

Sustainable Energy in Central Asia

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CHARLEMAGNE BUILDING

#SustEnergyCA



Energy efficiency needs and prospects in Central Asian countries

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EU4Energy Programme Overview

1

Support the sound development and implementation of evidence-based, medium-to-long-term energy policies...

2

...based on improved use of statistics

3

...and sharing of best policy and other practices and EU experience

11 Focus Countries

- **Eastern Europe**

- Belarus
- Moldova
- Ukraine

- **Caucasus**

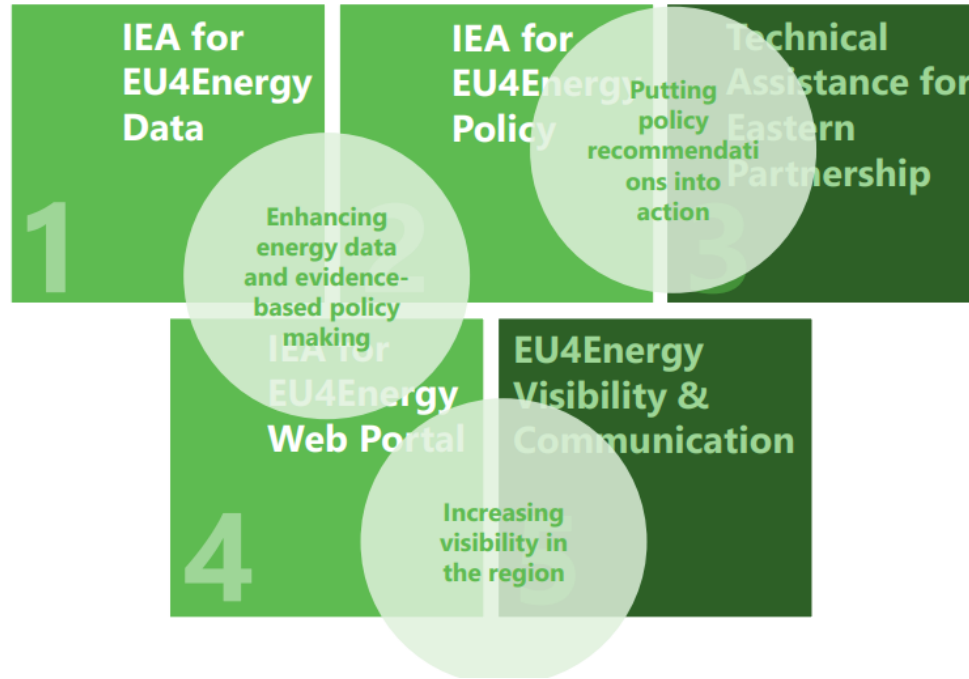
- Armenia
- Azerbaijan
- Georgia

- **Central Asia**

- Kazakhstan
- Kyrgyzstan
- Tajikistan
- Turkmenistan
- Uzbekistan



EU4Energy Programme Framework



Energy Efficiency Priority Areas by Country

Kazakhstan:

Statistics
Industry
Public Awareness

Kyrgyzstan:

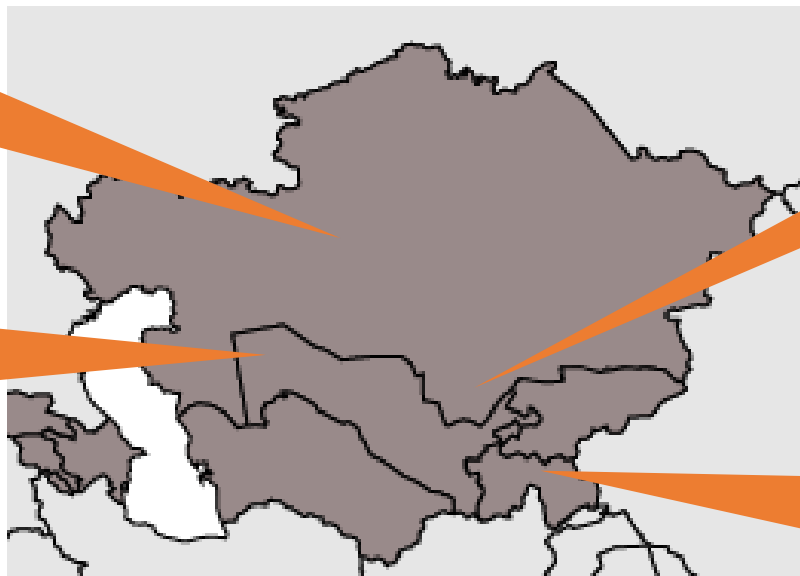
Buildings
Industry
Statistics

Uzbekistan:

Financing Energy Efficiency Projects
Buildings
Statistics
Industry

Tajikistan:

Industry
Buildings
Statistics

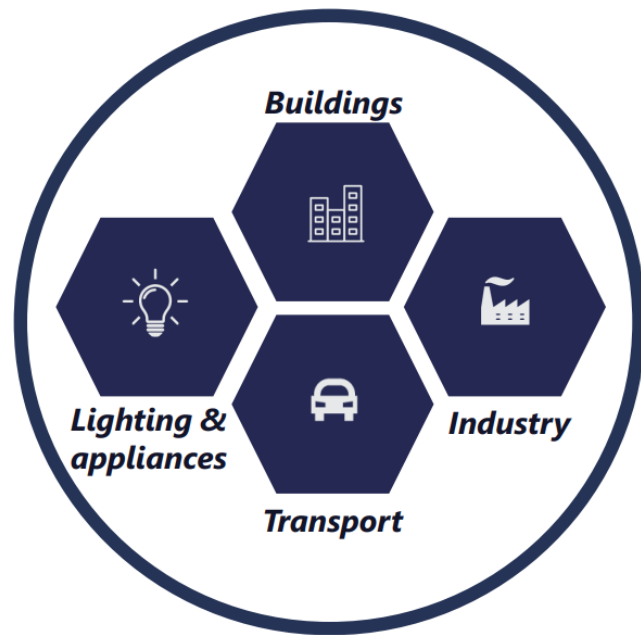


NB: This map is without prejudice to the status of sovereignty over any territory, to the delimitation of international frontiers and boundaries, and to the name of any territory, city or area.



EU4Energy EE analytical work

- By-country and by-stream EE recommendations
- EE snapshot for each country
- EE priorities
- Enhancing energy statistics: strategic action plans and data audits
- Development of EE in buildings roadmap that can be used by all countries
- Preparing In-Depth Reviews (IDRs) of Focus Countries Energy Policies, with strong emphasis on energy efficiency policies and measures



Sectoral approach



EU4Energy EE policy forums and trainings

Conducted

Energy Efficiency Training Week, Tbilisi, October 2017

Energy Efficiency and Renewables Policy Forum, Astana, June 2017

Energy Efficiency in Transport Policy Forum, Odessa, March 2018

Energy Efficiency in Buildings Policy Forum, Tbilisi, Georgia, February, 2019

Planned

Energy Efficiency in Industry Policy Forum, June, Paris, 2019



Virtuous circle between Energy Efficiency events and deliverables

By-country and by-stream EE Recommendations

By-Country Energy Efficiency One-pagers

Energy Efficiency Policy Fora

IEA for EU4Energy deliverables both lead into and are a result of policy fora...and are the basis for the In-Depth Reviews in Year Four

UKRAINE				
25 Recommendations for Energy Efficiency	Decided Policy Priority	Priority Actions	Is there strategy?	Is there strategy?
Energy Efficiency Across all Sectors (or Cross Sectoral)				
1	Data collection and indicators	High	Initial	Quality level is
2	Strategies and action plans	High	Ongoing	Is there strategy?
3	Competitive energy markets, with appropriate regulation	High	Initial	Support indicators
4	Private investment in energy efficiency	High	Initial	n/a
5	Monitoring, enforcement and evaluation	Medium	Initial	What is progress?
Buildings				
6	Mandatory building codes and MEPS	High	Initial	Energy conservation
7	Net-zero energy consumption in buildings	Medium	Initial	Activity
8	Improved energy efficiency in existing buildings	High	Initial	Energy efficiency indicators (EPC)
9	Building energy labels or certificates	High	Initial	n/a
Energy performance of building components and systems				
10	Energy performance of building components and systems	Low	Initial	n/a
Appliances and Equipment				
11	Mandatory MEPS and labels	High	Initial	n/a
12	Test standards and measurement protocols	High	Initial	n/a
13	Market transformation policies	Low	Initial	n/a
Lighting				
14	Phase-out of inefficient lighting products	Medium	Initial	Energy (e.g. T1) Activity
15	Energy-efficient lighting systems	Medium	Initial	Energy efficiency indicators
Transport				
16	Mandatory vehicle fuel-efficiency standards	Low	Initial	Energy (e.g. T1) Activity
17	Measures to improve vehicle fuel efficiency	Low	Initial	Transport
18	Fuel-efficient non-engine components	Low	Initial	Number of components
19	Rolling-stock	Low	Initial	n/a
20	Transport system efficiency	Low	Initial	n/a
Industry				
21	Energy management	Medium	Initial	n/a
22	High-efficiency industrial equipment and systems	High	Initial	Energy conservation
23	Energy efficiency services for SMEs	Medium	Initial	Activity
24	Complementary policies to support industrial energy efficiency	Medium	Initial	Sub-sector indicators (e.g. T1)
Energy Utilities and End Use Efficiency				
25	Utility end-use energy efficiency schemes	High	Initial	n/a

