Results of AM-124
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BUILDING PARTNERSHIPS FOR ENERGY SECURITY

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AM-124 (CWP.04.AM) Development of a road-map for introduction of an energy performance certificates system in the building sector of Armenia, including legal framework and distribution of institutional roles in Armenia

Challenge: to combine existing experience in region and in EU into an efficient EPC system for Armenia
Armenian Experience

Armenia has already started to implement several initiatives.

This includes:

• *Demonstration*
• *Calculation procedures*
• *Existing legal framework for energy efficiency*

These experiences should be basis for the system
And combined with best European experience
Demonstration – UNDP Energy Passport

This project systematically:
• Collected of data
• Worked with the development and design of a certificate
• Data for buildings was collected by the GEF UNDP office
• Evaluated the energy consumption based on current standards

The development was however:
• Strongly adapted to the concrete examples / residential blocks
• An adaptation to a more general standard would require amendments and further development of a methodology / rules.
• Lessons learned from the UNDP project should play a central role in the development of the Armenian EPC system,
Existing Calculation

- Enacted on January 1, 2014 as a voluntary standard
- Based on the European appliance label with a scale from A++ to G
- Energy performance labels have been already issued for 15 buildings
- Lessons learned from the above experience can play central role in the design of the certification scheme
- Most important Construction norms established more than 25 years ago and should be revised
Planning the Certification System

- Many decisions need to be taken in planning phase.
- Close collaboration with key stakeholders.
- Good control and monitoring systems.
- EU countries that have successfully implemented EPC schemes followed some basic steps: Plan, Implement, Monitor and Evaluate (IEA Policy Pathway, 2010).
- The quality assurance - the most important aspect for the successful implementation of the certificate system,
- Database - a prerequisite for the management of energy performance certificates and collect the data acquired.
Adaptation to Armenia

• Lessons learned in EU MS can to a high extend serve as basis and inspiration for the development of similar systems in Armenia,

• But none of these systems can be directly transferred or copied directly in Armenia.

• Lessons learned, systems in EU Member States and common standards can therefore be used as part of the development of certification systems in Armenia,
Buildings covered by the certification

- In the European Union, all buildings for residential and non-residential use are included in the EPC scheme.
- Buildings need certification by construction, sale and rental – for large public buildings regular inspection.
- This might also be the end goal in Armenia,
- It is recommended to start the implementation of the certification scheme for new buildings only
- The certification scheme should be introduced together with the minimum energy performance requirements for new buildings
- Certification of existing buildings – 2 years later
Minimum Energy Performance requirements

• Current requirements approved about 25 years ago is outdated and has a very low level of enforcement.

• Modern minimum energy performance requirements for new buildings should be introduced and aligned with the National Standard on EE and building passports (363-2013)

• The tightening of minimum energy performance requirements should established from the beginning – industry should take part in this process

• It might be also recommended to develop new standards or adopt current standards to different types of buildings
Timeframe

- It is recommended to foresee an appropriate period of time between the approval of the certification scheme (meeting the minimum energy performance requirements) and the date of entering it into force:
  - construction companies to get prepared and comply with the new minimum energy performance requirements;
  - MUD or other responsible authority to establish the transparent scheme for the accreditation of assessors (auditors) and issuing the certificates;
  - MUD or other responsible authority to enhance the capacity of the sufficient number of assessors for issuing certificates.
Responsible authority

• It is crucial to create/appoint the authority responsible for the establishment, management and assuring quality control of the certification scheme

• Ideally, it should be an independent National Energy Agency for EE and RES, the creation of which was envisaged in the 1st NEEAP
Self-funding of the certification scheme

• The fees should cover:
  – maintaining the national registers of assessors;
  – administering assessor examinations process;
  – maintain/improving the methodologies and calculation software;
  – quality assurance and auditing of certificates issued by assessors;
  – administering web-site and helpdesk for assessors and general public;
  – promoting awareness of certification scheme;
  – provide advice, information and support to the relevant governmental authorities.

• Thus, only the first step of the creation of the certification scheme should be financed by the government or/and by donor organisation
Control and central register

- **Make a central register system**
  
  A central register is important both to use data and to ensure quality

  Good computer tools can ensure low cost for reporting

- **Pay well attention to quality assurance**

  Experience from EU Member States shows that quality control is a key element of an EPC system.

  This needs to include independent control of certification and a check of certificates.

  Often systems are combined with penalties, meaning that experts can loose the right to issue certification.
Development of specific handbooks and tools

• The well-designed certification scheme should include software to calculate energy performance of the building.

• The calculation software provides the following benefits for the certification scheme
  – provides platform for uniform automatic data processing;
  – ensures the transparency of the calculation methodology;
  – reduces risks for assessors to make mistakes during the calculation;
  – reduces costs for calculating the energy performance and the quality assurance check of the issued certificates;
  – stores/updates statistic information regarding the energy efficiency in buildings and provides input to the national statistical service and decision making process.
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Trainings

• Tailored capacity building event for potential assessors should be conducted after the development of the above tool and the curriculum for the potential assessors.

• Ideally, an independent National Energy Agency should lead this process and conduct regular examinations (every two years) to make sure the assessors demonstrate their competence to provide their services to a consistently high standard.
# Setting up a Roadmap

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THANK YOU
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