



CENTRAL ASIA INITIATIVE

# SECTOR COMPETITIVENESS STRATEGY FOR UKRAINE

PHASE III



**OECD  
EURASIA**  
COMPETITIVENESS PROGRAMME

**4<sup>th</sup> Meeting of the Working Group on Renewable Energy and  
Energy Efficiency**

Thursday 16 October 2014



With the financial  
assistance of the  
European Union



# Issues for consideration at today's Working Group meeting and for approval at the Co-ordination Council meeting

FOR APPROVAL

## Issues for decision related to the work on renewable energy

1. Focus on streamlining and standardising the process for biomass investors in Ukraine
2. Focus on improving investment promotion to biomass investors

## Issues for decision related to the work on energy efficiency

1. Focus on policies that promote the establishment of energy savings companies (ESCOs)
2. Focus on improving monitoring and enforcement of energy efficiency policies

## Issues for decision related to the organisation and next steps of the project

1. Establish TWO separate Working Groups for the remainder of the project:
  - a Working Group on Renewable Energy (with a focus on biomass); and
  - a Working Group on Energy Efficiency.

# Agenda

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## 1. Project background and update

2. Suggested project focus for renewable energy

3. Suggested project focus for energy efficiency

4. Presentation: Denmark's experience with energy efficiency

5. Project work plan, key decisions and next steps

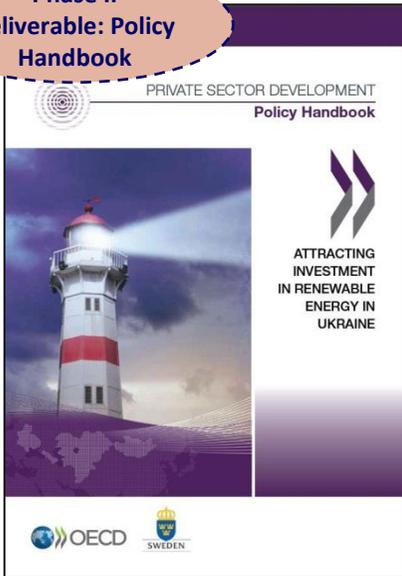
# Phase III of the *Sector Competitiveness Strategy for Ukraine* project builds on the recommendations approved during Phase I and II of the project

**REMINDER**

Phase I deliverable: SCS Report



Phase II deliverable: Policy Handbook



Key priority sectors

**Agribusiness**

Access to finance

**Renewable Energy**

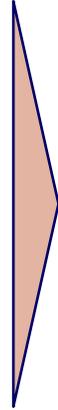
Human capital development

**Energy Efficiency**

Administrative procedures

Investment promotion

Policies for private sector involvement in energy efficiency



**Improved business environment leading to:**

- Greater foreign investment
- Increased competitiveness of private enterprises
- Higher employment across regions
- Higher economic growth

Key policy recommendations

**Improve Administrative Procedures**

**Improve administrative procedures** in co-operation with investment agencies in a pilot region by:

- Defining energy strategy and targets
- Developing an action plan for facilitating permitting procedures
- Developing a roadmap for improving access conditions to the power grid

**Improve Investment Promotion Activities**

**Improve investment promotion activities** in co-operation with investment agencies in a pilot region by:

- Defining a communication strategy along with key messages for potential investors
- Designing more effective communication materials (*e.g.* brochures, website *etc.*) for biomass investors

# Agenda

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## 1. Project background and update

## **2. Suggested project focus for renewable energy**

- a) Streamline, standardise and effectively promote process to biomass investors
- b) Current state and key issues when setting up a biomass plant in Ukraine
- c) Suggested OECD good practices for further elaboration
- d) Next steps for the work on renewable energy

## 3. Suggested project focus for energy efficiency

## 4. Presentation: Denmark's experience with energy efficiency

## 5. Project work plan, key decisions and next steps

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## **WG Question 1:**

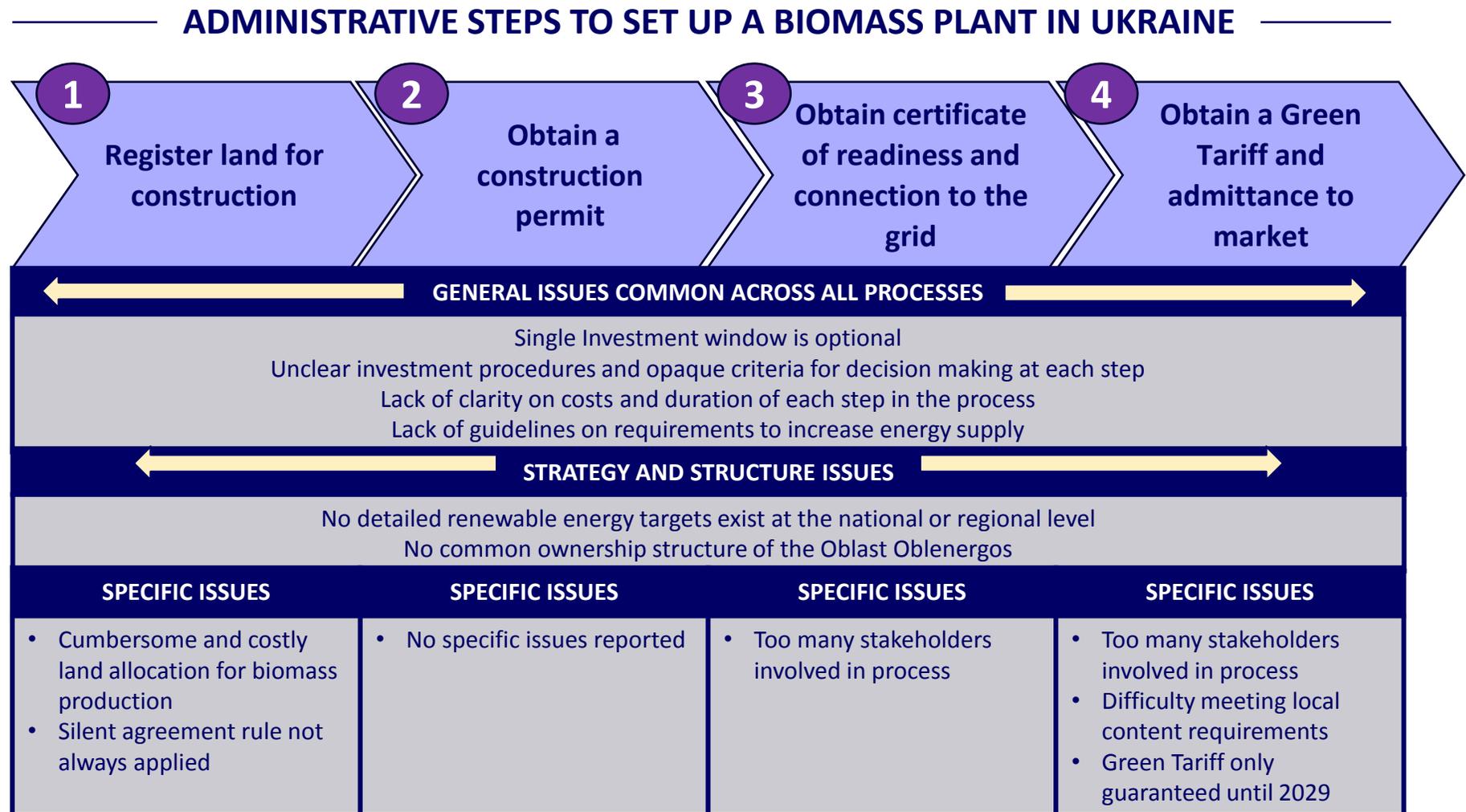
**How to improve administrative policies and procedures to attract biomass investors in Ukraine?**

# To improve administrative procedures for biomass investors, the suggested focus is to streamline and standardise the process and improve investment promotion

| Suggested focus   | Description   | Required next steps  | Case study  |
|---|---|--|---|
| <p><b>1. <u>Streamline and standardise</u></b> the process for setting up a biomass plant</p> | <ul style="list-style-type: none"> <li>• Reduce the number of required documents for submission, the number of steps in the process and the number of agency touch points</li> <li>• Currently <b>28</b> separate documents required throughout the process</li> <li>• Create clear processes, procedures and decision criteria for all applications</li> <li>• Currently <b>10</b> separate government bodies are involved in the process</li> </ul> | <ul style="list-style-type: none"> <li>• Assess OECD good practices</li> <li>• Conduct gap analysis</li> <li>• Identify which process steps and documents to reduce or eliminate in the process</li> <li>• Document a standard process for all investors and government departments to follow</li> <li>• Create an action plan to implement suggested changes</li> </ul> | <ul style="list-style-type: none"> <li>• Germany</li> </ul> |
| <p><b>2. <u>Ensure processes are effectively promoted</u></b> to potential investors</p>      | <ul style="list-style-type: none"> <li>• Ensure all new processes, policies, and decision criteria are communicated in an easy format to businesses</li> <li>• Currently an Invest Ukraine website exists, although <b>no details</b> are provided on the process investors should follow for setting up a biomass plant (a 16-step process has been developed by SAEE, but it is not publicly available)</li> </ul>                                  | <ul style="list-style-type: none"> <li>• Assess OECD good practices</li> <li>• Conduct gap analysis</li> <li>• Create an action plan to improve communication of the new, standardised and streamlined process to biomass investors</li> </ul>   | <ul style="list-style-type: none"> <li>• Turkey</li> </ul>  |

