

# Energy Efficiency as Pillar for Green Economy Growth

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## Green Economy

Assuming that Green Economy :

1. Is interrelation of various indicators including
  - economic efficiency,
  - spatial equity, and
  - environmental sustainability as a part of the concept;
2. Sustainability as not isolated, but cross border, regional and global effort;

Then we can accept that

Energy Efficiency is in a very strong correlation with Green Economy

## STRATEGIC PRIORITIES

- Reliable energy supply
- Sustainable economic development
  - Maximum use of indigenous resources
  - Maximum use of RES
  - Minimum environmental pollution
  - Acceptable financial investments
- Competitiveness of the economy

## EES-Why is it made? Obligation?

- **As the needs of Macedonia for the implementation of the Energy Policy**
- **As a legal obligation (to deliver Program) provided by the Energy Law**
- **As a step forward on the path to EU entry**
- **As a commitment to the Energy Community, which stems from the EU Directive 2006/32/EK - [Energy end-use efficiency and energy services**

## EES-Why is it made?

❖ For the R of Macedonia it is not a simple obligation –

### It's necessity!

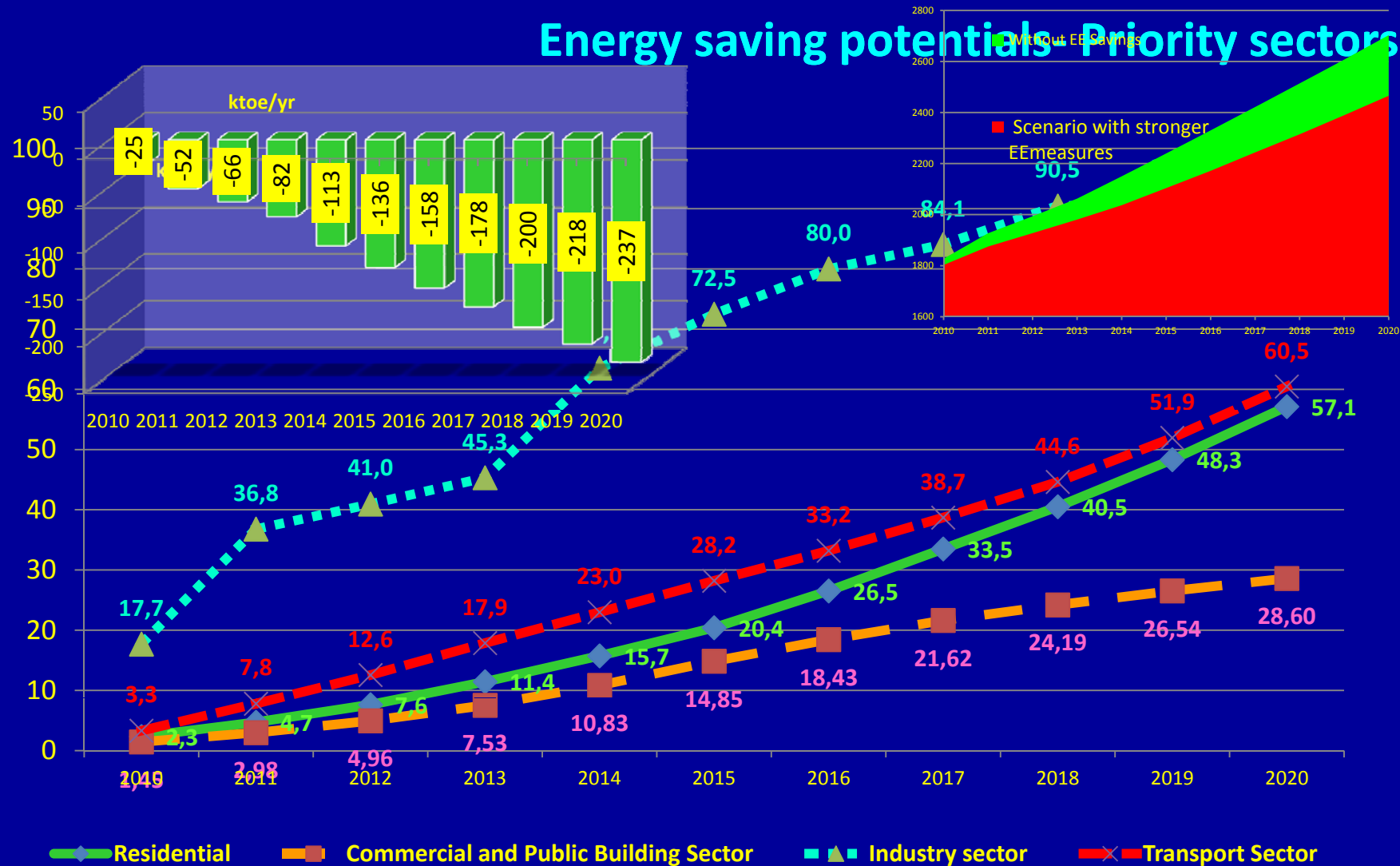
- Because 45% of energy is imported
- Because of limited domestic resources (coal)
- Because hydroelectric potential, although not fully used, is quite limited
- Because annually spend up to 600 million € (2010) for imports of energy / fuel

