

BRIEF ON KEY BUSINESS ISSUES

№15/2019 03.10.2019 Kyiv

Winter heating season preparation

DTEK continues taking all possible measures to accumulate coal reserves at TPPs for stable operation during the winter heating season:

- DTEK contracted the import of 388 k/mts of G-grade coal from Colombia, on September 25th, the fourth ship (80 k/mts) arrived at the Yuzhny port (Odesa region).
- DTEK announced eight open biddings for the purchase of 450 k/mts of coal for TPPs on the Ukrainian Energy Exchange platform, but they gave no result. The proposed price, which was based on API2 quotes and includes freight, transshipment and railway delivery from the port or border of Ukraine to TPP, did not attract a single trader interested in supplies.

On September 26th, DTEK increased coal stocks at its power plants by 89% since September 1st.

The **Luhans'ka TPP** continues to work on gas. The power plant was switched to gas on July 29th due to the lack of coal. The adopted electricity market price caps (164 kop/kWh) do not cover the expenses of gas, in September the company was bearing daily losses in the amount of UAH 2.6 mln.

On September 27th, Luhans'kgaz JSC (gas distribution system operator) sent a letter to LuTPP with a notice on the termination of gas supplies starting October 1st. The reason was the lack of a valid gas supply agreement for October.

On September 30th, DTEK Vostokenergo and Naftogaz Ukraine entered into a gas supply agreement for October, and the nominations were open. DTEK Luhans'ka TPP continues to provide electricity supplies to the region.

One of the possible solutions for the moment is to adopt a special Cabinet of Ministers decree on reducing gas prices for the station until coal supplies are unblocked. Strategic solution to ensure energy supply in the region is construction of a railway to the station.

On September 18-27, a joint mission of energy experts from the United States, Canada and the EU worked in Kyiv on elaboration of the **Winter Action Plan** (WAP) for Ukraine. The working group also included representatives of the Ukrainian energy sector (Naftogaz, Ukrtransgaz, Ukrenergo, Ukrhydroenergo, DTEK, Centrenergo and other companies and organizations). The prepared plan is focused on the resilience of the sector and supporting Ukraine to respond to potentially critical situations in the energy sector during winter. On September 27th, the recommendations of international experts were presented to the National Security and Defense Council of Ukraine.

Coal stocks at power plants

	03.10.2018	01.10.2019	03.10.2019	2019/2018, % increase	03.10.2019/ 01.10.2019, % increase	min level of stocks*	2019/min stocks, %	coal reserves for 1 month of work**	Work without supply, days
DTEK TPPs	1 311	931	967	-26%	4%	724	134%	1 656	18
G+DG grade:	1 214	789	821	-32%	4%	579	142%	1 537	17
<i>Zaporiz'ka</i>	180	104	108	-40%	4%	104	104%	231	15
<i>Ladyzhins'ka</i>	143	160	166	16%	4%	77	216%	216	24
<i>Burshtyns'ka</i>	290	181	186	-36%	3%	140	133%	415	14

BRIEF ON KEY BUSINESS ISSUES

№15/2019 03.10.2019 Kyiv

<i>Dobrotvirs'ka</i>	75	36	40	-47%	11%	58	69%	122	10
<i>Kurahivs'ka</i>	393	166	171	-56%	4%	118	145%	396	13
<i>Kryvoriz'ka</i>	19	24	26	37%	-	36	72%	27	-
<i>Prydniprov's'ka</i>	114	119	123	9%	4%	47	265%	131	29
A+T grade:	97	142	146	51%	3%	144	101%	119	38
<i>Krivoriz'ka</i>	41	129	133	225%	3%	68	195%	33	126
<i>Prydniprov's'ka</i>	13	10	10	-20%	0%	10	98%	0	-
<i>Luhans'ka</i>	43	3	3	-93%	0%	66	5%	87	1
Other Ukrainian TPPs	295	251	253	-14%	1%	310	82%	659	12
G+DG grade	191	163	167	-13%	2%	123	135%	387	13
A+T grade	105	87	87	-17%	-1%	187	46%	272	10
All Ukrainian TPPs	1 606	1 182	1 220	-24%	3%	1 033	118%	2 315	16
G+DG grade	1 404	953	987	-30%	4%	702	141%	1 924	16
A+T grade	202	230	232	15%	1%	331	70%	391	18

