



## ENERGY AND BIOMASS

### Content

- *Moldova Eco-Energetica, 2013 edition, launched*
- *ENERGEL Summer Camp is welcoming the children starting with 1 July*
- *3 000 school students are familiar with renewable energy sources and energy efficiency*
- *Energel was the Biomass Energy Advocate in the European Town*
- *Experts and briquette & pellet manufactures discuss how to ensure quality of biofuels produced in the Republic of Moldova*
- *Buy an efficient biomass boiler and get a 30% reimbursement of the investment costs from European funds*
- **OUR PARTNERS**
- *Events calendar of the Energy and Biomass project*

# Nº 10

May-June 2013

## Moldova Energy and Biomass Project Newsletter

### Moldova Energy and Biomass Project

This project is funded by the European Union and co-funded and implemented by the United Nations Development Programme



# PROJECT NEWS



## MOLDOVA ECO-ENERGETICA, 2013 EDITION, LAUNCHED

The largest contest in the area of energy efficiency and renewables, Moldova Eco-Energetica, has been open on 5 June for applications. *“The Contest has been designed to promote the success stories and share the experience of successful people with those who just think to take some measures aimed at reducing energy use, either companies, households, public institutions or NGOs”*, Mihail Stratan, Energy Efficiency Agency Director, stated at a Press Conference.

Moldova Eco-Energetica Contest, organised by the Energy Efficiency Agency and the Ministry of Economy, with the EU and UNDP-funded Energy and Biomass Project support, was launched in 2011. Last year the Contest gathered 64 applications, of which the winning projects in 11 categories were selected.

Since the industry of energy efficiency and renewables has been progressed significantly over the last years, some new more detailed sub-categories have been introduced in the current Contest edition to better differentiate the projects implemented in various sectors. Thus, the “Best Energy Efficiency Project” comprises now separate categories for the public and private sectors, and the latter has been split into:

- **Energy Sector;**
- **Industrial Sector;**
- **Construction Sector; and**
- **Transport Sector**

Likewise, both the “Best Solar Energy Project” and the “Best Bioenergy Project” have been completed with sub-categories. In this way, the participants have the opportunity to compete on the same segment, while the Panel Members – to consider the applications based on evaluation criteria specific for each sub-category, having ensured their accurate and fair assessment.

The applications will be evaluated in three phases by a panel of independent evaluators, followed by a field trip, and approved by Moldova Eco-Energetica Board, comprising representatives of public institutions, associative sector and contest partners.

The winners will be awarded during the MOLDOVA ECO-ENERGETICA Ceremony to be held within 1 – 15 December with prior notification.

Eligible for the 2013 Contest edition will be the projects unfolded and completed until 2013. For the editions to follow it is envisaged to accept for participation only projects implemented in the year corresponding to the Contest edition. Please find more information on the Contest as well as the relevant Application at: Energy Efficiency Agency.

**The applications to the 2013 Contest edition can be submitted from 5 June through 20 September 2013. All information, including application dossier are available on Energy Efficiency web page, [www.aee.md](http://www.aee.md)**

**For more information, please contact us:**

*0 800 88808, [office@aee.md](mailto:office@aee.md)*



### **ENERGEL SUMMER CAMP IS WELCOMING THE CHILDREN STARTING WITH 1 JULY**

The Second Edition of Summer Camp "ENERGEL" will take place in Ivancea Village, Orhei District during July 01-10, 2013; the first edition took place in summer 2012. As many as 120 seventh- and eighth-graders from 13 districts will learn, for ten days, how to produce energy out of renewable sources and how to use it efficiently. At this Summer Camp the young people will be engaged in many interactive and practical activities: they will build models of photovoltaic panels and wind turbines, collect garbage from the neighbouring communities, and visit various institutions and households using heat, power and hot water produced out of solar, wind and biomass energy sources. The practical trainings and lessons will be led by school teachers of physics, biology with experience in teaching the topics on renewables.

Summer Camp "ENERGEL" is part of the educational initiative aimed at promoting the renewables and energy efficiency launched by Moldova Energy and Biomass Project. The educational initiative covers those communities that have their public institutions connected to biomass-fired heating systems with Moldova Energy and Biomass Project support.

