

NEWSLETTER

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ENERGY AND BIOMASS

CONTENT

Public Institutions in Ungheni District to be Heated with Green Energy through Public-Private Partnership

Twenty-Seven Kindergartens Hosting about 2000 Children will Benefit from Solar Heated Water Systems

Students are Invited to Enroll in New Biofuel Courses

Vocational School in Orhei and Farming College in Taul to Produce Biofuel for Own Use

Biomass Boilers Comparable to CET-Nord

Green Energy on Europe Day

EU Sustainable Energy Week

SUN Da-i Fest

SUCCESS STORY



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Public Institutions in Ungheni District to be Heated with Green Energy through Public-Private Partnership

A private company will supply heat for a period of ten years to several public institutions in the Ungheni district through a Public – Private Partnership mechanism. The announcement on the selection of the private partner was made public on June, 3 in the Monitorul Oficial newspaper. The private partner will rehabilitate 5 boiler rooms and install two pellet boilers in two public institutions. It also has to implement energy efficiency measures in five public institutions, to be done with the financial support of the Energy and Biomass Project, and supply biomass-generated heat during the PPP agreement.

Interested companies are invited to submit applications no later than August 23, 5pm, at the following address: MD-6801, 11 Națională str., Ungheni, of. 13. The tender documents can be procured for 1 000 MDL from the Ungheni District Council. Another major eligibility requirement is the 100 000 MDL bank guarantee that the applying companies will have to submit. The evaluation of bids will be driven by the cost-benefit

principle. However, besides looking at the best price, the bid evaluation panel will also consider the criteria that look into the features, performance, design terms and conditions, construction, rehabilitation and operation processes. This is the second of the nine tenders to be announced soon in the districts selected by the Energy and Biomass Project and Energy Efficiency Agency to implement PPPs for biomass heating services. The Project will provide 100 thousand dollars to each of the local governments of the five Moldovan districts to establish Private-Public Partnerships in order to address, among other things, the issue of the fuel quality, service sustainability and energy security of the beneficiary localities/institutions and also to contribute to local development by creating new jobs and increasing the incomes to the local budgets.

Other districts selected for PPP implementation are Telenesti, Ungheni, Rascani, Orhei, Nisporeni, Anenii Noi, Donduseni, TAU Gagauz Yeri and Taraclia.

Twenty-Seven Kindergartens Hosting about 2000 Children will Benefit from Solar Heated Water Systems

Having installed biomass-fired boilers during the first phase of the Energy and Biomass Project (MEBP) implemented between 2011 and 2014, this year 27 kindergartens will receive financial support to install solar panels to heat up household water. Hosting more than 2100 children in total, their estimated daily consumption of hot water is 38 cubic meters.

During its meeting on June 24, 2016, the Energy and Biomass Project Selection Committee approved the initiatives of the local governments to install solar panels in those kindergartens which received support during the first MEBP phase implemented between 2011 and 2014. This time MEBP will provide about 560 thousand USD for design works and procurement and installation of the solar panels.

The local governments, in turn, will cover at least 15% of the installation costs.

According to Tatiana Craciun, community mobilization officer at Energy and Biomass Project, installation of solar panels will allow to reduce the consumption of electric energy used to heat up water. „There will be enough warm water to meet the hygiene needs of children and kindergarten staff, while the water heating costs will be equal to zero. The kindergartens and local governments that received funding during the first phase of the Energy and Biomass Project have felt the undeniable benefits of the green energy and insisted to extend the use of renewable energy sources", Mrs. Craciun claims.

While in 2012 the share of renewable energy in final gross energy consumption was about 4%, the Government has committed to increase it up to 17% by 2020. Already in 2015, due to the Energy and Biomass Project, the share of renewable energy in the country's final energy consumption was about 13%, while that of the biomass energy in energy consumption was 12%. The total capacity of the biomass heating systems that were installed in public institutions and individual households was about 49 MW.

Between 2011 and 2014 the investments of the Energy and Biomass Project in the heating systems in the public sector amounted to 182 million MDL, while those of the local communities amounted to about 28 million MDL. The biomass heating systems that were installed with this money heat up about 270 thousand square meters in public institutions.

