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**REPORT**

**ANALYSIS OF THE ELECTRICITY AND COAL MARKET OF KAZAKHSTAN**

 **JANUARY 2021**

**DEPARTMENT "MARKET DEVELOPMENT"**

**March, 2021**

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# **SECTION I**

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

According to the System Operator, power plants of the Republic of Kazakhstan in January 2021 generated 10,896.6 million kWh of electricity, which is 6.1% more than the same period in 2020. The increase in generation was observed in all zones of the UES of Kazakhstan.

*million kWh*

|  |  |  |  |
| --- | --- | --- | --- |
| **Zone** | **Generation type** | **January** | **Δ, %** |
| **2020** | **2021** |
| **Kazakhstan** | **Total** | **10268.6** | **10896.6** | **6.1%** |
| *TPP* | *8495.1* | *9037.2* | *6.4%* |
| *GTES* | *903.2* | *953.4* | *5.6%* |
| *hydroelectric power station* | *759.3* | *695.2* | *-8.4%* |
| *WES* | *78.5* | *138.2* | *76.1%* |
| *SES* | *32.4* | *72.2* | *122.8%* |
| *BSU* | *0.1* | *0.4* | *300.0%* |
| **Northern** | **Total** | **7795.0** | **8366.4** | **7.3%** |
| *TPP* | *6925.1* | *7482.1* | *8.0%* |
| *GTES* | *307.6* | *304.1* | *-1.1%* |
| *hydroelectric power station* | *512.8* | *488.5* | *-4.7%* |
| *WES* | *38.4* | *70.4* | *83.3%* |
| *SES* | *11.0* | *20.9* | *90.0%* |
| *BSU* | *0.1* | *0.4* | *300.0%* |
| **South** | **Total** | **1192.5** | **1250.6** | **4.9%** |
| *TPP* | *888.3* | *924.6* | *4.1%* |
| *GTES* | *18.6* | *28.6* | *53.8%* |
| *hydroelectric power station* | *246.5* | *206.7* | *-16.1%* |
| *WES* | *17.8* | *39.6* | *122.5%* |
| *SES* | *21.3* | *51.1* | *139.9%* |
| **Western** | **Total** | **1281.1** | **1279.6** | **-0.1%** |
| *TPP* | *681.7* | *630.5* | *-7.5%* |
| *GTES* | *577.0* | *620.7* | *7.6%* |
| *WES* | *22.3* | *28.2* | *26.5%* |
| *SES* | *0.1* | *0.2* | *100.0%* |

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

In January 2021, compared to the same period in 2020, electricity generation increased significantly (an increase of 15% or more) in the Kyzylorda, Pavlodar and Turkestan regions. At the same time, a decrease in electricity generation was observed in Aktobe, Almaty, Karaganda, Mangistau, North Kazakhstan and East Kazakhstan regions.

*million kWh*

|  |  |  |  |
| --- | --- | --- | --- |
| **No. p / p** | **Region** | **January** | **Δ, %** |
| **2020** | **2021** |
| 1 | Akmola | 468.7 | 491.7 | 1 |
| 2 | Aktobe | 382.6 | 375.2 | 2 |
| 3 | Almaty | 728.4 | 712.0 | 3 |
| 4 | Atyrau | 559.2 | 572.7 | 4 |
| 5 | East Kazakhstan | 798.4 | 757.5 | 5 |
| 6 | Zhambyl | 258.5 | 294.0 | 6 |
| 7 | West Kazakhstan | 215.2 | 227.7 | 7 |
| 8 | Karaganda | 1521.0 | 1439.1 | 8 |
| 9 | Kostanay | 112.8 | 117.9 | 9 |
| 10 | Kyzylorda | 51.5 | 63.8 | 10 |
| 11 | Mangistau | 506.7 | 479.2 | 11 |
| 12 | Pavlodar | 4,172.2 | 4,856.0 | 12 |
| 13 | North Kazakhstan | 339.3 | 329.0 | 13 |
| 14 | Turkestan | 154.1 | 180.8 | 14 |
|   | **Total for Kazakhstan** | **10 268.6** | **10 896.6** | **6.1%** |

The volume of electricity production by energy producing organizations of Samruk-Energy JSC for January 2021 amounted to 3,709.5million kWh or an increase of 19.8% compared to the same period in 2020.

*million kWh*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Name** | **2020** | **2021** | **Δ 2021/2020** |
| **January** | **share in Kazakhstan, %** | **January** | **share in Kazakhstan, %** | **million kWh** | **%** |
|  | **JSC "Samruk-Energy"** | **3,097.5** | **30.2%** | **3,709.5** | **34.0%** | **612.0** | **19.8%** |
| *1* | *JSC AlES* | 612.2 | *6.0%* | 609.9 | *5.6%* | *-2.3* | *-0.4%* |
| *2* | *LLP "Ekibastuz GRES-1"* | 2001.0 | *19.5%* | 2327.1 | *21.4%* | *326.1* | *16.3%* |
| *3* | *JSC "Ekibastuz GRES-2"* | 336.6 | *3.3%* | 637.8 | *5.9%* | *301.2* | *89.5%* |
| *4* | *JSC "Shardara HPP"* | 53.1 | *0.5%* | 71.6 | *0.7%* | *18.5* | *34.8%* |
| *5* | *JSC "Moinak HPP"* | 76.4 | *0.7%* | 45.3 | *0.4%* | *-31.1* | *-40.7%* |
| *6* | *Samruk-Green Energy LLP* | 0.1 | *0.001%* | 1.4 | *0.013%* | *1.30* | *1300.0%* |
| *7* | *LLP "First wind power plant"* | 18.1 | *0.2%* | 16.4 | *0.2%* | *-1.7* | *-9.4%* |

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

# *Consumption of electrical energy by zones and regions*

According to the System Operator, in January 2021, there was an increase in the dynamics of electricity consumption in the republic compared to January 2020. Therefore, in the northern zone of the republic, consumption increased by 7% and in the southern zone by 6%, and in the western zone it decreased by 1%,

*million kWh*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **January****2020** | **January****2021** | **Δ, million kWh** | **Δ, %** |
| **I** | **Kazakhstan** | **10,125.7** | **10,672.9** | **547.2** | **5%** |
| 1 | Northern zone | 6,601.7 | 7,031.5 | 429.8 | 7% |
| 2 | Western zone | 1287.7 | 1 280 | -7.7 | -1% |
| 3 | Southern zone | 2236.3 | 2361.4 | 125.1 | 6% |
|  | ***including by regions*** |  |  |  |  |
| 1 | East Kazakhstan | 884.4 | 903.4 | 19 | 2% |
| 2 | Karaganda | 1,717.9 | 1,818.8 | 100.9 | 6% |
| 3 | Akmola | 947.2 | 1,049.8 | 102.6 | 11% |
| 4 | North Kazakhstan | 165 | 178.5 | 13.5 | 8% |
| 5 | Kostanay | 449.9 | 454.7 | 4.8 | 1% |
| 6 | Pavlodar | 1,844.5 | 1 980 | 135.5 | 7% |
| 7 | Atyrau | 605 | 569.8 | -35.2 | -6% |
| 8 | Mangistau | 478.6 | 477.8 | -0.8 | -0.2% |
| 9 | Aktobe | 592.8 | 646.4 | 53.6 | 9% |
| 10 | West Kazakhstan | 204.2 | 232.4 | 28.2 | 14% |
| 11 | Almaty | 1166.6 | 1224.7 | 58.1 | 5% |
| 12 | Turkestan | 480.5 | 506.3 | 25.8 | 5% |
| 13 | Zhambyl | 410.7 | 440.6 | 29.9 | 7% |
| 14 | Kyzylorda | 178.5 | 189.8 | 11.3 | 6% |

# **The results of the industry** **in January 2021**

*(express information of the Committee on Statistics of the Ministry of National Economy of the Republic of Kazakhstan)*

January 2021 compared to January 2020, the industrial production index amounted to 95.9%. An increase in production volumes was recorded in 9 regions of the republic, a decrease was observed in Aktobe, Atyrau, West Kazakhstan, Karaganda, Kyzylorda, Mangistau, Pavlodar and Turkestan regions.

