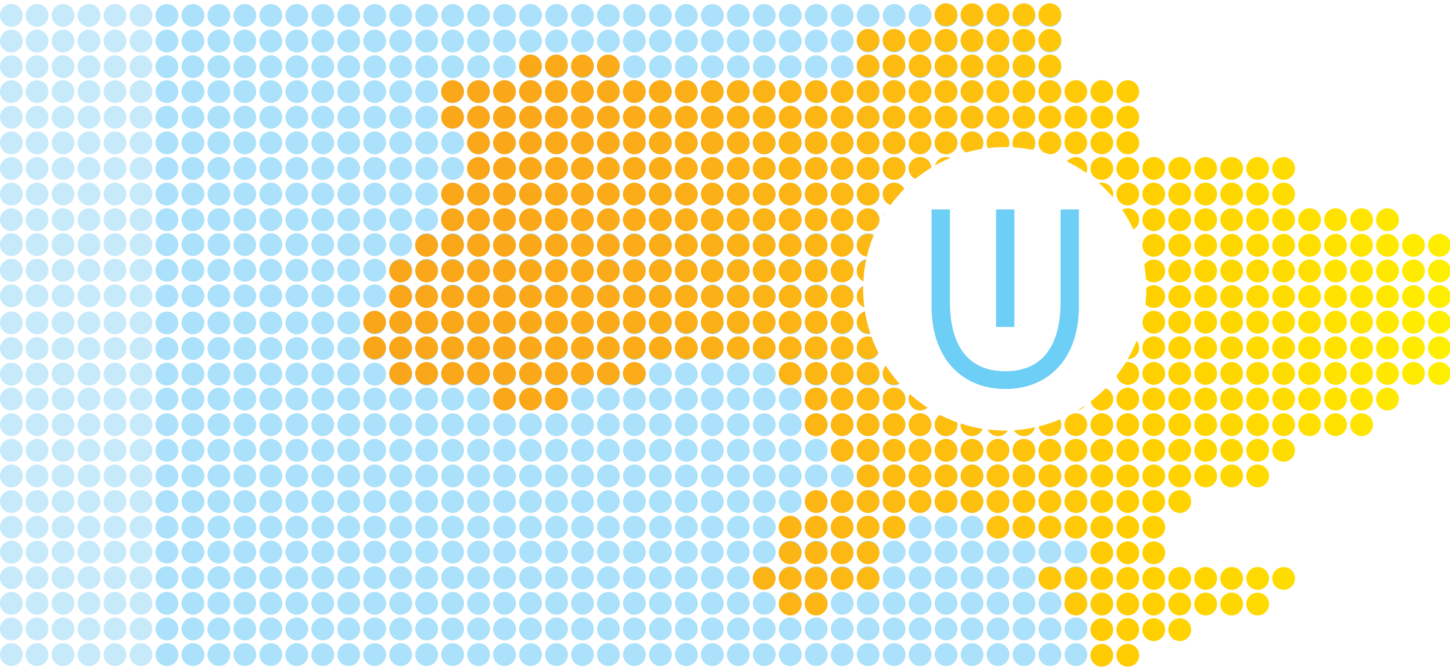

Investing in alternative energy projects in Ukraine

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Introduction

Ukraine has a great amount of potential in the alternative (renewable) energy sector. For the past several years, Ukrainian energy laws have been amended to promote investments in the alternative energy industry. Below is a short overview of the general legal framework for alternative energy in Ukraine and certain key points for investors that aim to develop alternative energy projects in Ukraine.

General legislative framework

Ukrainian alternative energy legislation includes the following laws of Ukraine:

- On Electric Power Industry dated 16 October 1997, as revised and amended.
- On Combined Generation of Heat and Electricity (Cogeneration) and Use of Exhaust Power Potential dated 5 April 2005, as amended.
- On Alternative Types of Fuel dated 14 January 2000, as amended.
- On Energy Saving dated 1 July 1994, as amended.
- On Alternative Sources of Energy dated 20 February 2003, as amended.
- On Gas (Methane) of Coal Minefields dated 21 May 2009, as amended.
- On Amendment of Certain Laws of Ukraine on Supporting Producing and Usage of Bio Types of Fuel dated 21 May 2009, as amended.
- On Amendment of Certain Legislative Acts of Ukraine Regarding Incitement Energy Saving Measures dated 16 March 2007, as amended.

