Energy efficiency in building sector - The future trends in Croatian legislation

Borka Bobovec, Ph. D., M. Sc. Arch.
Ministry of Construction and Physical Planning

26 November 2014, Zagreb, Croatia
European Union

A conglomeration of countries differing in terms of geographical, historical, economic, populational and other specific features

Different countries have chosen - with regard to their problems and methods of addressing the set priorities - different and yet similar approaches.
Objective: energy-efficient buildings

The three pillars of energy efficiency:

1. reduction of energy losses
2. efficient energy use
3. energy generation from RES

- **Buildings are the biggest individual energy consumers.**
- Through direct energy consumption **buildings consume 43%** of the total energy demand of the Republic of Croatia.

Buildings have a major potential for energy, economic and ecological savings.
Means: Improvement of building regulations

- average reduction by approx. 50% as compared to the period prior to EPBD implementation
- new savings planned in a future period would amount to additional 20% (projection)

Every improvement of regulations, in the field of building, results in reduced heating energy consumption!
Alignment with the EU acquis

1. Directive on the energy performance of buildings EPBD 2010/31/EU
   Directive transposed in such a way to have all issues related to the energy performance of buildings governed by one act: Building Act (OG 153/2013).

2. Directive on energy efficiency EED 2012/27/EU
   transposed into the Energy Efficiency Act, adopted by the Croatian Parliament on 17 October 2014
Building Act (OG 153/13)


  1. Buildings shall be designed and built in such a way that during their lifecycle they meet the essential requirements on buildings
  2. One of the essential requirements on buildings: **ENERGY ECONOMY AND HEAT RETENTION**

Energy efficiency is entirely governed by the Building Act.
Building Act (OG 153/13)

- **Definition of energy performance** of a building
- **Energy performance requirements**
- Mandatory preparation of a Study on alternative energy supply systems
- Regular **inspections** of heating /cooling systems in buildings
- **Energy audits and certificates** of buildings
- **Persons authorised** for energy certification, energy audits and regular inspections of heating /cooling systems in buildings
- Carrying out of professional **training programmes** (Module 1 and Module 2)
- **Possibility for foreign persons** (countries Parties to the Agreement on the European Economic Area) to carry out activities of energy certification and audits in the Republic of Croatia
Ordinance on energy audits of buildings and energy certification

Ordinance on the control of energy certificates of buildings and of reports on energy audits of construction work

Ordinance on energy audits of construction works and energy certification of buildings

Ordinance on requirements and criteria for persons performing energy audits of construction works and energy certification of buildings

Ordinance on the requirements and manner of issuing certificates to Croatian citizens and legal persons

Technical regulation on energy economy and heat retention in buildings

Regulation on contracting and carrying out energy services in the public sector

The methodology of carrying out energy audits of construction works
Building Act (OG 153/13) - Energy certificates

• **Implementation** - started in 2014

• **Independent control:**
  - of energy certificates and reports on regular inspections of heating /cooling or air-conditioning systems in buildings
  - control of 105 energy certificates of buildings - completed

• **Obligation of display:**
  - owner of a public building - shall display the energy certificate in a visible place of the building

• **Fines for misdemeanours:**
  - of investors, designers, contractors, construction work owners, and of persons authorised for energy certification
Implementation: Number of energy certificates in the period 2010 - 2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>65</td>
</tr>
<tr>
<td>2011</td>
<td>955</td>
</tr>
<tr>
<td>2012</td>
<td>4051</td>
</tr>
<tr>
<td>2013</td>
<td>12676</td>
</tr>
<tr>
<td>2014</td>
<td>12566</td>
</tr>
</tbody>
</table>

The total number of energy certificates of buildings amounts to 30,313 - entered into the Register from January 2010 to September 2014
Energy Efficiency Act (EEA) (OG 127/14)

- defines and regulates energy services and energy renovation
- co-ordinates implementation and monitoring of results of measures in one place
- defines public sector obligations
- defines energy efficiency obligation systems (public sector, energy suppliers, energy distributors ...)
- contributes to the implementation of energy efficiency projects in the public sector
- enables energy renovation of multi-residential buildings
- enables vitalisation of building industry
- contributes to the development of the energy services market
- regulates green public procurement

EEA regulates implementation of the energy efficiency policy.
Subordinate acts planned to be adopted in 2015:

- Ordinance on requirements and criteria for establishing a quality system for services and works for certification of installers of renewable energy sources - **solar thermal systems**
- Ordinance on requirements and criteria for establishing a quality system for services and works for certification of installers of renewable energy sources - **geothermal systems and heat pumps**
- Ordinance on requirements and criteria for establishing a quality system for services and works for certification of installers of renewable energy sources - **biomass-fueled boilers and heaters**
- Ordinance on the method of **energy consumption management**, energy consumption analysis and reporting method
- Regulation on the method for **contracting energy services** for the public sector, on obligations of energy service providers and customers, contract content and budgetary monitoring of energy services for public sector customers
Implementation: energy renovation of buildings in the Republic of Croatia

**EPBD, EED**
**ZUKE/ZEnU**
**NEEAP**

- Programme of energy renovation of public sector buildings 2014-2015
- Programme of energy renovation of family houses 2014-2020
- Programme of energy renovation of multi-dwelling buildings 2014-2020
- Programme of energy renovation of commercial buildings 2014-2020
- Plan for increasing the number of nearly zero-energy buildings
- Long-term strategy for mobilising investment in the renovation of the national building stock

Thank you for your attention!

Ministry of Construction and Physical Planning
www.mgipu.hr
energetska.ucinkovitost@mgipu.hr