



State Agency on Energy Efficiency and
Energy Saving of Ukraine

NATIONAL ENERGY EFFICIENCY ACTION PLAN IMPLEMENTATION: experience of Ukraine



Ihor HOROVYKH,
Deputy Head of Strategic Development Department

*Vienna (10th EECG Meeting)
10.03.2016*

National Energy Policy Planning under implementation of Energy Community acquis

Renewable Energy Directive



National Renewable Energy
Action Plan

Energy Services Directive



National Energy Efficiency
Action Plan

approved by

Government Resolutions

As of Oct.1, 2014 № 902-p

As of Nov. 25, 2015 № 1228-p



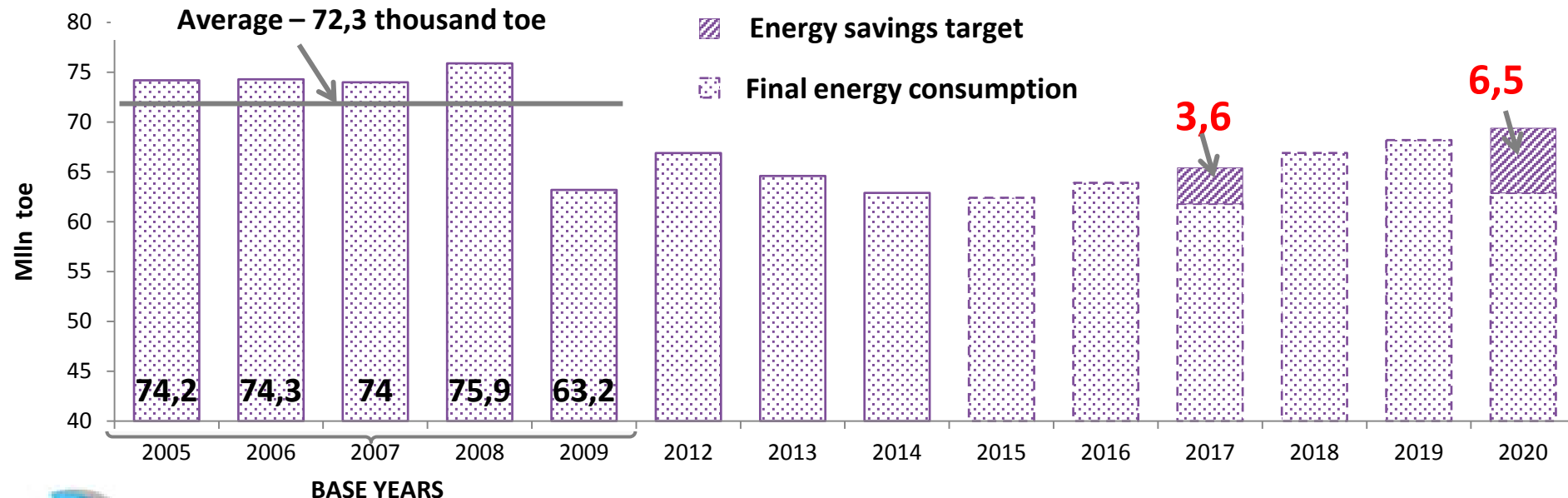
National Indicative Target

For this NEEAP TIMES-Ukraine model was used

The main target of NEEAP –

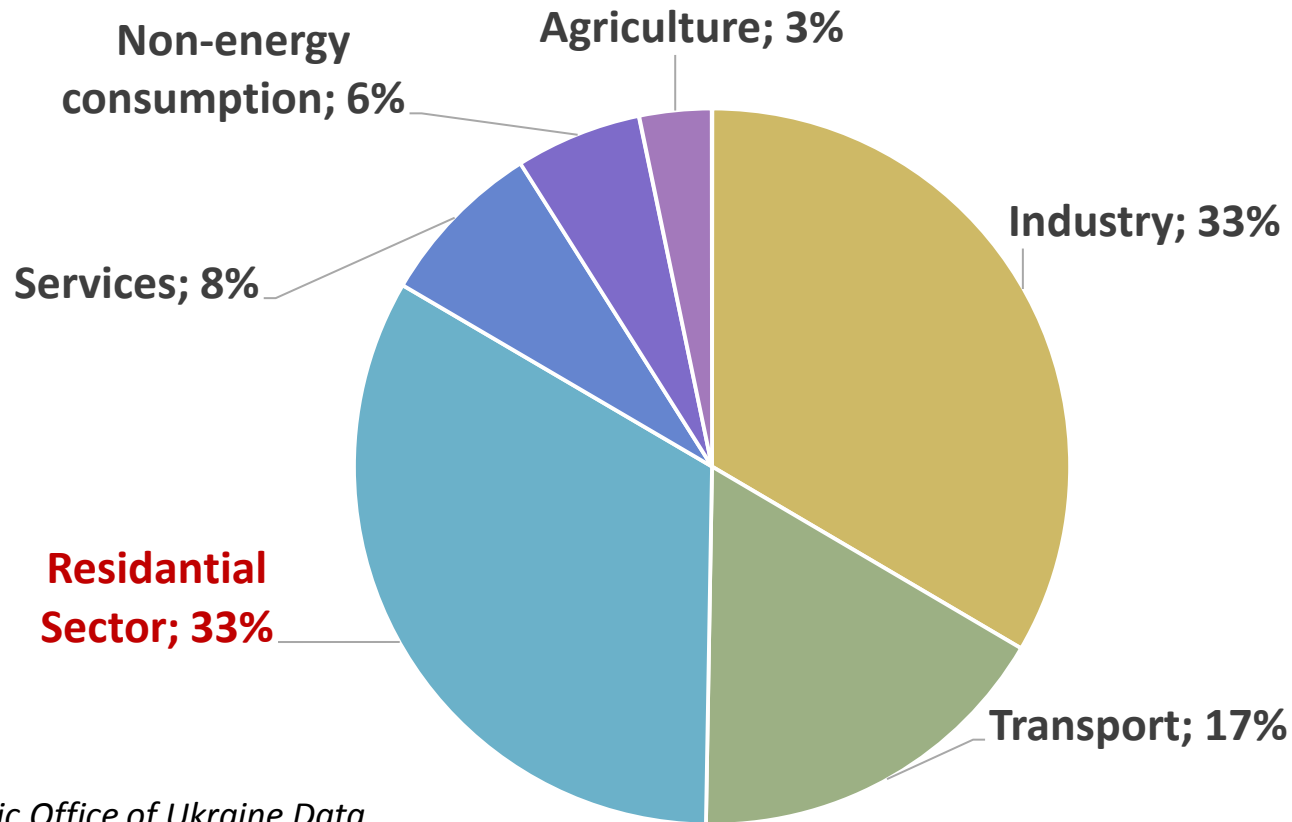
reduction of final energy consumption by **9%** in 2020 (6.5 mln. toe)
intermediate energy savings target of **5%** in 2017 (3,6 mln. toe)

NEEAP complies with “Ukraine-2020” Strategy and State Regional Development Strategy



National Energy Balance-2014

Structure of final energy consumption



State Statistic Office of Ukraine Data



State Agency on Energy Efficiency and
Energy Saving of Ukraine

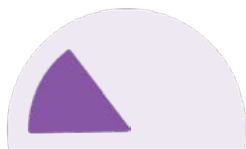
National Indicative Targets Allocated to 4 Main Sectors



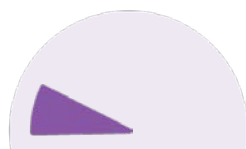
3226 ktoe (50%) Residential Sector



1610 ktoe (25%) Industry (+Agriculture)



1041 ktoe (16%) Services



624 ktoe (9%) Transport

Estimated Investment Needs: **€35 billion**



Energy Savings of Every Proposed Energy Efficiency Improvement Measure Were Also Estimated

