

BRIEF ON KEY BUSINESS ISSUES

№3/2017 17.02.2017 Kyiv

Coal stocks at power plants

General level of anthracite coal stocks at DTEK TPPs still remains at the pre-blockade level. A/T-grade stocks dropped on Prydniprov's'ka and Krivoriz'ka TPPs as no anthracite was supplied since February 11th; thus, it is planned to run the set of equipment that is below the required minimal level. Stocks at Luhanska TPP increased as anthracite is supplied through the only remaining railway track Kondrashevskaya-Ogorodny.

With introduction of the emergency state in the energy sector G-grade coal stocks will start depleting at the increased rate as units working on this type of coal will substitute units working on anthracite.

	01.02. 2016	01.02. 2017	16.02. 2017	2017/ 2016, %	16.02.2017/ 01.02.2017, % increase	min level of stocks*	2017/min stocks, %	Work without supply, days
DTEK TPPs	1 524	1 093	1 062	-30%	-3%	840	126%	19
G+DG grade including:	1 156	580	547	-53%	-6%	560	98%	13
<i>Zaporiz'ka</i>	245	116	116	-53%	0%	100	116%	16
<i>Ladyzhins'ka</i>	146	74	60	-59%	-18%	100	60%	11
<i>Burshtyns'ka</i>	295	118	126	-57%	7%	100	126%	10
<i>Dobrotvirs'ka</i>	70	59	53	-25%	-11%	40	132%	18
<i>Zuyivs'ka</i>	98	92	64	-35%	-30%	120	53%	15
<i>Kurahivs'ka</i>	302	121	127	-58%	5%	100	127%	16
A+T grade including:	368	513	516	40%	1%	280	184%	33
<i>Krivoriz'ka</i>	113	167	142	25%	-15%	120	118%	24
<i>Prydniprov's'ka</i>	115	162	130	13%	-20%	80	163%	33
<i>Luhans'ka</i>	139	183	244	75%	33%	80	305%	45
Other Ukrainian TPPs**	863	707	575	-33%	-19%	420	137%	23
G+DG grade	298	266	214	-28%	-20%	100	214%	32
A+T grade	564	440	361	-36%	-18%	320	113%	20
All Ukrainian TPPs	2 386	1 799	1 637	-31%	-9%	1 260	130%	20
G+DG grade	1 454	847	761	-48%	-10%	660	115%	16
A+T grade	932	953	876	-6%	-8%	600	146%	26

* - level of coal stocks for 01.02.2017 according to the enactment of National Energy and Utilities regulatory commission degree №1971 dated 9th of November, 2016

** - including TPPs situated in the non-controlled areas

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A-grade coal supplies out of temporarily occupied territories of Donbas are blocked

No anthracite is currently supplied from the non-controlled territories to TPPs working in the energy system of Ukraine. Since 25th January 2017 activists of the so called “Headquarters of trade blockade against the invaders” started to block railway tracks. As of today 3 out of 4 tracks have been blocked. The only available track is supplying the Luhanska TPP which operates in the “energy island”, and its monthly capacity is minimal (130 k/mts out of 1.1 mln tonnes this January, see Table below).

Statistics of cargoes transportation from NCT, tonnes

Territory	Yasinovataya-Skotovataya	Nikitovka-Mavorsk	Sentyanovka-Shypilova	Kondrashevskaya-Ogorodny	January total	February 01-16
ORDO	321 090	85 416	3 753	0	410 259	141 363
ORLO	208 987	260 139	130 591	130 938	730 654	290 997
ORDO+ORLO	530 077	345 554	134 344	130 938	1 140 912	432 360

Since 11th Feb 17 Since 2nd Feb 17 Since 25th Jan 17

State of emergency in the energy sector and emergency actions to counter energy security threats and protect critical infrastructure

On 15th February the Cabinet of Ministers of Ukraine introduced state of emergency in the energy sector of Ukraine. Full unofficial translation in English is available in the Annex.

On 16th February the President approved the Decision by the National Security and Defense Council of Ukraine that envisages emergency actions to counter energy security threats and protect critical infrastructure (see Annex).