**Changes in industrial output by region**

*in % to the corresponding period of the previous year*

In Shymkent, the production of sunflower oil, gasoline, diesel fuel and heating oil increased (109.6%).

In Nur-Sultan, the IPV amounted to 109.2%, mainly due to an increase in the production of railway locomotives.

In the Kostanay region, the production of iron ore concentrates and pellets, the production of gold in Doré alloy, cars and buses (109.1%) increased.

In the East Kazakhstan region, the extraction of coal, gold-bearing ores and concentrates increased, the production of refined gold and silver increased (108.9%).

In Almaty, due to an increase in the growth in the production of cars and alcoholic beverages, the IPV amounted to 106%.

In the Zhambyl region, due to the growth in the production of phosphate raw materials, the production of ferrosilicomanganese, cement and sugar, the IPV amounted to 105.4%.

In the Akmola region, the production of gold in doré alloy, flour, prepared animal feed increased, the output of combines and tractors increased (105%).

In the Almaty region, the IPV amounted to 104.9% due to an increase in the production of tobacco products, electric batteries and sugar.

In the North Kazakhstan region, the production of processed milk, flour and butter increased (101.2%).

In the Pavlodar region, the IPV amounted to 99.2% due to a decrease in the extraction of metal ores, the production of diesel fuel and products of the metallurgical industry.

In the Karaganda region, the decrease in the NPI was due to a decrease in the extraction of metal ores, the production of blister and refined unprocessed copper (96.9%).

In the West-Kazakhstan IFO, it amounted to 95.6% due to a decrease in gas condensate production and a decrease in food production.

In the Aktobe region, the IPV amounted to 93.1% due to a decrease in the production of crude oil, chrome ores and concentrates, and the volume of services provided in the mining industry.

In the Turkestan region, the extraction of uranium and thorium ores has decreased, and the production of cotton has decreased (91.5%).

In Atyrau (82.3%), Kyzylorda (94.8%), Mangistau (95.9%) regions, the IPV decreased mainly due to the reduction in crude oil production.

*(Source:* [*www.stat.gov.kz*](http://www.stat.gov.kz) *)*

# *Electricity consumption by large consumers in Kazakhstan*

In January 2021, compared to the same period in 2020, electricity consumption by large consumers increased by 0.5%.

*million kWh*

|  |  |  |
| --- | --- | --- |
| **No. p / p** | **Consumer** | **January** |
| **2020** | **2021** | **Δ, %** |
| 1 | ArcelorMittal Temirtau JSC | 344.0 | 333.6 | -3% |
| 2 | JSC AFP (Aksu) "TNK Kazchrome" | 508.4 | 500.3 | -2% |
| 3 | Kazakhmys Smelting LLP | 102.1 | 107.2 | 5% |
| 4 | Kazzinc LLP | 244.8 | 251.8 | 3% |
| 5 | JSC "Sokolovsko-Sarbayskoye GPO" | 167.0 | 154.0 | -8% |
| 6 | Kazakhmys Corporation LLP | 117.2 | 115.4 | -2% |
| 7 | AZF JSC (Aktobe) "TNK Kazchrome" | 269.2 | 293.3 | 9% |
| 8 | RSE “Channel them. Satpaev" | 7.7 | 14.0 | 83% |
| 9 | Kazphosphate LLP | 165.5 | 154.0 | -7% |
| 10 | NDFZ JSC (part of Kazphosphate LLP) | 139.9 | 126.1 | -10% |
| eleven | LLP "Taraz Metallurgical Plant" | 15.8 | 37.1 | 135% |
| 12 | JSC "Ust-Kamenogorsk titanium and magnesium plant" | 79.4 | 35.2 | -56% |
| 13 | Tengizchevroil LLP | 166.4 | 157.5 | -5% |
| 14 | PAZ JSC (Pavlodar Aluminum Smelter) | 84.5 | 81.5 | -4% |
| 15 | JSC "KEZ" (Kazakhstan electrolysis plant) | 323.7 | 328.9 | 2% |
| 16 | TemirzholEnergo LLP | 125.0 | 146.8 | 18% |
| 17 | JSC "KEGOC" | 541.0 | 568.9 | 5% |
| **Total** | **3261.6** | **3279.6** | **0.55%** |

*million kWh*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | **Name** | **January** | **Deviation, million kWh** | **Δ , %** |
| **2020** | **2021** |
| **I** | **JSC "Samruk-Energy"** | **747.65** | **794.17** | **46.5** | **6.2%** |
| *1.* | *LLP "Bogatyr-Komir"* | *29.92* | *29.40* | *-0.5* | -1.7% |
| *2.* | *JSC "AlatauZharyk Kompaniyasy"* | *105.13* | *108.87* | *3.7* | 3.6% |
| *3.* | *AlmatyEnergoSbyt LLP* | *612.60* | *655.90* | *43.3* | 7.1% |

# **Coal**

# *Thermal coal mining in Kazakhstan*

According to the Bureau of National Statistics, Kazakhstan produced 10,178.4 thousand tons of hard coal in January 2021, which is 5% more than in the same period in 2020 (9,670.6 thousand tons).

*thousand tons*

|  |  |  |  |
| --- | --- | --- | --- |
| **No.**  | **Region** | **January** | **Δ, %** |
| **2020** | **2021** |
| 1 | Pavlodar | 6335.0 | 6467.8 | 102% |
| 2 | Karaganda | 2659.6 | 2822.9 | 106% |
| 3 | East Kazakhstan | 673.2 | 884.5 | 131% |
|  | **Total for the Republic of Kazakhstan** | **9670.60** | **10,178.40** | **105%** |

# *Coal mining by Samruk-Energy JSC*

In January 2021, Bogatyr Komir LLP produced 4,264 thousand tons, which is 0.6% less than in the corresponding period of 2020 (4,285 thousand tons).

# *Sale of coal by Samruk-Energy JSC*

In January 2021, 4,134 thousand tons were sold, including:

- to the domestic market of the Republic of Kazakhstan 3,958 thousand tons, which is 19.2% more than in the corresponding period of 2020 (3,321 thousand tons);

- for export (Russian Federation) - 176 thousand tons, which is 77.6% less than for the corresponding period of 2020 (788 thousand tons).

*thousand tons*

|  |  |  |  |
| --- | --- | --- | --- |
| **No. p / p** | **Region** | **Sales volume, thousand tons** | **Δ, %** **2021/2020** |
| **January 2020** | **January 2021** |
| **Total to the domestic market of the Republic of Kazakhstan** | **3 321** | **3 958** | **119.2%** |
| **Total for export to Russia** | **788** | **176** | **22.4%** |

According to the indicators for January 2021, compared to the same period in 2020, the Company observed an increase in coal sales by 0.6%.

# **Renewable energy sources**

According to the system operator, the volume of electricity production by renewable energy facilities (SPP, WPP, BGS, small HPPs) of the Republic of Kazakhstan in January 2021 amounted to 246.4 million kWh. Compared to January 2020 (149.2 million kWh), the increase was 165.1%.

million kWh

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Name** | **2020** | **20 21 g** | **Deviation 20 2 1/2020,** |
| **January** | **share in Kazakhstan, %** | **January** | **share in Kazakhstan, %** | **million kWh** | **%** |
|   | **Total output in Kazakhstan** | **10268.6** | **100.0%** | **10896.6** | **100%** | **628.0** | **106.1%** |
| **I** | **Total RES in the Republic of Kazakhstan, incl. by zones** | **149.2** | **1.5%** | **246.4** | **2.3%** | **97.2** | **165.1%** |
| 1. | *Northern zone* | *58.6* | *39.3%* | *98.5* | *40.0%* | *39.9* | *168.1%* |
| 2. | *Southern zone* | *68.2* | *45.7%* | *119.5* | *48.5%* | *51.3* | *175.2%* |
| 3. | *Western zone* | *22.4* | *15.0%* | *28.4* | *0.0%* | *6.0* | *126.8%* |
| **II** | **Total RES in the Republic of Kazakhstan, incl. by type** | **149.2** | **1.5%** | **246.4** | **2.3%** | **97.2** | **165.1%** |
| 1. | *SES* | *32.4* | *21.7%* | *72.2* | *29.3%* | *39.8* | *222.8%* |
| 2. | *WES* | *78.5* | *52.6%* | *138.2* | *56.1%* | *59.7* | *176.1%* |
| 3. | *Small HPPs* | *38.2* | *25.6%* | *35.6* | *14.4%* | *2.6* | *7.3%* |
| 4. | *BiogasInstallations* | *0.1* | *0.1%* | *0.4* | *0.2%* | *0.3* | *400.0%* |

