



## SESAME Consortium



POLITECNICO  
DI TORINO

Deloitte.



E-CONTROL



Joint Research Centre  
Institute for Energy and Transport -  
Energy Security Unit



## Final Conference

Securing the European Electricity Supply  
Against Malicious and accidental threats



### SESAME

This Conference is part of the SESAME research programme. SESAME is a FP7 project supported by the European Commission, aiming at the development of tools and a regulatory framework for the security of the European power grid against natural, accidental and malicious threats.

→ **SESAME Decision Support System**

→ **SESAME Policy Framework**

For further information:  
<http://www.sesame-project.eu/>

Registration is free of charge.  
To register write an e-mail to:  
[enrico.pons@polito.it](mailto:enrico.pons@polito.it)



This project has received funding from the European Union's Seventh Framework Programme for research, technological development and demonstration under grant agreement no. 261696"

## September 18, 2014

Meeting Room of Regione Piemonte  
Rue du Trône, 62  
Brussels

## SESAME Closure Event

Contemporary societies increasingly depend on the proper functioning and security of a set of critical infrastructures such as energy networks, transportation systems, and communication systems.

The electricity infrastructure (EI) and its security are particularly important as many downstream infrastructures crucially rest on the provision of electricity for their operations. Different events and actions may threaten the operation of the EI, ranging from natural events (lightning, floods, earthquakes...), accidental malfunctioning of devices, to malicious attacks, implemented by terrorist organizations or organized crime.

Protecting the EI against those threats and securing the supply of electricity are crucial, and they must be considered in the context of market competition and by the exploitation of less predictable energy sources as renewables.

Decision makers need tools to model the impacts of various threats, quantify the consequences of the disruption in the supply of electricity and perform cost/benefit trade-offs of investments to optimize the security level. In addition, in a competitive market context, the security assurance and the related costs must properly fit in the regulatory framework.

Some crucial questions arising are:

- How to model the EI behaviour against different threats and study their related impacts?

- How to assess the economic value of disruptions of electricity supply, considering different typologies and locations of users and different seasons?
- How to execute EI stress tests? How to evaluate the levels of security and adequacy of MS and EU regions?
- How to help decision makers in devising security policies for the EI, allocating investments and evaluating the cost/benefit of countermeasures against threats?
- How can regulatory schemes efficiently assure EI security?
- Regarding malicious threats, which is the level of preparedness in the EU and which kind of countermeasures should be adopted against them?

The SESAME project addressed those questions, by means of methods and tools.

The project developed a Decision Support System that facilitates the exploration of EI security options. The approach weighs those options vis-a-vis the decision makers' objectives, and proposes a multilevel policy framework for regulating the security of electricity supply in the current EU context.

The outcomes of the project and the tools will be introduced and demonstrated to the participants in the event.

## Agenda

9:00 Registration of the participants

### **Introduction**

9:30 Welcome and Introduction

(Giovanni Griva, Politecnico di Torino - Ettore Bompard, JRC - IET)

10:10 Importance of security of power supply  
(Marcelo Masera, JRC - IET)

### **SESAME Decision Support System**

10:30 Coffee break

10:50 Assuring security to the electricity power grid: the TSO perspective  
(Paolo Cuccia, TERN)

11:10 DSS structure and rationale  
(Tao Huang, Politecnico di Torino - Michael Schmidthaler, EI - JKU)

12:00 E-scope demonstration  
(Lola Lucena, Indra)

12:20 Discussion with the stakeholders

13:20 Lunch break

### **SESAME policy framework**

14:35 A policy framework for secure electricity supply  
(Hamilcar Knops - Zofia Lukszo, TU Delft)

15:15 Reliability in a complex socio-technical system  
(Geert Deconinck, KU Leuven)

15:35 Discussion with the stakeholders

16:40 Closure

