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# NEWSLETTER

N. 30 | november – december 2016



## ENERGY AND BIOMASS

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Proiect finanțat de  
Uniunea Europeană



Guvernul Republicii  
Moldova



Empowered lives.  
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## CALENDAR OF GREEN ENERGY



Green energy is today a part of Moldova thanks to the wonderful people that let shine in their homes and hearts.

The calendars we have created for 2017 carry this people's stories, true stories about courage and initiative.

If you want one of those calendars or agendas please contact Ana Goner at [022-839983](tel:022-839983) or leave a message at [ana.gonciar@undp.md](mailto:ana.gonciar@undp.md).

## VAT rate of 8% on the whole value chain of solid biofuels starting with January 2017



A VAT rate of 8% was established on the whole value chain of solid biofuels starting with January 2017. The respective amendment to the budgetary-fiscal and customs policy for 2017 was recently approved by the Parliament. According to the document, the 8% VAT will be charged on the supply of solid biofuels, as well as the on the raw materials supplied for the production of solid biofuels (agricultural and forestry products, wood waste). The standard VAT rate of 20% was applied on the biofuel so far, and a rate of 8% – on the natural gas. This measure equalised the previously discriminated bioenergy field with the gas sector and will give a new impetus to its development.

"This decision was expected by biofuel producers and it represents a concrete step made by the authorities towards promoting the production of energy from

local sources. It is important to encourage this sector that helps us reduce the dependence on the foreign energy and to develop our economy, by creating new businesses and jobs", stated Ludmila Abramciuc, manager of a briquette production line in Bălți municipality. It is worth being noted that, having started from scratch, the biofuel production sector has grown over the past five years, and over 100 companies for the production of briquettes and pellets have been launched. The monitoring conducted by the Energy Efficiency Agency and the Energy and Biomass Project points out that 70 of them are still active in this sector.

["The Energy and Biomass Project propelled the development of the biofuel production sector through leasing arrangements. 35 companies benefited from biofuel production lines, shredders or balers](#)



in favourable conditions: 0% rate for the VAT, bank commissions and other fees, a three-year period of reimbursement. A total amount of 1 million Euro were allocated for this purpose from the European funds", Victor Cotruță, manager of Energy and Biomass Project, stated. The start up of new businesses in the field of biofuel production was driven by the increased demand of the market. Currently, more than 190 schools, kindergartens, hospitals in the Republic of Moldova are connected to biomass heating systems built with the support of the European funds provided by the Energy and Biomass Project. In addition to it, in the framework of the same project, over 1 000 families benefiting from subsidies of nearly 1000

Euros granted by the European Union for the purchase of biofuel heating plants. The Moldova Energy and Biomass Project is a seven-year project implemented during the period 2011 – 2017. The project's aim is to contribute to the production of safe, competitive and sustainable biomass energy, the most viable and accessible renewable energy source in the Republic of Moldova. The Energy and Biomass Project is funded by the European Union and implemented by the United Nations Development Programme.

For more information about the Energy and Biomass Project, see [www.biomasa.md](http://www.biomasa.md) website and the Energie din Biomasă Facebook [profile](#).

**Note:** Another novelty of the budgetary-fiscal policy for 2017 is the annulment of the 20% VAT on electric cars. Previously, because of the VAT value, the costs of the electric cars were noncompetitive, compared to the internal combustion engines, whose excise tax is charged depending on the engine's capacity and age. Thus, those who will buy electric cars, will pay 20% less for their import starting with 2017.



## www.piata-biomasa.md Information Platform Launched



A web platform – [www.piata-biomasa.md](http://www.piata-biomasa.md) – intended for producers and consumers of biomass energy was launched. [www.piata-biomasa.md](http://www.piata-biomasa.md) is a platform designed to make the biomass energy market more accessible both for the companies, producers and service providers, and for the households across the country.

