цілеспрямованого керування поведінкою, особливо соціальними змінами в суспільстві. До царини соціально правового розгляду належить також проблема правової політики, тобто питання планомірного регулювання суспільних процесів правовими засобами. У цьому розумінні Ежен Ерліх указував на право як на «важіль суспільного розвитку», засіб, який суспільство має в своєму розпорядженні для того, щоб «у межах своєї влади організовувати справи за своєю волею». Р. Паунд говорить про правову «соціальну інженерію», завданням якої є «задоволення, наскільки це можливо, сукупність людських потреб за найменших утрат». Таким чином, у цьому випадку правові норми більшою чи меншою мірою виглядають придатним знаряддям для здійснення певних цілей і для регулювання життя політичного суспільства відповідно до потреб, уявлень та ключових понять часу[2,74].

Чи є закон належним інструментом досягнення мети, поставленої перед ним – це залежить від багатьох факторів. До них належить уже обговорена вище ефективність правової вимоги, отже, її спрямовуюча поведінку сила, як у випадку, коли вона здійснюється добровільно, так і в разі правової дії. Далі належні вчинки повинні, згідно із законами природи, бути об'єднані для того, щоб привести до бажаного наслідку.

Отже між правом та соціальними реаліями існують взаємозв'язки. Це підкреслюють, коли правове суспільство подають у вигляді «соціально-кібернетичної системи». Як організовану структуру, частини якої координуються шляхом інформаційного обміну, показують нормативне керування суспільними відносинами, що виходить від правових інстанцій Поряд з цим має місце «автономне» управління, здійснюване через взаємодію, узгодження частин. З іншого боку, з суспільної сфери йде зворотній потік інформації (особливо вимоги, зумовлені інтересами) до регулятивних інстанцій. Функціонування соціальної системи не в остання чергу залежить від здатності та готовності інстанцій, яким належить право ухвалення рішень, прийняти цю інформацію й переробити її у своїх приписах. Ми можемо позначити це як навчальну та інноваційну здатність соціальної системи. Це передбачає готовність не лише збирати і переоцінювати минулий досвід, але й пізнавати змінені потреби сучасності і знаходити їх рішення.

У структурі соціальних норм, які регулюють поведінку людей, праву належить провідна роль. Інституційно гарантованим шляхом воно здійснює вибір альтернатив поведінки, які надає у розпорядження індивідів. При цьому вибирають ті альтернативи, які враховують потреби та ціннісні уявлення певного суспільства, поєднані з толерантністю, яка постає з його (суспільства) загальних структур. У підсумку дії людей скоординовані у цілісні структури поведінки.

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RENEWABLE ENERGY SOURCES CHALLENGES AND PROSPECTS: TRANSNATIONAL AND LOCAL ISSUES (CONSIDER THE EXAMPLE OF UKRAINE)

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Анотація. *У статі всебічно та повно охарактеризовано міжнародні та національні аспекти позитивних та негативних наслідків використання альтернативних джерел енергії. Зокрема, приділено значну увагу економіко-правовому стимулюванню використання таких джерел енергії – зеленому тарифу, пільговому оподаткуванню тощо. Охарактеризовано напрямки вдосконалення чинного законодавства у даній сфері.*

Ключові слова: *альтернативні джерела енергії, «зелений тариф», енергозбереження, біопаливо.*

In the conditions of exhaustion and depletion of natural resources one of the main global priorities should be in reduction of energy consumption and increasing of energy efficiency. According to experts, alternative energy in the world is developing very actively. Proof of this is the fact that the share of renewable energy sources account for more than half of new installed capacity in Europe and the United States. The investment in this sector in the world have made 162 billion dollars. Optimistic experts say that the global alternative energy industry by 2035 will invest about 5.7 trillion dollars, and the European Union in 2050 has completely switch to alternative energy sources.

The development of renewable energy sources is extremely important for Ukraine, because Ukraine is one of the major consumers of energy in the world.

Ukraine's traditional energy sector has been facing a major crisis due to a shortage of current assets. This is the result of the state's socially oriented tariff policy as cash-strapped utilities are unable to settle mounting bills with Russian gas supplier Gazprom. Ukraine currently pays about US$430 (EUR 322) per thousand cubic meters for Russian gas under a 10-year deal signed in 2009 by a preceding government. The present Kyiv government says the price is exorbitant, but it has so far failed to persuade Russia to bring it down. Now the situation is considerably complicated by military actions and geopolitical conflict with Russia.

