

EERA Joint Programme on Smart Grids

PhD candidate Award

The transformation of energy systems toward sustainability, resilience, and efficiency is a central challenge of our time. Smart Grids play a crucial role in enabling this transition by integrating renewable energy sources, enhancing system flexibility, supporting active consumer participation, and ensuring secure and efficient electricity delivery. Advancing research and innovation in this domain is essential to achieving Europe's energy and climate goals.

The European Energy Research Alliance Joint Programme on Smart Grids (EERA JP SG) brings together leading research organizations to align national and European R&D efforts in the field of smart grids. Structured into several Sub-Programmes, the JP SG covers key areas such as technologies for the management of power systems, storage integration, flexible transmission and distribution networks, and consumer engagement. Through collaborative research and knowledge sharing, the JP SG aims to foster scientific excellence and support the development of innovative solutions for future energy systems.

In recognition of the critical contribution of doctoral research to this mission, the **EERA JP SG launches a PhD Candidate Award to honour outstanding PhD research pathways that advance the field of smart grids**. The award focuses on the quality, originality, and relevance of the research plan, methodology, and progress achieved to date by PhD candidates who have been **enrolled in their doctoral studies for at least one year**. The aim is to highlight high-quality doctoral work in progress, promote scientific excellence, and encourage knowledge exchange within the EERA JP SG community.

Through this initiative, the EERA JP SG seeks to support and inspire a new generation of researchers dedicated to shaping the energy systems of the future.

Eligible PhD research pathways should align with at least one of the **thematic areas** of the JP SG's Sub-Programmes, which include:

1. Technologies and tools for the management of future power systems
2. Storage integration
3. Smart flexible distribution systems: planning and operation
4. Consumer and prosumer activation and engagement through digitalization and ICT
5. Flexible transmission networks

For further details on thematic areas, visit the [EERA Joint Programme Smart Grids website](#) and follow us on [LinkedIn](#).

Award details

Type and number of awards:

- To support the exploitation of research impact and value, the following monetary prizes will be awarded:
 - **Gold Award** up to 3 recipients, €3,000 each
 - **Silver Award** up to 3 recipients, €2,000 each
- The monetary prizes are intended to enhance the impact of the recipients' research and/or support its further development.
- Awardees will be invited to present their PhD research at the award ceremony, which will take place during the JP Smart Grids Workshop in spring 2026.
- Travel and accommodation will be reimbursed by the EERA JP SG up to €600 per person.

Eligibility criteria call 2025:

To be eligible, applicants must meet all the following criteria:

- **Doctoral status:** Applicants must have successfully completed at least the 1st year of their PhD research and **must not have defended** their PhD thesis **before 30 September 2025**.
- **Affiliation with EERA.** Applicants must either:
 - Be currently enrolled in a PhD programme at a member organisation of the European Energy Research Alliance (EERA), or
 - Have conducted significant collaborative research related to their PhD in partnership with an EERA member organization.

Refer to Annex I for the full list of EERA member organizations.

- **Research topic:** The applicant's PhD research must align with **at least one** of the following JP SG thematic areas:
 1. Technologies and tools for the management of future power systems
 2. Storage integration
 3. Smart flexible distribution systems: planning and operation
 4. Consumer and prosumer activation and engagement through digitalization and ICT
 5. Flexible transmission networks

For further details on thematic areas, visit the [EERA Joint Programme Smart Grids website](#)

Application requirements:

An application will be considered complete and eligible for evaluation only if it includes all of the following:

- **Curriculum Vitae:** max 2 pages (A4), including a list of publications resulting from the PhD work.
- **Extended abstract:** 2 pages of text (max 8,000 characters including spaces). Up to three figures may be included (figures do not count towards the character or page limit). The extended abstract must clearly highlight:
 - Context and motivation
 - Objectives
 - Methodology
 - Novelty and key results
 - Potential impact on the European industry and energy sector
 - A brief statement on how the prize funds will be used.

Text exceeding the character limit will not be considered.

