



## Background

In the face of growing energy demands and the urgent need for sustainable development, the role of State stakeholders in the power sector has never been more critical. Most of the laws, policies, and regulations governing the power sector are formulated by the Central Government in consultation with the State Governments, while implementation is primarily conducted at the State level. With new recruitments in the States, the legacy does not necessarily get passed on to the new recruits. Therefore, it is crucial that the principles of the laws, policies, and regulations are informed to these new recruits as well as refreshed for the incumbent State stakeholders. In this direction, IRADe in collaboration with Central Electricity Authority (CEA) Ministry of Power, Government of India, has taken the initiative to organise series of capacity building workshops with the following objectives:

- **Enhance knowledge and understanding** of the State stakeholders regarding national laws, policies, and regulations governing the power sector.
- **Deepen expertise** in the technical, financial, legal, and regulatory aspects of power sector regulation.
- **Equip State stakeholders with skills** to analyse and address emerging trends and challenges in the sector.
- **Foster best practices** in stakeholder engagement and public consultation processes.
- **Facilitate networking and knowledge exchange** among the Central Electricity Regulatory Commission/ Central Electricity Authority, State, & other power sector stakeholders.

This Capacity building Program includes:

- ✓ A half-day workshop for all Principal Secretaries of Power in State Governments.
- ✓ Two-day Regional workshops for State stakeholders.
- ✓ Four two-day webinars on critical topics for a broader State audience

The regional workshops will be organised in all five regions (as per regional grids) of the country i.e. North, West, East, South and North-East. These workshops will lead to refreshing and deepening expertise of the State stakeholders in technical, financial, legal, and regulatory aspects of the power sector, these stakeholders can effectively navigate the complex landscape of energy governance and ensure sustainability of a progressive power sector. Also, it will enable the state stakeholders to analyze and address emerging trends and challenges in the sector, such as renewable energy integration, energy storage, electric vehicle charging, energy efficiency, and grid modernization. By equipping them with the necessary skills and knowledge, it empowers them to develop the sector informed strategies and policies that promote sustainable energy transitions and mitigate potential risks. Furthermore, facilitating networking and knowledge exchange among key stakeholders promotes collaboration, innovation, and mutual learning. By creating platforms for sharing experiences, lessons learned, and best practices, this objective catalyzes collective action towards common sustainability objectives, fostering a culture of cooperation and solidarity within the power sector.

## Agenda

### Day 1 – Tuesday, 2<sup>nd</sup> July 2024

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| <b>09.30 -10.00 Hrs.</b> | <b>Registration</b>  |
| <b>10.00 -11.00 Hrs.</b> | <b>Inaugural Session</b>   |
| 10.00 -10.05 Hrs.        | Welcome Address by <b>Dr. Jyoti Parikh</b> , Executive Director, IRADe   |
| 10.05 – 10.10 Hrs.       | Context Setting by <b>Shri Pankaj Batra</b> , Senior Advisor, IRADe & Ex Chairperson, CEA  |
| 10.10 – 10.15 Hrs.       | Introductory Remarks by <b>Dr. Kirit Parikh</b> , Chairman, IRADe & Former member, Planning Commission   |
| 10.15 - 10.25 Hrs        | Special Remarks by Guest of Honour, <b>Shri Ashish Goel</b> (IAS), Chairman, UPPCL Govt. of U.P.   |
| 10.25 - 10.35 Hrs.       | Special Remarks by Guest of Honour, <b>Shri Arvind Kumar</b> , Chairperson, UPERC, Govt. of UP   |
| 10.35 – 10.45 Hrs.       | Special Remarks by Guest of Honour, <b>Shri Narendra Bhooshan</b> , Principal Secretary, Department of Additional Sources of Energy, Govt. of U.P.                       |
| 10.45 - 10.55 Hrs.       | Inaugural Address by Chief Guest, <b>Shri. Ghanshyam Prasad</b> , Chairperson, CEA/Member CEA,   |
| 10.55 -11.00 Hrs.        | Vote of thanks by <b>Ms. Navpreet Saini</b> , Senior Research Analyst, IRADe   |
| <b>11.00-11.20 Hrs</b>   | <b>Group Photograph &amp; Tea</b>  |
| <b>11.20-12.00 Hrs.</b>  | <b>Presentation on Outline of Laws, Rules, Guidelines, Regulations of the Government of India/CERC – Shri Pankaj Batra</b> , Senior Advisor, IRADe & Ex-Chairperson, CEA |
| <b>12.00-12.30 Hrs.</b>  | <b>Roundtable of Secretaries on Capacity Building Requirements for Northern Region’s State</b>   |
| <b>12.30 -13.00 Hrs.</b> | <b>Roundtable of Regulators on Capacity Building Requirements for Northern Region’s State</b>  |
| <b>13.00 -13.30 Hrs.</b> | <b>Roundtable of Renewable Energy Development Agencies on Capacity Building Requirements for Northern Region’s State</b>   |

