

Facilitating the transition toward smart electrification with renewables in China

Joint workshop by the International Renewable Energy Agency and the State Grid Corporation of China

Concept Note & Agenda

Launch event • 17 February 2022 • 09:30 – 11:30 CET

Virtual meeting (via Zoom) • Language: English – Chinese

With the new carbon emission reduction targets in place, China has been contemplating how to transition the world's largest power grid toward a net-zero future. Renewable electricity has rapidly scaled up in China, reaching a remarkable milestone at 1,000 GW installed power generation capacity, with more set to be added in the decades to come. What implications would accelerated deployment of renewables have for the power system?

IRENA and SGCC have teamed up for years to explore such questions. With three years of joint efforts, IRENA and SGCC have now produced the report *Smart Electrification with Renewables: Driving the transformation of energy services*. The report presents recent trends in relevant technologies and innovations, sets out possible long-term pathways for electrification with renewables, and identifies priority actions to enable those pathways. It also provides a host of potential solutions, insights and perspectives to facilitate the transition towards a future power system with a vast expansion of renewables, a smarter and much more flexible electricity grid, and huge increases in the numbers of vehicles and other products and processes that run on electricity.

This event will introduce the contents of the *Smart Electrification* report – the fruit of cooperation between IRENA and SGCC – and a new collaborative initiative between the two organisations to address key strategic issues that future power system operations in China and beyond would likely encounter with rising shares of variable renewable energy sources in the power mix.

Following an opening by the heads of the two organisations, more detailed expert presentations and discussions will take place (see agenda below).

Time [CET]	Session	Speaker / participants
MC: IRENA (Yong Chen)		
High-level presentations		
9:30 – 9:40	Presentation of working level IRENA-SGCC cooperation (SGERI)	Speakers: Zhang Yunzhou, President, State Grid Energy Research Institute
9:40 – 10:00	Technical importance of this cooperation (IRENA)	Speaker: Dolf Gielen, Director, IRENA Innovation and Technology Centre
10:00 – 10:20	Presentation of the joint report <i>Smart Electrification with Renewables</i> (IRENA)	Presenters: Asami Miketa, Senior Programme Officer IRENA
10:20 – 10:30	Introduction of new collaborative initiative (SGERI)	Presenters: Li Jian, Chief Engineer, State Grid Energy Research Institute
10:30 – 10:50	Reflective discussion: IRENA-SGCC bilateral cooperation at MOU level	Discussants: Francesco la Camera, Director-General of IRENA; Xin Baoan, Executive Chairman of SGCC Moderator: Elizabeth Press, Director, Planning & Programme Support, IRENA
Expert commentary		
10:50 – 11:25	Roundtable discussion <ul style="list-style-type: none"> ▪ Reflection on the presentations ▪ Prospects for smart electrification with renewables in China? ▪ Specific examples in China? Globally? ▪ What are the gaps in our knowledge and key areas for further research on this topic? 	Discussants: Kristian Ruby, Secretary General, Eurelectric; Kaare Sandholt, Chief International Expert, Energy Research Institute; Li Junfeng, First Director, NCSC; and Kang Chongqing, Professor, Tsinghua University Moderator: Jiang Liping, Vice president, State Grid Energy Research Institute
11:25 – 11:30	Concluding remarks	Remarks: Dolf Gielen, Director, IRENA Innovation and Technology Centre