- **Letter from the EERA member organization** confirming:
 - the close collaboration between the organization and the PhD candidate in research activities;
 - the relevance of the PhD research to at least one of the JP Smart Grids thematic areas;
 - the quality and significance of the PhD research;
 - the successful completion of at least the 1st year of the PhD research.

- **Supervisor letter of support** (required only if the PhD supervisor is not affiliated with an EERA member organization), attesting the quality and significance of the PhD research.
- **Short video presentation** (max 3 minutes) introducing the candidate, research topic, key results and impact. A structure for the video is provided in Annex II.

The application could also include a copy of the best paper related to the PhD work (optional).

Submission and confidentiality:

- Applications must be submitted via email to smartgrids@eera-set.eu by **30 November 2025** (23:59 Brussels time) at the latest and including all documentation listed in the "application requirements". Applicants should upload the video presentation on YouTube, set the visibility to "Unlisted", and include the link to the video in text of the e-mail.
- All submitted materials will be treated in strict confidence and will not be shared outside the evaluation committee, except for the short video presentations of the selected awardees.
- Videos of selected awardees will be published on the JP Smart Grids website and shared via LinkedIn for dissemination and JP SG promotional purposes.

Evaluation criteria:

All eligible applications will be assessed by the Evaluation Committee based on the following criteria:

1. Scientific quality and originality (up to 5 points)
2. Methodological soundness and academic rigor (up to 5 points)
3. Relevance to the JP Smart Grids' thematic areas (up to 5 points)
4. Level of innovation and potential for practical application (up to 5 points)
5. Quality of the video presentation (up to 5 points)

To be considered for an award, applications must score at least 3 points in each criterion.

Gold Awards will be conferred to the highest-ranked applications with a total score ≥ 20 , subject to the ranking.

Timeline:

- 30 November 2025 - Application submission deadline
- By the end of January 2026 - Notification of results to applicants
- Spring 2026 - Award ceremony (exact date and location will be communicated to the winners in due course)

Award process:

- **Preliminary phase – formal compliance check:** Applications will first undergo a preliminary review to verify formal compliance with the requirements outlined in the "Application requirements." If all documentation is in order, the application will proceed to the next phase. Otherwise, the applicant will be notified of the exclusion.
- **Technical evaluation phase:** Eligible applications will be assessed by a panel of technical experts appointed by the Management Board (MB) of the Joint Programme. Potential conflicts of interest will be duly assessed.
- **Notification of results:** Applicants will be informed, by an e-mail message sent to the address that the applicant used to submit the application, of the outcome of the evaluation process
- **Acceptance of the award:** the applicant has 10 days from the notification of results to accept the award by replying via email. After this period, if the candidate has not accepted or have not sent any confirmation, the JP will proceed with adjusting the ranking accordingly.

Evaluation Committee:

The experts who evaluate the applications will be appointed by the Management Board of the JP SG. All experts will be required to declare any potential conflicts of interest before participating in the evaluation process.

Questions:

For any questions or additional information, please contact the JP Smart Grids at smartgrids@eera-set.eu

ANNEX I – Member organizations of the European Energy Research Alliance (EERA):

Austria:

- Austrian Institute of Technology GmbH
- Energy Institute at the Johannes Kepler University Linz
- Graz University of Technology
- International Institute for Applied Systems Analysis
- TU Wien

Belgium:

- Belgium Energy Research Alliance (BERA)
 - VITO
 - Engie Laborelec
 - KU Leuven
 - IMEC
- OCAS NV

Bulgaria:

- Agricultural University Plovdiv
- Bulgarian Academy of Sciences
- Energy Agency of Plovdiv
- Sofia University 'St. Kliment Ohridski', Faculty of Economics and Business Administration

Canada:

- University of Quebec at Trois-Rivieres

Croatia:

- Energy Institute Hrvoje Pozar

Cyprus:

- The Cyprus Institute
- University of Cyprus

Czech Republic:

- Brno University of Technology
- Czech Energy Research Alliance (CERA)
- Czech Technical University in Prague
- Institute of Thermomechanics of the CAS
- Nuclear Physics Institute of the Czech Academy of Sciences
- Research Center Řež
- Tomas Bata University in Zlín
- VSB-Technical University Ostrava

Denmark:

- Aalborg University
- Aarhus University
- Copenhagen Business School
- DHI
- Technical University of Denmark (DTU)

Estonia:

- Tallinn University of Technology

Finland:

- Aalto University
- School of Energy Systems
- University of Helsinki
- University of Oulu
- University of Vaasa
- VTT Technical Research Centre of Finland Ltd.