### **3 000 SCHOOL STUDENTS ARE FAMILIAR WITH RENEWABLE ENERGY SOURCES AND ENERGY EFFICIENCY**

As many as 3 000 children from the Republic of Moldova know how to make use of the renewable energy sources and are familiar with the secret of energy savings. Next week, the school students of Grades VII and VIII, representing 64 Moldovan schools, completed their school year, during which they learned about renewables and energy efficiency. The educational initiative on renewable energy and energy efficiency is carried out under the EU-UNDP funded Energy and Biomass Project.

During the 2012-2013 school-year, pupils studying at schools covered by the educational initiative took part in interactive activities dedicated to renewables and energy efficiency. The children have been involved in debates conducted within schools, participated in lessons in webinar format where they discussed, on-line, eco-energy topics with hundreds of pupils from other schools, visited households, public institutions that use renewable energy, built models of photovoltaic panels, wind turbines or biomass-fired plants and put together environmental-related performances.

*"The children have been provided with a textbook titled "Renewable Energy Sources" as educational support, while the teaching staff received a Teacher's Guide on this topic, both developed by the Energy and Biomass Project with the assistance of Academia and experts from the Energy Efficiency Agency. Both the textbook and the guide introduce the information on all renewables and energy efficiency in a simple and illustrative*



*manner*”, stated Victoria Ignat, Training and Capacity Building Officer of the Energy and Biomass Project.

The educational initiative includes those communities, which have their public institutions connected to biomass-fired heating systems within Moldova Energy and Biomass Project. Up-to-date, the Course on Renewables and Energy Efficiency has been taught in 106 schools from 21 Rayons. Overall, the educational initiative covered 4,500 school students.

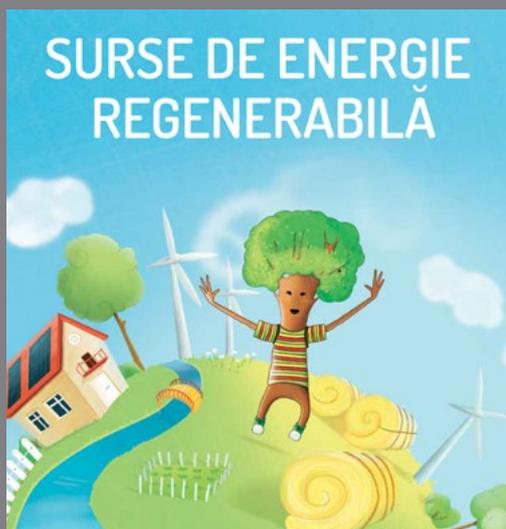
The Lyceum from in Biesti village of Orhei district is one of the schools covered by this educational initiative. Thus, more than 25 pupils of Grades VII and VIII attended interactive courses dedicated to renewables and energy efficiency. *“Although it was an optional course, it was students’ favourite. The children were extremely active, worked in thematic groups, participated in the webinars, built model installations for the production of wind, solar and biomass energy”*, mentioned Vladimir Vlas, Director of the Lyceum from Biesti village.

The most active schools students, selected as results of a competitive process, participate in the Summer Camp “Energel”.

The educational initiative on renewables and energy efficiency has been unfolded with the support provided by the Institute of Continuing Education and by the Republican Centre for Children and Youth “Gutta-Club”.

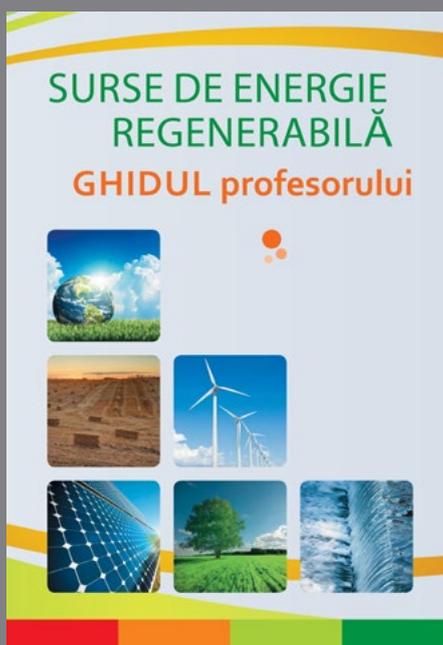
## Educational support

- Renewable energy sources. Student’s Guideline.



<http://biomasa.aee.md/img/docs/educational-brochure.pdf>

- Renewable energy sources. Teacher’s Guideline.



