



# **Energy Agency of the Republic of Macedonia**

Steering Committee of the Energy Efficiency 21 Programme  
Group of Experts on Energy Efficiency  
Investments for Climate Change Mitigation

## **Development of Energy Service Companies (ESCO) Market and Policies in FEEI Selected Countries Republic of Macedonia**

Gechevski Lazar, BSc.El.eng. Director  
April 17, 2013 Geneva

# POLICIES AND REGULATIONS ON ENERGY EFFICIENCY IN MACEDONIA ARE BASED ON:

## ➤ **National Energy Strategy 2010 until 2030**

The objective of the Strategy is restructuring of the energy sector based on market economy principles and developing a modern energy policy.

## ➤ **EE Strategy 2010-2020**

Implementation of energy efficiency measures in the public, commercial, industrial and residential sector.

## ➤ **National Energy Action Plan 2010-2018**

The main goal of EE Action plan is achieving 9% savings in the final energy consumption until 2018.

## ➤ **Energy Law 2011**

## ➤ **Rulebooks on Energy Audit and Energy Performance of Buildings** remain to be adopted.

# THE ENERGY AGENCY IS AN INSTITUTION RESPONSIBLE FOR:

- Preparing of the Annual National Energy Balance.
- Organizing trainings and certification for energy auditors.
- Approval of the 3-year Energy Efficiency Programs and Annual Action Plans, for all 81 Municipalities in the Republic of Macedonia.
- Running registers and monitoring of energy efficiency statistics.
- Preparing annual report for implementation of EE measures, using the bottom-up and top-down methodologies.

# CURRENT ESCO STATUS

- The ESCO model was promoted from 2007-2009 by the Energy Agency, the District heating company – Toplifikacija AD, ELEM-Energy Production Company and MEPSO AD -Energy Operator under the GEF-World Bank Project.
- In 2013 EBRD develop project in the SE Europe for establishing ESCO's.
- The ESCO concept is not a reality yet.
- Undeveloped EE services and financing mechanisms under the energy saving performance contracting (ESPC).
- Only construction companies, design institutes and energy consultants are providing the basic lines of EE services.
- Lack of wide range of EE service providers as well as lack of financial resources.
- The public sector and municipalities are not creditworthy to undertake multiple projects using the ESCO model of repayments from the energy savings.

# BARRIERS FOR ESTABLISHMENT OF ESCOs (1)

- Public institutions still receive recourses for covering their operating costs, including energy bills from the central budget. If energy costs were reduced due to implementation of energy efficiency measures, the next year the budget would be automatically reduced, by the amount of savings.
- Accounting systems for budget users does not allow separate energy savings from other expenditure items. Under the current system the municipalities may only borrow in general obligations, to be repaid from general municipal revenues.
- The provisions in the Law on Public Procurement made it impractical for the ESCO Model to operate. Law on Concessions and Public-Private Partnership-2012 would apply to contracts between public sector entities and ESCOs, but its novel tendering and contracting provisions and approval mechanisms are still untested.
- Under these conditions ESCO or ESPC will be difficult to be implemented in Macedonia's building sector (public, commercial and residential).

## BARRIERS FOR ESTABLISHMENT OF ESCOs (2)

- The lack of legislative incentives require adoption of specific EE Law with definition of financing instruments and procedures including ESCO model.
- Lack of experience in ESCO and ESPC projects by local banks.
- Low electricity prices, high loan interest rates and insufficient budget planning for more than one calendar year.
- Non liberalized energy market. Monopolies in energy sector still exist.
- Lack of contract and tender templates, and expertise for preparing ESCO projects.
- General information on ESCOs is very limited.

# Success Factors (1)

**The Government of the Republic of Macedonia is committed to implement:**

- National Action Plan for EE 2010-2018.
- National Action Plan for EE in the Public Buildings.
- Municipal EE Programs and Action Plans.

## **Mandatory activities:**

- Introduction of Energy Audits and EE certification of buildings in 2013.
- Creation of the specific financial instruments:
  - *Credit Line by the commercial local banks,*
  - *EE Fund,*
  - *Budget capture,*
  - *ESCO companies.*