The OECD will provide assistance to develop detailed actions plans for these recommendations and will provide capacity building where required

# Biomass investors face difficulties at every step of the process in Ukraine, especially when seeking to obtain a Green Tariff and admittance to market



Source: OECD (2014), 'Improving Administrative Procedures to Foster Renewable Energy Growth in Ukraine – Piloting the Approach in Sumy Oblast', Preliminary findings of the study visit to Sumy Oblast, OECD Eurasia Competitiveness Programme

# When processes are not streamlined, standardised and promoted effectively, biomass plant developers encounter many barriers, impacting competitiveness

When processes for biomass investors are...

## The problem...

Poorly organised

## The barriers encountered...

- Investors encounter many documents, steps and touch points throughout the process
- Investors encounter unnecessary time delays

When procedures for setting up a biomass plant are...

Unstandardised

- Investors receive different administrative experiences throughout the country
- Procedures are open to local interpretation, creating opportunities for corruption

When processes for biomass investors are...

Poorly promoted

- Investors are not sure where to begin
- Investors must hire brokers and consultancies to apply for permits on their behalf

## The end result...

 **Higher costs for businesses**

 **Reduced competitiveness**

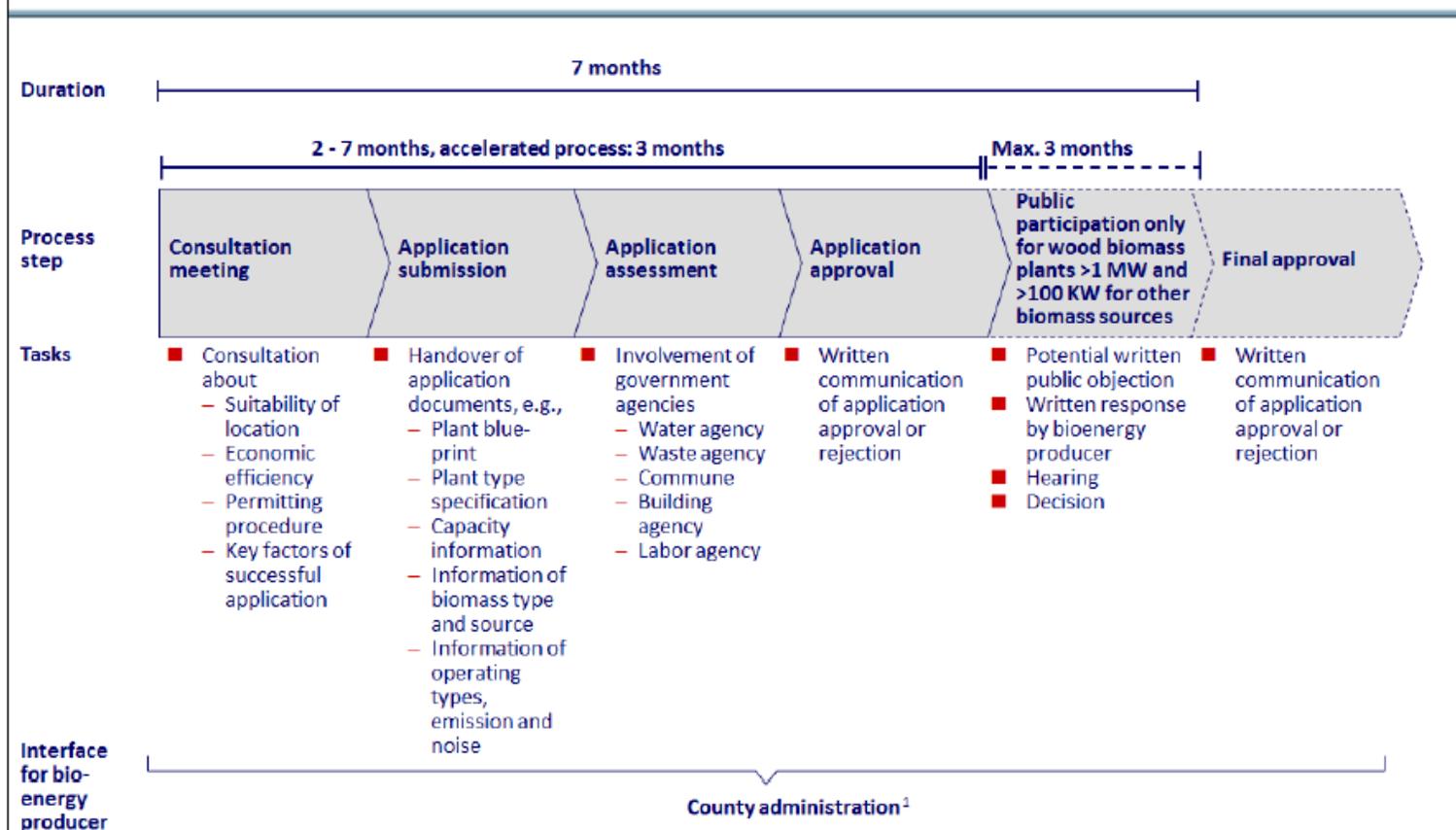
# Germany has one of the simplest set of processes for potential investors to follow in order to set up a biomass plant

**STREAMLINED,  
STANDARDISED PROCESS**

## Description

- The process for approval to set up a biomass plant takes between **2-7 months**
- It involves a total of **5** key documents
- It involves no more than **5** government agencies

## Administrative procedures in Germany for setting up a bioenergy plant



# Turkey's investment website has detailed information for potential investors in renewable energy

**INVESTMENT PROMOTION**

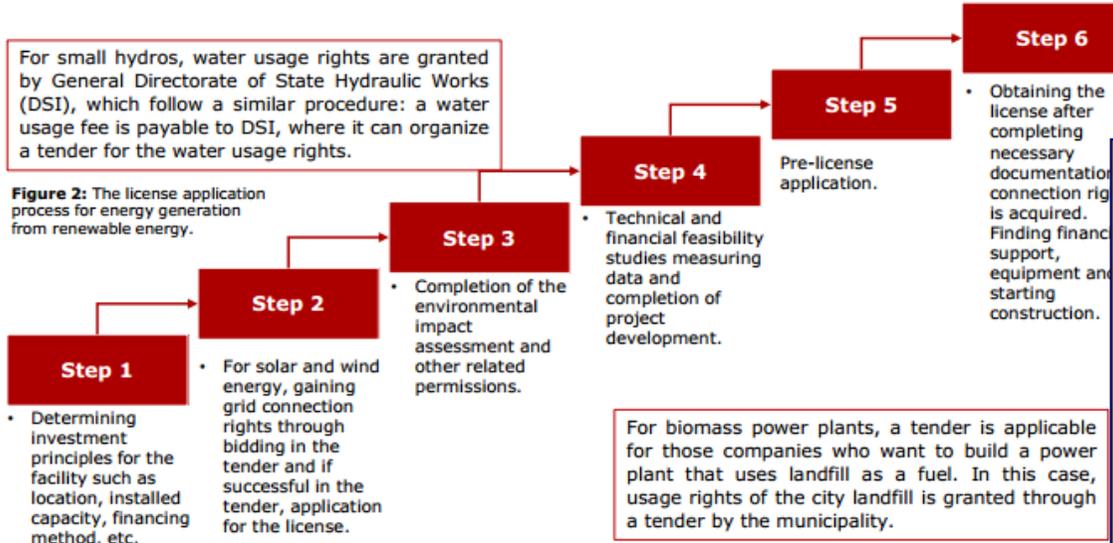
## The licensing procedure for renewable energy generation facilities.

Power plants that have an installed capacity greater than 1 MW are required to obtain a generation license from the Energy Market Regulatory Authority (EMRA). The licensing procedure of some of the renewables differs from others: for solar and wind power plants, grid connection is the most critical step before obtaining a license. The new Electricity Market Law regulates the tender process for grid connection rights. A tender based on a «contribution fee» payable to the Transmission System Operator for the first 3 years following commissioning is mandatory for solar and wind investments whose application cover overlapping or intersecting areas aiming for the same transformatory center.

