



Ministry of Energy and Water Resources
of Republic of Tajikistan



Green Diplomacy Week – a global just energy transition

EU-Central Asia Sustainable Energy Days

International Conference

Energy Efficiency in Tajikistan: prospects and challenges

Dushanbe Serena Hotel, 25-26 October 2023

End-use energy efficiency policy in Uzbekistan

Muzaffar Khakimov, Consultant,

Agency for Strategic Reforms under the President of the Republic of Uzbekistan

FUEL AND ENERGY ECONOMY TARGETS

RESOURCES IN SECTORS OF THE ECONOMY OF THE REPUBLIC OF UZBEKISTAN

A LEGAL FRAMEWORK FOR THE DEVELOPMENT OF ENERGY EFFICIENCY AND RENEWABLE ENERGY SOURCES HAS BEEN CREATED



LAWS

Renewable Energy Law
(3PY- 539 from 05/21/2019)

Law on Rational Use of Energy (new edition),
(3PY- 628 from 07/14/2020)



DECREES AND RESOLUTIONS OF THE PRESIDENT

“On the development strategy of the new Uzbekistan for 2022 - 2026”
Presidential Decree (УП -60 from 01/28/2022)

“On measures to accelerate the implementation of renewable energy sources and energy-saving technologies in 2023”
Presidential Decree (ПП-57 from 02/16/2023)

“On additional measures for the introduction of energy-saving technologies and the development of low-power renewable energy sources”
Presidential Decree (УП-220 dated 09.09.2022)

“On additional measures to reduce the dependence of economic sectors on fuel and energy products by increasing the energy efficiency of the economy and using available resources”
Presidential Decree, (ПП-4779 from 07/10/2020)



RESOLUTIONS OF THE CABINET OF MINISTERS

“On approval of the Regulations for connecting business entities producing electrical energy, including from renewable energy sources, to the unified electric power system” resolution of the Cabinet of Ministers, (ПКМ-610 from 07/22/2019)

“On approval of the Regulations on the extra-budgetary intersectoral energy saving fund under the Ministry of Energy of the Republic of Uzbekistan” resolution of the Cabinet of Ministers (ПКМ-640 from 10/09/2020)

“On approval of the Regulations on the procedure for providing compensation from the State Budget of the Republic of Uzbekistan for the purchase of energy-efficient and energy-saving devices and covering part of the interest costs on loans received for these purposes” resolution of the Cabinet of Ministers (ПКМ-217 from 04/14/2021)

EXPECTED RESULTS



Increasing the share of alternative energy sources **up to 30%** in the volume of energy consumption at more than 6 thousand facilities



Reduction energy intensity **at 1.5** times by **2030**



TO2030 introduction of order **14 GW** new renewable energy facilities, including through solar energy - **7 GW**, wind - **7 GW**



Saving primary energy resources per year by achieving **25%** share of RES



Increase in energy efficiency by at least **20%** by **2026**



Reduce greenhouse gas emissions by **25%** by 2026

MAIN MECHANISMS FOR INCREASING THE EFFICIENCY OF ENERGY RESOURCES USE

SYSTEMATICALLY INCREASING ENERGY EFFICIENCY



A register of enterprises subject to energy audit has been created



Implementation of an energy audit monitoring system at enterprises



Introduction of energy-saving measures based on the results of an energy audit



Application of economic incentives for enterprises that pass energy audits on time

IMPLEMENTATION OF ENERGY MANAGEMENT SYSTEM



Implementation in buildings and industrial facilities



Employee training



Determination of energy efficiency criteria in production and facilities

ONGOING PROJECTS TO INCREASE ENERGY EFFICIENCY IN THE REPUBLIC

PROJECT

"INCREASING THE ENERGY EFFICIENCY OF INDUSTRIAL ENTERPRISES"

I-Phase

In 2011-2015, together with the World Bank, the Project "Increasing the energy efficiency of industrial enterprises" was implemented in the amount of **25** million dollars

II-Phase

In 2013 there was additional funding in the amount of **100.0** million dollars.

