Gujarat Power System Transformation Workshop

7 October 2020

14:00-17:00 IST/ 10:30-13:30 CET

Virtual webinar

Partners:

NITI Aayog

CER Centre for Energy Regulation

Indian Institute of Technology Kanpur

International Energy Agency

IEA

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IEA Program for Gujarat Power System Transformation Workshop 2020

India is the third-largest energy consuming country in the world. According to the IEA's World Energy Outlook 2019, India has become the single largest source of energy demand, and is making remarkable progress towards its universal electrification target, with 100 million people gaining access in 2018 alone. Per-capita electricity consumption is still around a third of the world average, but total Indian electricity demand is expected to continue expanding driven by further industrialisation, population growth and increased urbanisation and electrification. India faces a triad of challenges: how to i) expand energy access, ii) meet growing electricity demand and iii) integrate renewable energy, all while transitioning to a low-carbon electricity system to achieve ambitious economic, social and climate objectivesThe International Energy Agency (IEA) with the sponsorship of the British High Commission, and in partnership with NITI Aayog and the Centre for Energy Regulation will be organising a **Gujarat Power System Transformation Workshop** to inform the government of Gujarat's actions for integrating solar and wind into its electricity system.

The increasing share of solar and wind energy in Gujarat (up from 13% today) will redefine how the state's power system is organized, planned and operated in the coming years. IEA's global work on power system transformations categorizes six phases of renewable integration which need to be successfully managed. Gujarat is currently in Phase 3 and is set to enter Phase 4 in the coming years. Other international countries and regions such as Denmark, UK, Australia, Germany, various Chinese provinces and US states have already adopted certain measures in light of similar challenges.

This workshop will highlight what the state of Gujarat may learn from these international experiences and best practices. The workshop will provide a platform for local and international experts to share ideas and identify key recommendations for power system planning, operation and flexibility in order to successfully integrate increasing shares of variable renewable energy.

This workshop is the second of the series of three workshops supported through the IEA's Clean Energy Transitions Programme (CETP), with particular thanks to the contribution of the United Kingdom Foreign, Commonwealth and Development Office (FCDO).

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14:00 IST/ 10:30 CET	**Session 1: Opening and High-level Context** • **International Context and Introduction:** Mr Keisuke Sadamori, Director, Energy Markets and Security Directorate, IEA (5 mins) • **National context setting and welcome:** Mr Rakesh Sarwal, Additional Secretary, NITI Aayog (5 mins**)** • ***Keynote address on "Role of Renewable Energy in Gujarat's Energy Transition"****: Ms Sunaina Tomar, Additional Chief Secretary, Energy & Petrochemical department, Government of Gujarat (5 mins) TBC* • **Brief remarks on new regulatory framework for Energy Transition in Gujarat**: Mr Anand Kumar, Chairman, GERC (5 mins) • **Gujarat's solar and wind targets towards 2030**: Ms Shahmeena Husain, Managing Director, GUVNL presentation by Ms. Sailaja Vachhrajani, GM IPP, GUVNL (5 mins) • **UK Govt. collaboration with the Govt. of Gujarat**: Mr Peter Cook, British Deputy High Commissioner, Gujarat & Rajasthan (5 mins) **Interactive Session Polling question for the wider audience (5 mins)** *Moderated by: Mr Keisuke Sadamori, Director, Energy Markets and Security, IEA*
14:35 IST/ 11:05 CET	**Session 2: Gujarat's power system in light of increasing solar and wind generation** • **IEA & CER analysis of the Gujarat system with 30-40-50% VRE in 2030:** Ms Szilvia Doczi, Energy Analyst, IEA & Dr. Anoop Singh, Founder & Coordinator, CER (15 mins) • **Role of transmission planning and grid network flexibility for increasing solar and wind in Gujarat:** Mr B.N. Trivedi, I/C Managing Director & Chief Engineer (Projects), presentation by Mr Dipak Patel, Dy Engineer (STU), GETCO (10 mins) • **Role of System operation (Challenges and developments in today's system operation for increasing solar and wind in Gujarat):** Mr A.B Rathod, Additional Chief Engineer, Gujarat SLDC (10 mins) • **Analysing the Operational Performance of Renewable Assets in India:** Mr Edmund Andrew, Senior Consultant**,** ARUP (5 mins) • **Understanding key data points that can aid the transformation of Gujarat's power sector:** Mr Akhilesh Magal, Head Advisory Renewables, GERMI (5 mins) **Interactive Session Polling question for the wider audience (5 mins)** **Question and answer session (15 mins)** *Moderated by: Mr Rajnath Ram, Energy Adviser, NITI Aayog*

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15:40 IST/ 12:10 CET	**Session 3: System flexibility roadmap for an evolving energy mix** • **Key actions for power system transformation phases from international experience in Gujarat context:** Ms Szilvia Doczi, Energy Analyst, Renewable Integration and Secure Electricity, IEA (15 mins) • **Power plant's flexible operation GSECL approach**: Mr BA Gandhi, Executive Engineer (Operations & Efficiency), GSECL (7 mins) • **Role of grid flexibility: Dynamic Line Rating – Smart Solution**: Mr Ramaswamy K V, Head India Region, Ampacimon (5 mins) • **Role of energy storage in Gujarat Context:** Ms Mani Khurana, Senior Energy Specialist, World Bank (7 mins) • **Role of Demand Side Flexibility in Gujarat Power Sector Transition**: Mr JJ Gandhi, Chief Engineer (Tech) PGVCL, Gujarat DISCOM (7 mins) • **Role of Time of Use Tariff in Gujarat:** Mr Reji Kumar Pillai, President, India Smart Grid Forum (7 mins) • **Role of Distributed Solar PV in Gujarat – International experience*:*** Mr Kuldeep Sharma, Advisor, Indo-German Energy Programme, GIZ (7 mins) **Interactive Session Polling question for the wider audience (5 mins)** **Question and answer session (15 mins)** *Moderated by Mr Kartik Veerakumar, Energy Analyst, IEA*
16:55 IST/ 13:25 CET	**Wrap up and take aways:** Mr Cesar Alejandro Hernandez, Head of Renewable Integration and Secure Electricity Unit, IEA (5 mins)