

**IMEPOWER VIEW**

The European Bank for Reconstruction and Development has been a major newsmaker in the renewable sector of Ukraine during recent months approving several loans for renewable energy projects. In addition to 7 loans provided in the framework of USELF program to small and medium size projects (3 solar, 1 biogas, 1 wind, 1 small hydro and 1 biomass), the Bank has recently approved loan for larger 57.7 MW Novoazovskiy wind farm project.

New local content rules, applicable to the renewable power plants commissioned after 01 July 2013, as expected, brought uncertainty for the developers of renewable projects. In particular, majority of solar developers put their projects on hold to assess the options for solar PV modules and respective EPC packages, which comply with new local content requirement. While some relevant options are available, respective prices exceed the international level of solar PV installations that makes investors and banks cautious when making decision about new investments in such projects in Ukraine. We believe that acceptable solution can be found within several months that will allow bringing more solar projects to financial closing and construction in 2014.

Approval of new Energy Strategy until 2030 by the Government at the end of July led to certain confusion among market participants as it has not yet been published. According to various sources, the major reason for such delay is internal discussion within the Government concerning the share of renewables in perspective generation mix for 2020-2030. While the latest available draft of the Strategy envisaged 6 GW installed capacity of renewable power plants in 2030 (not counting large hydro power plants), many stakeholders considered this figure to be low, especially considering Ukraine's commitment in the framework of the Energy Community Treaty to bring the share of electricity production from renewables up to 11% in 2020. We expect that the share of renewables envisaged by the Strategy will be increased and updated document will be published shortly.

Draft Law 0916 introducing new liberalized model of electricity market (bilateral contracts and balancing market) has been approved for the second reading by the Parliament Fuel and Energy Sector Committee earlier this week and will be put for the Parliament's voting during the first week of November. Launch of the new market model is planned for 2017.

The Draft Law envisages that special Guaranteed Buyer will be established by the end of 2015 on the basis of the state enterprise Energorynok (that currently performs the function of the Wholesale Electricity Market Operator) and will ensure purchase of all electricity from renewable power plants at respective green tariffs. The Guaranteed Buyer will receive compensation (of the difference between market prices for electricity and green tariffs) from the special Fund of Regulation of Price Disbalance that will also be the source of compensation of imbalances caused by renewable power plants until 2030 (with exception of small hydro, biomass and biogas power plants that will be fully responsible for imbalances starting from the 3<sup>rd</sup> year after commissioning).

**MAJOR NEWS**

1. EBRD finances the first biomass project in Ukraine via USELF program
2. DTEK attracted EUR 138 million loan for wind power plant construction
3. EBRD finances Novoazovskiy wind park in Ukraine
4. Vestas received new order for 21 MW wind turbines
5. EBRD finances two more solar projects in Ukraine
6. KSG Agro plans to launch new pellet production facility
7. EBRD finances the first biogas project in Ukraine
8. Draft National Action Plan for renewable energy presented

**EBRD FINANCES THE FIRST BIOMASS PROJECT IN UKRAINE VIA USELF PROGRAM**

The EBRD has provided EUR 15.5 million loan to Biogasenergo, a subsidiary of Ukraine's EIG Engineering, for development, construction and operation of an 18 MW wood chip-fired power plant in the town of Ivankiv in Kiev region. The biomass facility should become fully operational by the middle of 2014.

The new plant, which will process annually around 210,000 tons of firewood, reject wood and residual biomass from forest management, will generate over 121,000 MWh of electricity. It will be sold to the national grid at the green tariff.

Implementation of this biomass project will mark the beginning of a large-scale investment program by EIG Engineering that plans to develop up to five similar biomass-fired power plants with an aggregate capacity of 50MW, all of them in regions of northern Ukraine that are rich in wood waste.

This is the first biomass project that was financed by the EBRD's Ukraine Sustainable Energy Lending Facility (USELF), an investment program of EUR 70 million – EUR 50 million from the EBRD and EUR 20 million from the Clean Technology Fund (CTF).

**DTEK ATTRACTED EUR 138 MILLION LOAN FOR WIND POWER PLANT CONSTRUCTION**

DTEK Wind Power attracted a loan of EUR 138 million for the second phase of Botievo wind power plant, the construction of which is scheduled to be completed in 2014.

10-year loan from LandesBank Berlin is aimed at financing the second phase of Botievo WPP that includes 35 wind turbines Vestas V-112 with the total capacity of 105 MW. Export credit guarantees were provided by Danish state export credit agency EKF. EKF will get reinsurance from other ECA for the components of wind turbines components produced outside Denmark.

Within the framework of Botievo WPP construction this is the second phase of collaboration between DTEK Wind Power and LandesBank Berlin. In 2012 DTEK Wind Power attracted EUR 107 million for the first phase of power plant construction. The transaction was named "Deal of the Year 2012" by Euromoney's Trade Finance magazine and Global Trade review magazine.