<http://biomasa.aee.md/img/docs/ghid-profesori-surse-energie-regen.pdf>



### **ENERGEL WAS THE BIOMASS ENERGY ADVOCATE IN THE EUROPEAN TOWN**

The Energy and Biomass Project Team took part in the events dedicated to the European Union Days in Chisinau held on 18 May. The Project was actively involved in organising knowledge competitions in the area of renewable energy and energy efficiency for children and adults, presented information on the benefits brought by biomass energy. The European Pavilion accommodated the companies accredited within the Programme targeting the households, which exposed boilers manufactured or assembled in Moldova and demonstrated the boiler operation principles to visitors. Also, the Project Team organised an exhibition of solid biofuels, disseminated



information materials and conducted an “Eco-Energy Quiz” for children and adults. The most active participants had been rewarded with t-shirts, handbags, caps, pens, desk calendars, prospects, brochures, posters, felt pens, crayons, colouring albums and other useful items. Energel Mascot promoted pro-renewable energy messages amongst visitors.



### **EXPERTS AND BRIQUETTE & PELLET MANUFACTURES DISCUSS HOW TO ENSURE QUALITY OF BIOFUELS PRODUCED IN THE REPUBLIC OF MOLDOVA**

Briquette and pellet manufactures, experts from Ministries, public institutions, and Academia have attended on 21 June the first national workshop devoted to quality issues of solid biofuels in the Republic of Moldova.

The attendees discuss the steps to be taken to ensure quality of biofuels produced in the Republic of Moldova. The event has been organised by the Energy Efficiency Agency in partnership with the EU-UNDP Moldova Energy and Biomass Project.

*“The Republic of Moldova aims to obtain 20% of its total energy consumption from renewable energy sources. At present, biomass is the most employed source of renewable energy and, concurrently, it is the source with great potential for the country. That is why ensuring quality of biofuels resulting from the biomass processing is extremely important”, Mihai Stratan, the Energy Efficiency Agency Director has stated.*

The national feasibility study on biomass potential shows that the Republic of Moldova can produce 21 042 TJ of bio energy annually, which covers 22% of the total demand for energy resources in the

Republic of Moldova. The study was conducted by IDIS Viitorul in 2012 upon the request of the EU-UNDP Moldova Energy and Biomass Project, and aimed at assessing the biomass energy potential, derived from agricultural waste, by regions and districts. According to the calculations made, each of the considered regions, i.e. North (10647,63 TJ), Centre (3744,76 TJ), South (5034,40 TJ) and ATU Gagauzia (1503,20 TJ), have enough potential of local biomass to launch lucrative businesses in the area of briquette and pellet manufacturing by using, predominantly, the raw material supplied within the corresponding region.

The number of briquette and pellet manufactures has increased ten times during the last two years, reaching 65. Oleg Donoaga is one of the first briquette manufacturers in the Republic of Moldova, who launched this business in 2011 in Festelita Village of Stefan Voda District together with a team of entrepreneurs. *"We took the risk to be the first who learn out of own endeavours how to produce biofuel in the Republic of Moldova. We started to produce briquette in an underdeveloped market when people had no idea what biofuel was all about. In 2012, the users' demand exceeded our production capacity; therefore we dared to expand our business and launch a new briquette production facility in Drochia Town"*, Oleg Donoaga, the Chairperson of the Association of Biofuel Manufacturers, has recalled. According to his opinion, it is necessary to approve binding technical regulations concerning the quality of solid biofuel produced in the Republic of Moldova, and to establish laboratories for testing the quality of solid biofuel. Hence, the users would have access to high-quality biofuels, and the prices should match the biofuel quality.

The overall annual production capacity of the solid biofuel manufacturers in place amounts for 120 thousand tonnes. This capacity exceeds almost four times the current needs of biomass heating plants installed within public institutions thanks to the financial support provided by the EU-UNDP Moldova Energy and Biomass Project.

*"We install advanced biomass heating plants; bring new technologies to schools, kindergartens, community centres located in Moldovan Villages. Thus, during the following heating season, at least 100 rural public institutions will be heated based on biomass energy. In order to ensure proper operation of biomass heating plants and reach their maximum efficiency it is important to have high-quality biofuels that meet the standards"*, Nicolae Zaharia, Business Development Expert, EU-UNDP Moldova Energy and Biomass Project, has mentioned.

