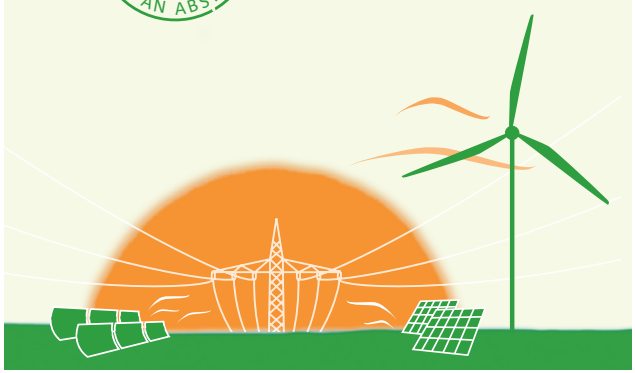
2nd INTERNATIONAL CONFERENCE ON

Large-Scale Grid Integration of **Renewable Energy in India**

SEPTEMBER 2019
NEW DELHI, INDIA

SUBMIT by 31 March 2019 AN ABSTRACT



CALL FOR PAPERS

If you would like to present a paper at the conference please visit our website: **www.regridintegrationindia.org**

- To submit a paper, upload an abstract of maximum 3,000 characters (free style) between **15 January & 31 March 2019**.
- Final papers must then be submitted online by **31 July 2019.**
- As the conference language is English, all abstracts have to be written in **English**.
- All participants are responsible for paying their own travel and hotel expenses.
- Conference **registration is free**.

The Conference provides an International Forum to:

- Discuss technical and economic issues of the large-scale integration of solar and wind power including the recent advances in transmission technologies (AC and DC)
- Discuss worldwide project experiences
- Discuss innovative ideas and present results from ongoing research
- Stimulate interdisciplinary thinking between renewable energy and power transmission and distribution industries, as well as universities
- Identify subjects requiring more research efforts

The Government of India has set the very ambitious goal to install 175 GW of renewable energy generation capacity by 2022. Grid integration thus becomes a very critical challenge to successfully accomplish this target. This international conference aims to connect international experts and Indian stakeholders to jointly discuss the latest technological, regulatory and conceptual developments in this field.

www.regridintegrationindia.org

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Grid Integration Week 2019
www.mobilityintegrationsymposium.org
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TOPICS

PROJECT EXPERIENCE
- World-wide project experience related to Wind Energy/PV/CSP/storage grid connection
- World-wide experience with large-scale integration of Wind Energy/PV/CSP/storage power into power systems
- World-wide experience with balancing power systems with high shares of variable renewable energy (VRE)
- World-wide grid integration experience – the TSO perspective

MARKET ISSUES
- World-wide market design and regulatory issues related to VRE
- Design concepts for ancillary services with VRE participation
- Evaluation of rules and mechanisms for the integration of wind/PV/CSP/storage in electricity markets

POWER SYSTEM STUDIES
- World-wide renewable (Wind Energy/PV/CSP) grid integration studies – methods and results
- Wind/solar integration study methodologies and data requirements

DISTRIBUTION GRID ISSUE
- Wind/PV and storage in distribution grids (distributed generation) – connection experience and studies
- Protection aspects of wind/PV/CSP/storage
- Voltage control and reactive power management with distributed VRE
- New and emerging features of power systems with high share of VRE
- Other emerging topics in management of distribution grid with VRE

TRANSMISSION GRID/POWER SYSTEM ISSUES
- Dynamic line rating/online dynamic security assessment and high temperature overhead lines for the integration of VRE
- Transmission grid planning with high shares of VRE
- Impact of N-1 regulations on power system operation with high shares of VRE
- Conversion of AC power lines to DC lines to increase the capacity to facilitate higher shares of VRE in power systems
- Power system automation and its benefits for VRE integration

WIND & SOLAR MODELLING ISSUES
- Wind/PV/CSP/storage models for interconnection and planning studies
- Modelling of inverters and wind/solar power plants for system integration studies (static and dynamic) including methods of testing and verification of compliance with requirements and technologies (on grid side and power plant side) to facilitate integration
- International modelling standardization activities
- Modelling wind/PV/CSP/storage plants output variability and assessing the impacts
- Wind/PV/CSP/storage power plant performance for plant operation and interconnection with the grid

POWER SYSTEM BALANCING ISSUES
- Power balancing methods and solutions, e.g. balance markets, to manage VRE variability in power systems
- Flexibility of the conventional power plants
- New power system operation tools and methods for balancing VRE

ANCILLARY SERVICES
- Ancillary services from VRE and Non-VRE sources – world-wide status and experience

GRID CODE ISSUES
- World-wide interconnection standards – grid codes for wind turbines, wind power plants, solar systems and solar system models for system planning and interconnection studies
- Compliance testing for grid codes – world-wide status and approach

FORECASTING
- Wind/PV/CSP/storage power monitoring and prediction systems
- State-of-the-art wind/solar resources forecasting, power generation forecasting, applications of forecasting in scheduling and other power system operations and management and opportunities for improvement
- Demand forecast with distributed wind/PV and storage

HYBRID POWER SYSTEMS
- Design and operation of hybrid systems with wind/PV/CSP/storage

SMART GRID/IT INNOVATIONS
- Innovative Smart Grid solutions with wind/solar power and storage
- IT technology for the integration of wind/solar power and storage
- Microgrids and other new ideas to increase the share of VRE in power systems
- Virtual power plants
- Communication, control and coordination between power plant and power system control centers
- Demand response in smart grid context
- Data analytics and data management

ELECTRIC VEHICLES
- Charging infrastructure
- Market design
- Power system aspects
- Grid integration issues