

**IMEPOWER View**

Expectations are set high that the NERC's Procedure for calculation of the local content share for renewable power plants will be finally registered by the Ministry of Justice in the nearest weeks and will come in force together with other normative documents needed for its implementation in practice. Considering that starting January 2013 the local content share in the value of RES facilities reaches 30% (in order for the RES power plant to be eligible for the green tariff) according to the Electricity Law, absence of the effective Procedure makes it really hard for most of the project developers and equipment suppliers to plan their operations and move forward with concrete steps to implement projects.

We also expect that the Parliament will approve the Draft Law analysed in detail below that introduces changes to the green tariff values for certain types of RES. In general, we support the current wording of the Draft Law as it may allow achieving more balanced situation at the renewable market taking down IRRs for solar PV projects and increasing profitability for small hydro projects. Together with other proposed changes, this can potentially lead to more sustainable development of RES with attention from investors and developers spread more or less equally among different technologies since the focus has been clearly on solar PV projects during last year. Unfortunately, the Draft Law does not contain any changes to the local content requirement for wind power plants that may become the real barrier for large projects under development.

Looking at overall situation with construction of RES power plants in Ukraine, we observe steady development of large solar and wind projects by developers with the Ukrainian origin and strong political support – Activ Solar, DTEK, Wind Parks of Ukraine. Most of other large renewable projects are going forward, but at rather slow pace since a lack of clarity with the local content requirement does not allow structuring financing and placing orders for major equipment. At the same time, there is significant activity of developers related to small RES projects with installed capacity of below 10 MW – we expect more power plants of such size to be commissioned by the end of the year.

**In This Issue****I. Legal and Regulatory Developments**

- 1.1. Changes to the green tariff regulatory system approved by the Parliament in the first reading
- 1.2. New law related to power grid connection fees approved by the Parliament
- 1.3. East-Crimean WPP ownership is transferred to the Crimean Generating Systems
- 1.4. NERC adjusted the green tariff for renewable energy producers for September 2012

**II. Investment News**

- 2.1. Activ Solar completed the second stage of Starokozache SPP
- 2.2. Energoinvest launches the first phase of solar power plant
- 2.3. Active Energy Group made the first shipment of the Ukrainian wood fuel chips to Turkey
- 2.4. The second stage of Ochakiv wind power plant put into operation
- 2.5. Ukrainian investors acquired majority stake in Fuhrlander AG
- 2.6. EBRD will finance construction of bio-gas plant at Astarta
- 2.7. NERC issued a license and approved the green tariff for Sivash WPP
- 2.8. NERC approved the green tariff for Solar Energy Plus

**III. Commercial and Economic Developments**

- 3.1. Ukrainian interest rates
- 3.2. Ukrainian exchange rates

**Legal and  
Regulatory  
Developments****CHANGES TO THE GREEN TARIFF REGULATORY SYSTEM APPROVED BY  
THE PARLIAMENT IN THE FIRST READING**

On 4 July 2012 the Parliament adopted in the first reading the Draft Law "On Introducing Changes to the Law of Ukraine "On the Power Sector" (regarding promotion of electricity production from renewable energy sources), registration number 10183 (hereinafter referred to as "Draft Law").

The Draft Law is currently being prepared for the second reading with the Parliament. It is hard to predict when the Draft Law might be finally adopted, but we assume it will happen at the next Parliament's session in the fall of 2012.

The definition of the "local content" has been introduced, which applies to the energy facilities construction of which has started after 01 January 2012. To be eligible for the green tariff, "local content" for energy facilities and their launch stages (complexes) producing electricity from the energy of wind and solar and commissioned after 01 January 2013 should be not less than 30% and for the facilities commissioned after 01 January 2014 – not less than 50%. The Draft Law does not contain an additional requirement for local content in the solar modules, as it is stated in the effective version of the Law of Ukraine "On the Power Sector".

As well, the Draft Law changes rules regarding "local content" for energy facilities and their launch complexes producing electricity from biomass, biogas and for hydropower plants. For the mentioned above plants, which were commissioned after 01 January 2015, the "local content" should be not less than 50%. The National Commission, which Performs State Regulation in the Energy Sphere (hereinafter – NERC) should approve the procedure for confirmation of the local content in the energy facility.

