Title of the event: ***e-Highway2050: a research project for proposing a robust modular expansion plan till 2050 for the pan-European transmission system***

1st July 2015

Organizer: Gianluigi Migliavacca RSE S.p.A.

Abstract: Following the "Modular Development Plan on pan-European Electricity Highways System 2050" elaborated by the European Network of Transmission System Operators for Electricity (ENTSO-E) and in response to the call ENERGY.2012.7.2.1 of the 7th Framework Programme (FP7) of the European Commission, the research project e-Highway2050 (http://www.e-highway2050.eu) was launched in September 2012, with the aim of delivering a Modular Development Plan of the pan-European transmission system at the time horizon 2050 supporting the planning of a pan-European "Electricity Highway System" (EHS) while ensuring the reliable delivery of RES generation and a pan-European market integration. The project, led by the French transmission system operator (TSO) RTE, involves 28 European partners, with a wide spectrum of skills and knowledge (TSOs, research institutions, consultants and interest associations).
After defining a comprehensive set of boundary conditions, which set the planning study limits, the developed methodology generates candidate grid architectures which are able to meet the challenges of electricity markets between 2020 and 2050; the implemented scenario-based, planning approach takes into account technological, financial/economic, environmental and socio-political issues, in order to propose sustainable and efficient grid architectures for Europe up to 2050. Generation is dealt with by fuel types combining centralized and decentralized options. Consumption is detailed by business and by usage. In order to assess the candidate grid architectures, a new multi-criteria/cost-benefit methodology has been elaborated to compare the new transmission investments using a socio-economic impact analysis involving the costs, the risks and the benefits for society and stakeholders. This analysis of the pan-European grid architectures encompasses each of the scenarios with the aim to rank them according to the above mentioned cost-benefit assessment.
The present event aims at showing the main results achieved in the project, that will conclude its activities by end 2015.

Agenda

10.30-11.00	General presentation of the e-Highway2050 project	G. Sanchis (Project Coordinator, RTE)
11.00-11.30	Reference 2050 scenarios and the analysis grid of expansion architectures	T. Anderski (Amprion)
11.30-12.00	Cost-benefit assessment of expansion architectures: methodology and results	G. Migliavacca (RSE)
12.00-12.30	Interaction with the public	