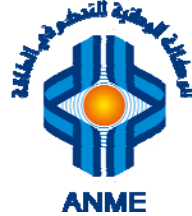




REPUBLIC OF TUNISIA
**Ministry of Industry, Energy and Small
and Medium Companies**
National Agency for Energy Conservation



Outline on the Policies and the Strategies on the Energy Efficiency

FGUIRI Walid

Addis Ababa - 29/06/2009

Presentation contents

- Introduction
- National Agency for Energy Conservation
- Energy context in Tunisia,
- State policy and public tools for EE and RE enforcements
- Basic Policies Results on Energy Efficiency
- Big orientations of XIth Plan : 2008-2011
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Introduction

The current policies of energy conservation are motivated by :

- ✚ the exhaustion of some resources,
- ✚ economical and geopolitical considerations and
- ✚ the concern to protect environment.

Indeed, the extensive consumption of fossil fuels pulled a rarefaction of today's exploitable resources, whereas their combustion pollutes the environment and produces greenhouse gases.

Furthermore, the economy of many countries is weakened by their dependence toward petroleum exporting countries.



And that's why Energy Conservation:

- ➡ has a favorable environment in the International level,
- ➡ Constitute one of the main axes of our national energetic policy,
- ➡ knows an intensification through the placing of a national program supported by the National Energy Conservation Fund (NECF).

National Agency for Energy Conservation

REPUBLIQUE TUNISIENNE

Ministère de l'Industrie, de l'Énergie
& des Petites & Moyennes Entreprises

REPUBLIC OF TUNISIA

Ministry of Industry, Energy
and Small and Medium Enterprises

الجمهورية التونسية
وزارة الصناعة والطاقة
والمؤسسات الصغرى والمتوسطة



الوكالة الوطنية للتحكم في الطاقة
Agence Nationale pour la Maîtrise de l'Énergie
National Agency for Energy Conservation



WWW.ANME.NAT.TN

Since 1985

Mission

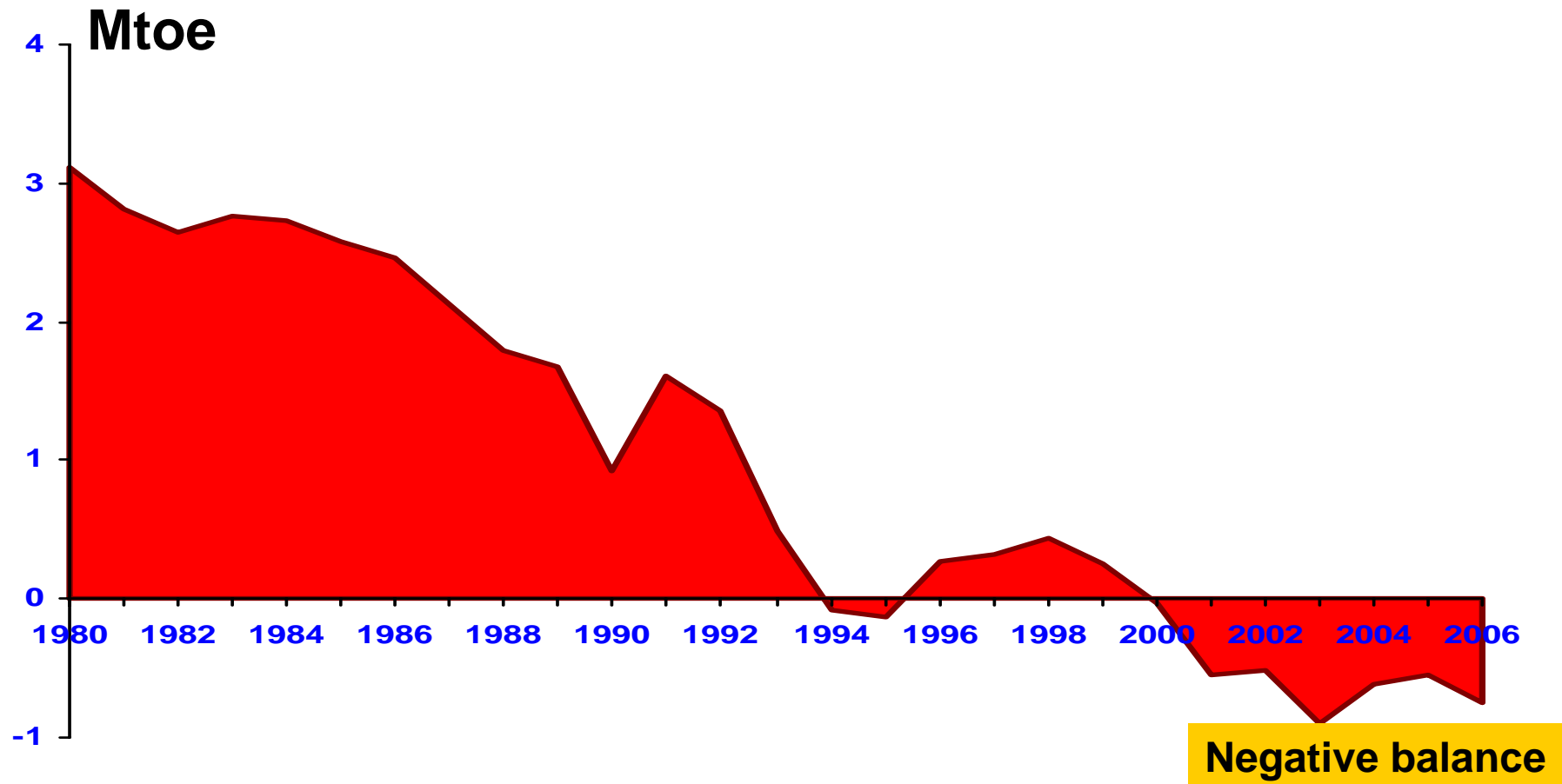
- The core component of The institutional set up on the Energy Conservation,
- To implement the state policy for energy conservation, through :
 - Studies,
 - The promotion of Energy Efficiency,
 - Renewable Energies ,
 - Energy Substitution.

Energy context in Tunisia

- ✓ The stagnation of the national hydrocarbon resources,
- ✓ The rapid increase of energy demand, as induced by economic and social growth,
- ✓ Important energy invoice with impact on the budget of the State,
- ✓ Modest contribution of renewable energies