In January 2021 there is an increase in electricity production by small hydroelectric power plants, wind farms and solar power plants compared to the same period in 2020.

million kWh

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Name** | **2020** | **2021** | **Deviation 2021/2020,** |
| **January** | **share in Kazakhstan, %** | **January** | **share in Kazakhstan, %** | **million kWh** | **%** |
|  | ***Electricity production in UES RK*** | **10268.6** | **100%** | **10896.6** | **100.0%** | **628.0** | **106.1%** |
| 1. | Production of "clean" electricity (RES + Large HPPs) | *721.1* | *7.0%* | *906.0* | *8.3%* | *184.9* | *125.6%* |
| 2. | Production of "clean" electricity (RES excluding Large HPPs) | *149.2* | *1.5%* | *246.4* | *2.3%* | *97.2* | *165.1%* |

Electricity generation by renewable energy facilities of Samruk-Energy JSC (SPP, WPP, small HPPs) in January 2021 amounted to 27.5 million kWh or 11.2% of the total volume of electricity generated by RES facilities, which is 4.8 % lower compared to the same period in 2020 (in January-November 2020, the Company's RES generation amounted to 318.9 million kWh, RES of the Company 17.9%).

million kWh

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No.** | **Name** | **2021** | **2020** | **Deviation 2021/2020,** |
| **January** | **share in Kazakhstan, %** | **January** | **share in Kazakhstan, %** | **million kWh** | **%** |
| 1 | Production of “clean” electricity by Samruk-Energy JSC (RES excluding Large HPPs), including: | 27.5 | 11.2% | 29.8 | 20.0% | -2.3 | 92.3% |
| 2 | *JSC AlES Cascade of small HPPs* | *9.7* | *3.9%* | *11.6* | *7.8%* | *-1.9* | *83.6%* |
|  | *Samruk-Green Energy LLP ( SES 2 MW )* | *1.4* | *0.6%* | *0.1* | *0.1%* | *1.3* | *1400.0%* |
|   | *Samruk-Green Energy LLP ( WPP 5 MW )* | *1.2* | *0.0%* | *0.0* | *0.0%* | *1.2* | *0.0%* |
|   | *First Wind Power Plant LLP (WPP 45 MW)* | *16.4* | *6.7%* | *18.1* | *12.1%* | *-1.7* | *90.6%* |

# **Centralized electricity trading JSC "KOREM"**

*(information of KOREM JSC)*

*General trading results*

Based on the results of the centralized electricity trading in January 2021, 86 transactions were concluded in the amount of 23,856 thousand kWh for a total amount of 189,011.3 thousand tenge on spot trading in the “day ahead” mode, the minimum price was 6 tenge/kWh (excluding VAT), the maximum price is 8.2 tenge/kWh (excluding VAT). There were no transactions on spot trading “during the trading day” and trades for the medium and long term periods.

For the same period in 2020, the total volume of centralized trading amounted to 3,960 thousand kWh. The table below shows the price dynamics of transactions concluded at centralized trading in January 2020-2021.

**Dynamics of prices established as a result of centralized trading**

**in January 2020-2021**

|  |  |  |  |
| --- | --- | --- | --- |
| **January** | **spot trading in the "day ahead" mode** | **trades for medium- and long-term periods** | **during business days** |
| MIN price | MAX price | MIN price | MAX price | MIN price | MAX price |
| **tg/kW\*h (excluding VAT)** |
| **2020** | **4.501** | **6.001** | **-** | **-** | **-** | **-** |
| **2021** | **6** | **8.2** | **-** | **-** | **-** | **-** |

#

# ***Results of spot trading in the "day ahead" mode***

Based on the results of spot trading in January 2021, 86 transactions were concluded in the amount of 23,856 thousand kWh, the minimum clearing price for spot trading in the “one day ahead” mode was 6 tenge/kWh (excluding VAT), and the maximum one was 8.2 tenge/kWh (excluding VAT).

The table below shows the final day-ahead spot trading results for January 2021.



The table shows that the total demand amounted to 33,600 thousand kWh, while the total supply amounted to 26,784 thousand kWh. Unsatisfied demand in January 2021 amounted to 9,528 thousand kWh, and unsatisfied supply - 2,928 thousand kWh. In the course of spot trading, 302 orders were accepted into the trading system, of which 239 were from buyers and 63 were from sellers.

# ***Results of spot trading "during the trading day"***

# Based on the results of the auctions held in January 2021, no deals were concluded. According to the results of the auctions held in January 2020, no deals were also concluded.

# ***Trading results for the medium and long term***

In January 2021 and for the same period in 2020, based on the results of trading for the medium- and long-term periods, no transactions were concluded.

# **Export-import of electrical energy**

In January 2021, the Russian Federation became the main direction of export-import of electricity of the Republic of Kazakhstan (export to the Russian Federation - 126.71 million kWh, import from the Russian Federation - 127.25 million kWh). JSC " KEGOC " - 123.04 million kWh in order to balance the production and consumption of electricity. Import of electricity from the Russian Federation for the reporting period in the amount of 127.25 million kWh was carried out in order to balance the production and consumption of electricity.

million kWh

| **Name** | **January 2020**  | **January 2021**  | **Δ 2021/2020** |
| --- | --- | --- | --- |
| **2260.8** | **-52.8%** |
| **Export of Kazakhstan** | **-267.96** | **-286.81** | -18.85 | 7% |
| **in Russia** | -105.87 | -126.71 | -20.84 | 20% |
| **in the IPS of Central Asia** | -0.44 | -160.11 | -159.66 | 36025% |
| **Import of Kazakhstan** | **125.03** | **127.25** | 2.22 | 2% |
| **From Russia** | 122.38 | 127.25 | 4.87 | 4% |
| **from IPS Central Asia** | 2.65 | 0.00 | -2.65 | -100% |
| **Balance-flow "+" deficit, "-" excess** | **-142.93** | **-159.56** | -16.63 | 12% |

# **SECTION II**

# **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.

May 29, 2019 as part of the celebration of the fifth anniversary of the signing of the Treaty on the Eurasian Economic Union 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).

On December 20, 2019, the Supreme Council adopted Decision No. 31 “On the plan of measures aimed at the formation of a common electricity market of the Eurasian Economic Union”, which establishes, among other things, the deadlines for the approval and entry into force of the rules for the functioning of the Union’s common electricity market, as well as other acts provided for by the specified protocol.

At present, the EAEU Member States are working on the development and harmonization of the rules for the functioning of the EAEU CER.

In 2021, one meeting of the Advisory Committee on the Electricity Industry under the EEC Board (hereinafter referred to as the Advisory Committee) was held
(14th meeting, January 21, 2021) and one meeting of the Subcommittee on the formation of the EAEU ERA of the Advisory Committee on the Electricity Industry under the EEC Board (hereinafter referred to as the Subcommittee) (56th meeting 14 January).

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

# **Status of formation of the Electricity market of the CIS**

Since 1992, 55 meetings of the Electric Power Council of the Commonwealth of Independent States (hereinafter - CIS EEC) have been held.

By decision of the EEC of the CIS (Minutes No. 50 dated October 21, 2016), the Consolidated Schedule for the Formation of a Common Electricity Market of the CIS Member States was approved.