"The "Energy and Biomass Market" information platform, developed by the Energy Efficiency Agency and the Energy and Biomass Project in Moldova, funded by the EU and implemented by the UNDP, contains useful information for biofuel producers and consumers, as well as for the suppliers of briquetting, pelletizing and baling machines, biomass heating plants, energy services and other elements for the biofuel market", the

deputy director of the Energy Efficiency Agency, Ion Cozma, stated.

The web platform also gives to companies, public institutions and individuals the opportunity to place advertising for the sale of goods and services in biomass energy sector, such as: biofuel, biomass, biofuel production equipment, shredders, balers, biomass boilers, etc.

The website puts at the disposal of its visitors an electronic calculator to estimate the capacity of the heating plant and the costs of a building heating, depending on several parameters, such as the building's area and height, the level of thermal insulation or the average outer and inner temperature.

We invite the active companies of the biomass energy sector to register on [www.piata-biomasa.md](http://www.piata-biomasa.md) website in order to promote their services. The placement of sale-purchase advertisement and the registration is free.



## Energy and Biomass Project was presented to the European Parliament



The Energy and Biomass Project was presented to the European Parliament last Tuesday. Three countries members of the Eastern Partnership – Republic of Moldova, Ukraine and Georgia – were invited to share the impact of the EU investments in the development of these countries to the Members of the European Parliament.

Republic of Moldova was represented by the EU funded Energy and Biomass Project, implemented by the UNDP. Ukraine presented the impact of an anticorruption project, while Georgia – of a project in rural development & agriculture. The event, initiated by the European People's Party Group, started with a welcome speech by Johannes Hahn, Commissioner for European Neighborhood Policy and Enlargement Negotiations.

The results of the Energy and Biomass Project were presented by Alexandre Darras, Attaché-Project Manager in the energy sector at the European Union

Delegation to the Republic of Moldova.

The Energy and Biomass Project II is a continuation of the first project phase that started in 2011. With the financial support of the European Union, the project connected more than 190 schools, kindergartens, community centers and hospitals to biomass heating systems, providing access to reliable energy produced in Moldova to about 140 000 people.

The success story chosen to represent the Republic of Moldova at the European Parliament was Carpineni village, which is one of the beneficiaries of the Energy and Biomass Project. There, in 2012 the kindergarten and the school were connected to biomass heating systems with the European financial support and in a couple of years other four public institutions – village hall, culture house, another school and the healthcare center – followed suit and switched to biomass heating. „We used coal and improvised stoves to heat these institutions. Often, because of the smoke, we



had to suspend classes to ventilate the rooms. We did not heat the corridors and the children often got acute respiratory infections. Due to the new biomass heating system, we heat all the rooms and our children no longer have to inhale coal smoke. Moreover, the money that are paid for pellets stay in the country. Every year, about 300 thousand MDL go to the local producers of pellets", said Ion Carpineanu, the mayor of the Carpineni village, Hancesti district, who took part in the event.

The Energy and Biomass Project laid the foundation for the development of the renewable energy industry, which was almost missing five years ago in the Republic of Moldova. The increasing demand from institutions for green energy has led to an increase in the number of briquette and pellet producers, reaching 100. Thirty of them were started with the support of attractive EU-funded leasing mechanisms developed by the Energy and Biomass Project. Today 1000 families use green heating due to the subsidies up to 1 300 EUR they received from the project.

The project experts delivered training to more than 5 000 beneficiaries – mayors, managers of public institutions, agricultural entrepreneurs, operators of

biomass boilers, biofuel producers, and 372 schools joined the educational initiative aimed to promote renewable energy and energy efficiency, which involved 21 000 students.

The 2011–2017 Energy and Biomass Project is a two-phase project with the mission to contribute to the reliable, competitive and sustainable production of energy from biomass, which is the most viable and available source of renewable energy in the Republic of Moldova. The Energy and Biomass Project is funded by the European Union and implemented by the United Nations Development Programme.