The laws mentioned above define which types of energy and fuel are considered as alternative (renewable). They also regulate the generation, distribution and sale of alternative energy and establish licensing requirements and special exemptions that should apply to companies that generate alternative energy. A number of these issues are also regulated by other Ukrainian laws –e.g., by the Tax Code of Ukraine for tax exemptions or the Land Code of Ukraine regarding allocation of land plots – and by legislative acts of the Cabinet of Ministers of Ukraine or relevant governmental authorities that refer mainly to procedural issues. Such peculiarity of regulation of alternative energy sphere should not be ignored by investors.

What are alternative energy and alternative fuel?

“Alternative energy” is energy (electric, heat or mechanical) which is produced from alternative sources of energy as follows:

(i) **Renewable sources:** solar and wind energy, geothermal energy, energy of waves and tides, hydro energy, energy of biomass and from organic waste products, energy of wastewater treatment facilities gas and biogas.

(ii) **Secondary energy resources:** blast furnace and coke gas, gas (methane) of coal minefields and energy of exhaust power potential of technological processes.

“Alternative fuel” must be a liquid, gas or solid fuel which is an alternative to the traditional fuels, such as:

(i) **Liquid fuel:** flammable liquids obtained as a result of solid fuel (coal, peat or shale) processing, e.g., bio ethanol, spirits.

(ii) **Gas fuel:** gas methane of coal minefields, biogas.

(iii) **Solid fuel:** agricultural waste products, peat.

Ukrainian laws also establish certain requirements for alternative fuel and guidance for equipment that works on alternative fuel. Compliance with these requirements is required for the fuel, energy source or equipment to fall within the scope of special exemptions or so-called *Green tariff* for alternative energy projects.

For example, fuel is considered alternative, *inter alia*, if:

(i) it is completely produced (extracted) from nontraditional and renewable sources and types of energy materials (including biomass), or

(ii) it is a mixture of traditional fuel with alternative fuel and its content complies with technical requirements to motor fuel.

Compliance of the alternative fuel with legislative requirements is evidenced by a special certificate which is issued by the State Agency of Energy Efficiency and Energy Saving (Energy Saving Agency). The Energy Saving Agency issues such certificate by taking into account the application and prior expertise, conducted by certification authorities (laboratories). This certificate is valid for two years from the date of issuance and serves as a ground for inclusion of the fuel and its manufacturer to the Register of Alternative Types of Fuel (you can see the current version of the register at **http://saee.gov.ua/bazi-danix**

Ukrainian energy laws do not directly refer to combined generation of heat and electric power (cogeneration) as alternative energy projects. However, economic efficiencies of cogeneration technologies and its potential to reduce environmental pollution and to use renewable sources of energy (biomass, dump potential, geothermal energy etc.) make cogeneration projects attractive for investors and might be supported by alternative energy preferences and exemptions.

How to get the *Green tariff*

The *Green tariff* legislation in Ukraine introduced in 2009 for the period up to 2030.

***Green tariff*, euro cents per kW:**

Wind – 6,46 – 11,3

Water (small hydro) – 7,75

Solar – 42,65 – 46,53

Biomass – 12,4

1 Feasibility study

If the power plant started to build in 2012 and put into operation until 2013, then at least 15% of the total cost should account for products or services of Ukrainian companies.

In 2013, this share must be at least 30%, and after 2013 - at least 50%. For solar power, there are additional requirements.

2 Registration of a legal entity, registration of land rights

You can bring in the charter, “the production and sale of electricity” as an activity of an existing legal entity, but it is better to make a new one.

3 Project documentation development

Engage a professional and experienced team with official licensed and checked the list of completed projects.