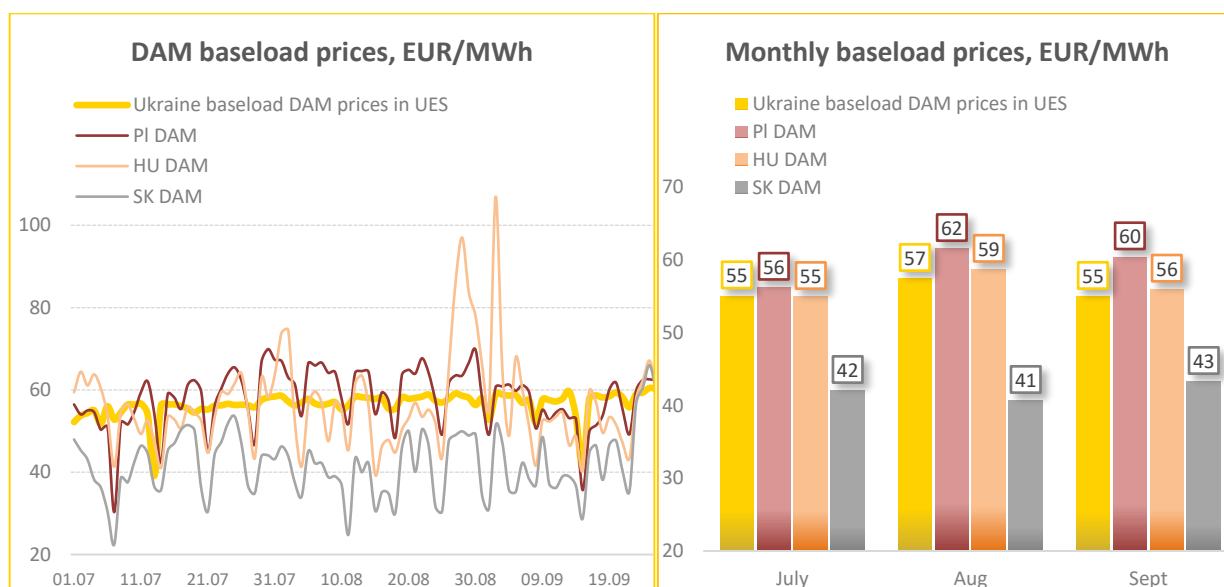
* level of coal stocks for 01.11.2019 according to the Stockpile schedule by Ministry for autumn-winter period (dated 12.09.2019)

** on the basis of coal reserves for 1 month of work in the mode of the Stockpile schedule by Ministry for autumn-winter period (dated 12.09.19) on October 2019

Electricity market update

According to the results of the first three months of the DAM operation, a decrease of prices for baseload in September vs. August has been observed. The baseload price in July amounted to UAH 1,596/MWh, in August – to UAH 1,613/MWh, and in September to – UAH 1,568/MWh. This was a consequence of changes in PSOs introduced in September, comfortable temperatures, and high production rate by NPPs and RES.

An analysis of the daily dynamics of prices on the DAM in the UES and on the exchanges of neighboring countries shows that prices in Ukraine have significantly lower volatility due to price caps applied in the domestic market: UAH 959.12/MWh (EUR 36/MWh) at night and 2 048.23/MWh (EUR 77/MWh) in the daytime. If in Hungary prices fluctuated in the range of EUR 39-107/ MWh, in Ukraine this range is EUR 39-60/MWh.



