

Renewable energy from agricultural and wooden wastes represent a huge interest for the energetic efficiency in Republic of Moldova



Annual production of agricultural wastes in Republic of Moldova is about 2 million tons. In terms of energetic potential, the biomass can substitute 600 thousand tons of coal.

**2 tons of straws=1 ton of coal
The average cost of 2 tons of straws is 100 \$
1 ton of coal costs 180-200 \$**

Renewable energy from agricultural and wooden wastes

Technology used in the project.

Benefits of producing balloted straws

- The cost of a ton of balloted straws was 50 \$. (in 2010)
- It increases the income from basic production with 20%.
- The production of balloted straws turns them immediately from wastes into a merchandise.
- The ashes can be used as an organic fertilizer.





Renewable energy from agricultural and wooden wastes

Technology used in the project

Socio-economic benefits and environment protection

- **The cauldrons on biomass used have an efficiency of over 81%.**
- **Reduction of costs for heating. An equipment of 400 kw saves annually about 8000 \$.**
- **Reduction of poison gas emission.**
- **Prevention of burning the straws on the field.**
- **Energetic security: reduction of dependency on the import of energetic resources.**
- **The cash flow remains inside the community.**
- **The moral responsibility for the future generations in comparing the consequences of climatic changes determined by omission of environment protection.**



Renewable energy from gas and wooden wastes

Technology used in the project

Project partners

GEF The global ecologic Fund
Government of the Republic of Moldova
World Bank

Components of the project

- **Founding of pilot unities specialized in the production of thermal energy.**
- **Biomass production and delivering them to beneficiaries.**
- **Removing information barriers related to alternative energy.**



Renewable energy from agricultural and wooden wastes

Technology used in the project

- **Benefits for the mayoralty Antonesti Stefan Voda district**

- A generator RAU 300 kw was installed. It heats the lyceum where study 400 pupils.
- 3 generators Passat with the capacity 90 kw each heat the kindergarten, the school of arts, the administrative building and the library.
- In order to heat all public institutions, the mayoralty needs 250 tons of straws per year at a price of 13 thousand USD. When using gas, the price is double.





Renewable energy from agricultural and wooden wastes

Technology used in the project

Project of using agricultural wastes in order to produce energy

Terms of realization 2011-2014.

Sum of the project 14,5 mil euro.

Financiers of the project

European Union

UNDP Program of United Nations

The implementing agency

**Program of United Nations in
Moldova PNUD**





Renewable energy from agricultural and wooden wastes

Technology used in the project

Components of the project

- a. Installation of 130 generators type RAU 200-600 kw in 130 rural localities, in order to heat public institutions.
- b. Installation of 2 technological lines with a capacity of 1000 tons per year in 2 rural localities in order to produce the raw materials for heating private houses.
- c. Installation of 2 devices that can generate electric power from thermal energy.





MOLDOVA ENERGY AND BIOMASS PROJECT

The mayoralty from Antonești in partnership with the local entrepreneurs and with the financial support of PNUD Moldova has drawn up a feasibility study concerning the installation of a technological line of processing straws.

From the informational and economically point of view, and taking into account the experience of mayoralty, the local population is eager to use the same technology in order to heat private houses.

The project will contribute to eliminate the general barriers of using alternative source of energy in Republic of Moldova, showing examples of success applied and based on advanced technology of using biomass as a fuel.

Regretfully, Republic of Moldova doesn't have sufficient resources and levers for stimulating production and usage of renewable energy. Taking into consideration this factor, it is necessary to attract foreign financial resources, including the subsidized ones.



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THANK YOU !