Remember: the project documentation will be submitted to regulatory authorities.

⚠ Paragraph 2 and 3 can be performed simultaneously

4 Grid connection agreement

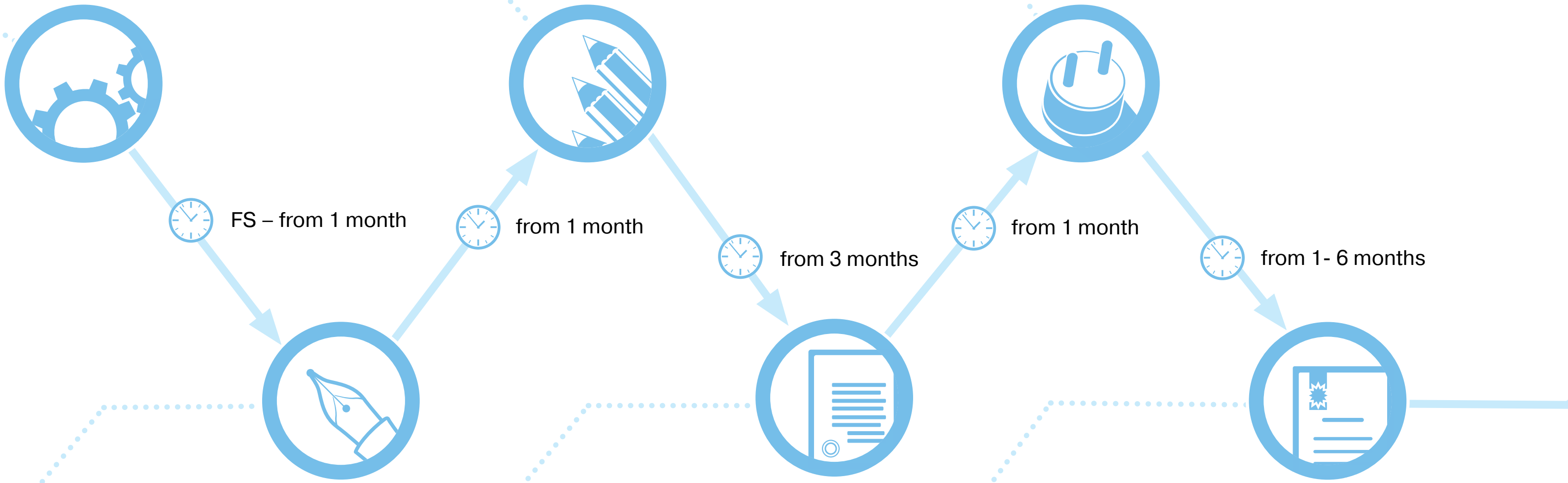
If the installation is designed for a voltage of less than 200 kV, contact the power companies. If the voltage is greater than 200 kV, your partner - Ukrenergo.

5 Grid connection

You will have to bear the infrastructure costs, the amount of which depends on the distance and the state power grid. “Ukrenergo” or power companies are obliged to reimburse these costs.

6 Certificate of the State Architectural and Construction Inspection (SACI) or declaration of readiness for operation

If the object is constructed, then you got to the stage of putting power into operation certificate of SACI or registered declaration of readiness for operation. In this case, skip this step.



7 Licensing

Submitting documents to NERC
(1 month, 18.72 UAH. per MW of installed capacity).

Registration rights of the feasibility study to the equipment or rights to use (rent) equipment (from 3 month, CAPEX per MW of installed capacity).

Equipment selection due to feasibility study.

SACI - State Architectural and Construction Inspection

NERC - The National Commission, perform state regulation in the energy sector of Ukraine

WEM - Wholesale electricity market

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Why it is efficient to invest in alternative energy in Ukraine?

Alternative energy projects may qualify for the following preferences and exemptions:

(i) Joint implementation projects (JI projects) – under JI projects, the investor may purchase emission reduction units called "ERUs" and sell these on the European or other markets.

