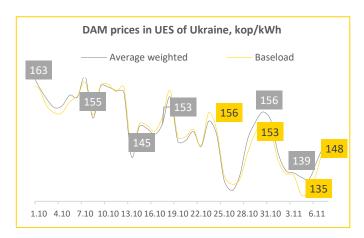
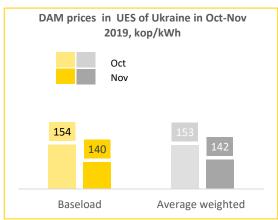
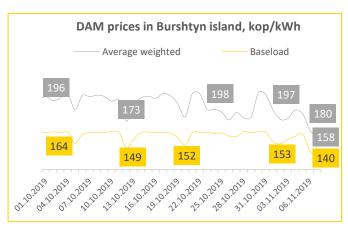
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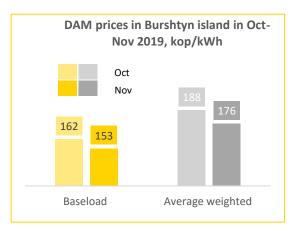
Electricity market update 1-7 November

The start of November continued the trend of price decline. In addition to low demand for electricity due to mild temperatures (6.6° higher than the average temperature in the previous three years), the price of electricity was influenced by the expansion of imports from Russia. Please see the charts below for more information.









Since the beginning of November, average daily imports of electricity from Russia amounted to 12 mln kWh/day, which is three times more than the October average (4.12 mln kWh/day¹). The President of SE "Energoatom" Yuriy Nedashkovskyi stated during the conference "Nuclear Energy during the Transformation Period" that electricity imports from Russia and Belarus had pushed out "Energoatom" from the Day Ahead Market (DAM) because of the declared very low electricity prices. According to Mr. Nedashkovskyi, the price of imported electricity from Russia is about 1.37 UAH kWh².

On the night of November 4-5, the TSO "Ukrenergo" for the first time curtailed generation of renewable energy producers. The dispatcher limited production of Botievska, Prymorska-1 and Orlovska Wind Power Plants (all are part of the DTEK Group). The limit was 300-400 MW at certain hours of the night. Despite the curtailment, the company will still receive the "green" tariff compensation. According to experts, the curtailment of "green" generation was caused by import of electricity from Russia and Belarus.

² https://expro.com.ua/novini/mport-ee-z-rf-ta-blorus-vitsniv-energoatom-z-rdn--nedashkovskiy



¹ https://expro.com.ua/novini/mport-ee-z-ros-zblshivsya-v-tri-razi-nezvajayuchi-na-zayavu-gerusa-pro-yogo-zbitkovst

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New appointments in NEURC

On November 4, a new NEURC Chairman Valeriy Tarasiuk <u>was elected</u> as a result of secret voting. Former Chair Oksana Kryvenko will remain as Commissioner in the NEURC. Previously on October 29th, the President dismissed two NEURC members Yevgen Maglyovanny and Olexander Formagey, and appointed four temporary members, among which was also - <u>Valeriy Tarasiuk</u>, as well as <u>Ruslan Kaidash</u>, <u>Olga Babiy</u>, and <u>Oleksiy Magda</u>.

Preparation for the winter heating season

DTEK continues winter heating season preparations. As of November 7th, 1.3 mln tonnes of coal have been accumulated at DTEK TPPs. Out of 40 planned repairs for 2019 (six full repairs, four moderate and 30 ongoing), 31 (78%) have been already completed. In nine months, the company invested UAH 1.85 bln in the repair programs.

In 1Q2019, works have been completed on the conversion of the Unit 10 of Prydniprovs'ka TPP to G-grade coal; new electric filters have also been installed. Unit 1 of Kryvoriz'ka TPP has also been converted to G-grade coal.

As described in the previous issue of the Energy brief, DTEK also procured 396 thousand tonnes of G-grade coal from Columbia. In the current situation with increasing imports of electricity from Russia and Belarus, additional imports of US coal are economically unjustified.

DTEK Group becomes the first Ukrainian business to issue Green Eurobonds

DTEK Renewables is the first Ukrainian company to issue specialized securities for the development of renewable energy. These first Green Eurobonds, with a maturity of five years, were issued for Euro 325 mln at a rate of 8.5% per annum.

According to DTEK CEO Maxim Timchenko, "The issuance of Green Eurobonds represents a major milestone not only for DTEK, but for the Ukrainian energy sector. We have created a new instrument that would help bringing more investment to Ukraine and develop the renewable energy sector."

The funds from the issuance of these Green Eurobonds will be used exclusively by DTEK Renewables for existing and future renewable energy projects. In order to ensure transparency and accountability, the company will use a public reporting system that details exactly how these funds are being distributed in relation to particular projects and describes the projects themselves.

