

## Key events of 2018

### January

**DTEK and GE made an agreement for the procurement, construction and maintenance of wind turbines within the framework of the Prymors'k WPP construction project.** In 2018, two agreements were made, both covering 26 wind turbines. GE is supplying a model that is highly efficient, even at low wind speed.

The Prymors'k wind farm with an aggregate capacity of 200 MW is being constructed in the Zaporizhzhia region. It is expected that the project will generate 650–700 mln kWh of green energy every year, at full capacity. CO<sub>2</sub> emissions will be reduced by 700,000–750,000 tonnes per year, an extremely important factor for this industrial region.

We attracted debt financing for the first stage of the 100 MW project, with the first wind turbines commissioned at the beginning of 2019. A German banking consortium consisting of Bayerische Landesbank, Bremer Kreditbank, and KfW IPEX-Bank provided 10-year loans with ECA-coverage by Euler Hermes.

### February

**Reconstruction of Unit No. 10 at Burshtyns'ka TPP was completed.** The reconstruction included assembly replacement and upgrades to the energy unit systems, which considerably improve performance and environmental indicators. A new electrostatic precipitator decreased emissions of solid particles into an atmospheric air down to 50 mg/m<sup>3</sup>, which is in line with European standards. The improved technical and economic indicators — including the energy unit capacity which increased to 210 MW, the fact the equipment service life was extended by 15 years, and the new ACS — will all serve as the foundation for operating within the parameters of ENTSO-E.

### April

**DTEK launched the Nikopol SPP construction project.** An agreement for design and construction was made with China Machinery Engineering Corporation, which became an investor and general contractor for the project. At its commissioning, the solar power plant was set to become one of the largest solar facilities in Europe with an installed inverter capacity totalling 200 MW. The power plant is located in a depleted quarry that was not being used for any other commercial activity.

The power plant has been generating green electricity since March 1, 2019. The resulting reduction of CO<sub>2</sub> emissions is expected to reach 300,000 tonnes a year while electricity generation will reach 280 mln kWh.

### June

**The STRUM fast-charging stations network started operating in Kyiv.** This innovation will promote the phase out of internal combustion-engine cars in favour of electric vehicles. We have plans to install fast-charging stations along the motorways connecting Kyiv with other major Ukrainian cities.

**DTEK and Radar Tech technology cluster complete Energy Accelerator.** This program is aimed at discovering, developing and supporting innovative projects. It will help the company build up its adaptability internal space and make the transition towards more thorough implementation of innovations which transform its technological processes.

The choice was made in 11 segments: coal, oil and gas, logistics, generation, renewable energy sources, distribution, clients, personnel, corporate responsibility, environmental protection, and occupational health and safety. The project finalists received an opportunity to launch their projects commercially in partnership with DTEK.

**DTEK Kyiv Grids uploaded a geoinformation map of the power grids.** The project was implemented in cooperation with the Ministry of Economic Development and Trade of Ukraine and the Better Regulation Delivery Office (BRDO). The disclosure of information about electricity grids makes the company more transparent and allows businesses to figure out the optimum investment project. Similar projects were implemented by DTEK Dnipro Grids, DTEK Donetsk Grids, and DTEK Power Grid in 2018.

**DTEK Oil & Gas drilled a 5.6 km-deep well.** The design and drilling of well No.25 of the Semyrenkivs'ke Field was made in compliance with the requirements and standards set by the International Association of Drilling Contractors. Drilling was performed by a sumless drilling method using dewatering technology and sludge disposal that meets international environmental standards.

The same work was completed at well No.61 in December, one month ahead of schedule. Such success was made possible by the use of innovative technologies. A set of hi-technology surveys and efforts was completed at the well to ensure efficient reservoir management.

### July

**The World Bank and DTEK verified a greenhouse gas monitoring plan.** DTEK Zaporiz'ka TPP competed a pilot project for the development of a greenhouse gas monitoring, reporting, and verification plan for thermal generation undertakings. This is a preparatory stage for the introduction of a national greenhouse gas emission trading scheme in Ukraine.

The project was implemented with support from the World Bank within the Partnership for Market Readiness program launched to counteract climate change and support states in the development and implementation of their policies.

**Fitch Ratings assigns a long-term rating to DTEK Renewables B.V.** The rating stands at B- level, which corresponds to Ukraine's sovereign credit rating, with a stable outlook. The agency noted the company's stable financial position as well the regulatory base for the development of renewable generation as positive factors.