Despite political instability and economical problems, Ukraine is pursuing the development of renewable energy in order to reduce dependence on gas supplies and economic pressures from Russia.Ukraine's energy consumption consists of about 40 percent natural gas, which is mostly imported from Russia. Renewable energy accounts for only about 2 percent of its energy capacity, with solar at 0.3 percent (130 MW) and wind at 0.2 percent (86 MW)[1].

However Ukraine's renewable energy portfolio promises to grow tenfold by 2020, with total investments amounting to €15 billion. Its main emphasis will be put towards the development of solar and biomass.

Current Ukrainian legislation divides renewable sources such as 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 and secondary energy resources: blast furnace and coke gas, gas (methane) of coal minefields and energy of exhaust power potential of technological processes.

Ukraine also intends develop its biomass market. According to the chairman of the Ukrainian Association of Bioenergy Mr. George Geletuha, Ukraine can replace the 3.5 billion cubic meters of gas with bioenergy by 2020."We would save a lot of money if we use biomass. According to the strategy of our association, we will replace 3.5 billion cubic meters by 2020 and 7.5 billion by 2030," said Geletuha.

Ukraine has significant biomass resources, including agricultural stalks, husks and seeds, etc., said Geletuha. Experts believe the development of bioenergy infrastructure may require about €3 billion, but the return on investment will be large."If we count what part of biomass can be taken to produce energy without harming the environment and which part is not used by other sectors, the average figure is 25-30 million tons of fuel per year, and Ukraine as a whole consumes 90 million tons of fuel per year," said Geletuha. "So we estimate that biomass has the potential to reach 18 percent of all energy consumption in Ukraine." [2]

However, government analysts say that these figures are unrealistic because creating infrastructure to extract energy from biomass will take about two to three years, delaying progress.

Background. In addition, the development of alternative energy that reduces greenhouse gas emissions, provide stability in the energy sector by reducing the consumption of traditional natural resources (gas, oil, coal, etc.) also means the additional energy resources of the state, the proper development of which undoubtedly will lead to positive results.

In 1981, Kenya hosted the UN Conference, which adopted the Nairobi Program of Action for the Development and Utilization of New and Renewable Sources of Energy as a blueprint for national and international action. Ten years later, a group of UN experts analyzed the situation in

the field and using a large number of materials around the world, gave an assessment of environmental effects of using different types of alternative energy sources. Global expert opinion suggests that the existing notion that renewable energy is completely environmentally friendly, is incorrect. Examination showed the need to analyze the interaction of renewable energy from the environment. This will not make mistakes committed in the design and operation of traditional power plants as were originally developed and implemented technology and then had their roots search for ways to reduce the adverse effects of their environmental impact. UN experts also pointed out the need to study the action of renewable facilities associated not only with output power, but also to the production equipment, including the extraction of raw materials for it. It is at this point, in many cases, you may experience the most significant adverse environmental impacts of renewable energy sources. Also, when assessing the environmental advantages and disadvantages of renewable energy sources must take into account their power plants, which depend on the degree of impact on the environment. Small power plants are almost ecologically safe and positive effect from their operation is much higher then possible for environmental damage.

The first session of the new Committee on New and Renewable Resources and Energy met in New York from 7–18 February 1994. The Secretary-General reported to the committee that in 1990 new and renewable energy sources accounted for 17.7% of the total energy consumption. The drop in oil prices during the 1980s had led to a decline in investment in renewable energy resources, but growing concern for the fragile state of the world's environment lent urgency to efforts to find alternatives to burning fossil fuels and wood, which were contributing to the threat of global warning.

At its first session, the committee noted that the Nairobi Program had led to progress in the application of large-scale technologies, such as hydropower and geothermal energy, and had helped bring to maturity solar energy and wind technologies. However, the overall impact of these new technologies remained insignificant. The committee identified four domains for action by member states: more efficient use of energy and energy-intensive material; increased use of renewable sources of energy; more efficient production and use of fossil fuels; and fuel substitution from high carbon to low carbon-based fuels. It also called for integrated national action programs for developing energy systems; for removing subsidies on conventional sources of energy; establishing support for new, environmentally sound technologies; and finding ways to use wasted energy, such as waste heat from industrial processes. Its report to ECOSOC also recommended the establishment of regional "centers of excellence" to provide training, technology support, and resource data[3].

