Ukraine
Name: Volodymyr Buchyk

ITS Combined Event on the Benefits and Requirements of the EU Directive on Energy Performance in Buildings  RWP.08
Copenhagen, Denmark, 14-18 December 2015

BUILDING PARTNERSHIPS FOR ENERGY SECURITY

www.inogate.org
Responsible authorities

Ministry of Regional Development, Construction and Utilities of Ukraine

State Agency on Energy Efficiency and Energy Saving of Ukraine

Ministry of Energy and Coal Industry of Ukraine
Residential energy consumption is 2-fold higher than in EU

Energy efficiency map of heat and hot water consumption (2013), Gcal/m²

Average energy consumption in residential buildings - 267 kWh/m²;
In public buildings - 130-250 kWh/m²

¹EU countries with similar climate conditions (Germany, Austria, Sweden)

Source: Energy Efficiency Monitoring for Ukraine (2015) funded by UNDP and based on IEA methodology
The existing system of norms and standards in the field of energy performance of buildings meets the EU requirements

**SCN B.1.2-11:2008**
Basic requirements to buildings and facilities. Energy Saving.

**SCN B.2.6-31:2006**
Thermal insulation of buildings

**SCN B.2.5-67:2013**
Heating, ventilation and air conditioning

**Norms and standards for building thermal insulation designs**

**Standards and methods of energy performance evaluation**

**Standards and methods of thermal performance evaluation**

**SSTU Б А.2.2-8:2010**
(section of the project "Energy Efficiency")

**SSTU-Н Б В.1.1-27:2010**
(Climatology)

**Standards for energy efficiency of engineering systems**

**Standards and methods for thermal performance testing**

**Energy performance class of a building, kWh/m²**
(more than 4 floors)

<table>
<thead>
<tr>
<th>Class</th>
<th>Requirement</th>
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<tbody>
<tr>
<td>A</td>
<td>≤ 17,5-27,5</td>
</tr>
<tr>
<td>B</td>
<td>≤ 31,5-49,5</td>
</tr>
<tr>
<td>C</td>
<td>≤ 37,65-57,75</td>
</tr>
<tr>
<td>D</td>
<td>≤ 43,75-68,75</td>
</tr>
<tr>
<td>E</td>
<td>≤ 61,25-96,25</td>
</tr>
<tr>
<td>F</td>
<td>&gt; 96,25</td>
</tr>
<tr>
<td>G</td>
<td>--</td>
</tr>
</tbody>
</table>

**$E_{max}$ for low-rise residential buildings, kWh/m²**

<table>
<thead>
<tr>
<th>Numbe of floors</th>
<th>Value $E_{max}$, kWh/m², for temperature zones of Ukraine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>1</td>
<td>$600 \times F_h^{1/4}$</td>
</tr>
<tr>
<td>2 - 3</td>
<td>$470 \times F_h^{1/4}$</td>
</tr>
</tbody>
</table>

Fₜ – heating area of a residential building, m²

Control: State construction inspection

Minimum requirement
National Energy Efficiency Action Plan until 2020

Supported by Energy Community Secretariat
Adopted by the government on 25.11.2015

National indicative target of energy saving:

2017 – 5% (-3612 Mtoe)
2020 – 9%* (-6 501 Mtoe)

The share of the sectors with the potential for energy savings – predominant contribution – **household sector**

- **Household sector** [ПРОЦЕНТ] - 50%
- **Transport** [ПРОЦЕНТ]
- **Service** (including public services) - 16%
- **Industry** [ПРОЦЕНТ]

The volume of investments required to implement the National Energy Efficiency Action Plan:

**In the household and the service sector:** 16 billion euro

**In the household and the service sector:** 16 billion euro

* According to the Directive 2006/32/EU methodology the national indicative target is defined as energy savings in 2020 and consists of 9% of the annual average amount of consumption for 2005-2009.
The mechanism of state support for the implementation of energy efficiency measures in buildings

Reimbursing the part of the principal of loans for energy efficiency measures *:
As of today, 115.6 mln. UAH or 4.3 mln. Euro is reimbursed

Monthly dynamics of demand for state support by individuals, condominiums, building co-operatives
(replacement of gas boilers and purchase of energy-efficient equipment / materials)

Implementation Stages

1. Stimulating people to introduce biomass boilers, 20% of the principal of loan (since 01.10.2014)

2. Application of the mechanism for condominiums and private houses for thermal modernisation of houses, 30% and 40% of the principal of loan (since 08.04.2015)

3. Increasing the amount of compensation for recipients of subsidies on utilities, 70% of the principal of loan (since 12.08.2015)

4. Continued implementation of the program in 2016 (the decision of the Government on 11.11.2015 №929)

The share of "energy efficiency loans" attracted only within 7 months is 1.32% of overall balance of loans granted to individuals in national currency**

*Under the State Economic energy efficiency and renewables program for 2010-2015.
**According to operational data of the National Bank of Ukraine "Main trends of monetary market of Ukraine in October 2015"
Introducing a mechanism for energy saving performance contracts in public buildings

Adoption of the Law of Ukraine

№ 327-VIII on 09.04.2015
Regarding the determination of the mechanism of energy services (including the features of government procurement of energy services)

№ 328-VIII on 09.04.2015
Regarding the possibility of public bodies to take long-term commitments for energy services (changes to the Budget Code of Ukraine)

Adopted secondary legislation

Sample Energy Saving Performance Contract

Sample Energy Saving Performance Contract was adopted by the Government on 21.10.2015 (Decision № 845)

The methodology for determining the baseline of energy consumption

Standart was adopted by the decision of the Ministry on 27.07.2015 №178

Next steps

Developing of guidelines for Contracting Parties (on public purchasing procedures etc.)

Information Campaign (I-II quarter 2016)

Adapted methodology developed together with the experts of USAID and the public
Draft Law
«On Energy Performance of Buildings»

- Defining basic principles of state policy in the energy performance of buildings;

- Setting order and conditions for defining the energy performance of building, the minimum energy performance requirements;

- Definition of the organizational and legal basis of energy performance certification;

- Establishment of common principles of professional activity and information support in the energy performance of buildings;

- The introduction of financial mechanisms for the implementation of energy efficiency measures in buildings.
Key barriers and challenges

- The absence of basic law and incomplete secondary regulatory framework;
- Lack of financial instruments to stimulate energy efficiency of building;
- The lack of a complete commercial metering of energy resources (e.g. heat energy, hot water);
- Low awareness of owners of buildings (public, businesses, budgetary institutions) about the potential of energy savings and energy efficiency opportunities.
Next steps

✓ Adoption of the Law «On Energy Performance of Buildings» and relevant secondary legislation;

✓ Expansion of the state support program stimulating the implementation of energy efficiency measures in buildings;

✓ Creation of Energy Efficiency Fund;

✓ The adoption of the law on mandatory commercial metering of energy resources;

✓ Conducting extensive awareness - raising campaigns about the potential and possibilities of improving energy efficiency in buildings.
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