Also during its meeting on June 24, 2016, the Energy and Biomass Project Selection Committee approved for the final evaluation 26 communities, which applied for installation of biomass boilers and solar panels. Some of these applications were submitted during the first phase of the Energy and Biomass Project, but could not be accepted because of budget availability. If they meet all the final evaluation criteria, the 26 public institutions will receive about 1.4 million USD to install biomass boilers and solar panels to heat up household water. The total capacity of the biomass heating systems will be about 2100 kW, enough to heat about 19 thousand square meters.



Students are Invited to Enroll in New Biofuel Courses

The biofuel market has experienced a rapid development in recent years and using modern technologies increasingly requires skilled staff, who are missing because the Moldovan vocational education did not cover these sectors until recently. Hundreds of new attractive jobs have been created, including for processing of agricultural biomass and production, installation and operation of biomass boilers.

To address the demand for professionals in the energy sector, the Energy and Biomass Project initiated introduction of the pilot educational module „Energy

Plants – a Renewable Energy Source" into the academic program of the vocational school in Orhei and that in the village of Cuhurestii de Sus, Floresti district, and the module "Solid Biofuel Heating Systems" in the vocational school no. 3 in Chisinau.

Besides acquiring theoretical knowledge, students have direct access to modern technologies, as these schools have their own biomass heating systems. In Orhei and Cuhurestii de Sus energy plants – energy willow and acacia – were planted on several hectares, while in the vocational school no.3 in Chisinau a modern

CONTACT DETAILS OF THE ADMISSION COMMITTEE:

Vocational school in Orhei –
Profession: Forester, Energy Plants

Tel. 0235 30693
Tel. 0235 22200

www.sporhei.educ.md

Vocational school in Cuhurestii de Sus, Floresti –
Profession: Forester, Energy Plants

Tel. 0250 57368

Vocational school nr.3 in Chisinau,
Profession: Boiler Room Operator / Biomass Boilers

Tel. 022 501097

www.sp3chisinau.si.md

laboratory was installed and connected to the biomass heating system, equipped with real-time operating biomass boilers of different technologies. In 2017 over 20 students who are taking the course will be the first full-fledged graduates ready to become "biomass boiler operators".

During the course of study, the future specialists will go on study visits to biofuel producers, to the institutions connected to biomass heating systems, companies that assemble and produce biomass boilers in Moldova.

The students enrolled in these courses study and go through the entire production cycle, including planting and maintenance of school's energy plants, processing of biomass on the school's briquetting line and using the biomass heating system to heat up the school.



Vocational School in Orhei and Farming College in Taul to Produce Biofuel for Own Use

With the support of the Energy and Biomass Project the two vocational institutions will buy biomass boilers and lines to produce biofuel using own raw material and will, therefore, have closed biofuel production cycles.

The vocational school in Orhei will install a 250kg/h briquetting line close to the land plots it owns near the Cucuruzeni village. It will turn the agricultural waste from fruit trees into briquettes and the resulting biofuel will heat up the 745 m² school cafeteria. Besides the briquetting line, the school will also install an 80kW biomass boiler. Its students planted two hectares of energy willow last spring, which starting with the third year of growth will be used as raw material to produce green fuel.

The company that will develop the design documents for the briquetting line has been recently selected, while the tender for construction of the boiler room will be announced soon.

Besides its economic value, this equipment will have a practical value for the students of the vocational school, future foresters, who starting with the academic year 2016–2017 will be taking a new training module – „Energy Plants – a Renewable Energy Source".

On the other hand, the farming college in Taul, one of the most reputable education institutions in the north of the country, which owns about 400 ha of farmland, will buy, with the financial support of the Energy and Biomass Project, baling equipment and a 75 kW biomass boiler for its greenhouses. Therefore, future agronomists, horticulturalists and winegrowers and foresters will also develop skills related to biomass heating.

Back in 2012 the college installed a combined heating system, which can run on either natural gas or biomass. This helped the institution to significantly reduce the maintenance costs and also created opportunities for its students to acquire practical skills.

Biomass Boilers Comparable to CET-Nord were Installed in Residential Sector



Over 250 people visited the Energy Efficiency Agency on May 17, 2016 to apply for subsidies amounting up to 1300 Euro provided with the EU support.