❖ For the R of Macedonia EE is viable, profitable, ecology friendly resource - **GREEN**

# Balkan Policies for “Green Economic Growth”, Sofia 2012



## Energy saving potentials - Priority sectors



## EES Potential Benefits

- **Expected energy savings in 2020 = 237 ktoe**  
14,5 % below 2002-06 average consumption
- **Cumulative Reduction of CO<sub>2</sub> emission: 5792 ktCO<sub>2</sub>**
- **Investments: 522 M €**  
Government: 19.4 %, Private sector 68.4 %
- **Financial savings (current prices): 1203**
- **Financial savings (liberalized market prices): 1965 M €**

## Measures encouraging EE

- **Direct subsidies**
- **Fiscal incentives**
- **Elaboration of guidelines and supporting legislation**
- **Instructions on the minimal level of acceptable EE**
- **Standards and labels**
- **Standardization of equipment**
- **Education and training of personnel**
- **Quality of technical documentation**



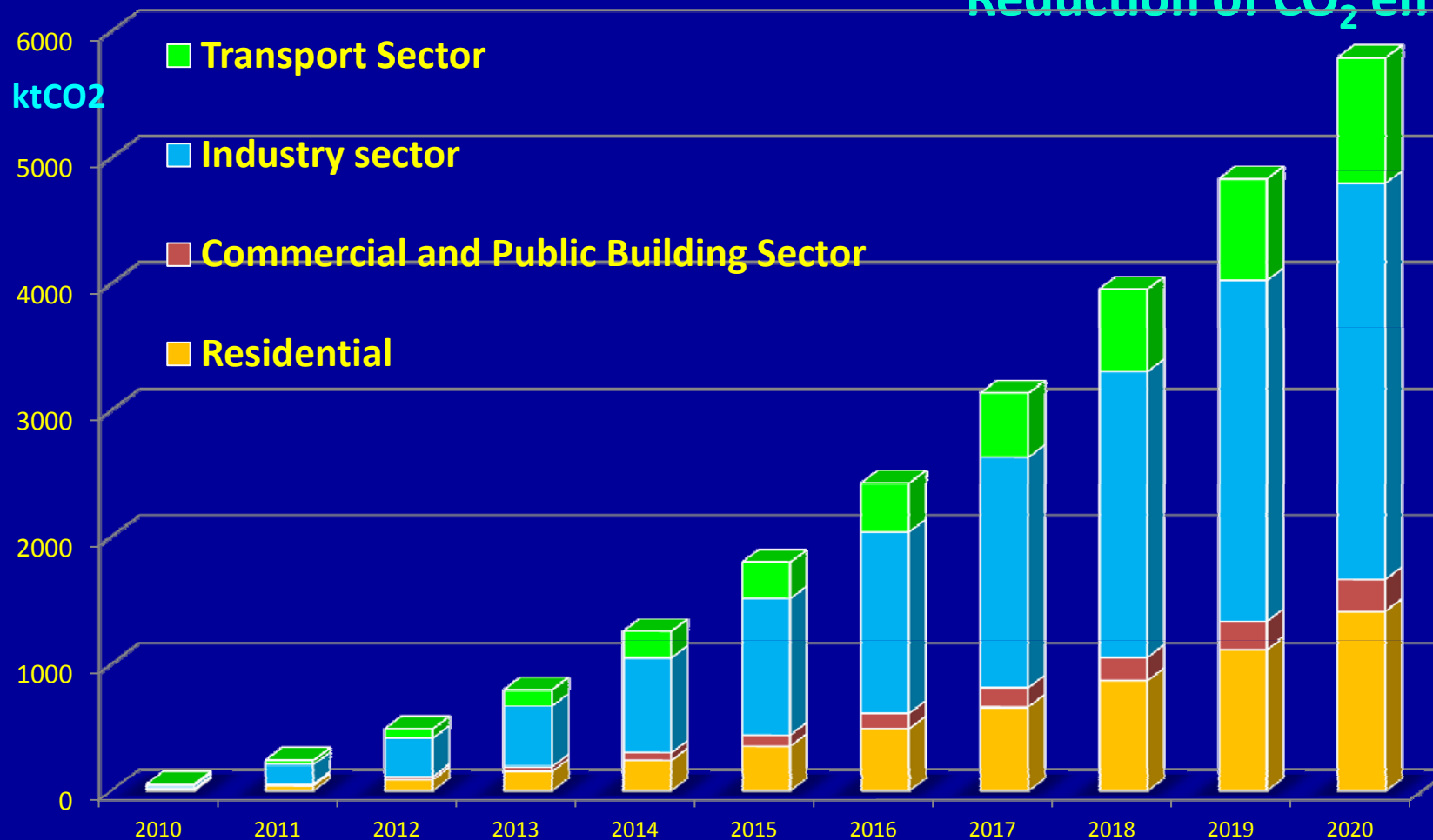
## Energy Pricing Policy

- **A progressive increase of energy prices**
- **Environmental fee**
- **Feed-in tariffs of electricity production**
- **Cross-subsidies between commercial and household customers**
- **Introduction of market price of energy**

## Private Sector

- Effective contributions to the realization of EE programs by providing training, consumer outreach, and awareness-building services
- Ability to concentrate experts in particular short-lasting projects
- To play an instrumental role in the public watch-group

