

**IMEPOWER View**

Development of renewable energy projects in Ukraine continues at active pace. Despite complications caused by new local content rules that were introduced by the Parliament in late 2012 via amendments to the Electricity Law, we see more renewable capacities added by developers every month - several small and middle size solar power plants have been commissioned recently, DTEK has given 105 MW order to Vestas for wind turbines, while newly introduced green tariff for electricity produced biogas sparked interest from agricultural holdings to the development of biogas projects.

The EBRD has financed its first small hydro power project in Ukraine and is in the process of finalizing several other loans to renewable developers under USELF program. It also considers, jointly with the IFC, providing debt financing for the first stage (126 MW) of the Western Crimean Wind Power Plant that became the first large renewable project in Ukraine developed by foreign owners (Guris from Turkey and Greenworx from Belgium) that secured the construction permit.

At the same time, there is still lack of clarity regarding ability of majority of developers to comply with the new local content rules after the requirement for "fixed shares" comes in force starting 01 July 2013. We expect that it will delay implementation of many projects before the authorities come up with clear guidelines how new regime should be applied and it will become clear who from equipment suppliers and/or EPC contractors is willing to undertake efforts to comply with it.

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**Legal and  
Regulatory  
Developments****RULES FOR CONNECTION OF POWER UNITS TO NETWORKS CAME INTO FORCE**

On 28 February 2013 the NERC's Regulation No. 32 dated 17.01.2013 «On the Approval of Rules for Connection of Power Units to Power Networks» was officially published and came into force. The Regulation was registered in the Ministry of Justice on 08.02.2013 under No. 236/22768.

The Rules govern relations arising during connection of newly constructed, reconstructed or technically rehabilitated power units (excluding co-generation units) to power networks.

In order to implement the requirements of these Rules, appropriate order shall be issued by electricity transmission entity regulating the personnel's actions related to distribution of rights and responsibilities during execution of measures on joining and connection of power units ensuring implementation of the «one stop shop» principle. The electricity transmission entity shall not be entitled to refuse to connect power units to its networks provided the requirements of these Rules are met.

The service on connection is provided on the basis of the Grid Connection Contract concluded on the basis of standard template. In order to obtain the draft contract, the operator of power units applies to electricity transmission organization with respective application.

If several entities perform electricity transmission at the territory where power units are located or where construction of new power units is planned, the operator selects electricity transmission entity that will provide service on connection.

Payment for connection to power networks is defined by electricity transmission entity according to the methodology of payment calculation for connection of power units to power networks.

Point of connection of power units shall be indicated in the Grid Connection Contract. The point of connection should be located on the boundary of the land plot or, upon operator's consent, on the territory of this land plot.

**METHODOLOGY OF PAYMENT CALCULATION FOR CONNECTION OF POWER UNITS CAME INTO FORCE**

NERC Regulation No. 115 dated 12.02.2013 "On Approval of the Methodology of Payment Calculation for Connection of Power Units to Power Networks" came into force on 19 March 2013.

The Methodology establishes the procedure of payment calculation to connect power units to power networks, increase connected capacity of power units or change requirements for reliability of power supply. The Methodology applies to electricity transmission entities to calculate the payment for such connection.

The payment for standard connection shall be set on the basis of respective rates approved by the NERC and capacity value declared by the owner. The payment for non-standard connection of power unit shall be defined in each particular case on the basis of design documentation that determines the value of the power networks development to ensure connection of the power unit taking into consideration the share of operator's participation in funding of capital construction and/or reconstruction of facilities intended for general needs.

**NERC APPROVED GREEN TARIFFS FOR RENEWABLE ENERGY PRODUCERS FOR MARCH 2013**

National Commission that performs state regulation in the power sector (NERC) left unchanged tariffs for the electricity generated from renewable energy sources for March 2013. Appropriate decision has been fixed by the NERC Regulation No. 217 dated 28 February 2013.

The following green tariffs have been set: for the wind plants with installed capacity of more than 2 MW – 1 227.7 UAH/MWh; for small hydro power plants – 841.8 UAH/MWh; for biomass plants – 1 344.6 UAH/MWh; for ground objects of solar power – 5 050.9 UAH/MWh and for solar power objects mounted (up to 100 kW) and on facades (regardless of capacity) – 4 630.0 UAH/MWh.

**NERC PROPOSED NEW AMENDMENTS TO THE SECONDARY LEGISLATION REGULATING RENEWABLE PROJECTS**

On 26 December 2012 the NERC published on its official web-site the draft Regulation "On Amendments to the Procedure for Determining the Share of Raw Products, Materials, Fixed Assets, Works and Services of the Ukrainian Origin in the Cost of Construction of Power Facilities that Generate Electricity Using Alternative Energy Sources".

