

**GOVERNMENT OF INDIA
CENTRAL ELECTRICITY AUTHORITY
(MINISTRY OF POWER)**

**West Block-2, Sewa Bhawan,
1st Floor, R. K. Puram,
New Delhi-110066
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PUBLIC NOTICE

In exercise of the powers conferred under Section 177 of the Electricity Act, 2003, the Central Electricity Authority (CEA) had issued the “Statutory Guidelines for Training and Certification of Load Despatchers & Recognition of Training Institutes January, 2024” on 12.01.2024. The said Guidelines are proposed to be further amended by adding Curriculum for Basic Level Refresher Course & Advanced Level Refresher Course for Load Despatchers. The proposed draft curriculum for Basic Level Refresher Course & Advanced Level Refresher Course for Load Despatchers are available on the CEA Website www.cea.nic.in.

All the stakeholders including public are requested to send their comments on the said draft Curriculum to the Chief Engineer (HRD), West Block-2, Sewa Bhawan, 1st Floor, R. K. Puram, New Delhi-110066 by post or through email hrdcea@nic.in latest by 02.10.2024.



(Anita Gahlot)

Chief Engineer (HRD), CEA

Basic Level Refresher Course

(Duration: One Week)

- Electricity Act 2003, Rules Legal framework, Policies, Acts/ Regulations (recent amendments / updates) Institutional relationship and regulatory framework of Indian power system
- CERC Regulations (with amendments) relevant to power system operation, power market and the core functions of LDCs
- CEA Standards & Regulations : Grid Standards, Technical Standards for Grid Connectivity, Safety and Electric Supply Measures, Safety Requirements for Construction, Operation, and Maintenance of Electrical Plants and Lines, Flexible Operation of Coal-Based Thermal Power Generating Units, Installation and Operation of Meters, Technical Standards for Communication Systems in Power Sector, Technical Standards for Construction of Electrical Plants and Electric Lines
- Resource Adequacy, Load Generation Balance & reserves estimation
- Principles of coordinating planned outages of generation and transmission elements
- Grid Access & Integration of new elements including RE, Operations of REMCs.
- Frequency Control- Primary Control (FGMO), Secondary Control, Tertiary Control
- Reactive Power Management and voltage control methods
- High Voltage Direct Current (HVDC) Systems – types and principle of operation
- Power System Restoration - Black Start and restoration strategies
- Overview Of Power System Protection – Protection of transmission lines, transformers / reactors, generators, bus-bar, system protection schemes (SPS)
- Power system modelling and simulation – concepts of steady state and dynamic simulation, voltage stability and angular stability, TTC & ATC computation and its importance
- Fundamentals of Electricity Market Design -Scheduling and Dispatch, Pricing of deviations and Deviation Settlement, Metering Principles, Congestion pricing and management, Ancillary Services (SRAS and TRAS), Power Exchange Operations (DAM, GDAM, RTM and Term Ahead), SCED mechanism and its importance

Advanced Level Refresher Course

(Duration: One Week)

- Regulatory Framework, Power Market, RES, Power System Logistics
- Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations, Central Electricity Authority (Technical Standards for Connectivity to the Grid), Amendment and (Grid Standards) Regulations, any other relevant latest Regulations/ policies/Acts/ Standards.
- RE Policy & Rules, FTC procedure for RE Generator & Grant of Regulatory Approval to CTU
- MCPs, Zonal and locational MCPs. Power Market Regulations, Cross Border Trading, DAM, GDAM, TAM, G-TAM. Open Access, RTM, Resource Adequacy & long term planning.
- SANTULAN Report Voltage Control of CERC AS Regulations Congestion management procedures in Real Time System Operation
- Accounting & Settlement:- SAMAST, Metering, REA, Pool accounts, RTA/RTDA, Ancillary service settlement, GNA, NOAR
- Scheduling and Forecasting tools at REMCs, RE grid integration-Issues, Challenges (Intermittency, Variability and Unpredictability)
- Grid Connected Solar Roof Top SPV Generation Challenges, Remote Operation of RE through LDCs, AGC etc.
- Communication System Protocol, Relevant IEC codes for Automation of SS & Control Centers
- Cyber Security of SCADA Systems in LDCs - Design Architecture and Introduction to SIEM & various Cyber Security tool use in OT System
- Latest innovations/best practices relevant to the specialization in load despatch.
- Model case studies and analysis of model scenarios using special software tools, as per the area of specialization.
- Stress Management, Goal Setting & Leadership