An easy step-by-step process is included for potential investors

For small hydros, water usage rights are granted by General Directorate of State Hydraulic Works (DSI), which follow a similar procedure: a water usage fee is payable to DSI, where it can organize a tender for the water usage rights.

Figure 2: The license application process for energy generation from renewable energy.



For biomass power plants, a tender is applicable for those companies who want to build a power plant that uses landfill as a fuel. In this case, usage rights of the city landfill is granted through a tender by the municipality.

### B. Public and Private Incentives for Renewable Energy Projects

- i. Incentives Provided by the Ministry of Economy
- ii. Incentives Provided by the Renewable Energy Support Mechanism
- iii. Private Financing Institutions
- iv. The Young and Skilled Labor Force of Turkey

Section A of the PDF download covers these relevant topics

### A. Renewable Energy Policies and Regulations in Turkey

- i. Overview of the Renewable Energy Market and Targets in Turkey
- ii. Licensed and Unlicensed Generation
- iii. Energy Sales Options for Renewable Energy Investors

Government incentives for renewable energy are summarised in Section B of the PDF download

# Along with the two areas of suggested focus, there are many other actions Ukraine can take to improve investment in biomass

FROM SUMY VISIT REPORT

LEGEND: Very low =  Low =  Medium =  High =  Very high = 

| SUGGESTED ACTIONS  | Policy type           | Value of OECD   | Expected Benefit  | Expected Cost   | Effort to Implement   | Ministry/Agency Responsible                |
|--|-----------------------|---|---|---|---|--|
| Lower or eliminate the fee for allocation of land  | Incentives            |    |    |    |    | Agency for Land                            |
| Apply silent agreement rule in all cases   | Regulation            |    |    |    |    | Agency for Investments                     |
| <b>Establish clear processes and communicate widely</b>  | Process and awareness |    |    |    |    | SAEE / Agency for Investments              |
| <b>Create standard process for businesses and communicate widely</b>   | Process and awareness |    |    |    |    | SAEE / Agency for Investments              |
| Establish clear criteria for Green Tariff and publish widely   | Regulation            |    |    |    |    | NERC (replacement)                         |
| Reduce or eliminate the local content requirements   | Regulation            |    |    |    |    | NERC (replacement)                         |
| Consider extending the Green Tariff to 2050  | Incentives            |    |    |    |    | NERC (replacement)                         |
| Make the Single Investment Window mandatory  | Regulation            |    |    |    |    | Agency for Investments                     |
| Create a Customer Service Commitment Charter   | Process and awareness |    |    |    |    | SAEE                                       |
| Establish clear guidelines for producers to increase supply  | Regulation            |    |    |    |    | Ministry of Energy                         |
| Set clear and more realistic targets for renewable energy  | Policy and strategy   |    |    |    |    | Ministry of Economic Development and Trade |
| Establish a clear ownership /governance structure for Oblenergos   | Structural policy     |    |    |    |    | Ministry of Energy                         |
| Update investment promotion strategy with clear value proposition and ensure linkages with regional strategies | Policy and strategy   |  |  |  |  | SAEE / Invest Ukraine                      |
| <b>Improve investor materials and prioritise investor communications along targeted sectors</b>                | Promotion material    |  |  |  |  | SAEE / Invest Ukraine                      |
| Create strategy to collect post-investor feedback  | Investor relations    |  |  |  |  | Invest Ukraine                             |
| Update staff contracts and improve staff training  | Investor relations    |  |  |  |  | Invest Ukraine                             |
| Improve availability of English materials for investors  | Promotion material    |  |  |  |  | Invest Ukraine                             |

PROJECT FOCUS

# Suggested actions to improve specific administrative procedures for investors setting up a biomass plant in Ukraine

FROM SUMY  
VISIT REPORT

| Specific process issues | ISSUES   | SUGGESTED ACTIONS |  |
|-------------------------|--|-------------------|--|
|                         | <p><b>Cumbersome and costly land allocation for growing energy crops and building biomass plants</b></p>   | →                 | <ul style="list-style-type: none"> <li>• Consider reducing the fee for allocation of land per unit of land</li> </ul>  |
|                         | <p><b>The silent agreement rule, which gives investor the right to proceed with construction if they have not heard from authorities within 30 days, is not fully applied.</b> The Single Investment Window or local Bureau may still insist on a land allocation certificate, even though this rule is currently in place</p> | →                 | <ul style="list-style-type: none"> <li>• Apply silent agreement rule in all cases</li> </ul>   |
|                         | <p><b>Too many stakeholders involved in the process.</b> Multiple stakeholders are involved throughout process and decision criteria for granting access is not widely publicised</p>  | →                 | <ul style="list-style-type: none"> <li>• Establish clear processes and procedures and make these widely available, including:                             <ul style="list-style-type: none"> <li>○ Authorities responsible</li> <li>○ Decision criteria</li> </ul> </li> </ul> |
|                         | <p><b>Lack of objective criteria for awarding Green Tariff</b></p> <ul style="list-style-type: none"> <li>○ Fulfilling local content requirements is the only criterion for eligibility</li> </ul> <p><b>Difficulty meeting local content requirements</b></p>   | →                 | <ul style="list-style-type: none"> <li>• Establish clear criteria for deciding whether to award Green Tariff and publish widely</li> <li>• Consider reducing or eliminating the local content requirements for biomass producers</li> </ul>                                    |
|                         | <p><b>Green tariff only guaranteed until 2029.</b> Decisions by investors to build plants are often taken under longer horizon</p>   | →                 | <ul style="list-style-type: none"> <li>• Consider adjusting the timeline of the Green Tariff to 2050</li> </ul>  |

Source: OECD (2014), 'Improving Administrative Procedures to Foster Renewable Energy Growth in Ukraine – Piloting the Approach in Sumy Oblast', Preliminary findings of the study visit to Sumy Oblast, OECD Eurasia Competitiveness Programme

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# Suggested actions to improve the overall process for setting up a biomass plant in Ukraine

FROM SUMY  
VISIT REPORT

|  | ISSUES   |   | SUGGESTED ACTIONS   |
|--|--|---|---|
| General issues common to all processes | <b>Single Investment Window is optional.</b> Many investors still deal with several agencies, increasing risk of corruption  | → | • Make the Single Investment Window mandatory   |
|  | <b>Unclear investment procedures and opaque criteria for decision making at each step.</b> <ul style="list-style-type: none"> <li>• There's no pre-defined process for businesses or public bodies to follow</li> <li>• Perceptions of discretionary decision making and corruption</li> <li>• As a result, plants may be built but not given access to market</li> </ul>                          | → | <ul style="list-style-type: none"> <li>• Create a Customer Service Commitment Charter</li> <li>• Create process charts for businesses and communicate through all existing channels</li> </ul>                  |
|  | <b>Lack of clarity on the costs and the duration of the procedures.</b> Duration and fees are not published for investors  | → | • Create a Service Commitment Charter with clear standards for duration and fees and publish online   |
|  | <b>Requirements to increase the supply of energy.</b> A producer may not be able to increase supply, and decision is on a case-by-case basis   | → | • Establish clear decision guidelines for producers wishing to increase supply  |
| Strategy and Structure Issues          | <b>No renewable energy targets at regional level and national renewable energy targets set are too low and not detailed enough</b> <ul style="list-style-type: none"> <li>• No regional renewable targets defined in the Sumy Strategy 2015</li> <li>• Although there is a National Energy Strategy, the targets set are low and they are not broken down into renewable energy sources</li> </ul> | → | <ul style="list-style-type: none"> <li>• Include in the next strategic planning phase for the region</li> <li>• Set clear and more realistic targets for renewable energy production and consumption</li> </ul> |
|  | <b>No common ownership structure of the Oblast Oblenergos across regions</b> <ul style="list-style-type: none"> <li>• Some are privately-owned while others are publicly-owned</li> <li>• Private ownership increases risk of corruption</li> </ul>  | → | • Establish a clear ownership and governance structure for Oblenergos across regions  |

Source: OECD (2014), 'Improving Administrative Procedures to Foster Renewable Energy Growth in Ukraine – Piloting the Approach in Sumy Oblast', Preliminary findings of the study visit to Sumy Oblast, OECD Eurasia Competitiveness Programme