„The subsidy program for the residential sector is just a small part of the Energy and Biomass Project. We are trying to cover all the renewable energy sectors in Moldova and install biomass boilers in public facilities, mainly in schools, kindergartens and town halls. We are also providing support to the local producers of good biomass fuel. The demand for biomass boilers is growing. Hopefully, when the project is over, this sector will be successful and the dependence on the foreign energy resources will reduce. During the project years we managed to cut it down by more than 10%”, said Victor Cotruta, manager of Energy and Biomass Project.

„The demand for this product is high. We received about 250 subsidy applications, while our budget is enough to cover just 150-160, depending on the requested amount. The applicants are people who really want to install biomass boilers. We will process all the applications and look for additional resources to cover all of them. During the subsidy program 920 families

received financing amounting to 20 million MDL and this financing generated investments amounting to more than 100 million MDL in procurement of boilers. This is an important market that deserves to be developed”, said Mihail Stratan, the director of the Energy Efficiency Agency, during a press briefing.

He stressed that in comparison to the traditionally used technologies, biomass boilers could help reduce the bills by 40%.

„The capacity of the biomass boilers installed in the residential sector in the recent years is about 20 MW and is almost similar to that of CET – Nord, where the installed capacity is 25 MW”, Mr. Stratan added.



As at the end of 2014, the share of biomass in total domestic energy consumption was 12.7%.

Energy and Biomass Project Raised Awareness about Benefits of Green Energy on Europe Day



On May 14 the visitors of the EU Village in the heart of Chisinau had the opportunity to communicate, participate in interactive activities and find out many interesting things about the 10 projects implemented by the United Nations Organization and funded by the European Union, including the USD 9.4 million Energy and Biomass Project.

The objective of the cooperation between the European Union and the United Nations Organization is to support Moldova in the efforts to achieve its development priorities. This cooperation mirrors a broad global relationship between the European Union and the United Nations Organization in different sectors, including development and climate change, human rights, anticorruption and anticrime efforts, as well as global health issues, such as AIDS/HIV.





The result of this cooperation is a diversified portfolio of programs and projects, funded by the European Union and implemented by the United Nations Organization for the Moldovan people and communities.

The stands of the United Nations Organization in the EU Village entertained the visitors with various quizzes, green energy debates, questionnaires and photo sessions. Moreover, visitors were encouraged to write ingenious messages on thematic panels.

On Europe Day the Energy and Biomass Project was also present in Comrat. The first Europe Day event in Comrat was the launch of the biomass heating systems in the kindergarten and the community center in Carbalia village. It was followed by contests for adults and children on various issues related to renewable energy and energy efficiency, active interaction with the visitors and sharing of awareness-raising and visibility materials.

Energy and Biomass Project Announces the Start of a Training Program on Public Procurement of Solid Biofuel

Representatives of local governments and managers of the public institutions which installed biomass boilers are invited to take part in a training program on public procurement of solid biofuel. The training will be delivered.

Chisinau	July 13
Cimislia	July 15
Balti	July 19

The trainees will get familiar with the „Guide to public biofuel procurement” and the major procurement issues, including risk assessment and the thresholds

to which different public procurement methods apply, such as small price contracts, call for tender, public tender or framework agreement.

They will also learn how to prepare the procurement package and the technical specifications for procurement of fuel, what are the evaluation criteria to be applied to bids focusing on the fuel's energy capacity, how to manage this kind of agreement and how to test the biofuel quality in a laboratory.

Those interested in attending the training can register by calling 022839986 or via an email to lina.acalugaritei@undp.org.

Energy and Biomass Project Celebrated EU Sustainable Energy Week (#EUSEW)

Hundreds of people visited the Energy and Biomass Project info-point during the EU Sustainable Energy Week (EUSEW), where they learned more about the benefits of the green fuel by consulting experts and getting interesting and useful publications.

The various EUSEW activities offered an additional opportunity to all the sector players to promote energy efficiency and the use of renewable energy sources.

According to Pirkka Tapiola, Head of the EU Delegation to Moldova, the key word of the day in the energy sector is innovation. The EU Ambassador saluted the positive developments in this sector and highlighted how critical it is to enforce legislation for the benefit of the Moldovan people.

