Geophysical Research Abstracts, Vol. 10, EGU2008-A-10839, 2008 SRef-ID: 1607-7962/gra/EGU2008-A-10839 EGU General Assembly 2008 © Author(s) 2008



EVA - An integrated model system for assessing external costs related to air pollution emissions

L. M. Frohn, M. S. Andersen, C. Geels, J. Brandt, J. H. Christensen, K. M. Hansen, J. S. Nielsen, O. Hertel, C. Ambelas Skjøth and P. V. Madsen

National Environmental Research Institute, Aarhus University, Roskilde, Denmark

With this contribution we present a newly developed integrated atmosphere-economy model system, EVA, for the valuation of site-specific health costs related to air pollution.

EVA is an abbreviation of External Valuation of Air Pollution.

The EVA model system is based on the impact-pathway approach as described in the ExtrenE methodology and consists of a Eulerian model for regional scale air pollutant transport and chemical transformation (DEHM) and a Gaussian plume modul for local scale air pollutant transport (OML). A module has been developed to couple the results from the air pollution models with detailed population data for Denmark, dose-response functions derived from literature and costs functions developed specifically for Danish conditions in order to obtain estimates of site-specific impacts and costs.

In the poster the components and structure of the EVA model system will be presented together with first results for selected Danish power plants.