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**MARKET ANALYSIS OF THE POWER INDUSTRY OF KAZAKHSTAN**

**JUNE 2022**

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# **Electricity generation in the UES of Kazakhstan**

According to the System Operator, power plants of the Republic of Kazakhstan in January-June 2022 generated 56,383 million kWh of electricity, which is   
942.4 million kWh or 1.6% less than the same period in 2021. A decrease in generation was observed in the Northern zone of the UES of Kazakhstan.

*million kWh*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Zone** | **Generation type** | **January June** | | **Δ, million kWh** | **Δ, %** |
| **2021** | **2022** |
|  | **Kazakhstan** | **Total** | **57,325.4** | **56 383** | **-942.4** | **-1.6%** |
| *TPP* | *45,779.1* | *44,364.9* | *-1,414.2* | *-3.1%* |
| *GTES* | *5232.1* | *5629.4* | *397.3* | *7.6%* |
| *HPS* | *4666.1* | *4484.4* | *-181.7* | *-3.9%* |
| *WES* | *816.8* | *1,052.7* | *235.9* | *28.9%* |
| *SES* | *829.7* | *851.6* | *21.9* | *2.6%* |
| *BSU* | *1.6* | *0* | *-1.6* | *-100%* |
| **1** | **Northern** | **Total** | **44,044.6** | **41,857.9** | **-2,186.7** | **-5%** |
| *TPP* | *38,590.7* | *36,505.4* | *-2,085.3* | *-5.4%* |
| *GTES* | *1499.1* | *1485.9* | *-13.2* | *-0.9%* |
| *HPS* | *3,283.6* | *2989.3* | *-294.3* | *-9%* |
| *WES* | *387.7* | *598.3* | *210.6* | *54.3%* |
| *SES* | *281.9* | *279* | *-2.9* | *-1%* |
| *BSU* | *1.6* | *0* | *-1.6* | *-100%* |
| **2** | **South** | **Total** | **6223.4** | **7,109.5** | **886.1** | **14.2%** |
| *TPP* | *3,876.4* | *4 590* | *713.6* | *18.4%* |
| *GTES* | *1382.5* | *1495.1* | *112.6* | *8.1%* |
| *HPS* | *148.2* | *150* | *1.8* | *1.2%* |
| *WES* | *270.1* | *303.4* | *33.3* | *12.3%* |
| *SES* | *546.2* | *571* | *24.8* | *4.5%* |
| **3** | **Western** | **Total** | **7,057.4** | **7415.6** | **358.2** | **5.1%** |
| *TPP* | *3 312* | *3,269.5* | *-42.5* | *-1.3%* |
| *GTES* | *3,584.8* | *3,993.5* | *408.7* | *11.4%* |
| *WES* | *159* | *151* | *-8* | *-5%* |
| *SES* | *1.6* | *1.6* | *0* | *0%* |

# *1.1 Electricity generation by regions of the Republic of Kazakhstan*

In January-June 2022, compared to the same period in 2021, electricity generation increased significantly in Akmola, Almaty, Atyrau, Zhambyl, West Kazakhstan, Kostanay, Turkestan and Mangystau regions. A sharp increase in electricity production in the Zhambyl region by 758.5 million kWh . or 54.1% due to the inclusion of an additional two blocks at the Zhambyl GRES in order to cover the shortage of electricity in the southern zone.

At the same time, a decrease in electricity generation was observed in Aktobe, East Kazakhstan, Karaganda, Kyzylorda , Pavlodar and North Kazakhstan regions.

*million kWh*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Region** | **January- June** | | **Δ, million kWh** | **Δ, %** |
| **2021** | **2022** |
| 1 | *Akmola* | *2,726.5* | *2,739.9* | *13.4* | *0.5%* |
| 2 | *Aktobe* | *1910.7* | *1,836.7* | *-74.0* | *-3.9%* |
| 3 | *Almaty* | *3,548.7* | *3674.4* | *125.7* | *3.5%* |
| 4 | *Atyrau* | *3,491.5* | *3670.1* | *178.6* | *5.1%* |
| 5 | *East Kazakhstan* | *4670.4* | *4495.2* | *-175.2* | *-3.8%* |
| 6 | *Zhambyl* | *1402.2* | *2160.7* | *758.5* | *54.1%* |
| 7 | *West Kazakhstan* | *1,196.9* | *1285.8* | *88.9* | *7.4%* |
| 8 | *Karaganda* | *7997.8* | *7394.4* | *-603.4* | *-7.5%* |
| 9 | *Kostanay* | *568.9* | *657.7* | *88.8* | *15.6%* |
| 10 | *Kyzylorda* | *339.9* | *328.5* | *-11.4* | *-3.4%* |
| 11 | *Mangistau* | *2369* | *2459.7* | *90.7* | *3.8%* |
| 12 | *Pavlodar* | *24,637.2* | *23,926.8* | *-710.4* | *-2.9%* |
| 13 | *North Kazakhstan* | *1533.1* | *807.2* | *-725.9* | *-47.3%* |
| 14 | *Turkestan* | *932.6* | *945.9* | *13.3* | *1.4%* |
|  | **Total for Kazakhstan** | **57,325.4** | **56 383** | **-942.4** | **-1.6%** |

# *1.2 Electricity generation by energy producing organizations* *of Samruk-Energy JSC*

The volume of electricity production by energy producing organizations of Samruk-Energy JSC for January-June 2022 amounted to 17,256.2 million kWh. The decrease in electricity generation compared to the same period in 2021 amounted to -595.3 million kWh or 3.3 % . The decrease is observed at "Ekibastuz GRES-2" JSC.

*million kWh*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **2021** | | **2022** | | **Δ 2022/2021** | |
| **January- June** | **share in Kazakhstan, %** | **January- June** | **share in Kazakhstan, %** | **million kWh** | **%** |
|  | **"Samruk-Energy" JSC** | **17 851.5** | **31.1%** | **17,256.2** | **30.6%** | **-595.3** | **-3.3%** |
| *1* | *AlES JSC* | *2 657.1* | *4.6%* | *2 682.6* | *4.8%* | *25.5* | *1.0%* |
| *2* | *"Ekibastuz GRES-1" LLP* | *10 696.7* | *18.7%* | *10 847.3* | *19.2%* | *150.6* | *1.4%* |
| *3* | *"Ekibastuz GRES-2" JSC* | *3 758.5* | *6.6%* | *2 912* | *5.2%* | *-846.5* | *-22.5%* |
| *4* | *"Shardara HPP" JSC* | *267.7* | *0.5%* | *276.9* | *0.5%* | *9.2* | *3.4%* |
| *5* | *"Moinak HPP" JSC* | *388.6* | *0.7%* | *449.2* | *0.8%* | *60.6* | *15.6%* |
| *6* | *Samruk-Green Energy» LLP* | *10.2* | *0%* | *10.2* | *0%* | *0* | *0%* |
| *7* | *"First wind power plant" LLP* | *72.7* | *0.1%* | *78* | *0.1%* | *5.3* | *7.3%* |

# 

# *1.3 Shares of energy holdings and large energy producing organizations*

*in power generation in Kazakhstan*

Samruk-Energy JSC in the electricity market of Kazakhstan remains the leader and amounts to 30.6 % .

**Kazakhstan**

**56 383**

**mln. kWh**

**Others**

# **Electricity consumption in the UES of Kazakhstan**

The industrial production index (hereinafter referred to as IPI) in January-June 2022 compared to January-June 2021, amounted to 103.5%. An increase in production volumes was recorded in 17 regions of the republic, a decrease is observed in Zhetisu, Kyzylorda and Pavlodar regions.

**Changes in industrial output by region**

*in % to the corresponding period of the previous year, increase +, decrease -*

In the city of Almaty, due to the growth in the production of vegetable oil, metal structures, mortars, cars and trucks, the IPI amounted to 110.6%.