DTEK Wind Power is also working on two other projects related to wind farm construction – 150 MW Berdyansk WPP and 200 MW Primrsk WPP. Completion of these three projects will help to bring DTEK's total wind capacity up to 550 MW in the nearest 3-4 years.

**EBRD FINANCES NOVOAZOVSKIY WIND PARK IN UKRAINE**

Novoazovskiy Wind Park located in Donetsk region will receive an EBRD loan of up to EUR 33.3 million and a parallel loan from the Clean Technology Fund of up to EUR 15.5 million. The project funds will help operate the 57.5 MW wind farm, which runs 23 Fuhlander wind turbines. These generate around 175 GWh of electricity each year and achieve annual CO2 savings of up to 140,000 tons.

The funding is the first "limited recourse" financing deal in the Ukrainian renewable energy sector organized by the EBRD, which means that Novoazovskiy Wind Park does not require external guarantees for the purposes of loan repayment.

The wind park is operated by large Ukrainian developer Wind Parks of Ukraine that develops portfolio of wind farms with the capacity of several hundred MW and also owns the company Fuhlander Wind Technology providing localization of production of Fuhlander's wind turbines in Ukraine.

**VESTAS RECEIVED NEW ORDER FOR 21 MW WIND TURBINES**

Vestas received a firm and unconditional order for 21 MW from Vindkraft Ukraina LLC for their wind power plants Beregovaya and Stavki in Kherson region. Vindkraft have already commissioned 9 MW Novorossiske wind power plant in 2011-2012 using Vestas turbines.

The contract comprises supply, installation and commissioning of seven V112 3.0 MW wind turbines, along with a VestasOnline Business SCADA solution. Delivery is planned to start at the end of Q3 2013 and commissioning is expected to be completed by Q4 2013.

#### **EBRD FINANCES TWO MORE SOLAR PROJECTS IN UKRAINE**

The EBRD provided a financing package of EUR 5.4 million to Teplodar PiVi LLC in Odessa region for the development, construction and operation of a 4.2 MW solar power plant. The financing arranged by the Bank will include an 8-year EBRD loan of EUR 3.9 million and a 15-year loan of EUR 1.5 million from the Clean Technology Fund.

The EBRD also arranged debt financing to Rengy Tomashpil for the development, construction and commissioning of 5 MW solar power plant in Vinnytsia oblast. Financing package includes 6-year loan of EUR 3.8 million from the EBRD and 10-year loan of EUR 1.8 million from the CTF.

Both projects were financed in the framework of USELF program.

#### **KSG AGRO PLANS TO LAUNCH NEW PELLET PRODUCTION FACILITY**

Agricultural holding KSG Agro plans to put into operation this year the plant for the production of fuel pellets with capacity of 60 thousand tons per year in Krivoy Rog. KSG Agro plans using straw crops and reaped residues of corn and sunflower as a raw material for the production of pellets. Agricultural holding is going to use part of the pellet production for its own needs, thereby reducing consumption of natural gas.

In March 2012 KSG Agro agreed with polish company Polish Energy Partners a joint project on construction of plant for the production of the straw fuel pellets. KSG Agro acquired a license from Polish Energy Partners for the use of straw granulation technology without preliminary drying and intends to further develop this area.

In 2011 KSG Agro launched two fuel pellet production enterprises with total capacity of 7 thousand tons per year.

#### **EBRD FINANCES THE FIRST BIOGAS PROJECT IN UKRAINE**

The EBRD provided EUR 4.2 million to Ecoprod agricultural company based in Donetsk region for the construction of 1.5 MW biogas facility. Financing package includes the Bank's loan of EUR 3.1 million for 7 years, while the Clean Technology Fund provided another EUR 1.1 million for 15 years.

Ecoprod's facility will be able to produce 5.8 million cubic meter so of biogas per year that will be used for production of electricity (that will be sold to the Wholesale Electricity Market at the green tariff) and heat (that will be used for own needs of the company). The overall cost of the project is EUR 6 million with 5 years estimated as investment payback period.

This is the first biogas project financed under USELF program.

#### **DRAFT NATIONAL ACTION PLAN FOR RENEWABLE ENERGY PRESENTED**

The main purpose of the National Action Plan for renewable energy is to increase the share of energy generated from renewable sources by 2020 in total final energy consumption to the level of 11%.

The appropriate document has been developed according to the requirements of the Directive 2009/28/EC on promoting the use of energy from renewable sources as well as based on special template developed by the Energy Community Secretariat for member-states, including Ukraine.