## Success Factors (2)

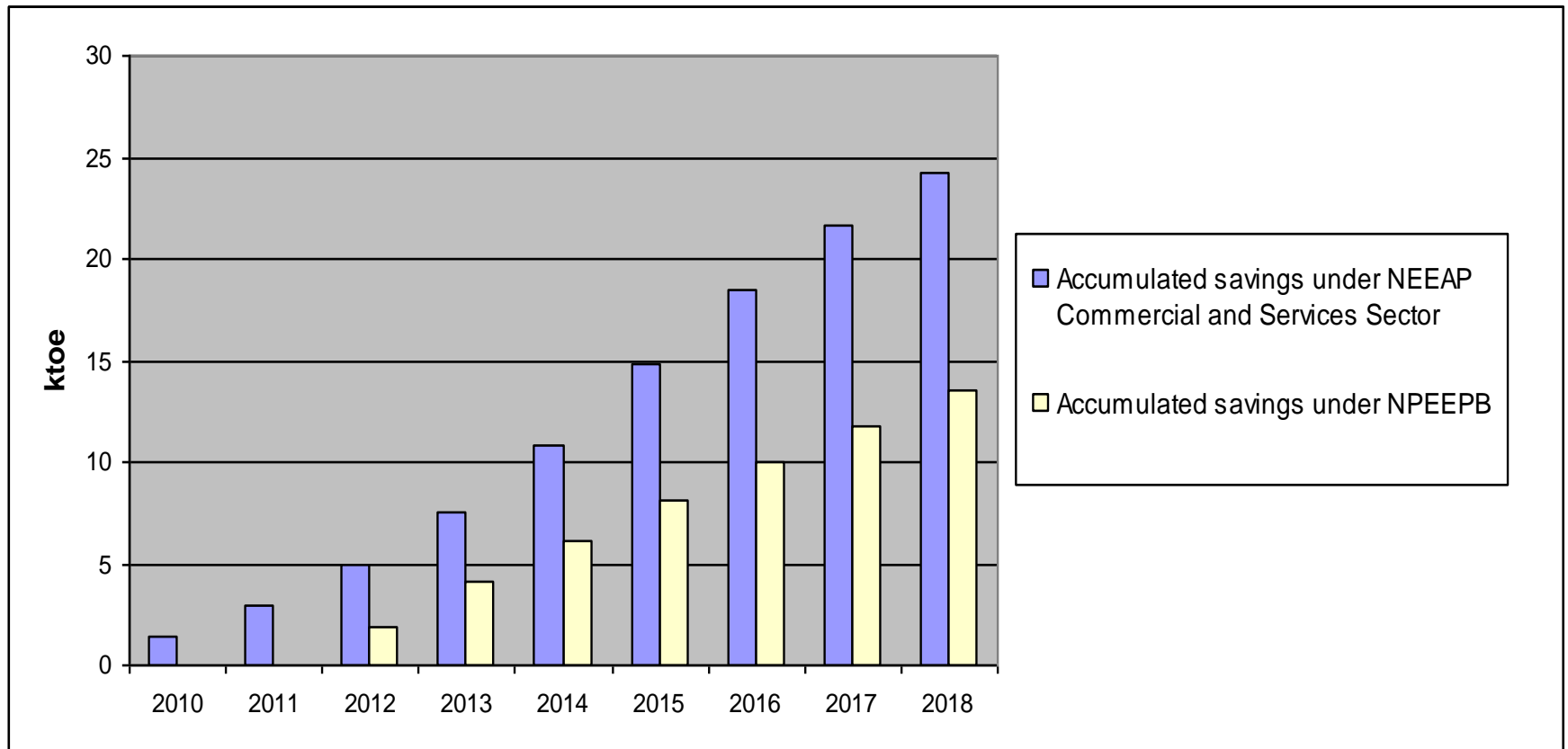
### **National Action Plan for Energy Efficiency in the Public Buildings**

- There are 2,441 public buildings, with total heated area of 2,265,944 m<sup>2</sup>.
- The expected energy savings are about 33.2% from the current actual consumption.
- The required investments for its realization is estimated to 95.26 million Euros.
- The monetary annual savings is app.14 mill. Euros, a simple payback of 6.8 years.
- The total saved energy in public buildings is 13.6 ktoe/year, which is about 56% of the target for the whole Commercial and Service Sector.
- The public buildings consume 40.87 ktoe energy annually, which is only 18.24% of the annual energy consumption of the Commercial and Services sector.

**Figures show that there are economic reasons to invest in EE measures, but new financial mechanism, including ESCO should be developed as soon as possible.**



# Accumulated energy savings – comparison NPEEPB v/s NEEAP Commercial & Services Sector



## Technical and economic parameters by Program components

Program Components	Total saved energy (in 2018)	Total monetary saving	Total investment	Simple payback
	MWh/year	Million Euro/year	Million Euro	years
<b>Municipal buildings</b>	83,131	7.04	51.56	7.3
<b>Health care buildings</b>	45,399	3.61	24.96	6.9
<b>Universities and science institutes</b>	22,914	2.64	14.66	5.6
<b>State administrative buildings</b>	1,355	0.17	1.20	7.1
<b>Social institutions</b>	5,119	0.50	2.89	5.7
<b>TOTAL</b>	<b>157,918</b>	<b>13.96</b>	<b>95.26</b>	<b>6.8</b>



THANK YOU FOR YOUR ATTENTION

Energy Agency of the Republic of Macedonia  
Gechevski Lazar, BSc.el.eng, Director

[www.ea.gov.mk](http://www.ea.gov.mk)

[ea@ea.gov.mk](mailto:ea@ea.gov.mk)

+3892 32 30 300