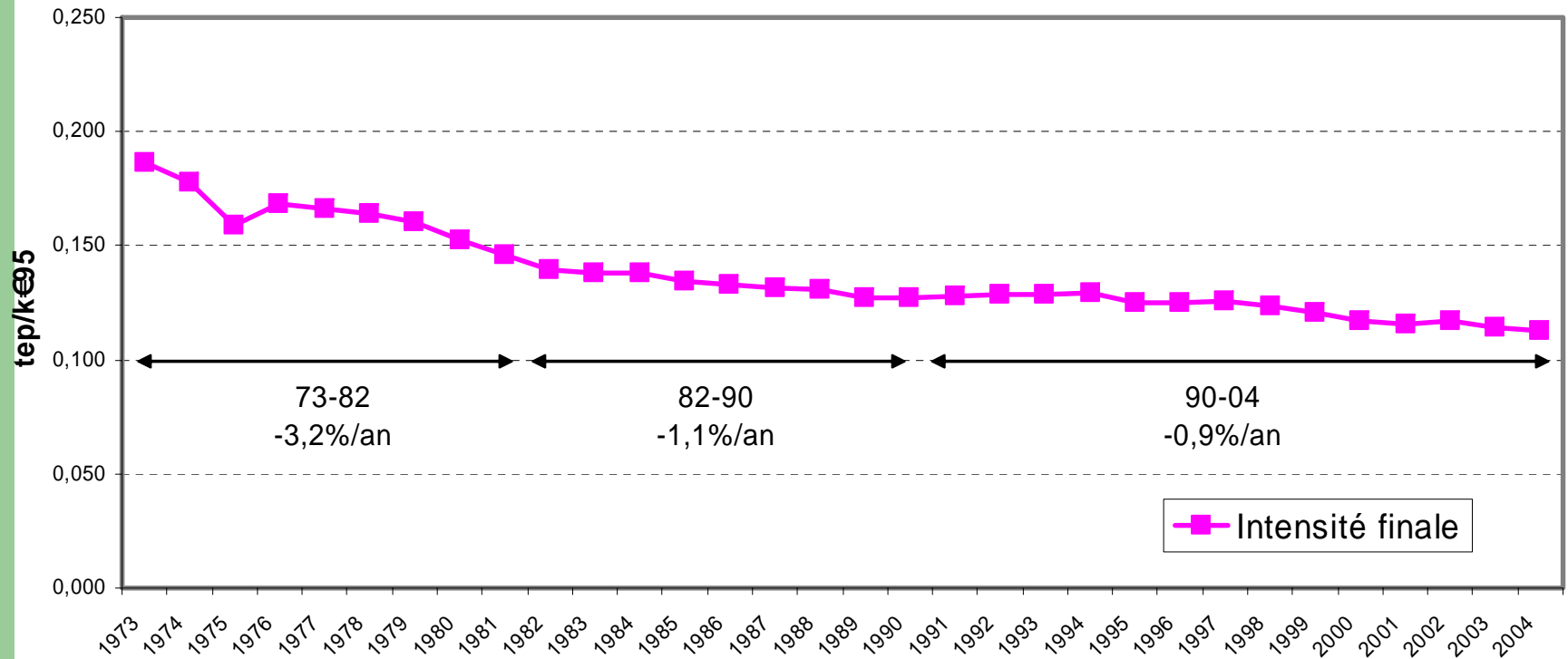
# National debate on energy and energy law

- ⤴ **2003: national debate on energy and white paper**
- ⤴ **Beginning of 2004: law project**
- ⤴ **13 July 2005: Law 2005-781 – “Loi de programme fixant les orientations de la politique énergétique” (Loi POPE)**
- ⤴ **4 main orientations**

# The energy efficiency in the energy law

- ^ **Target : reduction of energy intensity by -2% per year until 2015, then by -2,5% until 2030**
- ^ **Implementation of energy savings certificates or white certificates (WC)**
  - **The Law defines the main rules**
  - **Decrees : precise thresholds, give details, 3 to implement WC, not yet issued**
  - **Start at the beginning of 2006**

# Evolution of the final energy intensity in France



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# White certificates: why?

