

Programme for the reduction of low emissions - Bielsko-Biala (PL)

Keywords	Air quality, municipal eco-management, dealing with low emissions																										
Main photos																											
Objectives of the action	<p>Low emissions phenomenon is caused by gas emissions and dust air pollution, originating from domestic stoves and individual coal-fired boilers with a low chimney outlet. Fuel combustion in those boilers usually takes place in a very inefficient way. During the heating season, the phenomenon is even more troublesome, especially at the foothill, poorly ventilated urban valleys (Bielsko-Biala is located in the region of The Beskids mountains).</p> <p>Being well aware of the importance of reducing the harmful effects of this phenomenon on the environment, the City Council of Bielsko-Biala has decided for the first time in 2007 to implement the Programme for the reduction of low emissions for the period 2007-2008. It is resumed in 2009 under the name "Complex programme for the atmosphere protection in Bielsko-Biala through the reduction of low emissions from single-family houses using individual coal-fired boilers". According to most recent plans, the programme will also continue in the coming years.</p>																										
Description of the action	<p>The programme aims at improving the air quality in the city through the replacement of existing, old, inefficient and non-ecological coal-fired boilers with ecological sources of heat. In order to encourage citizens to replace the old boilers, financial incentives are being provided in the form of grants for the exchange of installations. Rate of grants varied in the subsequent years of the programme and ranged from 65 to 72.5%.</p> <p>The ecological impact of the programme is due to the change of technology of the combustion process and ensuring the use of fuels with an appropriate energy and environment performance. Moreover, the amount of burned fuel is limited as a result of automation of the combustion process, improvement of boilers efficiency, regulated heat consumption and the introduction of hydraulic regulation of central heating installations.</p> <p>Residents can choose the new boiler type out of numerous proposals, such as gas, oil or electric boilers, heat pumps, etc. As for the coal boilers, only automated coal-fired boilers with a coal feeding system and appropriate environmental certificates are eligible for a financial support. Due to the cost of fuels, the latter are the most popular.</p>																										
Results / Achievements	<p>Until the end of 2009, some 450 old boilers have been replaced, which resulted in the reduction of carbon dioxide emissions in Bielsko-Biala by more than 2,500 tons per year. The reduction of gas and dust pollution reached more than 350 tons per year.</p> <table border="1"> <thead> <tr> <th colspan="4">Modernisations carried out until the end of 2009</th> </tr> <tr> <th rowspan="2">Year</th> <th rowspan="2">Number of boilers</th> <th colspan="2">Ecological impact</th> </tr> <tr> <th>CO₂ (tons per year)</th> <th>Other reductions, expressed as SO₂ (tons per year)</th> </tr> </thead> <tbody> <tr> <td>2007</td> <td>80</td> <td>344.6</td> <td>65.9</td> </tr> <tr> <td>2008</td> <td>220</td> <td>1546.9</td> <td>202.2</td> </tr> <tr> <td>2009*</td> <td>150</td> <td>667.1</td> <td>89.8</td> </tr> <tr> <td>Total</td> <td>450</td> <td>2,558.6</td> <td>357.9</td> </tr> </tbody> </table> <p>* The same number of boilers as in 2009 is planned to be replaced in 2010</p>	Modernisations carried out until the end of 2009				Year	Number of boilers	Ecological impact		CO ₂ (tons per year)	Other reductions, expressed as SO ₂ (tons per year)	2007	80	344.6	65.9	2008	220	1546.9	202.2	2009*	150	667.1	89.8	Total	450	2,558.6	357.9
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Online information	Energy Management Office of Bielsko-Biala: http://www.pze.um.bielsko.pl/ Better energy management – more money saved – article from the website of the MODEL project: http://www.energymodel.eu/IMG/pdf/06-MODEL_Shining_Example_Bielsko-Biala_PL.pdf																										
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