What do we produce? From what?

WHAT: generation (electricity) or cogeneration (electricity and heat)
FROM: water, wind, solar, biomass and biogas

How to Obtain a Green Tariff

A green tariff is a special tariff applied only to electricity generated from renewable resources: solar, wind, hydro and biomass. A kWh of renewable power costs a lot more than that of conventional power.

In Ukraine, green tariffs were introduced, via legislation, in 2009. The legislation expires in 2030.

**Difference between regular and green tariff:**

<table>
<thead>
<tr>
<th>Resource</th>
<th>Average weighted selling price of electricity at WEM (eurocents per kWh)</th>
<th>Green tariff (eurocents per kWh)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wind</td>
<td>6.46 – 11.3</td>
<td>4.02</td>
</tr>
<tr>
<td>Hydro (small hydropower plants)</td>
<td>11.63 – 19.39</td>
<td></td>
</tr>
<tr>
<td>Solar</td>
<td>33.93 – 35.86</td>
<td></td>
</tr>
<tr>
<td>Biomass and biogas</td>
<td>12.39</td>
<td></td>
</tr>
</tbody>
</table>

In partnership with:

- IFC Advisory Services in Europe and Central Asia
- Ukraine Cleaner Production Program
- Investment Climate for Agribusiness in Ukraine

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1. Incorporation of a Legal Entity

Power generation can be performed through an already existing company. To do so, the company needs to add “power generation and sale” as a new type of activity to its charter. However, since renewable power producers are eligible for tax benefits, it is advisable to set up a stand-alone legal entity to sell power. This will simplify the accounting of renewable power sales and streamline the process of formal entitlement to tax benefits. Registration of a new legal entity takes one to two weeks (the establishment of a joint stock company requires more time).

2. Acquiring Property Rights

Power-generating equipment may only be placed on land plots designated as “power industry lands.” If you own a plot with another zoning designation, you will have to change the designation. If you do not own a suitable land plot, you can purchase it or receive it for use (or lease) from individuals or municipal and state authorities. Special caution should be exercised with regard to agricultural land – in most cases their alienation and change of designated use is banned. The procedure for changing the designation of a land plot is expensive and time consuming, particularly the process of allocating and registering land plots in state or municipal ownership.

3. Feasibility Study

A feasibility study is not mandatory, but, as a rule, potential investors compile one for internal purposes. Thus, the feasibility study is not linked to any specific stage and can be performed at any time during project implementation. Baseline data for the study can be requested from the National Energy Company “UkrEnergo” or from a regional power distribution company (depending on planned power capacity). Throughout this process, due regard should be given to local purchasing requirements, set by laws in force and described below.

3a. Development of Project Documentation for Construction of Power Plant

Project documentation is developed by specialized project organizations based on (1) urban development conditions and restrictions, (2) technical specifications, and (3) design assignment. Urban development conditions and restrictions are provided free of charge by the State Inspectorate for Architecture and Construction Control within seven days after the application has been filed. Technical specifications are issued by the authorities responsible for servicing the construction site (water, heat, power, and gas supply, sewage system, outdoor lighting, etc.) within 15 days after the application has been filed. Design assignment is developed by the construction project owner upon agreement with designer. If a power plant is classified as a construction object within the 4-5 category of complexity, project documentation is subject to mandatory expert assessment regarding compliance with sanitary and epidemiological safety standards, environmental, labor safety and energy saving standards, fire, anthropogenic, nuclear and radiation safety standards, and standards related to sustainability, reliability, and durability of buildings and their operational safety and engineering support.

3b. Construction of Power Plant, Putting It into Operation and Registration of Ownership Rights

Ukrainian legislation divides all construction objects into five categories of complexity, with different legal regimes applying to structures in different categories. Complexity is determined by: 1) the estimated number of people expected to be simultaneously present inside the building; 2) the number of people who may be at risk while outside the structure; 3) the structure’s hazard level as a result of breakage or being put out of operation. The category is determined by the project company and developer while preparing project documentation. During the construction of a power plant of category 1-3 complexity, the following must be done:
- registration of the declaration, upon beginning preparatory work (in case of relocation of engineering/ utilities networks and removal of plantations);
- registration of the declaration, upon beginning construction;
- registration of the declaration, upon construction completion.

Building a power plant of category 4-5 complexity requires the following:
- registration of the declaration, upon beginning preparatory work (in case of relocation of engineering/ utilities networks and removal of plantations);
- receipt of construction permit;
- preparation of the act on object’s readiness for use and receipt of the certificate based on this act.

In order to register a title for a structure/power plant, the project developer must submit the following to the relevant registrar of State Registration Service of Ukraine or its local agencies:
- an application to register ownership rights using the appropriate form;
- a technical passport;
- a document demonstrating the rights for a land plot;
- a document confirming that the power plant has been commissioned;
- a document confirming a postal address of the power plant;
- a document confirming payment for the registration of ownership rights with the state.

