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**REPORT**

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

**JANUARY-FEBRUARY 2020**

**MARKET DEVELOPMENT DEPARTMENT**

**March 2020**

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# **SECTION I**

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

According to the System Operator, Republic of Kazakhstan’s power plants generated 19 868,4 million kWh of electricity in January-February 2020, which is 5.3% more than in the same period of 2019. The increase in generation was observed in all zones of the UES of Kazakhstan.

*million kWh*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Zone** | **Generation type** | **January-February** | | **Δ, %** |
| **2019** | **2020** |
| **Kazakhstan** | **Total** | **18871,1** | **19868,4** | **5,3%** |
| *TPP* | *15727,4* | *16503,0* | *4,9%* |
| *GTPP* | *1636,9* | *1726,4* | *5,5%* |
| *HPP* | *1389,5* | *1395,5* | *0,4%* |
| *WPP* | *93,0* | *156,8* | *68,6%* |
| *SES* | *23,7* | *86,4* | *264,6%* |
| *BSU* | *0,6* | *0,3* | *-50,0%* |
| **North** | **Total** | **14268,9** | **15155,6** | **6,2%** |
| *TPP* | *12732,5* | *13514,3* | *6,1%* |
| *GTPP* | *557,3* | *591,8* | *6,2%* |
| *HPP* | *941,5* | *946,2* | *0,5%* |
| *WPP* | *31,3* | *75,6* | *141,5%* |
| *SES* | *5,7* | *27,4* | *380,7%* |
| *BSU* | *0,6* | *0,3* | *-50,0%* |
| **South** | **Total** | **2204,6** | **2241,2** | **1,7%** |
| *TPP* | *1664,0* | *1661,8* | *-0,1%* |
| *GTPP* | *38,2* | *35,3* | *-7,6%* |
| *HPP* | *448,0* | *449,3* | *0,3%* |
| *WPP* | *36,7* | *36,1* | *-1,6%* |
| *SES* | *17,7* | *58,7* | *231,6%* |
| **Western** | **Total** | **2397,6** | **2471,6** | **3,1%** |
| *TPP* | *1330,9* | *1326,9* | *-0,3%* |
| *GTPP* | *1041,4* | *1099,3* | *5,6%* |
| *WPP* | *25,0* | *45,1* | *80,4%* |
| *SES* | *0,3* | *0,3* | *0,0%* |

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

In January-February 2020, compared to the same period in 2019, electricity production increased significantly (20% growth and above) in Kostanay region. At the same time, a decrease in electricity production was observed in Zhambyl and West Kazakhstan regions.

*million kWh*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **№** | **Region** | **January-February** | | **Δ, %** |
| **2019** | **2020** |
| 1 | Akmola | 834,2 | 915,2 | 9,7% |
| 2 | Aktobe | 716,7 | 737,2 | 2,9% |
| 3 | Almaty | 1 349,5 | 1 360,4 | 0,8% |
| 4 | Atyrau | 1 027,5 | 1 096,2 | 6,7% |
| 5 | East Kazakhstan | 1 508,7 | 1 508,6 | 0,0% |
| 6 | Zhambyl | 501,5 | 473,3 | -5,6% |
| 7 | West Kazakhstan | 421,5 | 419,6 | -0,5% |
| 8 | Karaganda | 2 774,5 | 2 890,6 | 4,2% |
| 9 | Kostanay | 177,1 | 219,1 | 23,7% |
| 10 | Kyzylorda | 93,7 | 101,7 | 8,5% |
| 11 | Mangystau | 948,6 | 955,8 | 0,8% |
| 12 | Pavlodar | 7 623,4 | 8 231,2 | 8,0% |
| 13 | North Kazakhstan | 634,3 | 653,7 | 3,1% |
| 14 | Turkestan | 259,9 | 305,8 | 17,7% |
|  | **Total for RoK** | **18 871,1** | **19 868,4** | **5,3%** |

# *Electricity generation by associated generation*

In January-February 2020, electricity production from associated generation totaled 9 billion kWh, which is comparable to the same period in 2019 (9 billion kWh). Meanwhile, compared to January-February 2019, the share of associated generation increased slightly to 48% of the total electricity generation in Kazakhstan.

*million kWh*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **№** | **Name** | **2019** | | **2020** | |
| **January-February** | **share in the Republic of Kazakhstan, %** | **January-February** | **share in RoK, %** |
| 1 | ERG | **3 465,2** | **18,4%** | **3 440,0** | **17,3%** |
| 2 | Kazakhmys Energy LLP | **1 248,9** | **6,6%** | **1 279,3** | **6,4%** |
| 3 | Kazzinc LLP | **453,8** | **2,4%** | **453,9** | **2,3%** |
| 4 | Arcellor Mittal JSC | **372,7** | **2,0%** | **466,8** | **2,3%** |
| 5 | KKS LLP | **1 256,7** | **6,7%** | **1 234,8** | **6,2%** |
| 6 | CAEC | **1 305,9** | **6,9%** | **1 402,6** | **7,1%** |
| 7 | Zhambyl GRES JSC | **414,5** | **2,2%** | **373,8** | **1,9%** |
| 8 | Oil and gas enterprises | **916,0** | **4,9%** | **882,4** | **4,4%** |
|  | **TOTAL** | **9 433,7** | **50,0%** | **9 533,6** | **48,0%** |

The volume of electricity production by the energy producing organizations of Samruk-Energy JSC in January-February 2020 amounted **to 6 030,6** mln/kWh, or an increase of 11.5% compared to the same period of 2019.

*million kWh*

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **№** | **Name** | **2019** | | **2020** | | **Δ2020/2019** | |
| **January-February** | **share in RoK, %** | **January-February** | **share in RoK %** | **mln kWh** | **%** |
|  | **Samruk-Energy JSC** | **5 407,7** | **28,7%** | **6 030,6** | **30,4%** | **622,8** | **11,5%** |
| *1* | *AlES JSC* | *1 130,3* | *6,0%* | *1 155,3* | *5,8%* | *25,1* | *2,2%* |
| *2* | *Ekibastuz GRES-1 LLP* | *2 815,4* | *14,9%* | *3 975,6* | *20,0%* | *1 160,2* | *41,2%* |
| *3* | *Ekibastuz GRES JSC-2 JSC* | *1 177,3* | *6,2%* | *637,6* | *3,2%* | *-539,7* | *-45,8%* |
| *4* | *Shardara HPP JSC* | *94,0* | *0,5%* | *109,3* | *0,6%* | *15,3* | *16,2%* |
| *5* | *Moinak HPP JSC* | *159,7* | *0,8%* | *118,2* | *0,6%* | *-41,5* | *-26,0%* |
| *6* | *Samruk-Green Energy LLP* | *0,4* | *0,002%* | *0,4* | *0,002%* | *0,04* | *11,2%* |
| *7* | *First Wind Power Station LLP* | *30,6* | *0,2%* | *34,1* | *0,2%* | *3,5* | *11,4%* |

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

# *Electricity consumption by zones and regions*

According to the System Operator, in January-February 2020, there was an increase in the dynamics of electricity consumption in the RoK compared to the indicators of January-February 2019. Thus, in the northern, western and southern zone of the republic consumption increased by 3%.

