



## 8<sup>th</sup> International Conference on Clean Electrical Power

### *Special Session on Advanced systems and models for a secure, and resilient energy management of smart grids*

A promising solution for the continuation of the decarbonization and energy transition process is represented by the optimized management of different energy vectors (electricity, heat, hydrogen, gas).

The success of new energy paradigm is based on “integration”.

It means integration of resources, technologies and energy vectors integration.

It is important to concentrate the attention on integrated energy carriers as the RESOURCE to ensure secure, and resilient smart grid.

In this context, advanced hardware, software, communication and remote control systems can certainly offer valid support in guaranteeing the satisfaction of the energy needs of users, local communities and industries, also assuring grid reliability and adequacy.

The focus is on devices, controllers, architectures, forecasting and detection methodologies and models.

This special session aims at gathering contributions able to cope with the above topics. This relates possible contributions dealing with (but not limited to):

- Advanced solutions for the integration among electric-thermal-gas-H<sub>2</sub> based carriers.
- Control and management strategies for multi-vectors smart grid.
- Technologies for reliable, secure and resilient energy grids.
- Protection and communication solutions for secure energy grids.
- Methodologies and algorithms for anomaly and fault detection and prediction.
- Forecasting techniques for energy distributed resources.

The special session is organized by:

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