

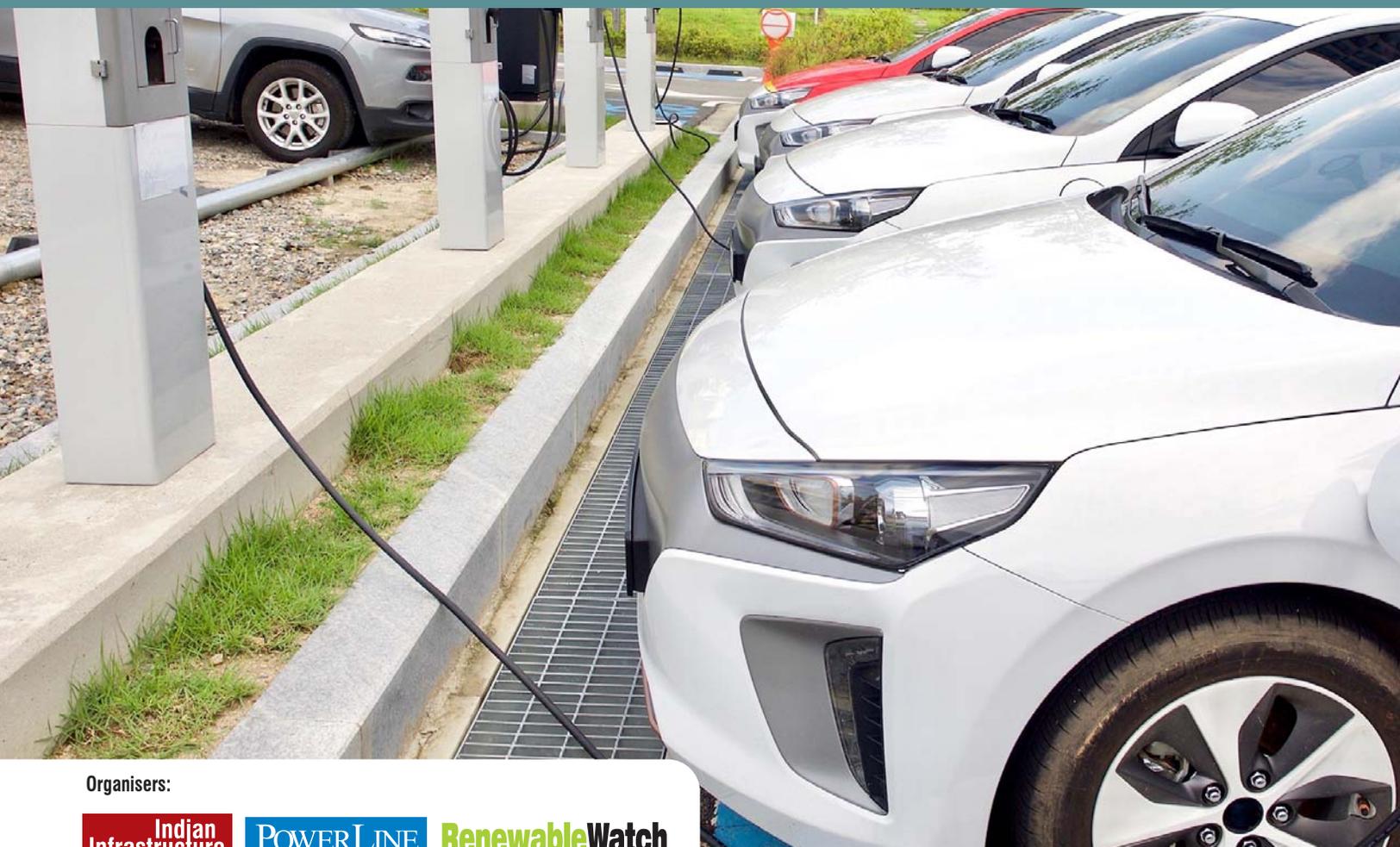
3rd Edition

# EV CHARGING INFRASTRUCTURE IN INDIA

A VIRTUAL CONFERENCE

Plans, Policies, Opportunities and Solutions

August 12-13, 2021



Organisers:



Supported by:



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# EV Charging Infrastructure in India