KYRGYZSTAN				
25 Recommendations for Energy Efficiency	Decided Policy Priority	Priority Actions	Goal to support/monitor the policy: WFO = National Statistical Institute	Ind and Data Availability
Energy Efficiency Across all Sectors (or Cross Sectoral)				
1	Data collection and indicators	Medium	Initial	Goal/level of existing end use data? Level of if it is up to date?
2	Strategies and action plans	Medium	Initial	Additional data requirements?
3	Competitive energy markets, with appropriate regulation	High	Initial	Responsible institutions?
4	Private investment in energy efficiency	High	Ongoing	Investment coordination with international donors?
5	Monitoring, enforcement and evaluation	Medium	Initial	What is progress?
Buildings				
6	Mandatory building codes and MEPS	High	Initial	Energy data (e.g. WFO)
7	Net-zero energy consumption in buildings	High	Initial	Activity data (e.g. Committee on construction/building)
8	Improved energy efficiency in existing buildings	High	Ongoing	Total population
9	Building energy labels or certificates	High	Initial	Number of buildings
10	Energy performance of building components and systems	High	Initial	Floor area (e.g. m ²)
Appliances and Equipment				
11	Mandatory MEPS and labels	Medium	Initial	Indicator (e.g. WFO)
12	Test standards and measurement protocols	Low	Initial	Indicator (e.g. WFO)
13	Market transformation policies	Low	Initial	Indicator (e.g. WFO)
Lighting				
14	Phase-out of inefficient lighting products	Low	Initial	Energy data (e.g. WFO) - Lighting energy consumption (e.g. T1)
15	Energy-efficient lighting systems	Medium	Initial	Activity data (e.g. Committee on construction/building)
Transport				
16	Mandatory vehicle fuel-efficiency standards	High	Initial	Energy data (e.g. WFO)
17	Measures to improve vehicle fuel efficiency	Low	Initial	Activity data (e.g. Vehicle registry, Ministry of Transport)
18	Fuel-efficient non-engine components	High	Initial	Passenger (physical) input (e.g. tonnes, units)
19	Rolling-stock	Medium	Initial	Indicator (e.g. WFO)
20	Transport system efficiency	High	Initial	Energy consumption per vehicle type / per mode of transport
Industry				
21	Energy management	Medium	Initial	n/a
22	High-efficiency industrial equipment and systems	High	Initial	Energy data (e.g. WFO)
23	Energy efficiency services for SMEs	Medium	Initial	Sub-sector energy consumption (e.g. T1)
24	Complementary policies to support industrial energy efficiency	Low	Initial	Sub-sector (physical) input (e.g. tonnes, units)
Energy Utilities and End Use Efficiency				
25	Utility end-use energy efficiency schemes	Low	Initial	Indicator (e.g. WFO)



EU4Energy EE data and indicators

- Enhancing the quality and the depth of official energy data collected by Focus countries; improving data management and use as a foundation for **developing evidence based energy policies and measures**
- Strengthening energy balances or expanding to energy efficiency indicators

Inception

Statistics Action Plans

Energy efficiency indicators included in work plan



H2 2017

Tbilisi training

Training and experience sharing between countries

Data audits (EIHP)

Detailed assessment and plan of action on indicators by country

Energy statistic network meeting

Strategic workplan for energy efficiency indicators in the focus region

2018-2020 Indicators

Industry

Residential sector

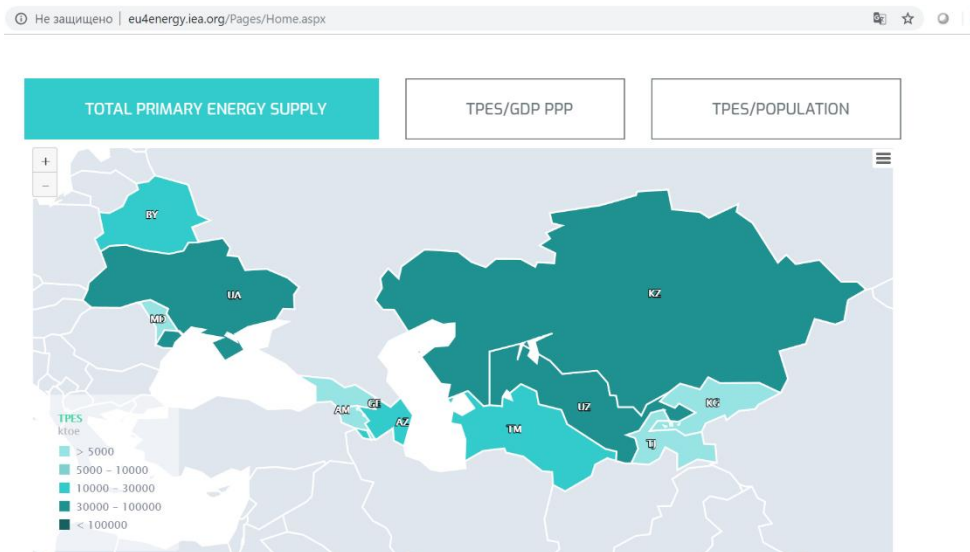
Transport

Services

EU4Energy Data visualization tools

Data and policy by countries

<http://eu4energy.iea.org>



Factsheet by countries