For more information about the Energy and Biomass Project visit our website <http://biomasa.md/> and Facebook [page](#)

[Video message of the Carpineni mayor is available here.](#)

## First laboratory to test solid biofuels in Moldova received accreditation



The solid biofuel laboratory within the Agrarian University is the first in the Republic of Moldova to receive accreditation for testing physical and chemical parameters of biofuels. The accreditation was issued in November 2016. The laboratory received modern equipment in value of 100,000 EUR from the European Union, in the framework of Energy and Biomass Project, implemented by UNDP.

Now the producers of biofuel will be able to demonstrate the quality of their product and the consumers will be more confident of what they get. Certification of quality of biofuels will become mandatory as from March 25, 2017, according to the Law on renewable energy sources. Quality requirements for biofuels produced in the Republic of Moldova are specified in the Government Decision on solid biofuel nr. 1070 from December 27, 2013.

"We welcome the accreditation of this laboratory, where biofuel producers will be able to certify their biofuel and, depending on its quality, set the price. The laboratory will be a tool to challenge entrepreneurs

to produce higher quality briquettes/pellets", believes Ludmila Abramciuc, manager of a briquette manufacturer from Balti town.

Every biofuel lot proposed for sale shall have available information about the country of origin, date of production and expiration, size, net calorific value, ash properties, additives and nitrogen content, chlorine and sulfur. All these parameters, indicated on the label, require certification from an accredited laboratory in Moldova. The Consumer Protection Agency is the authority that supervises the quality of biofuel for sale and its compliance with legal requirements.

"The laboratory of solid biofuels performs the testing of all the quality indicators of solid biofuels included in ISO and ENplus requirements. The laboratory test results tell us about the quality of biofuel and we, therefore, can determine the appropriate level of quality and the degree of harm it may cause to environment, including to the development of sustainable agriculture", says Grigore Marian, university professor and head of the solid biofuel laboratory.



The number of beneficiaries of biomass heating is increasing. Today more than 190 kindergartens, schools and community centers in Moldova are using biomass heating systems installed with the support of the Energy and Biomass Project. About 1,000 families heat their dwellings due to the Subsidy Programme launched by the project. In response to the growing demand, local biofuel supply is also increasing. According to the data of the Energy and Biomass Project from 2016, there are about 70 active producers of briquettes and pellets.

In the Republic of Moldova, in 2015 the share of renewable energy in energy consumption was of 13%, and solid biofuels represented 92% of renewables. The 2020 target for the consumption of renewable energy in Moldova is set to 17% of the gross energy consumption.

The EUR 9.41 mil. Energy and Biomass Project, phase II, is a three-year project (2015–2017) funded by the European Union and implemented by the United Nations Development Programme.



More information about Energy and Biomass Project is available at [www.biomasa.md](http://www.biomasa.md) and on the Facebook page [Energie din Biomasă](#)

For the video story about the Laboratory of the Agrarian University [click here](#)

## With EU support, the Causeni district hospital is the first one in the Republic of Moldova to be heated with biomass energy



The Causeni District Hospital and the Directorate of Exceptional Situation, were connected, with the support of European Union, to biomass heating and solar water heating systems. These are the first institutions of the respective fields in the Republic of Moldova to use this type of renewables. The total value of the investment amounts to 202,698 Euros provided within the Energy and Biomass Project, funded by the European Union and implemented by the United Nations Development Programme.

"I am particularly delighted with the launch of these two new heating-systems in Causeni which symbolize a further development of our Biomass project in the Republic of Moldova. The Causeni District hospital is the first one to be connected to biomass heating system in the framework of our project and the Directorate of Exceptional Situation, the first institution of this type being connected through the project. Not only are they connected to biomass for heating but they will also benefit of solar collectors providing hot water. These new investments will directly benefit all the users of these institutions and make their environment more comfortable. There is also a great opportunity to make financi-

al savings and use locally produced green energy", Aneil Singh, Head of Cooperation Section within European Union Delegation, stated. The Causeni hospital is the largest institution among the beneficiaries of the Energy and Biomass Project. Its curative building, connected to heating and hot water supply systems that use renewables, provides healthcare assistance to more than 6,000 persons per year. The main hospital's wards are located in it: the intensive care unit, the surgery, trauma, maternity, pediatric and cardiology wards. The total capacity of the heating plant is 750 kW and the heated area is over 6,700 m<sup>2</sup>; the 30 solar collectors will provide enough hot water to respond to the needs of the patients and of the hospital's staff.

