

## Close to zero emission by 2050 means from 100 to 400 billion € investment in electricity transmission, concludes e-Highway2050

Launched three and half years ago, e-Highway2050, partly funded by European Commission, presents its conclusions at a conference in Brussels today. The 28 project partners including transmission system operators, energy associations, a non-governmental organisation, academics and companies, designed a long-term modular plan for the development of the electricity high voltage grid.

The work of e-Highway2050 builds on [ENTSO-E's ten-year network development plan](#) which looks at the needs in electricity transmission up to 2030. What the project clearly identifies is that the grid of 2030 will not be sufficient in 2050. e-Highway2050 shows that the **network expansion rate is driven by the increase in generation**, and especially wind and solar.

Whatever the European energy landscape will look like in 2050, it appears indispensable for the security and affordability of the power system on the long-term to create **North-South corridors** and to reinforce the connections of the North and the South with the Central Continental area.

*“An invariant set of transmission requirements has been identified in consistency and in continuity with the Ten-Year Network Development Plan”,* said **Gerald Sanchis** e-Highway2050 coordinator. *“The benefits of these requirements for the European system, resulting from the optimal use of energy sources, largely exceed their costs”.* e-Highway2050 indeed shows that, with the right transmission infrastructure in place, each year up to 500 TWh more of renewables could be put into the system and 200 mega tons of emissions could be avoided.

What the project also shows is that there is **no need for an overlay grid**. *“The proposed architectures integrate the present pan-European transmission grid, without needing a new separate ‘layer’ within this existing transmission network”* concluded Gerald Sanchis.

The results of the research are presented at the [e-Highway2050 conference](#) in Brussels on 3 and 4 November. An e-Highway2050 booklet with the project outcome is available on the project website.

### About e-Highway2050

e-Highway2050 is a 40-month project which started on 1 September 2012. It is supported in part by the European Commission's Directorate General for Research and Innovation within the Seventh Framework Programme for Research. The consortium is led by the French Transmission System operator RTE and comprises: SINTEF, Norway; AMPRION, Germany; TECHNOFI, France; REN, Portugal; ELIA Group, Belgium/Germany; RSE, Italy; dena, Germany; ENTSO-E, Belgium; CEPS, Czech Republic; SWISSGRID, Switzerland; TERNA, Italy; Brunel University, UK; COMILLAS University, Spain; IST, Portugal; KU Leuven Belgium; ENSIEL, Italy; TU Berlin, Germany; ECN, Netherlands; IPE, Poland; EURELECTRIC, Belgium; EUROPACABLE, Belgium; EWEA, Belgium; T&D EUROPE, Belgium; POYRY, UK; E3G, Belgium; PSE, Poland; CEP, UK.