*million kWh*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **#** | **Name** | **January-February 2019** | **January-February 2020** | **Δ,  million kWh** | **Δ, %** |
| **I** | **Kazakhstan** | **18 909** | **19 554,2** | **645,2** | **3%** |
| 1 | Northern zone | 12 373,8 | 12 806,2 | 432,4 | 3% |
| 2 | Western zone | 2 413,3 | 2 484,2 | 70,9 | 3% |
| 3 | Southern zone | 4 122 | 4 263,7 | 141,7 | 3% |
|  | ***including by region*** |  |  |  |  |
| 1 | East Kazakhstan | 1 686,4 | 1 720,5 | 34,1 | 2% |
| 2 | Karaganda | 3 125,5 | 3 327,8 | 202,3 | 6% |
| 3 | Akmola | 1 814,6 | 1 836,1 | 21,5 | 1% |
| 4 | North Kazakhstan | 344,1 | 317,9 | -26,2 | -8% |
| 5 | Kostanay | 888,6 | 874,2 | -14,4 | -2% |
| 6 | Pavlodar | 3 393,3 | 3 582,9 | 189,6 | 6% |
| 7 | Atyrau | 1 128,3 | 1 163,1 | 34,8 | 3% |
| 8 | Mangystau | 908,3 | 925,3 | 17 | 2% |
| 9 | Aktobe | 1 121,3 | 1 146,9 | 25,6 | 2% |
| 10 | West Kazakhstan | 376,7 | 395,9 | 19,2 | 5% |
| 11 | Almaty | 2 100,2 | 2 210 | 109,8 | 5% |
| 12 | Turkestan | 878,4 | 912,2 | 33,8 | 4% |
| 13 | Zhambyl | 812,4 | 796,6 | -15,8 | -2% |
| 14 | Kyzylorda | 331 | 345 | 14 | 4% |

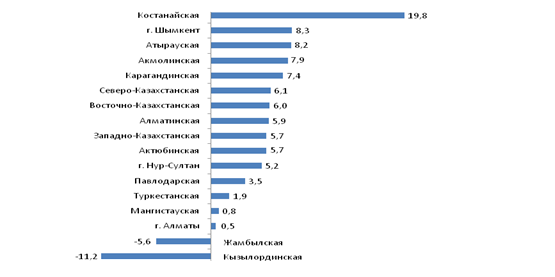
# **Industry results for January-February 2020**

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

In January-February 2020, compared to January-February 2019, the industrial production index was 105.8%. An increase in production volumes was recorded in 15 regions of the Republic, while a decrease was observed in the Kyzylorda and Zhambyl regions and in Almaty.

**Change in industrial output by region**

*as a percentage of the corresponding period of the previous year*



In Kostanay region, production of iron ore concentrates and pellets increased, production of steel bars and rods, gold in gold doré alloy, cars and trucks increased (119.8%).

In Shymkent city the production of sunflower and cotton oil, gasoline, diesel fuel, liquefied propane and butane, medicines increased (108.3%).

In Atyrau region due to the increase in crude oil production, the industrial production index amounted to 108.2%.

In Akmola region the production of gold-containing ores and concentrates increased, production of gold in gold doré alloy, ball and roller bearings increased (107.9%).

In Karaganda region, extraction of copper ores, gold-containing and zinc concentrates increased, production of pig iron, unalloyed steel, flat rolled products, rough and refined copper increased (107.4%).

In North-Kazakhstan region uranium ore extraction increased, production of unrefined sunflower and rapeseed oil, processed milk, butter and centrifugal pumps increased (106.1%).

In East Kazakhstan region there was an increase in production of copper ores and gold concentrates, production of cars and trucks increased (106%).

In Almaty region production of confectionery and chocolate, soft drinks, cigarettes and electric batteries increased (105.9%).

In West-Kazakhstan region, due to the increase in gas condensate production, the index of industrial production amounted to 105.7%.

In Aktobe oblast the extraction of copper-zinc ores increased, production of ferrochrome and industrial services increased (105.7%).

In Nur-Sultan city the production of flour, soft drinks, commodity concrete and refined gold increased (105.2%).

In Pavlodar oblast, production of copper concentrates increased, production of gasoline and parts of railway locomotives, streetcar motor cars and rolling stock increased (103.5%).

In Turkestan Province, production of processed cotton, petroleum bitumen, and distribution power boards and boxes increased (101.9%).

In Mangistau region due to the increase in crude oil production and industrial services, the index of industrial production amounted to 100.8%.

In Almaty city the production of beer, medicines, prefabricated building structures from concrete, unalloyed steel, bars, rods and profiles from aluminum and other aluminum metal products increased (100.5%).

In Zhambyl region due to the reduction of sugar and phosphorus production, the index of industrial production amounted to 94.4%.

In Kyzylorda region due to the reduction of crude oil production, the index of industrial production amounted to 88.8%.

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

# *Electricity consumption by large consumers in Kazakhstan*

In January-February 2020, electricity consumption by large consumers increased slightly compared to the same period of 2019. However, there is a decrease in electricity consumption (more than 20%) at Kazphosphate LLP.

*million kWh*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **№** | **Consumer** | **January-February** | | |
| **2019** | **2020** | **Δ, %** |
| 1 | Arcelor Mittal Temirtau JSC | 590,4 | 652,7 | 11% |
| 2 | AZF (Aksu) TNK Kazchrome JSC | 953,2 | 968,3 | 2% |
| 3 | Kazakhmys Smelting LLP | 199,1 | 197,4 | -1% |
| 4 | Kazzinc LLP | 485,6 | 477,1 | -2% |
| 5 | Kazzinc JSCSokolovsko-Sarbay State Enterprise | 308,8 | 321,7 | 4% |
| 6 | Kazakhmys Corporation LLP | 207,9 | 224,0 | 8% |
| 7 | AZF (Aktobe) TNK Kazchrome JSC | 499,9 | 516,9 | 3% |
| 8 | RSE Kanal im. Satpayev | 19,1 | 19,7 | 3% |
| 9 | Kazphosphate LLP | 408,4 | 327,6 | -20% |
| 10 | NDFZ JSC (part of Kazphosphate LLP) | 365,0 | 277,4 | -24% |
| 11 | Taraz Metallurgical Plant LLP | 27,8 | 31,3 | 13% |
| 12 | Ust-Kamenogorsk Titanium and Magnesium Combine JSC | 131,9 | 155,9 | 18% |
| 13 | Ust-Kamenogorsk Titanium and Magnesium Combine JSCTengizchevroil | 320,3 | 321,1 | 0% |
| 14 | JSC " PAZ "(Pavlodar Aluminum Plant) | 154,2 | 160,5 | 4% |
| 15 | JSC " KEZ "(Kazakhstan Electrolysis Plant) | 618,8 | 626,5 | 1% |
| 16 | Temirzholenergo LLP | 297,9 | 243,2 | -18% |
| 17 | JSC "KEGOC" | 954,2 | 940,4 | -1% |
| **Total** | | **3 261,6** | **6 177,5** | **6 184,4** |

# **Coal**

# *Steam coal production in Kazakhstan*

Kazakhstan produced 18.6 million tons of hard coal in January-February 2020, which is 4% less than in the same period of 2019 (19.4 million tons), according to the Committee on Statistics of the Ministry of Energy of the Republic of Kazakhstan.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **№** | **Oblast** | **January-February** | | **Δ, %** |
| **2019** | **2020** |
| 1 | Pavlodarskaya | 12 812,8 | 12 006,7 | 94% |
| 2 | Karagandinskaya | 5 046,2 | 5 407,9 | 107% |
| 3 | East Kazakhstan | 1 446,6 | 1 214,8 | 84% |
|  | **Total in RoK** | **113 703,4** | **111 083,2** | **98%** |

# *Coal production by Samruk-Energy JSC*

In January-February 2020, Bogatyr Komir LLP produced 8032 thousand tons, which is 5.5% less than in the corresponding period of 2019 (8499 thousand tons).