Residential	Industry
<ul style="list-style-type: none"> ✓ thermal modernization of buildings, financial support for households and creation of Energy Efficiency Fund; ✓ 100% metering and billing; ✓ energy audits and certification schemes; ✓ energy labeling; ✓ adaptation of building regulations, building codes and standards according to the requirements of the European legislation etc. 	<ul style="list-style-type: none"> ✓ implementation of energy efficiency measures incl. via EPC; ✓ energy audit and energy management systems; ✓ energy labelling; ✓ eco-design; ✓ adoption of incentive tariff (RAB-regulation); ✓ unbundling of natural monopolies in the heat supply etc.
Services	Transport
<ul style="list-style-type: none"> ✓ thermal modernization of public buildings with involvement of energy service companies (energy performance contracts); ✓ implementation of energy monitoring and energy management; ✓ energy efficiency criteria in public procurement procedures; ✓ Review of building codes and standards etc. 	<ul style="list-style-type: none"> ✓ Optimizing the structure of passenger and freight traffic in cities; ✓ Adaptation of fuel standards and its technologies of use to European standards; ✓ Public and private transport fleet renovation; ✓ Promotion and supporting of bicycles and conducting Car-free days etc.

The most important horizontal measure - **conducting of awareness campaigns in EE**



EE Policy Focuses on Buildings



Residential buildings

Public entities

Multi-apartment

Individual

Number of buildings

≈ 80 thousand

≈ 6,5 million

≈ 100 thousand

Investment needs

*≈ from 48.5 to 86.9
bln. dollars. USA**

*≈ from 4.2 to 8.5
bln. dollars. USA**

POTENTIAL ANNUAL GAS SAVINGS

8 bln m3

700 mln m3

*Depending on the level of thermomodernization

State Support Mechanism for Residential Sector introduced in 2015

Partial reimbursement of loans for energy efficiency measures



20% - for households (apartments and individual houses) for gas boilers replacement;

30% - for households (apartments and individual houses) for energy efficiency measures;

40% - for condominiums (Homeowners Associations) for energy efficiency measures;

70% - for recipients of Housing and Utility subsidies*



SAEE reimburses only EE materials and equipment (excl. installation cost and other expenditures)

**As for 01.01.2016 5,5 mln households in Ukraine subsidized (according to Ministry of social policy)*

State Agency on Energy Efficiency and Energy Saving of Ukraine

First Successful Cases of State Program for Residential Sector



In 2015:

In 2016:

Attracted loans: 80 thousand with amount of 1.3 billion UAH (20% - recipients of HUS subsidies);
206 loans attracted by HOAs.
The share of "energy efficiency loans" attracted only within 7 months is 1.32% of overall balance of loans for natural persons

Approved state budget expenditure: 900 million UAH (~30 mln Euro)

Continue to involve municipalities in HH Support Schemes (120 regional programs are under preparation)

State expenditure: 300 million UAH

“Bottom-Up” Methodology for Monitoring and Verification of State Program is under preparation (with USAID and IFC support) should be used for NEEAP’s M&V



Public Buildings: Legislative Base Creation for Energy Performance Contracting

Adopted Laws of Ukraine

№ 327-VIII as of 09.04.2015

On EPC public procurement selection criteria - not the lowest price but NPV of ESCO-project

№ 328-VIII as of 09.04.2015

On amendments to the Budgetary Code long term (up to 10 years instead of 1 year) budget obligations

Development of Secondary legislation

Model energy performance contract

Methodology for Baseline calculation

MoF order

MoF order

MoF order

Government resolution as of 21.10.2015 № 845

Building standard approved by the Minregion 27.07.2015 №178

Energy Performance Contracting: Challenges and Plans

Main Challenges:

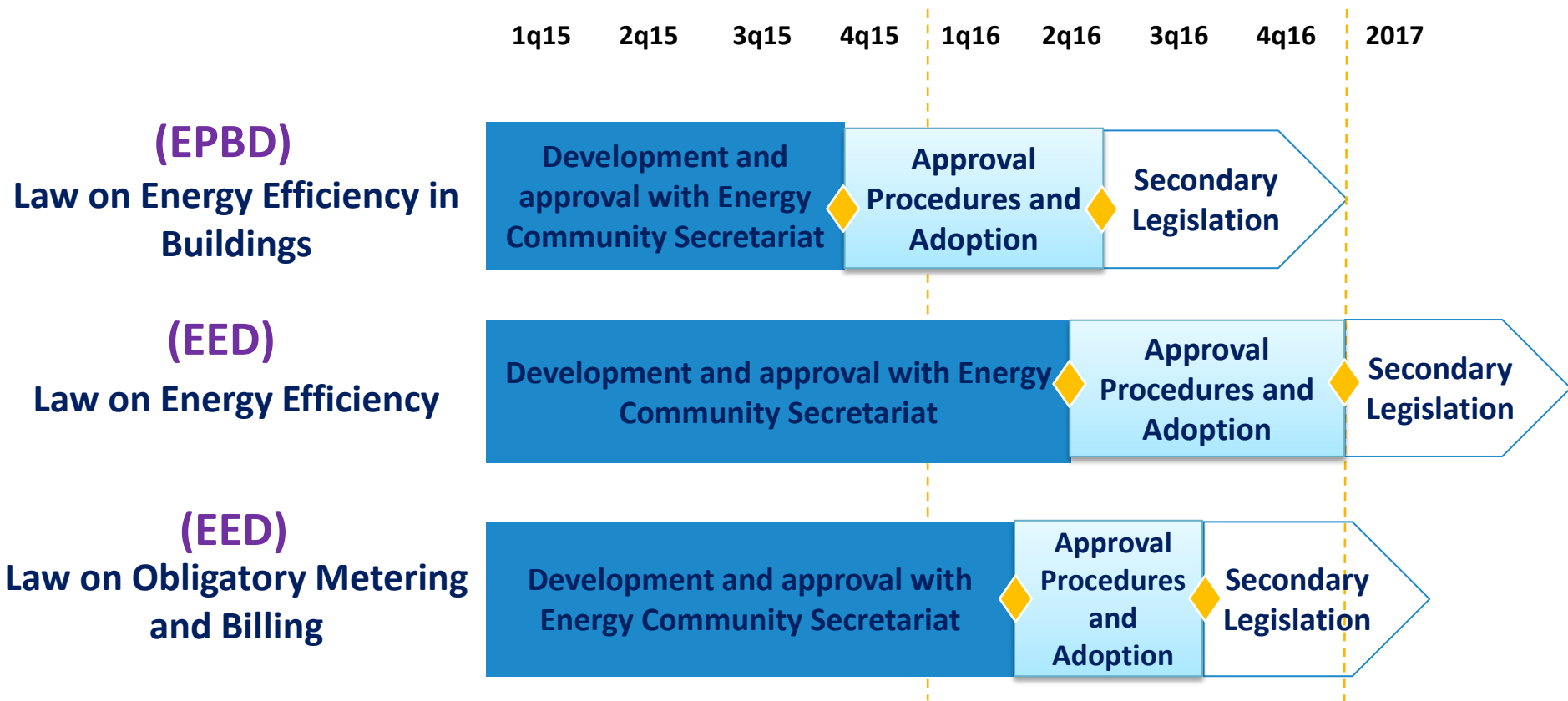
- Adoption in Jan. 2016 of a new Law on Public Procurement (comes into force since Aug.2016): Law № 327-VIII as of 09.04.2015 “On EPC” should be amended;
- Tariff decrease risk for ESCOs;
- Low Capacity and Awareness.

Plans:

- Implementation of 3-4 pilot projects in Kyiv and Dnipropertovsk region till August-2016 (tenders are under preparations);
- Development of Guidelines for EPC tendering procedures and taxation for Contracting Parties;
- Conducting of National Awareness Campaign.



Implementation of Energy Community Acquis in 2016



IFIs Main Initiatives in Energy Efficiency within the NEEAP targets in 2016

UREEFF (IQenergy) Project

<http://www.iqenergy.org.ua/>



supporting energy efficiency improvements in **residential sector**. The program was designed by EBRD and is supported by donors in providing technical assistance (sponsored by E5P and SIDA)



UKEEP

<http://www.ukeep.org/>

Ukraine Energy Efficiency Program is a credit facility developed by EBRD, targeting Ukrainian **private companies in all sectors** looking to invest in energy efficiency or renewable energy projects. Donor support is carried out by SIDA, the EU, and Austrian Federal Ministry of Finance.