"The curative building requires a higher level of thermal comfort and, above all, safety of heating provision. The new heating system gives us energy independence: we shall use the energy produced in our country. The solar collectors will ensure hot water provision, and the cost of electricity will decrease. Not least, we appreciate the fact that clean energy will be used, protecting the environment and the people's health", Valentina Panfilova, doctor at the hospital of Causeni, said.



"We are glad that the coverage of the projects for connection to biomass heating systems expands towards medical, rescue and other vital institutions. With their expansion, not only the local energetic autonomy will advance, but also the local economy: new jobs are created, new businesses are developed, benefitting men and women", Stefan Liller, UNDP Deputy Resident Representative for Moldova, noted. The Directorate of Exceptional Situation is the second beneficiary of the Energy and Biomass Project in this community. The institution substituted gas heating with biomass one, also expanding its heated area. In addition to it, solar collectors were installed to produce hot water. The capacity of the heating plant is 90 kW and may heat an area of 750 m<sup>2</sup> that is used by the 90 rescuers.

"The investment projects have helped our district to make a leap forward in decreasing the energetic dependence from the external gas and coal suppliers. At the first stage of implementation (2011-2014), the Energy and Biomass Project installed biomass heating plants in three other communities of the district of Causeni: Cuflesti, Tanatarii Noi and Carnatenii Noi. We plan to extend green projects in other communities", Ion Ciontoilo, President of the Căușeni district Council, stated. The Energy and Biomass Project, the first large project in green energy sector launched in 2011, has an ambitious purpose: to contribute to safe, competitive and sustainable production of biomass energy, the most viable and accessible source of renewable energy in the Republic of Moldova. Throughout 5 years of opera-

tion, it has undertaken a visible change within the national energy sector:

- Over 130,000 persons enjoy a higher environmentally safe thermal comfort.
- Over 9.02 million Euros, from European funds, were invested in biomass heating plants.
- 190 schools, kindergartens, community centres are equipped with modern biomass heating systems, including 10 kindergartens and community centres provided with solar panels for water heating.
- 1,000 families heat their houses using green energy due to the Subsidy Programme launched by the Energy and Biomass Project.

The Energy and Biomass Project is funded by the European Union and implemented by the United Nations Development Programme. The budget of the second stage of the project (2015-2017) amounts to 9.41 million Euros, allocated by the European Union.

For more information about the Energy and Biomass Project, visit [www.biomasa.md](http://www.biomasa.md) and its Facebook [page](#).

Video about Causeni story is available [here](#).

## Over 56% of the Moldovan families use stoves to heat dwellings.

Over 56% of the Moldovan families use stoves to heat their dwellings in the cold season, and heat only part of the dwelling surface. Only 22% of the Moldovan people are connected to the centralized heat supply system and more than half of them do not have a water heating system. These are some of the findings of the Household Survey of Energy Consumption conducted by the National Bureau of Statistics with the support of the Energy and Biomass Project, funded by the European Union and implemented by the United Nations Development Programme (UNDP Moldova), and Energy Community.

The survey data will be used to calculate the energy consumption in households and define the consumption breakdown and to create a database for further formulation of energy efficiency indicators.

Alexandre Darras, Attaché-Project Manager of the European Union Delegation to Moldova, welcomed the survey, which will help the design of evidence-based energy efficiency policies. The official stressed that Moldova has a huge potential to use biomass as fuel, and this may lead to increased energy efficiency and comfort for the people for whom centralized heat supply is not available.

