NEWSLETTER

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ENERGY AND BIOMASS

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Proiect finanțat de Uniunea Europeană

Guvernul Republicii Moldova

UNDP
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Training opportunities for the operators of biomass heating plants and solar water heating systems

The Operator Training Centre under the Construction Centre of Excellence organises a series of training courses for operators of biomass heating plants, operators of solar systems for hot water production, employees of companies providing energy services and individuals who own biomass heating plants and/or solar collectors.

The Construction Centre of Excellence is an institution accredited by the Ministry of Education to provide training seminars on the management of biomass heating systems and of solar systems for the production of domestic hot water. The training courses are conducted by experts and practitioners of the renewable energy sector.

The Operator Training Centre delivers three types of courses:

1. 40-hour courses, including 17 theoretical lessons and 23 practical sessions

The course cost per person, including the accommodation in the hostel – 1000,00 Lei

The course cost per person, without accommodation – 850.00 Lei

2. 90-hour courses, including 36 theoretical lessons and 54 practical sessions

The course cost per person, including the accommodation in the hostel – 1900,00 Lei

The course cost per person, without accommodation – 1600 Lei

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3. 90-hour courses, including 36 theoretical lessons and 54 practical sessions

The course cost per person, including the accommodation in the hostel – 3000 Lei

The course cost per person, without accommodation – 2490 Lei

* *The costs of the lunch and of a coffee break are included in the costs of all the courses.*

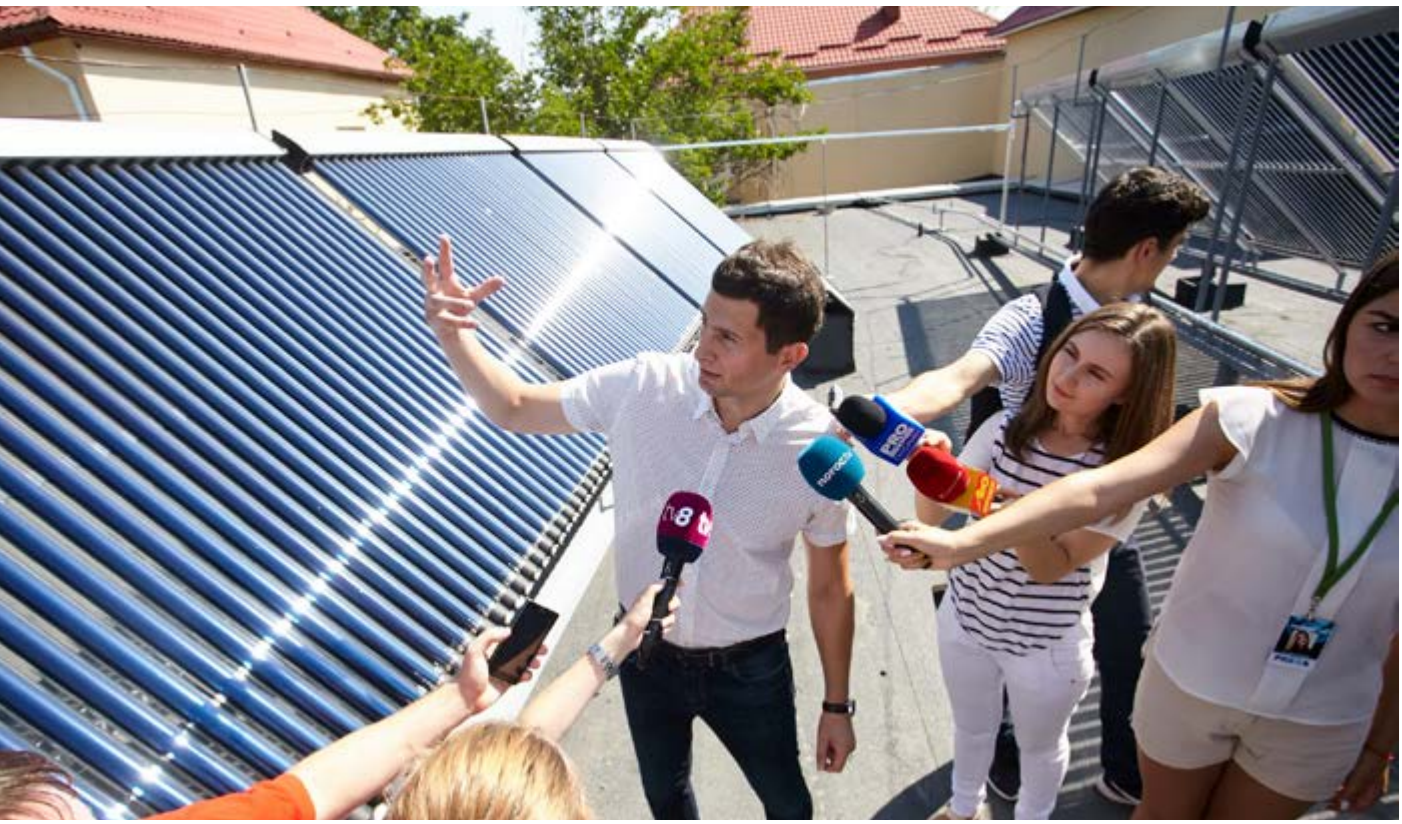
In addition to it, with the support of the Energy and Biomass Project, seven training courses will be provided free of charge during the period September – November 2017 to operators of the heating plants installed with the project's assistance. To get enrolled in these courses, please contact: + 373 68311778, Lina Acălugăriței, Project Officer.