The football ground in the Northern sector of Orhei also hosted EUSEW events. Moreover, the caravan of biomass boilers reached Orhei and offered its visitors the opportunity to see how the heating equipment works, discuss with suppliers of boilers and biofuel produced in Moldova. They learned more about efficient thermal insulation solutions, solar vacuum tube collectors and photovoltaic panels. The Global Demo Project for sustainable energy development in Orhei, implemented by the town's local government in partnership with „Pro-Energy”, a community-based

association, with the financial support of the European Commission, is also worth mentioning. This project intends to install biomass boilers in the boiler room in the Northern sector, and make the system run on biomass instead of natural gas. The heating system will supply heat to two residential buildings and two nearby public buildings. All of these buildings will be subjected to thermal rehabilitation.

Also as part of the EUSEW activities, the Energy Efficiency Fund and the Energy Efficiency Agency signed financing agreements for street lighting systems in 9 Moldovan localities. The works, amounting to about 15 million MDL, include installation of energy-efficient lighting objects.

EUSEW was celebrated for the third time in Moldova and gathered tens of players in the energy efficiency sector to promote renewable energy sources. Launched in 2006 by the European Commission, EUSEW brings together hundreds of organizations and individuals from all the countries within and beyond Europe in order to share best practices, inspire new ideas and help deliver on the EU objectives by 2020.



SUN Da-I Fest brings green energy in capital's heart

June 19, 2016 — Thousands of people have come today to the Stefan cel Mare Public Garden to discover environment-friendly technologies and enjoy listening to solar-powered musical instruments. Sun Da-I Fest was organized by the Energy and Biomass Project – funded by the European Union and implemented by the United Nations Development Programme; the Energy Efficiency Agency and POT Music. The event culminates the EU Sustainable Energy Week in Moldova.

"Increasing the use of renewable energy and stepping up the energy efficiency measures continues to be a priority for the Government. This year the Moldovan Parliament passed the Law on promotion of renewable energy, which defines the national objectives in the renewable energy sector and the mechanisms to support market development. Moldova has valuable renewable energy sources that once properly exploited, will increase the energy independence of the country and of every citizen, will develop the country's economy facilitating business and creation of new jobs and, last but not least, will protect the environment", said Octavian Calmac, Deputy Prime-Minister, Minister of Economy.

Sun Da-I Fest culminates the EU Sustainable Energy Week in Moldova. The 4th edition of the SUN DA-I Fest

event, which is organised with the support of the EU funded project Energy and Biomass, show-cases once again not only that sustainable energy is important for us and the planet we live in but also that sustainable energy is fun and that we can all easily take part in this process of changing the way we consume energy. It is indeed a great way of finalising the EU Sustainable Energy Week 2016, which included events all over the country", mentioned Aneil Singh, Charge d'Affaires, EU Delegation to the Republic of Moldova.

The visitors had the opportunity to see how renewable technologies work, like biomass-fueled boilers, biofuel production lines, photovoltaic panels, solar collectors, wind turbines, and also to know the stories of people using green energy at home or by businesses.





„Energy efficiency and exploitation of the renewable energy is not only useful, but also trendy. So the big number of visitors and the participation of famous music groups denote the success of our communication initiatives. I wish that these activities turn into a commitment of all citizens to be more friendly to nature through responsible use of natural resources”, said Michael Stratan, Director of Energy Efficiency Agency.

The guests also participated in public debates and formulated recommendations for the Government on how to encourage the use of renewable energy in Moldova. Adults took part in interactive contests on renewable energy issues, renewable energy production, so as waste recovery workshops. Children colored a cardboard town, charged batteries using citrus fruits and discovered other secrets of the energy produced by nature.

"I am happy to see people's increased interest in green energy and its smart use. This week the European Union countries have united their voices to promote renewable energy and Moldova is also part of this global movement. On September 2015 Moldova, together with other countries, adhered to the 17 Global Goals, which, among poverty reduction and inequalities, refer to securing a cleaner environment and access to renewable energy", said Monica Moldovan, Sustainable Development Cluster Advisor, UNDP Moldova.

During the festival, school and university students demonstrated their own inventions that help save energy and use renewable energy sources in a smart way. As well, people passionate about authentic things visited the crafts fair, where artisans displayed and

sold decorative items, jewelry, paintings – all made of purely natural products. The eco-enthusiasts could buy notebooks and pens made of recycled cardboard, water- or solar-powered table clocks, and solar chargers for mobile phones.

