



RENEWABLE FUTURE

LECTURE SERIES

WINTER SEMESTER 2017/2018

Date: Thursday, October 26, 2017
Time: 6 pm s.t. – 8 pm
Location: [University of Bonn, Main Building, Lecture Hall IX](#)

Planning for the Transformation of Power Systems

Lecturers: Dr. Asami Miketa (Program Officer) and Mr. Francisco Gafaro (Program Officer),
International Renewable Energy Agency (IRENA), Innovation and Technology Center

Two thirds of all CO₂ emissions reductions from 2015–2050 will come from renewable energy, including wind and solar variable renewable energy (VRE). The integration of high shares VRE in electricity grids, namely wind and solar photovoltaics, is an issue still perceived as a challenge. Concerns involve ensuring the secure and reliable supply of power while integrating high shares of VRE under conventional planning, operation, and management of power systems (generation, distribution, transmission, consumption).

Lessons learnt from a number of leading countries have demonstrated that a rapid scale-up in the share of VRE can be achieved, when accompanied by appropriate planning, and technical, operational and regulatory measures. A holistic approach, with strong stakeholder engagement, reconciles two key goals of policy-makers, which were previously considered as contradictory: (1) to significantly increase the share of VRE to decarbonize the power system, and (2) to ensure the reliable power supply to consumers.

This lecture will elaborate key findings from recently published and upcoming IRENA publications on the transformation of the power sector transformation. The focus will be on (1) planning long-term transition paths to high shares of VRE, (2) planning to overcome operational bottlenecks associated with high shares of VRE and (3) the role of storage in VRE power system integration.

Registration

The attendance of the lectures is only possible after registration. A **binding registration** for each individual lecture can be made either

- via email to mfischer@uni-bonn.de or
- via online form on <https://www.nachhaltige-entwicklung.uni-bonn.de/vorlesungsreihen>.

Please register until Friday before the respective lecture. The number of participants is limited. Registrations are processed in the order in which they arrive. We reserve the right to cancel lecture series to the exclusion of claims for compensation in case of cancellations of speakers or an insufficient number of registrations.

Certificate of Attendance

Please note that you can earn a certificate of attendance (no ECTS) if you attend the whole lecture series (all 7 lectures). If you would like to receive a certificate, please choose the options “Alle Termine der Vorlesungsreihe” and “Certificate of Attendance” in the registration form or inform us via email.