# Suggested actions to improve investor awareness and satisfaction for setting up a biomass plant in Ukraine

FROM SUMY  
VISIT REPORT

Investment promotion activities

| ISSUES   | SUGGESTED ACTIONS  |
|--|--|
| <p><b>Lack of clear positioning of Sumy Oblast</b></p> <ul style="list-style-type: none"> <li>• No unique value proposition to investors</li> <li>• Materials do not provide overview of region or why invest in Sumy and are not sector-specific</li> </ul> | <ul style="list-style-type: none"> <li>• Summarise the value proposition for investors in the Investment Promotion Strategy and disseminate widely</li> </ul>                |
| <p><b>The National Investment Promotion Strategy is not sufficiently linked to the Oblast regional strategy.</b> The Investment promotion strategy does not mention regional strategy</p>  | <ul style="list-style-type: none"> <li>• Update investment promotion strategy and ensure linkages with regional strategies</li> </ul>  |
| <p><b>Lack of proactive investor communications</b></p> <ul style="list-style-type: none"> <li>• No prioritising of investor communication or efforts</li> <li>• No information about Sumy on Invest Ukraine website</li> </ul>                              | <ul style="list-style-type: none"> <li>• Improve investor materials and prioritise investor communications along targeted sectors – biomass and energy efficiency</li> </ul> |
| <p><b>No investment aftercare</b><br/>No standardised approach to collect feedback from investors</p>  | <ul style="list-style-type: none"> <li>• Create focus groups, surveys and informal forums to collect post-investor feedback</li> </ul>                                       |
| <p><b>No fully mandated nor sufficiently trained employees to carry out the full set of activities</b><br/>Staff are not trained to carry out the full set of activities required for comprehensive investment promotion</p>                                 | <ul style="list-style-type: none"> <li>• Update staff contracts and improve staff training</li> </ul>  |
| <p><b>Investment promotion materials only partially available in English</b></p>   | <ul style="list-style-type: none"> <li>• Improve availability of English materials for investors</li> </ul>  |

Source: OECD (2014), 'Improving Administrative Procedures to Foster Renewable Energy Growth in Ukraine – Piloting the Approach in Sumy Oblast', Preliminary findings of the study visit to Sumy Oblast, OECD Eurasia Competitiveness Programme

# For the two suggested areas of focus, here is a detailed view on the next steps of the project

| Process        | Launch of co-operation with Sumy Oblast   | Analysis of Investment practices in Sumy Oblast  | Identification of key barriers to investment   | Suggestion of simplified process steps and documents   | Amending of investment promotion approach  | Reinforcement of IPA capacities  |
|----------------|---|--|--|--|--|--|
| Details        | <ul style="list-style-type: none"> <li>• Launch of co-operation with Oblast Administration and regional IPA</li> <li>• Involvement of local expert</li> <li>• Field visit to Sumy Oblast</li> </ul> | <ul style="list-style-type: none"> <li>• Analysis of - administrative procedures for renewable energy investors</li> <li>- investment promotion activities (<i>e.g.</i> communication strategy)</li> </ul> | <ul style="list-style-type: none"> <li>• Elaboration of policy actions</li> <li>• Identification of OECD good practices</li> </ul> | <ul style="list-style-type: none"> <li>• Strengthening of institutional capacities</li> <li>• Suggested improvements for processes</li> <li>• Analysis of national policy framework</li> </ul> | <ul style="list-style-type: none"> <li>• Redesign of roles and responsibilities</li> <li>• Suggested improvements for investment promotion activities</li> <li>• Embedding change</li> </ul> | <ul style="list-style-type: none"> <li>• Capacity building</li> </ul>  |
| Responsibility | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> </ul>  | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> </ul>   | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> </ul>   | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> <li>• Ministry of Economic Development and Trade</li> </ul>   | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> <li>• Ministry of Economic Development and Trade</li> </ul>   | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> <li>• Ministry of Economic Development and Trade</li> </ul> |

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## Issues for decision related to the work on renewable energy

1. Focus on streamlining and standardising the process for biomass investors in Ukraine
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## Issues for decision related to the work on energy efficiency

1. Focus on policies that promote the establishment of energy savings companies (ESCOs)
2. Focus on improving monitoring and enforcement of energy efficiency policies

## Issues for decision related to the organisation and next steps of the project

1. Establish TWO separate Working Groups for the remainder of the project:
  - a Working Group on Renewable Energy (with a focus on biomass); and
  - a Working Group on Energy Efficiency.

# Next steps

## Working Group members

## OECD

### Immediate actions

- Provide the OECD with any further feedback on the preliminary findings from the Study Visit to Sumy Oblast

- Revise recommended policy areas based on Working Group feedback
- Revise draft report on the study visit to Sumy Region

### By December 2014

- Suggest additional members to invite to the Working Group on Renewable Energy
- All indicated Ministries/Agencies to analyse appropriateness of the suggested solutions presented and provide written feedback to the OECD

- Finalise membership for the Working Group on Renewable Energy
- Incorporate feedback from Ministries/Agencies into OECD analysis

### By the next WG meeting in February 2015

- Provide the OECD with any further information required

- Present detailed recommendations for the suggested actions to the Working Group
- Present final report on the study visit to Sumy Region

# Agenda

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1. Project background and update

2. Suggested project focus for renewable energy

### **3. Suggested project focus for energy efficiency**

- a) Encourage the private sector to implement energy efficiency measures in Ukraine
- b) Current state of the energy efficiency sector in Ukraine
- c) Suggested OECD good practices for further elaboration
- d) Next steps for the work on energy efficiency

4. Presentation: Denmark's experience with energy efficiency

5. Project work plan, key decisions and next steps

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## **WG Question 2:**

**How to improve policies that promote energy efficiency in Ukraine?**

# The IEA (a sister organisation of OECD) suggests 25 policy areas to promote the market for energy efficiency, covering specific sectors and economy-wide policies

**SUGGESTED  
FOCUS FOR THE  
PROJECT**

| Cross-Sector Policy Responses in IEA Member Countries  |   |  |  |  |
|--|---|--|--|--|
| <ul style="list-style-type: none"> <li>Strategies and action plans</li> <li>Policies that encourage investment in energy efficiency</li> <li>Monitoring and enforcement of energy efficiency policies</li> <li>Competitive energy markets with appropriate regulation</li> <li>Data collection and indicators</li> </ul> |   |  |  |  |
| Buildings  | Appliances & Equipment  | Lighting   | Transport  | Industry   |
| <ul style="list-style-type: none"> <li>Mandatory building codes</li> <li>Net zero energy consumption in buildings</li> <li>Improved energy efficiency in existing buildings</li> <li>Building energy labels or certificates</li> <li>Energy performance of building components and systems</li> </ul>                    | <ul style="list-style-type: none"> <li>Mandatory MEPS and labels</li> <li>Test standards and measurement protocols</li> <li>Market transformation policies</li> </ul> | <ul style="list-style-type: none"> <li>Phase-out energy inefficient lighting products</li> <li>Energy-efficiency lighting systems</li> </ul> | <ul style="list-style-type: none"> <li>Mandatory vehicle fuel-efficiency standards</li> <li>Measures to improve vehicle fuel efficiency</li> <li>Fuel-efficiency non-engine components</li> <li>Eco-driving</li> <li>Transport system deliver</li> </ul> | <ul style="list-style-type: none"> <li>Require adherence to energy management protocols</li> <li>Require minimum energy performance standards for equipment</li> <li>Energy efficiency services for SMEs</li> <li>Put in place complementary policies to support industrial energy efficiency</li> </ul> |

# Of all five cross-sector policy responses suggested for IEA member countries, two are suggested for further development as part of the project

| SUGGESTED ACTIONS  | Current status in Ukraine   | Expected Benefit   | Expected Cost  | Effort to Implement                                      | Initial Assessment |
|--|---|--|--|--|--------------------|
| <ul style="list-style-type: none"> <li>Strategies and action plans for energy efficiency</li> </ul>        | <ul style="list-style-type: none"> <li>A National Action Plan has been drafted</li> </ul> | <ul style="list-style-type: none"> <li>Medium</li> </ul> | <ul style="list-style-type: none"> <li>Low</li> </ul>  | <ul style="list-style-type: none"> <li>Medium</li> </ul> | ✗                  |
| <ul style="list-style-type: none"> <li>Policies that encourage investment in energy efficiency</li> </ul>  | <ul style="list-style-type: none"> <li>Limited stage of development</li> </ul>            | <ul style="list-style-type: none"> <li>High</li> </ul>   | <ul style="list-style-type: none"> <li>Low</li> </ul>  | <ul style="list-style-type: none"> <li>Low</li> </ul>    | ✓                  |
| <ul style="list-style-type: none"> <li>Monitoring and enforcement of energy efficiency policies</li> </ul> | <ul style="list-style-type: none"> <li>Limited stage of development</li> </ul>            | <ul style="list-style-type: none"> <li>High</li> </ul>   | <ul style="list-style-type: none"> <li>Low</li> </ul>  | <ul style="list-style-type: none"> <li>Low</li> </ul>    | ✓                  |
| <ul style="list-style-type: none"> <li>Competitive energy markets with appropriate regulation</li> </ul>   | <ul style="list-style-type: none"> <li>Proposed plans for privatisation</li> </ul>        | <ul style="list-style-type: none"> <li>Low</li> </ul>    | <ul style="list-style-type: none"> <li>High</li> </ul> | <ul style="list-style-type: none"> <li>High</li> </ul>   | ✗                  |
| <ul style="list-style-type: none"> <li>Data collection and indicators</li> </ul>                           | <ul style="list-style-type: none"> <li>Limited stage of development</li> </ul>            | <ul style="list-style-type: none"> <li>High</li> </ul>   | <ul style="list-style-type: none"> <li>High</li> </ul> | <ul style="list-style-type: none"> <li>High</li> </ul>   | ✗                  |

