



NEWSLETTER

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ENERGY AND BIOMASS

CONTENT



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Guvernul Republicii
Moldova



Empowered lives.
Resilient nations.

12 successful projects were awarded at the Moldova Eco Energetica Award Ceremony



For 7 consecutive years the winners of the Moldova Eco Energetica contest were awarded for best ideas, technologies and eco responsible initiatives. 35 projects were enrolled in the Moldova Eco Energetica competition, among them: wind farms, kindergartens, equipped with the most modern technologies of green energy and energy efficiency, private households with zero energy consumption etc.

"Since 2011 Moldova Eco Energetica is the most significant instrument of changing the energy consumption pattern: focused on energy efficiency, renewables and sustainable development of our society. For the

Government of the Republic of Moldova, this engagement becomes a national priority for the Agenda 2020. The impressive results achieved so far are a result of fruitful cooperation with our development partners but also local entrepreneurs. I am happy to be here to award the champions of green energy which help us to promote the eco-friendly technologies by their enthusiasm and own example", said Vitalie Iurcu, State Secretary at the Ministry of Economy and Infrastructure.

12 finalists – individuals, businesses, public institutions, NGOs have been nominated as winners of the 2017 edition:

ECO-RESPONSIBLE STORIES	
The Best Photovoltaic & Geothermal Energy Project	Gheorghe Cimbir , Chişinău
The Best Wind Project	Irarom – Grup SRL
The Best Combined Project	Kindergarten "Povestea" , Nisporeni
The Best Bioenergy Project	Kindergarten, Şestaci village , Şoldăneşti
The Best Energy Efficiency Project in Buildings sector	Association of co-owners in condominium ACC51/417
The Best Energy Efficiency Project in Public sector	Kindergarten "Doremici" , Călăraşi district
The Best Youth Initiative	Nicoleta Beţivu, Valeria Grosul, Nicolae Spănu, Chişcăreni village , Sângerei distr.
The Best Educational Initiative	School Nicoreni village , Drochia district
The Best Communications Initiative	Termoelectrica SA
ECO-RESPONSIBLE TECHNOLOGIES	Orange Moldova
ECO-RESPONSIBLE IDEAS	Gheorghe Olaru, Chişinău
PUBLIC VOTE	Nicoleta Beţivu, Valeria Grosul, Nicolae Spănu, Chişcăreni village , Sângerei distr.

"The EU provides support to the Energy sector in the Republic of Moldova in order to increase the level of Energy security of the country and at the same time offer cleaner and cheaper energy for the Moldovan citizens. The work we are doing together in the Energy sector has already delivered visible and tangible benefits to the lives of Moldovan citizens, for example in providing affordable renewable heating to kindergar-

tens and schools", stated Anel Singh, Head of Cooperation within European Union Delegation.

The applications were reviewed in three stages: Panel assessment, Field visits and Coordination Council decision.

"The Moldova Eco-Energetica Competition is an excellent platform to share and acknowledge the best





achievements in advancing renewable energy projects and initiatives in the country. I am honored to award two great initiatives today, developed and advanced by some very bright and talented young people. I am deeply impressed by your knowledge of and passion for green energy, which also makes you responsible citizens of this country and our planet", said Stefan Liller, UNDP Deputy Resident Representative.

The award ceremony of the best eco ideas, technologies and stories is the culmination of the Moldova Eco-Energetica Days held from 6 to 8 December. During these days, independent experts from Moldova and abroad, government authorities, academics, representatives of business sector discussed about current renewables and energy efficiency promotion, presented new eco initiatives ideas and investments in Moldovan energy sector development, and designed

plans for the upcoming years. Also an exhibition of the most modern energy efficient technologies and manufactures from Moldova were presented.

Moldova Eco-Energetica Days are organized by the Ministry of Economy and Infrastructure, Agency for Energy Efficiency, and the Moldova Energy and Biomass Project, funded by the European Union and implemented by the United Nations Development Programme.

The partners of the Moldova Eco-Energetica 2017 are the Energy Efficiency Fund, the Moldovan Businessmen Association, Moldova Investment and Export Promotion Organization, United Nations Industrial Development Organization and the Start Up "Energy Transition".

More information is available on www.mee.md





The European Union brings green energy to children from Lastarel kindergarten, Falesti town



Winter means warmth and comfort for 140 children from Falesti town, as their kindergarten benefits from hot water generated by solar panels and heating from biomass energy thanks to the European Union's investments.

The heating season runs smoothly, considering that with the help of the community and support of the Moldova Energy and Biomass Project, the old coal based heating system was replaced with a new biomass one, that produces local and clean energy. Moldova Energy and Biomass Project is financed by the European Union and implemented by the United Nations Development Programme (UNDP).