# *Coal sales by Samruk-Energy JSC*

In January-February 2020, 7976 thousand tons were sold, including:

- 6377 thousand tons were delivered to the domestic market of the Republic of Kazakhstan, which is 6.5% less than in the corresponding period of 2019 (6822 thousand tons);

- exported to Russia – 1599 million tons, which is 8% more than in the corresponding period of 2019 (1481 thousand tons).

*thousand tonnes*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **№** | **Region** | **Sales volume, thousand tonnes** | | **Δ, %** |
| **January-February 2019** | **January-February 2020** |
| Total exports to the domestic market of the Republic of Kazakhstan | | **6 822** | **6 377** | **93,5%** |
| Total exports to the Russian Federation | | **1 481** | **1 599** | **108%** |

According to the indicators for January 2020, compared to the same period in 2019, the Company's coal sales decreased by 4.9%.

# **Renewable energy sources**

The volume of electricity produced by renewable energy facilities (SES, wind farms, BGS, small hydroelectric power plants) in January-February 2020 amounted to 368.1 million kWh. Compared to January-February 2019 (187.3 million kWh), the increase was 96.5%.

million kWh

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **№** | **Name** | **2019** | | **2020** | | **Deviation 2020/2019** | |
| **January-February** | **share in the Republic of Kazakhstan, %** | **January-February** | **share in the Republic of Kazakhstan, %** | **mln kWh** | **%** |
|  | **Total output in the Republic of Kazakhstan** | **18871,1** | **100%** | **19868,30** | **100,0%** | **997,2** | **5,3%** |
| **I** | **Total RES in the Republic of Kazakhstan, including by zones** | **187,3** | **1,0%** | **368,1** | **1,9%** | **180,8** | **96,5%** |
| 1. | *Northern Zone* | *53,3* | *28,5%* | *119,3* | *32,4%* | *66,0* | *123,8%* |
| 2. | *Southern zone* | *108,7* | *58,0%* | *149,7* | *40,7%* | *41,0* | *37,7%* |
| 3. | *Western Zone* | *25,3* | *0,0%* | *99,1* | *26,9%* | *73,8* | *0,0%* |
| **II** | **Total RES in the Republic of Kazakhstan, including by type** | **187,3** | **1,0%** | **368,1** | **1,9%** | **180,8** | **96,5%** |
| 1. | *SES* | *23,7* | *12,7%* | *140,0* | *38,0%* | *116,3* | *490,7%* |
| 2. | *Wind farms* | *93,0* | *49,7%* | *156,8* | *42,6%* | *63,8* | *68,6%* |
| 3. | *Small hydroelectric* | *70,0* | *37,4%* | *71,0* | *19,3%* | *1,0* | *1,4%* |
| 4. | *Biogas plants* | *0,6* | *0,3%* | *0,3* | *0,1%* | *-0,3* | *0,0%* |

In January-February 2020, there is a decrease in electricity production by large and small hydropower plants compared to the same period in 2019, while electricity production by WES, SES and BSU facilities increased.

million kWh

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **#** | **Name** | **2019** | | **2020** | | **Deviation 2020/2019** | |
| **January-February** | **share in the Republic of Kazakhstan, %** | **January-February** | **share in the Republic of Kazakhstan, %** | **mln kWh%** | **%** |
|  | ***Electricity production in the Unified Energy System of the Republic of Kazakhstan*** | **18871,1** | **100,0%** | **19868,3** | **100%** | **997,2** | **5,3%** |
| 1. | Production of "clean" electricity (RES + Large hydroelectric power plants) | *1506,8* | *8,0%* | *1721,3* | *8,7%* | *214,5* | *14,2%* |
| 2. | Production of "clean" electricity (RES excluding Large hydroelectric power plants) | *187,300* | *1,0%* | *368,1* | *1,9%* | *180,8* | *96,5%* |

Electricity generation by RES facilities of Samruk-Energy JSC (SES, WES, small HPPs) for January-February 2020 amounted to 56.2 mln kWh or 15.3% of the total volume of electricity generated by RES facilities, which is 7.9% higher compared to the same period of 2019 (for January-February 2019, RES generation of the Company amounted to 52.1 mln kWh, and the share of RES of the Company was 27.8%).

The main decrease in the share of the Company's RES power generation is the commissioning of new RES capacities in the RoK.

The Company's share in the production of "clean" electricity (SES, WES, small and large HPPs) for January-February 2020 increased by 1.1% (450.5 mln kWh) compared to the same period of 2019 (445.8 million kWh).

million kWh

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **№** | **Name** | **2019** | | **2020** | | **Deviation 2020/20/2019.** | |
| **January-February** | **share in the Republic of Kazakhstan, %** | **January-February** | **share in the Republic of Kazakhstan, %** | **million kWh** | **%1.** |
|  | Productionof "clean" electricity by JSC "Samruk-Energy" (SES, wind farms, small and large hydroelectric power plants) | 445,8 | 29,6% | 450,5 | 26,2% | 4,7 | 1,1% |
| 2. | Production of "clean" electricity by JSC "Samruk-Energy" (SES, wind farms and small hydroelectric power plants), incl.: | 52,1 | 27,8% | 56,2 | 15,3% | 4,1 | 7,9% |
| 3. | *Cascade of small hydroelectric power plants of "AlES" JSC* | *21,0* | *11,2%* | *21,7* | *5,9%* | *0,7* | *3,3%* |
| 4. | *Samruk-Green Energy LLP* | *0,4* | *0,2%* | *0,4* | *0,1%* | *0,0* | *0,0%* |
| 5. | *First Wind Power Station LLP* | *30,7* | *16,4%* | *34,1* | *9,3%* | *3,4* | *11,1%* |

# **Centralized electricity trading by KOREM JSC**

*(Information not provided by KOREM JSC)*

# **Export-import of electric energy**

In January-February 2020, the main direction of electricity export-import of the RK was the Russian Federation (export to the Russian Federation - 169.7 mln kWh, import from the Russian Federation - 199.2 mln kWh). KEGOC - 162.8 mln kWh in order to balance electricity production-consumption. Electricity import from the Russian Federation in the reporting period in the amount of 158.9 mln kWh was carried out in order to balance production-consumption of electricity.

million kWh

| **Name** | **January-February** | | **Δ 2020/2019гг.** | |
| --- | --- | --- | --- | --- |
| **2019** | **2020** | **mln kWh** | **%** |
| **Kazakhstan's exports** | **684,1** | **332,2** | **-352,0** | **684,1** |
| **to Russia** | *683,7* | *169,7* | *-514,0* | *683,7* |
| **to Central Asian ECO** | *0,4* | *162,4* | *162,0* | *36550%* |
| **Kazakhstan's imports** | **213,6** | **201,8** | **-11,8** | **-5,5%** |
| **from Russia** | *213,4* | *199,2* | *-14,2* | *-6,7%* |
| **from Central Asian ECO** | *0,2* | *2,6* | *2,4* | *1082,4%* |
| **Balance-flow " + "deficit," - " excess** | **-470,5** | **-130,4** | **340,1** | **-72,3%** |

# **SECTION II**

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

At the meetings of the Subcommittee on the formation of the EEER of the EEU Advisory Committee on Electric Power Industry under the EEC Board, the work is carried out by the EEU member states to develop and coordinate the rules for the functioning of the EEER of the EEU.