## Mission

- An efficient and accessible charging infrastructure is a pre-requisite for the uptake of electric vehicles (EVs) as it reduces range anxiety and improves charging convenience.
- The government has announced several plans and initiatives to build a national network of charging stations. With a target to achieve 30 per cent new electric car and two-wheeler sales by 2030, the government is actively taking steps to create an ecosystem for e-mobility. These include fiscal and non-fiscal measures to create demand for such vehicles as well as adequate supplies to ensure the development of a charging infrastructure.
- The states are also gearing up for the uptake of EVs as a means of mainstream mobility as well as the development of charging infrastructure.
- The growing uptake of EVs presents a host of opportunities for manufacturers and charging infrastructure developers. Over the past one year, the industry has seen a rapid decline in battery costs, technological advancements in the charging segment, emergence of innovative business models, and introduction of policies and subsidies. These have played a pivotal role in enhancing the buzz around EVs.
- However, realising the government's e-mobility vision is not without challenges and demands unique solutions. The development of publicly available, fast-charging stations will be crucial to support the planned EV growth. The role of discoms would be key in this infrastructure roll-out as they will manage the demand and supply of power for charging EVs.
- The conference will highlight opportunities, technologies, and solutions to build a smart and efficient public charging infrastructure to meet the coverage and convenience requirements. It will bring together regulators, policymakers, discoms, charging network operators, technology providers and OEMs to discuss the challenges and propose solutions for building a user-friendly national charging network.
- **The mission of this conference is to examine the key trends, recent developments, and challenges in the Indian e-mobility space; assess the regulatory requirements and policy direction for development of EV charging infrastructure in the context of the projected segment growth; discuss the plans, role and opportunities for discoms, manufacturers and charging infrastructure providers; 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:

- Public transport authorities and operating companies
- Government transport departments
- Intelligent traffic/transportation system providers
- Urban planning and development agencies
- R&D and educational institutions
- Transmission and distribution companies
- Automotive component manufacturers
- Equipment manufacturers
- Government and regulatory agencies
- Battery manufacturers
- Technology providers
- Renewable energy developers
- Contractors
- Fleet managers
- EV manufacturers
- Engineering consultants
- Financial institutions
- Automobile manufacturers
- Transport planning consultants
- Investment firms
- Etc.

## Previous Participants

Abellon CleanEnergy, ACVA Solar, Ador Digatron, Advait Infratech, Altium, Ambit Capital, AMW Motors, Anchor Electricals, Anvil Wealth Management, Armacell India, Bharti Infratel, BHEL, Black & Veatch, BP Exploration, C&S Electric, Central Electricity Authority, CESC, Chennai Metro Rail, Chloride Power, CLP India, CLSA, Coslight, Customized Energy Solutions India, Danfoss, Dehn India, Deloitte, Delta Electronics, Deltron, DTC, DuPont, Edelman India, EESL, EFACEC, Enarka, EnerBlu, Energy & Telecom Engineers, Essel infra, EV Motors India, Exicom, First Group, Fortum India, Frugal, GE India Industrial, Gebauer & Griller (GG Cables and Wires), Gensol Consulting, Genus Power Infrastructures, GIZ, Global Energy Storage Alliance, Goenka Electric Motor Vehicles, Govt. of NCT of Delhi, Graphite India, Grauer & Weil, GSECL, HBL Power Systems, Hero Future Energies, HPCL, HUBER+SUHNER (India), ICF International, ICICI Bank, IFC, IFC World Bank, IL&FS Energy Development, Indus Towers, iPower Batteries, Jagson Group, Kalpataru, KKE Wash Systems, KPMG, KPMG Advisory Services, L&T Construction, Lara Global, Larsen And Toubro, LG Chem, Link Legal, Lucas India Services, Mahindra Electric Mobility, Microchip Technology, Minda Industries, Ministry of Power, Ministry of Road Transport and Highways, Mynores India, Napino Auto & Electronics, NCL Venture Center, NEC Technologies, NEDO, Neenjas Technologies, NITI Aayog, NTPC, Okaya Power, Opal Technologies, Orange Renewable, Oriano Solar, Ostro Energy, Panasonic India, Panitek Power, Phoenix Contact, POSOCO, Power Research & Development Consultants, Powergrid, Pratap Technocrats, Precision Electronics, PRS Permacel, Rays Power, Reliance Infrastructure, Remfry & Sagar, Rittal India, Rosenberger, S&T Machinery, Sanford C Bernstein, SBI Caps, Schaltbau India, School of Planning & Architecture, Schunk India, SEI Trading, Siemens, Skeiron Green Power, SKP Group, Solar Log, Sterlite Power Grid Ventures, Sumitomo Electric Industries, Suzlon Power Infrastructure, Tata Motors, Tata Power, Tata Power Delhi Distribution, Tetra Tech, Tirumala Seven Hills, Toshiba, Toyota Kirloskar Motor, TPDDL, Tractebel Engineering, Uber India, Urban Mass Transit Company, Vertiv Energy, Victoria Auto, Virgo Consultant, Waaree Energies, Woodward India, WSBDC, YES Bank, ZR Renewable Energy, etc.

## AGENDA/STRUCTURE

### KEY TRENDS AND OUTLOOK

- ❖ What are the key trends and policy initiatives in the emerging e-mobility landscape in India?
- ❖ What are the potential opportunities for various stakeholders and associated challenges?
- ❖ What are the demand and supply projections for EVs and charging infrastructure?