SUN Da-I Fest culminated with a live performance by Alex Calancea band & Guz, Cuibul, All at Once (Bender), Six Roads, Bejenari & Kochetcov, The Glimpse, Miriam FlashBlood, Red IceCream, who played with solar-powered musical instruments. The photovoltaic panels that produce solar power were offered for free by Eco-Evolutions.

The event partners are EFES Moldova, Agence Universitaire de la Francophonie, Guvern 24, Altius, Arta și Cultura Evenimentului, Yard Sale, Media Security.

The media partners are: Realitatea TV, TVR Moldova, Kiss FM, Discovery FM, Diez, Agora, Locals, Timpul, Afisha, Zugo, Ziarul de Gardă, All Moldova, Ecoportal, Autoblog.

The 2015–2017 Energy and Biomass Project II is a EUR 9.41 million project granted by the European Union and implemented by the United Nations Development Programme. This continues the Phase I of the Energy and Biomass Project, implemented during 2011–2014, with a total budget amounts to 14.56 million Euro, allocated by the European Union (14 million Euro) and UNDP (560 000 Euro).

For more information about the Energy and Biomass Project visit our website www.biomasa.md and [Facebook account](#).



Andrei Chiferiuc, producer of briquettes and pellets, Cupcini village, Edinet district: „Some people say that pellets and briquettes contain sand to make them heavier. This is nonsense, because sand grains destroy the matrix of the biofuel production line“.

Andrei Chiferiuc's biofuel business may serve as a classic example of expanding and extending a business line, which turns waste into a new profit center. Andrei farms 700 hectares of land in the Edinet district, while the straw that remains after wheat is harvested is used as raw material for the pellets and briquettes that he sells countrywide.

„We will start harvesting the wheat on July 5. In one season we collect about 500 tons of straw on our own land plots and we also collect straw from other farmers in exchange for combine harvesting services. We also have baling machines with the capacity to produce two thousand bales or 20 tons of straw per day“, the businessman says. Bales are more compact and, therefore, easier to carry and store. Another benefit of this business is that the land plots are just two kilometers away from the production facility in Cupcini and the transportation costs are minimal.

The idea to install a pelletizing line came to Andrei in 2008 when, while visiting a farming exhibit in Romania, he bought a pellet boiler and because he could not find enough biofuel in Moldova he thought that he should produce it. „I looked for solutions in Ukraine, Romania and Poland. But now, I am happy that four years ago I chose a domestic pellet production line with a 110kW capacity from Mecagro. It is cheaper and the maintenance costs are lower. There is no need to wait for spare parts to be delivered from abroad and the three operators can repair it themselves“, Andrei claims.

The businessman leased the pellet production line for a three-year term. It produces about one ton of sunflower waste pellets per hour or about 800 kg of wheat pellets – the amount varies slightly depending on the moisture of the raw material. „To prevent pellets from deteriorating in boilers, we add about 10% of sunflower waste to the straw. Nothing else is required, because the straw lignin is a natural binder. Adding





something else would be counterproductive. Some people say that pellets and briquettes contain sand to make them heavier. This is nonsense, because sand grains destroy the matrix of the biofuel production line", the businessman reveals.

Speaking of quality, Biosmas-term did not wait for the certification issued by the biomass laboratory of the Agrarian University of Moldova and certified its pellets in a laboratory in Ukraine. The quality certificate helps the pellet producer make potential buyers trust the biofuel quality. The biofuel is supplied in 25 kg sacks or 10 kg sacks upon request. The buyers are the schools and kindergartens in the neighboring localities – Hancauti, Hadarauti, the Parcova vocational school, Edinet Farming Department covering an area of about 2 000 square meters, and also customers from Balti, Chisinau and even Ciadar-Lunga.

On the other hand, Biosmas-term is increasing its customer base by increasing the number of biomass

users. A couple of years ago it became the dealer of boilers produced by Moldagrotehnica from Balti. All the products are advertised on radio, company's cars and offices. However, since the best marketing solution is the personal choice, Andrei installed a biomass boiler in his own house and also connected his parents' house to it, heating 480 square meters with green energy.



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The opinions expressed in this publication do not necessarily reflect the views of the European Union and UNDP.

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