"We did not have enough money to heat the kindergarten all day long and we ran the old system for only half a day. The difference in temperature was

perceptible since only early morning, when the walls got heated. Now, we do it the right way: heat the entire building 24/24. Moreover, the fact that we are using clean energy, produced locally, contributes to the sector's development and so the prices would become more competitive", said the director of kindergarten, Lilia Navrotchi.

Lastarel is the first of six kindergartens in Falesti that switched from fossil to clean energy. Solar panels that replaced the two electric boilers were installed. The system adjusts automatically the water temperature to avoid overheating in hot days or bacteria's development when the water temperature in the reservoir is low.

"I am happy for the children and the staff. It is much more comfortable since solar panel's installation; we



always have hot water and we do not need to wait for it to heat. Before, only two classrooms had hot water from the electric boilers, and the other three classrooms had to wait for the water to get warm before washing their hands. It is easier for the cooks, too; they do not have to heat water to wash dishes anymore and it saves their time and also money", noted Elena Prodan, educator at the institution.

The operator of the boilers room, Dumitru Munteanu, confirms the efficiency and easiness of the new heating system. He says it is easy to load the biofuel and to clean the boiler, but most important, it is clean. "The old system was inside the building, which was very disturbing because of the coal dust and smell, but now the boilers room is outside the institution. It is equipped with all necessary devices and it is easy to work", noted Dumitru Munteanu.

The installation of the biomass heating system and solar panels was funded by the Energy and Biomass Project, which allocated EUR 65,667 from European funds, while the local administration contributed with MDL 307,000, and parents with MDL 12,000. The heating system has a capacity of about 200 KW and heats over 1,300 square meters.

The kindergarten from Falesti town is one of the 207 public institutions which has access to green energy thanks to the European Union investments through the Moldova Energy and Biomass Project.

Moldova Energy and Biomass Project, phase II, is a three-year project implemented during 2015–2017. The total budget of the Project is 9.41 million Euro funded by the European Union and is implemented by the United Nations Development Programme. It is a continuation of Project's Phase I implemented in 2011–2014, with a total budget of 14.56 million Euro, funded by the European Union (14 million Euro) and UNDP (560,000 Euro). The national partner of the Energy and Biomass Project is the Ministry of Economy and Infrastructure.

You can find more information about the Energy and Biomass Project on www.biomasa.md and Facebook [Energie din Biomasa](#).

Photo gallery can be downloaded [here](#).

Biofuel producers test their products in an accredited laboratory, thanks to European Union support



Pellet and briquette producers from the Republic of Moldova are accessing new markets due to the quality certificates issued by the only accredited laboratory in the country, that tests physical and chemical parameters of the biofuel.

The Solid Biofuel Laboratory of the Agrarian University was accredited one year ago thanks to the modern equipment in value of 100,000 EUR received from the European Union, in the framework of the Moldova Energy and Biomass Project. The laboratory provides tests of high and low calorific value, humidity content, ash and volatile materials, density, mechanical resistance and chemical content.

"The quality of biofuel is a key condition for the further development of a successful biomass energy market in

Moldova. The EU-funded Moldova Energy and Biomass project has put in place all the conditions to ensure that high quality biofuel is available in the Republic of Moldova", stated Alexandre Darras, Attaché, Project manager, European Union Delegation to the Republic of Moldova.

Producers have the possibility to test biofuel parameters and compete not only for price, but also for quality. At the same time, public authorities also demand the results of quality tests in public bidding to be sure of the quality of the purchased biofuel.

"The laboratory provides both physical and chemical testing of biofuels. Based on laboratory tests, we can recommend to the producers the optimal mixture of raw material to ensure maximum calorific value at an

affordable price", noted Grigore Marian, Director of Solid Biofuel Laboratory of the Agrarian University of Moldova.

The number of beneficiaries who use solid biofuel as heating agent is growing continuously. Currently, over 200 kindergartens, schools and community centres in the country have installed biomass heating systems with the European funds of Energy and Biomass Project. Moreover, 1,000 families are heating their houses with green energy also thanks to the European Union's support. Annually, only the beneficiaries of the Energy and Biomass Project request a minimum quantity of 30,000 tons of biofuel. The increasing demand has led to an increase in the number of briquettes and pellets producers, reaching almost 100 business entities.

"Biofuel producers can access new markets with proven by laboratory testing quality. Without it, it is difficult to enter the European market with rigid quality requirements. Laboratory tests also help consumers buy biofuel according to their boiler type and benefit from increased efficiency in its use", said Sergiu Robu, National Consultant of the Energy and Biomass Project.