As a result, implemented **82** investment project, saved **505.1** million kWh of electricity and **187.3** million cubic meters of natural gas per year

III-Phase

Additional funding was introduced in 2018 at the rate of **200.0** million dollars. As a result, implemented **118** investment project, saved **548.1** million kWh electricity and **230** million cubic meters of natural gas per year. The reduction in emissions per year is **733.1** thousand tons

PROJECT

"CLEAN ENERGY FOR BUILDINGS IN UZBEKISTAN" FROM 2022

Project amount: 143.0 million dollars.

As a result of the project implementation (until 2027) modernization and reconstruction will be carried out in 832 buildings (535 schools, 194 orphanages, as well as 95 hospitals).

Energy efficiency will be increased to 86%

PROJECT

"RECONSTRUCTION OF THE DISTRICT HEATING SYSTEM"

Project amount **221.0** million dollars
As a result of the project implementation (until 2024)

saving natural gas – **106.9** million m³;
Energy savings – **30.4** million kWh;
Saving cold water – **2.6** million m³;
Carbon dioxide emissions into the atmosphere will decrease – **42 100** tons;
Increasing energy efficiency in heating networks from **56.9%** to **93%**;



RENEWABLE ENERGY SOURCES THAT WILL BE LAUNCHED IN 2023

NUMBER OF PROJECTS

9

KEY PROJECT INDICATORS

SOLAR POWER PLANTS

	400MW	BukharaAndKashkadyaregion
	100MW	Jizzakhregion
	100MW	Tashkentregion
	100MW	Samarkandregion
	100MW	Jizzakhregion
	200MW	Surkhandaryaregion
	thirtyMW	Samarkandregion
	200MW	Namanganregion
WIND POWER PLANTS		
	100MW	Navoiiregion