In the city of Shymkent, due to an increase in the production of medicines, fuel oil, diesel fuel, gasoline, kerosene, IPI amounted to 110.1%.

In the Abay region, the IPI amounted to 108.9% due to the growth in the extraction of copper and gold ores, the production of copper concentrates, gold in doré, and refined copper.

In the East Kazakhstan region, the IPI amounted to 108.2% due to the growth in the production of copper concentrates, the production of refined copper, refined gold and silver, and natural uranium.

In the Zhambyl region, due to the growth in the extraction of gold-bearing ores, the production of sausages, fuel oil, phosphorus, and pharmaceuticals, the IPI amounted to 108.1%.

In the Akmola region, due to the increase in the extraction of gold ores, copper concentrates, the production of gold in the doré alloy, refined copper, the IPI amounted to 108%.

In the Almaty region, the IPI amounted to 106.2% due to an increase in the production of soft drinks, beer, chocolate, cigarettes, ready-mixed concrete, medicines, hot-rolled steel bars and rods.

In the Atyrau region, the IPI amounted to 105.6% due to an increase in the production of crude oil, the production of gasoline, diesel fuel, hydrocarbon liquefied gases.

In the Ulytau region, the IPI amounted to 105.5% due to the growth in the extraction of lead-zinc ores, zinc concentrates, the production of raw gold, blister and refined copper.

In the Karaganda region, the growth of IPI amounted to 105% due to an increase in the production of pig iron, refined gold, gold in doré, blister copper, and electrical wires.

In the city of Nur-Sultan, the IPI amounted to 102.8% due to the growth in the production of refined gold, soft drinks, ready-mixed concrete.

In the Aktobe region, the IPI amounted to 102.7% due to the growth in the extraction of copper, iron and chromium ores, the production of hot-rolled steel bars and rods.

In West Kazakhstan IPI amounted to 102.2% due to the growth in the production of gas condensate, seamless pipes made of steel, ready-mixed concrete.

In the Turkestan region, due to the growth in the extraction of gold-bearing concentrates, the production of cheese, cotton, gold in dore alloy, the IPI amounted to 101.9%.

In the North Kazakhstan region, due to the growth in the extraction of uranium and thorium ores, the production of flour, drinking alcohol, bags and packages of packaging, ready-mixed concrete, tractors, IPI amounted to 101.5%.

In the Mangistau region, the IPI amounted to 101.5% due to an increase in the production of ammonia, liquid pumps, and oilfield equipment.

In the Kostanay region, the IPI amounted to 101.4% due to an increase in the extraction of aluminum and copper ores, copper concentrates, the production of flour, bran, prepared animal feed, hot-rolled steel bars and rods, tractors, trucks and cars.

In Pavlodar region, the IPI amounted to 98.6% due to a decrease in the extraction of copper ores and concentrates, the production of gasoline, diesel fuel, ferrochromium, and electricity.

In the Kyzylorda region, the IPI amounted to 96.4% due to a reduction in the production of crude oil, the production of hydrocarbon liquefied gases.

In the Zhetisu region, the IPI amounted to 94% due to a decrease in the production of metal structures, electric batteries.

# *2.1 Electricity consumption by zones and regions*

According to the System Operator, in January-June 2022, there was a decrease in the dynamics of electricity consumption of the republic in comparison with the same indicators in 2021 by 280.9 million kWh or 0.5%. Thus, in the western and southern zones of the republic, consumption increased by 4.6% and 1%, respectively.

*million kWh*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **January June** | | **Δ,  million kWh** | **Δ, %** |
| **2021** | **2022** |
|  | **Kazakhstan** | **56,396.6** | **56 115.7** | **-280.9** | **-0.5%** |
| 1 | *Northern zone* | *36,959.6* | *36,238.4* | *-721.2* | *-2%* |
| 2 | *Western zone* | *7079* | *7401.5* | *322.5* | *4.6%* |
| 3 | *Southern zone* | *12 358* | *12475.8* | *117.8* | *1%* |
|  | ***incl .by regions*** |  |  |  |  |
| 1 | *Akmola* | *4,715.9* | *5201.2* | *485.3* | *10.3%* |
| 2 | *Aktobe* | *9,548.5* | *9484.1* | *-64.5* | *-0.7%* |
| 3 | *Almaty* | *5,140.5* | *5276.5* | *136* | *2.6%* |
| 4 | *Atyrau* | *883.9* | *817.5* | *-66.4* | *-7.5%* |
| 5 | *East Kazakhstan* | *2419.6* | *2400.4* | *-19.2* | *-0.8%* |
| 6 | *Zhambyl* | *10,864.4* | *9653.6* | *-1,210.8* | *-11.1%* |
| 7 | *West Kazakhstan* | *3,259.5* | *3370.2* | *110.7* | *3.4%* |
| 8 | *Karaganda* | *2572.6* | *2618.3* | *45.7* | *1.8%* |
| 9 | *Kostanay* | *3386.8* | *3405.2* | *18.4* | *0.5%* |
| 10 | *Kyzylorda* | *1246.9* | *1412.9* | *166* | *13.3%* |
| 11 | *Mangistau* | *6,083.7* | *6 242* | *158.3* | *2.6%* |
| 12 | *Pavlodar* | *2,741.3* | *2,899.4* | *158.1* | *5.8%* |
| 13 | *North Kazakhstan* | *2550.7* | *2379.9* | *-170.8* | *-6.7%* |
| 14 | *Turkestan* | *982.3* | *954.5* | *-27.8* | *-2.8%* |

# 

# *2.2 Electricity consumption by consumers of energy holdings and large energy producing organizations*

In January-June 2022, there is a decrease in electricity consumption by consumers energy holdings and large energy-producing organizations.

*million kWh*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **January June** | | **Δ, million kWh** | **Δ, %** |
| **2021** | **2022** |
|  | **Total** | **22,686.4** | **21,841.7** | **-844.7** | **-3.7%** |
| 1. | ERG | *7,578.3* | *7527.3* | *-50.9* | *-0.7%* |
| 2. | Kazakhmys Corporation LLP | *1,887.7* | *1978.8* | *91.1* | *4.8%* |
| 3. | Kazzinc LLP | *1464.5* | *1245.5* | *-219* | *-15%* |
| 4. | Arcelor Mittal Temirtau" JSC | *1,868.3* | *1,718.4* | *-149.9* | *-8%* |
| 5. | KKS LLP | *3,288.9* | *3,347.6* | *58.7* | *1.8%* |
| 6. | CAEPCO JSC | *2936.6* | *2808.1* | *-128.5* | *-4.4%* |
| 7. | Zhambyl GRES | *1,159.6* | *701.6* | *-458* | *-39.5%* |
| 8. | Oil and gas enterprises | *2502.6* | *2514.4* | *11.9* | *0.5%* |

In January-June 2022, there is an increase in electricity consumption by Samruk-Energy JSC companies by 66.1 million kWh or 1.7% compared to the same indicators in 2021.

*million kWh*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **January June** | | **Δ, million kWh** | **Δ, %** |
| **2021** | **2022** |
|  | **"Samruk-Energy" JSC** | **3952.5** | **4018.6** | **66.1** | **1.7%** |
| 1. | "Bogatyr-Komir" LLP | *151.5* | *153.9* | *2.4* | *1.6%* |
| 2. | Alatau Zharyk Companies » JSC | *478.8* | *518.5* | *39.7* | *8.3%* |
| 3. | AlmatyEnergoSbyt LLP | *3322.2* | *3346.2* | *24* | *0.7%* |

*2.3* *Electricity consumption by large consumers in Kazakhstan*

In January-June 2022, compared to the same period in 2021, electricity consumption by large consumers decreased by 28.4 million kWh or 0.2%.