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| 13.30 -14.30 Hrs.                                  | <b>Lunch Break &amp; Networking</b>   |
| 14.30 -15.30 Hrs.                                  | <b>Resource Adequacy and laws/Guidelines /Regulations related thereto –</b><br><b>Ms Ammi Topo, Chief Engineer (IRP), CEA</b><br><ul style="list-style-type: none"> <li>➤ Demand Forecasting</li> <li>➤ Power Generation Resource Planning</li> <li>➤ Renewable Generation/Energy Storage Planning</li> <li>➤ Power Trading/Power Exchange in India</li> <li>➤ Q&amp;A</li> </ul>   |
| 15.30 -16.30 Hrs.                                  | <b>Grid balancing, Grid stability due to intermittent generation. Ancillary Services Regulations –</b><br><b>Mr. Priyam Jain, Chief Engineer, Grid Controller of India</b><br><ul style="list-style-type: none"> <li>➤ Issues relating to tackling intermittency of variable renewable generation</li> <li>➤ Grid stability, frequency control, voltage control</li> <li>➤ Demand Response</li> <li>➤ Ancillary Services Regulations</li> <li>➤ Q&amp;A</li> </ul>  |
| 16.30-17.00 Hrs.                                   | <b>Tea</b>  |
| 17.00-18.00 Hrs.                                   | <b>Tackling intermittency, Long duration storage, Flexibilizing thermal power plants –</b><br><ul style="list-style-type: none"> <li>➤ Closed Loop Pumped Hydro Storage - <b>Mr. Shravan Kumar, Chief Engineers, CEA</b></li> <li>➤ Flexibilizing thermal power plants – <b>Mr. B C Mullick, Chief Engineer, CEA</b></li> <li>➤ Q&amp;A</li> </ul>  |
| <b>Day 2 - Wednesday, 3<sup>rd</sup> July 2024</b> |   |
| 10.00 -10.15 Hrs.                                  | <b>Recapitulation and introduction to the forthcoming Sessions –</b><br><b>Shri Pankaj Batra, Senior Advisor, IRADe &amp; Ex-Chairperson, CEA</b>   |
| 10.15-11.15 Hrs.                                   | <b>New Grid Code 2023 – Mr. Awdhesh Yadav, Chief (Engineering, CERC)</b><br><ul style="list-style-type: none"> <li>➤ Objective &amp; Scope</li> <li>➤ Resource Planning Code</li> <li>➤ Connection Code</li> <li>➤ Protection Code</li> <li>➤ Commissioning and Commercial Operation Code</li> <li>➤ Operating Code</li> <li>➤ Scheduling and Dispatch Code</li> <li>➤ Cyber Security</li> <li>➤ Monitoring and Compliance Code</li> <li>➤ Miscellaneous</li> <li>➤ Q&amp;A</li> </ul>  |
| 11.15-11.30 Hrs.                                   | <b>Tea</b>  |
| 11.30-12.30 Hrs.                                   | <b>Grid operation – Mr. Priyam Jain, Chief Engineer, Grid Controller of India</b><br><ul style="list-style-type: none"> <li>➤ Frequency and voltage control</li> <li>➤ Transmission Capacity and Transfer Capability, TTC. ATC and RM</li> <li>➤ Transmission Congestion</li> <li>➤ Angular Stability</li> <li>➤ Q&amp;A</li> </ul>   |
| 12.30-13:30 Hrs.                                   | <b>Connectivity Regulations and General Network Access –</b><br><b>Mr. Awdhesh Kumar Yadav, Chief (Engineering), CERC</b><br><ul style="list-style-type: none"> <li>➤ Connectivity</li> <li>➤ Long Term Access, Medium Term Access, Short Term Open Access</li> <li>➤ Provision of General Network Access</li> <li>➤ Q&amp;A</li> </ul>   |
| 13.30-14:30 Hrs.                                   | <b>Lunch Break &amp; Networking</b>   |
| 14:30-15.30 Hrs.                                   | <b>Functioning of Power Exchange:</b><br><b>Mr. Mayank Gupta, Sr. VP, Business Development &amp; Strategy, IEX</b><br><ul style="list-style-type: none"> <li>➤ Types of markets in the Power Exchange, and their features</li> <li>➤ Bid Matching mechanism</li> <li>➤ Prudential Norms for establishment of Power Exchange</li> <li>➤ Settlement Guarantee Fund (SGF)</li> <li>➤ Management of Power Exchange</li> <li>➤ Risk Management by Power Exchange</li> <li>➤ POC mechanism of sharing of transmission charges &amp; losses</li> <li>➤ Open Access charges</li> <li>➤ Deviation Settlement Mechanism</li> <li>➤ Q&amp;A</li> </ul> |
| 15.30-16.30 Hrs.                                   | ➤ <b>CEA Measures Relating to Safety and Electric Supply Regulations –</b><br><b>Smt. Rishika Sharan, Chief Engineer, CEA</b><br><ul style="list-style-type: none"> <li>➤ <b>CEA Communication Regulations – Ms. Priyam Srivastava, Deputy Director, CEA</b></li> </ul>   |
| 16.30-17.00 Hrs.                                   | <b>Closing remarks &amp; Vote of thanks Shri Pankaj Batra, Senior Advisor, IRADe &amp; Ex-Chairperson, CEA</b>  |
| 17.00 Hrs.   | <b>Tea</b>  |

