# ON THE REFORMS UNDERWAY IN THE ENERGY SECTOR

# PRESENTATION

## FORCES ENGAGED IN 2020-2025 AND THEIR POSITIVE IMPACT ON THE SYSTEM



THERMAL POWER STATIONS (Energy-savings system)



5 130 MW 18 and the project





**SOLAR PHOTO ELECTRIC PLANTS** (SPP)



3,030 MW 14 and the project



project

WIND ELECTRICITY **STATIONS** (WPP)

> 1,552 MW 4 and the

**ELECTRICAL ENERGY** STORAGE SYSTEMS (BESS)



**300 MW** 2 and the project

**ANNUAL PRODUCTION CAPACITY** 



**ANNUAL NATURAL GAS ECONOMY** 



CO2 GASES **PREVIOUSLY** 

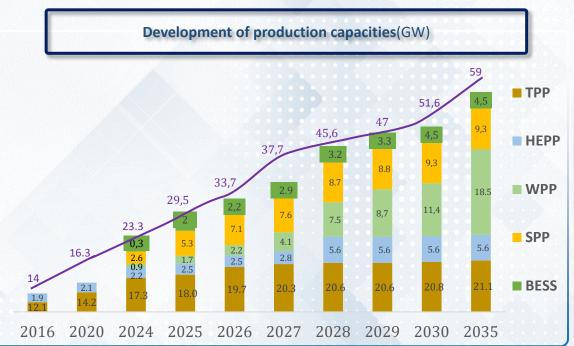


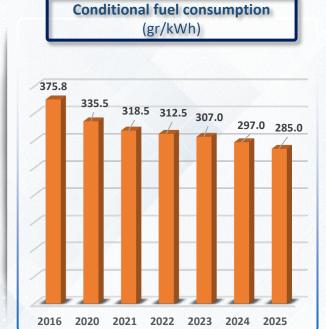
## **Development of production capacities in the republic**

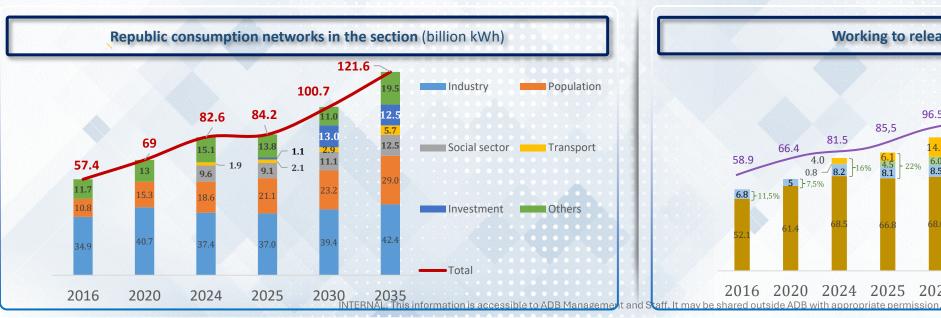
# OZBERSTON PERFUELKAS NERGETIKA VAZIF

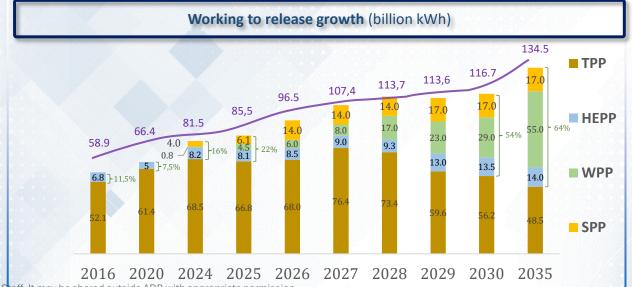
# Existing production in the republic output power

	output power						
Electrictype of stations	of numb	Installed power	Actual power				
from this:	112	23,462 MW	22051 MW				
Thermal power pla and therm power pla	nal 19	16384 MW	15004 MW				
Hydroelec stations	tric 69	2 273 MW	2 242 MW				
Solar powers stations	er 12	3,030 MW	3,030 MW				
Wind pow stations	er 4	1552 MW	1552 MW				
Block stations	3	223 MW	223 MW				