Now it goes without saying the development of a harmonized subregional policy framework for new and renewable energy is an important step towards the realization of the goal of subregional integration and the harmonization of national policies and strategies in all sectors.

European Union legislation and integration.

In 1997, the European Union started working towards a target of a 12% share of renewable energy in gross inland consumption by 2010[4] representing a doubling of the contribution from renewable energies compared with 1997. Since then, renewable energies have increased their contribution by 55% in absolute energy terms[4]. There are a few basic legislative acts adopted in the EU in order to regulate the development of renewable sources of energy:

Directive 2009/28/EC of the European Parliament and of the Council of 23 April 2009 on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC. This Directive establishes a common framework for the use of energy from renewable sources in order to limit greenhouse gas emissions and to promote cleaner transport. To this end, national action plans are defined, as are procedures for the use of biofuels. Each Member State has a target calculated according to the share of energy from renewable sources in I ts gross final consumption for 2020. This target is in line with the overall '20-20-20' goal for the Community. Moreover, the share of energy from

renewable sources in the transport sector must amount to at least 10 % of final energy consumption in the sector by 2020.

Report from the Commission of 25 February 2010 to the Council and the European Parliament on sustainability requirements for the use of solid and gaseous biomass sources in electricity, heating and cooling. This Report is accompanied by an impact assessment and a summary of the impact assessment sets out the results of the assessment carried out by the Commission on the requirements for a sustainability scheme for energy uses of biomass other than biofuels and bioliquids (i.e. solid and gaseous fuels in electricity, heating and cooling). In its analysis of requirements for extending the EU sustainability scheme of solid and gaseous biomass in electricity, heating and cooling, the Commission has considered three principles which a European-wide policy on biomass sustainability has to meet: effectiveness in dealing with problems of sustainable biomass use; cost-efficiency in meeting the objectives; consistency with existing policies.Based on this analysis, the Report concludes that at this stage it is not necessary to establish a binding and harmonised European scheme in this area. The existing measures are sufficient for ensuring that solid and gaseous biomass consumed at EU level in the electricity heating and cooling sectors is sustainable. However, the Commission makes recommendations related to sustainability and strongly encourages Member States to take them into account in order to ensure consistency between existing or future national sustainability schemes. The recommendations are mainly based on the sustainability scheme included in Directive 2009/28/EC on biofuels and bioliquids[5].

Renewable Energy Road Map Renewable energies in the 21st century: building a more sustainable future (2007) The EU has compelling reasons for setting up an enabling framework to promote renewables. They are largely indigenous, they do not rely on uncertain projections on the future availability of fuels, and their predominantly decentralised nature makes our societies less vulnerable. It is thus undisputed that renewable energies constitute a key element of a sustainable future.The European Council of March 2006[1] called for EU leadership on renewable energies and asked the Commission to produce an analysis on how further to promote renewable energies over the long term, for example by raising their share of gross inland consumption to 15% by 2015. The European Parliament has by an overwhelming majority called for a 25 % target for renewable energies in the EU's overall energy consumption by 2020.

National renewable energy action plans. The Member States are to establish national action plans which set the share of energy from renewable sources consumed in transport, as well as in the production of electricity and heating, for 2020. These action plans must take into account the effects of other energy efficiency measures on final energy consumption (the higher the reduction in energy consumption, the less energy from renewable sources will be required to meet the target). These plans will also establish procedures for the reform of planning and pricing schemes and access to electricity networks, promoting energy from renewable sources.

In general, Green Book of the European Commission "European Security Strategy power "(November 20, 1996) and the White Paper of the European Commission "Strategy and Action Plan of the European Union. Energy for the future: renewable energy "(June 8, 1998) began the process of and further implementation of the European strategy and action plan on the development of renewable energy sources (RES) and alternative fuels. These documents were, in particular, the task for to achieve in 2010 the share of renewable energy in total electricity consumption of 12%.