**SUGGESTED PROJECT FOCUS**

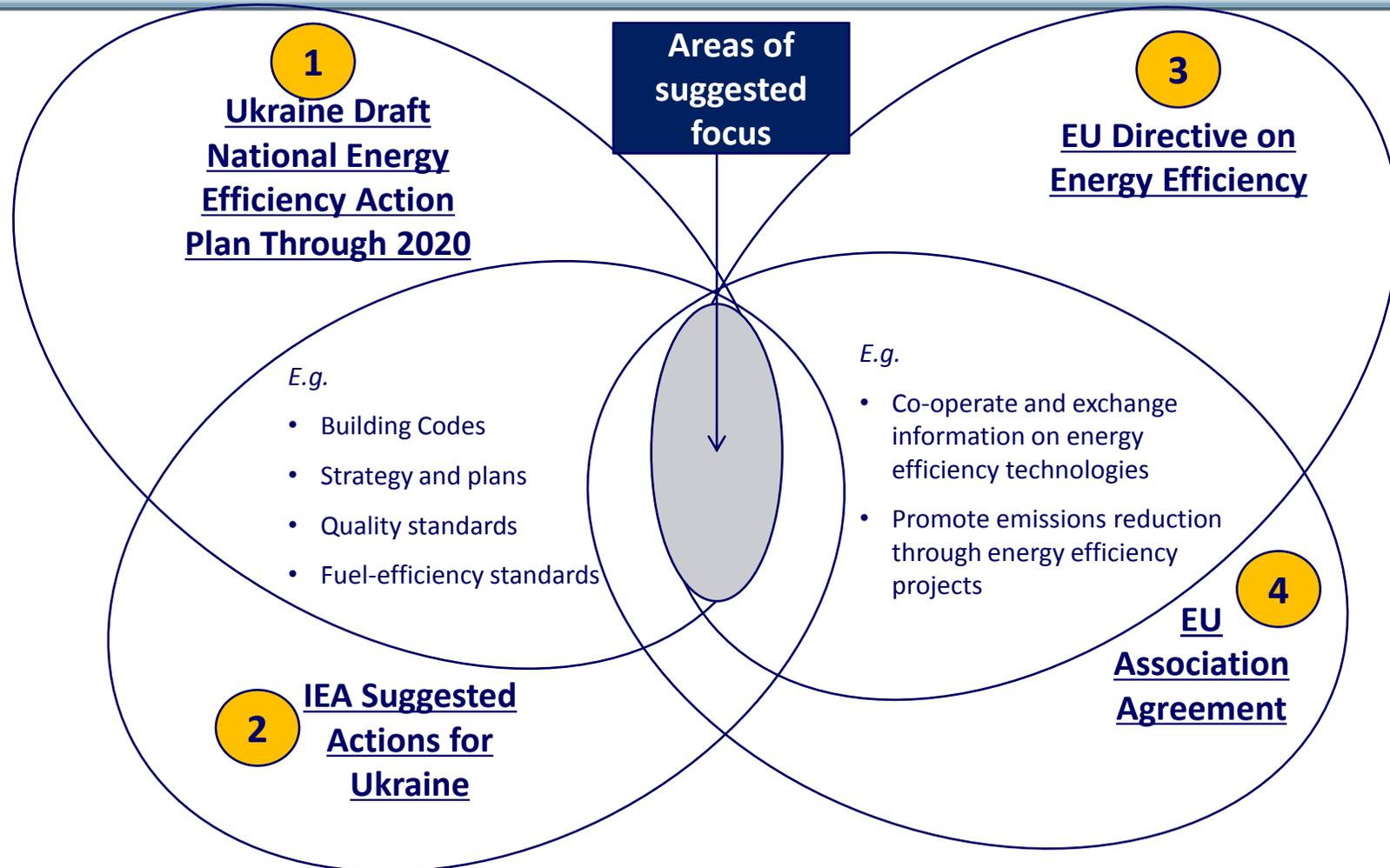
Source: International Energy Agency (IEA) (2011), *25 Energy Efficiency Policy Recommendations: 2011 Update*. IEA, Paris.

# To improve energy efficiency, focus on encouraging the private sector to implement energy efficiency measures in Ukraine

| Suggested Focus   | Policy Tools   | Details   | Current Status  | Next Steps  | OECD Country  |
|---|--|---|---|---|---|
| Encourage the private sector to implement energy efficiency measures in Ukraine | 1. Policies that promote the establishment of energy savings companies (ESCOs) | <ul style="list-style-type: none"> <li>Tax and other incentives, regulations, government mandates <i>etc.</i></li> </ul>    | <ul style="list-style-type: none"> <li>Currently there is <b>no</b> policy framework to encourage the growth of ESCOs in Ukraine</li> </ul>         | <ul style="list-style-type: none"> <li>Provide current status of policy framework to OECD</li> <li>Analyse key features of OECD country policies for ESCOs</li> <li>Benchmark against OECD good practices</li> <li>Gap analysis</li> <li>Recommendations</li> </ul> | <ul style="list-style-type: none"> <li>USA</li> </ul>     |
|   | 2. Monitoring and enforcement of energy efficiency policies                    | <ul style="list-style-type: none"> <li>Policies to effectively enforce energy efficiency policies for businesses</li> </ul> | <ul style="list-style-type: none"> <li>Currently there is <b>no</b> overall framework to monitor or enforce energy efficiency in Ukraine</li> </ul> | <ul style="list-style-type: none"> <li>Provide current and future policies for the sector to the OECD</li> <li>Analyse key features of monitoring and enforcement for energy efficiency in OECD countries</li> <li>Gap analysis</li> <li>Recommendations</li> </ul> | <ul style="list-style-type: none"> <li>Germany</li> </ul> |

The OECD will provide assistance to develop **detailed actions plans** for these recommendations and will provide **capacity building** where required

# The suggested focus for the project strikes a good balance given the various energy efficiency priorities for Ukraine

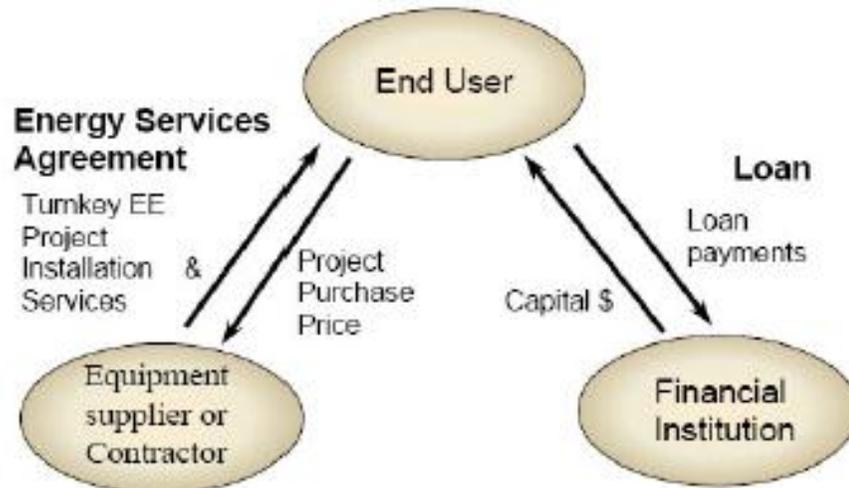


Sources: European Union (EU), Directive 2006/32/EC of the European Parliament and of the European Council; of 5 April 2006; on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC; website accessed on 29 September 2014: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0032>; European Union (EU), website accessed 29 September 2014: [http://eeas.europa.eu/ukraine/assoagreement/assoagreement-2013\\_en.htm](http://eeas.europa.eu/ukraine/assoagreement/assoagreement-2013_en.htm); International Energy Agency (IEA) (2012), *Ukraine 2012: Energy Policies Beyond IEA Countries*. IEA, Paris; Ukraine legislation website, accessed 28 July 2014: <http://zakon4.rada.gov.ua/laws/show/74/94-%D0%B2%D1%80>

