

Enlarge EU Newsletter
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Macedonian's GHG reduction potential – Chances for less polluted air

Protecting the environment is fundamental for the quality of life of current and future generations. One of the greatest concerns of the European Union (EU) are combating climate change, protecting biodiversity, reducing the impact of pollution on health and better use of natural resources. Climate change has emerged as one of the most important issues facing not only the EU but the whole humanity in the 21st century. The main cause of climate change is increased concentrations of greenhouse gas (GHG) emissions, mostly due to human activities. Macedonia's economy is characterized by comparatively high level of energy consumption and GHG emissions per unit of GDP are one of the highest among Central and Eastern European (CEE) countries. (Source: *World Resources Institute 2006*). According to the baseline scenario, in comparison to the GHG emissions in 1990 (15.511, 80 kt CO₂-eq), the projected emissions will rise by 17 % in 2012 (18.136, 00 kt CO₂-eq), and by 28 % in 2020 (19.851, 00 kt CO₂-eq). (Source: *Answers to the European Commission's Questionnaire; Chapter 22 Environment*).

The question arises, how can Macedonia achieve GHG reductions?

Current situation

The values for 2012 emissions are based on the emission decrease study prepared as part of the First National Communication of the Republic of Macedonia under the United Nations Framework Convention on Climate Change. According to the study (which was made on the following sectors: electricity production, heat production, transport, industry, waste, agriculture and forest), the energy sector of Macedonia contributes with approximately 70% of the total country's GHG emissions, thus being the sector with largest share in GHG emissions.

Challenging conditions

The recommendations by experts are as follows:

- Rehabilitation of large power plants
- Fuel Switching to Natural Gas
- Industrial Efficiency Improvements
- Hydro Power
- Geothermal Energy

Relatively higher abatement potential in Macedonia compared to other CEE countries also stems from the fact that Macedonia's energy sector is heavily reliant on coal and lignite-based thermal power. Thus, any project measures replacing grid-based electricity in Macedonia are likely to lead to high emission reductions and therefore would be more attractive from Clean Development Mechanisms (CDM).

One of the primary goal of CDM is to assist Annex I countries in reaching their emissions reduction targets. This goal allows developed countries to achieve part of their GHG reduction obligations through projects in developing countries or countries in transition that reduce GHG emissions through promotion of renewable energy, energy efficiency, improvement of waste management, reforestation/a forestation and other GHG mitigation/sequestration activities. (Source: National Strategy for Clean Development Mechanism for the first commitment period of the Kyoto Protocol 2008-2012).

The Department of Energy and Mineral Resources from the Ministry of Economy, is in charge of national energy sector policies, including energy efficiency, power sector reform, renewable energy development and is therefore well-positioned to facilitate identification of CDM projects in Macedonia's energy sector.

Non-governmental organizations influence government actions by providing information and advice, making policy recommendation and sometimes by direct lobbying. Only with a synchronized action of all governmental, civil and economical subjects in reducing the emissions of GHG will lead to reduced global warming and a cleaner environment.

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Quick facts

GHG emissions by gas in the Republic of Macedonia in 2007:

CO 180 kt	SO ₂ 140, 8 kt
NO _x 46, 03 kt	TSP 30,823 kt

(Source: *Yearly Report about the Quality the Environment, 2007; Ministry of Environment and Physical Planning of the Republic of Macedonia*)