The Operator Training Centre was established in the framework of the Energy and Biomass Project in the Republic of Moldova, funded by the European Union and implemented by the United Nations Development Programme.

Contact information for further details and data about the Operator Training Centre:

Tel.: (+373) 695 90 737; (+373) 695 46 959
Email: catedra.acgv@gmail.com
Website: www.ccc.md

„Povestea" kindergarten from Nisporeni is the first public institution from the town to switch to renewable energy



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270 children from "Povestea" kindergarten in Nisporeni are living a fairy-tale. They have access to an abundant amount of hot water heated by solar collectors. During winter time, they will also enjoy warm rooms heated with biomass energy. This switch to green technologies was possible with funding from the European Union offered as part of the Energy and Biomass Project.

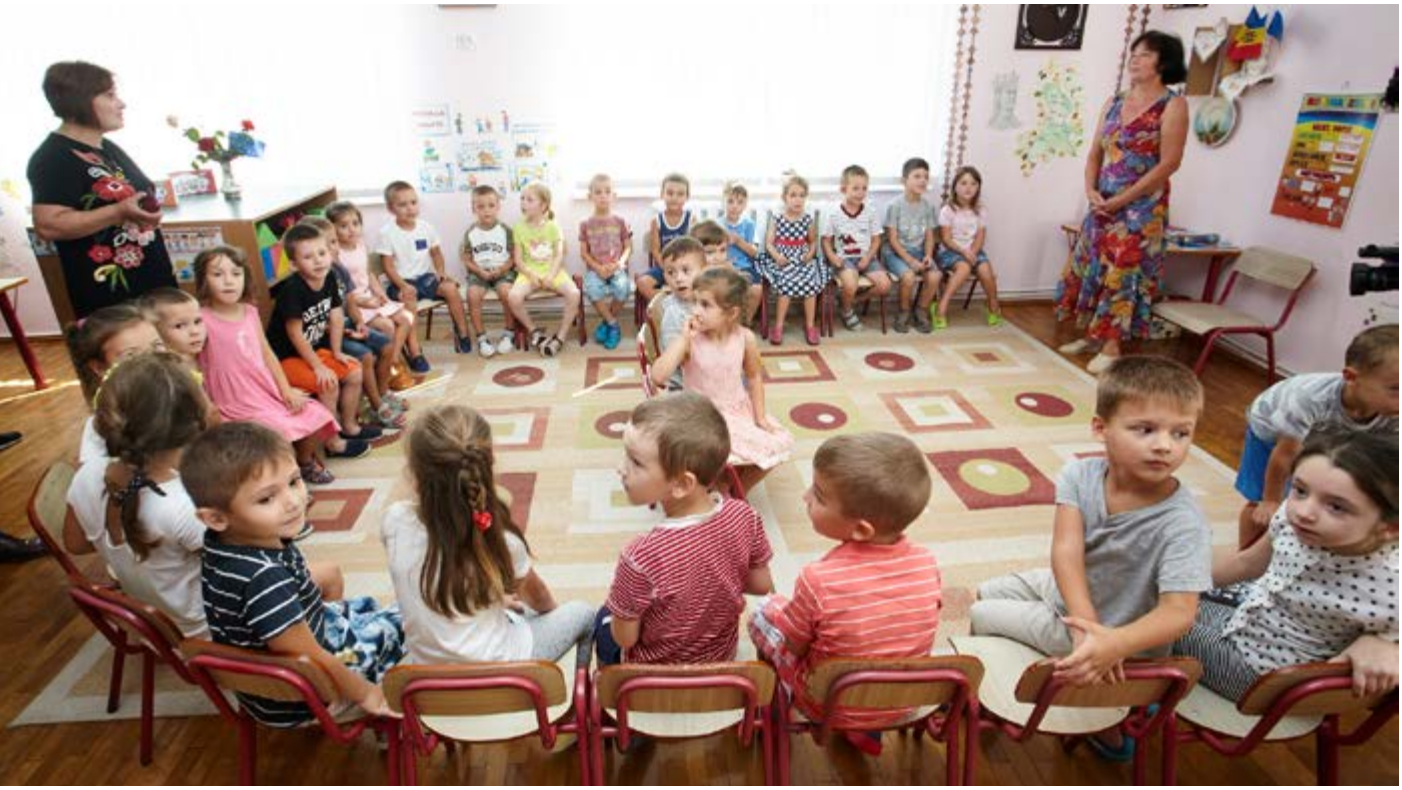
"I use more hot water at the kindergarten than at home. The sun is very generous as it has many rays which warm the solar panels installed on the rooftop of our kindergarten. Hence, we have plenty of hot water which we enjoy. I already told my mom and dad to install solar panels at our house", says Gabriel, a boy from "Povestea" kindergarten.

"Povestea" kindergarten is the first public institution in Nisporeni to switch to renewable energy. A team of educators, parents, and representatives of the local authority organised public debates in order to take a common and responsible decision in favour of clean energy.

"It was very important that this decision is taken jointly as this is something which affects each of us. It is never too easy to take the first step. We did it and now we see the benefits. We are happy that the kindergarten has access to clean energy, which is produced locally. We will have assured the security of energy supply and will keep funds in our country. It is incredible that we can have hot water heated by the sun without any additional cost for its usage. Our children are using hot water all day to wash their hands and they even take showers before their afternoon nap, which is something we could not afford before when the water was heated with electric boilers", says the director of the kindergarten, Tatiana Cociu.