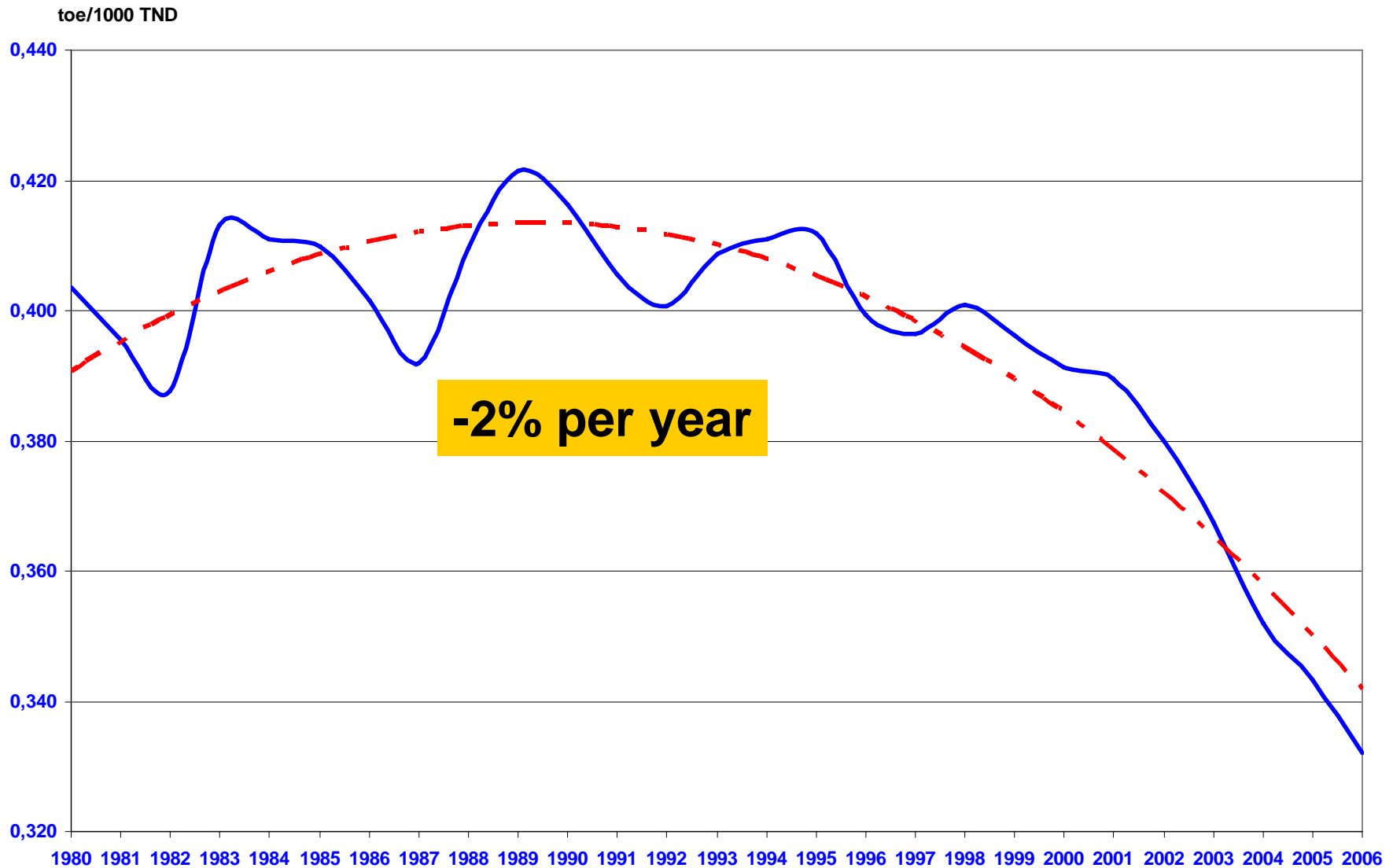
Energy context in Tunisia

From positive to negative energy balance



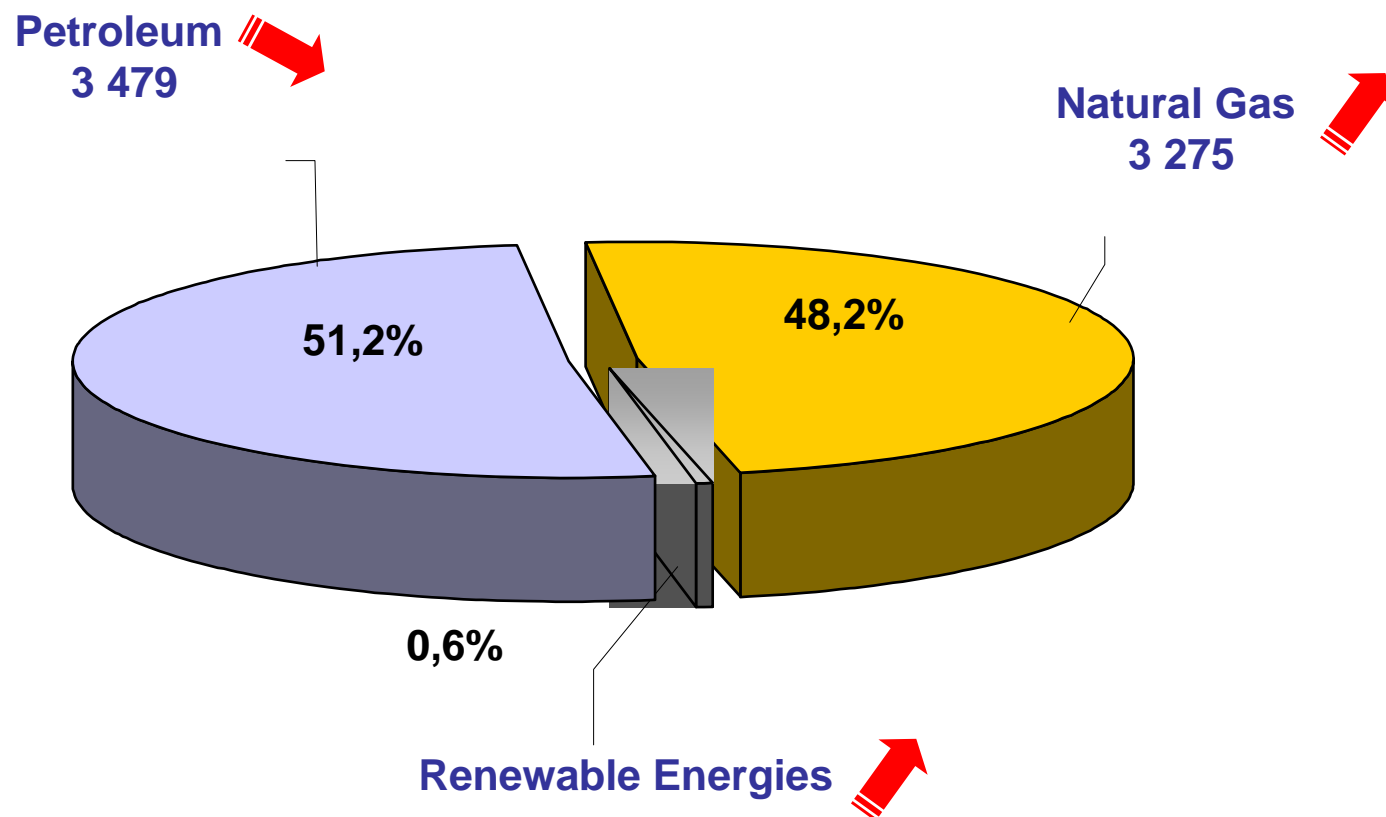
Energy context in Tunisia

A decreasing Energy Intensity



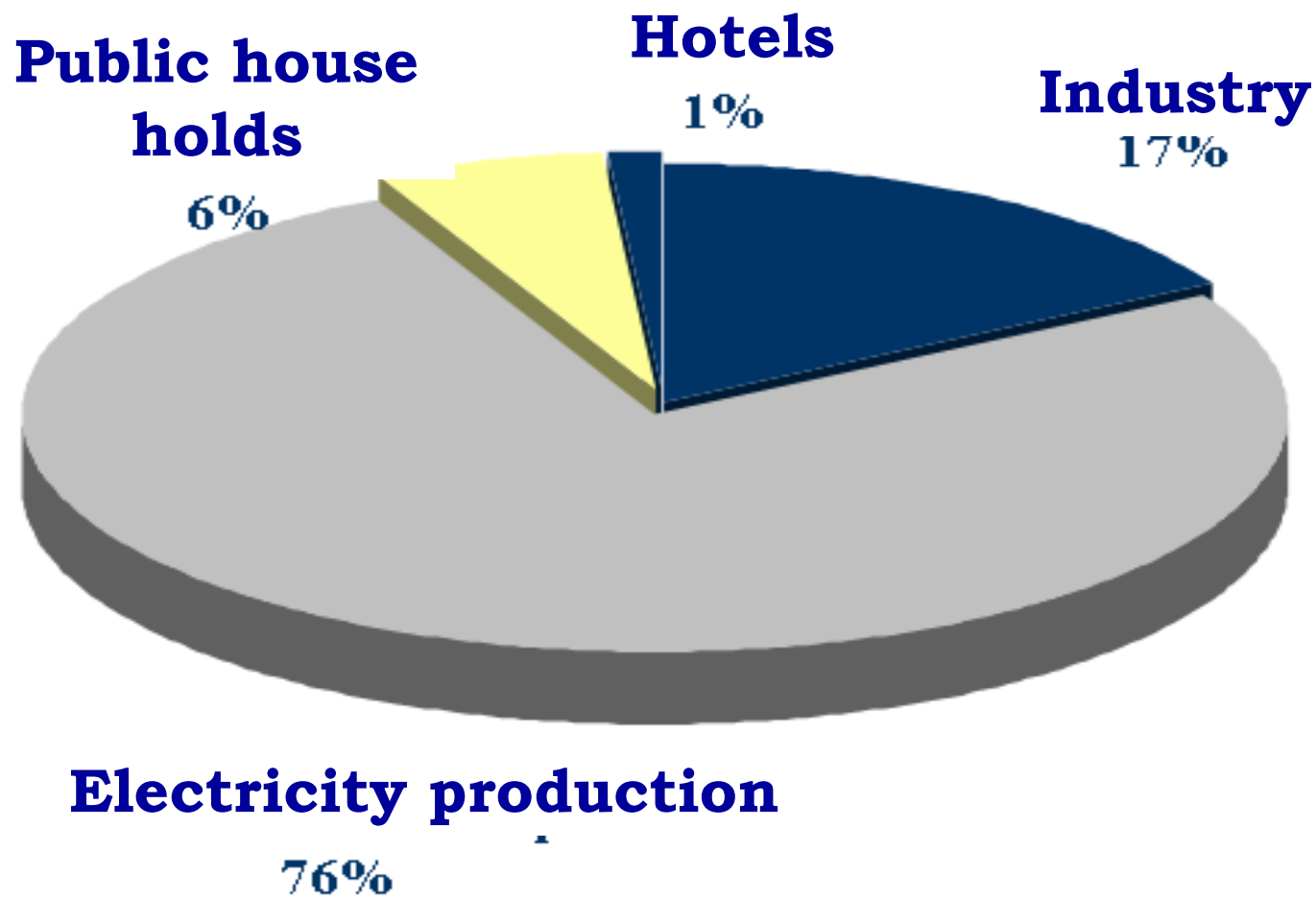
Energy context in Tunisia

Primary Energy Supply



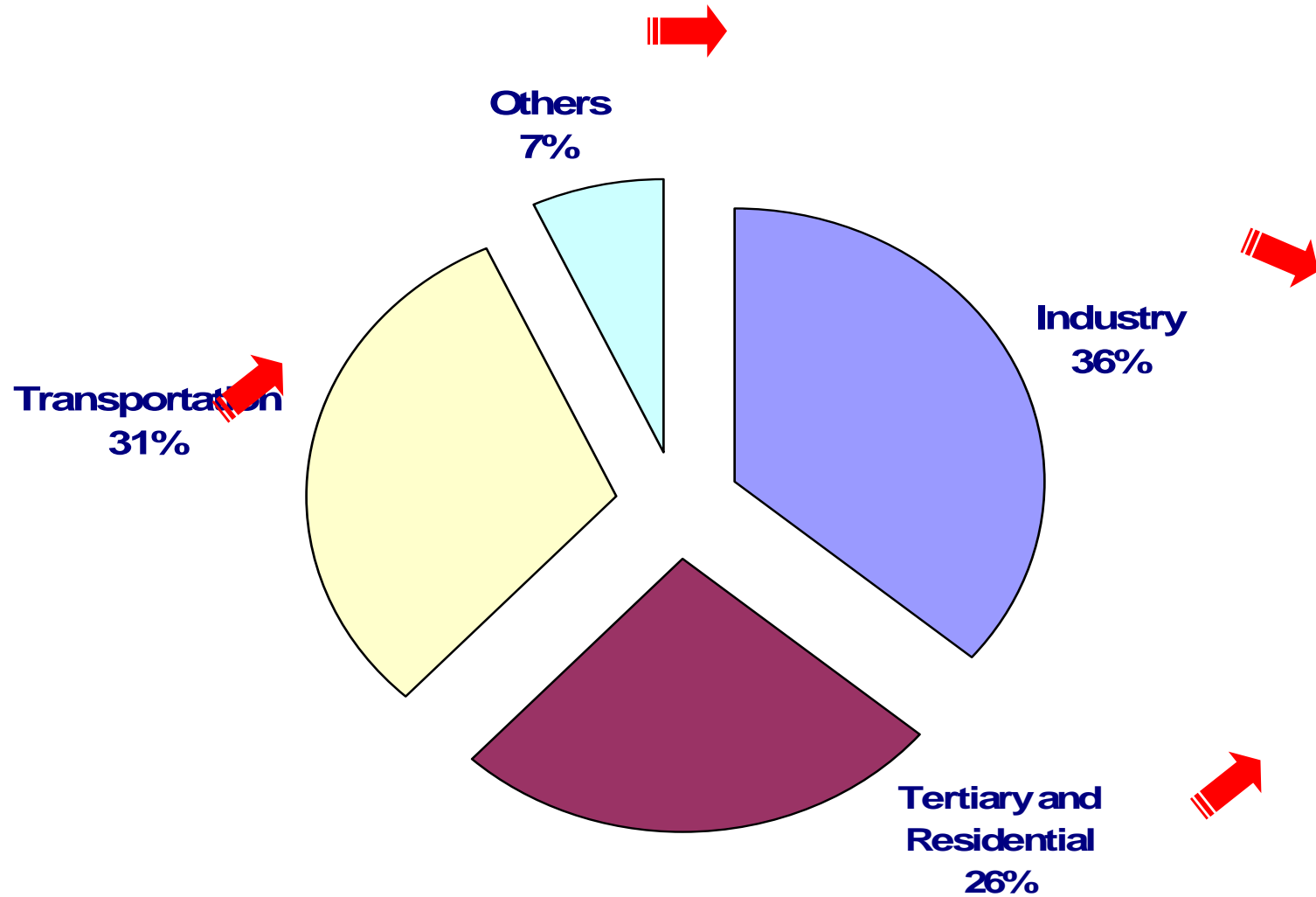
Energy context in Tunisia

Final Energy Consumption by Energy Type



Energy context in Tunisia

Final Energy Consumption by sector



Energy context in Tunisia

Effects of conventional energy international prices increase

- **A high increase of the public subsidies to energy products, since internal tariffs are administrated**
 - ❖ Around 1,1 billion US\$: around 110 US\$/habitant/year
 - ❖ It represents 10% of the total state budget and 3% of the GDP
- **A high increase of the energy bill compared to the GDP**
 - ❖ 14% of the GDP (140 DT of energy expenditure to produce 1000 DT of GDP) against 10% in 2004 and less than 7% on 2000.
 - ❖ Negative effects on national economic competitiveness