*million kWh*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Consumer** | **January June** | | **Δ, million kWh** | **Δ, %** |
| **2021** | **2022** |
| 1 | Arcelor Mittal Temirtau" JSC | *1,868.3* | *1,852.9* | *-15.4* | *-0.8%* |
| 2 | AZF ( Aksuysky ) "TNK Kazchrome " JSC | *2699.7* | *2527* | *-172.8* | *-6.4%* |
| 3 | Kazakhmys Smelting LLP | *576.8* | *632.3* | *55.5* | *9.6%* |
| 4 | Kazzinc LLP | *1394.3* | *1380.8* | *-13.5* | *-1%* |
| 5 | "Sokolovsko-Sarbayskoye GPO" JSC | *818.9* | *778.1* | *-40.8* | *-5%* |
| 6 | Kazakhmys Corporation LLP | *646.1* | *661.2* | *15.1* | *2.3%* |
| 7 | AZF (Aktobe) "TNK Kazchrome" JSC | *1554.3* | *1560.2* | *5.9* | *0.4%* |
| 8 | “Channel them. Satpaev" RSE | *125.8* | *136.3* | *10.5* | *8.4%* |
| 9 | Kazphosphate LLP | *963.3* | *1009.5* | *46.1* | *4.8%* |
| 10 | NDFZ  (part of the structure of Kazphosphate LLP) JSC | *810.1* | *846.1* | *36* | *4.4%* |
| 11 | "Taraz Metallurgical Plant" LLP | *160.5* | *30.3* | *-130.2* | *-81.1%* |
| 12 | "Ust-Kamenogorsk titanium -magnesium plant" JSC | *302.7* | *370.5* | *67.8* | *22.4%* |
| 13 | Tengizchevroil LLP | *940* | *949.1* | *9.1* | *1%* |
| 14 | PAS (Pavlodar Aluminum Smelter) JSC | *471.2* | *484.6* | *13.4* | *2.8%* |
| 15 | "KEZ" (Kazakhstan electrolysis plant) JSC | *1,885.1* | *1,873.3* | *-11.8* | *-0.6%* |
| 16 | "KEGOC" JSC | *2618.9* | *2479.2* | *-139.7* | *-5.3%* |
| **Total** | | **17 026** | **16,997.6** | **-28.4** | **-0.2%** |

# *Export-import of electrical energy*

In order to balance the production and consumption of electricity in January-June 2022, exports to the Russian Federation amounted to 512.3 million kWh , imports from the Russian Federation 595.3 million kWh .

Including export of JSC "KEGOC" to the Russian Federation 490.2 million kWh , import of electricity for the reporting period in the amount of 504.7 million kWh .

*million kWh*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Name** | **January - June** | | **Δ, million kWh** | **Δ, %** |
| **2021** | **2022** |
| **Export of Kazakhstan** | **-1,457.7** | **-936** | **521.7** | **-35.8%** |
| *in Russia* | *-435.3* | *-512.3* | *-77.1* | *17.7%* |
| *in the IPS of Central Asia* | *-1,022.4* | *-423.6* | *598.8* | *-58.6%* |
| **Import of Kazakhstan** | **470** | **651.8** | **181.8** | **38.7%** |
| *From Russia* | *470* | *595.3* | *125.3* | *26.7%* |
| **Balance- flow "+" deficit, "-" surplus** | **-987.7** | **-284.2** | **703.5** | **-71.2%** |

# **Coal**

According to the Bureau of National Statistics, in Kazakhstan in January-June   
2022 it was mined 55 341.8 thousand tons of hard coal, which is 6.1% more than in the same period in 2021 (52,147.2 thousand tons).

*thousand tons*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Region** | **January- June** | | **Δ, thousand tons** | **Δ, %** |
| **2021** | **2022** |
| 1 | *Pavlodar* | *32,284.8* | *33,881.3* | *1,596.5* | *4.9%* |
| 2 | *Karaganda* | *15,943.5* | *16,347.8* | *404.3* | *2.5%* |
| 3 | *East Kazakhstan* | *3669.8* | *4004.2* | *334.4* | *9.1%* |
|  | **Total for the Republic of Kazakhstan** | **52,147.2** | **55,341.8** | **3,194.6** | **6.1%** |

In January-June 2022, Bogatyr Komir LLP produced 21,832.8 thousand tons, which is 1.8% less than in the corresponding period of 2021 (22,243.5 thousand tons).

The volume of coal sold in January-June 2022 amounted to 21,905.2 thousand tons, of which 16,583 thousand tons went to the domestic market of the Republic of Kazakhstan, which is 9% less than in the same period in 2021 (18,229.6 thousand tons ) and for export (RF) - 5,322.2 thousand tons, which is 24.1% more than in the corresponding period of 2021 (4,287.4 thousand tons).

According to the indicators for January-June 2022, in comparison with the same indicators in 2021, Bogatyr Komir LLP observed a decrease in coal sales by 611.7 thousand tons or 2.7%.

*thousand tons*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Region** | **January June** | | **Δ,** **thousand tons** | **Δ, %**  **2022/2021** |
| **2021** | **2022** |
| **Total to the domestic market of the Republic of Kazakhstan** | | **18,229.6** | **16 583** | **-1,646.6** | **-9%** |
| **Total for export to Russia** | | **4287.4** | **5322.2** | **1,034.8** | **24.1%** |

# 

# **Renewable energy sources**

# *RES indicators in Kazakhstan*

According to the Ministry of Energy of the Republic of Kazakhstan, the volume of electricity production by renewable energy facilities (SPP, WPP, BGS, small hydropower plants) of the Republic of Kazakhstan for January-June 2022 amounted to 2,392.5 million kWh . Compared to January-June 2021 (2,011.9 million kWh), the increase was 380.6 million kWh or 18.9%. An increase in electricity generation is observed at wind farms, solar power plants and small hydropower plants compared to the same period in 2021, while biogas generation decreased compared to last year.

According to the Ministry of Energy of the Republic of Kazakhstan totally as of June 2022, 140 renewable energy facilities operate in Kazakhstan (wind farms - 893.95 MW; SPPs - 1147.51 MW; Small HPPs - 280.98 MW; BioPP - 7.82 MW).

Since the beginning of the year, 6 facilities with a total capacity of 269.9 MW have been put into operation:

- SES 4.95 MW by "AlmatyEnergoProject" LLP;

- SPP "Aisha" 50 MW by "AEC Asa" LLP;

- SPP "Makpal" 4.95 MW by "Engineering Arena" LLP;

- WPP Shelek 50 MW by "Zheruyik Energo" LLP;

- WPP Shelek 60 MW by "Energy Semirechye"LLP;

- VES Abai-1 100 MW LLP.

According to the System Operator, the volume of electricity from renewable energy facilities supplied to the UES of the Republic of Kazakhstan amounted to 2,383.0 million kWh .

million kWh

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **2021** | | **2022** | | **Δ, million kWh** | **Δ, %** |
| **January June** | **share in Kazakhstan, %** | **January June** | **share in Kazakhstan, %** |
| **1** | **Production in the Republic of Kazakhstan** | **57,325.4** | **100%** | **56 383** | **100%** | **-942.4** | **-1.6%** |
| **2** | **RES generation in Kazakhstan** | **2011.9** | **3.5%** | **2383** | **4.2%** | **371.1** | **18.4%** |
| **3** | **RES generation, incl . by zones** | **share in the respective zone** | | | | | |
|  | *Northern zone* | *749.2* | *1.7%* | *984.4* | *2.4%* | *235.2* | *31.4%* |
|  | *Southern zone* | *1 102.1* | *17.7%* | *1 246* | *17.5%* | *143.9* | *13.1%* |
|  | *Western zone* | *160.6* | *2.3%* | *152.6* | *2.1%* | *-8* | *-5%* |
| **4** | **RES generation, incl . by zones** | **share in RES of the Republic of Kazakhstan, %** | | | | | |
|  | *Northern zone* | *749.2* | *37.2%* | *984.4* | *41.3%* | *235.2* | *31.4%* |
|  | *Southern zone* | *1 102.1* | *54.8%* | *1 246* | *52.3%* | *143.9* | *13.1%* |
|  | *Western zone* | *160.6* | *8%* | *152.6* | *6.4%* | *-8* | *-5%* |
| **5** | **RES generation, incl . by type** | **share in RES of the Republic of Kazakhstan, %** | | | | | |
|  | *SES* | *829.7* | *41.2%* | *851.6* | *35.7%* | *21.9* | *2.6%* |
|  | *WES* | *816.8* | *40.6%* | *1052.7* | *44.2%* | *235.9* | *28.9%* |
|  | *Small HPPs* | *363.8* | *18.1%* | *478.7* | *20.1%* | *114.9* | *31.6%* |
|  | *BSU* | *1.6* | *0.1%* | *0* | *0%* | *-1.6* | *-* |

# *Samruk-Energy JSC in the production of clean electricity*

Production by Samruk-Energy JSC (SPP, WPP and small HPPs) in January-June 2022 amounted to 173.7 million kWh , which is 10.7% higher compared to the same period in 2021 (156.9 million kWh ).