Subsequently, the governing bodies of the EU adopted a series of documents, adjusting and refine this strategy, among which:

Directive of September 27, 2001 2001/77 / EC of the European Parliament and of the Council on the establishment of favorable conditions the sale of electricity, produced from renewable energy sources in the internal market electricity;

Directive of May 8, 2003 2003/30 / EC of the European Parliament and Council to promote the use of biological and other fuels renewable resources;

Directive of 23 April 2009 2009/28 / EC of the European Parliament and the Council on the promotion of the use of energy produced from renewable sources (already mentioned)etc..

In 2007 the European Council reaffirmed the commitment of the EU to develop production of energy from renewable sources throughout the EU after 2010 and reach the 2020 20-percent share of energy produced from renewable sources in the total energy consumption. Directive2009/28 / EC has identified this figure, along with the use of 10% this type of energy in transport as binding national targets.

According to the Protocol of Accession of Ukraine to the establishing the Energy Community Treaty, ratified by Ukraine on December 15, 2010, Directive 2001/77 / EC and 2003/30 / EC should be implemented in Ukraine.

On 17 October 2012, the European Commission published a proposal to limit global land conversion for biofuel production, and raise the climate benefits of biofuels used in the EU. The use of food-based biofuels to meet the 10% renewable energy target of the Renewable Energy Directive will be limited to 5%. It's stated in a few documents: Proposal for a Directive amending Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EC and amending Directive 2009/28/EC on the promotion of the use of energy from renewable sources,] Impact Assessment, Executive summary of the impact assessment.

Ukraine's experience. For the first time in Ukraine the legal definition of alternative and renewable energy sources was given the in the Law of Ukraine "On Energy Saving" on July 1, 1994. It was defined as the constant or intermittent energy in the environment as a flow of solar, wind, geothermal energy, the energy of the seas, oceans and biomass. The law defined the legal regulations that apply to businesses and individuals who are working on the construction and reconstruction of objects of renewable energy. This law provides for the granting of tax incentives to enterprises – manufacturers of energy saving equipment, machinery and materials, methods of measurement, monitoring and power management and companies that use equipment that runs on alternative and renewable energy sources. Even then, at the beginning of the formation of Ukrainian statehood, the legislature understood and felt the overwhelming importance of this issue by providing a favorable economic regime to develop the use of alternative energy sources.

But Ukrainian legislation in this sphere is rather young and imperfect.

Ukraine, according to the Energy Strategy of Ukraine till 2030, approved of 15 of March, 2006, embarked on the development of alternative energy, and therefore adopted the Law of Ukraine «About Alternative Energy Sources», «On alternative types of fuel», «On electricity», «On energy saving», «On combined generation of heat and electricity (co-generation) and use of waste energy potential» and other legal documents.

Other long-term legislation is represented by following legislative acts: Program of construction of wind power plants[6]; Energy Saving Program[7]; Programs for Support of Development of Small Hydro and Thermal Energy[8]; National Energy Program[9]. All the requirements of these laws are implemented by the state bodies of power in the field of alternative energy : Cabinet of Ministers of Ukraine (CMU); Ministry of Fuel and Energy of Ukraine (MFE); National Electricity Regulatory Commission of Ukraine (NERC); National Agency for Energy Efficiency (NAEE); State Inspectorate on Power Plant and Network Operation (SIPPNO).

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.

State environmental policy in this sphere includes of organizational and support activities in the field of alternative energy sources such as :

1) identification of sources and financing of alternative energy sources;

2) permitting activity for enterprises of electric networks (power distribution companies) in accordance with legislation for the agreed technical specifications for connection of objects of all types of ownership, producing energy from alternative sources, the unified energy system of Ukraine;

3) the creation of statistical databases on alternative energy resources;

4) conformity assessment of the energy generating facilities as alternative energy objects$

5) alternative energy expected to meet 20% of total energy demand by 2020;

6) introduction of Green tariffs (one of the highest in Europe) in 2008;

7) tax exemptions for: enterprises generating electricity from renewable energy sources, biofuel producers and coal bed methane extractors (until 2020), the sale of energy-saving equipment of own production (on 80% of the income), the implementation of energy-saving projects (on 50% of the income);

Incentive Mechanisms existing today for development of alternative energy sources are **:** setting "green" (feed-in) tariff for electricity generated from alternative energy sources, legal obligation of the state to buy the whole volume of electricity generated from alternative energy sources, formation of the state energy saving fund, tax and customs benefits, beneficial crediting, state subsidies. It is worth to pay attention the most important characteristic of them[10].

