

Risk of Energy Availability: Common Corridors for Europe Supply Security



Project Description

Import increasingly contributes to energy consumption of EU27. According to the commonly accepted energy outlooks in 2030 about 70% of the European energy needs will be met by primary sources originating from foreign areas, some of which are very remote and geopolitically unstable. A relevant issue involves the reliability of the infrastructures, as far as likely accidents and terrorist attacks are concerned. In addition, the import of electricity will be relevant as many new interconnections are at several stages of design and implementation.

Our project "REACCESS - Risk of Energy Availability: Common Corridors for Europe Supply Security" is carried out under the 7th Framework Programme (FP7) of the European Commission. The project began on January 2008 and is expected to be finished on December 2010.

The main goal is to build tools suitable for EU27 energy import scenario analyses, able to take into account at the same time the technical, economical and environmental aspects of the main energy corridors, for all energy commodities and infrastructures.

Project Objectives

Principle objectives of the REACCESS project:

- Analysing present policies concerning EU MS and Community targets for energy import.
- Evaluating technical, economical and environmental features of present and future energy corridors within and among Europe and the supplying regions of the World.
- Introducing suitable parameters, indicators and cost components that may help a global evaluation of supply options and their impacts on economy, society, energy and environment toward sustainability.
- Identifying main energy corridors to EU27+ for primary/secondary energy commodities and electricity.
- Implementing these energy corridors into an adapted version of the Pan-EU TIMES Model (PEM).
- Analysing scenarios for the fulfilment of the EU27+ energy needs, the import of strategies, the introduction of new energy schemes and the development of renewables, within the EU environmental targets for 2030-2050.
- Developing interactions with commercial and industrial entities.

Expected Results

Main outputs of the REACCESS project:

- A new modelling tool, incorporating the main consumers and supply regions and corridors for external energy supply.
- A quantitative tool capable of analysing simultaneously the three sides of the so called "Triangle of European Energy Decision Making": Security of Supply, Environmental Objectives and Economic Competitiveness.
- Exemplary scenarios and variants for EU27 and the other main supply demand regions;
- Investigation of inter-relationships between external energy supply strategies and EU27 or MS policies for energy management.
- Exemplary assessment of EC and MS various energy import policies / measures in connection with EC / national policies to manage their energy market e.g. renewables, efficiency, primary demand management, etc.
- Training of target groups for better understanding of the complexities of the system and appreciation of the capabilities of the modelling tools.
- Dissemination and exploitation activities for discussion refinement and dissemination of the methodology and models and the predicted results for the analysed scenarios.

Partners

- Politecnico di Torino (POLITO), Italy.
- Institute of Energy Technology (IFE), Norway.
- National Technical University of Athens (NTUA - EPU), Greece.
- Austrian Research Centres - Research Studios Austria (ARC), Austria.
- Fundacion General de la Universidad Nacional de Educaci3n a Distancia (F-UNED), Spain.
- Valtion Teknillinen Tutkimuskeskus, Technical Research Centre of Finland (VTT), Finland.
- University of Stuttgart (USTUTT), Germany.
- Institute of Methodologies for Environmental Analysis (CHR-IMAA), Italy.
- Applied Systems Analyses, Technology and Research, Energy Models, ASATREM, Italy.
- Climate Change Coordination Center (CCCC), Kazakhstan.
- Centro de Investigaciones Energeticas, Medioambientales y Tecnologicas (CIEMAT), Spain.
- Deutsches Zentrum für Luft und Raumfahrt, German Aerospace Center (DLR), Germany.
- Kanlo Consultants (KANLO), France.
- Institute for the Economy in Transition (IET), Russia.

Contact Details

Project coordinator: Prof. Evasio Lavagno - *POLITO*

Dissemination leader: Prof. John Psarras - *NTUA - EPU*

Contact Person: Mr. Haris Doukas, E-mail: h_doukas@epu.ntua.gr,

Tel: +30 210 7722083, Fax: +30 210 772 3550

<http://reaccess.epu.ntua.gr>