The share of RES electricity of Samruk-Energy JSC in January-June 2022 amounted to 7.3% of the volume of electricity generated by RES facilities in the Republic of Kazakhstan, while in January-June 2021 this figure was 7.8%. The decrease in the share of renewable energy sources of Samruk-Energy JSC in the generation of renewable energy sources in the Republic of Kazakhstan in 2022 is associated with an increase in the generation of electricity from renewable energy sources in the Republic of Kazakhstan.

*million kWh*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **2021** | | **2022** | | **Δ, million kWh** | **Δ, %** |
| **January June** | **share in Kazakhstan, %** | **January June** | **share in Kazakhstan, %** |
|  | **RES S-E, *including:*** | **156.9** | **7.8%** | **173.7** | **7.3%** | **16.8** | **10.7%** |
| *1* | *Cascade of small HPPs of AlES JSC 43.7 MW* | *74* | *3.7%* | *85.5* | *3.6%* | *11.5* | *15.5%* |
| *2* | *Samruk - Green LLP Energy » SPP 2MW + SPP 1MW* | *2.6* | *0.1%* | *2.6* | *0.1%* | *0* | *0%* |
| *3* | *Samruk - Green Energy LLP WPP Shelek 5 MW* | *7.6* | *0.4%* | *7.6* | *0.3%* | *0* | *0%* |
| *4* | *First Wind Power Plant LLP WPP 45 MW* | *72.7* | *3.6%* | *78* | *3.3%* | *5.3* | *7.3%* |
| *5* | *Energy Semirechye LLP WPP Shelek 60 MW* | *-* | *-* | *-* | *-* | *-* | *-* |

# **International Relations**

# *5.1* *Status of formation* *of the Common Electricity Market of the Eurasian Economic Union*

The common electricity market of the Eurasian Economic Union is planned to be formed by integrating the national electricity markets of Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia. The EAEU Member States are gradually forming a common electric power market of the Union on the basis of parallel operating electric power systems, taking into account the priority provision of electric energy to domestic consumers of the Member States.

At the same time, the balance of economic interests of producers and consumers of electric energy, as well as other subjects of the EAEU OER, will be observed.

On May 29, 2019, as part of the celebration of the fifth anniversary of the signing of the Treaty, the Supreme Council signed an international agreement on the formation of a common electric power market of the Union in the form of a Protocol on amendments to the Treaty on the Eurasian Economic Union dated May 29, 2014 (in terms of the formation of a common electric power market of the Eurasian Economic Union).

In addition, in accordance with paragraph 42 of the above international agreement, on December 20, 2019, the Supreme Council adopted Decision No. 31 “On the plan of measures aimed at the formation of a common electric power market of the Eurasian Economic Union”, which establishes, among other things, the terms for approval and entry into force of the rules for the functioning of a common electric power market of the Union, as well as other acts provided for by the said Protocol.

Reference :

*The Protocol defines the legal framework and principles for the formation, functioning and development of the OER, establishes the areas that will be regulated by the rules for the functioning of the OER, and also empowers the Intergovernmental Council and the Council of the Commission to approve acts regulating the OER.*

In 2022, one meeting of the Advisory Committee on the Electricity Industry under the EEC Board was held (17th meeting on January 19), 10 meetings of the Subcommittee on the Formation of the EAEU General Electricity Project of the Advisory Committee on Electricity under the EEC Board (79th meeting on January 13-14, 80th meeting January 26-27, 81st meeting February 11, 82nd meeting February 25, 83rd meeting March 17-18, 84th meeting March 31, 85th meeting April 8, 86th meeting

15 April, 87th meeting 26 April, 88th meeting 17-18 May) and 4 March

2022, the Kazakhstani and Russian parties took part in a working meeting on the procedure for registering free bilateral agreements for mutual trade in electricity on the common electricity market of the Eurasian Economic Union.

During the meetings discussed:

- timing of processes at the Union's OER;

- the possibility of setting prices (tariffs) for services for trade and non-trade interstate transmission of electric energy (capacity) for the planned year, the terms for publishing these prices (tariffs) and the terms for informing about adjusted prices (tariffs) during the year;

- reduction (zeroing) of hourly volumes of deliveries under fixed-term contracts in case of revealing the technical unfeasibility of electric energy balance flows through interstate sections (internal sections).

At the 17th meeting, the following issues were considered:

1. On the uncoordinated provisions of the draft rules for mutual trade in electric energy on the common electric power market of the Union (hereinafter referred to as the rules for mutual trade), including:

definition of the concept of "commercial accounting of electric energy";

exclusion (preservation) from the draft rules of mutual trade of the provision on the need for compensation by suppliers and buyers in the domestic wholesale electricity market in accordance with the legislation of the relevant Member State for deviations in the actual hourly volumes of production and consumption (supply) of the subjects of the internal wholesale electricity markets from the planned values determined in including taking into account transactions in the common electricity market of the Eurasian Economic Union (clause 8 of the draft rules for mutual trade);

procedure for registration of free bilateral agreements (proposal of the Russian Federation) (paragraphs 38, 40, 41 of the draft rules for mutual trade);

exclusion (preservation) from the draft rules of mutual trade of the provision on external balancing as one of the components of the magnitude of hourly deviations in the balance of electricity flows in the interstate section for each hour of the billing period (paragraphs 89, 90 of the draft rules of mutual trade);

the exclusion of paragraph 93, which contains the principle of equal prices for both the purchase and sale of electricity within the allowable range established in the agreements on parallel operation, if there is paragraph 94 of the draft rules for mutual trade (the proposal of the Russian side).

1. On the inconsistent provisions of the draft rules for access to services for the interstate transmission of electric energy (capacity) within the framework of the Eurasian Economic Union (hereinafter referred to as the access rules), including:

clarification of the condition “the person who applied for the conclusion of such an agreement has unfulfilled obligations to pay for the service of non-trade interstate transmission of electric energy (capacity)”, under which an organization authorized for non-trade interstate transmission has the right to refuse to conclude an non-trade interstate transmission agreement with the phrase “in with regard to volumes that do not cause disagreement between the parties under previously concluded agreements” (paragraph 17 of the draft access rules);

exclusion (preservation) from the draft access rules of the provision that the interstate transmission of electric energy (capacity) in the interests of electric power industry entities of third states (deliveries to third states and between third states, transfer from one part of a third state to another part of it) is regulated in accordance with paragraph 2 of the Protocol on the Common Electricity Market of the Union (paragraph 34 of the draft access rules).

Work on the formation of a common electricity market of the Eurasian Economic Union continues.

# *5.2* *Overview of the media in the CIS countries*

*(according to information from the website of the CIS EES Executive Committee)*

**The 60th meeting of the CIS Electric Power Council was held**



The participants of the 60th meeting of the Electric Power Council of the Commonwealth of Independent States (CIS EEC) discussed cooperation in the field of renewable energy, as well as technological sovereignty and industrial cooperation of countries in terms of energy security of the CIS member states.