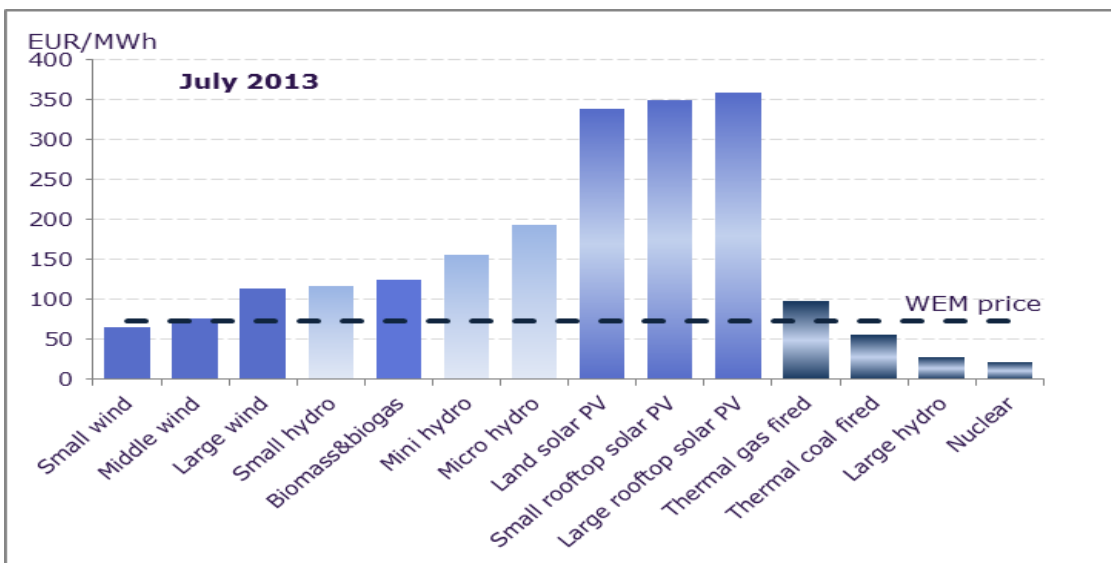
Fulfillment of the Action Plan should fully ensure the commissioning of 8,200 MW of renewable energy

in 2015 and 11,850 MW in 2020 (including large hydro power plants) or 3,400 MW in 2015 and 6,650 MW in 2020 (excluding large hydro power plants). Its fulfillment should ensure generation of 18,000 GWh of "green" electricity in 2015 and 26,000 GWh in 2020 that will be respectively 8.4% and 11% of total generation, thus, ensuring fulfillment of Ukraine's commitments before the Energy Community.

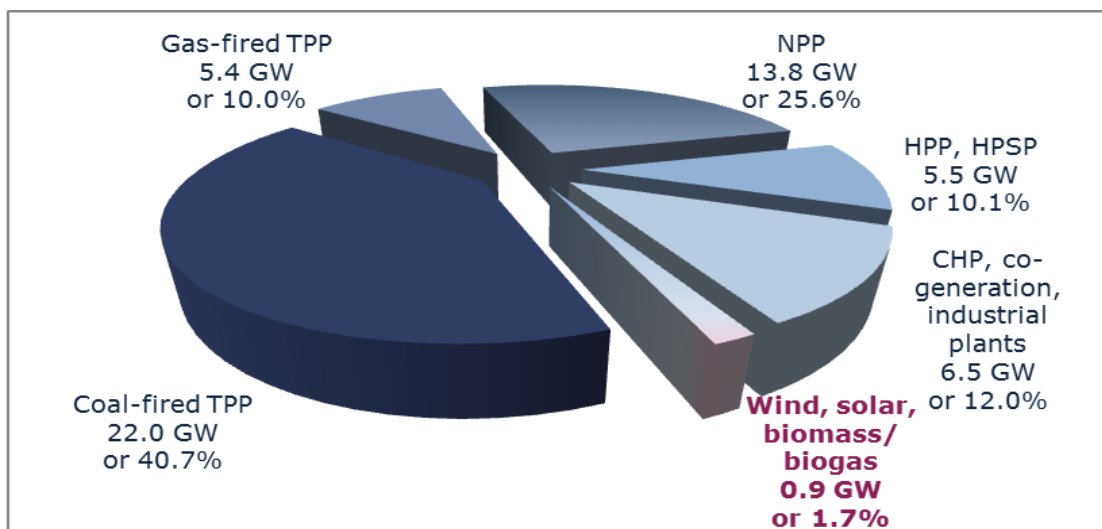
Under the baseline document scenario, the contribution of each renewable energy technology to achieve the required indicative targets for 2015 will be: large hydro power plants – 58.9%, wind power plants – 23.3%, solar power plants– 13.3%, small hydro power plants – 1.7%, bio power plants – 2.8%; for 2020: large HPP – 43.8 %, WPP – 31.2 %, SPP – 17.7 %, small HPP – 1.9%, bio power plants – 5.4%.

**USEFUL CHARTS**

**Green Tariffs vs. Tariffs for Conventional Power Plants**



**Installed Capacity of the Ukrainian Power Plants as of July 2013**



**Installed Capacity and Electricity Production of the Ukrainian Renewable Power Plants in 1H 2013 (excluding large hydro power plants)**

