



Building partnership

„Waste, as a renewable energy source“

HUSK/0901/2.1.2/0207



Hungary-Slovakia
Cross-border Co-operation
Programme 2007-2013

European Union
European Regional Development Fund



Welcome

For those interested we would like to recommend our project, HUSK/0901/2.1.2/0207, titled "Waste, as a Renewable Energy Source" funded by the Cross-border Cooperation Programme Hungary-Slovakia 2007-2013, and coordinated by the City of Nitra in a partnership with the Hungarian Foundation For Enterprise Promotion.

The reason for the cooperation between the City of Nitra and the Hungarian Foundation For Enterprise Promotion was a joint action aimed at encouraging the protection of the natural environment, an advanced, innovative matter of international relevance.

Project aims

- To reduce the power-handling capability input
- to increase the utilization of renewable energy sources
- to decrease CO2 reduction of waste shipments reduction of emission from landfills.

We would also like to explore the possibilities of waste utilization in energetics, which provide a clean source of energy for the cross-border regions of the partners.

Project activities

Opening workshop on waste management and the possibilities of waste utilization as RES in Hungary

The representatives of partner organizations and waste management experts from both sides have met in a workshop to exchange information about the project



30/06/2011, Budapest

Preparation of study, mapping the situation of waste management and identifying the energy potential in Hungary with regard to the cross border area

The Study discusses in detail the basic principles and systems of waste management in Hungary, its comfort to EU requirements and regulations as well as future potentials within a European framework.

Main regulations are as follows:

- directive 2006/12/EC on waste
- directive 2008/98/EC on waste
- the European Waste Catalogue
- directive 1999/31/EC on landfills
- directive 2000/76/EC on burning waste
- decree 1013/2006/EC on transportation of waste
- horizontal environment regulations

A detailed description is given on Hungarian legal regulations, relevant laws, organizational and institutional systems and major requirements and rules regarding the economics and technology of waste management. Then follows the qualitative and quantitative description on Hungarian waste, broken down into industrial and communal idiosyncrasies, as well as methods and expected changes in waste management practices including trends in energetic utilization.

The core content of the Study is the following:

The cross border cooperation, definitive characteristics of the project, is emphasized by the introduction of the Hungarian counties of the Slovak-Hungarian border region; county level regulations of waste management, description of qualitative and quantitative waste – communal and industrial – as well as methods and expected changes in waste management practices including trends in energetic utilization.

The counties discussed are Győr-Moson-Sopron County, Nógrád County, Heves County, Borsod-Abaúj-Zemplén County, Komárom-Esztergom County, Pest County and the city of Budapest.

You can download the study from www.hulladekbol-energia.hu webpage.

Studying the possibilities of using waste as RES focusing on biogas plants in Nitra in the context of CO2 reduction methods under the Covenant of Mayors

The study “utilization of waste as a renewable energy” summarizes current information about the production of waste suitable for energy recovery in the border region Slovak Republic - Hungary, and points to a wide range of options for their energy use.

The study presents various alternatives for building an integrated regional and supra-regional system for energy recovery. Specifically, the suitability of a possible implementation of the mentioned solutions in specific regions should be developed in the detailed analysis for each area, for example through feasibility studies, environmental impact assessment (EIA) in the event of the implementation of the permitting process under the Act on Integrated Pollution Prevention and Control (IPPC).

Based on its results it a recommendation can be generalized in the field of waste management in a few brief points:

- Use local and regional synergies - a closed-cycle management of waste - where the waste arises where the energy of it back, using the existing industry (eg, consumption of steam) and using the potential of combustion and other types of waste eg. sludge from wastewater treatment plants, the heat used for drying sludge from wastewater treatment plants and the like.
- A decision to give priority to proven and standard technologies such as the type. Grate incinerator with maximum use of energy to produce electricity and heat. Unproven technology without multiple references in the EU should not be considered.
- Strengthening regional basis in the management of MSW-projects should be coordinated not districts, but self-governing regions, or clusters, associations of municipalities.

- Consider when choosing a site related to energy and material links (resource availability, logistics and use of electricity and heat).
- As far as possible promote the use of existing facilities and consider their adaptation and synergy for combustion respectively. Waste incineration (cement plants, power plants).
- Mechanical-biological treatment of MSW used only if it is an outlet for the RDF produced.
- Systematic change public opinion about the harmfulness of combustion of MSW and educate the population, but also for officials and government and government in modern waste management.

Joint meetings of experts

To help the experts work, we organized several meetings with participations of partners from both sides. It is important to assure possibility for changing experiences, sharing expertise and monitoring activities.



21/10/2011, Nitra Seminar
15/11/2011, Budapest Seminar
18/11/2011, Study tour to Nitra



29/11/2011, Study tour to Budapest
08/12/2011, Budapest Seminar



Increasing public awareness on both sides of the cooperation

To inform stakeholders and target groups on both sides of the cooperation we produced information materials and promotion tools comply with the project specification

- 5 types of brochure (5000 copies)
- 2 types of posters (1000 copies)
- 3 types of banners
- 1000 pens
- 1000 files
- 1000 bags
- 1000 calendars

Closing workshop in Nitra

Summary of the project and presentation of the studies to stakeholders.

Nitra, February, 2012



European Union
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