



2nd Annual Conference on

E-MOBILITY AND CHARGING INFRASTRUCTURE

Evolving Landscape, Trending Technologies and Emerging Opportunities

December 3-4, 2018, Le Meridien, New Delhi

"Early Bird" discount ends on November 12, 2018

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Organisers:



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E-MOBILITY AND CHARGING INFRASTRUCTURE

Mission

- India's shift to EVs is inevitable, if not imminent. A signatory to the Paris climate agreement, the country is obligated to bring down its share of global emissions by 2030. Many of its cities are among the world's most polluted with vehicular pollution being one of the major reasons. Also, India is highly dependent on oil imports, majority of which goes towards powering automobiles.
- E-mobility, however, is at a very nascent stage in India. EV sales account for only about one per cent of the total vehicle sales. Charging infrastructure is almost absent.
- The scenario is, however, beginning to improve and the e-mobility segment is abuzz with developments at both the government and industry levels.
- The latest initiative has been the launch of phase II of the FAME (Faster Adoption and Manufacturing of Electric Vehicles) India scheme. A five-year programme worth \$784 million, FAME II is much bigger and broader in scope than FAME I, which was more like a pilot.
- Prior to this, in March 2018, the government launched the National E-Mobility Programme with the aim to provide an impetus to the entire e-mobility ecosystem, including vehicle manufacturers, charging infrastructure companies, fleet operators and service providers. The programme will be implemented by EESL.
- In another move, the GST on lithium-ion batteries has been slashed from 28 per cent to 18 per cent. The draft National Auto Policy, which seeks to promote clean and safe mobility and adopt a long-term roadmap to harmonise the emission standards with the global benchmarks by 2028, is also expected to be out soon.
- States are also gearing up for the uptake of EVs as a means of mainstream mobility. Karnataka was the first to launch a comprehensive EV policy in September 2017, followed by Maharashtra and Andhra Pradesh. Many more states are expected to have their EV policies in place by end-2018.
- Apart from the government's push towards e-mobility, the entry of new players into the market and increase in the availability of EV models will also drive growth in this space. From large automobile manufacturers to solar power developers and lithium-ion battery makers, everybody seems to have thrown their hats in the ring. PSUs such as NTPC, BHEL and PGCIL also want a piece of the EV pie.
- Despite the euphoria surrounding EVs, several speed bumps in the policy and corporate landscape remain. On the industry front, most worries hinge on battery costs and manufacturer readiness. But that should come down, driven not just by India but by global EV trends. A more India-specific concern is that of the electricity grid. Can it handle this type of demand?
- In order to realise the government's target of 30 per cent EV penetration by 2030, utilities will need to significantly invest in grid upgradation, besides the development of publicly available, fast-charging stations to support the planned EV growth. Utilities and power companies also need to factor in renewable energy for meeting power demand from EVs since a key goal for using these vehicles is to reduce the pollution.
- **The mission of this conference is to examine the opportunities, issues and challenges in the Indian e-mobility space; assess the electricity needs and requirements of EVs in the context of the projected segment growth; discuss the plans and requirements of the key stakeholders; examine the charging and other infrastructure requirements; and showcase global case studies as well as noteworthy solutions and technologies. It will also provide a platform for the industry to share experiences and exchange views and opinions.**

Target Audience

- The conference is targeted at top and middle-level managers from:
 - Power producers
 - Transmission and distribution companies
 - Government and regulatory agencies
 - Renewable energy developers
 - EV manufacturers
 - Automobile manufacturers
 - Oil and gas companies
 - Automotive component manufacturers
 - Battery manufacturers
 - Contractors
 - Engineering consultants
 - Transport planning consultants
 - Testing, R&D and educational institutions
 - Equipment manufacturers
 - Technology providers
 - Fleet managers
 - Financial institutions
 - Investment firms, etc.

AGENDA/STRUCTURE

OVERVIEW AND OUTLOOK

This session will feature a presentation by a sector consultant

- ❖ Key trends, policy initiatives and the emerging corporate landscape in India
- ❖ Potential opportunities for various stakeholders and associated challenges
- ❖ Demand and supply projections for EVs and charging infrastructure

POLICY DIRECTION AND VISION

This session will feature remarks by a senior government representative

- ❖ Initiatives to drive adoption of EVs and deployment of charging infrastructure
- ❖ Grants offered or planned for active and upcoming projects
- ❖ Expectations of the private sector and next steps for the segment

FAME II AND BEYOND

This session will feature a presentation by a senior government representative

- ❖ Key features of FAME II and the industry's response
- ❖ Likely implications on various stakeholders
- ❖ Next steps under the programme

REGULATORY REQUIREMENTS

This session will feature a presentation by a leading regulatory expert

- ❖ Key steps taken to facilitate the deployment of EVs and charging stations
- ❖ Designing the tariff framework for EVs/charging stations
- ❖ Regulatory standards and protocol requirements for charging infrastructure

EV MANUFACTURERS' PERSPECTIVE

The session will feature a panel discussion among senior representatives from the OEM industry

- ❖ Expectations regarding charging infrastructure
- ❖ Current offerings and future plans
- ❖ Technical and non-technical barriers

IMPACT OF E-MOBILITY ON THE POWER SECTOR

This session will feature a panel discussion among senior representatives from power generators and transcos, and grid operators

- ❖ Opportunities and challenges for generators
- ❖ Is the grid ready for handling the demand from EVs?
- ❖ Impact on and requirements from the transmission segment