In addition to the mechanism for determining the share of local content in the cost of construction of renewable power plants this Procedure also defines the mechanism for determining the share of raw materials of the Ukrainian origin in the cost of production of solar modules.

On 25 January 2013 the NERC published on its official web-site the draft Regulation "On Amendments to the Procedure of Establishment, Revision and Termination of the Green Tariff for Economic Entities". Major changes envisaged by this draft Regulation, which shall come into force from 01/07/2013, are as follows:

- for power generation facilities (or construction stage /start-up complex), construction of which commenced after 01 January 2012 and commissioned after 01 July 2013, establishment of the green tariff shall be considered after the decision is taken on the level of local content under the law requirements;
- the NERC shall approve the Procedure for determination of the local content for power facilities, including commissioned construction stages of power plants, which generate electricity from alternative energy sources (except for blast furnace and coking gases);
- compliance of the local content with requirements of the law shall be assessed on the basis of calculations and supporting documents submitted by the entity and approved by NERC.

**Investment News****VESTAS RECEIVES 105 MW WIND TURBINE ORDER FROM DTEK**

According to Vestas press release, the firm has received firm and unconditional order for 35 turbines with single capacity of 3.0 MW from DTEK Wind Power for the 2<sup>nd</sup> stage of Botievo project.

The contract includes supply, installation and commissioning of 35 V112-3.0 MW turbines, together with a VestasOnline® Business SCADA system and an AOM 4000 service agreement. The turbines are planned to be delivered at the end of 2013 and are scheduled to be commissioned in the summer of 2014.

DTEK Wind Power completed construction of the 1st stage of Botievo project in 2012. EUR 107 million was received as export financing from Landesbank Berlin AG for implementation of the first stage (90 MW consisting of 30 V-112 turbines). EKF from Denmark provided respective export credit guarantees. Loan has been provided for 10 years with 1 year of grace period.

Botievo WPP is a part of 550 MW wind park DTEK Priazovskiy that also includes Primorsk WPP and Berdyansk WPP being currently under development.

### **EBRD AND IFC CONSIDER LOAN PROVISION TO THE WESTERN CRIMEAN WIND POWER PROJECT**

According to the information published at the EBRD web site, the West-Crimean Windplant LLC (WCW LLC) is in the process of developing a 126 MW wind farm in Chernomorske district, West Crimea, Ukraine. This project is the first phase of a larger 250MW power plant to be implemented by 2015.

The project received the final construction permit in December 2012. The project's land plots are secured through a 49 year lease agreement with local municipalities. Construction of the first 63MW tranche is expected to begin in the first quarter of 2013 and to be completed by the second quarter of 2014, while the whole 126 MW project may be completed by the fourth quarter of 2014.

The 126MW project will be implemented in two tranches with one EPC contract per tranche signed with Guris LLC, a subsidiary of Turkish company Guris. As for the turbines supplier, Guris LLC shortlisted the following equipment type: Gamesa G10x and Fuehrlander FL-2500. O&M services will be provided by the turbine supplier under a 10-year agreement, on an all-inclusive basis.

On the basis of the 2.7 year wind measurements at two masts done before April 2011, Wind Prospect and Garrad Hassan independently completed energy yield assessments of the site covering three types of wind turbine (Gamesa G128, Fuehrlander FL-2500 and Vestas V112).

Guris and Greenworx from Belgium have indirect ownership of the WCW LLC according to recent article by Platts Energy in East Europe.

The European Bank for Reconstruction and Development together with the IFC consider providing loan to finance the project. The EBRD has announced the tender for engagement of a lender's engineer.

### **EBRD FINANCES THE FIRST SMALL HYDRO POWER PROJECT IN UKRAINE**

EBRD will provide a senior secured loan to Hydropower LLC for development, construction and operation of two small hydropower plants on the Bily Cheremosh River in Western Ukraine. Small hydro power plants with total capacity of 1.6MW will produce 6,470 MWh per annum which will be sold to the grid at the feed-in tariff.

Total financing needs for the project are estimated at EUR 3.8 million, which will be financed from the following sources:

- (i) Hydropower equity contribution – EUR 1.8 million
- (ii) EBRD senior loan – EUR 1.3 million
- (iii) Clean Technology Fund senior loan – EUR 0.7 million from the EBRD CIF Special Fund.

Respective loan agreement was signed on 26 December 2012.

This project is the third project financed by the EBRD and the CTF in the framework of Ukraine Sustainable Energy Lending Facility (USELF). Earlier in 2012 the EBRD decided to allocate EUR 13.3 million to Eco-Optima for the construction of 12.5 MW wind power plant in Starosambir region, Lviv oblast, and EUR 5.7 million - to Rengy Development for the construction of solar power plant in Vinnytsia oblast.