Nicolae Dragan, owner of a briquettes & pellets factory, said that laboratory tests helped him improve biofuel, ensuring, thus, the satisfaction of buyers and increasing sales. "Previously we exported biofuel to some EU states and we were forced to apply for certification abroad. Now, we have the laboratory in Chisinau, where we can obtain quality certificates much easier from the point of view of logistics and affordability".

The biofuel's quality requirements were aligned with the European Union's requirements in 2012, when Moldova adopted 37 national standards for solid biofuel's quality and the Regulation on solid biofuel, which stipulates its certification. Hence, the biofuel delivered to consumers is labelled with the description of its key parameters, such as humidity, ash, net calorific value, density, chemical content, etc.

Video testimonial on the services provided by the Testing Laboratory is available [here](#).



A new Public Private Partnership was launched in the Nisporeni district, where 7 educational establishments will have eco heating with biomass



A private company will manage the entire heating process of 7 educational establishments from the Nisporeni district, so that public authorities would be exempted from providing biofuel, employing and training operators, maintaining thermal power plants, etc., all of these activities being provided by the private partner. In return, it will be paid at an optimal rate for each Gigacalorie of thermal energy/heat delivered to the seven institutions. The established tariff is MDL 898 for one Gcal.

It's the case of the secondary schools in Mărinici, Iurcenii, Seliște and Bălănești, where the company has designed and built four biomass heating systems, and the secondary schools in Soltănești and Brătuleni and the kindergarten in Vărzărești, where biomass heating systems have already been installed with the support of the Energy and Biomass Project. These biomass

heating systems will further be managed by the Green Energo company and, after 10 years of activity, at the end of the PPP contract, will become property of the public authorities of Nisporeni.

The installation works of the new biomass heating systems are 90% completed, and these will be put into operation at the beginning of 2018.

The same company has previously won the contest for the operation of a PPP in the Ungheni district, where 7 public institutions are successfully keeping warm with the help of biomass since 2016. The economic operator has taken over 5 biomass heating systems installed with European Union's financial support in the framework of the Energy and Biomass Project, has built 2 new heating systems with biomass and has implemented energy efficiency measures at several



beneficiary institutions. The total investment of the economic operator was 1,000,000 lei. The Ungheni PPP beneficiaries are the following: schools from the villages of Bumbăta, Zagarancea, Valea Mare, Sculeni, Hârcești and kindergartens from Florișoia Veche and Condrătești.

„Last winter we benefited of the first positive results in the framework of the public private partnership, so during the cold season both children and teachers enjoyed warm rooms with a temperature of 18–20 degrees. It is an optimal temperature, that meets the sanitary standards, but which unfortunately could not be ensured every day in the past year. Now the heads of the educational establishments pay only the cost of a Gcal, not worrying about purchasing the biofuel, hiring operators or the correct maintenance of the biomass heating systems”, stated the President of the Ungheni district, Ludmila Guzun.

The economic operator mentions that establishing the partnership was a challenge, and its implementation has brought benefits to both parties. „At first all changes are seen more reluctantly, but during this heating season the managers of the institutions were convinced that they have only to gain from the partnership. The 7 institutions received heating on time, in accordance with the terms stipulated by the

contract and at a reasonable price, the cost of one Gcal in the Ungheni district being of MDL 750 compared to MDL 1400 for gas”, says the private partner, Victor Vorobiov.

Ungheni is the second district, after Leova, which has launched Public Private Partnership services in the supply of biomass thermal energy, with the support of the Energy and Biomass Project. In the district of Leova, a PPP was launched in 2014, where 25 public institutions became part of PPP. The Green-Farm company, selected in a contest organized by the District Council, has installed 19 modern pellet burning plants in the Leova district, the investment amounting to about 500,000 Euros, and has taken over the management of 6 other biomass heating systems already existing in the district.



Biomass Cluster Members from the Republic of Moldova have learned from Czech colleagues how to manage the institution and develop the sector



Several members of the biomass Cluster from Moldova took part in a training course held by high-level Czech experts in the field of solid biomass, with broad experience in the sector. Among them are the Chairman of the Czech Biomass Association, CZ Biom, Jan Habart, the former minister of Environment, Miloš Kužvart, and the former Head of the Environmental Fund, Petr Stepanek.

During the three-day workshop, attendees discussed about the biofuel sector at the European Union level and the situation in particular countries, including the Czech Republic, Germany and Sweden, the support tools of the solid biofuel sector in these countries, lobbying strategies, clusters and biomass associations financing models, and ensuring the quality of solid biofuels by issuing quality certificates in the ENPlus standard, etc.

Training participants have conducted a mapping of the stakeholders in the development of the biomass market and the existing relationships between them, as well as collaboration opportunities. Biomass was also examined as an example of the circular economy, including by collecting solid municipal waste.

