Course title : Renewable Energy Policies & Regulations
Course credits : 2
No. of modules : 2
Module 1: Energy Statistics, Regulatory Bodies & Entities
Module 2: Indian Energy Legislations, Policies & Programmes

Detailed syllabus:

Module 1:

I. Energy Statistics, Regulatory Bodies & Entities

Introduction to Indian energy sector with focus on renewable energy Key Statistics - Installed capacity, Generation Mix, Consumption Trends
Entities – GENCOS, TRANSCOs, DISCOMs, Power Trading Companies Regulators- CERC, SERC, FoR, BEE
Institutions- MoP, MNRE, CEA, NISE, NIWE, NIBE, State Agencies Public Sector Entities (NTPC, NHPC, IREDA, SECI, PGCIL, POSOCO,REC, PFC)
Private Players - IPPs, EPC contractors, System Integrators, Financiers, etc.

Module 2:

I. Indian Energy Legislations, Policies & Programmes

Global Overview - RE policies and regulatory structures
Electricity Act, National Tariff Policy, National Electricity Policy & Plan National Action Plan on Climate Change
National Solar Mission, including Grid and Off-grid schemes and Programmes
Programme on Wind Power, including repowering, hybrid and off-shore wind
Programme on Biomass Sector including cogeneration & cofiring
Programme on Waste to Energy
Programmes on Small Hydro and other RE technologies
RE Enablers – Subsidies, FiT, VGF, Bundling Scheme, Auctions/ Bidding, low-cost funds, accelerated depreciation and other fiscaloptions
Promotional measures like must run, merit order dispatch and deemed generation
Regulations on banking, wheeling and open access
CERC/ SERC Regulations/ Guidelines – REC-RPO, RE Tariff Electricity Trading, including Green Exchange Markets, Open Access Captive / Group Captive Projects & Corporate PPAs
Grid Code, including Scheduling and Forecasting Green Energy Corridors
Green Hydrogen Mission EV Policies & Schemes
Hybrid, Storage & RTC Mode Projects
Emerging areas - smart metering, remote monitoring, DSM, ancillaryservices, etc.

II. Policies on Distributed/ Decentralized/ Off grid Sectors

Solar Rooftop - Policy framework, Status, Central and state government policies
Micro and Mini grids –Scope, Significance andchallenges
Rural electrification schemes: Saubhagya, RDSS, and Solar Off-gridProgramme
Schemes on decentralized RE systems Biofuels schemes, including Satat, Gobardhan PM-KUSUM Scheme for Agriculture
Small solar plants (EESL Scheme)
Socio-economic impact of decentralized renewable energy programmes

Evaluation/Assessment scheme:

1. Quizzes – 40% (one at the end of each module)
2. End semester exam – 60% (at the end of course)

Learning outcomes:
At the end of the course the student will be able to:

- Enhance understanding of renewable energy policy and regulatory environment including global
- Learn developments sound understanding of the institutional frameworks w.r.t. Renewable Energy
- Gain sound understanding of policy and regulatory framework for grid connected and off grid renewable energy