The concept of green tariff in Ukraine appeared in October 1997. At this time the President of Ukraine was signed Law "On Electric Power Industry". However, practical steps in this direction was made only in 2009 when the Parliament adopted amendments to the laws "On Electricity" and "On alternative sources of energy." In this legislation the first time was prescribed the green tariff mechanism. Green Tariff Regulatory Framework:

• New Green Tariff Law (amendments to the Electricity Law) came in force in 2012

• Special feed-in (green) tariffs were established for wind, solar, biomass, biogas, small hydro (<10 MW) and geothermal power plants

• Green tariffs are fixed until 2030 with guaranteed electricity off-take by the Wholesale Electricity Market Operator (under existing "single buyer" market model)

• Green tariffs are revised on a monthly basis to follow changes in UAH/EUR currency exchange rate (with guaranteed "minimum floor" set in EUR)

• Green tariffs are applied to new construction projects as well as renewable power plants operated before approval of the Law (except for large hydro power plants)

• Green tariff system was tested in real life – National Electricity Regulatory Commission approved green tariffs for many renewable energy producers, including wind, solar, and small hydro plants with total installed capacity exceeding 900 MW

• Reduction of green tariffs by 10%, 20% and 30% for RES plants commissioned after 2014, 2019 and 2024 respectively

• Local content requirement – 30% starting July 2013 and 50% starting July 2014 (for solar, wind and small hydro projects) with additional conditionality ("fixed shares")

• PPA is signed and green tariff is approved after the renewable power plant has been commissioned.

Green Tariff is set until 1 January 2030 and decreases as follows: from 2014 – for 10%, from 2019 – for 20%, and from 2024 – for 30%.

Green Tariff applies if the local content rules are met, namely: from January 2012 – 15%, from January 2013 – 30%, from January 2014 – 50%.

Additional local content requirement for solar is: from January 2013 – 30% in the solar modules production, from January 2014 – 50% in the solar modules production[11].

Some optimism in terms of prospects causes by the new energy strategy, which was approved by the government in early 2006. This strategic document envisages increased use of

alternative energy sources by 2030 to 40.4 Mtoe (tonnes of oil equivalent). The highest growth is expected in the use of solar energy and wind power. In 2030, the total capacity of power plants producing electricity from alternative energy sources (excluding biofuels and small hydro) should increase to 2.1 GW.

State Program for Energy Conservation and Energy Efficiency determines that by 2015 the share of "green" energy in the overall energy balance of the country will be at least 10%, and by 2030 this figure will reach 30%.

How realistic is this figure, time will tell. But now, many experts believe that relying only on the green tariff can not solve this problem.In addition to "green" tariff for the development of Ukrainian market of alternative energy also billions of dollars of investment are required .

Land preferences. The land tax for land plots used for the production of electricity from alternative energy sources is reduced – only 25% of the applicable land tax is payable. The annual lease payments for communal or state land if it is leased for production of electricity from alternative energy sources may not exceed 3% of the normative value of the leased land.

They are marked in legislation as follows:

1) Direct purchase of state and communal land for energy production purposes (no auction applicable);
2) Direct securing of other rights (lease, easement, superficies) for energy production purposes (no auction applicable);
3) Land for energy facilities may be withdrawn/bought out from the owners via courts;
4) Agricultural land, sale of which is currently prohibited, may be purchased for energy production purposes within the procedure for buyout of land for social needs;
5) Land necessary for the infrastructure of the power plant may be secured without changing the land designation / land category.

VAT and Customs Duty. No customs duties and VAT on equipments imported for renewable energy production. Exemption Import of equipment that runs with non-conventional or renewable energy, equipment and materials for energy saving, equipment and materials for manufacturing alternative energy sources, if the production is used for its own manufacturing purposes and no other similar products are produced in Ukraine are exempted from VAT and customs duties; The exemption is also applicable to equipment that produces the abovementioned production; The list of the exempted units is approved by the Cabinet of Ministers.