According to Alenka Kinderman Lončarević, Energy Community expert, Moldova is one of the three countries that successfully completed a comprehensive survey in this sector.

The Deputy General Director of the National Bureau of Statistics, Iurie Mocanu, said he feels contented with this new statistical tool and that he is hopeful that the data will efficiently inform the decision making in the Government and the private sector.

According to the survey findings, during the survey period the total amount paid by the Moldovan people for energy resources (except for natural gas and electricity) was 3.6 billion MDL, including 583.3 mln MDL for liquefied gas, 49.3 mln MDL for briquettes and pellets, 2300 mln MDL for firewood, 111.0 mln MDL for wood waste. On average, a household that uses fire wood as energy source consumed 3.5 m<sup>3</sup> /year, a household that uses coal used 259 kg, while a household that uses natural gas consumed about 567 m<sup>3</sup>.

The survey covered the period from April 1, 2015 to April 1, 2016 and a sample of 3 500 households.

## 16 successful projects were awarded at the 6th Edition of Moldova Eco-Energetica Award Ceremony

16 successful projects in using and promoting renewable energy and energy efficiency were awarded at Moldova Eco-Energetica Award Ceremony, on Friday. Being at its 6th Edition, the Moldova-Eco Energetica Gala was attended by over 400 guests, representatives of the Moldovan government authorities, ministers, ambassadors, representatives of international organizations, private sector, academia and civil society.

"The country's dependency on the energy imports has been reduced by 8% in recent years. It happened due to those present in this room today, primarily due to enthusiasts from private sector, who under-

stood the enormous potential of this field for their own businesses and for the family budget. Of course, the development partners' support provided as financial contribution and expertise also had an extremely important role. Last but not least I want to acknowledge the contribution of the state stakeholders in this field and thank everyone for your efforts", said Octavian Calmac, Deputy Prime Minister, Minister of Economy. The 48 application enrolled with the 2016 edition of Moldova Eco-Energetica Competition competed for three award chunks: The Best Eco-Responsible stories, Ideas and Technologies. The applications were submitted by individuals, public institutions, private



companies, media and NGOs. The applications filed for the competition were evaluated in three stages: (1) panel evaluation of applications, (2) verification visit to the site, and (3) decision made by the Steering Committee.

Sixteen finalists – individuals, businesses, public institutions, NGOs have been nominated as winners of the 2016 edition:

#### The best solar energy project:

- **Photovoltaic:** Polymer Gas Pipelines LTD, the greenhouse in Falestii Noi village, Falesti [\(video\)](#)
- **Thermal energy:** Centrul Experimental de Protezare, Ortopedie și Reabilitare, Chișinău, Municipal Clinical Hospital “Sfantul Arhanghel Mihail”, Chisinau [\(video\)](#)

#### The best geothermal energy project:

- WT AgroProfi LTD, Stauceni village [\(video\)](#)

#### The best bioenergy project:

- T.B. Fruit LTD, Edinet [\(video\)](#)

#### The best energy efficiency project::

- **Construction/buildings sector:** Borosan family, Causeni district [\(video\)](#)
- **Industry sector:** Supraten JSC [\(video\)](#)

- **Public sector:** Kindergarten, Izbiste village, Criuleni district [\(video\)](#)

#### The best communication Initiative:

- Agora news portal, Vlad Vasilcov [\(video\)](#)

#### Best educational initiative:

- Centre of Excellence in Energy and Electronics [\(video\)](#)

#### The best youth initiative:

- ParanoicBot [\(video\)](#)

#### eco-responsible technologies:

- Darnic Gaz JSC
- Eco Tronex LTD
- Habsev Grup LTD

#### Idei eco-responsabile:

- Sandilana SRL
- Strapit SRL

"I am happy to be here with you to support the Moldova Eco-Energetica competition, an initiative which aims at increasing energy efficiency measures, enhancing the development of renewables sector, and at promoting green, clean and eco-friendly environment. Let me congratulate the organisers and the participants and encourage you to continue this initiative, because by using renewables, you bring an added value to the en-



tire country", said Pirkka Tapiola, the European Union Ambassador to the Republic of Moldova.