On 18.01.2019, 13-14.03.2019, 16-17.04.2019 meetings of authorized representatives of the EAEU member States were held to agree the draft Protocol on amendments to the EAEU Treaty and the draft Mutual Trade Rules. At the moment, there are a number of controversial issues regarding the wording of the norms.

On May 29, 2019, in Nur-Sultan the heads of the EAEU states signed an international agreement on the formation of the EEA.

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

Since 1992, 53 meetings of the Electricity Council of the Commonwealth of Independent States (hereinafter referred to as the CIS EES) have been held.

By the decision of the CIS Unified Energy System (Protocol No. 50 of 21.10.2016), the Consolidated Schedule for the formation of the common electricity market of the CIS member States was approved.

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| **№** | **. Activities** | **Due date** | **Current status** |
| 1 | Implementation of activities in accordance with section II. Action Plan for Cooperation between the EEC and the CIS EES, approved on June 10, 2016. | 2016-2020 | Permanent participation of the EEC representatives at the meetings of the CIS EEC, and representatives of the CIS EEC EC – at the meetings on the formation of the EAEU EER is ensured. |
| 2 | Preparation of a draft Procedure for settling deviations from the agreed values of interstate electric energy flows | 2016-2017. | The decision to develop a procedure for regulating deviations from the agreed values of interstate electric energy flows was made at the 45th meeting of the CIS Unified Energy System. The draft Procedure was considered at the 29th meeting of the Working Group "Formation of the common electricity market of the CIS countries" on September 15, 2016 in Moscow (Russia). In accordance with the Decision of the 47th Session of the CIS EES, the CIS EES Action Plan for 2016 includes the development and approval of draft documents on determining the values of deviations from the agreed values of interstate electricity flows and regulating the values of deviations from the agreed values of interstate electricity flows. Work continues. |
| 3 | Preparation of a draft Procedure for distributing the capacity of interstate cross-sections / export-import cross-sections between participants in export-import activities. | 2018-2020 | By the decision of the 50th meeting of the CIS Unified Energy System, Methodological recommendations on metrological support of measuring systems for electric energy metering on interstate  power transmission lines were approved.  By the decision of the 50th session of the CIS Unified Energy System, the Schedule for monitoring the use of regulatory technical documents in the field of metrology of electrical measurements and electricity metering in the production activities of power systems of the CIS member States was approved. |
| 4 | Preparation of a draft Procedure for compensation of costs associated with the implementation of transit/transmission/movement of electricity through the energy systems of the CIS member States. | 2018-2020 | The unified data exchange layout format for recording interstate electricity flows, developed by the Working Group on Metrological Support for the Electricity 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 management bodies of the CIS member States for use in organizing the recording of interstate electricity flows and the exchange of data on interstate flows. |
| 5 | Harmonization of national legislation in the field of electric power, 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 CIS EES approved Conceptual approaches to technical regulation and standardization in the field of electric power. The Regulation on the Working Group "Updating and harmonization of the regulatory and technical framework for Regulating the Electric Power Industry"was also approved. The Work Plan of this Working Group was approved by the decision of the 51st meeting of the CIS EES. |

# **CASA-1000 project implementation status**

*Project Description*

The CASA-1000 project is the first step towards creating a regional electricity market for Central and South Asia (CASAREM), using the significant energy resources of Central Asia to help reduce the energy deficit in South Asia on a mutually beneficial basis.

It is planned to start delivering electricity under the CASA-1000 project in 2021. It is assumed that the transmission line capacity will be about 6 billion cubic meters. kWh per year.

The project financing process is managed by the World Bank.

The project is divided into two main packages:

* construction of power transmission lines in Kyrgyzstan, Tajikistan, Afghanistan and Pakistan;
* Construction of two-terminal high-voltage DC converter substations in Pakistan and Tajikistan.

The construction period after signing the contract is 42 months (2021).

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

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

**Kyrgyz Republic**

**The volume of disbursed funds for the construction of facilities for the provision of electricity in 2019 decreased by 39.5 percent (09.02.2020).**

The volume of disbursed funds for the construction and reconstruction of facilities for the provision of electricity, gas, steam and conditioned air decreased by 39.5 percent compared to 2018. This is reported in the materials of the National Statistical Committee.

At the same time, construction was carried out mainly at the expense of enterprises and organizations, foreign direct investment, as well as foreign loans (97.4 percent). Over the past year, 191 complete transformer substations with a voltage of 10/4 kV, power transmission lines with a voltage of 0.4 kV with a length of 218.49 kilometers, 6-20 kV - 96.69 kilometers were put into operation.

In 2019, 14.6 billion kWh were supplied to the NESK networks, useful supply amounted to 13.7 billion kWh (15.02.2020).

**In 2019, 14 billion 604 million 310.5 thousand kWh of electricity was supplied to the networks of NESK. This is stated in the adjusted annual budget of the company for 2019.**

Technical losses in the networks of NESK amount to 800 million 257.1 thousand kWh or 5.48%, in the networks of "Barki-Tochik" - 8 million 858.7 thousand kWh.

Electricity consumption for economic needs of substations reached 3 million 221.8 thousand kWh.

Useful transit of consumer electricity, according to the adjusted budget, is planned in the amount of 13 billion 753 million 150.7 thousand kWh: in the domestic market - 13 billion 483 million 795.1 thousand kWh: REC - 11 billion 656 million 134.2 thousand kWh, KPP - 1 billion 495 million 316.2 thousand kWh, Kumtor - 286 million 225.7 thousand kWh; export transmission is planned in the amount of 269 million 355.6 thousand kWh. Frequency regulation for 2019 is 94.2 MW.

**The cost of construction of Kambar-Ata HPP-1 will be $2.9 bln, Suusamyr and Kokomeren cascade - $3.3 bln, - deputy head of "Electric Power Plants" (19.02.2020).**

Kambar-Ata HPP-1 is the largest energy facility, its capacity amounted to 1 thousand 860 MW. Taalaibek Bektenov, Deputy General Director of JSC "Electric Power Plants" told about it during the international congress and exhibition "Hydropower Central Asia and Caspian 2020".

According to him, the volume of water reservoir for this HPP is 5.4 billion cubic meters. The facility is located above the Toktogul HPP. The approximate cost of the project is $2 billion 900 million dollars. The payback period for this project, taking into account the CASA-1000 project, is 12 years.

"We also have a project for the construction of Suusamyr and Kokomerenka cascade of HPPs. The project involves the construction of several plants with a capacity of 1305 MW, annual power generation of 3.3 billion kWh. The feasibility study for the project was developed back in the 90s. The facility is located on the West Karakol and Kokomeren rivers. Capex for the project is 3 billion 347 million dollars," he said.