- ⤴ **Need to reach existing and important but diffuse potentials of energy savings, in particular in residential and tertiary sectors**
- ⤴ **Traditional public instruments difficult to mobilise and not adapted**
- ⤴ **New means of financing energy efficiency projects : between 500 and 1000 M€ over three years**
- ⤴ **Instrument adapted for liberalised markets**

# The obliged agents (1/2)

- ⤴ **Obligation to carry out final energy savings imposed to energy suppliers: electricity, gas, domestic fuel (not for transports), cooling and heating for stationary applications**
- ⤴ **If annual sales superior to a fixed energy amount**
  - **From the first litter for domestic fuel suppliers (possibility to gather)**
  - **Above 400 GWh/year (20 obliged)**

# The obliged agents (2/2)

- ▲ **The suppliers must respect their obligation:**
  - **Over the whole period 2006-2008 – no annual obligation**
  - **Three ways of fulfilling the obligation**
    - × **To implement energy efficiency programs on site**
    - × **To incite customers to implement energy efficiency actions**
    - × **To buy white certificates**
  
- ▲ **Costs can be reported on the energy price**



# The obligation

- ⤴ **National target**
  - **54 TWh (in final energy) for the first three years (2006-2008) cumulated over the life of the energy efficiency actions with a 4% discount rate**
- ⤴ **Repartition of the target**
  - **By energy**
  - **For each energy, among suppliers depending on their sales (not energy) in residential and tertiary sectors.**
- ⤴ **Expected cost : < 0,02 €/kWh**
- ⤴ **Penalty : 0,02€/kWh which is full of discharge**

# The eligible agents

- ⤴ **Any economic actor can make savings actions and get certificates**
  - **But a threshold of savings of 1 GWh (?) cumulated and discounted with similar actions**
  - **Actions must be additional relatively to their usual activity**
  - **Possibility to gather together to reach the threshold ⇒ a trustee gets the certificates**

# The eligible actions

- ⤴ **Very open**
- ⤴ **All the energies**
- ⤴ **All the sectors (including transports and excluding installations covered by ETS)**
- ⤴ **Energy substitutions only for heat generation with renewable energies**
- ⤴ **Focus on standardised actions but others are possible**

# Principles for evaluation of standardised actions

- ⤴ **Evaluation of a lump-sum of energy savings for one action**
- ⤴ **Simple characterisation of action with two or three criteria (geographical area, dwelling type, ...)**
- ⤴ **Limitation of windfall effects: energy savings must be additional**
- ⤴ **Possibility to award actions implemented in some geographical regions**

# Additionality

- ⤴ **An action is considered additional relatively to usual activity:**
  - **Action on own equipment or building**
    - × **For obliged agents : yes if standardised action or action with a long payback time**
    - × **For eligible agents : yes if it doesn't increase its turnover or if it relates to innovative products**
  - **Actions to domestic households**
    - × **For obliged agents : yes**
    - × **For eligible agents : yes if it doesn't increase its turnover or if it relates to innovative products**
- ⤴ **For equipment, correction in the evaluation of energy savings by considering current state of the market**

# Characteristics of certificates

- ⤴ **Final energy for accounting energy savings**
- ⤴ **Unit of account = kWh Cumac (ie cumulated and discounted)**

**Certificates in kWh Cumac =  $EE \times DV \times Ca$  where**

- **EE: annual energy savings; DV: lifetime of the action; Ca: discount factor**
- ⤴ **Certificates are delivered after the programs are carried out but before the realisation of energy savings**

# Example: refrigerator class A+

- ^ **Measure: To replace a refrigerator representative of current sales by a refrigerator belonging to energy class A+**
- ^ **Annual mean consumption**
  - **Standard refrigerator= 221 kWh/year**
  - **Refrigerator A+ = 155 kWh/year**
  - **Annual gain = 66 kWh/year**
- ^ **Lifetime: 10 years**
- ^ **Gain over the lifetime**
  - **Total gain without discount = 660 kWh/refrigerator**
  - **Total with discount of 4% = 557 kWhcumac /refrigerator**

# A certificates market?

- ⤴ **No formal market organised by the State**
- ⤴ **Certainly only over the counter exchanges**
- ⤴ **Publication of a list of sellers (maybe at the end of the period)**
  
- ⤴ **Certificates price**
  - **Depending on the supply and offer**
  - **Ceiling price= penalty of 2 c€/kWh**
  - **Estimated average cost = 1 c€/kWh Cumac**
  - **Publication of the average price (excluding transaction costs)**



# Implementation of the system

- ▲ **Industry Ministry: Allocation of certificates and control of actions**
- ▲ **ADEME: in charge of definition and evaluation of standardised actions (i.e. set methodologies for saving calculation) but final decision of the Industry Ministry**
- ▲ **Definition of standardised actions in progress - Currently planned**
  - **32 in residential sector**
  - **22 in tertiary sector**
  - **14 in industry**
  - **3 in transport**

**Thank you for your attention**

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