

The European Union – Uzbekistan Sustainable Energy Days

International Conference

Energy Efficiency in Uzbekistan: prospects and challenges

Radisson Blu Hotel, Tashkent, 27 June 2023

Promotion of EE in Kazakhstan – evolution and lessons learned

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ENERGY INTENSITY OF Kazakhstan's GDP

GDP energy intensity targets *

30%

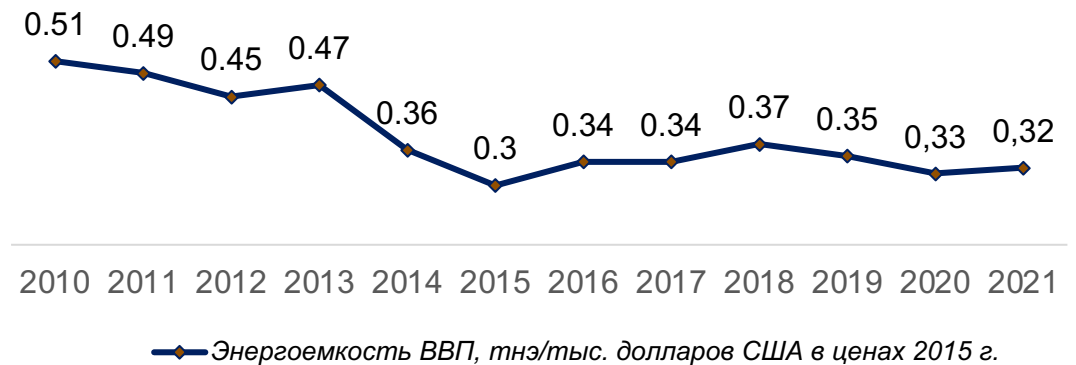
by 2030

50%

by 2050

* from the level of 2008

Dynamics of GDP energy intensity for 2010-2021 (toe/thousand US dollars in 2015 prices)

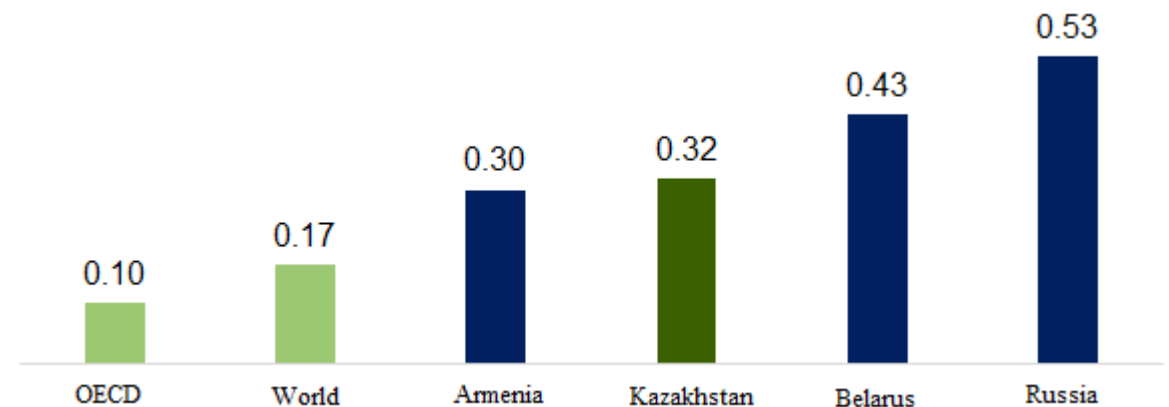


Real reduction

38,5%

reduction in GDP energy intensity
by 2021 from the level of 2008

Comparison with EAEU and OECD



*data from the International Energy Agency for 2020

STATE ENERGY REGISTER

20 152 A total of SER subjects

81 638 SER subjects since 2013



ENERGY AUDIT

POTENTIAL

2 117 SER subjects conducted energy audit

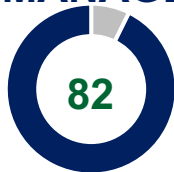
Energy – 8%

Transport – 5%

Industry – 10%

Public sector – 40%

ENERGY MANAGEMENT



invested
350
billion

Activities implemented

saved
88
billion



HOUSING STOCK IN KAZAKHSTAN

Multi-apartment residential

buildings **54 731**



1,4%

FAILING HOUSES

752

Building-level heat meters installed

31 940

Building-level water meters installed

27 604

Target level



5,5%

DILAPIDATED HOUSES

3 024

Need for building-level heat meters

8 487

Need for building-level water meters

10 219

2025



31,1%

TO BE MAJORLY REPAIRED

17 044

Share of buildings equipped with building-level meters

76%

100%



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WORLD BANK PROJECT "INCREASING ENERGY EFFICIENCY IN KAZAKHSTAN"