Opinion of Brian Ricketts, Secretary-General of EURACOAL (European Association for Coal and Lignite, Brussels), on coal blockade in Donbas

“Our hope is that this conflict can be resolved peacefully, so that people can return to normal life and concentrate on rebuilding the Donbas regional economy. The coal blockades do not bring this hope any closer. I imagine that those engaged in the blockades believe that it will in some way speed up the settlement process, but this seems unlikely. When trade in raw materials, goods and services is disrupted, it fuels animosity and so deepens the crisis...”

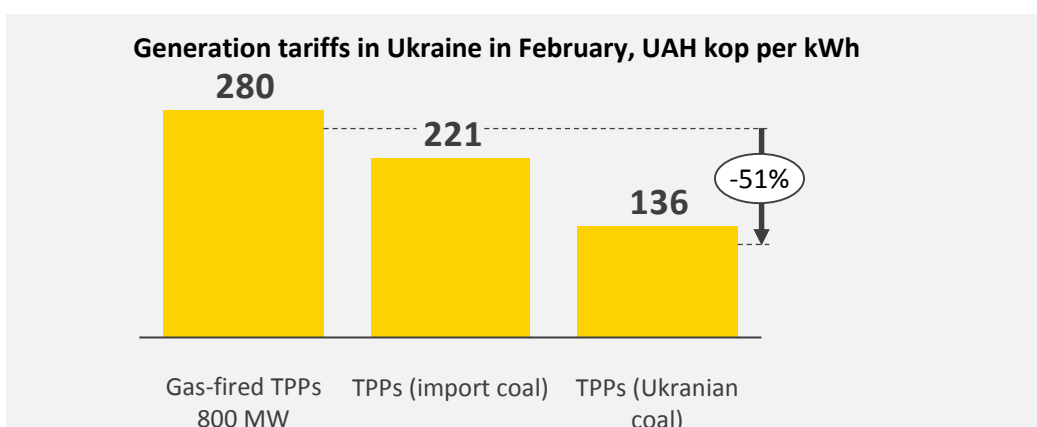
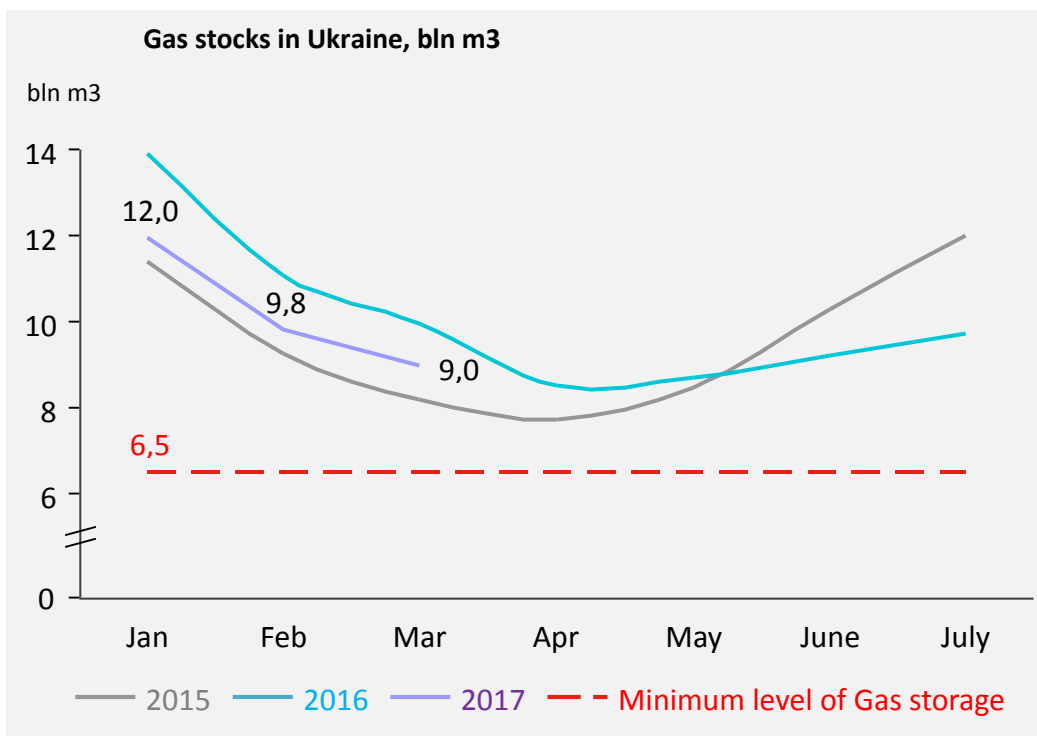
The cost of alternative coal supplies is prohibitive, so in the short term solutions must be found that allow coal to move from Donbas. In the long term, it is possible to switch to alternative sources of traded steam coal, but this would require engineering work at Ukrainian power plants designed and built to use anthracite. The RWE Aberthaw power plant in the UK was also designed to use anthracite. Operating since the 1970s, it is only now that the operator has finally decided to invest in the conversion needed to allow steam coal to be used. My point being that such conversions are done only as a last resort.”