Energy context in Tunisia

Effects of conventional energy international prices

■ **More political willingness to develop EE and RE**

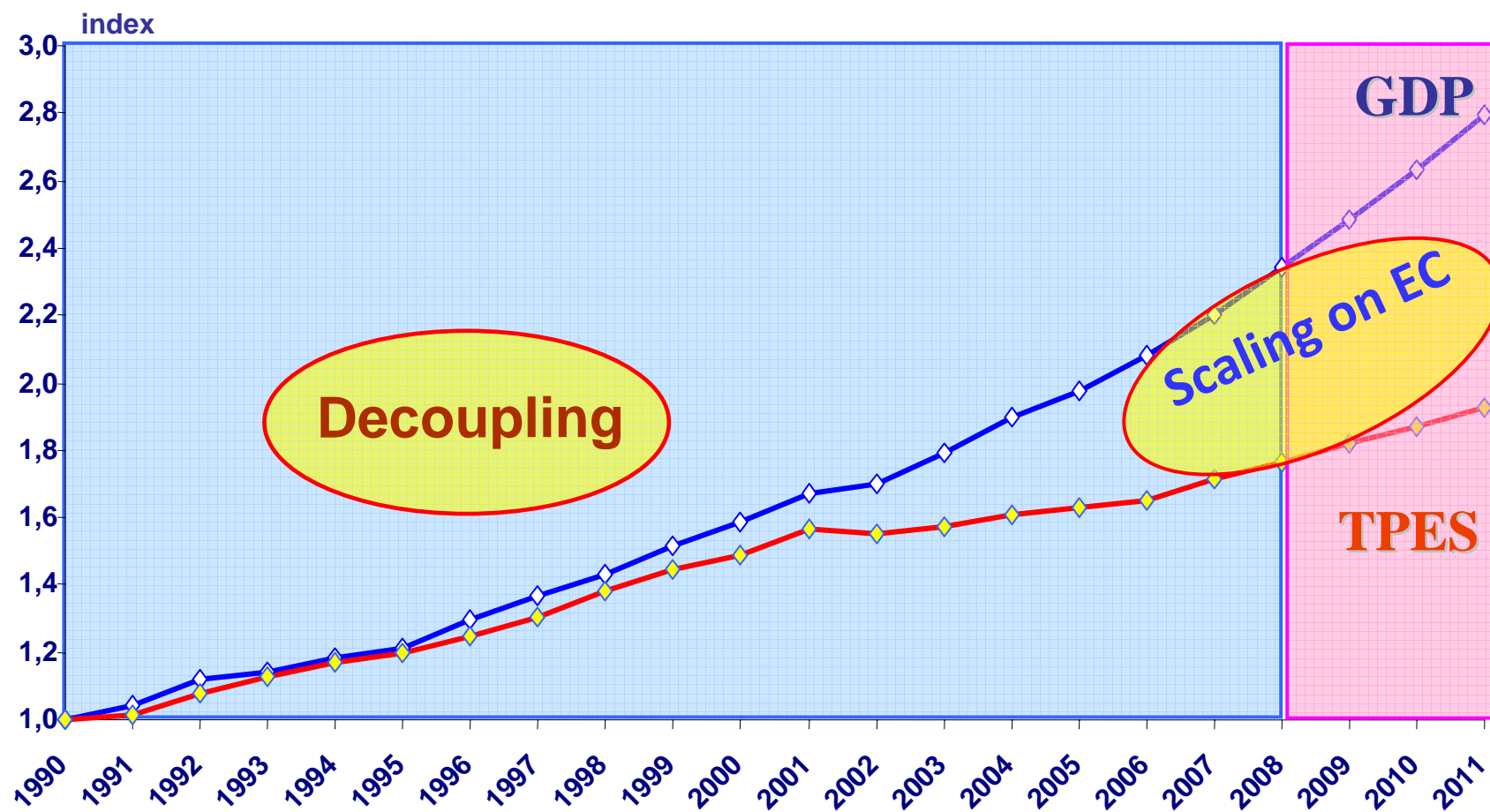
- ❖ An ambitious plan for 2007-2011 (11th development public policy)
- ❖ Active campaign of communication and sensitization
- ❖ More public financial support to EE and RE
- ❖ Regulation reform toward more incentives and mandatory measures
- ❖ Energy tariffs increase

■ **More interest of private sector to invest in EE and RE projects**

■ **More interest of donors to finance EE and RE projects in the country**

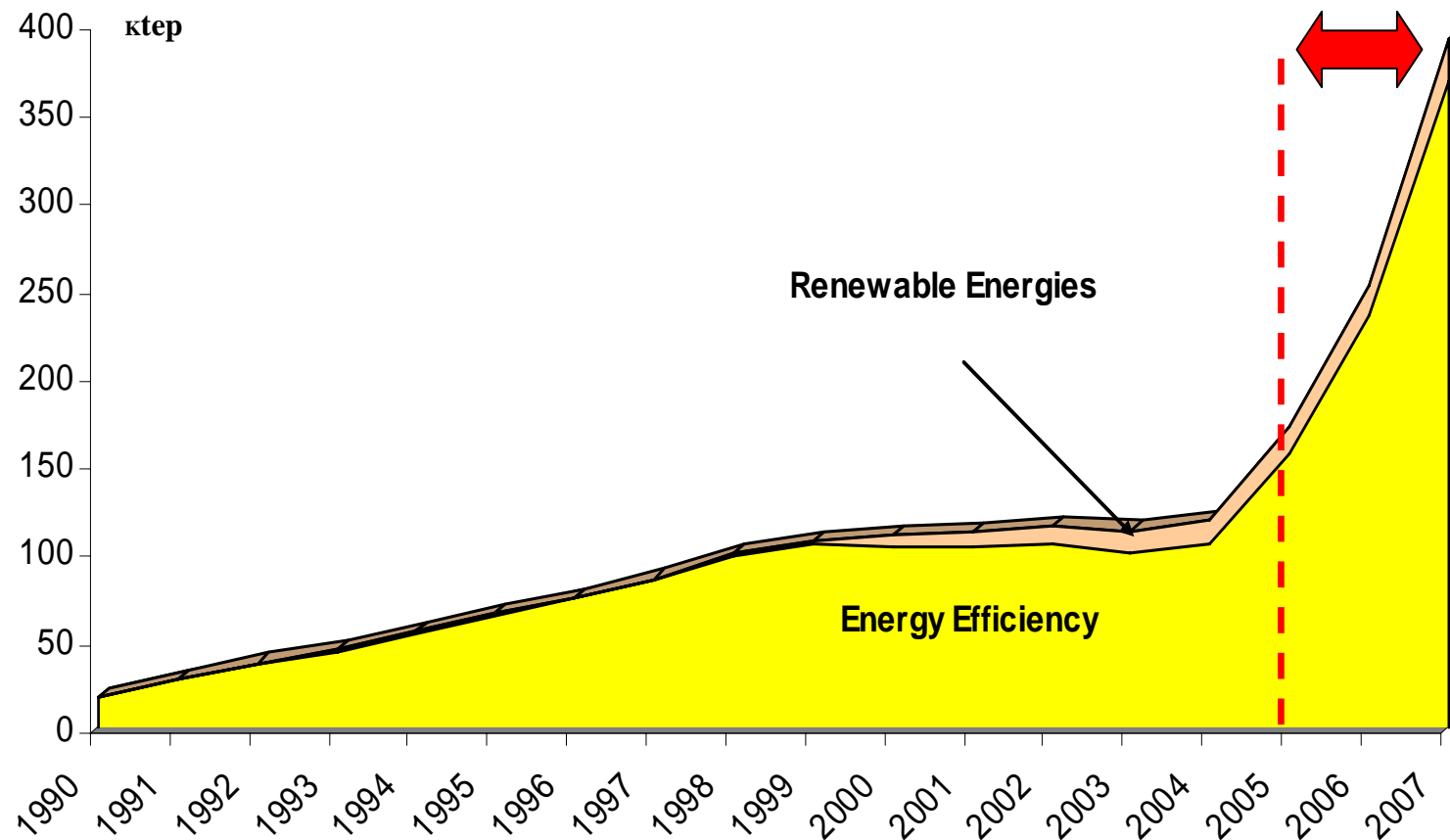
Energy context in Tunisia

Basic indicator



Energy context in Tunisia

Energy Savings



State policy and public tools for EE and RE enforcements

In order to address this situation, the Tunisian authorities have engaged an energy policy that is compatible with sustainable development which main components are:

- ➡ **The intensification and the reinforcement of the efforts made for the development of the country's hydrocarbon resources (the Hydrocarbons Code). That allowed the discovery and exploitation of new reserves allowing the compensation of the old layer's decline;**
- ➡ **The ensuring energy supply at lower cost such as to facilitate access to energy by the whole population;**
- ➡ **The adoption of a voluntary sustainable energy strategy.**

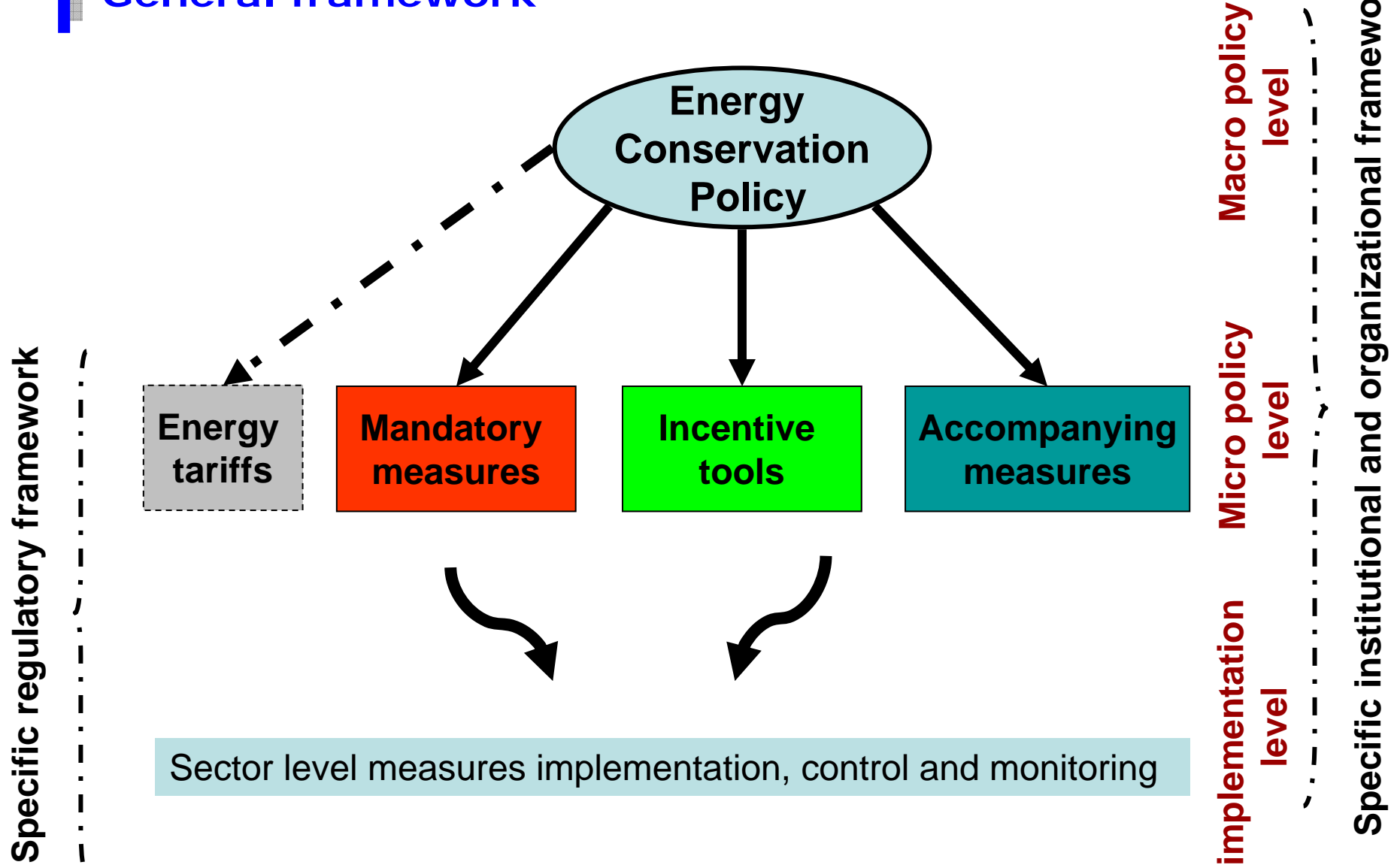
Creation of the NAEC
(1985)

Energy Conservation
Law (August 2004)

National Energy
Conservation Fund
(NECF)
(15 August 2005)

State policy and public tools for EE and RE enforcements

General framework



State policy and public tools for EE and RE enforcements

Policy guidance

- **Energy supply security**
- **Energy independency**
- **Reducing national energy bill: best energy mix, energy conservation**
- **Preserving economic competitiveness**
- **Protect low income social categories**

Quantitative objectives:

- **Energy intensity decreasing**
- **Energy savings**

State policy and public tools for EE and RE enforcements

Mandatory measures

- **Periodic energy audit for activities consuming more than 500 toe per year for transportation and tertiary/residential sectors and 1000 toe for industrial companies**
- **Energy audit for new high energy consumer projects**
- **Minimum Energy Performance standards in buildings (2000-2007)**
- **Minimum Energy Performance standards for refrigerating and air conditioning appliances**
- **Yearly engine energy performance diagnosis and energy consumption control**
- **Mandatory use of Solar water heating in public sector buildings (2003)**
- **Mandatory use of Solar water heating in residential buildings tertiary and industrial sectors**

State policy and public tools for EE and RE enforcements

Incentive tools

■ Indirect incentives

- ❖ VAT = 0
- ❖ Minimum Custom taxes

■ Public direct incentives

- ❖ Investment subsidies for energy audits and EE and RE investment
- ❖ Subsidized Selling price of Cogeneration and RE electricity generation
- ❖ ⇒ National Energy Conservation Fund establishment (2005)

■ Specific financial mechanisms

- ❖ Public-private partnership (SWHS, Industry, EE in Building)
- ❖ Specific credit line from international donors (AFD)

State policy and public tools for EE and RE enforcements

Accompanying measures

- **Studies for good comprehension of the situation**
 - ❖ Detailed context diagnosis by sub-sector and use
 - ❖ Strategic studies and priority definition
- **Energy information system set up**
 - ❖ Energy accounting system
 - ❖ Relevant energy indicators
 - ❖ Financial energy indicators
 - ❖ GHG emission indicators
- **Communication and awareness campaign**
 - ❖ Sector task forces establishment to carry out door to door information
 - ❖ Financial sector awareness
 - ❖ Public campaigns, etc.
- **Horizontal institutional dialogue**
 - ❖ Periodic brainstorming round table “Cercle de concertation”
 - ❖ Workshops, etc.
- **Capacity building**
 - ❖ Public sector
 - ❖ Private sector and Consultancy services, etc.