Certain considerable amendments are proposed with regard to the green tariff for certain types of RES starting 01 January 2013 should the Draft Law be adopted by the Parliament, namely:

- differentiation of hydropower plants to micro, mini and small with the coefficients of the green tariff being 2.0, 1.6 and 1.2 respectively;
- establishing coefficient of the green tariff for electricity produced from biogas of plant or animal origin at the level of 2.7;
- establishing coefficient of the green tariff for electricity produced from household wastes at the level of 3.0;
- existing coefficients of the green tariff for electricity produced from solar energy are reduced for solar plants located on land by 27%, for solar plants installed on the roofs of buildings with capacity of more than 0.1 MW – by 22%, and for solar plants installed on the roofs of buildings with capacity of less than 0.1 MW - by 16%;
- coefficient of the green tariff for electricity produced from solar energy by energy facilities installed on the roofs and/or frontages of private households with the capacity not more than 16 kW at the level of 4.0. Production of the electricity by the mentioned above energy facilities can be performed without a license. The regulator shall approve a procedure for purchase and sale, metering and settlement for such electricity.

It is worth mentioning that no changes have been introduced to the green tariff coefficients for electricity produced by wind power plants.

The Draft Law expands the term biomass to wastes of animal origin and organic part of industrial or municipal solid wastes, which allows for the electricity produced from those to be eligible for the 2.3 green tariff coefficient that is currently eligible only for vegetative origin wastes.

Another innovation of the Draft Law is a possibility to have approval of the green tariff for each "launch stage (complex)" of the energy facility, if construction of the energy facility is performed by stages.

#### **NEW LAW RELATED TO POWER GRID CONNECTION FEES APPROVED BY THE PARLIAMENT**

On 22 June 2012, the Parliament adopted the Law of Ukraine "On Amendments to Some Laws of Ukraine Concerning Power Grid Connection Fees for the Subjects of Natural Monopolies" № 5021-VI (hereinafter – "the Law on Connection") that will come into force on 01 January 2013.

In particular, the Law on Connection contains the following provisions on connection of power facilities that produce electricity using alternative energy sources (AES) to the grid:

- the connection to power grid of power facilities that produce electricity using AES is financed by 50% at the expense of electricity transmission/distribution tariffs and by 50% at the expense of reimbursable financial aid, which is provided by the project developer to the electricity transmission/distribution company;
- the period of repayment of specified financial aid to the project developer is established by the NERC according to the special procedure and shall not exceed 10 years. The source of such repayment is the electricity transmission/distribution tariff component;
- preparation of design estimates for the connection of power facilities that produce electricity using AES is ensured by electricity transmission company and is financed at the expense of funds covered by the electricity transmission/distribution tariffs and/or at the expense of reimbursable financial aid.

Herewith, the NERC, when approving investment programs and their funding sources for electricity transmission/distribution companies, takes into account the cost of services on connection of generating facilities that produce electricity using AES to power grid according to special procedure that should be developed by the NERC. Also the NERC is responsible for preparation and approval of the rules of power facilities connection to power grids, standard forms of connection agreements, standard forms of technical conditions, and methodology of calculation of fees for power facilities connection to power grids.

The Law on Connection amends the Law of Ukraine "On Regulation of Urban Planning" in terms of issuance of technical conditions. In particular, it is envisaged that technical conditions, including for grid connection, shall be issued within 15 working days from the date of registration of relevant declaration and within 30 days in case of need of their coordination with the electricity transmission company.

#### **EAST-CRIMEAN WPP OWNERSHIP IS TRANSFERRED TO THE CRIMEAN GENERATING SYSTEMS**

The Ministry of Energy and Coal Industry transferred the property of the East-Crimean Wind Power Plant (WPP) located in Scholkino, Crimea to the state enterprise Crimean-Generating Systems (CGS).

Corresponding decision was approved by the Order of the Ministry № 430 on 15 June 2012 with aim of securing necessary resources for further development of the WPP. Nowadays, CGS holds negotiations with Chinese companies, Siemens and Fuhrlander on their participation in possible WPP expansion project.

CGS expects that at the first stage the WPP's capacity will be increased by 50 MW.

The appropriate application to obtain technical conditions for grid connection has been already submitted to Krymenergo.

Today the East-Crimean WPP is equipped with 15 old wind turbines with installed capacity of 107.5 kW each and two wind turbines with installed capacity of 600 kW.

