

TOWARDS AN INTEGRATED ASSESSMENT OF ENVIRONMENTAL AND HUMAN HEALTH IMPACT OF THE ENERGY SECTOR IN POLAND

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Abstract: The paper presents the results of the integrated assessment of environmental and human health impacts of emissions released from different sectors in Poland. The analysis was performed with the use of the eulerian emissions transport model POLAIR 3D and the Regional Air Pollution Information and Simulation model RAINS. The models are briefly described. At present, this hybrid system can operate in a simulation mode and enables estimation of the emission and concentration/deposition levels of main air pollutants, emission control costs, environmental impacts and external costs associated with different energy scenarios. Emission levels of main air pollutants in 2005, 2010 and 2020 are presented for the selected energy scenario. Associated external costs and impacts on acidification have been estimated.