State policy and public tools for EE and RE enforcements

Institutional and Regulatory framework

■ Institutional framework

- ❖ National Agency for Energy Conservation, established in 1986
- ❖ The Taskforces (2005)

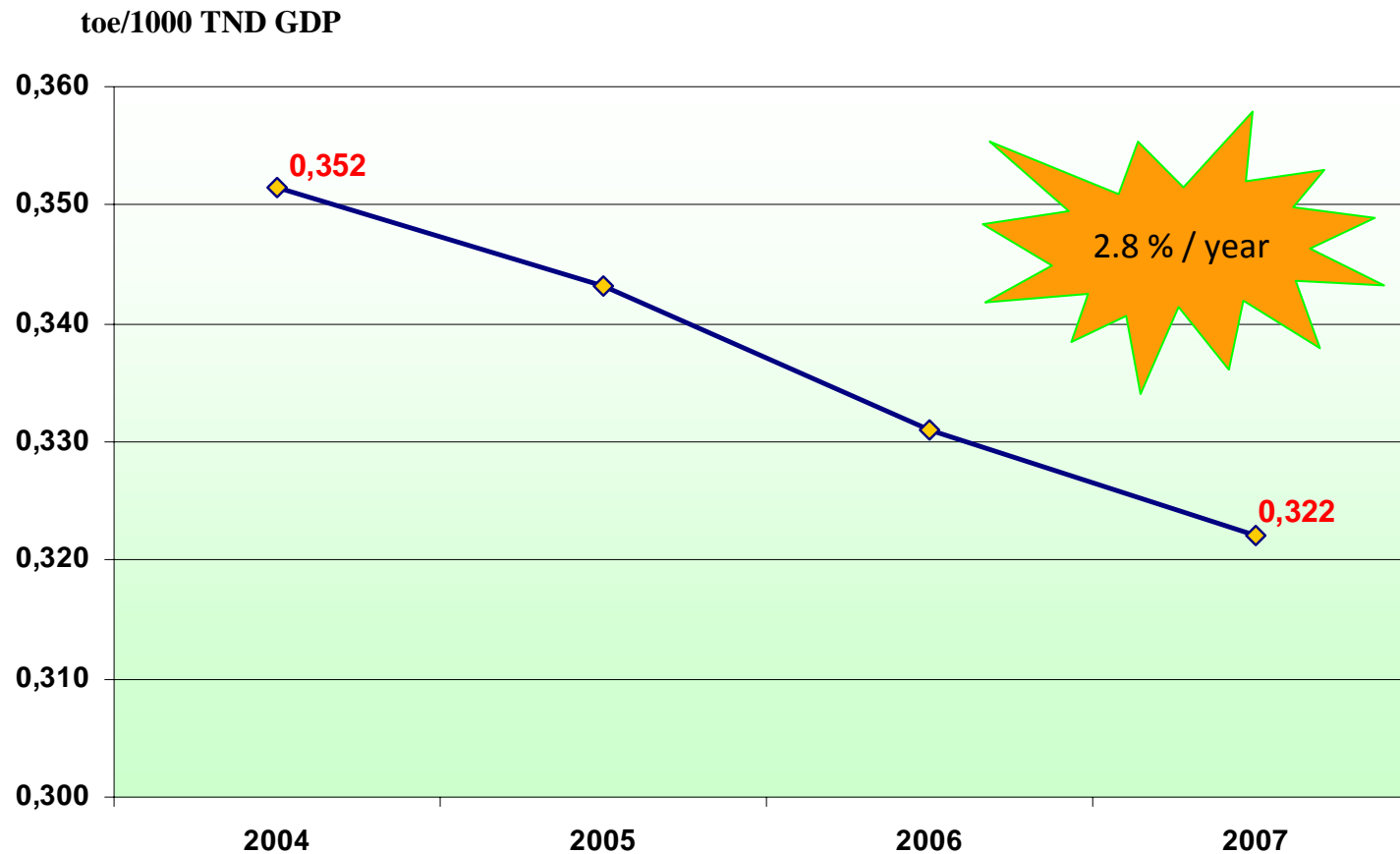
■ Regulatory framework

- ❖ Energy conservation law of 1990
- ❖ Amended by the new law of 2004
- ❖ The law of 2005 creating the National Energy Conservation Fund