Moldova Eco-Energetica is the largest contest aimed at awarding successful initiatives in the field of renewables and energy efficiency. The six editions of the Contest managed to collect more than 260 successful projects related to renewables and energy efficiency, out of which 99 projects were nominated winners following a complex evaluation process carried out by independent experts. The award categories of the competition cover all forms of renewable energy and energy efficiency use, and promotion.

"I'm pleased to award the trophy to a project in the use of energy from biomass in the private sector because they I see how year after year, the number of companies run by women and men, switching to renewable energy technologies, is growing. It's an award symbolizing and promoting integrated, intelligently thought business models designed not only for the benefit of own businesses, but also for the benefit of the environment ", said Dafina Gercheva, UN Resident Coordinator and UNDP Resident Representative in the Republic of Moldova. The awards ceremony is the peak of Moldova Eco-Energy Week, held from November 28 to

December 2. During these five days, independent experts from Moldova and abroad, government authorities, academics, representatives of business sector discussed current about renewables and energy efficiency promotion, presented new eco initiatives ideas and investments in Moldovan energy sector development, and designed plans for the upcoming years.

The Moldova Eco-Energy Week is organized by the Energy Efficiency Agency, Energy Efficiency Fund and Energy and Biomass Project, funded by the European Union and implemented by the United Nations Development Programme.

The general sponsor of the event:  
Electricity Supply NORD (FEE Nord SA).

Sponsors: Orange Moldova, Gas Natural Fenosa, EFES Vitanta.

The following media partners helped to promote the event: Sputnik, Simpals, Point Publika TV, Realitatea TV, Agora, Diez.md, Time, Logos Press, My Business, InfoMarket, Ziarul de Garda.

## Upcoming investments in energy industry announced



An investment workshop on financial instruments to support sustainable development gave a broader insight to its participants into the investment opportunities and the applicable legislation for doing energy efficiency and renewable energy business. In his opening address, Octavian Calmac, Deputy Prime Minister and Minister of Economy, said that the joint efforts at central and local levels to develop the energy industry have already echoed in the national statistics. The official saluted the interest of the private sector to take risks and invest in this industry and that of the development partners, which provide financial support and expertise to develop it.

„There is still a lot to be done. A priority are the buildings, which have a lot of potential to improve energy efficiency; the manufacturing sector, which, inherited from the Soviet times, is energy intensive; the transports sector, which can also be improved in terms of energy efficiency”, Mr. Calmac said. The participants at the event got familiar with the instruments to support production and use of renewable energy sources, whi-

ch were introduced by the recently approved legislation. One of these instruments is the net energy metering, which allows the domestic electricity producers to sell the excess electricity to the grid at a traditional ceiling price, and the producers with a capacity above 100KW at bidding to determine the price. According to Denis Tumuruc, chief of Department for Energy Efficiency and Renewable Energy, to achieve the 10% target for biofuel consumption in the transports sector investments amounting to around 39 million EUR are required.

Orange Moldova JSC announced the launch of a pilot project for deployment of a street lighting management system in the Hancesti town. They intend to follow a viable business model, which aims to improve the management of the light infrastructure and reduce both energy consumption and costs. The works carried out so far include building of a wireless infrastructure; installation of 60 Led and energy saving bulbs on the light pillars along the streets of the town and connection of two power converters. The project started in



December 2016 and will continue through to April 2017.

The United Nations Industrial Development Organization (UNIDO) and the Government of Poland are going to produce solar thermal energy systems. During the project's first phase they will produce solar collectors with vacuum tubes for a local company. During the second project phase they will produce 100 solar collectors with vacuum tubes with a total capacity of 1.1 MW for sale. The project will be implemented in the period of March 31, 2017 – March 31, 2018 and the implementation partners are the Ministry of Economy of the Republic of Moldova and the Energy Efficiency Agency.