# ESCO's are specialised service providers of fundraising, engineering, and risk management to companies implementing energy savings projects

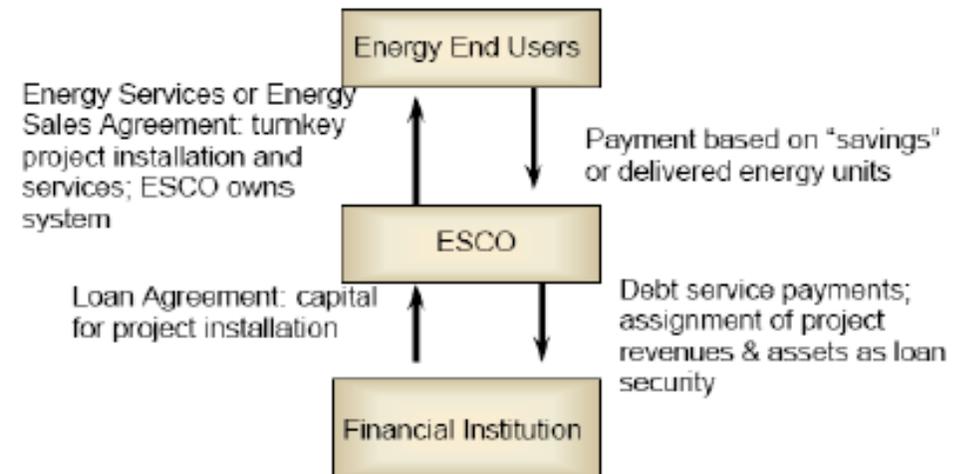
## 1. ESCO policy framework

**Model 1: where the End User acts as borrower and takes on more of the risk**



**Model 2: where the ESCO acts as borrower and takes on more of the risk**

### Typical Performance Contract Structure



- ESCO's provide companies with certainty on the recoument of investments
- The ESCO's income is derived from the money a client saves as a result of implementing energy efficiency measures

Source: European Commission (2013), Current Status and Perspectives of ESCO Market in Ukraine: Model and Mechanisms for Financing Energy Efficiency in Buildings, Workshop on the Policies and Scheme for Financing Energy Efficiency in Buildings, Belgrade, 18-19 June 2013.

# There are several ESCO's already operating in Ukraine; however, there is no overarching framework to encourage the development of the sector

## 1. ESCO policy framework

### Current ESCO's in Ukraine

- Approximately currently 30 ESCO's exist in Ukraine, mostly focused on residential and public buildings
- UkrESCO is a leading one focused on EE within enterprises in Ukraine
- Since 2001, more than 100 ESCO projects implemented in buildings in Ukraine, amounting to approximately 20 million euros

### Current regulatory framework for ESCOs

- No specific laws exist which relate to the framework in which ESCOs operate
- EBRD project in 2011 on ESCOs
- The regulatory framework for energy efficiency in Ukraine includes 7 laws, more than 250 regulations and normative documents, and 50 national and 60 regional standards

# Current status: Ukraine's preeminent policy for energy efficiency, the Law on Energy Savings, lacks any meaningful monitoring aspect for the sector

## 2. Monitoring and enforcement

- The Law on Energy Savings sets out the legal, economic, social and ecological basis for energy conservation for all companies, associations and organisations located on the territory of Ukraine
- The Law:
  - ✓ Outlines the main principles for state policy in energy conservation;
  - ✓ Establishes norms, standards and the powers and functions of the State Agency for Energy Efficiency;
  - ✓ Sets out a framework for international co-operation on energy savings initiatives.
- However, the following articles related to energy-efficiency were **deleted** from the Law, in 2012:

| Deleted article   | Title of article  | Purpose of article  |
|---|---|---|
|  <b>Article 17</b>   | Economic sanctions for prodigal spending of fuel and energy resources | This article gave powers to the state to fine companies for wasteful spending on energy resources or for not executing recommendations from state bodies concerning energy savings.   |
|  <b>Article 25</b>   | Task of control in the sphere of energy saving                        | This article gave powers to state bodies to control the sector to ensure adherence to norms in the legislation on energy saving.  |
|  <b>Article 26</b> | State control in the sphere of energy-saving                          | This article gave state-control of energy savings to the State Inspectorate on Energy-Saving, in accordance with prescribed procedures. The article also defines the scope of enterprises which fall under the control of the State Inspectorate. |
|  <b>Article 27</b> | Responsibility for violating legislation on energy-saving             | This article outlined the cases in which companies would be held responsible violated, not complying or not fulfilling requirements laid out in the Law on Energy Savings.  |

Source: Ukraine legislation website, accessed 28 July 2014: <http://zakon4.rada.gov.ua/laws/show/74/94-%D0%B2%D1%80>

# Germany and the US are two good practice case studies

## Ukraine could learn from in order to improve energy efficiency

| Suggested Action  | Case Study                               | Key Features  |
|---|--|---|
| <p><b>1</b></p> <p><b>Policies that promote the establishment of energy savings companies (ESCOs)</b></p> | <p><b>USA – Department of Energy</b></p> | <ul style="list-style-type: none"> <li>• A dedicated section in the Energy Independence and Security Act (2007) outlines the policy framework for energy savings service providers</li> <li>• Section 432 of the Act:               <ul style="list-style-type: none"> <li>○ Defines the role, scope, costs and benefits of ESCO’s (“Resource Efficiency Managers”) for State buildings and businesses</li> <li>○ Provides Federal step-by-step guidance to businesses and Agencies wishing to contract Resources Efficiency Managers</li> <li>○ Provides minimum requirements for audit reports, <i>e.g.</i> project overview and technical assessment; measuring, monitoring and evaluation of performance</li> </ul> </li> </ul> |
| <p><b>2</b></p> <p><b>Monitoring and enforcement of energy efficiency policies</b></p>                    | <p><b>Germany</b></p>                    | <ul style="list-style-type: none"> <li>• Germany encourages the development of energy efficiency through a range of ‘carrot’ and ‘stick’ mechanisms:               <ul style="list-style-type: none"> <li>○ Reducing energy demand through regulation and legislation</li> <li>○ Creating incentives for energy savings</li> <li>○ Providing energy saving information and advice</li> </ul> </li> </ul>  |

Source: Power, A., Zulauf, M. (2011), *Cutting Carbon Costs: Learning from Germany’s Energy Saving Program*. LSE Housing & Communities, London School of Economics; U.S. Department of Energy Website, accessed 29 September 2014 from: [http://www.energy.wsu.edu/documents/rem\\_guidebook.pdf](http://www.energy.wsu.edu/documents/rem_guidebook.pdf)

# Case study: USA's Department of Energy's policy framework for ESCO's



## 1. ESCO policy framework

### Background:

- Section 432 of the Energy Independence and Security Act of 2007 adds a new subsection *Use of Energy and Water Efficiency Measures in Federal Buildings*

### How it works:

- The new subsection prescribes a framework for facility energy project management and benchmarking, including the following:
  - Definition and scope of energy saving service providers (“Resource Efficiency Managers”)
  - Mechanisms (e.g. web-based tracking systems) to monitor and follow-up on the implementation of energy efficiency measures
  - Benchmarking and reporting for Federal Buildings

### Relevance for Ukraine:

- Ukraine could consider developing a similar subsection for the Law on Energy, extending the guidelines for private sector buildings as well as public buildings
- Including such a subsection would create a policy framework to encourage the growth and development of a private market for energy savings service providers in Ukraine

