



# Saving energy and money – a Program of Energy Management in Częstochowa

## CZĘSTOCHOWA (Poland)

### SUMMARY

In July 2003 the position of Municipal Engineer to manage the Office was created by the Mayor of Częstochowa. The Office's main tasks include coordinating activities related to the supply of electricity, heat and gas, water supply and wastewater disposal, as well as city lighting.



### SHORT PRESENTATION OF CZĘSTOCHOWA

#### Location and population

County seat (powiat city) located in southern Poland in the Silesia Voivodship. It lies on the Warta River in the northern part of the Kraków-Częstochowa Upland.

There were 242 300 inhabitants in Częstochowa on 31.12.2007.



# SUSTAINABLE ENERGY DEVELOPMENT APPROACH

## Main activities and sustainable development:

- developing city's spatial and functional order;
- building positive economic and investment environment, as well as stimulating entrepreneurship that creates new jobs;
- developing the intellectual potential and social capital of the city and increasing the standard of living and quality of life of its inhabitants;
- harmonizing the city's development processes while adhering to sustainable development principles;
- strengthening the role and importance of Częstochowa as a strong national economic, cultural and scientific centre and a world-wide religious centre.

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The aforementioned scope of tasks includes *inter alia*:

1. Supervision over implementation of overall and specific objectives of local energy policy in the municipality, as set out in the document »Objectives of the Plan for the Supply of Heat, Electricity, and Gas Fuels in the City of Częstochowa«;
2. Issuing opinions on solutions concerning the supply of heat, electricity and gas fuels included in local land use plans;
3. Monitoring the consumption of heat, electricity, gas fuels and water in municipal properties;
4. Inspiring rational use of energy and water in public utility facilities that are municipal assets;
5. Consulting on the rational use of energy and water for municipal units, as well as for individuals;
6. Analysing the energy market in the context of the Third Party Access rule;
7. Cooperating with organisations that promote rational use of energy and water;
8. Cooperating with the Council on Sustainable Development of Energy Management in the City of Częstochowa, created on the basis of the Executive Order of the Mayor No. 241/07 of 26 April 2007;
9. Cooperating with all companies supplying Częstochowa with media;
10. Participating in the activities of the Commission on Local Energy Policy of the Silesian Association of Municipalities and Counties (*Gminas and Poviats*);
11. Issuing opinions on new regulations and changes in legal acts used in substantive activities.

## Use of renewable energy sources:

In Częstochowa, there are two registered heat sources running on biomass:

- straw-powered boiler house RSW Rząsawa (~500 kW)
- biomass and coal co-combustion boiler house of the Częstochowa Match Factory (Częstochowskie Zakłady Przemysłu Zapalczanego) (biomass boiler circa 1.3 MW).

It is estimated that the share of biomass in meeting heating demands of the city does not exceed 1%. Recently FORTUM company has started building in Częstochowa combined heat and power plant fired with biomass and coal. It is planned that the plant will start production in 2010. The project received funding from European Investment Bank.

Two installations using biogas for production of electricity and heat have been registered in Częstochowa. These installations operate on the municipal landfill site in Sobuczyn and at the Wastewater Treatment Plant "Warta" SA.

In 2008, a Small Hydro Power Station with a generating capacity of 75 kW began operating on the Kucelinka River (in the area of Bugajska Street). The facility is owned by the company PPUH "MICROSERVICE" A. Kleszczewski R. Bednarczyk..

### **How Częstochowa started:**

Based on the experience gained during joint implementation (with the Polish Foundation for Energy Efficiency from Katowice) of the international project »Energy and Environmental Management in public utility buildings in the Silesia Region« in the years 2003-2004, a process of energy, water and wastewater management in public utility facilities in Częstochowa is being carried out. This includes relevant cooperation with municipal companies.

The objective of this operational programme is to optimise the consumption of media and to reduce associated costs, as well as to limit CO<sub>2</sub> emission and to protect water resources through efficient management of water use.

### **Current situation:**

Modernisation, as well as cost-free management activities, is being conducted on an ongoing basis. They include:

- Eliminating excessive consumption of energy and water;
- Adjusting and maintaining equipment;
- Ongoing control of settlement terms and updated contracts with media providers;
- Issuing recommendations on changing settlement terms and supervising the implementation of these recommendations;
- Assisting in negotiations with media providers, preparing opinions, drafts of claims and appeals, monitoring the course of negotiations;
- Analysing invoices for compliance with the terms of contracts, tariffs and branch regulations as well as assistance in correcting them;
- Providing technical consultancy on operation of installations and technical equipment;
- Analysing financial settlements of sub-consumers for received media, assistance in determination of settlement principles.



## **MAIN ACHIEVEMENTS**

The effects achieved in 2007 compared to the base year (2003) as a result of management and investment activities in 121 educational buildings include:

- total costs of energy media have been lowered by 1635 thousand PLN (13.81%) during a period of tariff increases;
- total use of fuels and energy has been decreased by 61,400 GJ (23.44%);
- reduction in energy use has caused a measurable environmental effect in the reduction of CO<sub>2</sub> emissions by 7400 tons (23%);
- total costs of water supply and wastewater disposal has been decreased by 244 thousand PLN (23%) during a period of tariff increases.

## **SUGGESTIONS FOR OTHER MUNICIPALITIES**

The municipality manages the area under its jurisdiction; the quality of life of local community depends on its activities and implementation of sustainable development policy. Energy and environmental management is an element of local energy policy that must be implemented due to the obligations imposed by legal acts and national strategies. This process requires comprehensive and continuous monitoring, analytical and corrective activities conducted by a special organisational structure appointed for that purpose in agreement and cooperation with buildings' administrators. Proper relations with all municipal companies providing utilities and recognising the local government as an equal player on the energy market are of key importance.

# MODEL NATIONAL COORDINATOR FOR POLAND



The Association of Municipalities Polish Network „Energie Cités” (PNEC) was registered in June 1994 as a country-wide, non-government and non-profit organisation with its office in Kraków.

## Activity areas:

- local energy policy
- energy efficiency
- promotion of renewable energy
- climate protection
- ecological education
- exchange of information on financing sources
- looking for partners for projects

## PNEC Achievements:

- participation in over 40 national and international projects
- organisation of over 90 seminars, trainings, study tours and conferences in the framework of the projects financed from EU programmes (TEMPUS, SAVE, ALTENER, INTERREG IIIC, SF), USAID and national sources (NFOŚiGW, MSZ, FIO)
- training of over 3 500 representatives of local authorities
- cooperation with partners from over 20 countries
- elaboration, publication and free-of-charge dissemination of:
  - 38 000 CDs containing over 300 descriptions of best practices from the field of energy efficiency, RES use and sustainable development in EU countries
  - 5 000 issues of the handbook entitled “*Energy management in school buildings*”
  - 1 000 issues of the handbook entitled “*Renewable Energy Sources in Małopolska*”
  - 5 000 issues of the handbook entitled “*Energy management in municipal buildings*”
- preparation of an exhibition of 16 posters about renewable energies to be displayed in the municipalities

## FURTHER INFORMATION

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