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Events** | **Period of execution** | **Current status** |
| 1 | Implementation of activities in accordance with Section II . Action Plan for Cooperation between the EEC and the EEC of the CIS, approved on June 10, 2016. | 2016-2020 | Permanent participation of the EEC representatives at the meetings of the EEC of the CIS, representatives of the EC of the EEC of the CIS - at the meetings on the formation of the EER of the EAEU is ensured. |
| 2 | Preparation of a draft procedure for the settlement of deviations from the agreed values of interstate power flows. | 2016-2017 | The decision to develop a procedure for settling deviations from the agreed values of interstate power flows was taken at the 45th meeting of the EEC of the CIS. The draft Procedure was considered at the 29th meeting of the Working Group "Formation of a common electric power market of the CIS countries" on September 15, 2016 in Moscow (RF). In accordance with the Decision of the 47th meeting of the EEC of the CIS, the Action Plan of the EEC of the CIS for 2016 includes the development and approval of draft documents on determining the magnitude of deviations from the agreed values of interstate electricity flows and the settlement of deviations from the agreed values of interstate electricity flows. Work continues. |
| 3 | Preparation of a draft procedure for the distribution of throughput capacity of interstate sections / export-import sections between participants in export-import activities. | 2018-2020 | By the decision of the 50th meeting of the EEC of the CIS, Methodological recommendations for the metrological support of measuring complexes for metering electric energy at interstatepower lines.By the decision of the 50th meeting of the EEC of the CIS, the Schedule for monitoring the application of regulatory technical documents in the field of metrology of electrical measurements and electricity metering in the production activities of the energy systems of the CIS member states was approved. |
| 4 | Preparation of a draft procedure for compensation of costs associated with the implementation of the transit / transmission / movement of electricity through the energy systems of the CIS member states. | 2018-2020 | The unified format of the data exchange layout for accounting of interstate electricity flows, developed by the Working Group on metrological support of the electric power industry of the Commonwealth of Independent States, was approved by the decision of the 33rd meeting of the CIS EEC and recommended to the electric power industry management bodies of the CIS member states for use in organizing the accounting of interstate electricity flows and data exchange on interstate flows. |
| 5 | Harmonization of national legislation in the field of electric power industry, development and adoption of national regulatory legal documents necessary for the formation and functioning of the CIS EER. | 2020-2025 | The decision of the 51st meeting of the EEC of the CIS approved the Conceptual approaches to technical regulation and standardization in the field of electric power industry. The Regulations on the Working Group “Updating and Harmonizing the Regulatory and Technical Base for Regulating the Electricity Industry” were also approved. By the decision of the 51st meeting of the CIS EEC, the Work Plan of this Working Group was approved. |

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

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

**EAEU countries reach consensus on common energy market issues**

Representatives of the countries of the Eurasian Economic Union agreed on positions on a number of fundamental issues related to the formation of a common electricity market. This was reported to BelTA by the press service of the Eurasian Economic Commission following the meeting of the Advisory Committee on the Electricity Industry.

In particular, a positive result has been achieved in matters of electricity transit that is not related to its trade on the all-Union market. The meeting discussed the accounting and regulation of such interstate transmission of electricity. Also, the EAEU countries discussed the idea of creating a common electricity market operator and agreed that the study of the initiative of the representatives of Kazakhstan will be continued.

At the same time, the members of the Advisory Committee on the Electricity Industry approved the draft action plan for the implementation of strategic directions for the development of Eurasian economic integration until 2025 in terms of the formation of a common electric power market of the EAEU, and considered the possibility of creating a Council of Heads of authorized bodies of the Member States in the energy sector.

**Republic of Belarus**

**190 km of electrical networks built and reconstructed in Gomel region in 2020**

In 2020, a major overhaul of 679 km of overhead transmission lines with a voltage of 35 kV and above, more than 3.5 thousand km of lines of 0.4-10 kV, more than 1.2 thousand transformer substations were completed.

Insulated wire was used on 111.6 km of lines passing through forest areas, and 24.8 km of cable lines were replaced in urban areas. In 2020, 335.7 hectares of clearings for 110-330 kV overhead power lines were expanded in the region.

**Kilowatts of light: pros, cons and prospects for solar energy in Belarus**

In the next two decades, the Sun may well become one of the main sources of energy. Experts have calculated that over the past ten years, the European Union has begun to produce and consume about 50 times more solar energy. The European solar energy association SolarPower Europe cites the following figures: in 2019, the growth in the capacity of photovoltaic solar energy in the world was 2.5 times higher than coal and gas combined. The share of solar energy in the generation of world electricity was approximately 2.6%. According to the forecast of the association, in 2021, a global increase in the capacity of solar power plants by 150 GW is expected, and in 2024 - by almost 200 GW.

In terms of annually attracted investments and commissioned capacities, this industry is the largest sector of the world electric power industry.

Over 50 years, the cost of generating electricity at such installations has decreased by more than 1000 times. The economies of scale played a primary role in this: the more developed countries invested in a new direction, the more the price decreased.

The incentive measures for the development of electric transport, taken by the state in 2020, have yielded positive results: the number of electric vehicles in Belarus has increased 4 times. If in June there were 400 electric vehicles in the country, then after the abolition of customs duties and VAT, there were more than 1,600 of them. Belorusneft specialists estimate that as of January 1, 2021, the number of electric vehicles in Belarus amounted to about 2 thousand. At the same time, there will be more electric charging stations. In 2021, their network will increase to 600.

In Belarus, spontaneous growth of RES is not expected. No new power plants are planned for 2021.

**In December 2020, work was completed and the equipment of the Mogilev-330 digital substation was turned on in the volume of the first start-up complex.**

For the first time in the Belarusian power system, optical current transformers FOCS-FS 110 kV and 330 kV operating on the Faraday effect were used, which made it possible to increase the sensitivity of relay protection and automation devices and ensure high accuracy (0.2S) in the entire measurement range. The absence of oil and SF6 in the design of these current transformers ensures not only their explosion and fire safety, but also environmental friendliness.

The implementation of the second start-up complex in 2021 will complete the reconstruction of the Mogilev-330 substation. At the moment, work is underway on the installation and adjustment of the equipment of the second start-up complex, including the installation of the second autotransformer, the commissioning of the cells of two high-voltage overhead lines 330 kV, the installation of 2 and 4 sections of 110 kV with outgoing high-voltage lines of 110 kV, the second section of ZRU 10 kV and work at adjacent substations 110-330 kV.

Thus, the unique digital solutions used at this substation, in comparison with the "classic" equipment, will provide the following advantages: increasing the efficiency of operation due to the installation of energy-efficient equipment, safety of management and maintenance, minimizing the human factor in equipment management, reducing the substation area, which ultimately increase the reliability of energy supply to consumers in the Mogilev region.

**The first power unit of BelNPP is brought to 100% capacity**

January 12, 2021 at 19:57 the first power unit of the Belarusian nuclear power plant was brought to the nominal power level. Thermal power of the unit is 3200 MW, electrical power is 1170 MW. At this power level, the power unit continues static and dynamic tests in accordance with the program of the pilot operation stage. After their successful completion within 15 days, a comprehensive testing of the equipment and systems of the power unit at rated power will be carried out. The power unit will be accepted for commercial operation by the acceptance committee in accordance with the established procedure after the successful completion of the comprehensive testing of the equipment.

**The Republic of Kazakhstan**

**In Kazakhstan, they proposed to reduce the depreciation of power grids with the help of concessional lending. This was reported in the Ministry of Energy.**

The department explained that at the moment the level of depreciation in the country has reached 60%, and in some regions it exceeds 80%.

To solve this problem, the ministry drew attention to the Nurly Zher state program, which provides for subsidies and concessional lending for construction, modernization, reconstruction of heat supply, water supply and sanitation systems. At the moment, these measures do not apply to the electrical industry.

In this regard, the Ministry of Energy proposed to amend the state program, which will allow subsidizing and lending the construction and reconstruction of electrical networks of regional power companies that are in communal ownership. The issue is being worked out with the Ministry of Industry and Infrastructure Development.

The department noted that a significant part of energy transmission organizations are privately owned. The issue of depreciation of power networks for them can only be considered within the framework of investment programs approved for a five-year period. However, the Ministry of Energy admitted that in order to solve the problem, the current tariffs do not allow for a large-scale reconstruction and modernization of power grids. In general, investments of significant financial resources are required.