TOTAL CAPACITY OF PROJECTS

1 230 MW

ANNUAL PRODUCTION VOLUME

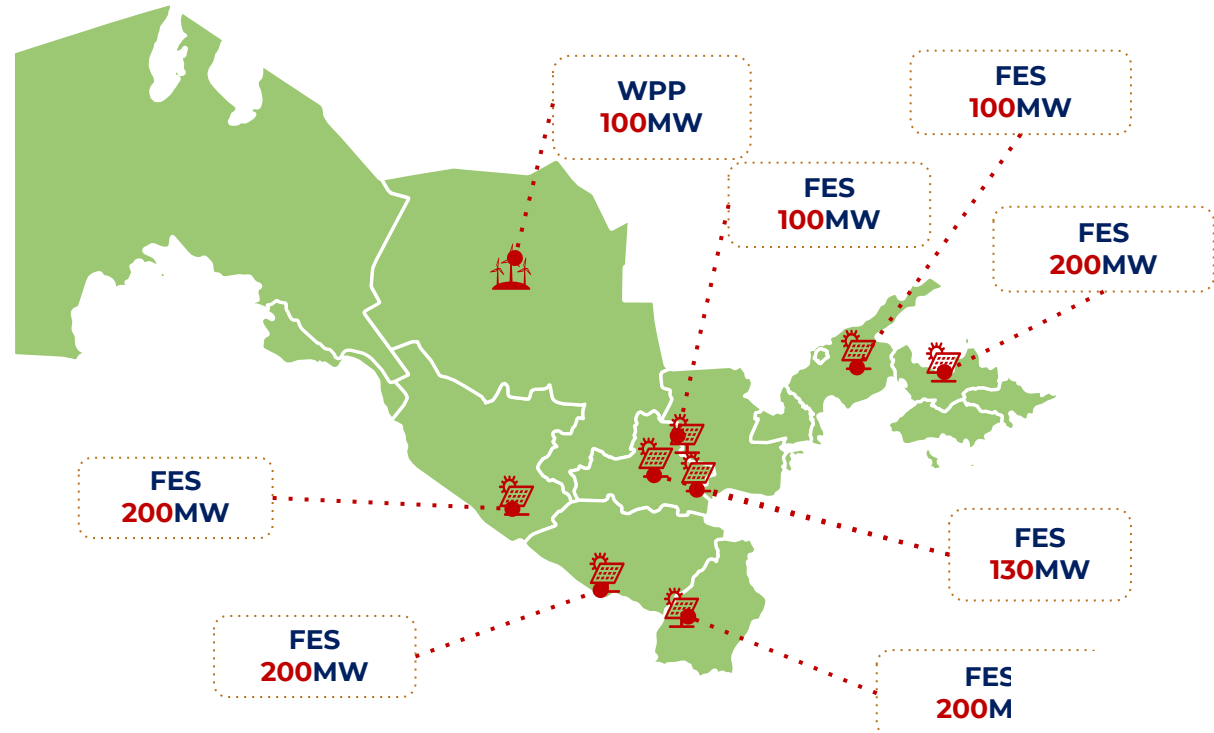
2.8 billion kW hour

ANNUAL NATURAL GAS SAVINGS

70 million cubic meter

INVESTMENT SIZE

1.0 billion dollars



PROCEDURE FOR PROVIDING COMPENSATION AND INSTALLMENTS FOR THE PURCHASE OF EQUIPMENT FOR RENEWABLE ENERGY



**ELECTRONIC
ONLINE PLATFORM
FOR THE DEVELOPMENT
OF RENEWABLE ENERGY
SOURCES**

Consumers will be reimbursed for a portion of their costs associated with purchasing renewable energy devices



The services provided are provided to applicants free of charge



Alternatively, the purchase of renewable energy devices for consumers is made by paying the cost in interest-free installments over 3 years



On the platform, manufacturers and service companies are rated on the quality of their work and level of warranty, and consumers rate them on the work they complete



All processes for receiving compensation and payment in installments will be digitized and resolved between the local manufacturer, supply, installation and commissioning service provider and the Fund