#### **NERC ADJUSTED THE GREEN TARIFF FOR RENEWABLE ENERGY PRODUCERS FOR SEPTEMBER 2012**

In September 2012, tariffs for the electricity produced using renewable energy sources stayed at the same level as in December 2011 - August 2012, i.e. at their minimum fixed level: for 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.

The green tariffs are revised on a monthly basis based on the exchange rate of EUR against UAH.

#### **Investment News**

#### **ACTIV SOLAR COMPLETED THE SECOND STAGE OF STAROKOZACHE SPP**

Activ Solar has completed the second and final stage of its 42.95 MW solar power plant in Belgorod-Dnistrovsky region, Odessa oblast. The capacity of the second stage is 21.77 MW.

The SPP is located on 80 hectares of land and will generate 54,106 MWh of electricity annually, which is enough to meet the needs of around 11 thousand households and will allow reducing emissions up to 44 thousand CO<sub>2</sub>. Starokozache SPP is the first photovoltaic project completed by Activ Solar in Odessa oblast.

The first stage of Starokozache SPP with capacity of 21.18 MW was completed in the middle of June this year and is operated by Franco Solar Ltd. In June, Franco Solar received a 20-year license for electricity production and respective green tariff from the NERC (5 050.9 UAH/MWh).

In July 2012, the NERC issued a 20-year license for electricity generation to Franco Pivi Ltd. that will operate the second stage of Starokozache SPP and established respective green tariff.

#### **ENERGOINVEST LAUNCHES THE FIRST PHASE OF SOLAR POWER PLANT**

Energoinvest Limited launched the first stage of the Halzhbiyevska solar power plant in Vinnytsia oblast with capacity of 267.9 kW. The total capacity of SPP will be 1.45 MW. Construction will be performed in five stages and scheduled for completion by 2013.

The NERC set green tariff for the electricity generated by the first stage of the SPP and adjusted Energoinvest's total installed generating capacity up to 14.46 MW.

Energoinvest earlier built the 1.875 MW Sloboda-Bushanska SPP in Vinnytsia oblast. Energoinvest also operates 12 small hydropower plants in Vinnytsia, Lviv, Ivano-Frankivsk and Ternopil oblasts.

#### **ACTIVE ENERGY GROUP MADE THE FIRST SHIPMENT OF UKRAINIAN WOOD FUEL CHIPS TO TURKEY**

Active Energy Group PLC registered in UK performed initial shipment of 4 000 tons of the Ukrainian wood fuel chips to Turkey. The shipment was performed from Mykolaiv sea port. A purchaser of wood fuel chips is Siram SpA, a subsidiary of

Dalkia International Group, one of the world's largest energy services providers.

Active Energy Group PLC also expects total revenue of approximately £3 million from supplies of the Ukrainian wood fuel chips to Polish power facilities in 2012.

Formerly, Active Energy Group PLC acquired Bioenergo Leader Limited engaged in supply of the Ukrainian wood fuel chips to Polish industrial power facilities. Later, Bioenergo Leader was renamed into Active Energy Ukraine.

Active Energy Ukraine has 10-year contracts for timber purchase and its processing into fuel chips in Ukraine, and for the supply of products to power facilities in Poland. In particular, according to the contract, Lyuboml Forestry (Volyn oblast) supplies up to 100 000 of timber per annum at a fixed price; Volyuninvestbud processes raw materials into chips at a fixed rate and ships 80 000 tons of processed wood chips per annum. In its turn, Medium SP. Zo.o. (Poland) purchases this entire volume for further supply to power facilities in Poland.

#### **THE SECOND STAGE OF OCHAKIV WPP PUT INTO OPERATION**

Wind Park Ochakivsky Limited (Mykolaiv oblast) put into operation the second stage of Ochakiv wind power plant (WPP) in Mykolayiv oblast. The capacity of the second stage of the WPP is 12.5 MW. It consists of 5 wind turbines.

The capacity of the first stage of Ochakiv WPP is 25 MW. It consists of 10 FL 2500-100 turbines of 2.5 MW each. The height of the windmill tower is 100 m, the blade length – 50 m. The cost of the first stage of the project is 360-380 million UAH.

#### **UKRAINIAN SHAREHOLDERS ACQUIRED MAJORITY STAKE IN FUHLANDER AG**

The new 80% shareholder of Fuhrländer is Windgrobe GmbH owned by the group of private investors that includes Maxim Efimov, General Director and minority shareholder of the steel construction group Energomashspetsstal in Kramatorsk.