BRIEF ON KEY BUSINESS ISSUES

№15/2019 03.10.2019 Kyiv

Important market events and developments:

- On September 6th, the Market Operator stated that it is technically ready for market coupling with South-East European countries. The gradual integration of the Ukrainian energy system may be started already in 2020 with the bidding at the platform of the Market Operator.
- The need to resolve debt accumulated while working in the old market model remains one of the main problems. As the NEURC (Regulator) head Oksana Kryvenko stated on September 10th during a meeting of the Committee on Energy, Housing and Utility Services, as of September 2nd, debt due under the old market model amounted to UAH 30.8 bln. She added, the way to resolve the problem is the adoption of a special law (this is provided for by the Law on the electricity market).
- According to the forecast published by the Regulator, the installed capacity of renewable energy facilities in Ukraine by the end of 2019 can reach 5.5 GW, which is 2.6 times higher than the capacity at the end of 2018. Of these, wind power plants' capacity will amount to 1.1 GW (2 times more), solar - 4.1 GW (3 times more), biomass - 140 MW, and small hydropower plants - up to 110 MW. As of September 10th, the total capacity of RES facilities reached 3.4 GW.
- The work on the synchronization of the Ukrainian grid with ENTSO-E is ongoing. On September 12th, Ukrenergo has signed a service contract with the ENTSO-E System Operators Consortium to explore the possibility of synchronous integration of the Ukrainian grid with ENTSO-E. These studies are an integral part of the Agreement on the Conditions of Future Integration of the Ukrainian Grids to ENTSO-E. Within the framework of the Service Contract, on the basis of the test results, mathematical models of the grid will be created to simulate its operation in different modes, which will allow to evaluate the response of the grid to varied situations.
- According to Ukrenergo statistics, during the first two months of the new electricity market functioning, 586 mln kWh was imported into Ukraine. Compared to July, in August electricity imports increased by 13.4% to 311.4 mln kWh. Of these, 164.8 million kWh of electricity was supplied to the Burshtyns'ka TPP island in August: 147.3 mln kWh from Slovakia, and 17.5 mln kWh from Hungary. Imports from Belarus amounted to 146.6 mln kWh in August.
- Since January 1st, total electricity exports from Ukraine amount to 4032.8 mln kWh, of which 981.8 mln kWh was during the two months of the new market. In August, 490.1 mln kWh of electricity was exported, in particular, from the Burshtyns'ka TPP island to Hungary, Slovakia and Romania - 330.8 mln kWh; to Poland - 108.8 mln kWh; and to Moldova - 50.5 mln kWh.
- On September 16th, the Ministry of Energy and Environmental Protection announced the results of a competition for the selection of electronic auctions organizers for electricity sales under bilateral agreements. According to the results of the competition, the Ukrainian Energy Exchange (UEEX) won the first right to arrange and hold auctions. It is known that earlier in June the Cabinet of Ministers selected the UEEX as a temporary platform for the sale of electricity under bilateral agreements.
- On September 18th, the Verkhovna Rada adopted amendments to the Law of Ukraine "On Nuclear and Radiation Safety", which amends the Law of Ukraine "On the Electricity Market". It allows the import of electricity from Belarus and Russia under bilateral agreements. The Council excluded from Article 67 of the Law on the Electricity Market the provision stating that all electricity imported from countries which are not parties to the Energy Community Treaty shall be sold exclusively on the Day-Ahead Market and Balancing Market. As a result, on October 1st 2019, the first 100 MW have already been imported from the Russian Federation to Ukraine.
- Electricity trading continues at the Ukrainian Energy Exchange. In September, for the first time the generating companies DTEK Skhidenergo, DTEK Dniproenergo and DTEK Zakhidenergo began to sell

BRIEF ON KEY BUSINESS ISSUES

№15/2019 03.10.2019 Kyiv

electricity through an electronic auction at the platform of the Ukrainian Energy Exchange. At the moment, DTEK Zakhidenergo has already sold 13200 MWh of base load, with the output period in September.

Friends of Ukraine new Priority recommendations for U.S. Assistance to Ukraine

On September 12th, the U.S.-Ukraine Foundation's Friends of Ukraine Network (FOUN) [released](#) its new Priority Recommendations for U.S. Assistance to Ukraine. The set of recommendations was presented during the discussion on U.S.-Ukraine relations held at the Diplomatic Academy of Ukraine. Among the priorities for the energy sector are:

- the necessity to develop a comprehensive investment plan in combined heat and power to attract private capital;
- transparent and stable regulatory environment;
- engagement by U.S. financial institutions such as OPIC, EXIM and TDA to encourage U.S. private investment to the Ukrainian energy sector.