GRANT
FUNDS

21,7 mln US
dollars



IMPLEMENTATION
PERIOD

June 1, 2015 -
June 10, 2022



PROJECT IMPLEMENTATION

A TOTAL OF **96** FACILITIES MODERNIZED

PROJECT BENEFITS



Energy savings up to **25 %** and **500** million tenge



Over 2 thousand workplaces created



The share of local materials and services amounted to **85%**



More than 4 thousand LED street lights installed



Emission reduction of **259 010 tons of CO2**



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LAW OF RK "On introducing amendments and additions to some legislative acts of RK on energy saving and increasing energy efficiency»

BASE	Address of the Head of State to the people of Kazakhstan dated January 10, 2018 "New development opportunities in the context of the fourth industrial revolution"
STATUS	adopted June 30, 2022

THE LAW STIPULATES

- reforming the system of energy audit
- implementing **energy efficient** public procurement
- establishing individual **indicators for TOP-100** enterprises
- full coverage of public sector with **energy monitoring**
- implementing heat consumption standards for public organizations
- appointing energy managers at large enterprises



CONCEPT FOR THE DEVELOPMENT OF ENERGY SAVING AND INCREASING ENERGY EFFICIENCY

TARGET

REDUCTION IN GDP ENERGY INTENSITY BY

10%

2021*

68 million tons of oil equivalent (toe)

214 billion US dollars of GDP

=

0,32 toe/thousand US dollars

2029

0,29

toe/thousand US dollars

* data from the IEA and the Bureau of National Statistics

TARGET INDICATORS FOR

2023 - 2029

INDICATOR

Share of consumption	SECTOR	2023 - 2029	INDICATOR
38%	INDUSTRY	↓ 10%	energy intensity of industry(ton of oil equivalent/thousand US dollars)
29%	BUILDINGS POPULATION	↓ 10%	energy consumption per floor space (GJ/m2)
21%	ENERGY	↓ 5%	power consumption per capita (GJ/person)
12%	TRANSPORT	↓ 5%	energy intensity of energy(ton of oil equivalent/thousand US dollars)

INCREASING ENERGY EFFICIENCY IN INDUSTRY AND ENERGY

Industry

REDUCED ENERGY INTENSITY



by **10%**
from the level of 2021

Key activities



ANALYSIS of specific consumption of energy resources by industrial enterprises



MODERNIZATION of main and auxiliary equipment



ATTRACTION OF MFO funds



INTRODUCTION OF ENERGY MANAGERS AT ENTERPRISES

Energy

REDUCED ENERGY INTENSITY



by **5%**
from the level of 2021

Key activities



REVISION of cap tariffs for energy producing organizations



INTRODUCTION of a balancing market



in real time



STRENGTHENING control over utility systems



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INCREASING ENERGY EFFICIENCY in buildings and transport

Buildings

REDUCED ENERGY INTENSITY

commercial buildings



by **10%**
from the level of 2021

REDUCED ENERGY INTENSITY

Housing and communal buildings



by **5%**

Key activities



REVISION of energy efficiency requirements for building materials, products and structures



THERMAL MODERNIZATION



COMPLIANCE WITH ENERGY CONSUMPTION STANDARDS



MONITORING OF PUBLIC PROCUREMENTS FOR COMPLIANCE WITH ENERGY EFFICIENCY REQUIREMENTS



COMPREHENSIVE MONITORING OF THE PUBLIC SECTOR

Transport

Key activities



ROAD TRANSPORT



PROMOTING THE USE OF PUBLIC TRANSPORT

PROMOTING THE USE OF ENVIRONMENTALLY FRIENDLY TRANSPORT

PROMOTING ENERGY EFFICIENT DRIVING



RAIL TRANSPORT

ROLLING STOCK RENEWAL (ELECTRIC LOCOMOTIVES)

DEVELOPMENT OF A PLAN FOR ELECTRIFICATION OF RAILWAY SECTIONS UNTIL 2029



THANK YOU FOR YOUR ATTENTION!



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