Due to the high cost of hot water and a modest budget, the kindergarten administration was forced to reduce the usage of hot water. Hot water was only used in winter-autumn time and even then, in limited quantities. *"Our hands were freezing when we were washing dishes during winter time. Water was heated only a little bit. Now it is such a pleasure to work at the sink"*, says Vera Bulaș, one of the cooks.

Solar collectors are connected to a heating system operational on biomass, which replaces natural gas boilers. The system has a capacity of 4 thousand litres per day and automatically regulates water temperature to avoid the overheating on torrid days or development of bacteria when the water



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temperature in reservoirs drops. During winter, the kindergarten will have three alternative sources of domestic water heating: solar collectors, biomass heating system and traditional electric source.

The investment made by the Energy and Biomass Project, funded by the EU and implemented by the UNDP, is not the only one at the "Povestea" kindergarten. Local public authorities made a series of works meant to improve the energy efficiency of the building with 2,500 square meters. Thus, with the support of other donors, PVC windows were installed, the roof and walls were thermally insulated and the entire heating system of the building was modernised. The plans of the local administration do not stop here. *"We want to purchase a chopper and a production line for a specialised municipal enterprise to produce biofuel from local agricultural and forest residues. Currently, the enterprise has transportation, a storage facility and qualified staff, hence with the acquired equipment will be possible to extend its activity. At the same time, we will supply the kindergarten with biofuel of good quality and at affordable price"*, says the mayor of Nisporeni, Grigore Robu. The Energy and Biomass Project granted 85,000 EUR, European funds for the installation of the biomass & solar heating systems in Nisporeni.