France:

- Alternative Energies and Atomic Energy Commission (CEA)
- Bureau de Recherches Géologiques et Minières
- Ecole Centrale de Nantes
- Electricity of France
- France Energies Marines
- IFP Energies Nouvelles
- MINES ParisTech
- National Center for Scientific Research
- University of Lorraine
- University of Strasbourg

Germany:

- Center for Solar Energy and Hydrogen Research
- DBFZ Deutsches Biomasseforschungszentrum gemeinnützige GmbH
- Energy Research Centre Lower Saxony
- European Distributed Energy Resources Laboratories e.V. (DERlab e.V.)
- Federal Institute for Materials Research and Testing
- Forschungszentrum Juelich
- Fraunhofer
- German Aerospace Center
- Helmholtz Association of German Research Centres
- Helmholtz Centre Potsdam - GFZ German Research Centre for Geosciences
- Helmholtz-Zentrum Berlin für Materialien und Energie
- IZPF Fraunhofer
- Karlsruhe Institute of Technology (KIT)
- OFFIS Institute for Information Technology
- Ruhr-Universität Bochum
- RWTH Aachen ISEA
- Technische Universität Darmstadt
- Technical University of Ilmenau
- University of Bayreuth
- University of Oldenburg
- University of Stuttgart
- Westphalian University of Applied Sciences
- WIP Renewable Energies

Greece:

- CERTH
- CRES - Center for Renewable Energy Sources and Saving
- University of Western Macedonia

Hungary:

- MTA Centre for Energy Research

Ireland:

- University College Dublin
- University College Cork

Island:

- Icelandic Geosurvey

Italy:

- Centro Sviluppo Materiali S.p.A. (CSM)
- Italian National Research Council (CNR)
- Italian National Agency for New Technology, Energy and Sustainable Economic Development (ENEA)
- ETA Florence
- Newcleo
- OGS (National Institute of Oceanography and Applied Geophysics)
- Politechnic of Milan
- Politechnic of Turin
- Renewable Energy Consortium for Research and Demonstration (RE-CORD)
- Ricerca sul Sistema Energetico (RSE)
- Sapienza University of Rome
- Scuola Superiore Sant'Anna
- Seamthesis
- University of Bari Aldo Moro
- University of Bologna
- University of Catania
- University of Florence
- University of Genova
- University of Milano-Bicocca
- University of Modena and Reggio Emilia
- University of Naples Federico II
- University of Palermo
- University of Padova
- University of Perugia
- University of Pisa
- University of Turin
- University of Rome Tor Vergata
- Università Politecnica delle Marche
- Università Roma Tre
- X-NANO

Latvia:

- Institute of Physical Energetics (IPE)

Lithuania:

- Kaunas University of Technology, Prof. K. Baršauskas Ultrasound Research Institute
- Lithuanian Energy Institute

North Macedonia:

- Ss. Cyril and Methodius University in Skopje

Norway:

- Institute for Energy Technology
- Norwegian Institute for Nature Research
- NORCE Research AS
- Norwegian University of Science and Technology
- SINTEF AS
- SINTEF Energy Research
- SINTEF Ocean
- University of Bergen
- University of South-Eastern Norway
- University of Stavanger

Poland:

- Institute of Power Engineering - National Research Institute (IEN)
- The Szwedzki Institute of Fluid-Flow Machinery Polish Academy Of Sciences
- Oil and Gas Institute - National Research Institute
- National Centre for Nuclear Research
- Warsaw University of Technology

