Engineering Staff College of India

Autonomous Organ of The Institution of Engineers (India)

Old Bombay Road, Gachi Bowli, Hyderabad – 500032. TS, India

POWER & ENERGY DIVISION

Classroom Continuing Professional Development Programme on

Challenges & Opportunities in EVs, Charging Stations and Grid Infrastructure - Latest EV Govt. Policies

14 – 17 November, 2023

at ESCI, Hyderabad

(An IMS Certified (ISO 9001:2015 QMS, ISO 14000:2015 Envtl. Mgmt., ISO 45001:2018 (OH&SM), ISO 50001:2018 EnM), AICTE & CEA Recognized Institution)

Centre for Promotion of Professional Excellence

INTRODUCTION

India is currently facing an acute air pollution crisis, in view of the growing environmental concerns, the government has been promoting e-mobility, which has zero tail pipe emissions. This is expected to reduce not only the dependence on oil but also vehicular pollution in cities. The government has developed a policy framework and taken several other initiatives to create an e-mobility ecosystem in the country.

In 2011, the government approved the National Mission on Electric Mobility (NMEM) and subsequently, in 2013, the prime minister unveiled the National Electric Mobility Mission Plan 2020 (NEMMP 2020). The NEMMP 2020 provides the vision and road map for faster adoption of electric vehicles (EVs) and kick-starting of EV manufacturing. As a part of the NEMMP 2020, the Department of Heavy Industry (DHI) formulated the Faster Adoption and Manufacturing of (Hybrid and) Electric Vehicles in India (FAME India) scheme in 2015, to promote electric and hybrid vehicle technologies. Further, various guidelines and incentives have been rolled out by the government from time to time for promoting green mobility.

FAME Scheme

Phase I of the FAME scheme was implemented for a period of two years starting March 2015, and later extended till March 2019, with an outlay of Rs 8.95 billion. It focused on four key areas – demand creation, technology platform, pilot project and charging infrastructure. In the first phase, about 0.28 million EVs and hybrid vehicles were supported by way of demand incentive amounting to about Rs 3.59 billion. The DHI sanctioned and deployed 425 electric and hybrid buses in various cities at a total cost of about Rs 2.8 billion. Under charging infrastructure, the government sanctioned about 520 charging stations/infrastructure for Rs 0.43 billion. DHI entrusted public sector undertakings (PSUs) such as BHEL and REIL with the task of making three expressways (Delhi-Chandigarh, Delhi-Jaipur and Mumbai-Pune expressways) EV friendly by establishing charging infrastructure at regular intervals.

Phase II of the FAME scheme was finalised and notified on March 8, 2019. It commenced from April 1, 2019 for a period of three years (2019-20 to 2021-22) with an outlay of Rs 100 billion, around 10 times the outlay under Phase I. This phase has three components – demand incentives, charging infrastructure and administrative expenditure.

Charging infrastructure guidelines

A robust charging infrastructure is imperative for the wider uptake of EVs in the country. To this end, in October 2019, the Ministry of Power (MoP) released the revised guidelines for EV charging infrastructure, which superseded the December 2018 guidelines. Among other things, the guidelines envisage the setting up of at least one charging station in a grid of 3 km x 3 km in cities, and one charging station at every 25 km on both sides of highways and roads, and a fast charging station for heavy vehicles at every 100 km on both sides of highways.

In June 2020, the MoP issued an amendment to its revised guidelines and standards for EV charging infrastructure. The amendment specifies that the tariff for supply of electricity to EV public charging stations should not be more than 15 per cent of the average cost of supply of power. The amendment has added a clause that a battery charging station will be treated on par with a public charging station, and the applicable tariff for electricity supply will be the same as for public charging stations. As per the amendment, a captive charging station for EVs will be fully owned by the owner, and it will not be used for commercial purposes.

OBJECTIVE

To create awareness among the participants about the Policies & Regulations for EV & EVSE, Business Models, Technologies incl. evolving ones related to the Electric Vehicles

COURSE CONTENT

- EV Deployment - Global and Indian Scenarios
- Technology Development in EV Domain
- Electric Vehicles (EVs) Design, Technology & Mechanism, EVs System Supply Chain.
- EV Charging Stations (EVCS) & Energy Storage Systems
- EV Charging Infrastructure & Grid Integration Arrangements
- Policies and Regulations for EV & EVSE
- Business Models for EV & EVSE and EV Deployment Experiences in India
- Evolving Technologies
- Case Studies

METHODOLOGY

The programme will be conducted in an interactive environment providing greater scope for discussions. Emphasis will be on a highly participative style of learning. The classrooms are provided with latest audio – visual teaching aids. The ambience in the campus and classrooms facilitate in effective learning by participants.