The community invested 15,000 Euros from the local funds, as well as from the parents' contribution. "We can't expose children's health and that is why we have gladly supported the kindergarten's greening initiative. This brings more benefits: constant temperature in all rooms, hot water and comfort for children. We are proud of our role, even small, in reducing environmental pollution, as well as in local economic development, as the money spent on energy remains in the country", noted Cristina Moldovanu, parent.

21 kindergartens and health centres throughout the country have solar collectors installed thanks to the EU support. The solar systems are combined with biomass heating plants which ensure thermal comfort for children and educators, budget savings and local development. By the end of this year, solar panels for hot water production will be installed in 37 other kindergartens in the framework of the Moldova Energy and Biomass Project.

The Energy and Biomass Project, stage II, is a three-year project implemented throughout the period 2015-2017. The project has a total budget of 9.41 million Euros allocated by the European Union and it is implemented by the United Nations Development Programme. It follows up the first stage of the project, implemented in 2011-2014, with a total budget of 14.56 million Euros, provided by the European Union (14 million Euros) and the UNDP (560,000 Euros). Ministry of Economy and Infrastructure is the national project partner.

For more information about the Energy and Biomass Project, see www.biomasa.md website or the Energie din Biomasă Facebook profile.

Video story from Nisporeni kindergarten is available here.

Photo gallery can be downloaded here.

Designed story is available here.

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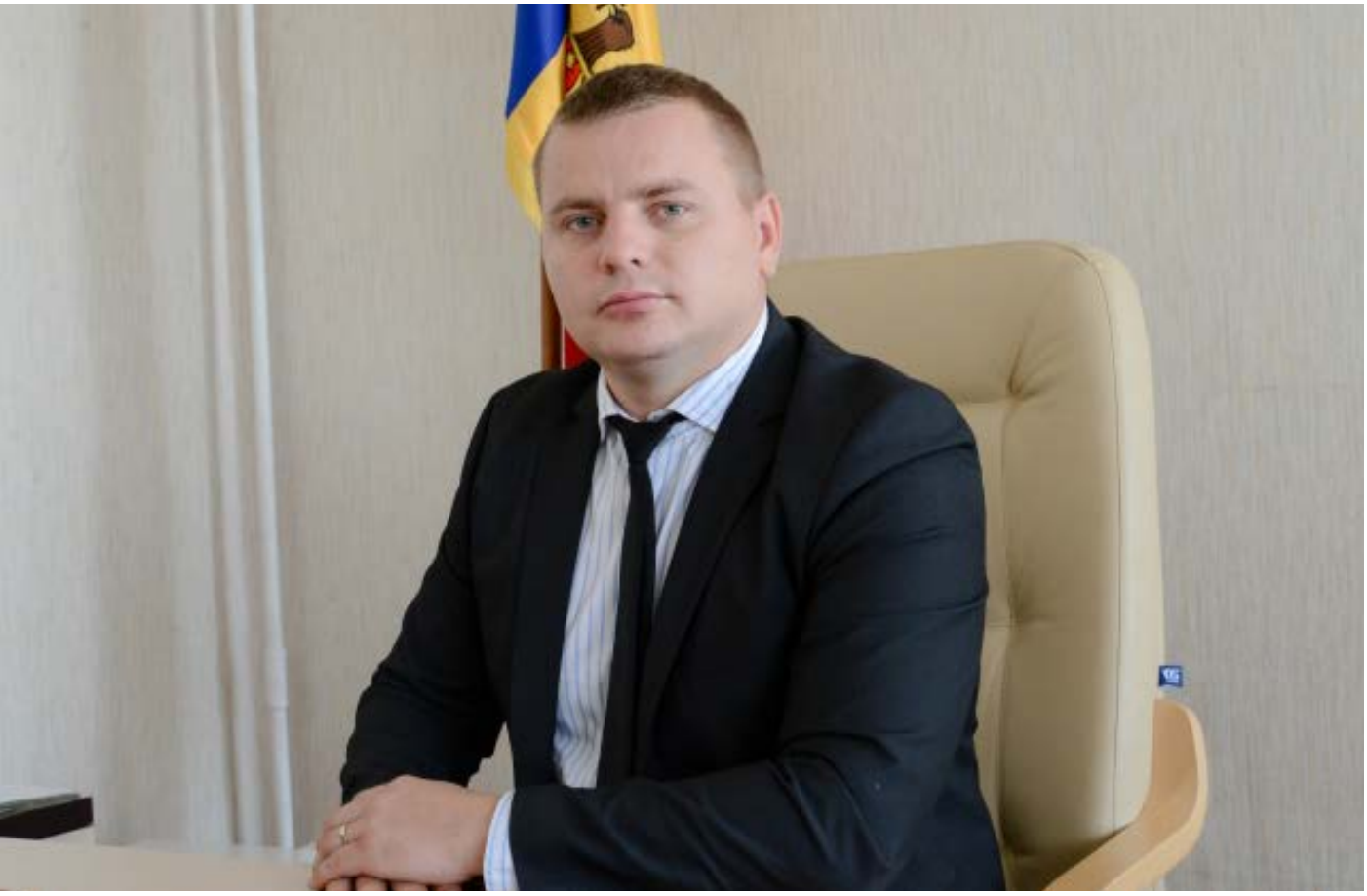
Energy Efficiency Agency has a new director