Basic Policies Results on Energy Efficiency

Short term program : 2005-2007

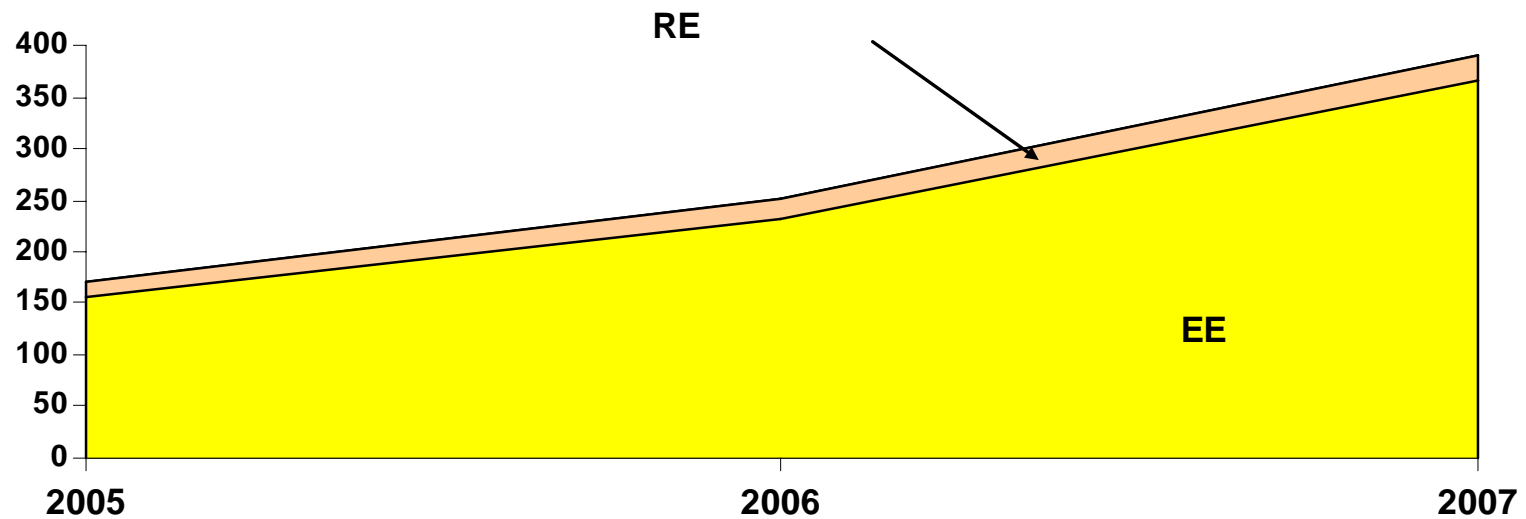
Energy Intensity trend



Basic Policies Results on Energy Efficiency

Short term program : 2005-2007

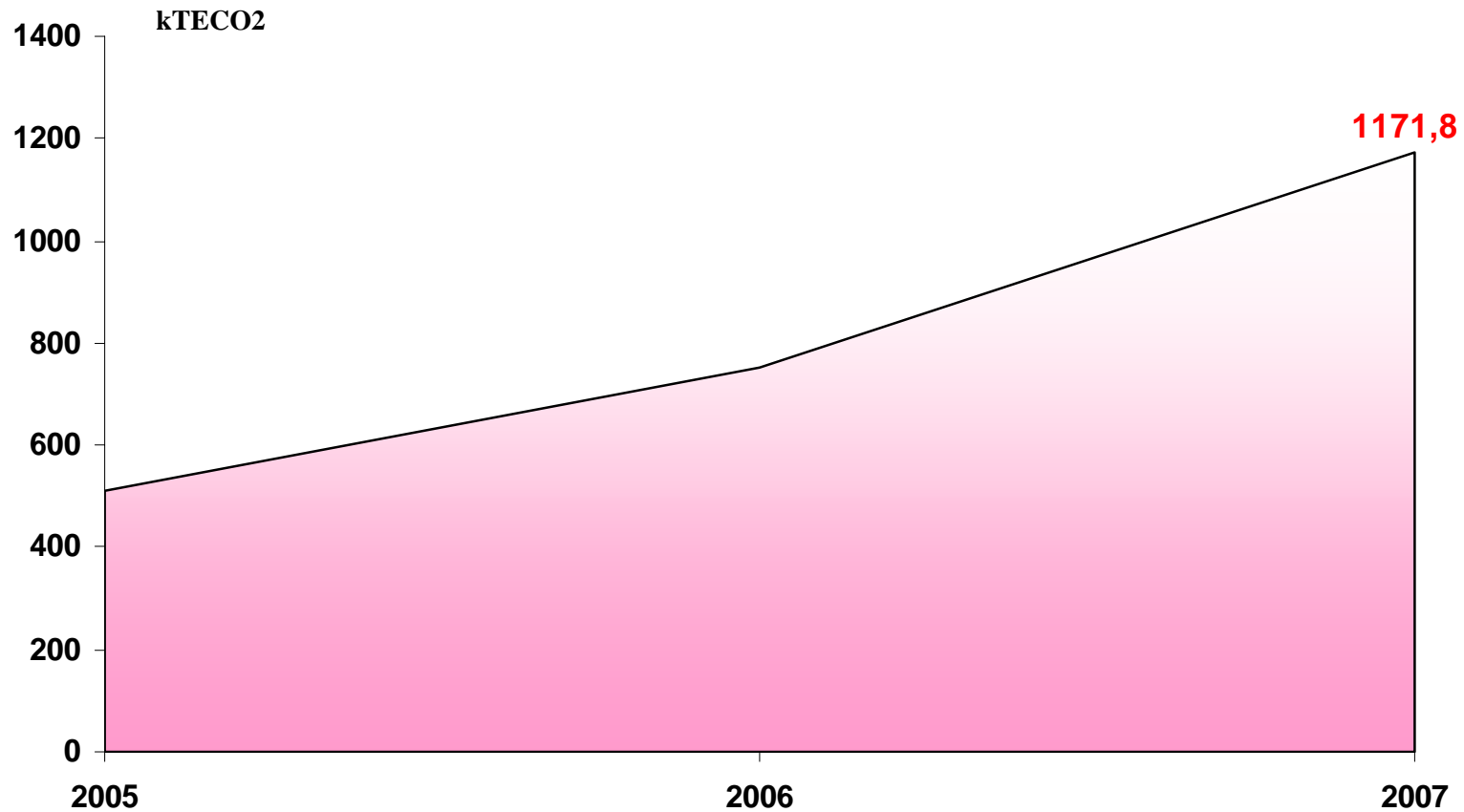
Energy Savings



Basic Policies Results on Energy Efficiency

Short term program : 2005-2007

CO2 Emissions reduction



Big orientations of XIth Plan : 2008-2011

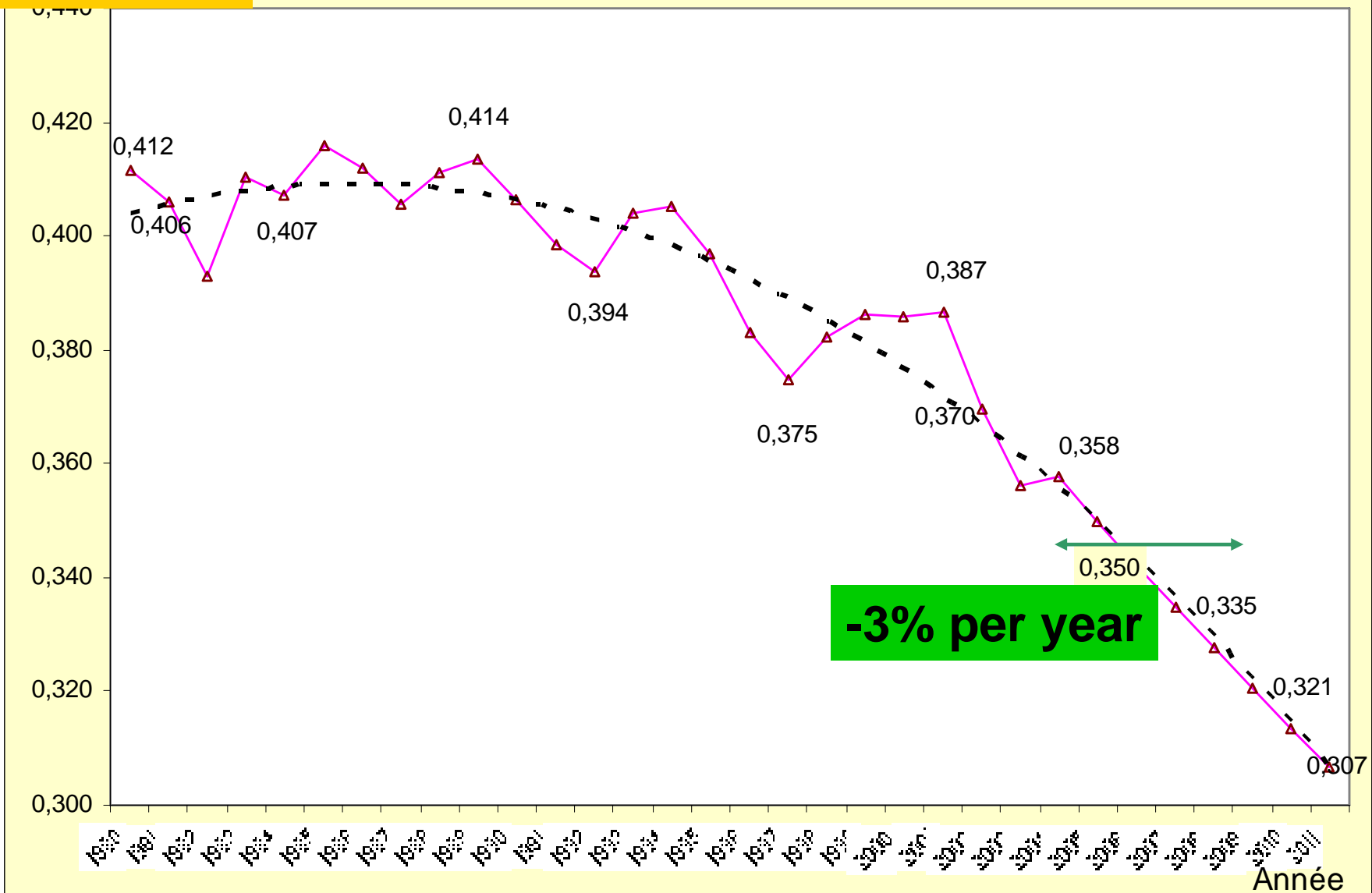
Basic aims

- ✓ **Intensification of programs in rational use of energy,**
- ✓ **Increase of the contribution of renewable energy in the energy balance sheet,**
- ✓ **Diversification of energy sources and the orientation of the consumer to energies with less costs**