The Ministry of Finance made a presentation of the draft of the tax-budgetary policy for 2017, which provides for VAT exemption for the cars with electric motors and equipment installed in wind farms or photovoltaic power stations. The VAT for biofuel will also be reduced to 8% along the entire value chain.

Alexandre Darras, project manager for energy sector at the EU Delegation to Moldova, in turn, informed the participants about the ongoing and future EU investments in the sector, among other things to ensure the

access to the European energy system, in particular investments in the construction of the Iasi-Ungheni and Ungheni-Chisinau gas pipe, the Fourth Energy Package, projects to increase the energy efficiency of buildings and to improve the electricity interconnections.

The participants also learned about the opportunities of the ESCO contracts in Moldova and the financing instruments of the Energy Efficiency Fund for energy performance contracts, the provisions of the law on energy performance of buildings, energy labeling and its impact on energy consumption.

The Moldova Eco-Energetica Week is organized by the Energy Efficiency Agency, Energy and Biomass Project Moldova and Energy Efficiency Fund at the exhibition center Moldexpo. The event aims to support the most successful initiatives related to efficient energy production and consumption and to the implementation, development and promotion of modern technologies and innovations in the energy efficiency sector.





## The quality of the biofuel produced in Moldova will determine the developments of the biomass energy sector

Victor Cotruță

Energy and Biomass project manager

**When launched in 2011, the main objective of the Energy and Biomass Project was to connect the public institutions to biomass heating systems. What are your achievements in this field since then?**

The project consists of two stages, the first stage was implemented during the period 2011–2014, the second stage is under way, its period of implementation running from 2015 to 2017. 144 public institutions in the Republic of Moldova were provided biomass heating systems at the first stage, in addition to a series of other activities focussed on market development, training and communication. At the second stage, biomass heating plants are already in place in 16 public institutions, the installation of 10 biomass heating systems is in progress and they will be put into service by the end of 2016; 25 public institutions are in a process of developing the technical project documentation. Providing the public institutions, especially the kindergartens, with solar panels for water heating is a new component of the second stage. 8 public institutions have already been equipped with solar panels, the works are under way in six other establishments and 10 kindergartens are developing the technical documents, 27 institutions will be provided with equipment in 2017.

**What area does the Energy and Biomass Project cover from the geographical perspective?**

Geographically, our Project covers the entire territory of the Republic of Moldova. We even thought that, at

the second stage, we would succeed to install several biomass heating systems in the Transdnestrian region. We received six applications for the installation of heating plants, but three applicants shortly refused to participate in the project, while three other applications are still pending. The situation in this region is different from the situation on the right-side bank of the Dniester river, because, first of all, the gas cost is much lower and it is subsidised by the Russian Federation, therefore the institutions do not pay directly for gas consumption. Besides it, we work countrywide, certain districts being more active, and other – less active. Much depends on the existing heating systems in the institutions and on their state; or, the Energy and Biomass Project applies rigorous selection criteria and provides funds to the institutions which absolutely need a heating system.

**Providing support to households for the purchase of a biomass heating plant was another component of the project. To what extent were the Moldovan consumers open and how much did they manage to save?**

At the first stage, we faced some reluctance, because the people were not familiar enough with biomass benefits. But thanks to information and awareness-raising activities, the demand increased considerably. This year, the amount of the available subsidies was exhausted five hours after opening the process of application for households. Moreover, we initially planned to allocate subsidies to nearly 150 families, but

we received 274 applications and, in partnership with the Energy Efficiency Agency, our main partner that implements this component, and with the Ministry of Economy, we identified additional funds to subsidise all the eligible applications, whose number amounted to 250. The subsidies cover about 40% of the boiler's cost, i.e. up to 1400 Euros for a boiler, if it is properly installed and operated.