Wind turbines produced by Fuhrländer are used by the developer Wind Parks of Ukraine for the wind power plant construction in Ukraine. In particular, in 2011-2012, 38 turbines FL 2500-100 of 2.5 MW each were used for the construction of Novoazovsky and Ochakivsky Wind Parks in Donetsk and Mykolaiv oblasts.

Fuhrländer AG was founded in 1960 and is engaged in the development and manufacturing of wind turbines of up to 3 MW, seawater desalination plants and air purification systems.

#### **EBRD WILL FINANCE CONSTRUCTION OF BIO-GAS PLANT AT ASTARTA**

The European Bank for Reconstruction and Development (EBRD) will provide a loan of up to USD 12 million to a subsidiary of Astarta (one of the major agribusiness groups in Ukraine) APO Tsukrovyk Poltavshchyny LLC (Poltava region, central Ukraine) for the construction of a bio-gas plant under the EBRD's Agribusiness Sustainable Investment Facility.

The fifth EBRD transaction with Astarta will focus on the increased use of renewable energy in the production cycle, an important development in sugar production, which is a particularly energy-intensive industry.

A newly-built bio-gas plant at Tsukrovyk Poltavshchyny will process 120,000 tons of beet pulp every year and yield around 14.4 million cubic meters of bio-gas, which will lower Astarta's annual gas consumption by 7.7 million cubic meters.

Once the project is implemented, it will allow Astarta's main sugar plant to decrease natural gas consumption by 46%, water consumption by 10% and to achieve a reduction of green house gas (GHG) emissions of around 15,000 tons of CO<sub>2</sub> per year. It is also expected that further GHG emission reductions will reach

up to 35,000 tons per year.

A strategic assessment of the optimization of biomass residues from the production process was undertaken within the Regional Energy Audit Program for the Corporate Sector funded by the Neighborhood Investment Facility.

The EBRD has placed a high priority on supporting environmentally sustainable initiatives at Astarta enterprises. As a result of the bank's involvement, Astarta signed two carbon credit agreements with the Multilateral Carbon Credits Fund based on the Joint Implementation mechanism under the Kyoto Protocol

#### **NERC ISSUED A LICENSE AND APPROVED THE GREEN TARIFF FOR SIVASH WPP**

In July 2012, the NERC issued a license for the production of electricity and two weeks later approved the green tariff for Sivash Wind Power Plant located in Chaplin region, Kherson oblast.

The WPP is operated by Sivashenergoprom Limited (Kherson oblast) under the terms of concession. Currently the WPP is equipped with 16 USW56-100 wind turbines with nominal capacity of 107.5 kW each (the first stage) and one T600-48 wind turbines with nominal capacity of 600 kW (the second stage).

Sivashenergoprom has one more T600-48 wind turbine, commissioning of which is scheduled in the nearest future. After that, the capacity of Sivash WPP will reach 2.92 MW.

In December 2006, Kherson Regional State Administration (RSA) transferred unfinished Sivash WPP into the concession of Sivashenergoprom Limited until 2055. In 2011, Sivashenergoprom signed a lease agreement for 12 hectares of land plots for concessional WPP and 1.3 hectares for construction of new wind and solar generating capacities.

Sivash WPP construction feasibility study assumes an increase of the WPP capacity up to 5 MW. Besides, Sivashenergoprom plans to construct a modern WPP of up to 300 MW and SPP of up to 100 MW on the adjacent territories.