To date, the Republic of Moldova has approved 37 voluntary European Quality Standards for solid biofuels. These standards have been developed by the Technical Committee 32, set within the National Standardisation Institute. A specialised Working Group in the area of solid biofuel quality, established within the Ministry of Economy, is involved in the process of developing and approving Technical Regulations to set minimal technical parameters for solid biofuels. Meeting these parameters shall be mandatory for all solid biomass fuel manufacturers, and the Technical regulations will comprise quality essential requirements, rules for product marketing, conformity assessment and conformity surveillance.

### **BUY AN EFFICIENT BIOMASS BOILER AND GET A 30% REIMBURSEMENT OF THE INVESTMENT COSTS FROM EUROPEAN FUNDS**

The Subsidy Programme for procurement of biomass boilers by the rural households and small towns continues.

The Government, with the support of the EU-UNDP Energy and Biomass Project, launched in April the Programme which offers, under more favourable terms, biomass boilers to households.

600 families are able to buy briquette, pellet fired boilers, or combined boilers, with 30% of the costs to be reimbursed through European funds.

The boilers to be purchased under this initiative have to be manufactured and/or assembled locally. So far, 11 companies have been accredited by the Energy Efficiency Agency to supply boilers to households under this Programme. These companies' portfolio comprises a wide range of boilers manufactured in the Republic of Moldova or assembled locally from parts supplied by famous European producers from Germany, Poland, Czech Republic, Romania, Latvia, and Greece. The accreditation process of companies – suppliers of biomass boilers is a continuous one.

The Programme's total budget amounts to 640 000 Euro. The maximum value to be reimbursed out of the Programme funds is 1 000 Euro per installed boiler.

#### **For more information, please contact Energy Efficiency Agency:**

MD-2068, Chisinau, 1, Alecu Ruso str. 10 fl.,  
Tel: +373 22 31-10-12; 49-94-44,  
Mob.: +373 6977 6977.  
[www.aee.md](http://www.aee.md) or [www.biomasa.aee.md](http://www.biomasa.aee.md)

## THE LIST OF ACCREDITED COMPANIES MANUFACTURING-ASSEMBLING BIOMASS BASED BOILERS FOR HOUSEHOLDS

Name of the company	Contact person	Telephone	Email	Country of origin	Boiler type
<b>Diolum SRL</b>	Ungureanu Ion	069226114	diolum@mail.md ministroi@yahoo.com	Czech Republic	Briquettes, Pellets, Combined; max. 25 kW
	Mihailov Nicolai	069690650	consistcom@mail.ru		
<b>Moldagrotehnica SA</b> <a href="http://www.moldagrotehnica.md">www.moldagrotehnica.md</a>	Bujor Sergiu	(231)88710; 068122660	marketing@moldagrotehnica.md	Moldova	Briquettes, Pellets, Combined; max. 25 kW
	Podureac Vasile	(231)88703	v_podureac@moldagrotehnica.md		
<b>Laiola SRL</b> <a href="http://www.laiola.md">www.laiola.md</a>	Cojoharenco Igor;	(22)477699; 068157575;	info@laiola.md; igor.cojoharenco@gmail.com;	Germany, Poland	Briquettes, Pellets, Combined; max. 25 kW
	Vrabie Oleg	079974138	vrabie.oleg@laiola.md		
<b>Sinteh-Service SRL</b>	Ciudin Alexandru	069649599; 068502404	bio200955@mail.ru	Italy, Poland, Czech Republic	Briquettes, Pellets, Combined; max. 25 kW
	Hariton Eugenii	069649599; 068502404	eugeniu.hariton@gmail.com		
<b>Gros &amp; Co. International SRL</b> <a href="http://www.bioindustrie.md">www.bioindustrie.md</a>	Cicati Sergiu	(22) 358149 079409503	cazanebiomasa@yahoo.com	Poland, Romania	Briquettes, Pellets, Combined; max. 25 kW
<b>EcoPractic SRL</b> <a href="http://www.ecopractic.md">www.ecopractic.md</a>	Trinca Alexandru	(22) 234050; 079234050	office@ecopractic.md	Poland	Briquettes, Pellets, Combined; max. 25 kW
<b>DarnicGaz SRL</b> <a href="http://www.darnicgaz.md">www.darnicgaz.md</a>	Evtodiev Eugeniu	069028841	info@darnicgaz.md	Lithuania, Greece	Briquettes, Pellets, Combined; max. 25 kW
<b>Pantehno Nord SRL</b>	Panciu Vadim	068600621	vpanchuk@hotmail.com	Moldova	Briquettes, Pellets, Combined; max. 25 kW
<b>Bamas Grup SRL</b>	Cernichii Tihon	069881111	tihonsec@mail.ru	Italy	Briquettes, Pellets, Combined; max. 25 kW
<b>"Termoplus Grup" SRL</b>	Leon Mihail	(22) 840809 079266621	biuro@defro.md	Poland	Briquettes, Pellets, Combined; max. 25 kW
<b>"Consistcom" SRL</b>	Mihailov Nicolai	69690560		Czech Republic	Briquettes, Pellets, Combined; max. 25 kW