4. Receipt of Technical Specifications and Signing Agreement on Connection to the Grid

The answer to the question regarding who should be contacted to receive technical specifications and conclude an agreement depends on the installed capacity of the power plant. If capacity equals or exceeds 70 megawatt (MW), one should apply to the National Energy Company UkrEnergo. If capacity is less than 10 MW, one should apply to the local power distribution organization (oblenenergo). If capacity is between 10 and 70 MW, one may apply to either organization. In these cases, the decision regarding to which power grid the power plant will be connected takes into account the impact of the power plant in question on the quality of electric power in the zone of possible connection. Ukrainian legislation contains three different procedures for connecting to the grid: (1) for combined heat and power plants; (2) for windmills located in Mykolayv oblast and the Autonomous Republic of Crimea; (3) for all other plants operating on renewable resources. As a general rule (except for combined heat and power plants and wind farms in the Autonomous Republic of Crimea and Mykolayv oblast), in order to receive technical specifications, an applicant should provide the following to the power distribution organization:
- an application on connection (of a standard form);
- site layout plan specifying location of the electric installation, and extract from the master plan, in scale of 1:2000 or 1:5000, with location of plant or land plot indicated;
- a copy of the title document to the power plant (ownership or use); or the title document to the land plot;
- a copy of the power of attorney authorizing to enter into agreements;
- a copy of the VAT-payer certificate or unified (fixed) tax payer certificate.

To receive technical specifications on the connection of wind farms in Mykolayv oblast and the Autonomous Republic of Crimea, the following documents should be provided:
- a letter (solicitation, application) requesting the connection, specifying the area of activity, location and bank details of the project owner, the power plant’s name and location, and purpose of applying for technical specifications for connection;
5. Development of Project Documentation on Connection to the Grid

As a general rule, it is the duty of the power distribution organization to develop project documentation on connection to the grid. In its turn, the applicant may pay the cost of respective works through provision of refundable financial assistance to the power distribution organization.

A different rule applies for co-generation installations, when the applicant himself must ensure the development of project documentation by authorized experts (project organizations or designers). The draft project documentation must be submitted for review and approval by the grid operator. The term for review should not exceed 15 business days. Based on the review results, the grid operator prepares a technical solution to the project documentation. Additionally, a project documentation related to electric installation with a voltage over 1000 W must be approved by the State Energy Supervision Authority.

6. Construction and Commissioning of External Electrical Power Supply Installations

The power transmission organization is responsible for taking all necessary steps to ensure that a connection to the grid can be made. Specifically, the power transmission entity must ensure the construction and commissioning of external electrical power supply installations. The costs of connection are covered as follows: 50 percent of the costs come from tariffs charged for the transmission of electricity; 50 percent of the costs come from the refundable financial aid provided by the producer to the electricity transmission organization.

A different rule applies in co-generation installation, when the following procedures must be observed by a producer:
- construction and installation;
- commissioning tests, with participation of the project owner and contractors;
- receipt of the certificate of access to the grid;
- putting into operation/commissioning (under the general procedure applicable to all constructed objects);
- technical check-up and inspection of energy metering devices and engineering support facilities (technical inspection) by the power transmission organization;
- connection of the installation to the grid (to be performed by the grid operator or NEC UkrEnergy, in case of operation in parallel with the integrated energy system of Ukraine, on the basis of your application).

To have the certificate of access to the grid and initiate a technical inspection, you should submit an application to the power transmission organization. The following should be attached to the application:
- an application to conduct a technical inspection and receive approval to access the grid;
- technical conditions;
- project documentation;
- execution of an agreement that identifies parts of the connection facilities owned and maintained by the grid operator and the electricity producer;
- information regarding the existing electricity gauges and the installation of new gauges;
- the entity responsible for installing and constructing the facility transfers it to the owner;
- a copy of an order appointing personnel responsible for the operation of the installations or a copy of an agreement for managing the installations with an eligible organization;
- the list of personnel who are entitled to complete an application for connecting or disconnecting co-generation installations, conduct negotiations and maintain records;
- copies of schematics and certificates for infrastructure that cannot be visibly inspected.

Connection of co-generation installations to the grid is performed by the grid operator within five business days, provided all connection-related procedures have been observed.

7a. Obtaining a License for Power Production

In order to obtain a green tariff, one of the following licenses must be received: (1) a license for power production or (2) a license for the combined production of heat and power (co-generation).

Both licenses are issued by the National Energy Regulatory Commission of Ukraine. To obtain a license for power production, the following documents should be submitted (in five copies, one to be notarized):
- an application using the standardized form that contains these primary items:
  - the applicant’s information (exact name and other details);
  - the location where electricity will be produced;
  - the types of activity that will be conducted (electricity production);
  - power of attorney to represent the producer, if necessary;
  - a receipt for payment of the license;
  - a notarized copy of the corporate charter (must demonstrate electricity production as a core business activity);
  - a description of the electricity and heat production facility (technical characteristics of the power plant; schematic of the electrical connections and electricity gauges);
  - a copy of the document that confirms ownership of the cogeneration equipment.