# Case study: U.S. Department of Energy's policy framework for ESCO's



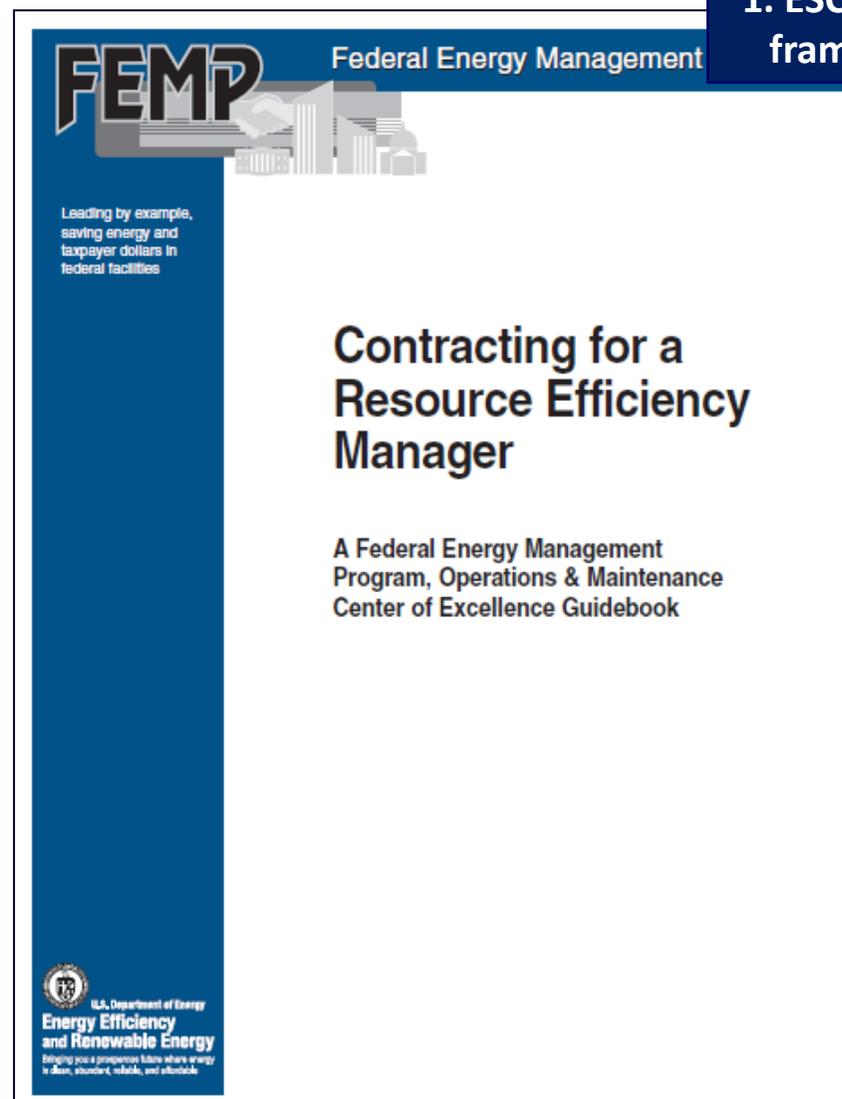
## 1. ESCO policy framework

### Description

- The guide provides step-by-step guidance – from making a decision, to drafting a contract, to assessing performance – for businesses and Agencies seeking to engage energy savings service companies (“Resource Efficiency Managers”)

### The guide includes:

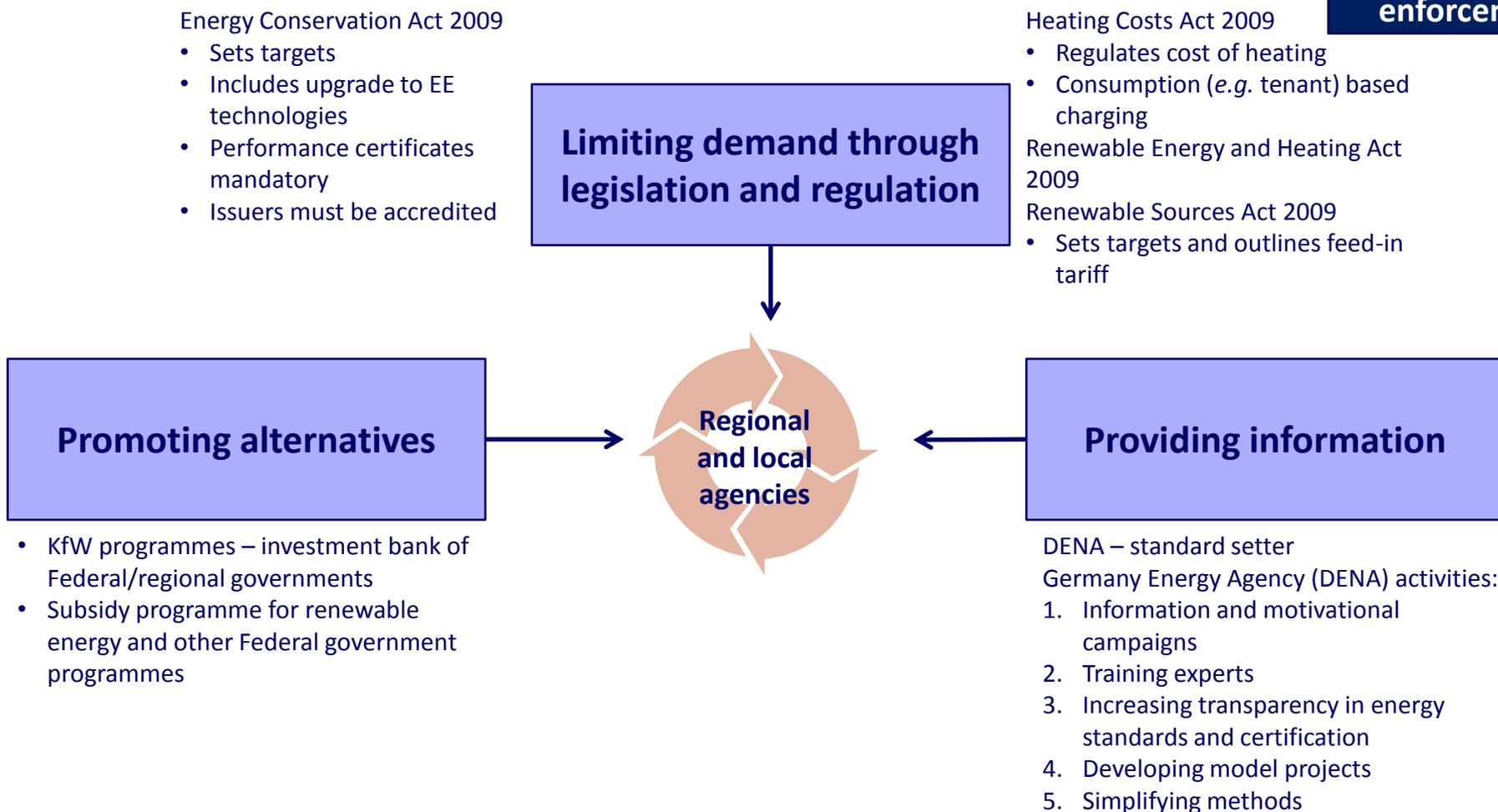
- A self-screening survey and other assessments to determine whether business/Agency needs a REM
- Typical costs, benefits and funding options for engaging REM providers
- A step-by-step process to hire a REM: contracts, duration, responsibilities, liability, reporting and measuring REM performance



Source: U.S. Department of Energy Website, accessed 29 September 2014 from: [http://www.energy.wsu.edu/documents/rem\\_guidebook.pdf](http://www.energy.wsu.edu/documents/rem_guidebook.pdf)

# Germany's Federal policy framework for energy efficiency covers three pillars: regulation, incentives and information provision for energy efficiency

## 2. Monitoring and enforcement



Source: Power, A., Zulauf, M. (2011), *Cutting Carbon Costs: Learning from Germany's Energy Saving Program*. LSE Housing & Communities, London School of Economics

# With respect to monitoring and enforcement for energy efficiency, Germany's Energy Conservation Regulations sets clear standards and mandates enforcement

## 2. Monitoring and enforcement

### Germany's Energy Efficiency Building Code (EnEV)

- The Energieeinsparverordnung (EnEV), or Energy Conservation Regulations, is Germany's energy efficiency building code
- One of the most stringent codes in the world, the EnEV sets standards for insulation, fenestration, envelope, and HVAC
- The code passed originally in 2002, and meets requirements for the EU Energy Performance of Buildings Directive (Directive 2002/91/EC, EPBD)

### Enforcement of the Building Code

- **Code has mandatory enforcement status**
  - Enforcement is provided through accreditation of applicants
  - On-site inspections occur during construction and post completion
- **Enforcement is supported by certification:**
  - Energy Performance Certificates
  - Positive labeling for building beyond the minimum BC level
- **Penalties for Non-compliance include:** refusal of permission to occupy and/or refusal of permission to construct
- **Other measures supporting Enforcement:** Mandatory Computer Modeling and Training of Inspectors

# For the two suggested areas of focus, here is a detailed view on the next steps of the project

| Process        | Analysis of current policies and monitoring framework for energy efficiency in Ukraine   | Identification of good practice OECD countries for further consideration   | Assessment of policy instruments in OECD case study countries   | Gap analysis and recommendations   | Support for implementation   |
|----------------|--|--|---|--|--|
| Details        | <ul style="list-style-type: none"> <li>• Fact check current policy environment for energy efficiency</li> <li>• Fact check current policies for energy services</li> </ul> | <ul style="list-style-type: none"> <li>• Elaboration of policy recommendations</li> <li>• Suggestion of legal amendments</li> <li>• Analysis of national policy framework</li> </ul> | <ul style="list-style-type: none"> <li>• Key features of ESCOs policy framework</li> <li>• Key features of enforcement and monitoring framework for energy efficiency</li> <li>• Key success factors</li> <li>• Involvement of OECD experts</li> <li>• Develop detailed action plan to improve monitoring and enforcement framework</li> <li>• Capacity building</li> </ul> |  |  |
| Responsibility | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> </ul>   | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> </ul>   | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> <li>• Ministry of Economic Development and Trade</li> </ul>  | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> <li>• Ministry of Economic Development and Trade</li> </ul> | <ul style="list-style-type: none"> <li>• OECD</li> <li>• SAEE</li> <li>• Ministry of Economic Development and Trade</li> </ul> |