Nikolai Shulginov, as the President of the CIS EEC, welcomed the participants of the meeting and noted the importance of interaction between the Commonwealth countries in the field of electric power industry.

Vice Minister of Energy of the Republic of Kazakhstan Zhandos Nurmaganbetov, in his welcoming speech, expressed confidence that the results of the meeting would give a new impetus to cooperation between the member countries of the Council in the field of electric power industry.

He spoke about the development of the industry in the Republic of Kazakhstan. In his report Zhandos Nurmaganbetov gave a general description of the current state of the country's energy system, and also reported on the measures being taken in the industry - plans to build a new generation, including low-carbon generation , upgrade power facilities , increase the reliability of the power grid complex, and reform the electricity market.

Minister of Energy and Water Resources of Tajikistan Daler Jum'a, in turn, reported on the contribution of low-carbon electricity to the sustainable development of the CIS. According to him, the energy system in Tajikistan is developing mainly due to hydropower, while the country continues to work on building up "green" capacities.

Deputy Minister of Energy of the Republic of Belarus Denis Moroz in his report touched upon the topic of technological sovereignty of the CIS countries. “I am sure that the intellectual and industrial potential of the Commonwealth of Independent States is able to ensure the technological independence and sovereignty of our countries and ensure energy security in this vein,” he said.

Pavel Snikkars , commenting on the reports of the meeting participants, noted that all member countries of the Council face similar challenges - ensuring the rationality of the energy balance, maintaining the availability of electricity, taking into account the attraction of the required amount of investment, preventing the aging of energy funds, and active technological development.

**Kazakhstan**

**For 6 years, there was a decrease in the energy intensity of GDP by 11% - Ministry of Industry and Infrastructure Development of the Republic of Kazakhstan.**

This was stated by the Vice Minister of Industry and Infrastructure Development of the Republic of Kazakhstan Marat Karabaev during the Plenary meeting of the Forum, dedicated to summarizing the completion of the project "Improving Energy Efficiency in Kazakhstan", held on June 10 of this year . in the city of Nur -Sultan.

A joint project of the Ministry of Industry and Infrastructure Development of the Republic of Kazakhstan and the World Bank is aimed at improving the energy efficiency of public and social facilities, street lighting. The main goal of the project was to contribute to the implementation of the country's policy in the field of energy conservation.

According to Marat Karabaev , during the implementation of the project, the total savings in cash costs for fuel and energy resources amounted to about 188 million tenge.

As a result of the work, the modernization of 96 facilities was completed. For the entire period of the Project, savings in fuel and energy resources amounted to more than 16 million kWh per year. The total savings in cash costs for fuel and energy resources is approximately 188 million tenge.

As a result of the modernization, energy savings of up to 40% were achieved for each facility, more than two thousand jobs were created, and the share of local content in goods and works was 85%.

The Vice Minister also noted that Kazakhstan still has a high potential for energy conservation and energy efficiency , and there are still many tasks to be completed in this direction.

According to the vice minister, the country's Parliament is considering a bill on energy efficiency . Thus, the draft law proposes the introduction of responsible persons for energy conservation to play the role of an energy manager at large enterprises that account for one third of the country's consumption (consuming from 1,500 tons of equivalent fuel per year, the amount is 927), as well as setting target indicators for energy efficiency for the TOP- 100 energy-intensive enterprises consuming about 90% of all subjects of the energy register .

The start of energy conservation policy in Kazakhstan began in 2012 with the adoption of the Law "On Energy Saving and Energy Efficiency ".

**Alma-Ata region will be the proposed site for the construction of the nuclear power plant in Kazakhstan.**

The construction site of the first nuclear power plant in Kazakhstan is a site on the coast of Lake Balkhash in the Alma-Ata region of the republic, said the head of the Ministry of Energy of the country Bolat Akchulakov .

Earlier, President of the Republic Kassym-Zhomart Tokayev said at a meeting of the Council of Foreign Investors that Kazakhstan had decided on the location of the nuclear power plant and was studying technologies from potential suppliers.

The minister explained that this was the area of the Ulken settlement in the Alma-Ata region of the country.

Tokayev, speaking on September 1, 2021 with a message to the people, instructed the government and the state national welfare fund Samruk-Kazyna to study the possibility of developing nuclear energy in the country. At a meeting with representatives of the financial sector in November, Tokayev expressed the opinion that the republic would come to a final opinion on the need to build a nuclear power plant against the backdrop of an emerging shortage of electricity. The president called the decision to build the nuclear power plant "unpopular," adding that "the role of a leader is to make unpopular decisions."

Director of the Department of Nuclear Energy and Industry of the Ministry of Energy of Kazakhstan Zhaslan Kasenov reported in February that the Kazakh side was studying proposals from six world nuclear technology suppliers - American, American-Japanese, Korean, Chinese, Russian and French. As expected, the capacity of the first nuclear power plant in Kazakhstan will be up to 2400 MW.

**Kyrgyzstan**

**Information on the progress of construction of CASA-1000 in Kyrgyzstan**

As part of the implementation of the CASA-1000 project in Kyrgyzstan, the construction of a 500 kV transmission line is underway.

In total, 455.6 kilometers of transmission lines will be laid in Kyrgyzstan from a 500 kV cell , which will be built specifically for this transmission line at the 500 kV Datka substation, from which the line will stretch through Jalal-Abad , Osh and Batken regions to the border with Tajikistan.

The construction of access roads to the construction sites of supports was completed for 955 supports (76%), digging pits for supports - 897 (72%), reinforcement and pouring of concrete - 742 (59%), installation of supports - 436 (35%). A total of 1241 supports will be built under the project.

Currently, active work is being carried out in Batken , Osh and Jalal-Abad regions. The work involves 84 units of special equipment and special vehicles, 44 units of vehicles and 230 workers, of which about 70% are local residents.

To mobilize specialists for the construction of infrastructure facilities in these three regions, 6 construction bases have been created.

Reference **:** CASA-1000 is designed to connect the energy systems of Central Asia with South Asia - Kyrgyzstan, Tajikistan with Afghanistan and Pakistan and develop mechanisms for electricity trade in accordance with international standards.

**Construction of the first gas power plant is planned in the Kyrgyz Republic**

The government of Kyrgyzstan, with the support of Russian companies, expects to begin construction of the first natural gas power plant in the country in the near future. This was stated by the head of the Kyrgyz government Akylbek Zhaparov during a meeting with representatives of the international diversified business mission of Russian companies in the country.

According to him, the design capacity of the thermal power plant will be 600 MW. The cost of building the power plant has not yet been announced. The project is planned to be implemented with the support of Russian companies.

Due to the lack of generating capacity, the Kyrgyz Republic, which has a large hydropower potential, is forced to import electricity from neighboring states. At the beginning of this month, the construction of a large Kambar-Ata-1 hydroelectric power station began in the country, but its construction will take at least 4-5 years.

Due to the shortage of electricity, the authorities of Kyrgyzstan also intend to build two solar power plants with a total capacity of 1.5 thousand MW in the republic.

**Kyrgyzstan is negotiating the export of electricity to China and expects to receive 6-8 cents per kW**

The authorities of the Kyrgyz Republic are negotiating with the Chinese side on the export of Kyrgyz electricity to the PRC, Prime Minister Akylbek said during a meeting with representatives of the international diversified business mission of Russian companies in Bishkek on Monday . Zhaparov .

According to Zhaparov , the relevant agreement can be signed by the parties as part of the upcoming state visit of the President of Kyrgyzstan. Sadyr Zhaparov in China, the terms of which are currently being specified.

Meanwhile, for several years, Kyrgyzstan in the autumn-winter period has been forced to buy electricity from neighboring countries of Central Asia, since the generating capacities available in it are not enough to cover the needs of the population and industry. Trying to solve this problem, the Kyrgyz authorities announced the start of construction of a large hydroelectric power station

Kambar-Ata-1, as well as the intention to build two solar power plants with a total capacity of 1.5 thousand MW and a gas power plant with a design capacity of 600 MW.