(ii) *Green tariffs* – which apply on electricity produced from alternative sources of energy.

(iii) Tax and duty exemptions.

Please see below for a description of each of the preferences available for investment energy projects in Ukraine.

JI projects in Ukraine

In Ukraine, all JI projects must be completed in accordance with the Procedure of Development, Approval and Implementation of Projects Aimed at Reduction of Anthropogenic Emissions of Greenhouse Gases, which was approved by the decree of the Cabinet of Ministers of Ukraine dated 22 February 2006 No. 206 as amended (JI Projects Procedure). The JI Projects Procedure was drafted in accordance with the recommendations of the JI Supervisory Committee (JISC) – the UN-appointed body that oversees the JI process – and, in principle, provides a standard set of stages for JI project development. JI projects in Ukraine may be developed under national procedure (Track 1) or international procedure (Track 2). The State Environmental Investments Agency of Ukraine (SEIA) is the main Ukrainian governmental authority which is responsible for regulating JI projects (see www.neia.gov.ua). Ukraine is among the leading countries according to the amount of registered JI Projects in 2011, for both Track 1 and Track 2.

The stages of JI project development in Ukraine is as follows:

1. **Project idea note:** producing a project idea note detailing the reduction of anthropogenic emissions and filing it with the SEIA.

2. **Endorsement letter:** obtaining a letter of endorsement from SEIA. This typically takes up to one month.

3. **Project development documentation:** developing project development documentation (PDD) – usually this stage is done by a consultant.

4. **PDD independent determination:** determination of PDD by an accredited independent entity.

5. **Approval letter:** obtaining a letter of approval from SEIA. This typically takes up to one month.

6. **Registration of JI project:** registration of the JI Project by SEIA (for Track 1) or JISC (for Track 2).

7. **Registration of ERPA:** registration of an emissions reduction purchase agreement (ERPA) and opening a project holder account in the National Electronic Register by SEIA.

8. **Monitoring:** monitoring of emissions reduction.

9. **Validation:** validation of emissions reduction by an accredited independent entity.

10. **Registration of monitoring and validation:** registration of a monitoring report and a validation report by SEIA.

11. **Conversion into ERUs:** conversion of Assigned Amount Unit (AAUs) into ERUs and transfer of ERUs to the account of a project holder by SEIA.

12. **Transfer:** transfer of ERUs to a buyer.

Green tariffs

One of the efficient tools for promoting generation of alternative energy is the application of special tariffs for electricity produced from alternative energy sources. The *Green tariff* is higher than the standard tariff for electricity and is applicable to the sale of such electricity when it is:

(i) to the Wholesale Market for Electrical Energy in Ukraine (WMEEU) and WMEEU is obliged to purchase electricity under this tariff, or

(ii) to direct sales where the *Green tariff* is optional.

Green tariff should apply to electric power which is generated by companies that:

(i) hold licenses for generation of electric power or license on combined generation of electric and heat power, and

(ii) use alternative sources of energy (except for blast furnace and coke gas) such as solar, wind energy, energy from biomass, hydro energy (only for generated by small hydroelectric power stations, i.e., capacity of which does not exceed 10 MW).

Green tariffs do not apply to other types of alternative energy, e.g., to energy produced from biogas. However, there are several drafts of legislative amendments aimed for widening the scope of *Green tariffs* for energy produced from biogas. Therefore, energy such as biogas might be subject to *Green tariffs* in the future.

Green tariffs also do not apply to companies that generate electric power on stations with combined usage of alternative and traditional types of energy sources or traditional types of fuel.

The term of due of *Green tariffs* runs until 1 January 2030. The National Commission on State Regulation in Electric Power Industry (NCRE) approves *Green tariffs* for each company on energy produced from alternative sources of energy according to the special coefficients established by law and procedure stipulated by the Procedure of Establishment, Reconsideration and Termination of *Green tariff* for Subjects of Commercial Activity approved by NCRE Regulation dated 22 January 2009 No. 32, as amended (*Green tariff* Procedure).