DTEK CEO speaks at EEF Dinner-debate "In need of a robust European energy system: a vision from the EU and Ukraine"

On September 25th, DTEK co-hosted the European Energy Forum (EEF) dinner-debate "In need of a robust European energy system: a vision from the EU and Ukraine". In his speech in the European Parliament in Brussels DTEK CEO Maxim Timchenko brought the attention of attendees (MEPs, EU Commission representatives, E.DSO and EEF colleagues) to Ukraine's energy sector and the role of our country in European energy transition.

Ukraine has entered into legally binding agreements with the European Union under the Energy Community Treaty to promote the use of renewable sources of energy. And the government of Ukraine has established a renewable energy target that will increase the share of renewables in total electricity consumption to over 20% by 2030 - significantly up from the current share of around 4%. At the same time, expansive use of renewables is not possible without modernization and investments in distribution grids.

It is also worth mentioning that to secure a bigger role for international financial institutions and foreign investors in developing renewables in Ukraine, retroactive or restrictive measures on existing and new projects must be avoided as DTEK commented this during the event.

Ukraine also needs to catch up with the EU to address common challenges (cybersecurity, high penetration of renewables in grids, data protection).

D.Trading CEO Interview with Platts

Vitaly Butenko, CEO of D.Trading gave his views on Ukraine's recent electricity market liberalization, energy trading growth possibilities and gas market development in an interview for [Platts](#).

"The opening up of the Ukrainian power market on July 1st this year was a major milestone for the country", Butenko said. "We welcome more European competition in this market, partially because it will bring liquidity and rules of the game that are typical in European markets."

"There was a lot of skepticism as to whether Ukraine would be able to execute by far its most comprehensive market reform to date, but all that skepticism died on July 1st, when the market was launched and trades started taking place."

BRIEF ON KEY BUSINESS ISSUES

№15/2019 03.10.2019 Kyiv

D.Trading will make forecasts for electricity consumption with the help of AI

D.Trading is introducing innovative technology for the forecast of electricity consumption.

According to Vitaly Butenko, D.Trading CEO, a solution launched jointly with the a-Gnostics team, using machine learning and AI, will make it possible to accurately predict the consumption volumes of customers and, as a result, optimize the electricity purchase portfolio. This will help reducing supply risks and provide more competitive prices for electricity.

Emanuele Volpe, Director of Innovation at DTEK said that a-Gnostics is the third startup finalist of the Energy Accelerator project, and a solution which DTEK will implement in its business. "It was open innovations that enabled DTEK to use such a promising technology for the first time in Ukraine," said Emanuele Volpe. "DTEK is the first company in the Ukrainian energy sector to systematically introduce innovations into business processes, increasing safety, efficiency and competitiveness." According to him, today DTEK Group is ready to share its experience in implementing projects using innovations and to spread knowledge about the use of modern technologies in the global industry.

DTEK participates in high-level policy talk on "Coal Regions in Transition and the Energy Community" in Warsaw

The event was attended by some 80 representatives of all major stakeholders on September 13th in Natolin, Warsaw. The event was co-organized by the European Commission, the World Bank, the Energy Community Secretariat (with the support of the EU4Energy Governance project) and the College of Europe under the auspices of the COP24 Polish Presidency. The launch event brought together Ministers and Deputy Ministers, mayors and other representatives of local governments from coal regions, industry, NGOs, social partners and academia from the Energy Community and the European Union.

Many speakers focused on the high added value from effective stakeholder dialogue with clear understanding of roles for central and local authorities, communities, civil society, donors, large companies and investors. Iryna Verbitska, DTEK Chief Environmental Officer, said: "DTEK plans to carry out measures to address the environmental and social problems of mining regions and create favorable investment conditions."

Please follow us on: 