#### **VINDKRAFT UKRAINE PLANS TO EXPAND WIND POWER CAPACITIES ON THE BLACK SEA COAST IN 2013**

Vindkraft Ukraine LLC plans to construct wind power plants with the total capacity of 18 MW on the Black Sea coast in 2013. The company is currently completing their first project – 9.0 MW Novorosiyske WPP in Kherson oblast with three Vestas V-112 turbines (the first turbine has been already launched in 2012). After adding two more 9 MW wind farms, the developer plans to consider implementation of larger 154 MW project in the same region.

#### **EKOTECHNIK PRAHA LAUNCHES THE FIRST STAGE OF SOLAR POWER PLANT IN KHMELNYTSKY OBLAST**

Ekotechnik Praha launched the first stage of a solar power plant in Yasenovka, Khmelnytsky oblast. The capacity of the first stage is 0.5 MW, and total planned capacity is 5 MW. The first stage SPP's construction cost was about EUR 1 million.

Ekotechnik Praha also intends to build a solar power plant with the capacity of 25 MW in Vynohradiv district of Zakarpattia region. Solar power plant will be built on the tract of landfill near the village of Borzhavska where previously it was planned to build solid waste processing plant. The developer also plans the SPP construction in Kyiv, Dnipropetrovsk, Vinnytsia, Khmelnytsky and other oblasts.

#### **SMART HOLDING LAUNCHES THE FIRST STAGE OF PELLET PRODUCTION PLANT**

Smart Energy, energy arm of the Ukrainian investment group Smart Holding, launched the first stage of pellet production plant using agricultural raw materials in Vinnytsia oblast.

The plant started operation with initial annual output capacity of 75,000 tons of pellets. It is expected to reach its designed capacity of 150,000 tons of pellets per year in 2013. Pellets will be produced from cereal crop straw to be supplied by farmers from five regions of Vinnytsia oblast.

The total investment in the project will be EUR 26 million. This plant is Smart Energy's pilot project in renewable energy sector. In the long-term, Smart-Holding plans to increase the number of companies producing pellets from straw in ten oblasts of Ukraine to reach total production capacity of 1.5 million tons of pellets per year.

#### **ECO-OPTIMA REVISES THE CONSTRUCTION DESIGN OF WIND POWER PLANT DUE TO BANKRUPTCY OF FUHLANDER**

Eco-Optima has to revise the construction design of the wind power plant in Starosamborsky district, Lviv region, due to the bankruptcy of its turbine supplier – German Fuhrlander AG.

Eco-Optima has to change the supplier of the wind turbine Fuhrlander to Vestas as Fuhrlander filed for bankruptcy and it does not meet the requirements of EBRD which finances the project.

Due to change of the main equipment the total installed capacity of the WPP will be adjusted to 15 MW from current 12.5 MW.

Eco-Optima also completed construction of the first stage of Samborska solar power plant in Lviv region with 1.1 MW capacity. The company plans to increase the plant's capacity to 10 MW. National Commission that performs state regulation in the power sector issued a license for electricity generation of LLC "Samborskaya SPP" for which a new solar power plant is registered.

#### **UKREXIMBANK PROVIDED UAH 50 MILLION UAH FOR IVANKIV TPP CONSTRUCTION**

State-owned Ukreximbank provided a credit line for Biogazenergo in the amount of UAH 50 million for completion of the thermal power plant (TPP) working on solid biomass in the village Ivankiv of Kiev region. The loan's tenor is 48 months at 12% per annum. The project is managed by EIG Engineering. The design capacity of the Ivankiv TPP, the launch of which is expected in the summer of 2013, will be 18 MW. Wood chips will be used as fuel.

#### **RENGY DEVELOPMENT PLANS TO CONSTRUCT SOLAR POWER PLANTS WITH CAPACITY OF 20-25 MW IN 2013**

Rengy Development intends to construct solar power plants with the capacity of 20-25 MW this year. The first two projects with the total capacity of 10 MW will be implemented in Vinnytsia region.

As reported, Rengy Development had constructed solar power plants with of capacity 4.495 MW (registered for Green Agro Service LLC) and 1.374 MW (registered for Rengy Trostyanets LLC) in Vinnytsia region. The EBRD granted Rengy Development a loan in the amount of EUR 5.7 mln for GreenAgroService project.

#### **10 MW SOLAR POWER PLANT LAUNCHED IN KHERSON REGION**

Solarenergo LLC completed the construction of photovoltaic power plant with the installed capacity of 9.806 MW in Skadovsk district of Kherson region. Each year the installation will generate and supply into the grid 10.934 million kWh of electricity, which is enough to provide power for more than three thousand households in the region.