According to Jan Habart, Chairman of CZ Biom, the primary goal of the Cluster is to create partnerships between all stakeholders – private companies, public authorities and research institutes. „Cluster performance is defined by doing today what will generate value tomorrow. That is why the Cluster must shift the emphasis from simple trade to innovation”, said Jan Habart.

The training, organized with the support of the Energy and Biomass Project, was followed by a fact-finding visit to the Czech Republic. 15 members of the Moldovan Biomass Cluster have learned from their Czech colleagues about the business models of the local Cluster and the link between the corporate sector and research and the ways of biofuel market development.

The Moldovan delegation visited several local producers of biomass heating systems, the Agrarian and Technical University, the Ministries of the Environment and Agriculture, the Chambers of Commerce, the Research Institute for Landscape and Ornamental Gardening, etc.

Buckwheat and almonds are the new raw materials for Moldovan briquettes



5 December 2017, Chisinau – For the time being, renewable energy is the only opportunity for the Republic of Moldova to diversify its sources of energy supply and to improve its energy security. Out of all the renewable energy sources, biomass has a high potential in the country.

The young entrepreneur, Dmitri Asoskov, who earns money by turning waste into energy, also shares these beliefs. Being inspired by the success of other producers and the desire to work home, beside his family, Dmitri and his partner Serghei Alexei set up a business 3 years ago. After its launch, their business provides them financial benefit and a moral satisfaction with the contribution to the reduction of fossil energy consumption and country's energy security.

"I learned to earn money from waste"

"I wanted to work home and bring added value to the potential of our country. I learned to earn money from waste, turning it into green energy. In addition, there is nothing more important to me than to always be with my family, to enjoy my four-year-old daughter, especially because I will soon become a daddy for the second time", says Dmitri.

Dmitri and Serghei started their business from a small carpenter's shop, and because they had to do something with wood sawdust, the business was expanded into a similar area – production of briquettes. The biofuel from wood sawdust is the most demanded by consumers because it has a high calorific value and little ash. Also, since the demand was high, the two partners sought for new sources of raw materials to produce more and chose buckwheat husks and almond nutshells.



"The quality of briquettes produced from almond nutshells and buckwheat husks is very good. The only recommendation for the manufacturer is to add a certain amount of wood sawdust. The lignin contained in it will contribute to a better pressing and durability of the briquettes", says Grigore Marian, director of the Solid Biofuel Laboratory at the Agricultural University. Each new batch of briquettes has been tested at the Laboratory in order to be sure the experiment is performing well", says Dmitri Asoskov.

Soon the office will be switched to the green energy

So far, the company has produced and sold 150 tons of buckwheat briquettes and 150 tons of almond

nutshells briquettes. In addition to these two types of briquettes, the company produces briquettes made of sunflower seed shells, walnuts shell and wood sawdust, as well as wood charcoal produced by pyrolysis. Hence the idea of a new business line – the production of electricity based on the gases released during the pyrolysis process has occurred. "We will be the first clients of this new business line. We will use the energy to feed the hall and the entire production process, but also for the needs of the office building", says the entrepreneur.

The company has two briquettes production lines operating in parallel with a production potential of 80 tons per month. Both lines produce high-quality Pini





Kay briquettes, even if the method is more complex and requires more effort from the staff and a longer production time.

The company offers jobs for 25 employees, including 15 employees working in the production area. *"At first, when I was hired I did not realize what was really the value of the work I do. But after I warmed my house a whole winter with briquettes, I saw the money savings and I understood that we could be more efficient if we learn how to use our own resources",* believes Anton Stici, an employee of the company.

Energy plants – the new source for raw material

Because the demand for biofuel is still high, the two partners are thinking about new sources of raw material. *"Now, we are looking for agricultural land for energy plants, especially energy willow, which generates a large amount of wood. It will provide us with our own raw material, thus cutting off the cost of producing biofuel",* concluded Dmitri.

The EU-funded Energy and Biomass Project, and implemented by UNDP, has supported the development of the biofuel market practically from the scratch, stimulating both the demand and supply of briquettes and pellets. In this way, during 7 years, biomass boilers have been installed in over 200 schools, kindergartens and social institutions, and more than a thousand families have received subsidies for the installation of biomass boilers. At the same time, businessmen were able to buy in leasing, with 0% interest rate, baling and shredding equipment, briquetting lines and other equipment. The private sector was also supported by the establishment of a sectoral association, the adoption of standards and the endowment and accreditation of the Solid Biofuels Laboratory with the help of the EU project.

More information can be found on www.biomasa.md or on the [Project Facebook page](#).

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