He also told about the project of construction of Kazarman cascade of hydroelectric power plants. The project provides for the introduction of a total capacity of 1,160 MW. There is no feasibility study for it today. The approximate cost is 3 billion 620 million dollars. With the implementation of these projects it is possible to increase the capacity to 5 thousand 129 MW by 2030 and 9 thousand 454 MW by 2035.

**Small HPPs are profitable as a long-term business (19.02.2020).**

In Kyrgyzstan, it is profitable to invest in hydropower, including small HPPs. This was stated by Damir Dzhakypov, specialist on strategic planning and personnel management of National Energy Holding, during the international congress and exhibition "Hydropower Central Asia and Caspian 2020" on February 19.

According to him, investors often complain that it is unprofitable to invest in the construction of small HPPs because of low tariffs. However, the average payback period of a small HPP is 10 years, while the life cycle of a plant is at least 30 years.

"If you take energy as a short-term investment, it may be unprofitable. But if you look at the long term, they are very profitable in Kyrgyzstan. It is a good and profitable trend. As for tariffs, they will grow because the economy is growing. Tariffs will grow over time," he said. According to the specialist, the third driver that can help the energy sector is the EAEU market.

"If we join the unified energy market in 2025, our producers will have access to the market of Kazakhstan and Belarus, and there the tariffs are quite different. The fourth driver is benefits. The state provides exemption from duties at the legislative level. This is a good help. Energy in the Kyrgyz Republic, including small HPPs, is a good long-term business," he said.

**National Energy Holding proposes to raise electricity tariffs to the break-even point (20.02.2020).**

During the international congress and exhibition "Hydropower Central Asia and the Caspian 2020" said the head of the Department of Strategic Development and Human Resources of JSC "National Energy Holding Company" Kubanych Bekov.

According to Marat Jeenbekov, head of the Electricity Department of the State Committee for Industry, Energy and Subsoil Use, this issue is being handled by an independent regulator, the State Agency for the Fuel and Energy Complex.

The SCPEN and the National Energy Holding are preparing a proposal to raise the tariff at least for heat energy. In turn, Mr. Bekov added that at the moment the loss is 30-33 yen from each kilowatt. It is proposed to define a list of areas where targeted assistance is needed. For example, the tariff of 2.24 and 2.16 covers.

**It is proposed to finance the construction of the Upper Naryn HPP cascade by an Iranian company (20.02.2020).**

During the international congress and exhibition "Hydropower Central Asia and Caspian 2020", Shahram Jalali, director of the office of foreign projects of Iran Water & Power Resources Development Co, commented on the interest in cooperation on the project of construction of the Upper Naryn cascade of HPPs.

According to Roman Vorobyev, Business Development Director of Tractebel Engineering GmbH-ENGIE, many people are interested in the cascade construction project. In this regard, it is necessary to intensify negotiations between Iranian company Iran Water & Power Resources Development Co and the National Energy Holding of Kyrgyzstan, so that construction can start and the project can be realized.

"We are serious, but this seriousness depends on working with the government. We understand there are some conflicts there between the National Power Holding and the Russian company. As soon as the problems are resolved, we will get information and possibly invest in the project. If we manage to reach an agreement with the Russian side, that is also an option.

**The issue of selling electricity to Kazakhstan for 1.9 cents and its purchase by Kyrgyzstan for 5 cents should be solved at a high level (20.02.2020).**

During the international congress and exhibition "Hydropower Central Asia and the Caspian 2020" Shamil Dikambayev, head of NIIEE, said.

Bankers have begun to consider environmental issues when considering energy projects. The development of energy capacities is not based on the construction of large plants that consume our carbon resources, but attention is paid to green energy and RES.

Energy development in any country is impossible without international cooperation and it is understandable. Somewhere there is coal and gas, and somewhere there are rivers and RES. Without mutual exchange of energy resources it is impossible for the energy sector to function.

"In Soviet times we had a unified energy system of Central Asian countries. Kyrgyzstan and Tajikistan - water resources, Kazakhstan - coal and gas. This system was reliable and efficient. At that time Kyrgyzstan was storing water, and Uzbekistan and Kazakhstan were watering during the growing season. We gave water, but Uzbekistan and Tajikistan then compensated with electricity and received coal from Kazakhstan. But with the collapse of the Soviet Union all this stopped, each mill started to try to be self-sufficient. Parallel operation of the system has not become so reliable," he said.

Dikambayev said how countries began to get out of the situation after the collapse of the USSR. In March 1998, an agreement was prepared between the governments of Kazakhstan, Kyrgyzstan, and Uzbekistan on the use of water resources of the Syr Darya River.

"There was a scheme of interaction prescribed, but this document for various reasons did not play the role it should have. The reasons are different. Our parties had to switch to bilateral relations. The current situation dictates the need to create a new balanced water system of Central Asian countries," he said.

The head of the laboratory also added about the need to form a common energy market of Central Asian countries. The works on creation of this EAEU market have been started and 2 documents have been developed: the concept of formation of the common market, and the program of formation of the common energy market.

"The development of cooperation in this matter between the countries should be a priority," he said.

One of the panelists asked when the problem with tariffs in mutual trade in electricity between Kyrgyzstan and Kazakhstan will be solved.

"We pour water to Kazakhstan in the summer and then buy it for 1.9 cents. When we buy from them, we pay 5 cents per 1 kWh. When will this situation be corrected?

The head of the laboratory replied that this is a complex issue that cannot be solved for many years.

Its complexity will remain even if we restore the unified energy system, because the neighbors have several times higher tariffs. When we create a unified energy system, questions will arise. I cannot give a direct answer now, it is being decided at a higher level. Now the tariff policy is not economic policy, and social policy," he said.

**Head of the National Energy Holding A. Nazarov explained why investors do not come to build HPPs (21.02.2020).**

There are no plans to change electricity tariffs today. This was stated by the chairman of the National Energy Holding Aytmamat Nazarov during a press conference in Bishkek today, February 21.

According to him, the National Energy Holding is not engaged in setting electricity tariffs, this issue is handled by Gartek.

"Why investors do not come to build HPPs is because Kyrgyzstan has the cheapest electricity tariffs in Central Asia, so there are no investors. When they see the benefit of their investments, then they will come," he said.

He listed the average electricity tariffs in the EAEU countries:

- In Belarus - about 10 soms per kW;

- in Russia - 5.4 soms;

- in Kazakhstan - 3.6 soms;

- in Tajikistan - 2.5 soms;

- in Kyrgyzstan - 1 som on average.

"We take into account the purchasing power of the population, that's why we work at such tariffs," he added.

**According to the feasibility study, the rehabilitation of the Uchkurgan HPP will cost $160 mln (21.02.2020).**

The first phase of the Toktogul HPP rehabilitation project has been finalized in 2019.

The total amount of the Toktogul HPP rehabilitation project is $181 mln. Several projects are being implemented in parallel with this project: commissioning of the second hydro unit of Kambar-Ata HPP-2, rehabilitation of Uch-Kurgan and At-Bashi HPPs. The cost of the At-Bashinsk HPP rehabilitation project is $17 mln. The cost of the Uch-Kurgan HPP project according to the feasibility study is $160 mln, the tender has not been held yet. And the project on construction of the second hydro unit of Kambarata HPP-2 costs $110 mln.

All these projects are financed by international institutions ADB, EDB, EBRD, IDB, some of them on a grant basis, at least 35% of projects are financed in the form of grants.