**Green power plants worth $370 million are planned to be commissioned in Kazakhstan in 2021. This was reported in the Ministry of Energy.**

For an investment of $370 million, 23 renewable energy facilities with a capacity of 391.09 MW will be commissioned. Of these, 12 wind power plants (WPP) for 244.56 MW, six hydroelectric power plants (HPP) for 69.49 MW, five solar power plants (SPP) for 76.95 MW.

As a result, 3.5 million kWh will be generated at the expense of environmentally friendly plants, the share of RES is planned at 3.3%. At the end of the year, the total number of facilities will reach 138 with an installed capacity of 2 thousand MW, where 1.5 thousand specialists will be involved.

According to the Ministry of Energy, 25 renewable energy projects with a total capacity of 583 MW were implemented in 2020. Of these, 11 WPPs for 203.45 MW, one HPP for 4.5 MW, 12 SPPs for 369.65 MW, two BioPPs for 5.4 MW. About $510 million was invested in them.

Recall that last year a solar power plant [was launched in the Zhambyl region](https://lsm.kz/10-samyh-dorogih-proizvodstv-kazahstana) for $130 million.

**In 2021, it is planned to attract 59 billion tenge of investments into the electric power industry of Kazakhstan.**

INthis year, within the framework of the electric capacity market, it is planned to attract 59 billion tenge to the generation sector of this type of energy.

Also, according to the ministry, KEGOC is implementing several projects within the framework of the investment program.

The largest funding is for the reconstruction of 220-500 kV overhead lines - a total of 151 billion tenge, in 2021 - 11.7 billion tenge.

In addition, Turkestan is working on strengthening the external power supply scheme, building power grid facilities. This project costs 8 billion tenge, this year - 6.8 billion tenge.

The power grid of the Western zone of the UES of Kazakhstan is being strengthened. The total amount of financing is 50 billion tenge, in 2021 - 3.5 billion tenge.

**In December 2020, electricity cost Kazakhstanis 6.5% more than a year earlier.**

The strongest annual growth was felt by residents of the capital, as well as West Kazakhstan and Kostanay regions.

Tariffs in Mangistau and East Kazakhstan regions remained unchanged.



Last year, Kazakhstan produced 107.9 billion kWh of electricity, which is 1.9% more than a year earlier. Electricity consumption amounted to 107.1 billion kWh, an increase of 2% over the year.

The largest volume of generation fell on the Pavlodar, Karaganda and East Kazakhstan regions, the largest volume of consumption - on the Pavlodar, Karaganda and Almaty regions.



**At the energy facilities of Kazakhstan, the installation of special equipment has begun, which will allow regulating power flows and distribution in the Unified Energy System of the Republic (UES).**

Through the implementation of a digital solution and the provision of a service to the System Operator in the period from 2021 to 2025, Samruk-Energy JSC plans to receive financial benefits of more than 4 billion tenge.

The implementation of the unique project is carried out on the platform of the subsidiaries of Samruk-Energy JSC - Moynak HPP JSC and Ekibastuz SDPP-1 LLP. This is a joint project of KEGOC JSC and Samruk-Energo JSC on the introduction of an automatic frequency and power control system (ARChM).

To ensure the quality of electricity and the reliability of the operation of generating equipment in any power system, equality between the production and consumption of electricity must be ensured. In Kazakhstan, this balance is currently provided “manually”: from the System Operator (JSC KEGOC) to regional operators and power plants. With this method of regulation, imbalances are inevitable, which are compensated by the regulatory services of neighboring countries on a commercial basis.

ARCHM by an order of magnitude increases the speed of the system's response to the appearance of imbalance. The architecture of the system is designed to completely eliminate the imbalance in a matter of minutes according to the established standards in no more than 15 minutes.

“The strategic initiative is aimed at ensuring automatic maintenance of the balance of the UES of Kazakhstan, the most efficient maneuverability of the generation of power plants involved in regulation, high speed and accuracy of response to the appearance of imbalances. ARCHM is the first experience in the industry, which will allow Kazakhstan to achieve independence in the energy sector,” said the representative of Samruk-Energy.

**President of Kazakhstan Kassym-Jomart Tokayev instructed the government to develop the energy balance of the republic until 2035.**

The document should take into account consumption, generation, flexible capacities, an increase in the share of renewable energy, as well as plans for the development of the energy systems of neighboring countries.

Also, the government and regional authorities will have to take measures to attract investors to projects for the construction of flexible generation. The development of flexible capacities is an important condition for the development of renewable energy sources and ensuring the energy security of the country, the President noted.

“It is important to start a project for the construction of (maneuverable. - Ed.) gas generation in the south and accelerate the development of hydropower in the south and east of the country. For these purposes, if necessary, provide benefits, preferences to investors,” the head of state specified.

As reported, in Kazakhstan, with a general surplus of electricity production - up to 2 thousand MW at certain hours - there is not enough maneuvering capacity. This leads to an imbalance in the energy system during peak loads. Now the shortage of electricity is covered by imports from Russia. Last year, the republic bought 1.132 billion kWh from the Russian Federation with a total consumption of 105.2 billion kWh.

To solve the problem with the lack of flexible generation, earlier the Ministry of Energy of the Republic of Kazakhstan initiated amendments to the law "On Electricity" to [change](https://kursiv.kz/news/otraslevye-temy/2020-12/kak-kazakhstan-budet-naraschivat-manevrennye-moschnosti) the situation. According to the head of the Kazakhstan Electricity Association Askerbek Kuanyshbaev, Kazakhstan needs the construction of flexible capacities of at least 1-1.5 thousand megawatts. Agile capacity helps to cover fluctuations in consumption during peak hours and balance unstable electricity generated by renewable energy sources (RES).

In addition, the head of state instructed the government and the Samruk-Kazyna fund to begin work on strengthening the southern zone of the republic's electric power system, as well as to develop a scheme for strengthening transit links between the western regions of the country. In the future, they should be combined with the unified electric power system of Kazakhstan.

**Republic of Kyrgyzstan**

**Electricity consumption has reached a historical maximum - Kyrgyzstanis are asked to save**

In Kyrgyzstan, the maximum consumption of electricity has been reached for the entire existence of the energy system. Due to the low ambient temperature on January 6, it amounted to 73 million kWh. Overloads of 220-110 kV electrical network equipment were observed in all regions of the republic, which significantly increased equipment wear.

According to the JSC "National Electric Grid of Kyrgyzstan", in the evening hours the maximum power consumption was 3317 MW. The growth in electricity consumption occurred both in the northern and southern parts of the power system.

In the coming days, heavy rainfall is expected with a significant decrease in the temperature background, which will lead to an increase in electricity consumption above the permissible parameters. The company urged citizens to save electricity, not turn on electrical appliances unnecessarily (especially in the evening), so as not to overload 220-110 kV networks, reduce equipment wear and tear and additional repair costs.

To ensure uninterrupted power supply, diagnostic control has been stepped up to promptly identify and eliminate emerging defects, the company added.

JSC NESK recalled that in December 2020, the monthly electricity consumption amounted to more than 2 billion 86 million kW/h with the planned value of 1 billion 886 million kW/h.

Recall that in 2020, due to low water, Kyrgyzstan faced the problem of a shortage of electricity. The government decided to purchase 500 million kWh of electricity at a price of 2.4 cents per 1 kWh from neighboring Kazakhstan.

At the beginning of this year, the authorities plan to additionally purchase another 600 million kWh from Kazakhstan.

It should be noted that most of the energy equipment in Kyrgyzstan is not suitable for operation. Multimillion-dollar investments in repairs do not save the energy sector from losses, the percentage of which is only increasing.

In December, the energy system of Kyrgyzstan generated 2,051,984,000 thousand kWh of electricity.

Out of this JSC “Electric Stations” generated 2,035,611.478 thousand kWh, other suppliers (Small HPPs) – 16,372.522 thousand kWh.

The network of Kyrgyzstan received 2,039,335.87 thousand kWh of electricity.