Grid Access and Mandatory Power Purchase. The producers of electricity from alternative energy sources have the statutory right to request the grid connection. Ukraine guarantees the purchase of all the energy produced from alternative energy sources.

Integration into the European Energy Community.

The strategy of cooperation between Ukraine and the European Union in energy field is outlined in the Memorandum of Understanding on Co-operation in the field of Energy between Ukraine and the European Union (Memorandum), concluded on 1 December, 2005. The Memorandum envisages implementation of 5 road maps: nuclear safety; integration of electricity and gas markets; enhancing security of energy supplies and transit of hydrocarbons; structural reform, enhancing safety and environmental standards in the coal sector; energy efficiency.

On 21 September, 2012 Ukraine and the European Investment Bank signed an agreement for a loan of 200 million euros for the project "Rehabilitation of hydropower." Hydropower Rehabilitation Project will provide an opportunity to ensure reliable operation 22-'s waterworks PJSC "UHE", located on the Dnieper, to increase hydropower capacity to 100 MW with simultaneous improvement of their environmental and technical safety and best use water resources.In October 2013 Minister for Energy and Coal Industry of Ukraine Eduard Stavytskyi signed the Declaration of intentions with the European Investment Bank on financing hydropower projects in Ukraine[12].

Decisions on a new European climate and energy policy for 2030 are relegated to autumn as heads of state are caught up in the Ukraine crisis. At their spring summit in Brussels, EU leaders gave centre stage to energy dependence. First climate change, then competitiveness, now security of supply: the shifting priorities of member states show that a holistic vision and policy for climate and energy is there on paper but not in practice.

Now consider the introduction of specific features of stimulating the development of certain types of alternative energy sources

Now consider the introduction of specific features of stimulating the development of certain types of alternative energy sources.

Wind energy. The successful development of the Ukrainian wind energy sector continued into 2013. According to a survey by the Ukrainian Wind Energy Association, 95.3MW of new wind energy capacity were commissioned between 1 January and 31 December 2013. As a result, the power capacity of the Ukrainian wind energy sector totalled 371.2MW. If we compare this with total installed power capacity in 2012, the total power capacity of wind farms increased by 56%. The Ukrainian legislation provides incentives for the development of wind energy projects in Ukraine. These include the following tax incentives under the Tax Code of Ukraine: exemption from import VAT and customs duties; decrease of land tax for renewable energy power plants by 75%; a limit on the annual rental payments for lands leased from the state and municipal authorities of 3% (instead of 12%) of appraisal value; an exemption from corporate profit tax until 2021 for those companies whose main activity in the energy sphere is to produce electricity only from renewable sources.

Legislation also provides other incentives such as: the possibility of using joint implementation under the post-Kyoto Protocol mechanism for wind energy projects; a feed-in tariff scheme or 'green' tariff (GT) .

However, at the moment the only real incentive for wind energy projects in Ukraine is GT. The effective feed-in tariff or GT scheme of support for wind energy in Ukraine entered into force on 22 April 2009. According to Article 17-1 of the Ukrainian Power Industry Law of the 16 October 1997 (the 'Power Industry Law'), a GT is approved by the National Energy Regulatory Commission of Ukraine (the NERC) for electricity produced by business entities at power stations using, in particular, wind energy. GT rates are established for each business entity and each power plant operated.

Solar Energy. Ukraine has one of the highest in Europe, "green" tariffs for solar power – 7,35 UAH per kilowatt. For comparison, the population pays for electricity at a uniform rate – less than 30 cents, other consumers pay within 1 USD per kilowatt. Therefore, businesses sell electricity to the state is very expensive, and the government provides its people much cheaper, thus subsidizing solar business.

Biofuel. The Directive of 23 April 2009 2009/28 / EC of the European Parliament and the Council on the promotion of the use of energy produced from renewable sources takes into account energy from biofuels and bioliquids. The latter should contribute to a reduction of at least 35 % of greenhouse gas emissions in order to be taken into account. From 1 January 2017, their share in emissions savings should be increased to 50 %. Biofuels and bioliquids are produced using raw materials coming from outside or within the Community. Biofuels and bioliquids should not be produced using raw materials from land with high biodiversity value or with high carbon stock. To benefit from financial support, they must be qualified as "sustainable" in accordance with the criteria of this Directive.