Licenses for power production and for heat and power production are issued within 30 calendar days from the date of submission of documents.

Licensing is a paid-for procedure. The payment for a license consists of the following: One-time fee of 18.72 Ukrainian hryvnia per MW of the power capacity of the plant (for co-generating facilities, an additional 21.77 Ukrainian hryvnia per Gcal/h of capacity). In addition, the licensee must also pay the recurring monthly fee, calculated by NERC based on the installed capacity and volume of supplied power and heat (as of today, for power generators this fee can cost up to 1000 Ukrainian hryvnia per month).
Projects aimed at obtaining a green tariff are required by law to purchase a portion of goods and services of Ukrainian origin. Current legislation stipulates an exhaustive list of equipment (services), which may be accounted as local content. These lists are approved for each specific energy source (biomass, biogas, solar, and wind). The local purchasing requirement does not apply to hydropower plants and plants that commenced construction prior to January 1, 2012. Ukrainian origin of materials and work is confirmed by certificates issued by the national Chamber of Commerce and Industry or regional chambers.

### 7b. Confirmation of Local Purchasing Requirement

To obtain the green tariff, the following documents should be submitted to the National Energy Regulatory Commission of Ukraine:

- power of attorney to represent the producer, if necessary;
- an explanatory note with detailed information about the business entity such as the form of the entity’s ownership, the established power capacity of the generation equipment and characteristics of the generation equipment;
- a calculation of the costs to produce electricity using the required standardized form;
- a description of production costs including copies of contracts, expense calculations, a description of the expense calculations, information about the average number of employees, and information regarding the value of fixed assets on the balance sheet as of the application submission date;
- an explanatory note describing the construction of the power plant;
- a copy of the technical specifications for connecting the new installations to the grid;
- a registered declaration demonstrating readiness to construct and operate a facility or a certificate demonstrating a readiness to operate the facility;
- a copy of the budgets for: reconstruction, equipment upgrades, and replacing equipment (with either the producer’s funds or borrowed funds);
- a document certifying that a required part of the goods and services purchased for the construction of the power plant are of Ukrainian origin (see 2.2.8. Local Purchasing Requirement).

The green tariff-setting procedure is free of charge and usually takes no more than 45 calendar days from the date of submission of all documents and information.

### 8a. Setting the Green Tariff Rate

In order to become a member of the WEM, the following documents must be submitted to the WEM Board:

- an application using the standardized form;
- power of attorney to represent the producer, if necessary;
- a brief description of the applicant’s activities indicating the intended territory of operation during the first month of activity (future territories of operation must be identified according to supply agreements);
- data about transactions the applicant intends to execute on the WEM;
- a notarized copy of the producer’s license to generate electricity or to produce both heat and electricity;
- the legal address and bank account details of the applicant, certified by the bank manager’s signature and seal (two copies are required using the standardized form);
- minutes of negotiations with Energorynok regarding electricity according to WEM Rules;
- certificate verifying the nature of expected transactions on the WEM;
- a NERC certificate verifying that no license payments are in arrears.

Additional documents not listed above may be requested.

Applying for and obtaining membership in the WEM is free of charge. The consideration of an application to join the WEM can take up to 30 days.

### 8b. Membership in the Wholesale Electricity Market (WEM)

To join the WEM can take up to 30 days.

### 10. Sale of Electricity at “Green” Tariff

You are fully entitled to apply multiplying ratio and sell electricity at a significantly higher price.

**You have contributed to the development of the country’s alternative energy sector and strengthened the energy security of the national economy.**

**Barriers**

**OPEN REGULATORY ISSUES**

The procedure for awarding green tariffs has several bottlenecks that significantly complicate entry to the market, increase the term of tariff approval, and aggravate project risks.

Combined use of traditional and alternative energy sources will render power plants ineligible for any green tariff rates. These rates apply only to commissioned power plants. Thus, investors and developers assume the risk that the program could be cancelled before their generation facilities are constructed.

Because of an underdeveloped industry for manufacturing renewable energy power plants, a local purchasing requirement appears to be one of the main obstacles for implementing the majority of projects under green tariff.

### Type of alternative energy

<table>
<thead>
<tr>
<th>Type of alternative energy</th>
<th>Year power plant commissioned</th>
<th>The share (%) of products locally purchased establishing eligibility for GT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solar, wind, and biomass energy</td>
<td>by January 1, 2013</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>from January 1, 2013 (requirement is in effect until July 1, 2013)</td>
<td>15%</td>
</tr>
<tr>
<td></td>
<td>from July 2, 2013 until July 1, 2014</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>from July 2, 2014</td>
<td>50%</td>
</tr>
<tr>
<td>Biogas</td>
<td>up to January 1, 2014 inclusive</td>
<td>none</td>
</tr>
<tr>
<td></td>
<td>January 2, 2014 - January 1, 2015</td>
<td>30%</td>
</tr>
<tr>
<td></td>
<td>after January 1, 2015</td>
<td>50%</td>
</tr>
</tbody>
</table>