## About Central Electricity Authority of India (CEA)

The Central Electricity Authority of India advises the government on policy matters and formulates plans for the development of electricity systems. It is a statutory organization constituted under section 3 of Electricity Supply Act 1948, which has been superseded by section 70 of the Electricity Act 2003.

CEA vision to ensure reliable 24x7 power supply of adequate quality to all consumers in the country.

Central Electricity Authority seeks to achieve the vision by performing its statutory function by providing technical support base to all stakeholders in the power sector, to support Ministry of Power for forming policies in the power sector, to make technical standards & regulations, to carry out project monitoring, to disseminate power sector information, to upgrade skills of human resources in the power sector of the country.

### Central Electricity Authority of India (CEA)

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## About Integrated Research and Action for Development (IRADe)

Integrated Research and Action for Development (IRADe) is an independent advanced research institute which aims to conduct research and policy analysis to engage stakeholders such as government, non-governmental organizations, corporations, academic and financial institutions. Energy, climate change, urban development, poverty, gender equity, agriculture and food security are some of the challenges faced in the 21st century. Therefore, IRADe research covers these, as well as policies that affect them.

IRADe's focus is effective action through multi-disciplinary and multi-stakeholder research to arrive at implementable solutions for sustainable development and policy research that accounts for the effective governance of techno-economic and socio-cultural issues. Being Asia Center for Sustainable Development, we have been carrying out policy research and its implementation for enabling socio-economic growth and charting pathways for sustainable development in South-Asia.

IRADe was established under the Society's Act, in 2002 at New Delhi. It is certified as a Research and Development Organization by the Department of Scientific and Industrial Research (DSIR), Ministry of Science and Technology (MoST). It has also been selected as a Center of Excellence by the Ministry of Urban Development (MoUD) for urban development and climate change. In addition, it provides expertise to other ministries, national and international institutions and partners with other reputed organizations.

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