Consistent with best international practice, this information will be captured in a report which will be published on the company's website until the loan is repaid.

DTEK Renewables Green Eurobonds will be listed on the Euronext Dublin Exchange as of November 12th.

DTEK CEO speaks at the Kyiv International Economic Forum

Maxim Timchenko, DTEK CEO joined the discussion panel on the "Energy Independence of Ukraine" during the Kyiv International Economic Forum (KIEF). KIEF is an annual international forum that takes place in a discussion platform format and brings together government officials, Ukrainian and international business representatives, economists, scientists and investors. The main aim of this Forum is to develop a strategy for Ukrainian economic development.

During his speech, Maxim Timchenko underlined that Ukraine has a unique chance with a newly-elected young President and Government to develop a dynamic investment climate but the country must avoid retroactive and controversial policymaking.



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"Ukraine is proud not to buy Russian gas but at the same time it recently opened the gateway to unlimited imports of electricity from Russia. It is declared that renewable energy sources are a priority for energy sector development, but simultaneously state officials publicly announce that legislation regulating the RES sector potentially might be changed in a retrospective manner. Consistency and stability are major foundations that would ensure energy security in our country. We need to respect investors, those who already brought money to our country and by their example demonstrate to others that it is safe and profitable to work in Ukraine", – said Mr. Timchenko.

DTEK launches new YASNO retail brand

DTEK has brought its new YASNO retail brand to the market. From November, the Group's public-facing businesses will start providing their services under the new trademark. YASNO will supply electricity to 3.5 mln Ukrainians and legal entities in Kyiv, Dnipropetrovsk, and Donetsk regions.

Apart from electricity supply, YASNO will develop three areas:

- YASNO Smart dual zone counters and smart light (previously, the service was provided under the Smart WATT brand)
- YASNO E-Mobility a fast charging network for electric vehicles (formerly called STRUM). The new service will involve charging equipment for homes and corporate clients
- YASNO Energy Efficiency rooftop solar panels, energy storage systems, energy audits, energy service and energy management.

"It's not just a change of signs. As we open new branches, we are changing business processes and approaches to working with clients. Our team has already improved the efficiency of our call centers and we are developing digital channels of service - such as mobile applications, Viber and telephone chatbots, online offices. Our ambition is that over time, energy services should not be inferior in comfort and quality to those of mobile or Internet operators," Abdullah Koksal, CEO of YASNO, commented.

DTEK joins European Battery Alliance 250

The European Battery Alliance 250 (EBA250) Network is an open platform with a focus on industrial stakeholders with the common goal to build a European battery Industry.

Joining EBA250 will give DTEK the possibility to get access to knowledge exchanges and networking on battery storage in Europe as well as unique insights into ongoing activities in the battery sector.

Coal stocks at power plants

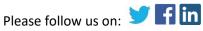
	11.11.2018	01.11.2019	11.11.2019	2019/2018, % increase	11.11.2019/ 01.11.2019, % increase	min level of stocks*	2019/min stocks, %	coal reserves for 1 month of work**	Work without supply, days
DTEK TPPs	1 371	1 157	1 360	-1%	18%	1 165	117%	1 350	31
G+DG grade:	1 257	1 017	1 220	-3%	20%	986	124%	1 267	30
Zaporiz`ka	216	122	139	-36%	14%	167	83%	198	22
Ladyzhins`ka	158	204	253	61%	24%	137	185%	139	57
Burshtyns`ka	272	213	250	-8%	18%	259	97%	361	21
Dobrotvirs`ka	71	75	93	30%	23%	74	125%	131	22



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Kurahivs`ka	375	252	307	-18%	22%	192	160%	297	32
Kryvoriz`ka	16	68	73	370%	7%	72	102%	59	38
Prydniprovs`ka	150	85	105	-30%	24%	85	124%	81	40
A+T grade:	114	139	140	22%	0%	179	78%	83	52
Kryvoriz`ka	99	126	126	27%	0%	55	230%	0	-
Prydniprovs`ka	13	10	10	-20%	0%	10	100%	0	-
Luhans`ka	2	3	3	29%	0%	114	3%	83	1
Other Ukrainian TPPs	364	458	632	74%	38%	342	185%	550	36
	364 232	458 218	632 329	74% 42%	38% 51%	342 142	185% 232%	550 328	36
TPPs									
TPPs G+DG grade	232	218	329	42%	51%	142	232%	328	31
TPPs G+DG grade A+T grade All Ukrainian	232 131	218 240	329 303	42% 130%	51% 26%	142 200	232% 151%	328 222	31 42

^{* -} level of coal stocks for 01.11.2019 according to the Stockpile schedule by Ministry for autumn-winter period (dated 05.09.2019)





^{** -} 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 05.09.19) on November 2019