EERA JP Smart Grids Workshop

"The crucial role of Smart Grids for the success of the clean energy transition"

About the European Energy Research Alliance and its Joint Programme on Smart Grids

The **European Energy Research Alliance (EERA)** is an association of European public research centers and universities engaged in low-carbon energy research and is a pivotal actor in the European Union's Strategic Energy Technology (SET) Plan. EERA pursues the objective of catalysing European energy research for a climate-neutral society by 2050. Bringing together over 250 organisations from 31 countries, it represents Europe's largest energy research community. EERA coordinates its research activities through 18 Joint Programmes, one of which is focused on Smart Grids.

The **EERA Joint Programme on Smart Grids (JP SG)** promotes extensive cross-disciplinary collaboration among 33 research organisations from 18 European countries, with the objective of addressing critical areas related to the development and deployment of Smart Grids from a medium- to long-term research perspective. The JP SG is a pivotal entity in the smart grid sector, serving as a central hub for research across Europe and for organisations operating also beyond the EU.

Concept overview

The European electricity grid is one of the most interconnected and resilient in the world, delivering a stable and high-quality energy supply to approximately 600 million consumers on a daily basis. This is the result of quality control and strict requirements from EU operators and the supportive EU regulatory framework, which includes rules on cross-border energy infrastructure and the internal electricity market. With the integration of EU markets, the ongoing energy transition and the emergence of clean low carbon technologies, there is the need to re-design the interconnected grid to optimally take care of the paradigm change of distributed vs central. This subtle but important change brings in focus the active consumers with energy communities being developed with emphasis shifted to highly distributed generation and storage facilities.

Electricity consumption is expected to increase by around 60% by 2030, moreover, to meet renewable energy target, EU wind and solar power capacity will need to increase from 400 GW in 2022 to at least 1,000 GW by 2030, including a major increase in offshore renewables to 317 GW by 2050. The require rapid expansion and modernisation of electricity grids will also allow to meet growing demand for clean mobility, heating and cooling, industrial electrification and the start of green hydrogen production.

In this context, and recognising the crucial role of R&I in supporting the energy transition, the European energy research community represented in the EERA JP Smart Grids, has chosen to focus its attention this year on producing a White Paper on the crucial role of Smart Grids for the success of the clean energy transition, a policy-oriented document that will provide valuable guidance and insights for policy makers and related stakeholders.

Beyond being the perfect opportunity to present the first findings of this ongoing work, the workshop will welcome high-profile speakers in panel discussions with international organisations, policymakers and professionals in the field of smart grids. It will also provide an opportunity to reflect from different angles on the next steps that need to be taken to address the main challenges in adapting, expanding, digitalising and optimally using the EU electricity grids for facilitating energy transition.

Agenda

Date: Thursday 24 October 2024
Time: 11.00 – 12.30 (CEST)
Location: Enlit Europe 2024, Grid Innovation Hub (Hall 7) - Fiera Milano di Rho, Milan, Italy

AGENDA		
11.00 – 11.10	**Welcoming remarks**	**Luciano Martini** EERA JP Smart Grids coordinator, *RSE*
11.10 – 11.25	**Keynote speech - Empowering Europe: Collaborative Success Stories in Smart Grid Implementation.**	**Luís Cunha,** Chair, *ETIP SNET*
11.25 – 11.40	**Highlights from the upcoming EERA JP Smart Grids White Paper on the crucial role of Smart Grids for the success of the clean energy transition**	**Andrei Morch,** Research Scientists, *SINTEF*
11.40 – 12.20	**Panel discussion followed by Q&A with audience** *Each speaker will address the audience with an answer to an introductory question for approximately five minutes, bringing forward its organization's perspective on the topic. Targeted questions prepared by the moderator will follow each intervention.*	Moderator: **Luciano Martini** EERA JP Smart Grids coordinator, *RSE* Panelists: **Chiara Marricchi,** Head of positioning and strategic analysis, *ENEL* **Luís Cunha,** Chair, *ETIP SNET* **Gavin Farrand,** Vice President of Sales - UK and Europe, *TRILLIANT*
12.20 – 12.30	**Concluding remarks**	**Luciano Martini** EERA JP Smart Grids coordinator, *RSE*