More than two-thirds of Ukraine's total estimated renewable potential thanks to its traditional focus on agriculture. The country currently produces less than 0.5% of its energy from biomass; however, it is estimated it could produce more than 10 times its current level of output. That's why one of the most developed alternative sources in Ukraine is biofuel. It is alleged in the Law of Ukraine "On the development of production and consumption of biofuels" of the 24 of May, 2012. The oilseed rape and biofuel plants of II generation can be used as biomass for thermal power plants; biomass that produce electricity for the "green" tariff; using the energy of

willow chips as a fuel for solid fuel boilers that produce energy for budget organizations, social facilities, and facilities for the centralized heating in small cities of Ukraine.

Biological fuels (biofuels) are fuels made entirely from renewable biological raw materials – products and waste products of agriculture and industry, which can be used directly as a fuel in its pure form, as a component for production of other fuels or for blending with conventional fuels in the proportions set out in accordance with state standards (Law of Ukraine "On the development of production and consumption of biofuels" of the 24 of May 2012).

Oilseed rape is currently form the main biofuel plant by formulating tasks in the creation of zones of concentrated cultivation of oilseed rape based on modern technology (Cabinet of Ministers of Ukraine Degree "On Approval of the Concept of the State Scientific and Technical Programmer production and use of biofuels," February 12, 2009 № 276-r). Same time production and using of second generation of biofuel plants have not yet been received the proper regulation in Ukraine.

In view of the existing legislation in the field of alternative and renewable energy sources in Ukraine can be divided into two main segments, which can be used biofuel plants of the second generation: biomass for thermal power plants; biomass that produce electricity for the "green" tariff; using the energy of willow chips as a fuel for solid fuel boilers that produce energy for budget organizations, social facilities, and facilities for the centralized heating in small cities of Ukraine.

Legislation in Ukraine does not specify the requirements for environmental safety of plant crops which are grown as a raw material for biofuels. Biofuels are not entirely environmentally friendly, but, compared with the oil, it is cleaner and biodegradable, causing less damage to the environment.

Growing of biofuel plants on the large areas of land may create the loss of biodiversity in agricultural landscapes, but biofuels can reduce emissions of carbon dioxide into the atmosphere, which is very important to prevent climate change.

The development of alternative energy sources has both certain advantages and disadvantages: large potential of renewable resources, minimal or zero emissions of greenhouse gases to atmosphere, inexhaustible stock (in most cases), growth of energy infrastructure and development of technologies from one side and high cost of technologies and construction**,** constraining factors: planning of energy infrastructure, remoteness from networks, possible legal obstacles on the local level and other from the other side.

Conclusions and prospects. However, it should be recognized that the use of alternative energy sources in Ukraine is at an early stage of development. This is caused by a number of barriers and obstacles in the field of alternative energy, including technological barriers, which are based on inefficient and outdated technology generation, transformation, transmission, distribution and using of energy, and administrative barriers to energy conservation.

Current control measures should include the development of national, regional and local management programs in the field of alternative energy and tax incentives for the production of energy from alternative sources.

In addition, scientific sources settle the ideas of improving the alternative energy regulation: 1. develop and adopt appropriate legislation;

2. to promote sustainable domestic and foreign investment in a new segment of the national economy at the state level;

3. to prepare and to adopt the regulatory technical documentation, certification and standardization of biofuels;

4. promotion of biofuel's release to the domestic and foreign markets;

5. creating the conditions for scientific capacity on the production and use of biofuels and others.

To be concrete it's useful to improve the regulatory framework for alternative and renewable energy doing the following proposes the clarification in the legislation of Ukraine:

In the Law of Ukraine «About Alternative Energy Sources»

Chapter 1: General Provisions

Article 1 Definitions.

... Alternative energy sources – renewable energy sources, which include solar, wind, geothermal, wave and tidal, hydropower, biomass, landfill gas, sewage gas treatment plants, biogas and non-renewable and secondary energy resources degassing of coal bed methane gas mine fields, operating and closed mines, blast furnace gas and coke and waste energy potential transformation processes.