Losses of electricity in the energy system of the Kyrgyz Republic for December 2020 amounted to 376,754.02 thousand kWh.

**Kyrgyzstan received about 53 million kWh from Kazakhstan in 2020 instead of the planned 500 million kWh, - Electric Stations**

According to the government decree, a contract was signed with Kazakhstan for the supply of 500 million kWh, but in 2020, for technical reasons, Kazakhstan only provided us with about 53 million kWh (10.6%).

According to him, due to the low water period and low water inflow compared to previous years, the company took the necessary measures, plans were drawn up, and electricity imports were put in the first place.

Also, for the uninterrupted supply of electricity according to the plan, the Bishkek CHPP had a capacity of 360 megawatts, but it was increased to 420 megawatts.

According to the concluded agreement on the supply of electricity with Kazakhstan, from November 14, 2020, electricity was imported within the daily volume of 1.2 million kWh.

“As of December 14, imports from the Republic of Kazakhstan amounted to only 36.1 million kWh. This circumstance is connected with the insufficiency of generating capacities in the UES of Kazakhstan, due to emergency repairs at power plants, an increase in electricity consumption in the Republic of Kazakhstan and the workload of Kazakhstani networks,” the press service said.

The State Committee for Industry, Energy and Subsoil Use reported that in order to rationally use water and energy resources and prevent the deep drawdown of the Toktogul reservoir below the permissible level, as well as to cover the shortage of electricity in the energy system of the Kyrgyz Republic and ensure the reliable passage of the upcoming autumn-winter season, an exchange of goods was carried out electricity with Kazakhstan in the amount of 300 million kWh.

**By February 15, SCIESU and NEKHK will prepare a project to optimize the costs of the energy sector by 1-2 billion soms**

The State Committee for Industry, Energy and Subsoil Use of the Kyrgyz Republic, together with JSC National Energy Holding Company, was instructed to prepare a project to optimize the costs of the energy sector by February 15, 2021 in the amount of about 1-2 billion soms. This became known during a meeting in the government on the passage of the current autumn-winter period. Also, the departments were instructed before February 15 to: - prepare a package of regulatory legal acts on the transfer of all powers in the field of small hydropower, including those related to permits, to one body; - to bring to the population a real picture of the volumes of generation, consumption and shortage of electricity, as well as the indicators of the average annual occupancy of the Toktogul HPP; - develop a step-by-step action plan to reduce the level of electricity losses in the energy system; - start work on preparations for the passage of the autumn-winter period 2021-2022. taking into account the existing shortage of energy capacities; - introduce the concept of sustainable operation of the energy sector for 2021-2025.

**The Republic of Moldova**

**In Moldova, electricity tariffs for final, residential consumers of Premier Energy in 2021 may be reduced by 9%.**

This includes a draft calculation of new tariffs for electricity supplied by Premier Energy, published by the National Energy Regulatory Agency, which the company has asked for adjustments due to the expected reduction in tariffs for electricity distribution, which will entail a decrease in prices for energy supplied directly to end consumers.

In particular, according to the calculations of ANRE, for the end consumers of Premier Energy, whose electrical installations are connected to the low voltage distribution networks (0.4 kV), the tariff for the supplied electricity can be reduced by 14.64 bani (-8.7%) - from 168 to 153.36 bani per 1 kWh (without VAT).

For Premier Energy consumers connected to medium voltage networks (6;10 kV), the tariff is proposed to be reduced by 5.78 bani (-4.4%) - from 132 to 126.22 bani per 1 kWh, and for those connected to networks of high voltage (35; 110 kV), the tariff is planned to be reduced by 2.6 bani (-2.2%) - from 117 to 114.4 bani per 1 kWh.

It should be noted that the company Furnizarea Energiei Electrice Nord (FEE Nord, Balti), which serves consumers in the northern and northwestern regions of the country, also requested a revision of tariffs for electricity supplied to end consumers. In particular, FEE Nord asked for its consumers, whose electrical installations are connected to low voltage distribution networks (0.4 kV), to reduce the tariff by 17.23 bani (-8.1%) - from 214 to 196.77 bani per 1 kW /h, and for FEE Nord consumers connected to medium voltage networks (6;10 kV), to reduce it by 18.23 bani (-11.6%) - from 157 to 138.77 bani per 1 kWh.

However, the draft tariff published by ANRE provides for a 5.7 bani (-2.7%) reduction in the cost of electricity for FEE Nord end consumers connected to the low voltage distribution grid (0.4 kV) - from 214 to 208.3 bani per 1 kW/h, and for FEE Nord consumers connected to medium voltage distribution networks (6;10 kV) by 12.25 bani (-7.8%) - from 157 to 144.75 bani per 1 kW/h.

### Moldova for 9 months 2020, compared to the same period in 2019, reduced imports of energy resources and electricity in value terms by 37.3% - to $405.28 million.

In the first quarter of 2020, imports of energy resources and electricity in value terms amounted to $203.8 million, in the second quarter of 2020 - $94.1 million, and in the third quarter of 2020 - $107.38 million (the same periods of last year - $241.02 million, $203.6 million and $201.59 million). Thus, in the III quarter of 2020, compared to the same period in 2019, imports of energy resources and electricity to Moldova in value terms decreased by almost 1.9 times (-46.7%), which was due to both a decrease in procurement prices, as well as a decrease in the physical volumes of energy imports.

In particular, in the third quarter of 2020, compared to the same period in 2019, imports of diesel fuel into the country in value terms decreased by 45.6% - from $112.4 million to $61.2 million, gasoline - by 42, 5% - from $29.16 million to $16.76 million, natural gas - by 42.7% - from $21.92 million to $12.55 million, coal - by 19.6% - from $5.52 million to $4, 44 million, and there was no import of electricity in the III quarter of 2020 , since from April 2020 Moldova stopped buying it from Ukraine, and electricity was supplied only from the Moldavskaya GRES from the Transnistrian region. As follows from the data of the NBM, in general for 9 months. 2020, compared to the same period of the previous year, Moldova reduced the import of diesel fuel in value terms - by 36.3% - from $291.67 million (in January-September 2019) to $185.92 million (in January-September 2019) September 2020), natural gas by 30.8% - from $167.92 million to $116.22 million, gasoline - by 38% - from $79.85 million to $49.44 million, coal - by 22.9% - from $13.33 million to $10.28 million, while imports of energy resources under the "Other" section decreased by 43.4% - from $62.43 million in 9 months. 2019 to $35.31 million in 9 months 2020

**Moldova will once again ask the European Union to conduct an environmental impact assessment of the project for the construction of the Dniester hydropower complex.**

During a meeting in Kiev with President of Ukraine Volodymyr Zelensky, the parties agreed to continue the dialogue for the protection and sustainable use of the Dniester. “I expressed concern about the situation on the Dniester, including in relation to the Dniester hydropower complex. The waters of the Dniester ensure the life and well-being of millions of people. We want the water of this river to serve both our generation and future generations. I suggested asking the European Union again to conduct an environmental impact assessment of the Dniester hydropower complex construction project. We agreed on the need to immediately resume the activities of working groups within the governments of the two countries,” Maia Sandu said.

A well-known ecologist, executive director of the International Association of Dniester Keepers "Eco-Tiras" Ilya Trombitsky noted that today in the situation on the Dniester there is no alternative to cooperation between Moldova and Ukraine, and it is by finding the most favorable solutions for its condition that success can be achieved. According to him, not the presidents, but the governments should negotiate on the basis of the opinions of experts. Presidents can only provide a favorable political climate for this. The environmentalist noted that today Moldova does not have a functional government and there is no one to speak on its behalf. But it is qualified approaches and the exclusion of the Dniester issue from the previously discussed "package", without the "sale" of the Dniester for any material benefits and other benefits, that can give a result. Therefore, according to Ilya Trombitsky, it is necessary to wait for the appointment of the government and demand from him to "resolve" the situation. According to him, almost everyone is now confusing two questions - what impact will the completion of the Dniester hydropower complex have on the Dniester and the impact of the entire hydroelectric complex on the Dniester. “Moldova today has the opportunity to demand the reconstruction of HPP-1 and the adoption of a mode of operation that is gentle on the Dniester to reduce the impact. And if you give up the territory for rent, there will be no more levers,” the ecologist noted. As InfoMarket agency reported earlier, the Ukrainian authorities intended to build 6 cascade mini hydroelectric power plants on the Dniester. However, at the request of the Moldovan side, they subsequently decided to suspend any work pending an assessment of the impact of this strategy on the environment in a transboundary context.

