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# CURRENT STATE OF PRODUCTION AND INNOVATION POTENTIAL OF HEAT ENERGY INDUSTRY ENTERPRISES OF THE REPUBLIC OF UZBEKISTAN

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Currently, the existing electricity production capacity of the republic almost 92% heat electricity stations and centers per share is correct .

In this process The society fulfills the task of producing electricity and ensures that electricity and thermal energy are generated in specified volumes in order to ensure the satisfaction of the needs of the republic's economy and population.

Table 1
Current and installed capacities of JSC "Heat Power Stations".<sup>37</sup>

No	IES and IEM names	Installed power, MW	Current power, MW
1.	"Syr Darya". IES" JSC	3 215	3050
2.	"Tashkent IES" JSC	2 230	2000
3.	"Navoi IES" JSC	2 068	1750
4.	"Tachiatosh". IES" AJ	980	900
5.	"Fergana IEM" JSC	329	250
6.	"Blessed IEM" AJ	60	50
7.	"Tashkent IEM" JSC	57	50
8.	"Talimarjon IES" AJ	1700	1 650
9.	"Toragorgon IES" UK	900	900
	TOTAL:	11 539	10 600

Society follow up incoming IES and of IEMs total installed power 11 539 MW, valid power 10 600 MW organize is doing.

Table 2
Work in release main energetic of equipment composition<sup>38</sup>

No	Equipment type	number, piece
1	Energy blocks	31
2	Kazan aggregates	25
3	Turbogenerators	13
4	Steam-gas devices	9
5	Gas turbine devices	3
6	Turbo expander devices	3
TOTAL		84

2021 year IES at the end and by IEMs 60.5 billion kWh electricity was produced and the plan task was fulfilled by 106.7%, and the growth rate compared to 2020 was 111.2%.

 $<sup>^{</sup>m 37}$  "Heat Power Stations" was prepared by the author based on the data of JSC

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Heat energy work release volume 5,599.7 a thousand Gkall organize and the plan indicator was 106.4%. 2021 year the end with product work release volume 17 743.8 billion soms, the plan indicator was 106.7%, the growth rate was 110.2%.

The average consumption of conventional fuel was 308.58 g/kWh, a reduction of 4.6 g/kWh compared to the plan and 15.1 g/kWh compared to 2020 was achieved. Fuel energy resources economy to do complex measures implementation as a result 1 234.13 million m3 natural gas (plan 643.64 million m3), 241.2 million kWh electricity energy (plan 137.68 million kWh) and 1 888.36 tons (plan 1 169.0 tons) of oil products were saved. 2021 year the end with work issued products the cost was reduced to 626.6 billion soms, and 160.7% of the plan was fulfilled.

By the end of 2021 net profit was 3,097 billion soums, 271.1% of the plan was fulfilled. According to the plan for the preparation of IES and IEMs for the autumn-winter season of 2021-2022, 7 power units, 13 boiler units, 2 turbounits and 7 steam-gas units and 1 gasturbine unit have been repaired complete done.

As a result of energy devices is available power 289 The production capacity (steam volume) of MW and boilers was increased by 322 tons. 2021 in localization program within 98 ta project according to Localized products with a total value of 15.4 billion soums were produced, and the plan was fulfilled by 137.2%. to soum equal to has been products purchase done As a result, localization and industrial cooperation in order to optimize the volume of imports expand at the expense of 11.3 million dollar amount import reduced in size .

Table 3
New to work dropped energy efficient of equipment power<sup>39</sup>

Enterprise name	Power plant	To work fell year	power, MW
Tarrada a IEC	BGQ-1	2019	450
Toraghon IES	BGQ-2	2020	450
Talimation IEC	BGQ-1	2016	450
Talimarjon IES	BGQ-2	2017	450
Nama: IEC	BGQ-1	2013	478
Navoi IES	BGQ-2	2019	450
Tashkent IES	BGQ-1	2018	370
Tallianal IEC	BGQ-1	2020	280
Takhiatosh IES	BGQ-2	2021	280
Tashkent IEM	GTQ-1	2014	27
E 1 IEM	GTQ-1	2020	7
Ferghana IEM	GTQ-2	2020	17
, ,	ES		
(1,2,3,4,5,6,9,10- number power blocks)	8 bl x 325 MW	2015-2021	2 600

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TOTAL 6 309

Investment to the program according to 5 ta investment projects according to 81.97 million dollar in the amount investments mastered from that government warranty 60.31 mln. amounted to a dollar. Modernization of existing capacity and modern new energy efficient steam-gas of devices to work lowering as a result 2021 year by the end of the year, the capacity of newly commissioned energy-saving equipment was 6,309 MW, that is, 53.9% of the installed capacity.

2022 in the activity of JSC "Heat Power Stations". in done increased works include:

First of all, 55.9 billion kWh of electricity and 5.1 million Gcal of heat energy will be produced (production volume of goods is 18.3 trillion soums). In this case, the relative fuel consumption for the production of electricity was reduced by 309.28 grams/kWh due to the implementation of organizational and technical measures.

Secondly – localization program within 21.9 billion soum a total of 140 projects were implemented (141.8% compared to last year);

Thirdly, due to localization and expansion of industrial cooperation, the planned import costs were reduced by 15.6 million dollars. (138% compared to last year);

Fourthly, a total of 170.5 million dollars of investments in 4 projects were absorbed (100.0%).

Fifth - 750.4 million cubic meters of natural gas, 129.81 million kWh of electricity and 1174.7 tons of oil products were saved within the framework of the fuel and energy resources saving program .

Sixth - the cost of manufactured products was reduced to 1,147.1 billion soums.

Seventh, net profit of 1,058 billion soums was ensured.

Eighth - 49 new jobs were created during the reporting period.

From the ninth - common in the account 5 163 employee qualification increased.

From the tenth – common value 2 874.61 US million to the dollar equal to has been total 6 ta big investment projects within done increased objects It was handed over to the State Admissions Commission .

From the eleventh  $\sim$  ensuring the implementation of a total of 4 large investment projects with a total value of 1,935.42 million US dollars and 170.50 million from all sources of financing. USA. ensured the implementation of the plan equal to the dollar .

Twelfth - by ensuring the utilization of capital investments of 204.7 billion soums for 30 objects included in the "Address List", the value of unfinished objects was reduced.