In the law of Ukraine "On gas (methane) of coal deposits":

Article 1 Definitions:

- Extraction of methane from coal deposits – economic activity, which includes a set of organizational, technical and technological measures designed to remove free and adsorbed methane gas from coal seams and gas-bearing host rocks within coal deposits and mine fields, if such removal is not connected with or ahead of the current degassing operating mines and mines under construction for industrial and environmental safety of coal and methane gas removed is intended for future use as a material and / or energy resource or for sale as commodity products;

- Economic activity of recycling and the use of coal bed methane gas – heat, mechanical, electrical and / or other forms of energy; using methane as the main raw material technology and / or its sales as commodity products;

- Degassing coal fields – economic activity, including the complex organizational, technical and technological measures designed to extract methane gas from coal deposits, mine fields, building, operating and closed mines for industrial and environmental safety of coal mining.

The Tax Code of Ukraine:

- Section XI fee for subsoil use. Article 263, p. 263.2.3:

By the object of taxation shall be not included:

g) absorbed gas coalbed methane, removed in the process of anticipating and current degassing coal mines to ensure environmental safety and industrial coal, mine fields, prepared for use and closed mines, regardless of the future use of extracted gas.

- Article 263, p.263.9.1:

Remove coalbed methane gas from the list of "natural gas".

Some improvement of existing legislation took place in recent years. For example, November 20, 2012 the Verkhovna Rada of Ukraine adopted the Law "On Amending the Law of Ukraine" On Electricity "on stimulation the production of electricity from alternative energy sources. This Law provides a number of significant changes in the stimulation of the production of electricity from alternative energy sources. According to the law become less attractive investment in solar energy; at the same time opening up new prospects for the production of electricity from biogas and for hydropower.

For still relatively new area of alternative fuels and energy changes in the legislation is a positive development, however, to bring it in line with international obligations of Ukraine, in particular with EU Directive 2009/28 / EC on 29.04.2009, the need to overcome many bar 'interiors. According to law number the Law "On Amending the Law of Ukraine" On Electricity " state guarantees invariance investor incentives by "freezing" at registration by the government electricity rates for companies that produce raw materials and components for renewable energy (registered as innovative production). Significantly underestimated coefficients green tariff for electricity from biogas, municipal solid waste, solar energy; narrowing the definition of biomass; clearly defined list of items "local content" in a high percentage of staff in house electricity – enough critical market experts perceived as obstacles to its development

The European Union and the United States urge Ukraine to revise the draft of the updated strategy for the period up to 2030, since paper is unrealistic projections of the national economy, not coherent with other legislation, and does not account for all international commitments. In particular, the strategy should include increasing the share of renewables in the energy to 12% by

2020 (the project enerhostratehiyi – less than 2% in 2030), because an agreement can be approved by the members of the Energy Community in the near future.

On reforming the legislative framework in the field of alternative energy, it is also necessary to more clearly define the mechanisms and user preferences to companies working in the alternative energy market of Ukraine. Existing legislation that regulates alternative energy market, needs refinement in the creation of appropriate guidelines and mechanisms to encourage energy companies working on alternative energy sources. Existing mechanisms that provide state preferences require simplification to ensure transparency of the market and reduce the bureaucracy procedures for obtaining them.

Required:

- To simplify the registration process of energy companies working on alternative energy sources, in a special public register, whereby the company may receive benefits in the form of exemption from income tax;
- Form a register of imported products for the alternative energy produced outside of Ukraine and subject to benefit as import duty;
- Determine the procedure to reach agreements with power companies, which are privately owned, in relation connecting producers of energy from alternative sources to the grid;
- Regulate the reimbursement of energy companies that run on alternative sources for connection to a common network.

It's also necessary to provide the priority access to preferential loans for companies producing equipment that produces energy from renewable sources and of energy companies working on alternative energy sources. Today the benefits for the recipient of credit for development of alternative energy available and are too high, which is not conducive to the development of Ukrainian alternative energy.

In the current terms of military actions the irreparable damage to the environment has already caused, which can not currently even be evaluated by experts because they do not have access to the affected resources on the East of Ukraine and in Crimea which was called a part of Russian federation. Considerable part facilities for the production of solar and wind power was concentrated in Crimea. The world community and EU is very concerned about recent developments in Ukraine and urges all actors to seek through an inclusive dialogue a democratic solution to the current political crisis that would meet the aspirations of the Ukrainian people.

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