# Issues for consideration at today's Working Group meeting and for approval at the Co-ordination Council meeting

FOR APPROVAL

## Issues for decision related to the work on renewable energy

1. Focus on streamlining and standardising the process for biomass investors in Ukraine
2. Focus on improving investment promotion to biomass investors

## Issues for decision related to the work on energy efficiency

1. Focus on policies that promote the establishment of energy savings companies (ESCOs)
2. Focus on improving monitoring and enforcement of energy efficiency policies

## Issues for decision related to the organisation and next steps of the project

1. Establish TWO separate Working Groups for the remainder of the project:
  - a Working Group on Renewable Energy (with a focus on biomass); and
  - a Working Group on Energy Efficiency.

# Next steps

|   | Working Group members  | OECD   |
|---|--|--|
| Immediate actions                       | <ul style="list-style-type: none"><li>• Provide the OECD with current status of ESCO's, monitoring and enforcement framework for energy efficiency in Ukraine</li></ul>  | <ul style="list-style-type: none"><li>• Revise recommended policy areas based on Working Group feedback</li></ul>  |
| By December 2014                        | <ul style="list-style-type: none"><li>• Suggest additional members to invite to the Working Group on Energy Efficiency</li><li>• SAEE, Ministry of Energy, Ministry of Agrarian Policy and the Ministry of Economic Development and Trade to analyse appropriateness of the suggested solutions presented and provide written feedback to the OECD</li></ul> | <ul style="list-style-type: none"><li>• Finalise members for the Working Group on Energy Efficiency</li><li>• Incorporate feedback from Ministries/Agencies into OECD analysis</li></ul> |
| By the next WG meeting in February 2015 | <ul style="list-style-type: none"><li>• Provide feedback on detailed recommendations to the OECD</li></ul>   | <ul style="list-style-type: none"><li>• Present detailed recommendations for the suggested actions to the Working Group on Energy Efficiency</li></ul>                                   |

# Agenda

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1. Project background and update
2. Suggested project focus for renewable energy
3. Suggested project focus for energy efficiency
- 4. Presentation: Denmark's experience with energy efficiency**
5. Project work plan, key decisions and next steps

# Agenda

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1. Project background and update
2. Suggested project focus for renewable energy
3. Suggested project focus for energy efficiency
4. Presentation: Denmark's experience with energy efficiency
- 5. Project work plan, key decisions and next steps**

# Action plan for rest of 2014 and until the end of the project

## Timeline

Q2 2014

Q3 2014

Q4 2014

Q1 2015

Q2 2015

### Key activities

- |  |   |   |   |  |
|--|---|---|---|--|
| <ul style="list-style-type: none"> <li>▪ Decision on final recommendations to improve investment procedures</li> <li>▪ Development of implementation plan for improving investment procedures and investment promotion activities (Oblast level)</li> <li>▪ Review of report summarising findings</li> </ul> | <ul style="list-style-type: none"> <li>▪ Launch and monitoring of implementation effort at Oblast level                             <ul style="list-style-type: none"> <li>➢ Improve investment procedures</li> <li>➢ Improve investment promotion communication and investor interaction</li> </ul> </li> <li>▪ Continuous support to implementation</li> <li>▪ Finalisation of report summarising findings</li> </ul> | <ul style="list-style-type: none"> <li>▪ Decision on final suggested actions for the work on renewable energy and energy efficiency</li> <li>▪ Develop detailed actions plans for the work on renewable energy and energy efficiency</li> </ul> | <ul style="list-style-type: none"> <li>▪ Launch of action plans and monitoring of implementation effort at national level</li> <li>▪ Continuous support provided by OECD to implementation</li> </ul> | <ul style="list-style-type: none"> <li>▪ Reporting on implementation of action plans</li> <li>▪ Finalise recommendations for improving skills in renewables</li> </ul> |
|--|---|---|---|--|

### Key meetings

- |   |   |   |  |
|---|---|---|--|
| <ul style="list-style-type: none"> <li>▪ <b>3<sup>rd</sup> Working Group meeting June 2014</b></li> </ul> | <ul style="list-style-type: none"> <li>▪ <b>4<sup>th</sup> Working Group meetings 16 October 2014</b></li> <li>▪ Eurasia Competitiveness Roundtable in Paris , November 2014</li> </ul> | <ul style="list-style-type: none"> <li>▪ <b>5<sup>th</sup> Working Group meeting on 12 February 2015</b></li> </ul> | <ul style="list-style-type: none"> <li>▪ <b>6<sup>th</sup> Working Group meetings in June 2015</b></li> <li>▪ <u>Seminar</u> on Energy Efficiency in Ukraine (Kyiv) April <u>2015</u></li> </ul> |
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# Contact details

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# The two suggested areas of focus are consistent with actions for energy efficiency outlined in the EU Association Agreement with Ukraine



**Establish energy efficiency policies and legal and regulatory frameworks**

Promote energy efficiency, through the establishment of policies, legal and regulatory frameworks, with the aim of achieving major improvements to EU standards, compatible with the functioning of market mechanisms.



**Improve frameworks via exchange of good practices, improving competitiveness**

Create better framework conditions (*e.g.* management of structural changes such as energy efficiency), via the exchange of information and good practice, contributing to greater competitiveness.



**Co-operate and exchange information on energy efficient technologies**

Co-operate and exchange information for the development and improvement of technologies in energy production, supply and end use, with focus on energy-efficient and environmentally friendly technologies.



**Promote emissions reduction through energy efficiency and renewable energy projects**

Promote the implementation of the Kyoto Protocol to the UN Framework Convention on Climate Change of 1997 to reduce emissions of greenhouse gases through energy efficiency and renewable energy projects.

# The EU directive on energy efficiency and energy services (2006/32/EC) provides Ukraine with three suggested actions for ESCOs

The Directive includes energy savings targets, obligations on national public authorities as regards energy savings and energy efficient procurement, and measures to promote energy efficiency and energy services.

## 1 Ensure sufficient incentives for ESCO market development

- Ensure there are sufficient incentives, competition and level playing fields for ESCOs to independently offer and implement energy services, energy audits and energy efficiency improvement measures

## 2 Provide model contracts for organisations wanting to engage ESCOs

- Develop model contracts for those financial instruments available to existing and potential purchasers of energy services and other energy efficiency improvement measures in the public and private sectors.
- These may be issued by a State authority or agency

## 3 Provide funds to subsidise programmes through ESCOs

- Establish funds to subsidise the delivery of energy efficiency improvement programmes and promote the development of a market for energy efficiency improvement measures.
- Such measures shall include:
  - Energy auditing
  - Financial instruments for energy savings
  - Improved metering and informative billing

Source: European Union (EU), Directive 2006/32/EC of the European Parliament and of the European Council; of 5 April 2006; on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC; website accessed on 29 September 2014: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32006L0032>

# The (Draft) National Energy Efficiency Action Plan Through 2020

The Action Plan Through 2020 seeks to implement the following EU Directives:

- Directive 2006/32/EC on energy end-use and energy services
- Directive 2010/31/EC on the energy performance of buildings
- Directive 2010/30/EC on labelling of energy products

## 1 Residential building measures

- Additional insulation of walls
- Energy efficiency windows installation
- Additional roof insulation
- Energy efficient engineering equipment installation
- Replacing of the interior light

## 2 Public and commercial building measures

- Reconstruction and overhaul of residential building
- Development and reconstruction of heat supply systems
- Implementation of energy and resource saving sources of lighting and lighting systems

## 3 Industry measures

- Construction of top-pressure recovery turbines
- Construction of waste heat recovery boilers
- Use of secondary energy sources
- Development of energy efficient and environmentally friendly technology
- Creation of water heat pumps
- Developing production of energy saving automated units

## 4 Transport measures

- Restructure of the transport infrastructure in accordance with needs of production
- Technical modernisation of fixed assets
- Optimisation of the structure of rolling stock aimed at improving passenger and freight traffic efficiency
- Improvement of performance indicators of transport routes
- Increased energy efficiency of vehicles
- Improvement of efficiency of equipment operation