**Kambarata HPP-1 is another step towards the energy independence of Kyrgyzstan**

the Kambar-Ata HPP-1 in the Jalal-Abad region of the Kyrgyz Republic was launched .

The Kambarata HPP-1 Construction project is the largest power facility of the entire Kambarata HPP cascade, which provides for the construction of a 256 m high rockfill dam and a HPP with an installed capacity of 1,860 MW, with an average annual output of 5.6 billion kWh and a full reservoir capacity 5.4 billion m³ of water. The construction period will be from 8 to 10 years. It is planned to put into operation the first hydraulic unit of the HPP in four years.

It is noteworthy that the Kambarata HPP-1 will become the largest facility of the entire cascade of Kambarata HPPs located in the middle reaches of the Naryn River, with a capacity of about 1900 MW, and an annual electricity generation of 5.6 billion kWh .

The reservoir with a volume of 4.65 billion cubic meters will carry out seasonal regulation of the flow of the Naryn River in the interests of energy, compensating for the decrease in winter energy efficiency Nizhnenaryn HPP cascade ( Toktogul HPP, Kurpsai HPP and others).

Therefore, an important advantage of the Kambarata HPP-1 will be the independence of operation from restrictions in winter, since the water discharged from the station will accumulate in the Toktogul reservoir. In addition, with the full launch of the Kambar-Ata-1 HPP, conditions will be created for the operation of the Kambar-Ata-2 HPP at full capacity, starting to use the second and third units, which will subsequently increase its capacity.

“As a result, we will be able to fully operate these two important hydroelectric power plants and produce 1,000 MW, which will be equivalent to the current volume of electricity generated at the Toktogul HPP,” Zhaparov said at the event .

Annual net profit of the country as a result of the launch of the Kambarata HPP-1

(KAGES-1) will amount to more than 234 million dollars. This amount consists of the ability to sell each produced kWh , and 5.6 billion kWh of electricity per year for 5.15 US cents, within the framework of the CASA-1000 project. This circumstance will undoubtedly make a significant contribution to the economy of the Kyrgyz Republic. In addition, the launch of the Kambar-Ata-1 HPP will benefit not only Kyrgyzstan, but also Central Asia by solving irrigation problems in neighboring countries and contributing to the stabilization of the water and energy balance in the region.

It is worth paying attention to the fact that there is already a prepared part of the infrastructure (bases, roads, quarries), a close location to the Datka-Kemin overhead line-500kV , which will ensure the Kambarata HPP-1 to have the lowest costs for the power distribution scheme, they will decide issues of energy supply to the population of the republic in winter. In the future, the growth of electricity consumption in the country will be satisfied.

Project financing

1.5 billion soms will be allocated from the republican budget for the preparatory work for the construction of the Kambar-Ata-1 hydroelectric power station. To date, 412.8 million soms have been allocated from the Kyrgyz Republic's own funds for research, feasibility studies and other work.

The funds will be used to build a transport tunnel to the construction site, a bridge connecting the two banks of the Naryn River, high-voltage power lines, roads and a workers' camp. The rest of the necessary funds, as planned, will be attracted from partners. This was what Zhaparov said at the event: “The implementation of the preparatory work will increase the interest of investors and partners in the main construction site. Taking this opportunity, I would like to inform interested partners that we are ready to cooperate in the implementation of this project.”

Since 1991, international financial organizations and partner countries have invested more than 1 billion US dollars in the republic's hydropower, but these funds have not been able to improve the current situation of the state.

Naturally, having modernized and reconstructed the Toktogul hydroelectric power station and the Bishkek thermal power plant, it was not possible to achieve the energy security of the country. For this, as mentioned earlier, it is necessary to implement the project for the construction of the Upper Naryn cascade of HPPs and Kambar-Ata-1, which will already make it possible to receive additional profit from the export of electricity within the framework of the CASA-1000 project.

Today, Kyrgyzstan uses only 10-11% of the hydropower potential of Kyrgyzstan. At the same time, all electricity is generated at the Nizhne- Naryn HPP cascade built back in Soviet times , which is the only complex operating in the country that includes 5 stations: Toktogulskaya - 1200 MW, Kurpsaiskaya - 800 MWt, Tashkumyrskaya - 450 MWt, Shamaldysayskaya - 240 MWt and Uchkurgan - 180 MW.

Power engineers indicate that, due to the population growth rate and the increase in the number of enterprises in Kyrgyzstan, these capacities are no longer enough, and given the desire of Kyrgyzstan to export electricity to South Asia, the search for new companies to implement the project for the construction of the Upper Naryn cascade of the GEA and Kambar - Ata -1 - is important for the country.

Therefore, in the future, it is necessary to build not only the Kambar-Ata-1 hydroelectric power station, but also such hydroelectric power plants as Suusamyr-Kokomeren , Sary-Jaz, Kazarman and the Upper Naryn Cascade. Only after that it will be possible to loudly declare the achievement of energy security and independence of the republic.

At the same time, do not forget about previous experience, from which it is clear that the huge funds invested in the rehabilitation of existing hydroelectric power plants in the country will not give any effect. And attracting foreign companies for

**Uzbekistan**

**Tashkent hosted the Meeting of Energy Ministers of the SCO countries**

Under the chairmanship of the Uzbek side, the II Meeting of Ministers of Energy of the Member States of the Shanghai Cooperation Organization (SCO) was held in Tashkent, the press service of the Ministry of Foreign Affairs of the Republic of Uzbekistan reported today.

The forum was opened by the First Deputy Minister of Energy of the Republic of Uzbekistan Azim Akhmedkhadzhaev and Secretary General of the Shanghai Cooperation Organization Zhang Ming.

At the meeting, speeches were made by the leaders of the energy industry in India, Kazakhstan, China, Kyrgyzstan, Pakistan, Russia, and Tajikistan.

The protocol adopted at the end of the ministerial meeting approved the Action Plan for the Practical Implementation of the Concept of Cooperation between the SCO Member States in the Energy Sphere and approved the draft Program of Cooperation between the SCO Member States in the field of renewable energy.

The implementation plan of the Concept includes cooperation within the SCO in the field of energy security, renewable energy and hydropower, regional electricity trade, and human capital development.

The program of cooperation of the SCO member states on renewable energy provides for the development of innovative technologies and science in the field of renewable energy, the promotion of green energy development, an increase in the volume of renewable energy and a reduction in greenhouse gas emissions, a reduction in the anthropogenic burden on the environment, as well as an increase in the level of energy security and reliability of energy supply.

We add that the Second Meeting of Ministers of Energy of the Member States of the Shanghai Cooperation Organization became the main event of the ongoing

June 23-24 of the Energy Forum of Uzbekistan - UEF 2022.

Within the framework of the Forum in Tashkent, the 24th International Conference "Oil and Gas of Uzbekistan - OGU" and the 2nd International Energy Conference were held.

**energy market management system discussed in the Republic of Uzbekistan**

President of the Republic of Uzbekistan Shavkat Mirziyoyev held a meeting on the transformation of electric power enterprises on June 23.

In accordance with the growing needs of the economy and the population, the fuel and energy complex is being modernized. It is carried out on the basis of the Strategy for the further development and reform of the electric power industry of the Republic of Uzbekistan, approved by a decree of the head of state dated March 27, 2019.

In particular, on the basis of the former joint-stock company Uzbekenergo , 3 separate structures for the production, transportation and sale of electricity were created. 7 million consumers are connected to the automated control and metering system for electricity, and the collection of payments is 100 percent ensured. Foreign investors have been attracted to 19 projects for the construction of solar, wind and thermal power plants worth $7 billion.