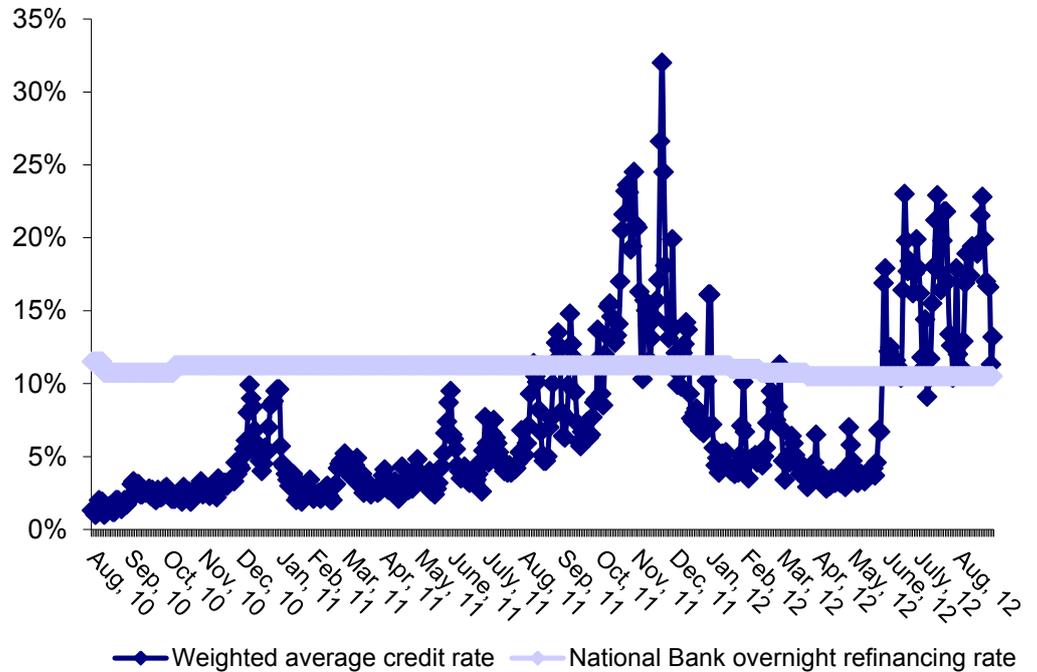
#### **NERC APPROVED THE GREEN TARIFF FOR SOLAR ENERGY PLUS**

The NERC approved the green tariff for the electricity produced by Solar Energy Plus Solar Power Plant (SPP) located in Uzhgorod region, Zakarpattya oblast. It is worth mentioning that SPP managed to avoid the "local content" requirement when applying for the green tariff since its construction was launched in 2011.

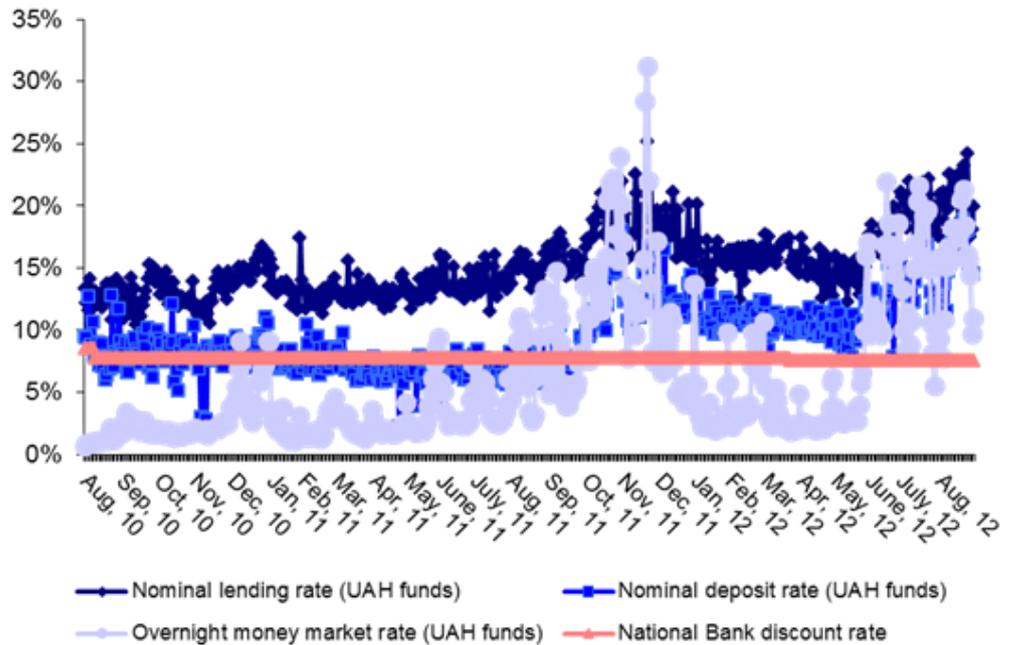
The installed capacity of the SPP is 5.4 MW, forecasted electricity output is 4.8 million kWh per year.