The value of *Green tariff* is calculated as retail tariff for customers of second class of voltage multiplied on special coefficient that differentiates depending on the type of alternative energy, type of installation, its location and its maximum capacity.

The coefficient for electricity produced from alternative energy is:

(i) 1.2 – for electricity generated from installations with a capacity not exceeding 600 kW.

(ii) 1.4 – for electricity generated from installations with a capacity exceeding 600 kW but not exceeding 2000 kW.

(iii) 2.1 – for electricity generated from installations with a capacity exceeding 2000 kW.

(iv) 2.3 – for electricity generated from biomass.

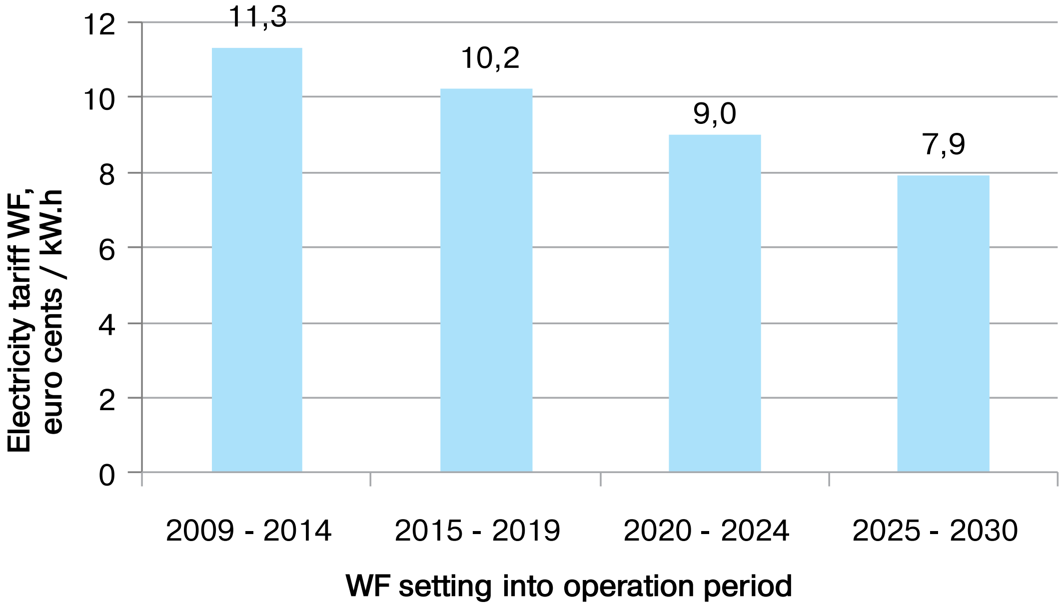
(v) 4.8 – for electricity generated from solar energy by ground based installations.

(vi) 4.6 – for electricity generated from solar energy by installations maintained on top of the buildings and constructions with a capacity exceeding 100 kW.

(vii) 4.4 – for electricity generated from solar energy by (a) installations maintained on top of the buildings and constructions with a capacity not exceeding 100 kW, or (b) installations maintained on the front of the building or constructions regardless of their maximum capacity.

(viii) 0.8 – for electricity generated from small hydroelectric power stations, i.e., with capacity not exceeding 10 MW.

The above mentioned coefficients for *Green tariff* for electric power stations that will be commissioned or substantially renovated after 2014, 2019 and 2024 will be respectively reduced by 10, 20 and 30 percent.



From 1 January 2012, the *Green tariff* may only be established for installations where at least 15 percent of the cost of the construction (e.g., cost of materials, capital funds, services and works) is retained in Ukraine. From 1 January 2013 this will change to not less than 30 percent, with further changes from 1 January 2014 to not less than 50 percent. In addition, laws stipulate additional requirement for solar energy. From 1 January 2013 the *Green tariff* may be established only for installations using solar modules, of which 30 percent of the cost of the construction must be attributable to the Ukraine. From 1 January 2014 this will change to not less than 50 percent.