AUTOMATED SYSTEM FOR MANAGEMENT OF ENERGY CONSUMPTION OF INDUSTRIAL ENTERPRISES

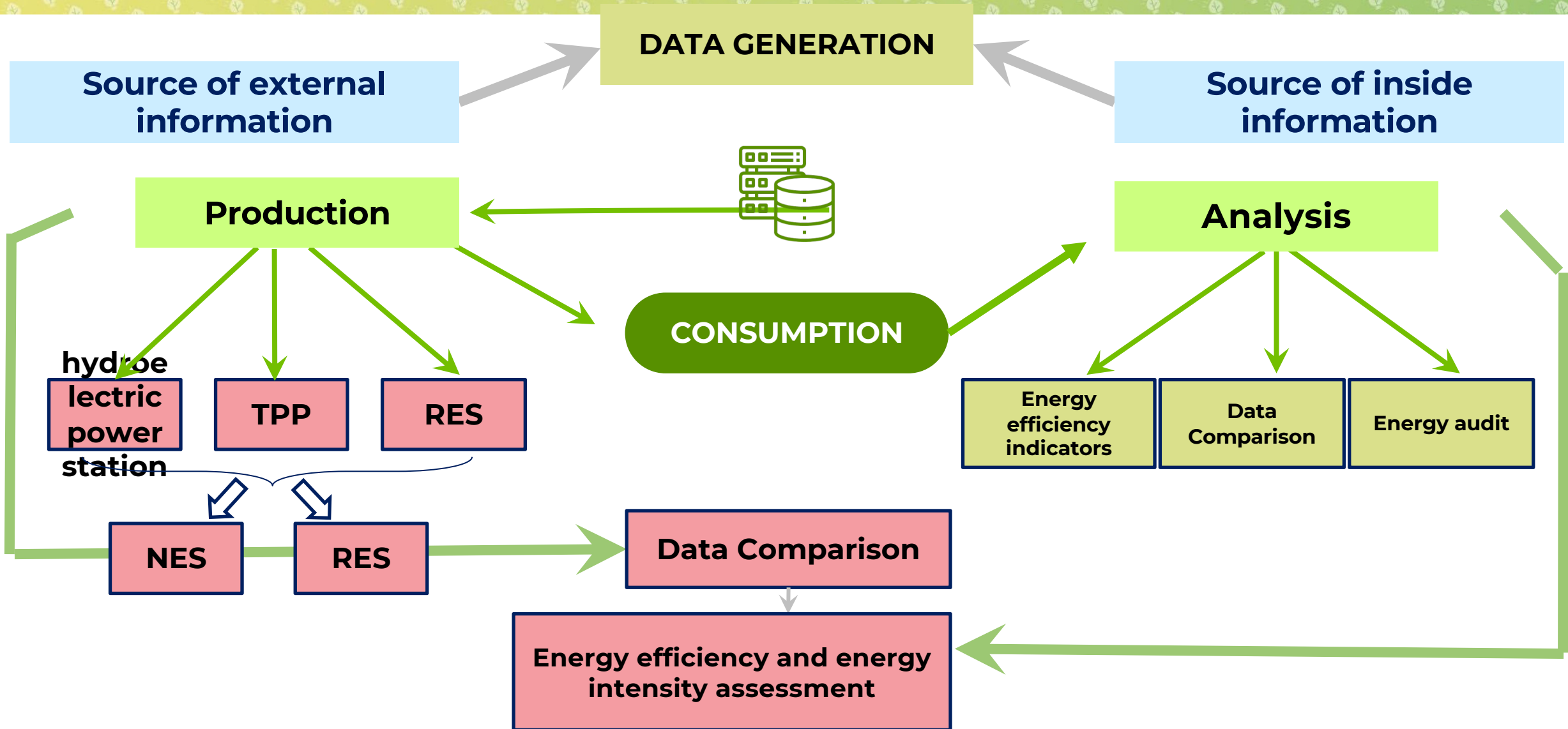


The system is designed to automate the processes of collecting, transmitting, processing, storing and presenting information on the production and consumption of energy resources, production of products (services provided) for the assessment and analysis of energy efficiency, monitoring the energy intensity of manufactured products for the purpose of subsequent selection of objects for monitoring.

GOALS AND TASKS SOLVED BY EIS

EIS allows you to improve the quality of decision-making when managing the energy consumption of an enterprise, thereby increasing the efficiency of fuel and energy resources consumption. The system has predictive capabilities (predictive analytics), can be adapted for each specific production, taking into account technological processes, equipment features, and integrated with the accounting systems available at the enterprise. EIS solves the following tasks:

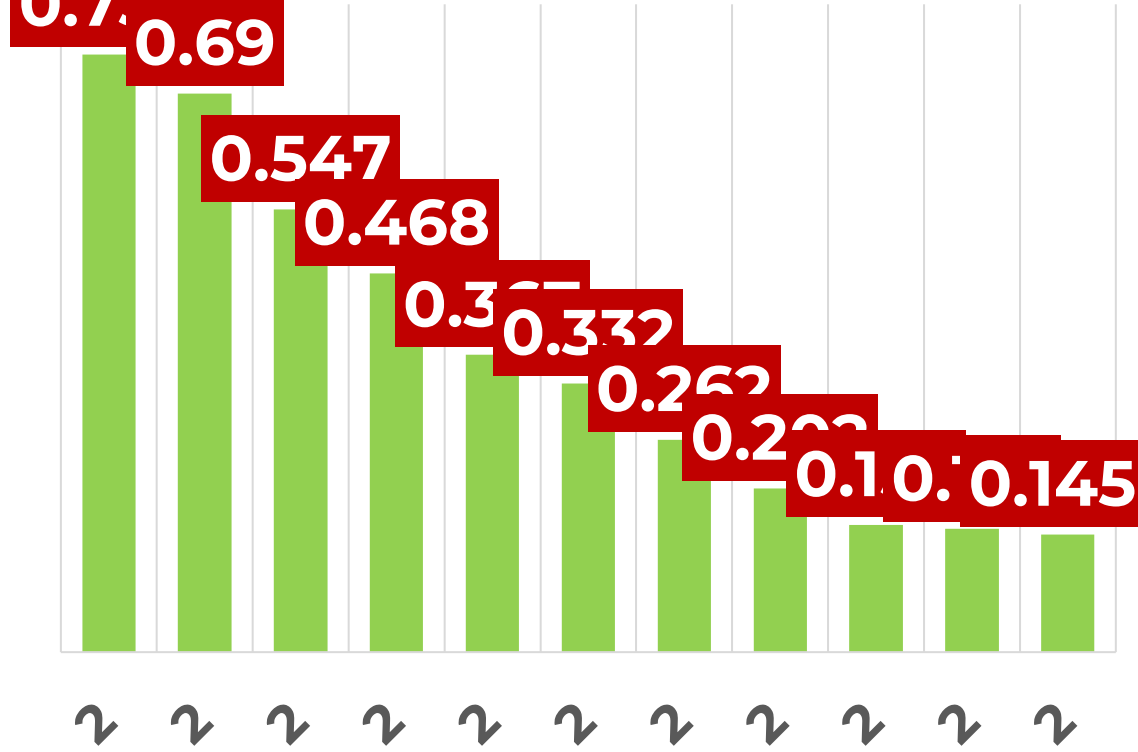
STRUCTURAL LOGICAL DIAGRAM OF EIS



INDICATORS OF CHANGES IN ENERGY INTENSITY AND GREENHOUSE GAS EMISSIONS IN THE COUNTRY

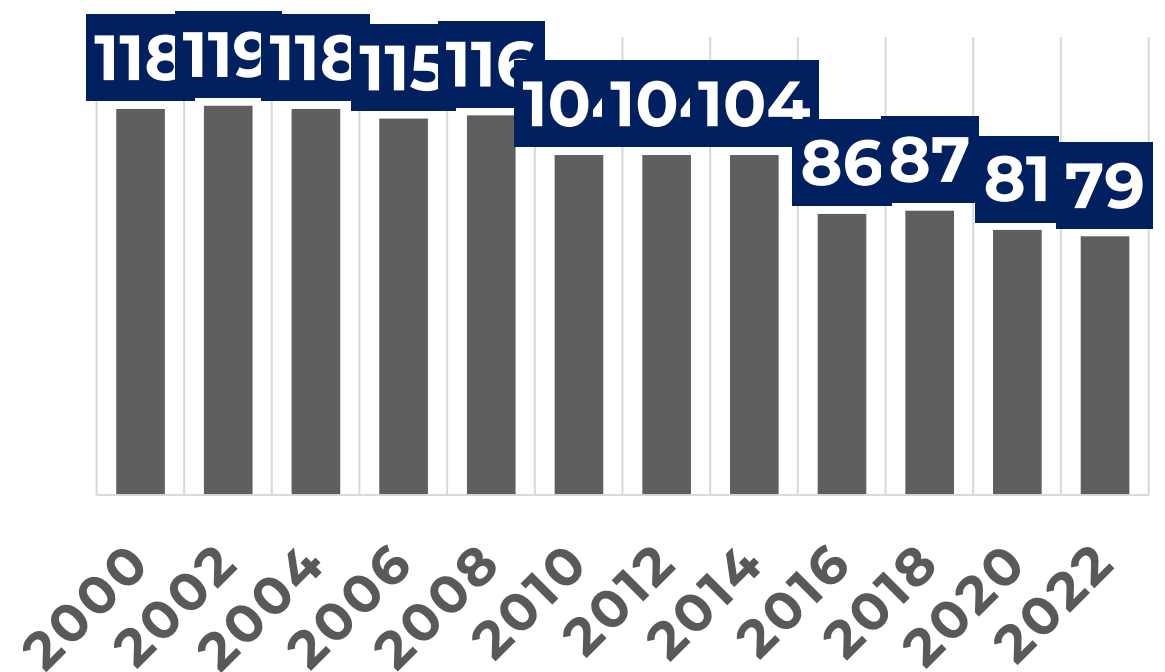
CHANGES IN THE ENERGY INTENSITY OF UZBEKISTAN'S GROSS DOMESTIC PRODUCT

KG.N.E./USD



GREENHOUSE GAS EMISSIONS FROM FUEL-ENERGY COMPLEX(fuel and energy complex)

MLN. TONNES CO2





THANK YOU FOR YOUR ATTENTION!