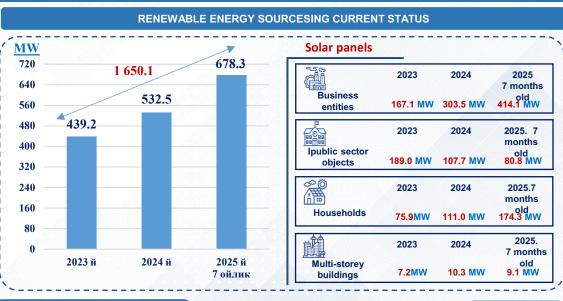






#### STATE OF INSTALLATION OF SOLAR PANELS AND COLLECTOR







By the end of

2025

784.9 MW

2026-2035in

years

1.0 GW

REPUBLIC HEAVY CATEGORY 300 INSTALLATION OF SOLAR POWER STATIONS IN THE NEIGHBORHOOD

#### 2025 year plan indicators

Objects of the social sphere

Strength-311,7 MW

Strength-91,7 MW

billion kWh

**Population** 

apartments

**Business** entities

Strength-368.9MW

multi-storey buildings

Strength-12,6MW

#### 2026-2035 annual plan indicators BCG

Objects of the

social sphere

Strength-280,0 MW



Strength-546,0 MW



**Population** apartments

Strength-200.0 MW



multi-storev buildings

Strength-18,0 MW

#### RESULT TO BE ACHIEVED



billion kWh





# **RESULTS ACHIEVED**

4.8

2.1

2024 y

million liters

2.1

1.5

1.2

1.1

2023 y

**RESULTS ACHIEVED** 



1.6

2025 y

7 months

538 illion cubic

Solar collector







RESULT TO BE ACHIEVED



140 millionkWh

**Production** 



107.8 MW Strength

490

thousand



Grant funds allocated to the project

100 million dollars Project cost

#### Actions taken



**16** Pilot the contracting organization for project development determined



**15** development of project-estimate documents was released



In Andijan region 220 kW SPP construction works have started

#### Things to do in 2025



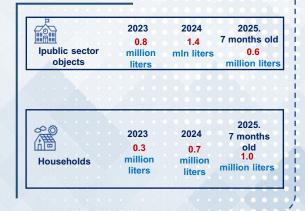
**38** in the neighborhood **grant fund s**on account of 10 MW SPP will be built

#### Achievable result









# (0) million kWh





\$11.95 million 9.0million ACWA Power ACWA Power dollars 950thousand

Masdar

**icraf** 

2.0million dollars

dollars

### SMALL AND MICRO GENERATORS PROGRAM



#### Target indicators for the network of small and micro hydropower plants, 2025-2026

	200	25	
	Number of hydroelectric power plants	1 184	projects
	Hydropower capacity	65.7	MW
	Annual production	200	million kWh
	Save natural gas	60	million m3
ŀ	CO2 prevention	100	thousand tons
	Workplace	208	unit

	20	)26	
	Number of hydroelectric power plants	1 799	projects
7771	Hydropower capacity	98.1	MW
	Annual production	300	million kWh
3	Save natural gas	91	million m3
€02 ŪŪŪ	CO2prevention	151	thousand tons
113	Workplace	312	unit

#### Implemented measures, 2025

To the auction removed	Auction winner detected	Design work started	Construction work completed	Electricity produced (monthly)
<u>500</u>	<u>140</u>	<u>61</u>	<u>43</u> (19 MW)	4.8 million kWh (24 a thousand households)

#### Procedure for implementation of projects

**Auction sale** 

"Ready Business" project

Land areas will be allocated for the project

Land areas are allocated for projects

[Municipalities and the Ministry of Water Management]

[Municipalities and the Ministry of Water Management]

The project will be auctioned

The project will be handed over to "Green Energy" LLC

[Ministry of Energy and Green Energy LLC]

[Ministry of Energy and E-Auction]

It will be designed and built [Auction winner]

Connects to the mains

[Regional Power Grids and Auction Winner]

Transferred to 3rd party [Regional power networks and Auction Winner]

**Electricity** 

a sales contract is signed

[Auction winner and Territorial Power Grids1

**Electricity** 

for personal use or

[Ministry of Energy,"Green energy" and E-Auction]