**Added value!**  
**Reduction of CO<sub>2</sub> emission**



## NEEAP Resume

- Energy savings in 2018 → 199.78 ktoe =
- 2317 GWh (2 blocks of 220 MW)
- Necessary cumulative investments → 406.5 M €
- Governmental participation → 20%
- Private sector and other financial mechanisms → 80%
- Cumulative financial savings → 834.4 M €
- Cumulative financial savings (Liberalized market prices) → 1360 M €
- Cumulative reduction of CO<sub>2</sub> emission till 2018 → 3954 ktCO<sub>2</sub>

### Policy Recommendations

- Well structured education program on Green Jobs
- Cross border platform to allow newly skilled workers to transfer their knowledge and hinder the work force migration to stronger economies,
- Cross-sector research and development support to reduce the brain-drain from weak economies
- Extension of the EU financial supporting schemes to all players with a proven record of implemented best practices

### MACEF – Short Presentation

- *Macedonian Centre for Energy Efficiency MACEF is registered as Scientific Association 10 years ago*
- *We prepared few national strategy documents:*
- *EE Strategy till 2020*
- *First NEEAP*
- *“Bottom –up” National Methodology for energy savings evaluation*
- *EE Programs for few municipalities*
- *SEAP for City of Skopje (Covenant of Mayors)*
- *Over 100 Energy Audit of buildings and few industries*
- *We got Energy Globe National Award for 2012 – The world award for sustainability*

**Thank you for your attention**