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Key data on possible substitution of anthracite coal-fired units with gas-fired units

Gas-fired unit tariff	~2,8 UAH per kWh (+)51% higher than coal-fired TPPs tariff
Monthly generation volume by anthracite TPPs	~1.5 TWh
Gas needed to substitute anthracite coal-fired TPPs	~0.5 bln m ³ per month
Funds needed for gas purchase	~4 bln UAH per month ~48 bln UAH per year
Additional costs for end consumers	~25 bln UAH per year



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The Cabinet Of Ministers of Ukraine Resolution No. 103-p dated 15 February 2017
“On the implementation of temporary emergency measures on the electricity market”
(unofficial translation)

1. Due to the blockage of thermal anthracite coal deliveries and in order to ensure reliable and uninterrupted stable operations of the Unified Energy System of Ukraine, to preserve the balance between generation and consumption of electricity, the Cabinet of Ministers of Ukraine has agreed with the proposal submitted by the Ministry of Energy and Coal Industry to implement temporary emergency measures on the electricity market as follows:

1) Based on the available reserves of fuels required for generation of electricity by thermal power plants operated by energy generating companies depending on coal types, the condition of power grids and other power equipment, the National Energy Company Ukrenergo State Enterprise shall:

- determine the admissible level to which the reserves of power generation capacities may be reduced;
- impose requirements applicable to the configuration of the equipment of thermal power plants operated by energy generating companies, by each generating unit;
- whenever absolutely necessary, subject to approval by the Ministry of Energy and Coal Industry of Ukraine, establish hourly power outage schedules and emergency power outage schedules;
- in cooperation with the State Inspectorate for the Control over Electric and Heat Power Consumption Modes, monitor compliance with power restriction schedules, capacity restriction schedules, power outage schedules, and emergency power outage schedules;

2) Energorynok State Enterprise shall:

- develop load schedules in the Ukrainian energy system in compliance with the requirements imposed by the National Energy Company Ukrenergo State Enterprise on the configuration of the equipment of thermal power plants operated by energy generating companies;
- assess payments for electricity for electricity generating companies operating on the basis of price bids that have electricity generation schedules and volumes established for them, at the system marginal price.

3) the National Nuclear Power Generating Company Energoatom State Enterprise shall:

- comply with load schedules in the Ukrainian energy system;
- ensure technical maintenance of the equipment of nuclear power plants required in connection with partial offloading of single generating units of nuclear power plants, during week-ends and public holidays;
- reduce the load on generating units of nuclear power plants, whenever required based on the capacity balance, during week-ends and public holidays.

2. The Ministry of Energy and Coal Industry shall report to the Cabinet of Ministries of Ukraine about the status of implementation of this Resolution three days prior to the expiry of the term hereof.

3. This Resolution shall enter into force on the day immediately following the day of its publication, and shall remain in force during one month.

Prime Minister of Ukraine **V. GROYSMAN**

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Decree of the President of Ukraine No.37/2017

On the resolution of the National Security and Defense Council of Ukraine dd. 16 February 2017 “On Urgent measures to neutralize threats to Ukraine's energy security and step up efforts to protect critical infrastructure”
(unofficial translation)

Pursuant to Article 107 of the Constitution of Ukraine, the President of Ukraine orders:

1. The resolution of the National Security and Defense Council of Ukraine dd. 16 February 2017 on 'Urgent measures to neutralise threats to Ukraine and step up efforts to protect critical infrastructure' (as attached) to be enacted.
2. The obligation to enforce the resolution of the National Security and Defense Council of Ukraine enacted hereby to be assigned to the Secretary of the National Security and Defense Council of Ukraine.
3. The Decree shall come into force on the date of its publication.