Notably, before filing to NERC for approval of a *Green tariff*, a company should obtain a license for generation of electric power, a certificate that evidences compliance of constructed installation with technical requirements (standards) and a certificate that evidences percentage of Ukrainian materials, services, works or funds in the cost of the construction. Procedure of *Green tariff* approval is as follows:

(i) The company files a package of documents (as described in the *Green tariff* procedure) with NERC.

(ii) NERC considers the application and its supporting documents within 30 days.

(iii) NERC put the question of approval to the agenda of its meeting within 15 days with notification of the applicant.

(iv) NERC adopts decision about approval of the *Green tariff*.

Green tariff may be terminated if the company has not filed reports to NERC, they have provided NERC with incorrect information about activities, the electric power generation license was cancelled or the term of *Green tariff* has expired.*

Tax and duty exemptions applicable to alternative energy projects

Ukrainian legislation stipulates a number of preferences and exemptions that may apply to companies that develop alternative energy projects and differentiate between type of tax or customs duty, type of alternative energy and provided activity. Below is a short description of preferences and requirements for usage of such exemptions.

Tax exemptions:

A. Exemption from Corporate Profit Tax (CPT) which is 21 percent in 2012 (19 percent in 2013 and 16 percent from 2014):

(i) 80 percent of income obtained by companies from sale in Ukraine of own manufactured products under the list which is established by the Cabinet of Ministers (see Regulation of the Cabinet of Ministers of Ukraine dated 28 September 2011 No. 1005) as follows:

- Equipment that is used to work on renewable sources of energy.

- Materials, raw materials, equipment and spare parts that will be used in generation of energy from renewable sources of energy.

- Energy efficient equipment and materials and products that is used to provide for economy and efficient usage of fuel and energy resources.

- Means of measuring, controlling and managing energy and fuel expenses.

- Equipment for producing alternative types of fuel.

The sum of the exemption should be directed by the company for an increase of manufacturing amounts. If the company violates the provision about aim of exempted funds, they should pay the sum of tax and penalty.

(ii) 50 percent of income obtained by companies from energy efficient measures and energy efficient projects and included to the State Register of Companies That Develop, Implement and Use Energy Saving Measures and Projects (for Procedure of Inclusion to the State Register of Companies That Develop, Implement and Use Energy Saving Measures and Projects see Order of the National Agency on Efficiency Usage of Energy Resources dated 1 April 2008 No. 49).

Exemptions which stipulated in sections (i) and (ii) are due within five years from the date of obtaining income because of increase of manufacturing energy efficiency.

(iii) Income obtained by company-producers of biofuel from the sale of biofuel.

(iv) Income obtained by companies from joint generation of electric and heat power and/or generation of heat energy with the usage of biologic types of fuel.

(v) Income of company-producers of specific types of machinery, equipment that are specified in the Law of Ukraine On Alternative Types of Fuel for producing and redesigning of technical means and vehicles including farming vehicles and energy installations that consume biologic types of fuel, and which is obtained from sale of such machinery and equipment produced in Ukraine.

*For more information about *Green tariffs* and regulation of electric and heat power generation please see NERC official web page: www.nerc.gov.ua.

(vi) Income of companies obtained from extraction and utilization of gas (methane) of coke minefields according to the Law of Ukraine On Gas (Methane) of Coke Minefields.

Exemptions which are specified in sections (iii) – (vi) are in force until 1 January 2020.

(vii) Income of companies of electric power industry that generate electricity only from renewable sources of energy.

The exemption indicated in section (vii) is due within 10 years from 1 January 2011.

B. Exemption from Value Added Tax (VAT), which is 20 percent until 31 December 2013 and 17 percent after 1 January 2014, operates as follows:

(i) Import of equipment that works on renewable sources of energy, energy saving equipment and materials, means of measuring, control and management of energy and fuel expenses, equipment and materials for producing alternative types of fuel or for generation of energy from renewable sources of energy.