Alexandru Ciudin is the new director of the Energy Efficiency Agency. He has been appointed by the order of the Minister of Economy from 21 of August.

Alexandru Ciudin graduated from the Faculty of International Relations, Political and Administrative Sciences, specializing in government, administration and public and private management. Subsequently, he obtained the title of Master in International Relations.

"I have been appointed this position due to knowledge and experience as a district councilor, as well as an employee of SA Moldovagaz so that I can contribute to the energy efficiency improvement and renewable energy increase in our country. Together with the team, we are ready to be actively involved in achieving all the Agency's core objectives and implementing state policy in the field of energy efficiency and renewable energy sources", said Alexandru Ciudin.

Energy Efficiency Agency is the Moldova Energy and Biomass Project partner for various actions meant to develop the local bioenergy market. Among these are: the leasing programme for biomass and biofuel equipment, subsidy programme for households and micro-enterprises biomass boilers, Moldova Eco-Eneregtica competition and award ceremony, and solar powered SUN Da-I Fest.

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Deputy Prime Minister, Octavian Calmîc: "The provision of quality biofuels at affordable prices enhances the life quality in the rural areas"

The implementation of the Biomass Energy Project in Moldova fosters the sustainability of the emerging biomass market, and the Project's activities have improved the provision of the rural communities with accessible heating and sustainable heating systems, increasing thus the commitment of the private sector and strengthening the capability to ensure the biomass fuel quality, the Deputy Prime Minister, Minister of Economy and Infrastructure, Octavian Calmîc, stated at the last meeting of MEBP II Board. The official pointed out that the access to biofuel heating improves the life quality in the rural areas of the country and is compliant with the logic of achieving the Sustainable Development Goals.

According to the report presented by the Interim Project Manager, Tatiana Crăciun, 18 public institutions have improved their working conditions and the thermal comfort in the first half of this year as a result of installing biomass heating systems. 11 other projects approved and evaluated in 2016 are currently under implementation and will be finalised by the end of this year, and 19 projects are at the phase of selecting the construction company and they will be implemented in the second half of 2017.

