





International Seminar:

"Exchange of Experience among Baltic Sea Region NGOs and Society in Promotion of Energy Efficiency for Climate Protection and Local Development"

Place: Latvian Energy Efficiency Centre, Jurmala, Latvia Date: 27 June, 2016

Energy Situation in Belarus

Covenant of Mayors Projects of Center for Environmental Solutions (CES), Belarus





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International seminar: Baltic Sea region NGOs and society in promotion of energy efficiency for climate protection and local development", 27th June, 2016, Jurmala, Latvia

With support from



NGO "Center of environmental solutions"

Founded in 2009

Financed by international donors

Main donors are: EU, Norway, Denmark, Sweden, Czech Republic



CES mission is promoting of an environmentally friendly life-style, principles of sustainable development, and assisting in development of inter-cultural dialogue and partnership for environmental protection.

100% legal work in Belarus (All projects, which we realize in Belarus have letters of support from relevant ministries and registered by the Department of Humanitarian Aid.)

Total Energy situation in Belarus



- Lack of own energy resources, and as a result of it of dependence of the prices of imported, resources (mainly from Russia). In 2014 Belarus paid about 170 USD per 1000 m3
- A high proportion of natural gas in the energy balance of the country
- Big losses by transportation of electricity and heat
- High energy intensity of the economy
- In the embryonic stage is the development of renewable energy sources
- It is started the construction of a nuclear power plant (funds for construction loan from Russia).
- Poor investment climate (especially after the failure of the project with the German company "Enertrag" for the construction of a wind farm with a capacity of 160 MW.)
- Lack of awareness of the population (especially in the regions) on ways of energy saving at the home, in the construction, agriculture, etc.
- -The lack of qualified personnel
- Draining wetlands for peat extraction
- Not ambitious climate targets (28% since 1990)

Energy situation in Belarus



- -Huge potential in energy saving end renewable's
- In the balance of boiler and furnace fuel, local fuels (peat and wood) are taking more than 25%
- (The natural growth of wood is 28 million cubic meters a year, and the cutting amount is about 18 million cubic meters a year)
- Over the past five years
 Energy intensity of GDP reduced by almost 30%
 Investment in energy efficiency increased to almost 3.5% of GDP
- Feed in tariff for energy, produced by Solar PV's is about EUR 0,28 for 1 Kilowatt hour
- -Ambitious targets in the field of energy efficiency in building (all new houses should be energy efficient (less than 60 Kwt\h for m2)
- -Elimination by 2017, the system of cross-subsidization
- Developing legislative basis in the field of energy saving
- Often the initiatives in energy saving and climate change comes from local authorities (Covenant of Mayors)

Renewable energy



Currently in the Republic:

more than 3,000 energy sources on local fuels with a total installed capacity of about 5.4 thousand. MW;

- -16 biogas plants on agricultural waste, landfill gas, with total electrical capacity of 20.63 MW;
- 37 wind turbines with total electrical capacity of about 17 MW;
- -51 hydroelectric power station with total electrical capacity of about 34.5 MW;
- -Solar water heaters 170 total thermal capacity of more than 1.5 MW;
- -15 photovoltaic stations with a total electrical capacity of more than 6.25 MW.

across the country are 1840 sites for wind turbines with a theoretical capacity of 1,600 MW and annual power generation of 6.5 billion. KWh.

What to do?



It is crucial to create the conditions for:

motivate enterprises and PEOPLE to implement best available technologies increase the proportion of debt and equity in the total amount of investments in energy efficiency

ensured sustainable investment climate in the area of energy saving and renewable energy

More possibilities for local authorities (saved money stays in local budget)

Development of renewable energy

Business Opportunities

Need for decentralization (mini CHPs) with the introduction of «smart greed»

Development of legislative basis

Creation the system of energy management and energy audit (ESCO companies etc.)

Project: "Engaging Citizens in Sustainable Energy to improve environment and local Economy"



September 2012 – January 2015

Total budget: 251736 Euro

Was financed by:



EU



SIDA

Was implemented by:



Center for environmental solutions (Belarus)



INFORSE-Europe (Denmark)



Skane energy agency (Sweden)

Areas of project implementation:







Puchovichy district

Project results:



- 2 study tours for local authorities organized;
- Local environmental and climate plan till 2020 developed for every district:
- **20%** Reduction of energy consumption (from baseline year)
- **40%** Increase the share of renewables in energy balance
- **20%** Decrease of CO2 emissions (from baseline year)
- 3 feasibility studies for every district developed

Among feasibility studies (building of biogas plant, installation of solar collectors, heat exchangers, boilers on straw etc.)

- 3 demo projects are realized

Installation of solar batteries and energy saving equipment; Installation of energy efficient street lightning; Installation of solar collector;

- Braslav and Puchovichy districts joined the Covenant of Majors initiative

Key factors of the Covenant of Mayors



- in about 6500 cities which joined the initiative live more than 200 million inhabitants
- about 1500 prepared Action Plans identify opportunities for reducing emissions in the amount of 140 million tons / CO2 per year
- Attract investments for a total amount of 2.5 billion Euro



Covenant of Mayors in EECCA (eastern Europe, Caucasus and central Asia)



- 1. Ukraine: 100 cities
- 2. Georgia: 10 cities
- 3. Moldova: 13 cities
- 4. Kyrgyzstan: 3 cities
- 5. Kazakhstan: 1 city
- 6. Armenia: 11 cities
- 7. Belarus: 13 cities

Oshmyani, Bereza, Brest, Chausi, Glubokoe, Kobrin, Novogrudok, Polotsk, Puchovichi, Rogochev, Braslav

Project: "Braslav – first climate neutral municipality in Belarus"



Total budget: 735140 Euro

EU contribution: 584362 Euro and Co-financing: 150777 Евро

More than **400000 Euro** – practical measures (installation of the straw boilers, changing of heat pipes, installation of heat exchangers, solar collectors, heat pumps etc.)

Project objectives:

To develop a roadmap of transforming Braslav district into a climate-neutral municipality by 2030;

To increase the share of renewable energy sources, and decrease the energy losses in Braslav district;

To get local community of Braslav district actively involved into converting of Braslav into climate neutral municipality.

Expected project results:



Braslau has an adopted and publicly accepted Strategy of converting the district into climate-neutral municipality;

Reduced amount of CO₂ emissions generated in Braslau district per person annually due to increased share of RE in total energy production and advancing of energy efficiency;

Increased quantity and quality of municipal services on sustainable energy management available to population and visitors of Braslau district (which is a wellknown tourist destination in Belarus);

Local population is widely involved into converting Braslau into climate-neutral municipality;

Braslau experience is shared among other municipalities and relevant stakeholders in Belarus and other countries.

Project period:

30 months from the registration in Belarus (13th of March 2016)



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THANK YOU