Driving factors for the radiation balance. Trends in cloudiness and sunshine under different scenario conditions

F. Kreienkamp, W. Enke, A. Spekat

(1) CEC Potsdam GmbH, Telegrafenberg A31, 14473 Potsdam, frank.kreienkamp@cec-potsdam.de

Current studies of the development over the 21st century often tend to focus on temperature and precipitation. This presentation will focus on indicators for the available radiation: cloudiness and sunshine duration. Results from a regionalization of climate scenarios are presented. They are obtained using statistical means which draw information from the development of large scale patterns, as well as the intrinsic changes of atmospheric variables, thus evaluating the changes in frequency, placement and amplitude of atmospheric features. Differences conditioned by the driving SRES emission scenarios are discussed.