According to the project document, solar panels for hot water supply will be provided within most of the selected projects, in addition to the installation of biomass heating systems. In order to achieve the

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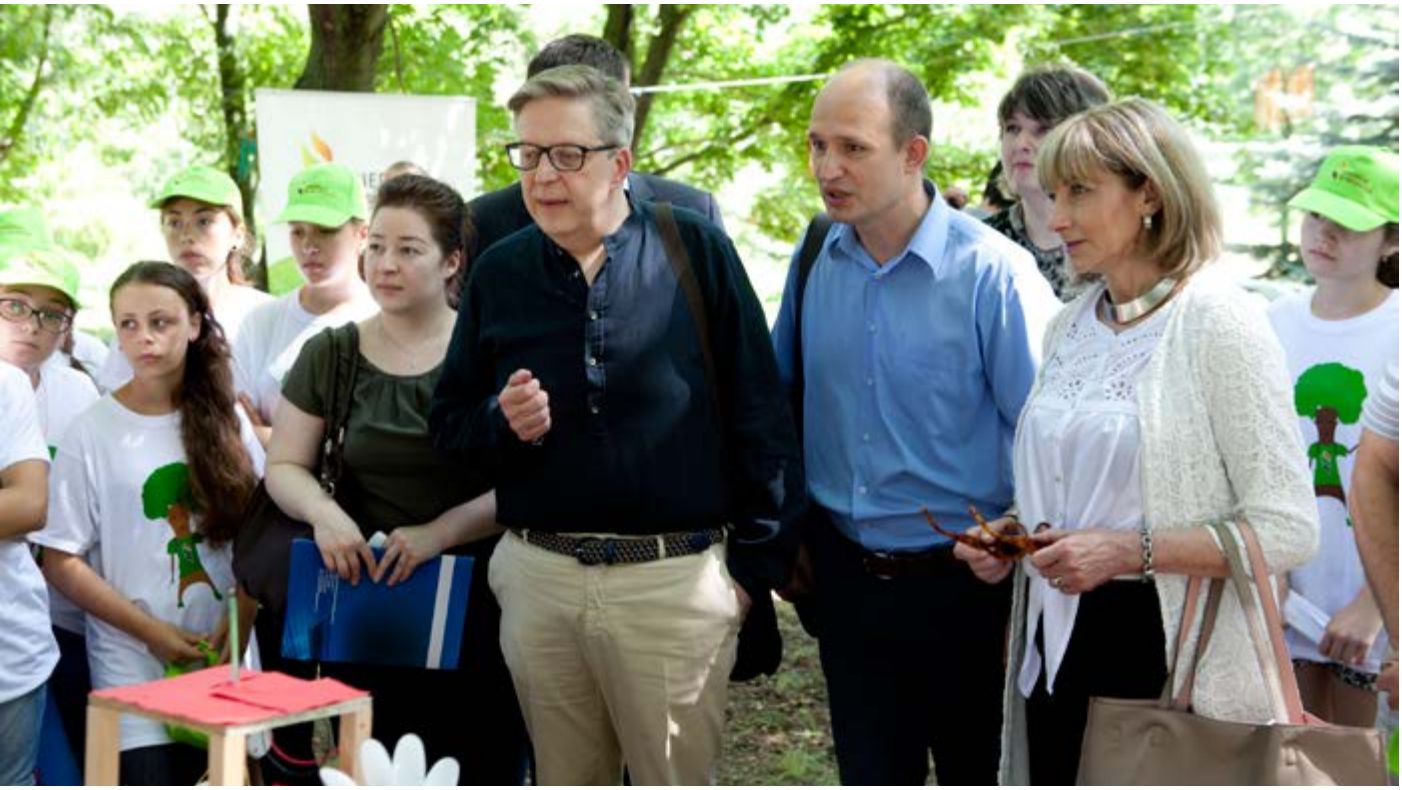
targets (45 solar panels), 12 institutions have installed solar panels with the project's support in 2017. At present, 27 kindergartens where biomass heating systems were installed in Phase I of the MEBP are installing solar panels on their roofs, and the works will be completed by the end of the third quarter.

One of the "transformative" results of the MEBP intervention consists in the new social and economic benefits for the country's citizens, especially in the remote rural areas. Throughout the previous heating season, the biomass industry created 48 new jobs, particularly for operators of biomass systems. 69 new jobs are expected to be created in the coming heating season.