Small and micro hydropower projects across regions, 2025-2026



Number of hydroelectric power plants 2983



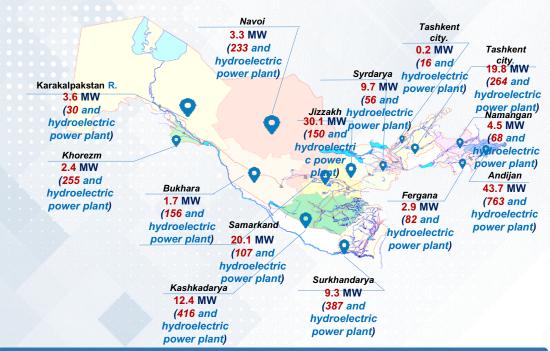
**Total power** 163.8 MW



**Production** 500 million kWh



**Power supply** 208 thousand household

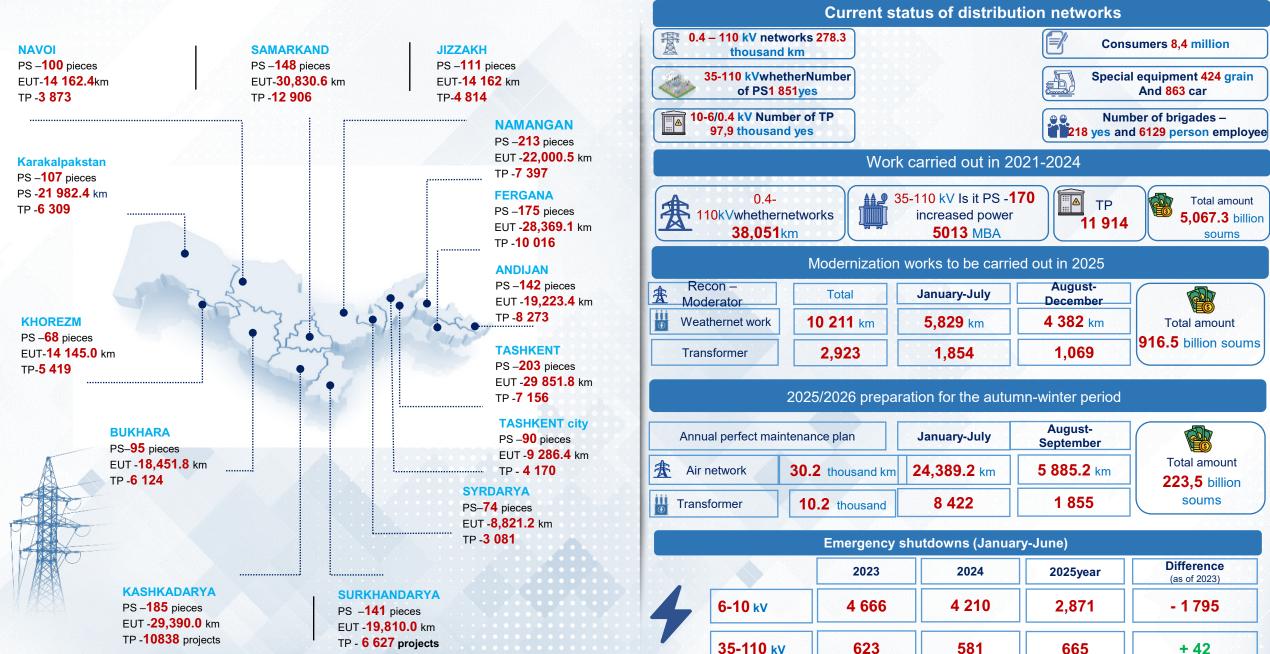


#### **ProjectsFeasibility analysis**

It will be designed and built ["Green Energy" LLC]	No.	Power (kW)	Construction cost (kW / dollar)	Electricity sales tariff (kWh / cent)	Payback period
Connects to the mains [Regional power grids and "Green Energy"]	1	0– 100	1 330	6.9	4 year 1 month
An electricity purchase agreement will be signed	2	100 – 500	1630	6.9	4 year 7 month
[Regional power grids and "Green Energy"]	3	500 – 1000	1,530	6.9	5 year 7 month
"Ready business"project will be auctioned [Ministry of Energy, "Green energy" and E-Auction]	4	1000+	1000	6.9	3 year 8 month

## **Distribution networks**





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### SAVING ENERGY RESOURCES AND INCREASING ENERGY EFFICIENCY



### 2025 in the year republic according to energy resources economy plan



# **Natural** gas billion cubic meters

**Electricity** 6.0 billion kWh

Economy	in the	territories	was a	achieved	due	to:

	Natura	al gas
Differential t weather effe		829.6 million cubic meters
Energy effic equipment	ient	94,8 million cubic meters
Technician- organization	nal events	261,4 million cubic meters
	Electi	ricity
Differential to other techniorganization	ariff and cian-	225.4 million kWh
other techni	cariff and cian- nal events	

	e year <mark>2024</mark> compared to t n" on saving natural gas a	the year <mark>additional</mark> produced at the expense of energy
`	2025 in the year	There will be an economy



natural gas



1.7 billion cubic meters

2024 year	
in practice	

2025 2025 in practice plan



10.5 billion kWh

**Natural** gas economy

1,5 billion cubic meter

3.2 billion cubic meter

billion

cubic meter

1	] 
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kWh	į
	From
18	

in practice

#### saving energy resources Natural gas **Electricity** 2,7 billion billion cubic meter kWh 3.5 1.6 **Economy** billion billion networks kWh (PP-77) cubic meter 1,1 2,5 Regions mird billion (PK-133) cubic meter kWh n this: 1,4 (56%) **1,2**(107%) 7 months old billion billion

cubic meter

Republic of areas and economic sectors

#### 2025 on the economy of energy resources actions taken



#### **Natural** gas

- ► Conversion to a two-tier system 256,817 grain
- ► Economical equipment installation—345,526 grain
- ► Repair of GTPs-1,355 grain
- ► Repair of gas networks-293.7 km
- ► Energy efficient devices 13,995 grain
- Other organizational and technical activities—123 383