In the summer of 2017, Ukraine ratified the Rome Agreement of 2012 on cooperation in the field of protecting the Dniester, which included, among other things, the creation of a joint commission for the stable use and protection of the river basin. Dniester. In December 2017, Prime Ministers Pavel Filip and Vladimir Groysman signed a joint appeal to the European Commission for expert assistance in conducting a broad environmental study of the impact on the entire river basin. Dniester. Both states are implementing the Global Environment Facility's project "Promotion of Transboundary Cooperation and Integrated Water Resources Management in the Dniester River Basin", which conducts a thorough analysis of the Dniester River Basin, identifying transboundary problems and risks. In addition, the Swedish Embassy in Moldova is conducting a study on the social and environmental impact on the territory of Moldova of the consequences of the activities of the Dniester hydropower complex.

**Imports of energy resources to Moldova in January-November 2020 in monetary terms amounted to $522.24 million, having decreased by 36.9% compared to the same period in 2019.**

3 a 11 months In 2020, compared to the same period of the previous year, imports of oil and oil products in value terms decreased by 37.2% - to $337.4 million, and natural gas - decreased by 31.3% - to $162.04 million. electricity decreased by 75.3%, amounting to $9.12 million. Deliveries of coal, coke and briquettes over the same period decreased by 21.1% - to $13.68 million. The share of mineral fuels in the total volume of Moldovan imports in January-November 2020 amounted to 10.77% against 15.61% for the same period a year earlier. Import of energy resources ranked 5th in the overall structure of product supplies to Moldova for 11 months. 2020. At the same time, imports of petroleum products in the structure of total imports amounted to 6.96%, natural gas - 3.34%, electricity - 0.19%, coal, coke, briquettes - 0.28%.

**Monitorul Oficial published ANRE resolutions on the reduction of tariffs for the supply of electricity to end consumers from February 1.**

According to the decision of ANRE, for the end consumers of Premier Energy, whose electrical installations are connected to the low-voltage distribution grid (0.4 kV), the tariff for the supplied electricity will decrease by 17 bani (-10.1%) from February 1 (-10.1%) - from 168 to 151 bani per 1 kWh (excluding VAT). For Premier Energy consumers connected to medium voltage networks (6;10 kV), the tariff will be reduced by 7 bani (-5.3%) - from 132 to 125 bani per 1 kWh, and for those connected to high voltage networks (35 ; 110 kV), - for 3 bani (-2.6%) - from 117 to 114 bani for 1 kWh. The price for the supply of electricity at the points of entry into the transmission grids of Premier Energy is set at 98 bani per 1 kWh, at the points of exit from the transmission networks - 112 bani per 1 kWh.

At the same time, according to another ANRE resolution, tariffs for electricity supplied to end consumers by Furnizarea Energiei Electrice Nord (FEE Nord, Balti), which serves consumers in the northern and northwestern regions of the country, will also be reduced from February 1. In particular, the cost of electricity for FEE Nord end consumers connected to the low voltage distribution grid (0.4 kV) will decrease by 10 bani
(-4.7%) - from 214 to 204 bani per 1 kWh, and for consumers FEE Nord connected to medium voltage distribution networks (6;10 kV) will be reduced by 14 bani (-8.9%) - from 157 to 143 bani per 1 kWh. The price for the supply of electricity at entry and exit points to/from the FEE Nord transmission grids is set at 101 bani per 1 kWh and 115 bani per 1 kWh respectively.

Recall that the previous adjustment of electricity tariffs for end consumers in Moldova was made by ANRE on July 31, 2020.

**Russian Federation**

# **Russian nuclear power plants set a record for electricity generation in the entire history of the industry**

Russian nuclear power plants generated 215.7 billion kilowatt-hours of electricity in 2020 - this is a record value, said Rosenergoatom (the operator of all nuclear power plants, part of Rosatom). The last maximum was set in 1988, when all stations generated 215.669 billion kilowatt-hours. At the same time, the nuclear power plants of Ukraine, Lithuania and Armenia were taken into account in the USSR.

Russian NPPs exceeded the 2019 figure by 7 billion kilowatt-hours. Rosenergoatom believes that the reason for achieving this result was the reduction in the duration of repairs at nuclear power units by 130.5 days.

There are currently 37 power units operating in Russia. At the peak of the nuclear energy in 1988, there were 47. In 2020, the Rostov (32.8 billion kilowatt-hours), Balakovo (30.6 billion kilowatt-hours) and Kalininskaya (28.4 billion kilowatt-hours) nuclear power plants made the largest contribution to generation. Nuclear power plants provide 19% of all electricity generation.

**In 2020, RusHydro modernized 6 HAs with a capacity of 523 MW at 5 HPPs, and in 2021 it will continue work on updating HAs at 11 stations**

The capacity of RusHydro's operating HPPs in 2020 increased by 25 MW after re-marking the upgraded hydroelectric units

In 2021, work will continue to upgrade the hydroelectric units at the Rybinskaya, Nizhny Novgorod, Cheboksarskaya, Votkinskaya, Saratovskaya, Volzhskaya, and Mainskaya HPPs; based on the results of competitive procedures, it is planned to determine suppliers of new hydroelectric units for the Chirkeyskaya and Uglichskaya HPPs. Construction and installation work will be launched on a large-scale modernization of the Ezminskaya HPP, the Sengileevskaya HPP and the Kuban HPSP, providing for the complete replacement of all obsolete equipment and the repair of hydraulic structures.

RusHydro is implementing the Program for the Comprehensive Modernization of Hydro-Generating Facilities, under which it is planned to replace half of the fleet of turbines, generators and transformers at RusHydro's HPPs and PSPPs. Since the beginning of the program, the capacity of RusHydro's HPPs being upgraded has increased by 452.5 MW.

**The Ministry of Energy has decided to reduce the volume of the new program for the construction of green generation after 2025 by 30% in order to keep the growth of energy prices in the country at the level of inflation.**

As a result, the load on the energy market until 2035 under the RES program will decrease to 306 billion rubles, and until 2050 - to 545 billion rubles. The volume of construction will be reduced to 4.6 GW. Investors in RES warn: as a result, the share of renewable energy in the Russian Federation will not even reach 2%, and the economy will lose 200 billion rubles. investment.

Now the departments have finally agreed on the possibility of reducing the program by 30%. In this case, the load on the energy market will amount to 305.93 billion rubles until 2035, and 544.7 billion rubles until 2050. (in 2021 prices), follows from the document.

For this money, 4.6 GW of new capacities will be built in Russia, including 1.8 GW of solar and 2.7 GW of wind power plants. According to Kommersant's information, the issue will be discussed with Alexander Novak on Tuesday, January 19.

**In January 2021, the Kochubeevskaya wind farm, the first wind farm in the region, began supplying capacity to the Russian wholesale market.**

The wind farm consists of 84 wind turbines with a capacity of 2.5 megawatts each. A new transformer substation "Badgers" was built on its territory. The project was implemented by the NovaWind company, by 2024 the capacity of the regional wind farms will reach 983 megawatts.

Active construction began in 2013 thanks to the CSA RES program (contract for the supply of power from renewable energy sources). It allowed not only to attract investments in "green" generation, but also gave impetus to the formation of a full-fledged industrial cluster for the manufacture of industrial equipment necessary for wind farms. The decision of the state to stimulate the local production of generating equipment for renewable energy projects will allow Russia to occupy a niche in the growing global market. It is developing at an accelerated pace and will add another 30 percent by 2030," the association believes.