**Negotiations on electricity imports with Kazakhstan and Tajikistan are underway (21.02.2020).**

In 2019, the government plans to implement a new large project. There will be a separate government statement on this project. This new project will be related to the project Kambar-Ata HPP-1" In Kyrgyzstan today is low water, in 2020 Kyrgyzstan will import electricity.

Negotiations are underway with Kazakhstan and Tajikistan. Kyrgyzstan will not export electricity in 2020.

National Energy Holding plans to build a small HPP in Karakol (21.02.2020).

Today there are 9 small HPPs in Kyrgyzstan. 1 out of 9 small HPPs belongs to the state, the remaining 8 small HPPs are privately owned. 6 out of 8 private small HPPs were built after 2015. The government is considering a decree on small HPPs, after which it is planned to start working with small HPPs. This HPP will be 100% state-owned with a capacity of 18 mW.

**The value of energy sector assets is estimated at 220 billion KGS (21.02.2020).**

An international company is working on inventory and revaluation of energy sector assets. The company has estimated the assets of the energy sector for 109 bln soms from the first time.

**Republic of Moldova**

**Moldovan authorities will support the development of a wind turbine park in the south of the country (11.02.2020).**

Moldova is interested in promoting renewable energy projects, and the authorities will support the development of a wind turbine park in the south of the country. This was stated by Moldovan President Igor Dodon during a meeting with Anna-Maria Mihajescu, a consultant of Energo Continent, which is developing a 120 MW wind turbine park in the south of Moldova, Noi.md reports.

The project was launched in 2010 in cooperation with the InfraVentures IFC Investment Fund, the wind energy production investment arm of the World Bank. The annual amount of energy produced by this project could amount to 15% of Moldova's total annual consumption. Turkey invests in renewable energy in southern Moldova If Energo Continent receives confirmation that its project continues to be in line with Moldova's Energy Strategy, it will finalize the process of attracting strategic investors to finance and implement the project. Igor Dodon welcomed the investors' intentions and noted Moldova's interest in promoting renewable energy projects, and assured his support for the project.

**Moldova reduced imports of energy resources and electricity in value terms by 2.6% to $646.2 mln (10.02.2020).**

According to the country's Balance of Payments for January-September 2019, released by the National Bank of Moldova, in 9M. 2018, Moldova's imports of energy resources and electricity in value terms amounted to $663.28 million, while in Q1 2018 the figure amounted to $224.17 million, in Q2 - $203.34 million, and in Q3 - $235.77 million.

While the figures for the same periods in 2019 were: $241.02 million, $203.60 million and $201.58 million respectively, or a total of $646.2 million for January-September 2019.According to the NBM, in Q3 2019 compared to the same period in 2018, diesel imports in monetary terms decreased by 11.6% from $127.07 million to $112.38 million, electricity by 43.2% from $16.28 million to $9.25 million, gasoline by 14.2% from $33.98 million to $29.16 million, coal by 15.6% from $6.54 million to

$5.52 million, and natural gas by 4.4%, from $22.93 million to $21.92 million.Overall, for 9M. 2019 г., compared to the same period of the previous year, Moldova increased its imports of natural gas in value terms by 9% - from $154.03 million (in January-September 2018) to $167.92 million (in January-September 2019), and coal - by 21% - from $22.93 million to $21.92 million (in January-September 2019). ), and coal - by 21.1% - from $11.01 million to $13.33 million. At the same time, gasoline imports for the same period decreased - by 11.4% - from $90.12 million to $79.85 million, diesel fuel - decreased by 3.8% - from $303.07 million to

$291.65 million, electricity - decreased by 21.2% - from $39.36 million to $31.01 million, and imports of energy resources under the section "Other" decreased by 18.6% - from $76.74 million to $62.44 million.

**Premier Energy and Premier Energy Distribution have issued a new tender for the purchase of electricity from April 1, 2020 (12.02.2020).**

As noted in their announcement, all interested producers and suppliers can send bids to participate in the tender until February 24. The overall program for the power purchase process is scheduled to be finalized on March 19. Premier Energy and Premier Energy Distribution said they have already sent out an invitation to participate in the tender for the purchase of electricity from April 1, 2020 to all participants of the Moldovan energy market holding ANRE licenses, including potential partners in Ukraine.

As previously reported by InfoMarket, last year the state-owned Energocom won the tender to supply electricity to Red Union Fenosa and Gas Natural Fenosa (GNF) Furnizare Energie, which were renamed Premier Energy and Premier Energy Distribution as of December 11, 2019, and committed to sell it until March 31, 2020, at an average price of $54.2 per MWh, up 2% from the previous price. It was said that at the same time the volume of electricity required for Gas Natural Fenosa Group companies in Moldova will be provided by Energocom 85% from Moldavskaya TPP at a price of $52.4 per MWh and 15% from DTEK Pavlogradugol PJSC at a price of $64.4 per MWh. Under the previous contract, Energocom supplied electricity to Gas Natural Fenosa Group companies in Moldova from April 1, 2018 to March 31, 2019 at an average price of $52.8 per MWh (MWh). At the same time, 70% of the required electricity volumes were provided from Moldavskaya GRES at a price of $50.4 per MWh, and 30% from DTEK Pavlogradugol at a price of $58.4 per MWh. Moldova (excluding the Transnistrian region) traditionally produces no more than a quarter of the electricity consumed. The missing volumes are bought from companies from Ukraine, as well as from the Moldavian TPP.

**Czech EMMA Capital Group acquired another 24% of shares in Premier Energy and Premier Energy Distribution in Moldova and increased its stake in them to 93%.**

(26.02.2020г.)

EMMA Capital Group said in a statement that it acquired a 24% stake in Premier Energy and Premier Energy Distribution from London-based fund Duet Private Equity and Moldova Invest, which is controlled by Danish investor August Lund. As a result, EMMA Capital Group's stake in the two Moldovan energy companies increased to 93%.

EMMA Capital entered the Moldovan market in July 2019, when it acquired a 69% stake in both companies (then called Red Union Fenosa and Gas Natural Fenosa) from Spanish energy group Naturgy. At the time, the purchase was the largest ever Czech investment in Moldova. "We are pleased to be able to represent the Czech Republic as an investor in the Moldovan market. We believe that we will be able to manage both companies in a way that is beneficial not only for us as investors, but above all for our clients," said EMMA Capital's Chief Investment Officer Pavel Horák. In December 2019, Red Union Fenosa and Gas Natural Fenosa were incorporated under the Premier Energy brand, which covers EMMA Capital Group's investments in the energy sector in neighboring Romania. "Our experience in Romania is key. We started there in 2014 with limited investments and today we are one of the important players in the Romanian energy market. I am convinced that we will be able to use this experience when we work with the largest companies in Moldova," said Pavel Gorac. Premier Energy Group today operates in Romania and Moldova in the distribution of natural gas and electricity. It has 950 thousand customers. According to preliminary unaudited results, Premier Energy's EBITDA reached almost EUR 48 million in 2019 and its net profit amounted to about EUR 27 million.

**Republic of Tajikistan**

**Construction of power transmission line under CASA-1000 project has started in Afghanistan (10.02.2020).**

In the middle of last week in the territory of Afghanistan's Kabul province, a ceremony was held to inaugurate the construction of a power transmission line within the framework of the regional energy project CASA-1000.