# OUR PARTNERS

*Starting with this Edition, we launch a new column to promote the companies involved in the installation of heating plants in the Project Beneficiary Communities. We intend to use this column to introduce the Team of Professionals who supported the rural public institutions in getting access to an alternative heating source and deriving a whole range of related benefits such as savings, new jobs, new businesses, enhanced energy safety, cleaner environment, etc.*



## **SERGHEI COCÂRLĂ: “WE CAN HEAT AND LIGHT BUILDINGS BASED ON HUMAN ENERGY”**

At present, “Polimer Gaz Conducte” is the Leader in terms of total number of biomass heating plants installed with the Energy and Biomass Project support. As many as 25 schools, kindergartens and community centres from Stefan Voda, Cantemir, Telenesti, Falesti, Rezina, and Cimislia Districts and ATU Gagauz Yeri have an alternative to the heating system in place based on natural gas or coal. Biomass heating plants have been installed by the Team of “Polimer Gaz Conducte”.

The Company was created in 1999 by four young engineers, and covers a wide range of activities, namely construction and connection of natural gas systems, water supply and sanitation systems, construction and connection of natural gas heating systems, and, more recently, biomass heating systems. Back in 1999, “Polimer Gaz Conducte” employed 16 people, now their number exceeds 150.

### **- Mr. Cocârlă, what is the first renewable energy project implemented by your Company?**

- *The first Project dealt with installing solar collectors at the Lyceum from Oliscani Village, Soldanesti District. Since 2006 both school children and faculty have access to hot water produced by solar energy.*

### **- In your opinion, how sensitive are the people in accessing the renewable energy sources?**

- *Any change is not that easy. I recall the time back in late 90s when we tried persuading our partners to opt for high-density polyethylene (HDPE) pipes instead of metallic ones used for the natural distribution grid. We travelled from one village to another and demonstrated the HDPE pipe benefits. Many people just*

*held us in derision and refused to follow our advice. Nowadays, the majority use such pipes, which generate significant savings of 50%, and also expedite the execution of installation works and ensure project sustainability. At that particular time we played the role assumed now by the Energy and Biomass Project Team. Any new thing is accepted with difficulties. Those villages that heated their public institutions with coal or firewood are very susceptible to biomass heating systems. As for the institutions with natural gas heating systems, in some cases, this alternative is accepted with reticence due to additional physical endeavours such as loading the boiler with briquettes or pellets and its ash cleaning. The situation will have a different look over the time. There is already a clearly marked trend that the population choose the bio-*

\* Ștefan Vodă (Talmaza, Popeasca, Copceac), UTA Gagauz Yeri (Copceac, Carbalia), Cantemir (Lărguța, Țiganca), Telenesti (Chiștelnița, Sărătenii Vechi, Verejeni), Fălești (Bocani, Mărăndeni, Năvărneț, Pruteni), Rezina (Echimăuți, Sircova, Țareuca, Țahnăuți), Cimislia (Coștangalia, Javgur, Mihailovca, Porumbrei)



mass-based energy source. Here is the proof: this year our Company has mapped out zero metre of natural gas pipes in the Republic of Moldova.

**- You are the first Moldovan who installed a geothermal pump in your own house. Why have you chosen this type of heating system?**

- Back in 2006, when I was building the house, I was searching for an alternative to the natural gas heating mainly due to two reasons: economic and fuel supply safety. I searched a lot through the Internet and learned about the operation of geothermal pump systems. At that particular time, there was no professional in the Republic of Moldova who would have known how to design and install such a system or the operation principles of such a system. I had to design the system by myself. I bought the pump from Europe and successfully installed it thanks to the advice provided by European experts by phone. Several months later those experts visited the Republic of Moldova to meet the first Moldovan who installed a geothermal pump.