At the same time, there is still a lot of work to be done to create competition in the sphere, increase the volume and quality of energy supply. In particular, in order to modernize the energy system and fully meet the needs of the sectors of the economy and the population, about 20 billion dollars of investment will be required in the coming years. This requires the establishment of a competitive energy market and the creation of conditions for private investors.

In this regard, the meeting discussed the creation of a new energy market management system .

In order to create equal conditions for connecting private generating enterprises, it was proposed to divide the powers of the JSC " Uzbekistan milli electr tarmoklari " for the purchase of electricity and the management of backbone networks. At the same time, the company - a single purchaser will buy electricity from all power plants on a contractual basis and sell it to large enterprises and enterprises of regional electric networks. And the operator of the main networks will be responsible for the transportation of electricity, reducing losses and technical management of the energy system.

Next year, in 14 districts and cities, as an alternative to Khududii JSC electr tarmoklari ” will be organized by private electricity retail companies.

The meeting pointed out the need to accelerate the transformation processes, the financial recovery of enterprises and their transformation into companies that can attract direct investment. It was instructed to take measures to optimize the operating costs of enterprises in the industry, modernize power lines.

The Government and industry leaders have been tasked with developing a training program for highly qualified personnel necessary for the implementation of this reform.

**Uzbekistan and Azerbaijan will increase cooperation in energy**

On June 20, an intergovernmental Memorandum of Understanding on cooperation in the energy sector was signed.

The document was signed by the First Deputy Minister of Energy of Uzbekistan Azim Ahmedkhadzhaev and Minister of Energy of Azerbaijan Parviz Shakhbazov .

The memorandum provides for the expansion of bilateral cooperation in the energy sector, covering: partnership in the oil and gas and petrochemical fields, in the field of alternative and renewable energy, efficient use of energy resources, including through the implementation of joint projects; holding joint seminars, conferences, forums to provide training and development programs in the energy sector; the possibility of participation in energy projects of the relevant economic entities of the two countries. Also, following the meeting, the parties agreed to establish an exchange of experience on renewable energy and PPP (public-private partnership) with the first expert meeting within the upcoming Energy Forum on June 23-24 this year .

We add that cooperation between Uzbekistan and Azerbaijan in the field of energy has a solid foundation, in particular, partnership with the Azerbaijani oil and gas company SOCAR. The parties also have examples of successful cooperation in the field of advanced training of specialists in the oil and gas industry.

**Uzbekistan provides green loans for the purchase of renewable energy installations**

The Intersectoral Energy Saving Fund under the Ministry of Energy of the Republic of Uzbekistan and JSCIB "Ipoteka Bank", cooperating in the direction of providing green consumer loans, signed a general agreement, according to which the bank will issue preferential loans at the base rate of the Central Bank.

At the same time, the allocation of green consumer loans is set for a period of 5 years.

As part of the cooperation between the Fund and Ipoteka Bank, it is planned to allocate a total of 54 billion soums of green consumer loans for the purchase of energy-saving technologies and equipment, including renewable energy sources.

Elzod Rakhmanov , Executive Director of the Intersectoral Energy Saving Fund under the Ministry of Energy, and Dzhura , Deputy Chairman of the Board of JSCIB Ipoteka Bank Zulfukarov .

The allocation of these loans is the practical implementation of the decisions and instructions of the President of the country on the introduction of energy-saving technologies.

Green consumer loans will help meet the growing needs of the population for energy resources and reduce greenhouse gas emissions into the environment.

**Uzbekistan intends to build 8 GW renewable energy generation in the coming years**

In the coming years, Uzbekistan intends to build a generation of renewable energy sources (RES) with a total capacity of more than 8 GW, Prime Minister Abdulla Aripov said at the second regional summit on the UN Sustainable Development Goals (SDGs) in Almaty.

The head of government recalled that the country intends to increase the share of renewable energy to 25% in the total electricity production in the country by 2030.

Abdulla Aripov also said that the government of the country has set the task of switching all state institutions and companies to renewable energy sources by the end of 2022, and norms are also being introduced for the mandatory introduction of alternative energy sources and energy-saving technologies in the construction of social, infrastructure and housing facilities within the framework of ongoing projects. state programs.

According to the updated obligations of Uzbekistan to combat global warming by 2030, the country intends to reduce specific greenhouse gas emissions per unit of GDP by 35% from the 2010 level.

**The Republic of Moldova**

**Moldova will purchase 30% of electricity from Ukrhydroenergo in May , the remaining volumes from Inter RAO Moldavskaya GRES**

Moldova intends to purchase 30% of the required electricity from Ukrhydroenergo in May , the remaining volumes will continue to be supplied by the thermal power plant CJSC Moldavskaya GRES (Pridnestrovie), owned by the Russian PJSC Inter RAO.

JSC " Energocom " has signed a contract with the company " Ukrhydroenergo " for the purchase of 30% of the required electricity in May."

**Russia**

**The Ministry of Energy of the Russian Federation intends to revise the low-carbon strategy in terms of renewable energy, — N.G. Shulginov**

The Ministry of Energy of the Russian Federation intends to revise plans to achieve the implementation of a low-carbon strategy in terms of renewable energy, said the head of the ministry, Nikolai Shulginov , as part of the SPIEF.

“We will most likely reconsider our plans to achieve the implementation of a low-carbon strategy in terms of RES, because today the CSA on RES has been put on hold, but we are not abandoning this green agenda,” he said during a speech at the session “Electricity in a period of change”.

In the Russian Federation until 2035, there is a state program to support green energy, including through the CSA for the construction of power plants based on renewable energy sources - solar, wind and hydroelectric power plants. In early June, the Russian government announced its decision to abandon the competitive selection of projects this year and postpone it to 2023. At the same time, the Ministry of Energy does not plan to change the conditions for holding competitive selections.

CSA RES - a program to stimulate the development of renewable energy generation in the UES of Russia through guaranteed payment for a certain period of time under a capacity supply agreement (CSA) for the wholesale market, concluded with the owner of the power plant. The program provides for a competitive competitive selection of investment projects for the construction of generating facilities operating on the basis of the use of renewable energy sources.

**RES generation in the UES of Russia in May 2022 increased generation by 38%, increasing its share in the energy system to 0.9%**

The total generation of renewable energy sources (wind farms and solar power plants) in the UES of Russia in annual terms in May 2022 increased by 38% and amounted to 758.8 million kWh . In general, over the 5 months of this year, the indicator increased by 56% and reached 3533 million kWh , according to the telegram channel of the System Operator (SO).

In the structure of electricity generation in the UES of Russia in May, RES accounted for 0.9%, in January-May - 0.7% of the total electricity production in the UES of Russia.

At the same time, the generation of wind farms in May amounted to 451.6 million kWh (+77.3%), in January May 2550.7 million kWh (+86.2%).

The generation of solar power plants in May reached 307.2 million kWh (+4.2%), in January-May - 982.3 million kWh (+9.8%).

# **Electricity consumption in Russia for 5 months of 2022 increased by 2.5%, the most significant increase in the IPS of the South - by 4.4%**

03 June 2022

Views: 213

Electricity consumption in Russia as a whole for the five months of 2022 amounted to 485.0 billion kWh , which is 2.5% more than a year earlier, according to System Operator (SO UES).

In the UES of Russia, the indicator added 2.4%, amounting to 477.4 billion kWh .

At the same time, electricity generation in Russia as a whole and in the UES of Russia increased by 2.3% and amounted to 494.3 billion kWh and 486.8 billion kWh , respectively.

At the same time, the generation of TPPs amounted to 275.6 billion kWh (+3.2%), HPPs — 82.3 billion kWh (-3.1%), NPPs — 96 billion kWh (+3.6% ), generation of power plants of industrial enterprises - 29.4 billion kWh (+1.8%).