**In order to achieve a real effect from the use of the renewable energy, the whole value chain needs to be in place, from the feedstock to pellet and briquette production, manufacturing the boilers and, ultimately, using them. What were the developments in this regard?**

At the first stage of the project, we benefited from the support of the Energy Efficiency Agency in working with the entrepreneurs who wished to start or develop a business in the field of bioenergy and boiler manufacturing. The biofuel production market developed quite rapidly, over 70 solid biomass fuel producers were provided support due by the Energy and Biomass Project. But we sometimes face the problem of biofuel quality. Because of the rather tough competition, biofuel is imported from Ukraine, where the price is lower than in the Republic of Moldova. Accordingly, if the quality of the Moldovan biofuel is not good, then the producers will be at risk of losing the domestic market. In order to prevent it from happening, the Energy and Biomass Project has invested quite much in training of these producers for whom we organised study tours abroad, in countries like Poland or the Czech Republic, where the main feedstock is comparable to the one

used the Republic of Moldova, i.e. the agricultural waste, as well as to other countries, such as Austria or Germany. In addition to it, a biofuel testing laboratory based at the Agrarian University, that was equipped with the support of the Energy and Biomass Project, is already operational and was accredited for testing of the physical and chemical parameters. The next step will be to request, together with the Ministry of Economy, the compulsory possession of quality certificates for the biofuel. As a result, the public institutions and the private consumers could be sure that the purchased biofuel really has the quality announced by the manufacturer. Now, the biofuel quality is a problem for public institutions, because the schools and kindergartens, on the one hand, do not have specialists in this area and, on the other hand, they need to be sure of the biofuel quality. Or, the quality biofuel is first of all more efficient for heating and, secondly, it reduces the heating costs.

**The Energy and Biomass Project is one of the few that has an educational component. What did you start from and where are you now?**

We started from the scratch. As you know, the biomass-fuelled boilers operate differently from natural gas- or coal-fired boilers and, in addition to it, the most recently installed biomass boilers are more sophisticated and they can even be remotely controlled via a mobile phone. At the beginning, there were no qualified boiler operators and, in fact, even now the public institutions that install biomass heating plants often face the problem of the employment of boiler operators. In fact, the work of a biomass boiler operator is much more complex, than the work of a natural gas boiler operator, but





the salary is the same. The project's team understood from the start that training is a very important component and, in collaboration with the Ministry of Education, we developed a curriculum for this specialisation for colleges and technical education institutions and, starting with this year, this subject is finally taught to two groups of students at the Vocational School No. 3 in Chişinău, as well as at a school in Orhei and Cuhuresti and at the Agricultural College in Țaul. We hope that other colleges in Moldova will establish at least one group of students specialised in this field in the coming years.

#### **What are the overall benefits of the use of biomass for heating in our country?**

There are a lot of benefits and, most importantly, the financial resources remain in the Republic of Moldova. Having a biomass boiler and purchasing biofuel produced in our country, we somehow support the domestic producers. In their turn, they use a feedstock coming from agriculture. The agricultural waste is not incinerated, but transformed into energy. Thus, in a chain, an added value is created. Thirdly, if the biomass

heating plants are correctly used, the Gigacalory's price is lower, than when using natural gas or coal. Let aside a possible increase of the gas price with the rise of the oil price.

#### **The second stage of the project will end in 2017. What is the innovative element of this stage?**

The launch of the public-private partnerships is one of the Project's innovations. We would like that private partners take over all the responsibilities of the managers of public institutions in terms of using a biomass heating plant. The public partner should deal with the search and purchase of biofuel, ensuring its quality, as well as with boiler operation, etc. The public institution just needs to know the price of a gigacalorie and duly pay for heating. This direction is new and neither the private, nor the public sector is fully aware of this way of cooperation, therefore the promotion of PPPs is a major goal of the Project for the year 2017. This year, we have already established a PPP in Ungheni and we hope it will serve as an example for the other districts and that other partnerships will follow.

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.**

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