The Energy and Biomass Project intends to set up an online platform for the monitoring of biomass heating plants installed at the national level, and of the maintenance works performed to ensure the operation of the heating plants and of the solar panels for hot water production, funded by the MEBP. The Energy Efficiency Agency was proposed as the national partner in the implementation of this activity. In the context of the reform of the central public administration authorities and their subordinated institutions, the Minister of Economy and Infrastructure, Octavian Calmîc, committed to strengthen the institutions in charge of policy implementation, while the platform under consideration will ensure the continuity of the activities and of the information flow.

The members of the Moldova Energy and Biomass Project Board approved the action plan for the second semester.

Children attending ENERGEL Summer Camp build wind turbines and solar collectors out of used materials



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46 children from different parts of the Republic of Moldova discover renewable energy at ENERGEL Summer School, during 25 June – 5 July. Participants come from those communities which benefitted from the EU-funded Energy and Biomass Project and installed biomass heating systems.

During ten days, children enjoy an eco-friendly lifestyle: they recycle waste, save energy, build mock-ups to produce renewable energy, engage in awareness campaigns (by cleaning up street garbage, urging people to sort waste), debate on green energy.

"It's a great idea to gather young people fond of clean energy and to exchange ideas, to discover new things, to produce together energy from natural sources and, last but not least, to make good friends. We have already collected some ideas for the construction of new eco-prototypes and for activities", said Daniela Rusu, 13-years old, Energel summer camp participant.

The participants have studied Renewable Energy Course at school and were awarded summer camp tickets as a result of a competition, open for 23 communities beneficiaries of the EU-funded Energy and Biomass Project.

"I am happy to see here young people from 23 beneficiary communities of the Energy and Biomass project, who have learned about methods of producing energy out of renewable sources and using it efficiently. The wonderful aspect of this event is that every year it shows that sustainable energy is important for us and the planet. Energel also shows that sustainable energy is fun and that everybody can take part in this process of changing the way we consume energy. Children have a lead role to play in this respect", said Pirkka Tapiola, EU Ambassador to the Republic of Moldova.

To note, Energy and Biomass Project launched in 2011 a pilot course on renewables and energy efficiency in schools of its partner communities. In 2013, the Ministry of Education decided to expand the idea and included the course in all schools of the country.

"At this camp, you are undergoing a transformation process. You learn together how to be responsible citizens for the country and for the planet you live on. I believe that, after this journey to the world of the green energy knowledge, you will become your community's advocates for a future we all dream about for ourselves and for our children: clean, green, sustainable", said Dafina Gercheva, UN Resident Coordinator and UNDP Resident Representative in the Republic of Moldova.

During 2011-2017, over 370 schools joined the educational initiative intended to promote renewable energy, with 21,000 pupils studying the course. The best of them, selected after a competition, were invited to ENERGEL Summer Camp. The five editions of ENEREGEL Summer Camp gathered over 400 young people.

The Energy and Biomass Project, the second stage, is a three-year project implemented throughout the period 2015-2017. The Project has a total budget of 9.41 million Euros allocated by the European Union and it is implemented by the United Nations Development Programme. It follows up the first stage of the project, implemented in 2011-2014, with a total budget of 14.56 million Euros, provided by the European Union (14 million Euros) and the UNDP (560,000 Euros).

For more information about the Energy and Biomass Project, see www.biomasa.md or the Energie din Biomasă Facebook profile.

The event's photo gallery may be accessed here.

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Test the quality of the biofuel you purchase at the Solid Biofuel Laboratory of the Agrarian University of Moldova

Now, it is the best time for buying biofuels for the coming heating season, or "the sled" should be prepared ... beforehand.

Remember that you can check the quality of the pellets and briquettes at the Solid Biofuel Laboratory of the Agrarian University of Moldova.

The Laboratory of the Agrarian University can perform testing of the following biofuel's parameters:

- Moisture content
- Ash content
- Higher and lower calorific value
- Content of volatile substances
- Bulk density
- Mechanical impedance
- Geometric shape
- Granulometric composition
- Carbon, Hydrogen, Sulphur and Nitrogen Content
- Chlorine content

The Solid Biofuel Laboratory of the Agrarian University is currently the only laboratory in Moldova accredited to test the physical and chemical parameters of biofuels. The laboratory was provided with modern equipment worth about 100,000 EURO from the European funds of the Energy and Biomass Project. Thanks to the new equipment, the producers will have the possibility to demonstrate the quality of the biofuel supplied on the market, and the consumers – to be confident of the purchased product.