FACULTY

Apart from Core Internal Faculty, Consulting Firms, Government Organisations, Manufacturing, Academic and Research Institutions etc. will share the sessions.

TARGET PARTICIPANTS

Officials With Target audience as Any Graduate Engineers with basic knowledge of Electrical Concepts, College/ University Professors; Public Sector Undertaking Officials; Any Organisation (Private/Public/Govt.) Entrepreneurs; EPC contractors; Start-ups, Buddings, Business partners, MNRE channel partners; Senior Energy Department of Govt. of India.

PROGRAMME VENUE

Engineering Staff College of India (ESCI) Campus, Old Bombay Road, Gachi Bowli, Hyderabad - 500032, Telangana, India.

DATES

14 – 17 November, 2023

TIMINGS

On the first day, registration will commence at 0900 Hrs. On all the other days, the programme timings will be from 0945 to 1715 hrs with breaks in between for tea and lunch.

ACCOMMODATION

Participants will be accommodated in our Executive Hostel located within ESCI Campus. The accommodation will be on twin sharing basis.

COURSE DIRECTOR

Dr. V. Vidyasagar
Sr. Faculty - Power & Energy Division, ESCI
(Mob: 9421801203)

COURSE FEE

Residential Fee is Rs.22,000/- per participant. Residential fee includes Course Material, Course Kit, and Twin-sharing / Single AC accommodation as per availability, Breakfast, Lunch, Dinner, Tea / Coffee and Snacks.

DISCOUNTS

Non-Residential Fee: 10% discount on course fee is allowed for non-residential participants.

Group Discount: 10% discount for three or more participants if sponsored by the same organization.

(All discounts are applicable only if fee is received at ESCI a week before the commencement of the programme)

GST @18% (as applicable) is to be paid extra over and above the training fee. **GST No. 36AAATT3439Q1ZV, PAN Card No. AAATT3439Q.**

The course fee is to be paid in favour of **"IE (I) – ENGINEERING STAFF COLLEGE OF INDIA"** in the form of demand draft payable at Hyderabad.

Alternatively the payment may be made by **Electronic Fund Transfer (EFT) to ESCI – Current A/c No. 33705165550** with The SBI, Manikonda Branch, Gachi Bowli, Hyderabad – 500 032 by **NEFT / RTGS / IFSC Code No: SBIN0011076 – MICR No: 500002107.** While using EFT method of payment, please ensure to communicate us your company name, ESCI invoice reference and programme title.

Online registration is available on ESCI website. To register, manually please send your nominations (**10 days** prior to date of commencement of the programme) giving details of name, designation, contact address, email address, mobile number, telephone and fax number of the participant along with the details of mode of payment of fee, addressed to:

Head, Power & Energy Division
Engineering Staff College of India
Gachi Bowli, Hyderabad – 500 032
Phone: 040–6630 4170 to 4176 ; 040-6630 4173 / 4176, Fax: 040 – 23000336, 66304103
Email:pe.esci@gmail.com / pe@escihyd.org; Website: www.escihyd.org

CERTIFICATE: A certificate of participation will be awarded to each participant on conclusion of the programme.

GENERAL INFORMATION

- ESCI encourages participants to present case studies from their respective organizations.
- For the convenience of the outstation participants ESCI will facilitate pickup and drop from Airport / Railway Station / Bus Stations, if travel plans are received at least 3 days in advance along with mobile number by fax or email. The charges shall be paid by the participants directly to the cab driver.
- ESCI provides complimentary accommodation to participants a day prior to the commencement and following day after the conclusion of the programme. (Check in at 12:00 hrs a day prior to the commencement & check out at 12:00 hrs a day after completion of the programme)
- Overstay charges of @ Rs.990/- per day / per head Food (Bed Tea / Coffee to Dinner) will be charged extra as per actuals.
- Well developed Information Centre and Internet facilities are available to the participants at no cost.