Portugal:

- CENSE / NOVA.id.FCT
- Collaborative Laboratory for the Biorefineries
- INESC TEC - Institute for Systems and Computer Engineering, Technology and Science
- International Iberian Nanotechnology Laboratory
- National Laboratory for Energy and Geology
- University of Évora
- WavEC Offshore Renewables

Romania:

- National Institute for R&D in Electrical Engineering ICE-CA Bucharest
- National Institute of Materials Physics
- RATEN
- Politehnica University of Timișoara

Spain:

- CENER - National Renewable Energy Centre
- CIEMAT - Centre for Energy, Environment and Technology Research
- CIAE - Iberian Centre for Research in Energy Storage
- CIRCE - Research Centre for Energy Resources and Consumption
- IKERLAN
- Imdea Energy Institute
- IMDEA Materials
- IREC - Catalonia Institute for Energy Research

- ITE - Instituto Tecnológico de la Energía
- LEITAT
- Spanish National Hydrogen Centre
- Spanish National Research Council
- Technological Centre of Components
- Oceanic Platform of the Canary Islands
- TECNALIA
- Technical University Madrid
- Tekniker
- Universitat Politècnica de Catalunya
- University of Alicante
- University of Oviedo
- University of the Basque Country
- University of Seville
- University of Girona
- VICOMTECH

Slovakia:

- Slovak University of Technology in Bratislava

Slovenia:

- National Institute of Chemistry
- University of Ljubljana

Sweden:

- Chalmers University of Technology
- Lulea University of Technology
- Research Institute of Sweden
- Royal Institute of Technology
- Uppsala University

Switzerland:

- EPFL
- Paul Scherrer Institute
- Swiss Federal Institute of Technology in Zurich
- Swiss Federal Laboratories for Materials Science and Technology
- TRANSMUTEX
- University of Applied Sciences and Arts Lucerne
- University of Applied Sciences and Arts of Western Switzerland Valais/Wallis
- University of Geneva

The Netherlands:

- Amsterdam University of Applied Sciences
- DIFFER - Dutch Institute for Fundamental Energy Research
- Netherlands Energy Research Alliance (NERA)
- Netherlands Organisation for Applied Scientific Research (TNO)
- Delft University of Technology
- University of Groningen
- Utrecht University
- Wageningen Research part of Wageningen UR

- NRG PALLAS B.V.
- Maritime Research Institute Netherlands
- Technical University of Eindhoven

Turkey:

- EGE UNIVERSITY
- Izmir University of Economics
- Kadir Has University
- ODTÜ-GÜNAM Üniversiteler Mah
- The Scientific and Technological Research Council of Turkey (TUBITAK)
- Izmir Institute of Technology (IZTECH)
- Istanbul Teknik University
- Hacettepe University
- Middle East Technical University
- Marmara Research Center

United Kingdom:

- British Geological Survey
- National Nuclear Laboratory
- Offshore Renewable Energy Catapult
- UK Energy Research Centre
 - Cardiff University
 - Imperial College London
 - Plymouth Marine Laboratory
 - Science and Technology Facilities Council
 - University College London
 - University of Birmingham
 - University of East Anglia
 - University of Edinburgh
 - University of Exeter
 - University of Leeds
 - University of Sussex
 - University of Strathclyde
 - University of Warwick
- University of Derby
- National Composites Centre
- CERTH
- Center for Renewable Energy Sources and Saving

ANNEX II - Structure for the 3-Minute Video Presentation

1. Introduction

- State your name and university or institution.
- Briefly describe the main topic or goal of your PhD research.
- Explain its relevance to the [EERA Joint Programme Smart Grids](#) thematic areas.

2. Research overview

- Present your primary research questions or objectives.
- Outline the methodology or approach used in your work.
- Summarize key results or progress achieved to date.

3. Relevance and potential impact

- Explain how your research contributes to Smart Grids and/or supports Europe's energy and climate goals.
- Emphasize the potential impact and significance of your findings in real-world applications.