President of Ukraine P. POROSHENKO

Enacted by the Decree of the President of Ukraine dd. 16 February 2017 No.37/2017

Resolution of the National Security and Defense Council of Ukraine dd. 16 February 2017 **“On urgent measures to neutralize threats to Ukraine's energy security** **and step up efforts to protect critical infrastructure”** *(unofficial translation)*

Having considered the situation in Ukraine's energy sector, the National Security and Defense Council of Ukraine resolved that:

1. The Cabinet of Ministers of Ukraine shall take note of the failure to enforce the resolution of the National Security and Defense Council of Ukraine dd. 4 November 2014 enacted by Decree of the President of Ukraine No. 876 dd. 14 November 2014 and the resolution of the National Security and Defense Council of Ukraine dd. 6 May 2015 enacted by Decree of the President of Ukraine No. 298 dd. 28 May 2015, requiring, among other things:
 - strengthening control over the movement of goods from some territories in the anti-terrorist operation zone in Donetsk and Luhansk regions;
 - designing a project to reengineer generating units at thermal power plants and combined heat and power plants using anthracite coal to enable them to use domestically-produced high-volatile G-grade steam coal;
 - diversifying sources of coal supply to Ukraine and creating a reserve stock of steam coal;
 - approving the new Energy Strategy of Ukraine.
2. The Security Service of Ukraine shall promptly submit a proposal to the Cabinet of Ministers of Ukraine regarding the movement of goods to or from the anti-terrorist operation zone in Donetsk and Luhansk regions.
3. The Cabinet of Ministers of Ukraine shall promptly:
 - 1) take exhaustive measures to neutralise threats to the energy security of Ukraine;

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- 2) approve the procedure for the movement of goods to and from the anti-terrorist operation zone in Donetsk and Luhansk regions and the list of goods forbidden to be moved;
 - 3) work out and implement an action plan to offset illegal movement of goods in the anti-terrorist operation zone in Donetsk and Luhansk regions;
 - 4) organise repair of the damaged transport infrastructure (bridges, railway crossings, etc.) in the anti-terrorist operation zone in Donetsk and Luhansk regions;
 - 5) take exhaustive measures to diversify sources of coal supply to Ukraine and create a reserve stock of steam coal;
 - 6) ensure temporary suspension of exports of anthracite from Ukraine until the crisis in the energy sector is fully overcome;
 - 7) arrange for cooperation with deputy factions and committees of the Verkhovna Rada of Ukraine to prepare proposals on amendments to the legislation on the basis of Resolution No. 2341 of the UN Security Council dd. 13 February 2017;
 - 8) together with the Security Service of Ukraine, intensify efforts to implement the resolution of the National Security and Defense Council of Ukraine dd. 29 December 2016 'Improving measures to protect critical national infrastructures' enacted by Decree No.8 of the President of Ukraine dd. 16 January 2017;
 - 9) promptly, together with the National Energy and Utilities Regulatory Commission:
 - analyse the objectivity and the economic and social feasibility of the tariffs set for the energy resources, electricity, and housing maintenance and municipal services, work out potential measures to improve mechanisms for state regulation of the natural monopolies' activities in the sphere and for managing business entities whose corporate rights are held by the state, and inform the general public about the outcomes of such efforts;
 - develop and ensure implementation of the programme to build new generating units and reengineer the existing generating units of thermal power plants and combined heat and power plants using anthracite to enable them to use domestically-produced high-volatile G-grade steam coal.
4. The Ministry of Internal Affairs of Ukraine and the Service of Security of Ukraine shall promptly:
- take comprehensive measures to ensure public order in the anti-terrorist operation zone in Donetsk and Luhansk regions;
 - ensure adequate protection of the gas and electricity supply facilities and the transport infrastructure in the anti-terrorist operation zone in Donetsk and Luhansk regions and create proper security conditions required for the uninterrupted operation of the above facilities.
5. The National Police of Ukraine, the National Guard of Ukraine and the Security Service of Ukraine shall ensure security and, in a manner prescribed by the law, prevent attempts to violate public order at the critical infrastructure facilities.
6. The Security Service of Ukraine shall promptly intensify efforts to neutralize attempts of the Russian secret services, their agents as well as associated subversive elements and sabotage and reconnaissance groups to complicate the operation of Ukraine's critical infrastructure.

O. TURCHYNOV

Secretary of the National Security and Defense Council of Ukraine

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