**Commercial and Economic Developments**

**Weighted average interbank rate (for last 2 years)**

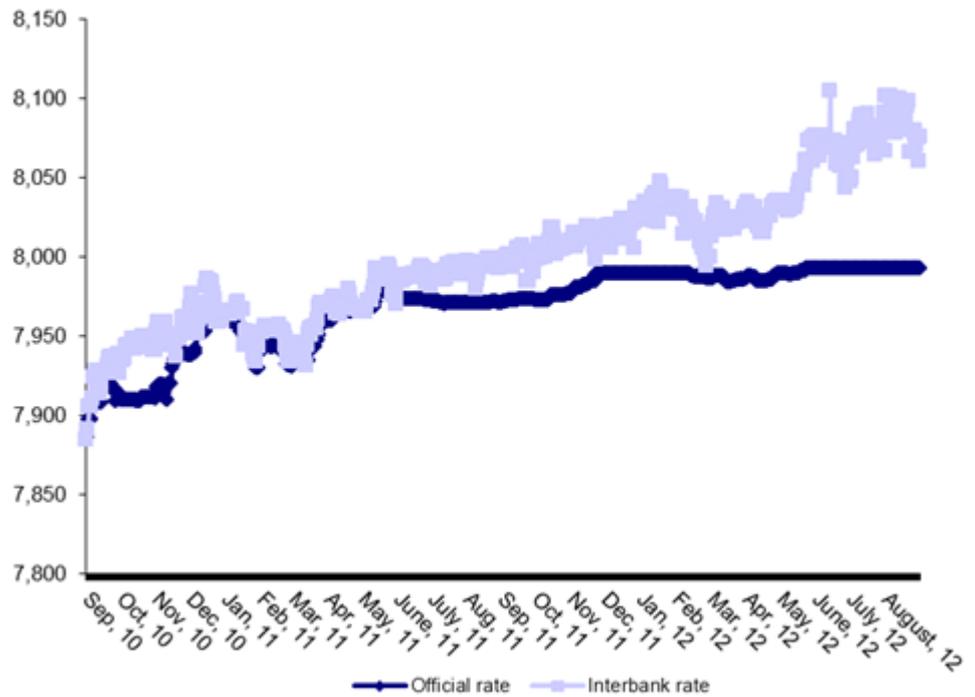


**Nominal interest rates (for last 2 years)**

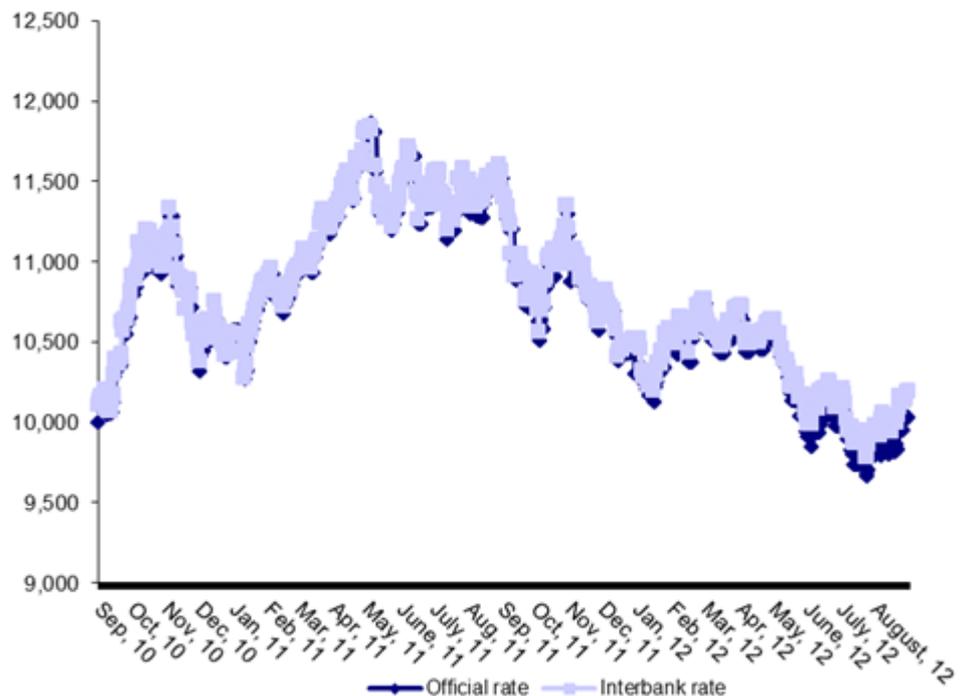


Source: National Bank of Ukraine

Daily UAH/USD exchange rates (for last 2 years)



Daily UAH/EUR exchange rates (for last 2 years)



Source: National Bank of Ukraine