(ii) Import of equipment, spare parts and materials that are used for producing:

- Equipment that works on renewable sources of energy.

- Materials, raw materials, equipment and spare parts that will be used for producing alternative types of fuel or generation of energy from renewable sources of energy.

- Energy efficient equipment and materials, products usage of which provide for economy and efficient usage of fuel and energy resources.

- Means of measuring, control and management of energy and fuel expenses.

The exemptions specified in sections (i) and (ii) apply if such products are used by a company for its own production of products and similar products with the same characteristics are not produced in Ukraine. The list of such products is established by the Cabinet of Ministers of Ukraine and procedure for filing for these exemptions is regulated by the Regulation of the Cabinet of Ministers of Ukraine dated 14 May 2008 No. 444 as amended.

(iii) Sale of machinery and equipment indicated in the Law of Ukraine On Alternative Types of Fuel, e.g., machinery and equipment used for reconstruction of existing, or construction of new, enterprises on producing biofuel and equipment of machinery used for producing and reconstruction of machinery and vehicles consuming biofuel in the Ukraine.

(iv) Import of machinery and equipment customs codes of which are indicated in the Law of Ukraine On Alternative Types of Fuel and used for the reconstruction of existing or construction of new enterprises on producing biofuel and for producing and reconstruction of machinery and vehicles consuming biofuel if such goods are not produced in Ukraine and do not have analogues in Ukraine.

Exemptions indicated in sections (iii) and (iv) are in force until 1 January 2019. If the company wants to use these exemptions it should follow the Procedure of Import to the Customs Territory of Ukraine of Equipment, Machinery, Technical and Transport Vehicles That Are Used for Developing Of Production and Consumption of Biologic Types of Fuel approved by the Regulation of the Cabinet of Ministers of Ukraine on 18 May 2011 No. 581.*

*For more information about tax regulations please see official web page of State Tax Service of Ukraine – www.sta.gov.ua/control/en/index

C. Exemption from Customs Duty under such operations as:

(i) Import of equipment that works on renewable sources of energy, energy saving equipment and materials, means of measuring, control and management of energy and fuel expenses, equipment and materials for producing alternative types of fuel or for generation of energy from renewable sources of energy.

(ii) Import of equipment, spare parts and materials that are used for producing:

- Equipment that works on renewable sources of energy.

- Materials, raw materials, equipment and spare parts that will be used for producing alternative types of fuel or generation of energy from renewable sources of energy.

- Energy efficient equipment and materials, products usage of which provide for economy and efficient usage of fuel and energy resources.

- Means of measuring, control and management of energy and fuel expenses.

Exemptions indicated in sections (i) and (ii) apply if such products are used by a company for its own production where similar products with the same characteristics are not produced in Ukraine. The list of such products is established by the Cabinet of Ministers of Ukraine, procedure of filing for these exemptions is regulated by the Regulation of the Cabinet of Ministers of Ukraine dated 14 May 2008 No. 444 as amended.

(iii) Import of machinery or equipment which has customs codes indicated in the Law of Ukraine On Alternative Types of Fuel and is used for reconstruction of existing or construction of new enterprises on producing biofuel and for the production or reconstruction of machinery and vehicles consuming biofuel if such goods are not produced in Ukraine and do not have analogs in Ukraine.

(iv) Import of technical and transport vehicles, including agricultural vehicles that work on bio fuel and are classified under customs codes stipulated in the Law of Ukraine On Alternative Types of Fuel if such products are not produced in Ukraine.

Exemptions that are indicated in sections (iii) and (iv) are in force until 1 January 2019. If the company wants to use these exemptions it should follow the Procedure of Import to the Customs Territory of Ukraine of Equipment, Machinery, Technical and Transport Vehicles That Are Used for Developing Of Production and Consumption of Biologic Types of Fuel approved by the Regulation of the Cabinet of Ministers of Ukraine on 18 May 2011 No. 581.*

*For more information about customs provisions please see official web page of State Customs Service of Ukraine –www.customs.gov.ua/dmsu/control/en/index.

Notes

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