The situation was also affected by the practice of competitive selection of investment projects in the field of renewable energy. Since 2015, capital investment in the creation of one wind kilowatt has more than halved. The cost of generating electricity at wind farms is already lower today than at some new thermal power plants and even nuclear power plants (5.6 rubles against six to eight rubles per kilowatt-hour). Although wind energy is still generally more expensive than that generated by most thermal power plants of the Unified Energy System of Russia. So the trend towards cheaper construction of wind farms continues in order to further reduce the gap with traditional generation.

Russia has a record natural wind potential. Within the price zones of the wholesale market, the regions of the Lower and Middle Volga and Don, the coast of the Caspian, Baltic, Black and Azov Seas have the largest wind resources. The Kola Peninsula also has significant potential. It is important to note that the location of enterprises producing equipment for wind energy in the Volga basin and in St. Petersburg makes it possible to deliver equipment by water transport to the construction site of the wind farm. The leaders in terms of wind power planned for commissioning are the Stavropol Territory (741 megawatts), Rostov (669), Volgograd (415) and Astrakhan (339) regions.

**Major manufacturers asked to abolish power reserve fees**

Industrialists point out that the introduction of payments will not increase the load on the power grid, since the demand for new capacities arises in large cities, and the reserve can arise only in remote areas where there is no third-party demand.

According to the Russian Ministry of Economic Development, the additional amount of financial losses of industrial companies will be up to 394 billion rubles in the four years following the adoption of [the resolution]; according to the Russian Ministry of Energy, up to 438 billion rubles for the period 2021-2024.

It is noted that the current version of the draft resolution will not allow achieving the set goals of efficient use of energy networks, as it is based on a false idea of the functioning of the electric grid infrastructure and is not economically and technologically justified.

Industrialists point out that the introduction of payments will not increase the load on the power grid, since demand for new capacities arises in large cities, and a reserve can arise only in remote areas where there is no third-party demand. Moreover, if an enterprise has its own generation, then an additional payment for energy transmission is introduced without actually providing services, since electricity is consumed directly by the enterprise.

As alternatives, it is proposed to apply a targeted approach, in which large consumers of electricity would themselves clarify the procedure for reimbursement of costs for new connections, as well as to make adjustments to technological design standards.

**The first solar power plant in Chechnya is planned to be put into operation in 2021**

In 2020, the Hevel group of companies began the construction of a solar power plant in the Naur district. The power plant capacity is 5 MW. More than 500 million rubles were invested in the project. It is planned to put into operation in March of this year.

**The Republic of Tajikistan**

**Energy limit introduced in Tajikistan**

After long power outages in the country, months of repairs and several government announcements, Tajikistan has officially announced the introduction of restrictions on the supply of electricity.

Due to the reduction of water resources in the Vakhsh river basin last year, the plan to provide electricity to the country's economic and social sectors faced many difficulties, the appeal says.

The representative office of the company notes that since July, measures have been taken to meet the needs of the population and the national economy in electricity, in particular, a significant reduction in electricity exports.

Due to severe frosts at the beginning of the winter season and a long-term frost forecast this year, there is a risk of water shortages in the Nurek HPP reservoir until the end of winter. At present, the water level in the reservoir of the Nurek HPP is four meters lower than in the same period last year.

In this regard, the supply of electricity in remote areas of Tajikistan will be limited. Restrictions will be introduced from January 5, 2021, mainly at night, and will last from 23:00 to 06:00.

This statement is the second time in the history of Tajikistan that the authorities officially announce the introduction of an energy limit. The first energy limit was removed quite recently - from January 2017.

Recall that interruptions in the supply of electricity in Tajikistan began in the autumn. According to official responses from the authorities and the Barki Tojik company, the reason for the blackouts was repair work.

**Rahmon intends to attract foreign investment for the construction of the Rogun hydroelectric power station**

The Rogun HPP, which is necessary for the energy sector of Tajikistan, is planned to be completed at the expense of funds sent from other states

The Government of Tajikistan is interested in attracting investments from friendly and fraternal countries for the implementation of this project

According to him, one of the promising partners ready to allocate funds for the completion of Rogun could be Qatar. The President stressed that at the moment the country has contributed to the economy of Tajikistan in the amount of $62 million.

The President noted that the effect of cooperation between the two states is noticeable in the implementation of the first phase of the Dieri Dushanbe residential and economic complex project.

In 2020, 3 billion somoni was allocated from the state budget for the construction of Rogun.

According to the President, a number of positive changes will take place in Tajikistan by 2030. The government has set the task of ensuring the country's energy independence, breaking the communication deadlock, protecting food security and accelerating industrialization.

Earlier it became known about the intention of the Tajik authorities to attract loans from other states to complete the construction of Rogun. Their amount may reach 340 million dollars.

Recall that from 2020 to 2022, the country's government intends to spend about a billion dollars on the construction of the Rogun HPP.

At the moment, two hydroelectric units have already been launched at the hydroelectric power station.

 **Tajikistan will receive money for the modernization of electricity networks**

New grant agreements with the Asian Development Bank cover the transport and energy sectors.

According to the Ministry of Finance, one of the grant agreements is aimed at the country's energy development program.

The total cost of the program is $105 million, of which $70 million will be used to reduce energy losses through the introduction of modern control and accounting systems in Dushanbe, Penjikent, Istaravshan, Isfara, Kanibadam, Buston and Dangara.

Of this amount, 15 million dollars will be directed to the management of Electric Distribution Networks OJSC, and 20 million - to support the state budget.

The project will install almost 400 thousand electronic meters, over 1.6 thousand kilometers of high-voltage cables, 264 voltage transformers, and it is also planned to improve the system for monitoring and accounting for electricity.

**Tajikistan lost nearly $40 million for electricity exports**

In 2020, Tajikistan received 40% or almost $40 million less from selling electricity to neighboring countries than in 2019. However, it is worth noting that this is 40% less than in 2019. Electricity was supplied to Uzbekistan, Afghanistan and Kyrgyzstan last year.

In 2020, more than 19.7 billion kWh of electricity was produced in Tajikistan , which is 4.3% less than the same period in 2019.

In particular, more than 18.1 billion kW ⋅ h were generated by hydroelectric power plants. The generation of thermal power plants amounted to over 1.6 billion kW ⋅ h of electricity.

Recall that since January 5 of this year, a limit on electricity consumption has been introduced in Tajikistan, this mainly affected energy consumers in rural areas.

In the state energy holding "Barki Tojik" the measure is called forced and is associated with a temporary decrease in the volume of water in the reservoir of the Nurek hydroelectric power station.

Tajik energy expert Shodi Shabdolov, meanwhile, noted that even the completion of the construction of Rogun does not guarantee a solution to issues related to the shortage of electricity.

## **Afghanistan asks Tajikistan to increase electricity supplies**

At the time of publication of the material, it was not possible to receive comments from the state energy holding "Barki Tojik" on this issue. Barki Tojik noted that the situation with energy supply within the country remains difficult. According to the Afghan energy company, the same negotiations (on the supply of electricity) are underway with Uzbekistan and Turkmenistan.

The energy company "Breshno" announced the cessation of electricity supply from Uzbekistan to Afghanistan.

According to the energy sector of Tajikistan, the average daily electricity generation in recent days in the country amounted to more than 68.5 million kWh, which is more than 2.5 million kWh more than in the same period in 2020. More than 67.3 million kWh of the total produced volume is used for domestic consumption.

The main volume of electricity generation is accounted for by the Nurek HPP, which daily, on average, produces about 31 million kW / h. In addition, about 10 million kWh of electricity per day is produced by Dushanbe CHPPs 1 and 2.

Recall that since January 5, the energy limit has been introduced in the republic. The electricity consumption limit has been introduced in rural areas where there are no high-rise residential buildings.

“Currently, the situation is serious, and there is a possibility that water resources will not be enough until spring. Therefore, for some time it will be necessary to limit the supply of electricity in those areas where there are no high-rise buildings,” the appeal of Barki Tojik says.

It is emphasized that the restrictions are introduced from January 5, 2021, mainly at night, and will last from 23:00 to 06:00. How long the energy limit will last in the message is not indicated

Barki Tojik connects the introduction of the energy limit with a decrease in the water level in the Nurek reservoir. The water level in this reservoir is 4 meters lower than in the same period last year.