As Afghanistan.ru reports, the CASA-1000 project provides for the supply of electricity from Kyrgyzstan and Tajikistan to Pakistan through Afghan territory, which will allow Afghanistan to receive payment for participation in the transit.

The laying of the foundation stone took place in Surobi County. Afghan President Muhammad Ashraf Ghani spoke at the event.

The 1,300 megawatt section of the transmission line will run through Kunduz, Baghlan, Panjsher, Kapisa, Kabul, Laghman and Nangarhar provinces. The construction work will cost about 225 million dollars - this amount will be provided to Afghanistan by the World Bank.

It is expected that the construction of the transmission line, on which two Indian companies will work in the country, will be completed in 2022.

Recall that the CASA-1000 project is also being implemented in Tajikistan, where the Indian company earlier started preliminary work on the construction of the Tajik section of the 500 kV AC transmission line. The converter substation in Sangtuda will be built by the Swedish company ABB.

The total cost of the project is over $1 billion. The project costs are distributed as follows: Tajikistan - $314 million, Kyrgyzstan - $209 million, Afghanistan - $354 million and Pakistan - $209 million.

International financial institutions - the World Bank (WB), the European Bank for Reconstruction and Development (EBRD), the Islamic Development Bank (IDB), the UK government and others - are acting as investors in Tajikistan.

In particular, the WB will allocate $45 million, the IDB - $70 million, the EBRD - $110 million for the realization of the Tajik section of the project.

**Barki Tojik's debt to Sangtuda HPP-1 increased by 245.7 million TJS for the year (11.02.2020).**

The volume of electricity supply to Sangtuda HPP-1 for 2019 amounted to 2.294 billion kWh, which is 87.96 million kWh (3.69%) less than the same indicator of 2018, the press service of Sangtuda HPP-1 reported.

The installed capacity utilization factor amounted to 39.4%. The decrease in the installed capacity utilization ratio in 2019 compared to 2018 by 3.43% is due to a decrease in electricity generation during this period.

The total cost of electricity from Sangtuda HPP-1 supplied to Barki Tojik for the period from January to December 2019 amounted to 645.9 million TJS inclusive of VAT.

For 2019, the accumulated commercial debt of Barki Tojik OJSC to Sangtuda HPP-1 increased by more than 245.7 million TJS and amounted to 1.3 billion TJS as of December 31, 2019.

In 2019, the tax debt of JSC "Sangtuda HPP-1" was reduced by a total amount of 98.5 million TJS by offsetting the Company's tax liabilities against partial reduction of accumulated debt of Barki Tojik. Dividends of the Government of the Republic of Tajikistan in the amount of TJS 40.56 mln were also offset against part of the debt of Barki Tojik to Sangtuda HPP-1. The level of payment for the supplied electricity in 2019, including offsets made, did not exceed 62%.

In September 2019, JSC Sangtudinskaya HPP-1 received a passport of readiness to operate in the fall-winter period of 2019-2020. A commission headed by representatives of PJSC Inter RAO checked the implementation of the action plan to prepare Sangtuda HPP-1 for operation in the autumn and winter period. The commission members checked compliance with industrial and fire safety requirements and labor safety standards.

The plan of repairs and routine maintenance in 2019 has been fully implemented within the established timeframe. There were no accidents and equipment failures due to the fault of personnel, accidents and injuries.

There were no damages and abnormal situations related to equipment repair works. Fulfillment of the repair program does not affect generation of necessary volumes of electric power by the plant.

**Tajikistan plans to increase electricity exports to its neighbors (12.02.2020).**

Tajikistan plans to increase electricity exports to Afghanistan this year. Chairman of state energy holding Barki Tojik Mirzo Ismoilzoda said at a meeting with journalists in Dushanbe on Tuesday that an agreement has been reached with Afghan energy company Breshno on electricity supplies for the current year.

According to the contract, this year Tajikistan will export electricity to Afghanistan in the amount of 1 billion. 588 million kWh, which is almost 30 million kWh more than in 2019. Last year, 1 billion. 458.2 million kWh of electricity worth $60.6 million.

The value of each kilowatt of energy for Afghanistan last year was 4, 3 cents. This year, that figure will increase by 3%.

The head of Barki Tojik also said that the issue of electricity supply volumes and prices for the current year will be discussed with Uzbek energy specialists within the framework of the meeting of the inter-governmental commission in March this year.

Mirzo Ismoilzoda also said that last year 1 billion 425.1 million kWh/hr was supplied to neighboring Uzbekistan. 425.1 million kWh at a price of 2 US cents per kilowatt. Total electricity exports to Uzbekistan amounted to $28.5 million.

Explaining the low cost of electricity exports to Uzbekistan the head of Barki Tojik noted that this issue was resolved at the governmental level within the framework of Tajik-Uzbek intergovernmental commission.

"In addition, electricity is exported to Uzbekistan when idle water discharge starts from Tajik reservoirs. It is better to sell electricity than to let the water run idle," Mirzo Ismoilzoda emphasized.

**Tajikistan has calculated how much Rogun HPP owes contractors (10.02.2020).**

Currently, Rogun's debt is more than one billion somoni (103 million dollars). Funds at the expense of government securities (Eurobonds), which were raised directly for stable support of Rogun HPP dam construction, have been fully spent. The construction of the plant's facilities needs further stable financing and proposed to sell some of the assets of the hydropower plant, which are located in other regions of the republic, as it is not possible to use them for their intended purpose. The maintenance of these assets only increases costs and affects the financial activity of the hydropower plant.

Recall, the first hydropower unit of Rogun HPP was put into operation in November 2018, and in September last year the second unit also started working.

At present, Tajikistan continues to raise additional funds and further completion of the plant, in the engine room of which four more units are to be installed according to the project.

**Tajikistan will take another loan for completion of Rogun HPP (13.02.2020).**

It is impossible to complete the construction of the Rogun HPP only at the expense of budget funds, Tajikistan needs to attract external creditors, Tajik Finance Minister Faiziddin Kahkhorzoda said at a press conference. The minister noted that more than 2.1 billion somoni is allocated annually from the state budget for the construction of the Rogun HPP. Despite this, the Finance Ministry is cooperating with international financial institutions to attract additional funds for the construction of the hydropower plant in Tajikistan.

At the moment, we are negotiating with several international organizations, considering their proposals and conditions. The decision will be made in the interests of Tajikistan, taking into account the country's external debt.

Tajikistan's foreign debt now reaches 36 percent of Tajikistan's GDP.

"We cannot do without this loan, especially today the whole world lives at the expense of such practices," the head of the Ministry of Finance emphasized.

**Republic of Armenia**

**Government exempts "High Voltage Power Grids" CJSC from paying dividends to the state budget (February 27, 2020).**

The RA Government made a decision to exempt "High Voltage Power Grids" CJSC from dividends to be paid to the state budget in the amount of AMD 1, 240, 547 thousand based on the results of 2018. This is stated in the reference - justification of the government's draft decision.

According to the report, the government is obliged to ensure the increase of the company's authorized capital in the amount of this sum by increasing the nominal value of shares in accordance with the established procedure.

At the same time, the source said that, after the decision comes into force, the Minister of Territorial Administration and Infrastructures is to ensure the modification of the authorized capital, as well as the state registration in the statute, in accordance with the procedure established by law.

Proceeding from the considerations of efficient management of the company's cash flows and ensuring the continuity of the company's activities, the Ministry of Finance of the RA expresses readiness to discuss the issue of deferring the repayment of the remaining part of the obligation to pay dividends to the RA state budget for a certain period of time.