**- Does your Company install geothermal pumps now?**

- One year ago, "Polimer Gaz Conducte" had diversified its range of activities, and launched a greenhouse in Falesti District where we grew organic/eco vegetables. The greenhouse has been fitted with a geothermal pump and a biomass heating plant. The production cost of one GCal generated by such a system is ten times lower than the cost of one GCal based on natural gas.

**- What other innovations in the area of eco energy does your Agenda comprise?**

- I have a Project I have dreamt of for some time, namely, to heat the space based on human energy. In Chisinau, in particular, there are many spaces with maximal concentration of people, e.g. railroad stations/terminals, bus stations, markets where we could install systems to capture human energy and, subsequently, transform it into heating to heat offices or dwellings. One human body releases 100 Watts per hour. If we multiply the energy released by thousands of people who go through stations by 100 Watts we may obtain, for instance, several hundreds of Kilowatts. Circa 40% of Moldovan kindergartens need an energy source of less than 500 Kilowatts for heating purposes. There are such systems operated at Metro stations in the Netherlands, Sweden and Germany. Why do not we have such systems installed in the Republic of Moldova as well?

**- What is, from your perspective, the future of energy resources in ten years from now or even hundreds years later?**

- I believe that our future, in terms of energy exploration, development and use, would rely on nuclear energy or be related to energy storage devices. One day we might go to the supermarket to buy an energy briefcase to be used for supplying the house with power, heat and hot water. Upon its depletion, we should buy another energy briefcase, something similar to the battery used for watches and cell phones.

**- Thank you very much for the interview!**



## EVENTS CALENDAR OF THE ENERGY AND BIOMASS PROJECT

1 July - 10 July	Summer camp ENERGEL	Ivancea village, Ialoveni district
01 July	Reception Committee Meeting regarding the Completion of Works at the biomass boiler plants installed in the communities: Gaidar and Tomai, UTAG; Iordanovca, d. Basarabeasca.	In the communities: Gaidar and Tomai, UTAG; Iordanovca, d. Basarabeasca.
3 July	Regional training "Effective Management of Biomass Heating Systems at Community Level" for Municipal Leaders from MEBP Beneficiary Communities from Straseni, Nisporeni and Calarasi Districts	At 09:00, District Council Straseni
4 July	Project's Partners visit of Summer Camp Energel: Valeriu Lazar, Minister of Economy; Wicher Slagter, deputy-chief of the Delegation of the European Union in Moldova; Nicola Harrington-Buhay, UNDP Moldova Resident Representative; Mihai Stratan, Chief of Energy Efficiency Agency	Ivancea village, Orhei district
4 July	Induction training „ Key operation principles of biomass-fired boilers” for the operators of heating systems from MEBP Beneficiary Communities from Straseni, Nisporeni and Calarasi districts	At 09:00, District Council Straseni
5 July	Moldova Energy and Biomass Project Board	Ministry of Economy
08 July	Final assessment of Project Proposals of the communities: Cotiujeni, Grimancauti, d. Briceni	In the communities: Cotiujeni și Grimancauti, d. Briceni.
09 July	Final assessment of Project Proposals of the communities: - Parcova, Ruseni, Terebna, d. Edinet - Balasinesti, d. Briceni - Hadarauti, d. Ocnita - Cocieri, Ustia, d. Dubasari	In the communities: Parcova, Ruseni, Terebna, d. Edinet; Balasinesti, d. Briceni; Hadarauti, d. Ocnita; Cocieri, Ustia, d. Dubasari.
10 July	Final assessment of Project Proposals of the communities: - Baltata, d. Criuleni - Nicoreni, d. Drochia	In the communities: Baltata, d. Criuleni; Nicoreni, d. Drochia.

19 July	Regional training "Start up and development of biomass fuel production businesses"	At 10:00, District Council Taraclia
26 July	Project Selection Committee: Approval of the project proposals presented by the rural communities from districts Briceni, Criuleni, Drochia, Dubasari, Edinet and Ocnita for investments	Chisinau, MEBP office

**Contacts:**

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

This newsletter is produced in the framework of the Moldova Energy and Biomass Project. The project, implemented during 2011-2014, has a budget of 14,56 million Euro, granted by the European Union (14 million Euro) and UNDP Moldova (560.000 euro).

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