Data for five months of 2022

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ECO | production,  billion kWh | Relative to January–May 2021, % | Consumption, billion kWh | Relatively  January–May 2021, % |
| *East* | *21.7* | *7.9* | *20.0* | *4.3%* |
| *Siberia* | *94.3* | *1.0* | *96.7* | *2.7%* |
| *Ural* | *112* | *1.4* | *111.5* | *2.4%* |
| *Middle Volga* | *49.8* | *-0.2* | *47.5* | *0.9%* |
| *Center* | *108.5* | *2.1* | *111.5* | *2.2%* |
| *Northwest* | *50.8* | *2.8* | *43.0* | *1.3%* |
| *South* | *49.7* | *7.3* | *47.2* | *4.4%* |

In May, electricity consumption in annual terms in Russia as a whole increased by 3.8% - up to 86.3 billion kWh , in the UES of Russia - by 3.7% - up to 84.9 billion kWh .

Electricity generation in Russia as a whole and in the UES of Russia over the past month increased by 2.8% and reached 87.2 billion kWh and 85.8 billion kWh , respectively.

In particular, in the UES of Russia, the generation of TPPs amounted to 41.7 billion kWh (+6.4%), HPPs - 19.4 billion kWh (7.8%), NPPs - 18.5 billion kWh (+6%), generation of power plants of industrial enterprises - 5.5 billion kWh (+3.7%).

The maximum power consumption of the UES of Russia in May 2022 was recorded on May 6 at 10:00 Moscow time and amounted to 125,652 MW, which is higher than the maximum power consumption in May 2021 by 4,798 MW (4.0%).

According to SO UES, the average monthly air temperature in May this year was 11.3°C, which is 2.6°C lower than its value in the same month of 2021.

May 2022 data

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ECO | production,  billion kWh | Relatively  May 2021, % | Consumption, billion kWh | Relative to May 2021, % |
| *East* | *3.5* | *9.6* | *3.2* | *4.7%* |
| *Siberia* | *16.9* | *0* | *17.4* | *1.9%* |
| *Ural* | *20.8* | *7* | *20.3* | *4.7%* |
| *Middle Volga* | *8.9* | *-6.7* | *8.6* | *2.1%* |
| *Center* | *17.8* | *3.5* | *19.7* | *4.1%* |
| *North West* | *8.8* | *0* | *7.6* | *2.1%* |
| *South* | *9.2* | *8.4* | *8.2* | *7.5%* |

The total volumes of electricity consumption and generation in Russia as a whole are made up of indicators of electricity consumption and generation of facilities located in the Unified Energy System of Russia and facilities operating in technologically isolated territorial energy systems (Taimyr Autonomous Okrug, Kamchatka Territory, Sakhalin Region, Magadan Region, Chukotka Autonomous county). The actual performance indicators of the energy systems of technologically isolated territories are presented by the subjects of the operational dispatch control of these energy systems.

**Tajikistan**

**Tajikistan and Russia discussed issues of energy cooperation**

Bilateral cooperation in the field of energy was the topic of the conversation, which was held by Deputy Prime Minister of the Government of Tajikistan Usmonali Usmonzoda and Russian Energy Minister Nikolai Shulginov , who is in Dushanbe on a working visit.

The parties discussed the issue of Russia's participation in the Coordinating Electric Power Council of the countries of Central Asia as a full member.

In addition, the Minister of Energy and Water Resources of Tajikistan, Daler Juma, discussed with the Shulginovs the work of the joint venture OJSC Sangtudinskaya HPP-1 and issues related to the trouble-free operation of energy systems in Central Asia.

**Tajikistan and the World Bank signed an Agreement on the second phase of the rehabilitation of the Nurek HPP**

Tajikistan and the World Bank signed a $65 million Financing Agreement for the Nurek HPP Rehabilitation Project, Phase II (on a grant basis).

The document was signed on May 18 by Minister of Finance Fayziddin Kakhhorzoda , Chairman of OAHK "Barki Tojik " Mahmadumar Asozoda and World Bank Resident Representative in Tajikistan Ozan Sevimli .

Recall that the allocation of these funds at the end of December last year was approved by the Board of Directors of the World Bank.

The first phase of the Nurek HPP rehabilitation project, financed by the World Bank ($225.7 million), the Asian Infrastructure Investment Bank (AIIB) ($60 million) and the Eurasian Development Bank (EDB) ($40 million), was launched in March 2019.

As part of its implementation (2019-2023), it is planned to replace three of the nine hydroelectric units and key infrastructure components of the power plant, and replace six autotransformers that are used to transmit generated electricity. Also in the first phase, it is planned to improve the safety of the dam in order to protect the facility from seismic hazard and floods, as well as technical assistance to strengthen the operational, technical and financial management capacity of the energy company OJHC "Barki Tojik " .

As part of the second phase of the project (until 2028), the remaining six hydroelectric units, the Nurek bridge, the power plant and other key structures of the HPP will be rehabilitated.

In general, $326.9 million has been attracted to finance the first phase of the project, including $169.1 million in loans and $57.8 million in grants from the World Bank.

This project is expected to improve the reliability of electricity supply and increase the scale of green electricity exports from Tajikistan.

Nurek HPP provides about 50% of the total annual energy demand in Tajikistan and supplies most of the energy for export. Due to technical problems, the plant's original installed capacity has dropped from 3,000 MW to 2,320 MW over the past four decades. The facility is currently undergoing its first major renovation since its commissioning in 1972-1979.

Once rehabilitated, the HPP's capacity will increase to 3,214 MW, which will provide improved electricity supply during the cold winter months and generate much-needed revenue from increased electricity exports during the summer months.

**Belarus**

**Tariffs for heat supply, gas and electricity have been adjusted in Belarus since June 1**

Subsidized tariffs for heat supply increased from Br21.9245 to Br23.859 per 1 Gcal.

In addition, in order to simplify the administration of settlements with the population, from June 1, a single price for natural gas was established (without differentiation in the heating and summer periods), used in premises with installed devices for individual gas consumption metering. So, for consumers whose houses use gas boilers for heating, one tariff is set for the whole year - Br0.1977 per cubic meter. For those who consume more gas (from 3000 to 5500 cubic meters per year), the tariff is Br0.2570, for the most uneconomical (over 5500 cubic meters ) the tariff is even higher - Br0.5688. If there are no gas heaters, the tariff Br0.5417 is applied.

Electricity will still be billed at different rates, and they are going up a bit. In particular, since the beginning of summer, the tariff for electricity used, among other things, also for heating housing has changed. So, electrical energy, provided it is used for heating, hot water supply in residential buildings with electric stoves, not equIPIed with centralized heat and gas supply systems, in the absence of a separate (additional) individual metering device, is considered as follows. One-part tariff - Br0.1003. Differentiated tariff - for two time periods: minimum loads (from 23.00 to 6.00) - Br0.0702, for the rest of the day - Brr0.1304 per 1 kWh .

Electricity for the needs of heating and hot water supply in residential buildings (apartments) not equIPIed with centralized heat and gas supply systems, with a separate individual metering device - Br0.0433 per 1 kWh

**Azerbaijan**

**The Ministry of Energy of the Republic of Azerbaijan and Masdar signed agreements on the implementation of projects for onshore and offshore wind and solar power plants with a capacity of 4 GW**

Within the framework of the special session of the Baku Energy Week, the Ministry of Energy of the Republic of Azerbaijan and Masdar UAE signed an Implementation Agreement for the assessment, development and implementation of 1 GW onshore solar and wind energy projects in Azerbaijan and an Implementation Agreement Agreement for the assessment, development and implementation of offshore integrated wind energy and green hydrogen with a capacity of 2 GW.

As part of the Agreement on the Implementation of Land-Based Wind and Solar Energy Projects with a total installed capacity of 2 GW, it is planned to study in detail the possibilities of the network to transfer a certain part of the energy to the country's energy system, take the necessary measures to strengthen the network, and also implement the relevant processes for exporting electricity.

The agreement on the implementation of projects on land-based wind and hydrogen energy with a capacity of 2 GW included comprehensive measures to create wind energy for the production and export, decarbonization, production and export of hydrogen.