The Asian Development Bank (ADB) and the European Bank for Reconstruction and Development (EBRD) are assisting the Government of the Republic of Armenia in improving electricity transmission capacity and increasing the reliability of energy supply to consumers, in parallel with the energy systems of neighboring countries. To this end, within the framework of the "Electricity Transmission Network Rehabilitation Program" financed by ADB and EBRD, 4 substations of "High Voltage Power Grids" CJSC are to be reconstructed on the basis of full completion of works, as the electrical equipment of the substations is physically and morally worn out. The program envisages reconstruction works in 2 stages: in the first stage reconstruction of "Agarak-2" and "Shinuayr" substations will be financed by ADB, in the second stage reconstruction of "Yeghegnadzor" and "Ararat-2" substations will be financed by EBRD.

On July 5, 2006, CUNIR IRI and BBES CJSC signed an agreement on design, development, procurement, supply and construction of the second 400kV Iran-Armenia overhead transmission line and the corresponding substation. The value of the contract amounted to 107.9 million Euros. According to the financial agreement concluded between NBRI and BBES CJSC, 77% of the contract value (88083000 Euros) is to be financed by NBRI Bank. According to the loan agreement concluded on February 23, 2012 between "CUNIR Internftional FZE" and BBES CJSC 23% of the total value (24817000 EUR) should be financed by CUNIR Internftional FZE.

**Armenia will go for nuclear power plant closure only if there are equivalent replacement capacities (28.02.2020).**

This was stated today at the panel discussion "Prospects of Development of the Nuclear Industry in Armenia" by Nune Alekian, Deputy Head of the Nuclear Energy Division of the Ministry of Territorial Administration and Infrastructure. The reason for such a statement was the question of the panelists about the possibility of closing the nuclear power plant in light of Armenia's signing the Armenia-EU Comprehensive and Enhanced Partnership Agreement, the country will be forced to close the plant already in 2027.

However, Alekian emphasized that the Armenian side has clarified to its European partners that it is impossible to do so without the availability of guaranteed replacement capacities. She added that the Armenian government is making every effort to ensure the safe functioning of the operating nuclear power plant.

In his turn, Artem Petrosyan, Head of Nuclear Energy Projects of the Energy Agency of Armenia Foundation, noted that in the conditions of the growing level of electricity consumption and Armenia's commitments within the framework of the Paris Climate Agreement, nuclear energy is the most acceptable solution for the country. The existing renewable energy sources in Armenia are not a guaranteed substitute, as they depend on nature and weather. In order to ensure energy stability and for Armenia's economy in general, it is necessary to ensure basic energy generation in the form of nuclear energy. At the end of 2019, he noted, the volumes of energy generated by nuclear power plants amounted to 27% of the total volume of all electricity generation. "This is despite a fact that a nuclear power plant has not worked for two months," he stated. Petrosyan pointed out that the percentage of installed capacity in the case of NPP is 13%, but at the same time, the plant generates 27% of the total volume.

**Russian Federation**

**"RusHydro" will complete the construction of Krapivinskaya hydroelectric power plant in Kemerovo region, which was started in the USSR (17.02.2020).**

It is planned to increase the plant's capacity up to 345 MW using modern equipment. The generating company Rusgidro and the government of the Kemerovo region have agreed on cooperation on the project of completing the construction of Krapivinskaya HPP on the Tom River, which was started back in 1976. The company said in a statement.

"Taking into account the importance of the Krapivinskaya HPP completion project for the economy of the region and the country as a whole, RusHydro and the Kemerovo Region have agreed to work together to submit it for discussion by the Russian government and the State Council of the Russian Federation, as well as to the comprehensive plan for modernization and expansion of the main infrastructure for the period until 2024, which was approved by the Russian government in pursuance of the decree of the Russian president," RusHydro notes.

When construction of the Krapivinsky hydroelectric power plant began in the 70s of the last century, the capacity of the plant was supposed to be 300 MW, now it is recognized expedient to increase the capacity of the plant up to 345 MW through the use of modern equipment.

It is expected that the average annual output of the Krapivinskaya HPP, which will be equipped with three 115 MW hydroelectric units, will be more than 2 billion kWh. The cost and final technical parameters of the HPP construction project will be determined after the design documentation is developed and approved by Glavgosexpertiza. It will take five years from the date of resumption of construction to complete the construction of the hydropower plant.

"RusHydro" and the Kemerovo region agreed to jointly identify sources of financing for the project.

Construction history

Construction of the 300 MW Krapivinskaya HPP hydroelectric complex on the Tom River in the Kemerovo Region was started in 1976. The goals of construction were to create a reservoir for water intake, to create an efficient source of generation, and to protect the territories of the Kemerovo and Tom regions from floods. The project of the hydrosystem, which was carried out by the Lengidroproekt Institute, provided for a road along the crest of the dam, which would replace the ferry crossing. The construction of the hydroelectric complex was suspended in 1989 due to problems with financing - by that time about 50% of the work had been completed.

After Zaramagskaya HPP-1 in North Ossetia was put into commercial operation, Krapivinskaya HPP is the only large hydropower facility in Russia whose construction was started back in Soviet times and has not been completed until now.

"This month we put into operation the Soviet long-built Zaramagskaya HPP-1, and we realize that it is necessary to complete the Krapivinskaya HPP as well. This should be done to improve the environmental situation in the Kemerovo region, to develop carbon-free energy," the report quotes Nikolai Shulginov, head of RusHydro, as saying.

The capacity of wind power plants in Russia increased by 35% in 2019 (02/19/2020).

The installed capacity of wind power plants (WPPs) in Russia in 2019 increased by 35% and reached 190.5 MW. This is stated in the review of the Russian wind power market for 2019. The document was presented during the International Renewable Energy Forum RAWI Forum 2020.

The installed capacity of wind power plants in Russia at the end of 2019 increased to 190.5 MW, which is 0.08% of the installed capacity of power plants of the UES of Russia. Over the past year, the capacity of wind power plants increased by 50 MW in the UES of Russia and by 100 kW in isolated power systems. More than 20 WPPs with 564 wind turbines are operating in Russia.

Russia is currently implementing 20 WPP projects with a capacity of more than 660 MW in the regions of Russia.

660 MW in Russian regions, 24 more projects have been announced. The planned volume of wind power projects in Russia until 2024 will reach 3,383.6 MW, the review specifies.

"Russia has the maximum wind energy potential, more than any other country in the world," the document says.

Among the Russian regions with a high degree of involvement and development potential in the wind energy market, the authors of the review named the Ulyanovsk and Rostov regions, Crimea and Krasnodar Krai. Among the regions with an average degree of involvement are the Leningrad and Kurgan Regions, Karelia, Bashkiria, Kalmykia, Samara, Lipetsk, Nizhny Novgorod, Penza and Vladimir Regions, as well as Chuvashia, Chelyabinsk Region, Chukotka Autonomous District, Novosibirsk Region and St. Petersburg.

The companies involved in wind power plants in Russia include the alliance of Enel Russia and Siemens Gamesa Renewable Energy, as well as the Rosnano Group's Wind Energy Development Fund with Fortum and Vestas Rus, as well as NovaWind of Rosatom State Corporation, Fortum, Complex Industriya and Alten.