

Certification Program on Energy Storage Integration and E-Mobility



9th – 13th August, 2021

OVERVIEW

The role of energy storage has become extremely important as the world shifts towards renewable sources of power in the grid to mitigate climate change and switches from ICE-base vehicles to electric vehicles.

With National Electric Mobility Mission Plan, FAME Scheme, ACC Manufacturing PLI approval, and state-specific EV policies, India is aggressively targeting higher EV adoption. In this scenario, the role of energy storage across possible avenues with a clearer and deeper understanding has become the need of the hour. Similarly, with 450 GW of the renewable target, draft ancillary services, draft NEP and reliable and quality power requirement will drive energy storage adoption in India.

To address this need, IESA, in collaboration with the Administrative Staff College of India (ASCI), is organizing a five-day online *Certification Program on Energy Storage Integration and E-Mobility*. This program will help participants understand energy transition in India, policy and regulatory framework, energy storage technologies for renewable energies and e-mobility, research and development opportunities, standardization needs, recycling options, and finance and business models.

WHO SHOULD ATTEND

- 📱 Working professionals from:
 - Electricity Regulatory Commissions
 - System Operators
 - Electricity Departments
 - OEMs
 - Distribution & Transmission Companies
 - Fleet Operators
 - Charging Infrastructure Developers
 - Transport Organisations
 - State Nodal Agencies for RE and EV Implementation
- 📱 Policy Makers & Regulators
- 📱 Representatives from various energy storage/ automotive industries, associations
- 📱 Practitioners from consultancies, community-based organizations, non-government organizations
- 📱 Independent researchers and academicians

OBJECTIVES

- 📱 Setting the context on policy & regulatory aspects of energy storage and EVs
- 📱 Understanding the technical aspects of energy storage with EVs perspective
- 📱 Establishing an insight into the market aspects surrounding the subject

Dates (5 Days)

9th to 13th August 2021

Timings (IST)

2.30 PM to 05.30 PM

Modality

Virtual Instructor-led Training

Certificate

Yes

Fees

- 📱 17,000 + 18% GST
- 📱 10% Early bird discount is applicable till 20th July.
- 📱 10% Group discount for three or more participants from the same organization.

*Only one of the above discounts can be availed.

Link to Register

<https://ces.asci.org.in/iesa1/>

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DAY 1

Energy Transition in India: Emerging Scenario

- India Energy Scenario
- Existing Power generation supply & demand with future projections
- Indian Energy Policy review
- National Electricity Policy

Policy & Regulatory Framework

- Central Level Policies - MOP, MNRE, SECI guidelines, Regulations
- State-level Policies related to storage

DAY 2

Energy Storage Technologies

- Role of Energy Storage Technologies in Power Systems
- Classification of Technologies
 - Chemical Energy Storage
 - Thermal Energy Storage
 - Mechanical Storage
 - Pumped Hydro Storage
 - Hydrogen Storage
- Battery Performance Metrics
- Energy vs. Power

Comparison of Chemical Energy Storage Technologies

- Advanced Lead Acid Batteries
- Lithium-ion Batteries
- Flow Batteries

- High-Temperature Batteries
- Next-Generation Technologies
- Supercapacitors
- Battery Management System

Research & Development

- R&D activities and opportunities
- Recent announcements
- Success stories
- Government support and initiatives

DAY 3

Storage for RE integration and Grid Stability

- Storage market in India - Grid Applications, Ancillary applications
- ES value capture
- Case studies
- Market Mechanism
- Global Best practices Energy storage
- Australia and US Project details
- Storage applications for Utilities (Distribution and Transmission Sector)

DAY 4

Storage for e-Mobility and Charging Infrastructure

- Overview Energy storage for transportation

- Central and State Government Policies (FAME II, PMP, NEMMP, State Policies)
- Learnings from EV adoption
- Charging infrastructure and Battery Swapping
- Future opportunities and challenges
- Vehicle grid and Grid Integration
- Standards and Standardization of EV Charging
- Safety Norms

DAY 5

Standards and Standardization for Energy Storage

- Safety Standards and BIS Standards
- Standardization of Chargers and BMS

Recycling Options

- Policy, Regulations and Best Practices
- Second Life Batteries

Finance and Business Model

- NPP, Storage Projects (Standard or integrated, DRE)

Video of Energy Storage Project Followed by Discussion

Summary and Valedictory



- Launched in 2012
- Premier alliance in India on storage & eMobility
- 130+ Members
- 20+ strategic partnerships with Global Alliances
- 25+ Network Events
- Leverage International Partnerships
- Online and Classroom Trainings on Technology, business, Policy & Regulatory
- Knowledge Platform
- Market Research and Strategy Support
- Business Support & Tender Assistance
- Showcase Your Product, Solution and Services



- Established in 1956
- Institution of Excellence and National Importance
- Autonomous, self-supporting, Public-purpose institution
- Think-tank for policy inputs and to build capacities of practising professionals
- Trained 1,40,000 civil servants and executives from industry
- Online Synchronous & Asynchronous Programmes
- Chosen advisory and applied research destination for 110 international and national organisations, year on year
- Interdisciplinary faculty members with well-rounded academic and industry experience

Contact Information

For more information visit: <https://indiaesa.info/>, <https://ces.asci.org.in/iesal/>

You can also write to us at: contact@indiaesa.info