### August

**DTEK set up an innovation management function** as a stepping-stone to broader organizational changes and in preparation for DTEK Group operating on the new electricity market. The function will focus on the three areas. The first is a culture of open innovation,

ensured by increased interaction between the company's internal potential and external innovative ecosystems. The second is about searching for innovative solutions through creating communities. This will help the company adapt new solutions as fast as possible. The third focus area covers startups — identifying and nurturing new technologies so they can be integrated into the business as fast as possible. DTEK appointed Emanuele Volpe as Chief Innovation Officer. Before joining DTEK, he was Head of Innovation at Enel.

### September

**A propane cooling facility was commissioned at the Semyrenkivs'ke Field.** A completely automated infrastructure facility was constructed to maintain natural gas production volumes despite decreasing reservoir pressure and to ensure gas quality matches the requirements set out in the Gas Transportation System Code. An array of advanced solutions was implemented and equipment supplied by both Ukrainian and international manufacturers was installed on the main technological units of the cooling facility.

**DTEK Grids became Ukraine's first representative in the E.DSO (European Distribution System Operators).** The Association brings together more than 36 members from 20 states with a view to harnessing innovation and technology to transform European grids into Smart Grids. By participating in the Association, the company will get an opportunity to study and apply best European practices in Ukraine.

### November

**DTEK Energy switched energy unit No.9 of DTEK Prydniprov's'ka TPP from anthracite to G-grade coal,** making it the third energy unit of the power plant that has been converted to use domestic fuel. A plan for the gradual conversion of anthracite-fired energy units operated by DTEK Energy's TPP has been in motion since 2017, and its objective is to minimize the share of anthracite in the fuel mix.

The same efforts were completed at energy unit No.10 in March 2019. Moreover, a new electric precipitator was built at the energy unit, which will reduce the emission of solid pollutants into the air so that they're in line with European standards.

### December

**DTEK and Vestas started construction of the Orlivs'ka WPP.** A new wind farm which is situated on the shore of the Azov Sea in the Zaporizhzhia region, with a capacity set to reach 100 MW. The wind farm will comprise 26 Vestas wind turbines. The wind turbines will be installed on a platform that demonstrated excellent performance in Ukraine in terms of wind dynamics and electricity output to the power grid. It is expected that the project will generate 380 mln kWh of electricity a year and reduce greenhouse gas emissions by 400,000 tonnes.

**DTEK has started the transformation of its corporate university into Academy DTEK, an innovative educational business platform.** It will implement global

HR practices in Ukraine together with its international partners, top business schools and organisations such as INSEAD, IE Business School, Thunderbird, HRCI, and Kyiv Mohyla Business School. The revitalised institution will be based at UNIT.City.

**The Energy Efficient Schools project won in the Planet nomination category at the United Nations Global Compact competition in Ukraine.** The nominees were assessed on the basis of innovation, contribution to social development, and number of people involved.

The Energy Efficient Schools education project has been running since 2012 and has engaged students from more than 2,000 schools. The project's objective is to instill environmental values in children, foster a responsible attitude towards the use of resources, and teach them skills of rational energy use. The education program includes "The basics of energy supply and energy saving", and "The ABC of Housing and Utility Management", and the Smart House online game.

The project is in line with the SDGs No.4 (Quality Education) and No.12 (Responsible Consumption) of the UN Global Compact.

**Academy DTEK's project won at the HR-Brand Ukraine Awards.** The Awards were established back in 2011 by HeadHunter Ukraine, a recruiting company which popularizes modern personnel management methods. Projects were assessed in terms of their relevance, modern implementation methods, efficiency and effectiveness.

Academy DTEK's project "Calculations or guesses: which is impossible? How HR-analytics protects human life and health" won first place in the Region nomination category. HR-analytics is one on the instruments used by DTEK to attain its objective of zero workplace injuries.

### Key events after the end of the reporting period

**DTEK Oil & Gas won an auction for the Svitankovo-Logiv's'ka oil-and-gas area.** On 6 March 2019, the State Service of Geology and Subsoil of Ukraine held the first ever auction for subsoil use on the Prozorro.Sale platform, which is part of Ukraine's public e-procurement system. DTEK Oil & Gas' subsidiary won an auction for a special subsoil use permit for the Svitankovo-Logiv's'ka area in Kharkiv region. Type of minerals: oil, natural gas, and condensate. Type of subsoil use: geological exploration followed by oil and gas extraction. The permit is valid for 20 years.

**DTEK Group completed the acquisition of the majority shareholding in Odesaoblenergo and Kyivoblenergo.** Odesaoblenergo and Kyivoblenergo are electricity distribution system operators in the Odesa and Kyiv regions and do not carry out any electricity supply activities. Currently, the company is developing a program for its assets with a focus on systematic digital transformation of infrastructure management, as well as improvement of electricity supply reliability and customer service.