Big orientations of XIth Plan : 2008-2011

energy intensity objective

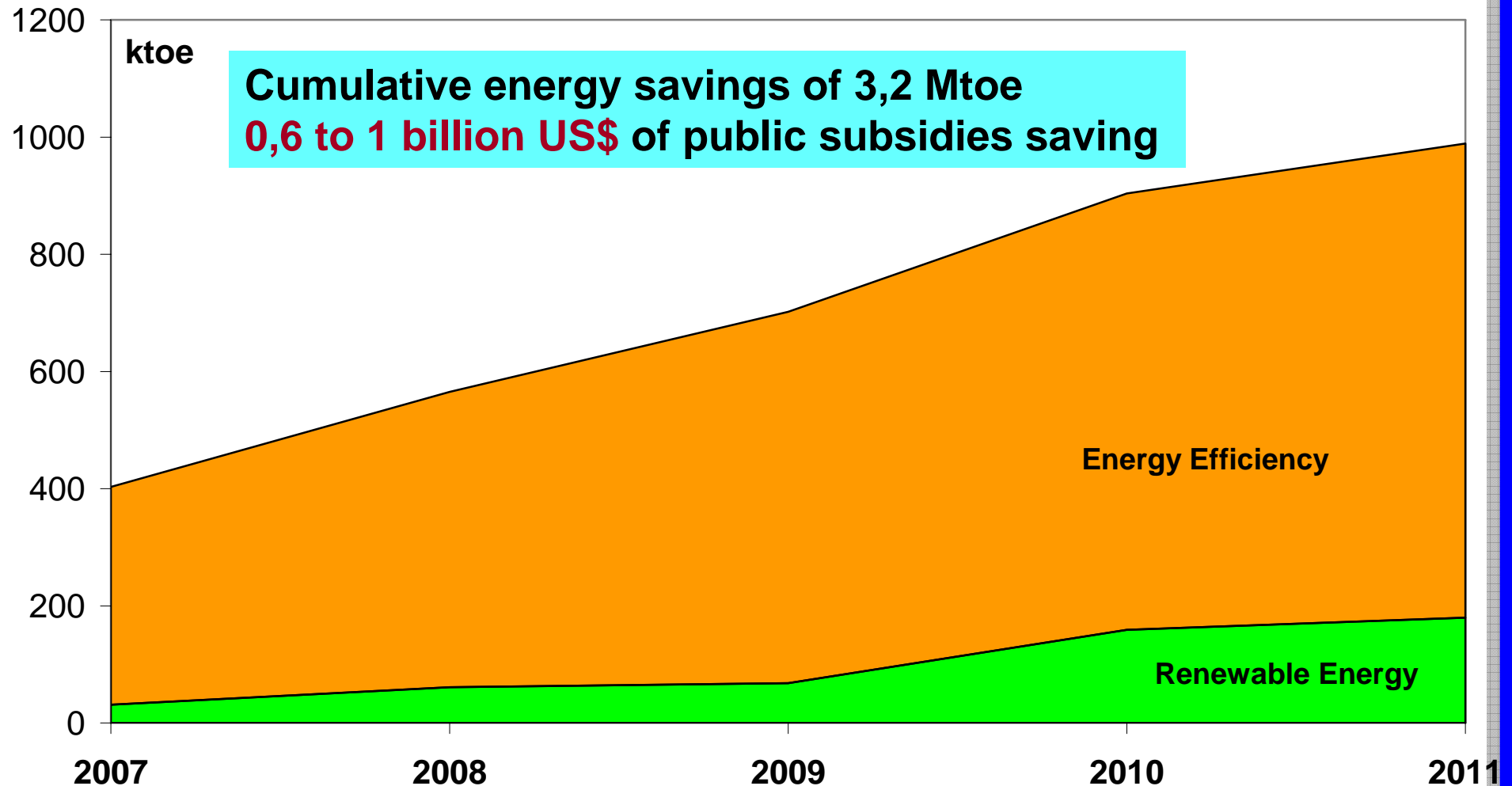
Teo/1000 TDN



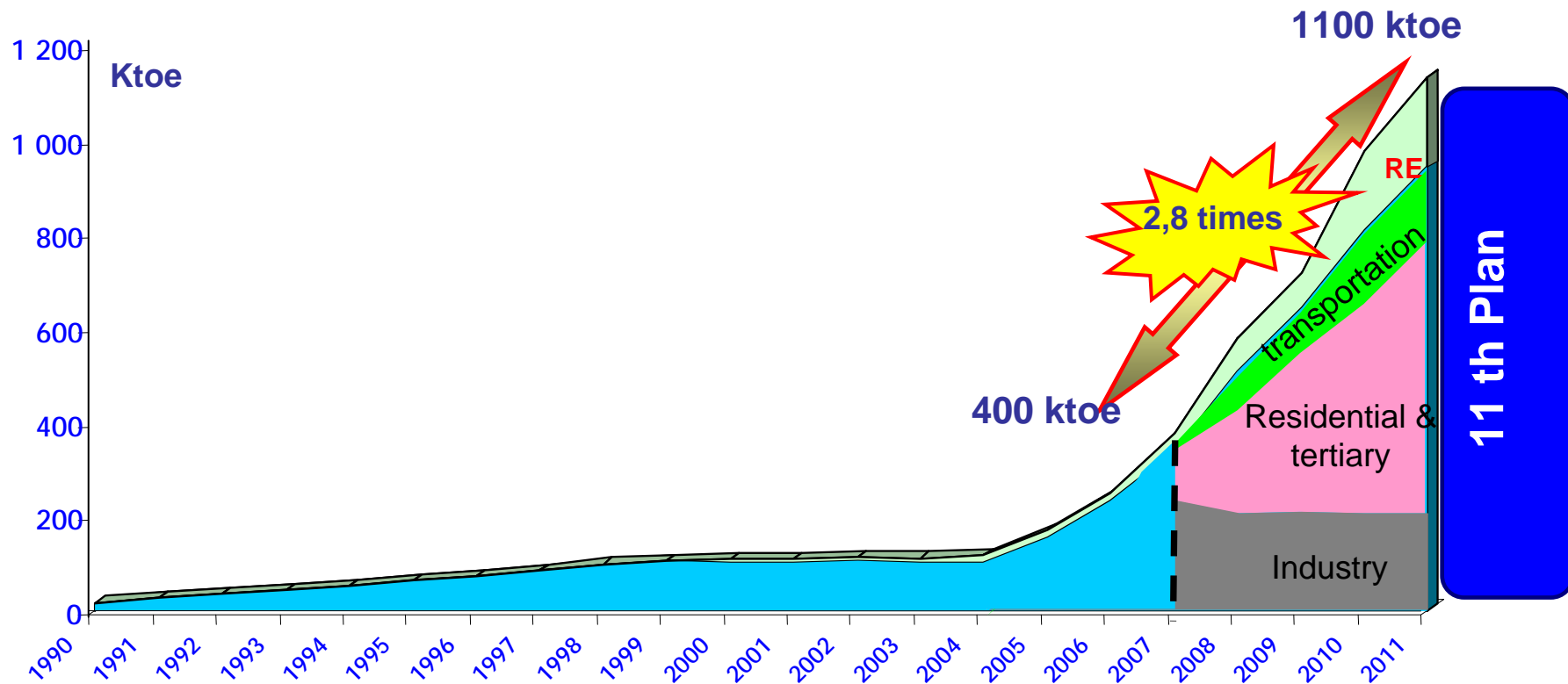
Big orientations of XIth Plan : 2008-2011

energy savings objective

Annual Energy Saving objectives of the 11th plan



Big orientations of XIth Plan : 2008-2011 energy savings objectives



Conclusions

A need for changing scale in EE and RE investment

Success keys

- **A good comprehension of contexts and issues**
- **A long term vision and policy**
- **A good and updated Energy Information System**
- **Strong positive signal from the public sector**
- **Specific financial mechanism for each targeted sectors**
- **Real public-private partnership based on a win – win approach between stakeholders**
- **Cost recovery tariffs**



Thank you very much for your attention