The European Commission's SECURE (Security of Energy Considering its Uncertainty, Risk and Economic implications) Project

Stakeholder Meeting on: Electricity, Renewables, Demand, Nuclear energy, Severe accidents / terrorist threat

January 18-19, 2010

Venue: ERSE S.p.A.
Via R. Rubattino, 54 – 20134 Milano – Italy

FIRST DAY – January 18, 2010

09:00 Registration

09:30 – 10:00 INTRODUCTION

The SECURE project, started in 2008, aims at building a comprehensive framework for measuring energy security of supply in the EU. Assessing the risks related to geopolitics, price formation and the economic and technical design of energy markets inside and outside the EU, the project focuses on both qualitative and quantitative analyses, adopting a global as well as a sectoral approach. The tools, the models and the policy recommendations provided by this project will serve policy-makers to formulate energy security policies taking into account the related costs, benefits and risks.

- Introduction to the SECURE project by **Andrea Bigano**, FEEM – Fondazione Eni Enrico Mattei
- SECURE in the context of FP7, European Commission, SECURE Project Officer *(t.b.c.)*
- Scientific aspects of the SECURE project by **Manfred Hafner**, FEEM – Fondazione Eni Enrico Mattei

10:00 – 11:15 SESSION I: "SECURE global scenarios 2020-2030-2050: Security of supply and climate change nexus"

The aim of this session is to present some framing scenarios up to 2050 developed in the SECURE project in order to explore the climate change and security of supply nexus for Europe but taking also into account impacts of climate change on the world energy system. It is upon these scenarios (Base Line, Muddling Through, Europe Alone and Global Regime) that the SECURE sectoral analysis will be based upon.

- Presentation by **Silvana Mima,** University of Grenoble – LEPII – CNRS
- Remarks by Discussant (**Francesco Gracceva**, ENEA – National Agency for New Technologies, Energy and Sustainable Economic Development), followed by open discussion

11:15 – 11:45 Coffee break

11:45 – 13:00 SESSION II – ELECTRICITY

The role of gas in power generation in the EU Member States is growing today and will significantly increase in the future, determining risks of insecure supply in case of gas shortages. In this session case studies concerning the impact assessment of gas shortages on the power systems of regions with power generation highly dependent on gas (e.g. Italy) will be presented. Moreover, an efficient development of the electricity transmission infrastructure is a key precondition to the achievement of a secure, competitive and sustainable electricity supply in the EU Member States: within this context, some preliminary results concerning an evaluation of the "optimality" level of the EU transnational transmission network will be presented.

- Presentation by **Michele Benini**, ERSE S.p.A.
- Remarks by Discussants (**Lucia Passamonti** and **Riccardo Vailati**, Authority for Electric Energy and Gas), followed by open discussion

13:00 – 14:00 LUNCH

14:00 – 15:15 SESSION III – RENEWABLES

In recent years EU Member States have been promoting the use of renewable energy technologies (RET) in the energy sector inter alia due to their potential contribution to increasing security of supply. It is the objective of this session to present the status quo of RET in Europe, scenarios on the future development of renewable energy technologies (RET) following the general energy scenarios (conducted by POLES) by taking into account recent EU energy legislation (20% RES by 2020) and their implications for security of energy supply. Additionally, the associated additional costs induced by the RET-development and the policy measures required to achieve the respective increase in the use of RET are analyzed.

- Presentation by **Anne Held –** Fraunhofer Institute for Systems and Innovation Research, **Christian Panzer** – Vienna University of Technology – Energy Economics Group (EEG)
- Remarks by Discussant (**Arturo Lorenzoni**, University of Padova / IEFE Bocconi University), followed by open discussion

15:15 – 15:45 Coffee break

15:45 – 17:00 SESSION IV – DEMAND

It can be argued that one way to reduce the dependence from external energy sources, or the exposure to energy prices volatility and increase, is simply to reduce the demand for energy. Energy savings may thus be considered a policy priority when concerns for energy security are particularly strong. The role of energy efficiency in a European energy security perspective is analyzed, looking in detail into energy use by sector and by source.
To this purpose an innovative econometric approach is applied. We check whether policies and measures that affect indicators of energy efficiency performance have an analogous effect on security of supply indicators, and vice-versa, both at the whole economy level and within the main sectors of energy use (industry, residential, transport, tertiary and agriculture) in the EU 15 countries and Norway.
The main lesson to be drawn from this analysis is that there is a number of energy efficiency policies in the EU that do work, but there is no silver bullet able to successfully address different policy objectives. Taking a more general perspective, what seem to work is the policy mix rather this or that policy in insulation.

- Presentation by **Andrea Bigano**, FEEM – Fondazione Eni Enrico Mattei

- Remarks by Discussant (**Claudia Checchi**, ref. – Ricerche per l'Economia e la Finanza), followed by open discussion

17:00 – 17:30 Progress of work of the REACCESS project: *"Risk of Energy Availability: Common Corridors for Europe Supply Security"*

- Presentation by **Raffaella Gerboni / Rocco De Miglio**, Politecnico di Torino, followed by open discussion

SECOND DAY – January 19, 2010

09:00 Registration

9:30 – 9:45 INTRODUCTION

- Scientific aspects of the SECURE project by **Manfred Hafner**, FEEM – Fondazione Eni Enrico Mattei

9:45 – 11:00 SESSION V – NUCLEAR ENERGY

The role of nuclear energy in the EU in terms of electricity generation and achieving SET-Plan targets is essential. Thus, security of energy supply in the nuclear energy sector is of great importance. In this session a methodology to assess energy security of supply in the nuclear energy sector, security indicators and a security indicator system will be presented. Trends of EU and national policies in terms of nuclear energy will be discussed.

- Presentation by **Juozas Augutis**, LEI – Lithuanian Energy Institute
- Remarks by Discussant (**Felice De Rosa**, ENEA – National Agency for New Technologies, Energy and Sustainable Economic Development), followed by open discussion

11:00 – 11:15 Coffee break

11:15 – 12:30 SESSION VI – SEVERE ACCIDENTS / TERRORIST THREATS

Severe accidents comprise an essential element in the comprehensive assessment of energy security risks. Within SECURE the major energy chains (fossil, nuclear, renewables) are analyzed by state-of-the-art comparative risk assessment, based on PSI's database ENSAD, simplified Probabilistic Safety Assessment (PSA), and in few cases complemented by expert judgement. The second part of this session addresses terrorism as a threat to energy infrastructures. The work carried out until now includes the development of methodology for modelling terrorist threat and a demonstration of application to specific objects.

- Presentation by **Peter Burgherr** and **Stefan Hirschberg**, PSI – Paul Scherrer Institute
- Remarks by Discussant (**B.J.M. Ben Ale**, Delft University of Technology), followed by open discussion

12:30 – 13:00 CONCLUSIONS

- Conclusions and wrap-up by **Manfred Hafner**, FEEM – Fondazione Eni Enrico Mattei

13:00 – 14:00 LUNCH

Please confirm your participation by e-mail to:

michele.benini@erse-web.it

For more information on the location:

http://www.erse-web.it/english/how_to_reach_us.asp#