IMPLICATIONS FOR DISCOMS

This session will feature a presentation by a senior industry consultant

- ❖ Demand and revenue side impact
- ❖ Impact on voltage profiles
- ❖ Initiatives and plans of discoms for setting up EV charging infrastructure

EVs FROM CONSUMERS' PERSPECTIVE

This session will feature a presentation by a sector consultant

- ❖ Cost economics and viability
- ❖ Modes of financing
- ❖ Issues and challenges

CHARGING INFRASTRUCTURE

This session will feature a presentation by a senior industry expert

- ❖ Key trends, investment requirements and operational issues
- ❖ Emerging and potential business models
- ❖ Case studies of public charging infrastructure

DEVELOPING STANDARDS FOR EV CHARGING

The session will feature a presentation by a senior industry expert

- ❖ Existing standards and norms for EV charging infrastructure in India
- ❖ Current gaps and initiatives being taken to address these
- ❖ International best practices

TECHNOLOGY AND INNOVATION

The session will feature a presentation by a senior industry expert

- ❖ Recent technology advancements
- ❖ Impact on cost and efficiency
- ❖ R&D direction

ROLE OF BATTERIES

This session will feature a presentation by a senior industry consultant

- ❖ Using large-scale battery systems to reduce stress on the grid
- ❖ Battery technology options for EVs and their cost implications
- ❖ Battery recycling and disposal

UPDATE FROM PUBLIC BUS TRANSPORT CORPORATIONS

This session will feature presentations by an industry consultant and a senior representative at a public bus transport corporation

- ❖ Dealing with EV infrastructure as bus operators
- ❖ Ongoing city-level initiatives
- ❖ Preparedness for both public use of charging networks and vehicle fleets

EV AND PV

This session will feature presentations by a senior industry expert and a representative of a leading renewable IPP

- ❖ Benefits and concerns of using renewables for charging EVs
- ❖ Cost comparison with alternatives
- ❖ Role of energy storage

Organisers

The conference is being organised by **India Infrastructure Publishing**, the leading provider of information on the infrastructure sectors. The company publishes **Power Line** (India's premier power magazine), **Indian Infrastructure** (a magazine on infrastructure policy and finance) and **Renewable Watch** (covers the entire spectrum of renewable energy). It also publishes a series of reports on the energy sector including **Power Distribution in India**, **Power Transmission in India** and **Clean Bus Market in India: Hybrid, Electric, Gas-Based**. The company also publishes the **Power Line Directory and Yearbook**.

Previous Participants

ACVA Solar | Advait Infratech | Ambit Capital | AMW Motors | Anchor Electricals | Bharti Infratel | C&S Electric | Central Electricity Authority | CESC | CLP India | Coslight | Customized Energy Solutions India | Danfoss | Dehn India | Deloitte | Delta Electronics | Deltron | Edelman India | EESL | EFACEC | EnerBlu | Energy & Telecom Engineers | EV Motors India | Fortum India | GE India Industrial | Gebauer & Griller (GG Cables and Wires) | Gensol Consulting | Genus Power Infrastructures | GIZ | GSECL | HBL Power Systems | Hero Future Energies | HUBER+SUHNER (India) | ICF International | ICICI Bank | IFC World Bank | IL&FS Energy Development | iPower Batteries | KKE Wash Systems | KPMG Advisory Services | L&T Construction | LG Chem | Lucas India Services | Mahindra Electric Mobility | Microchip Technology | Minda Industries | Ministry of Power | Mynores India | NCL Venture Center | NEC Technologies | NEDO | Neenjas Technologies | NITI Aayog | NTPC | Orange Renewable | Oriano Solar | Ostro Energy | Panasonic India | Phoenix Contact | POSOCO | Power Research & Development Consultants | Powergrid | PRS Permacel | Rays Power | Reliance Infrastructure | Remfry & Sagar | Rosenberger | Sanford C Bernstein | SBI Caps | Schaltbau India | School of Planning & Architecture | SEI Trading | Siemens | Skeiron Green Power | SKP Group | Solar Log | Sterlite Power | Suzlon Power Infrastructure | Tata Motors | Tata Power | Tirumala Seven Hills | TPDDL | Tractebel Engineering | Vertiv Energy | Virgo Consultant | Waaree Energies | ZR Renewable Energy, etc.

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are available**

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REGISTRATION FEE

Delegates	20 per cent discount (before November 12, 2018)		Fee post November 12, 2018			
	Total INR (incl. tax)	Total USD	INR	GST @ 18%	Total INR	Total USD
One delegate	23,600	393	25,000	4,500	29,500	492
Two delegates	37,760	629	40,000	7,200	47,200	787
Three delegates	51,920	865	55,000	9,900	64,900	1,082
Four delegates	66,080	1,101	70,000	12,600	82,600	1,377

- There is a 20 per cent "early bird" discount for those registering before November 12, 2018.
- There is a special low fee of Rs 5,000 per participant for the state power and transport utilities. *GST @ 18 per cent is applicable on the registration fee.*
- To register online, please log on to <http://indiainfrastructure.com/conf.html>

Terms and Conditions:

- The conference is a non-residential programme. Full payment must be received prior to the conference.
- Conference fee includes lunch, tea/coffee and conference materials.
- Conference fees cannot be substituted for any other product or service being extended by India Infrastructure Publishing Pvt. Ltd.

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