Public buildings



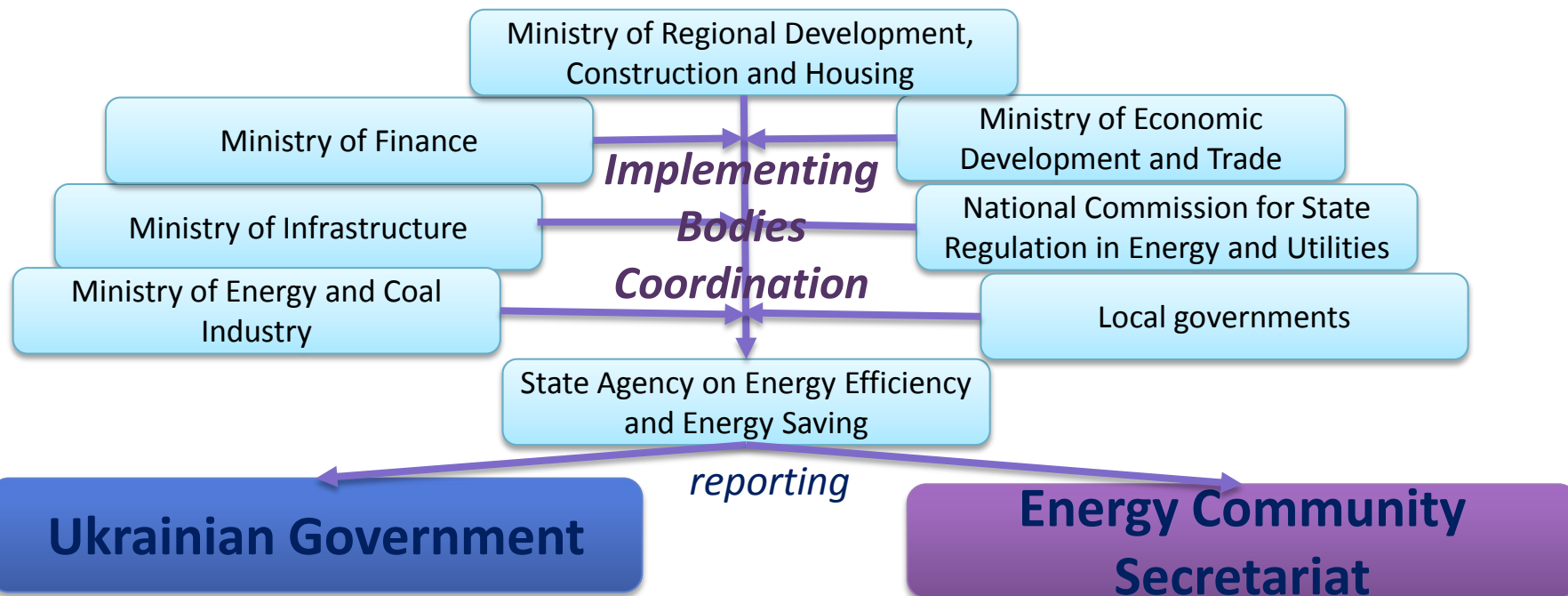
Transport

Establishing of “S2I” Fund (Support of European Commission and Germany)

State Agency on Energy Efficiency and
Energy Saving of Ukraine

System for M&V needs to be established (TD statistics indicators and BU methods)

NEEAP implementation process need institutional capacities for effective monitoring, coordination and support (GIZ project and ECS).



Energy efficiency indicators
are used for social-economic evaluation of regional development
(incl. EE in houses and public buildings)
(government resolution #856 as of 21.10.2015)



State Agency on Energy Efficiency and
Energy Saving of Ukraine

Thank You for Your Attention

Ihor HOROVYKH

www.sae.gov.ua