Test reports are also issued by the Laboratory for Research and Reagent and Oil Product Testing of the Technical Centre for Industrial Safety and Certification. The laboratory performs tests on such parameters, as the lower calorific value, the mass fraction of moisture, the ash content, the mass fraction of sulphur, etc.

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Solid Biofuel Laboratory under the Agrarian University of Moldova
Tel. 022-43-23-46, 067591778,
Mircești str. 56, Chișinău mun., MD-2049

Laboratory for Research and Reagent and Oil Product Testing of the Technical Centre for Industrial Safety and Certification
Tel. 022-73-93-75
Academiei str. 3 ,Chișinău mun., MD-2028

The certification of the biofuel quality is mandatory, by virtue of the Law on promoting the use of the renewable energy. The quality requirements for the biofuels produced in the Republic of Moldova are specified in the Solid Biofuel Regulations approved by the Government (Decree no. 1070) on 27th of December 2013

The fees for biofuel quality testing

	Denumirea încercării	Price, Lei
1.	Higher calorific value	835
2.	Lower calorific value	835
3.	Higher and lower calorific value	900
4.	Moisture content	340
5.	Ash content	580
6.	Content of volatile substances	580
7.	Bulk density	400
8.	Mechanical impedance	470
9.	Geometric shape	350
10.	Granulometric composition/Content of the fine fraction	350
11.	Carbon, Hydrogen, Sulphur and Nitrogen Content	1200
12.	Chlorine content	500
13.	Sampling. Preparing the samples	155
14.	Sample collection	(2xS+150) Lei

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Vocational schools in Moldova will train a new generation of bioenergy professionals

About 60 students will be taught this year new professions in biomass energy field in three vocational-technical schools. Having launched pilot-courses with the support of the Moldova Energy and Biomass Project (MEBP), these schools train professionals in Forestry / Energy Crops (the vocational schools in Orhei and in Cuhureştii de Sus, district of Floresti) and Operators of boiler rooms / biomass boilers (the vocational school no. 3 in Chișinău).

Thus, 30 students enrolled in vocational school no. 3 in Chișinău will enjoy a modern learning environment. With the support of the European funds provided by the Energy and Biomass Project, a modern laboratory connected to the biomass heating system, equipped with biomass boilers using various technologies that operate in real mode, was installed there.

At the vocational school of Orhei, one hectare of land was planted with energy willow and acacia to be further used as fuel to heat the school canteen. The institution was equipped with a chopper that will mince the willow's stem, thus turning it into fuel. The green fuel will be used at the new heating plant installed in the vocational school, with total investments exceeding EUR 100,000 granted by the European Union in the framework of the Energy and Biomass Project. 15 students were enrolled in the vocational school of Orhei in 2017-2018 academic year.

15 students were enrolled in the vocational school of Cuhureştii de Sus, district of Floresti, and they will be taught a module on "The energy crops, a renewable energy source". This school also has a one-hectare plantation of willow and acacia cultivated for both educational and practical purposes. The school's canteen and sport room will be heated with biofuel after being repaired with the MEBP financial assistance.

The pilot-courses were developed and launched since 1st of September 2015 under a closed-circuit mode that makes it possible that the students learn the entire production cycle - from planting and caring for their own energy crops to biomass processing on their own briquetting line and heating the school with the biomass heating plant.

The Newsletter is produced by the Energy and Biomass Project II. The project has a total budget of 9.41 million euros, granted by the European Union and it is implemented by the United Nations Development Programme during 2015-2017.

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

Contacts:

29, Sfatul Tarii str, Chisinau, 3rd floor, office 304
Tel.: (+373 22) 839985,
Tel/Fax: (+373 22) 839983
www.biomasa.md
e-mail: ina.zglavuta@undp.org

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