# **Electricity**

- ► Installation of FES -678 MW
- ► Installation of solar collectors -1,550 thousand litres
- ► TP repair 9 685 grain
- ► Repair of electrical networks -23,874 km
- ► Installation of reactive compensators -4,959 grain
- Other organizational and technical activities -110 133 grain

#### **Enterprises included in the energy register in 2025** energy audit status

► Energy audit plan in 2025 – 357 a company

kWh

- ► Those who completed the energy audit -32 a company
- ➤ Signed an energy audit contract—246 a company (164 program approved)
- ▶ Removed from the register(discontinued or reduced in use) –22 a company
- ► Not done-57 a company
- ► Energy resources expected to be saved:

**Natural** gas million

**Electricity** 55,2 million

kWh

Oil products



38 tons

### WORKS IN PROGRESS IN THE DIRECTION OF GREEN ECONOMY



#### **Current status**



Green space



514 a thousand seedlings



practice

1 275 a thousand seedlings (240% completed)



Improvement of atmospheric air (in thermal power plants)

Plan Filter in 2025-2026, implementation of the monitoring system

In 11 ecopost, 19 monitoring system practice

11and filter Repair



### CO2 in the industry reduction



**Forecast** 



6 million tons of CO2



5.4 million In practice tons of CO2

Work planned to be completed by the end of 2025





400 thousand pieces



322 a thousand practice pieces

Uzbekhydroenergo JSC



Environmental, social and corporate governance ESG

Plan

**Tiwinterin organizations ESG** principle Aryan to do

practice

**Analysis report** 

**ESG** report

Get a final rating

60 A plot of land has been allocated and an almond orchard is being created



Plant irrigation systems are being introduced



Filter





-W-

7 **Ecopost** 11



tons of CO2

**Small RES stations** 

0.5 million tons of CO2

0.550 million



Currently 50.7 thousand certificates are being issued, and more by the end of the year

30 thousand will be issued



From that, Uzbekhydroenergo JSC-30 thousand, by entrepreneurs -20 a thousand pieces



**Analysisreport** 

**ESG** report

Get a final rating 2

#### **Expected results**



in Bostanlig district 60 Instead of dried seedlings, replacement seedlings are planted



The number of seedlings planted

1.3 million

Analysis of atmospheric emissions, measurement and control accuracy



increases

**Large RES** 5.2 million tons of CO2 stations

0.8 thousand **Small RES** stations tons of CO2



To the market 400 thousand green energy certificates will be issued



Sold certificates 800 allows you to earn a thousand dollars



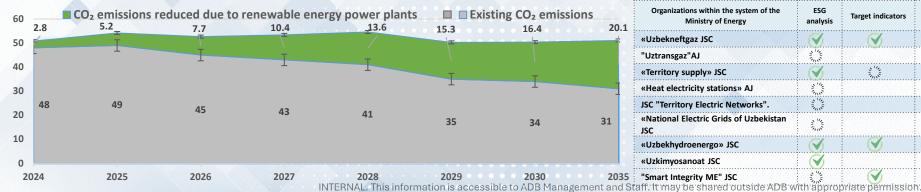
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The environmental and social impact of the enterprise is reduced

The attractiveness for global investments will increase



#### 2035 until the year EE work to release in the field greenhouse gases contraction trend



#### In organizations of the Ministry of EnergyESGthe state of implementation of the principle

			<u>-</u>					
Organizations within the system of the Ministry of Energy	ESG analysis	Target indicators	Climate strategy	Labor protection to do	ESG KPIs	ESGreport	Verification	ESGrating to take
«Uzbekneftgaz JSC	<b>(V)</b>	<₹	3 1/4					
"Uztransgaz"AJ	11/4		100			$oldsymbol{\lozenge}$	<b>⊘</b> 4	
«Territory supply» JSC	<b>(V)</b>					Ø	Ø	
«Heat electricity stations» AJ	100							
JSC "Territory Electric Networks".	100					$\odot$		100
«National Electric Grids of Uzbekistan JSC								
«Uzbekhydroenergo» JSC	⊗	Ø	No.	$\odot$		$\odot$	$\odot$	$\odot$
«Uzkimyosanoat JSC	Ø		$oldsymbol{\lozenge}$		100			100
"Smart Integrity ME" JSC	Mark Harris	vista narmissia		Ø				