### POLICY DIRECTION AND KEY INITIATIVES

- ❖ What have been the key initiatives to drive the adoption of EVs and deployment of the charging infrastructure?
- ❖ What are the various grants offered or planned for active and upcoming projects?
- ❖ What has been the progress under NEMPP and FAME II?

### STATE POLICIES AND PROGRAMMES

- ❖ What is the state-level update on charging infrastructure deployment?
- ❖ What are the key features of state policies focused on charging infrastructure development?
- ❖ What are the key challenges?

### CPO/CHARGING NETWORK DEVELOPER PERSPECTIVE

- ❖ What is the developers' perspective on rolling out EV charging infrastructure in India?
- ❖ What is the current scale of operations?
- ❖ What is the operational experience, key challenges and future plans?

### DISCOM PERSPECTIVE – ROLE, PLANS AND PERSPECTIVE

- ❖ What is the discom perspective on the EV market in India? What have been the key initiatives in the charging infrastructure space?
- ❖ What is the likely impact on power demand and revenue? How would the growth of EVs impact the voltage profile?
- ❖ What has been the discoms' approach so far? What are their future plans?

### REGULATORY REQUIREMENTS

- ❖ What are the emerging charging station guidelines, and other standards and practices?
- ❖ What are the existing fiscal and non-fiscal incentives for setting up charging infrastructure?
- ❖ How have the licensing norms and the tax regime evolved over time?

### CAPTIVE CHARGING INFRASTRUCTURE

- ❖ What is the potential for captive charging infrastructure in India?
- ❖ What could be the possible issues in setting up and operating this infrastructure?
- ❖ What are the cost trends? What is the demand outlook?

### EV CHARGING SOFTWARE AND PLATFORMS

- ❖ What are current needs and requirements of EV management software platform for charging infrastructure?
- ❖ What are the key issues with existing software platforms?
- ❖ What are the future requirements in terms of new features and solutions?

### NEXT-GEN TECHNOLOGIES

- ❖ What have been the recent technology advancements in the battery and charging infrastructure equipment space?
- ❖ What is their likely impact on cost and efficiency?
- ❖ What has been the global R&D direction like? What are the key focus areas?

### EV MANUFACTURERS' PERSPECTIVE

- ❖ What is the manufacturers' perspective on the emerging EV landscape in India?
- ❖ What are the current demand trends? What are their current offerings and future plans?
- ❖ What are the technical and non-technical barriers? What is their outlook?

### ELECTRIFYING MUNICIPAL AND CORPORATE FLEETS

- ❖ What has been the municipal/city fleet electrification experience so far? What are the existing plans and programs?
- ❖ What are the charging infrastructure development plans of bus operators and regional railways?
- ❖ What are the unique needs of private fleet and commercial vehicle operators?
- ❖ What will it take to transition to a large-scale roll-out?

### INTEGRATING RENEWABLES AND STORAGE IN EV CHARGING

- ❖ What are the key benefits and concerns of using renewables for charging EVs?
- ❖ What is the cost comparison of using solar energy for powering EVs with alternatives?
- ❖ What have been the technology advancements in this space?

### CASE STUDIES: BEST PRACTICES AND STRATEGIES TO ROLL OUT AN EFFICIENT CHARGING NETWORK

- ❖ What are the noteworthy pilots and projects for charging infrastructure roll-outs?
- ❖ What has been their experience and what were the key challenges?
- ❖ What are the best practices for rolling out an efficient charging network?

# EV Charging Infrastructure in India

## What differentiates our conferences?

- The **agenda** is developed by our researchers, who track the sector round the year. It is thus **relevant** and **topical**. It is not driven by a particular organisation and does not have a particular slant.
- The **speakers** are **professionals** and **experts** involved in the sector, not a mix of ambassadors, ministers, celebrities and business owners.
- The conferences do not just comprise panels and speeches; they provide a good mix of **expert presentations** and **case histories**, and of course **panel discussions**.
- We have **representation** from **across the country**, as is the case at our physical conferences too.
- Each **stakeholder group** – **policymakers**, **developers**, **financiers**, **consultants** and **relevant NGOs** – is represented at our conferences.
- The moderators merely ask the questions. The **stars** are the **speakers** themselves.
- The **sessions begin and end on time**.
- There is adequate time for a **Q&A session** with **each speaker**. These are not “hit and run” speeches.
- The **delegates** are **professionals** who are vested in the sector, and are not just assembled through social media.
- A **recap** of the conference is also made available to reinforce the key takeaways.

## Previous speakers (in alphabetic order):

- |   |  |
|---|--|
| ❖ <b>Vinit Bansal</b><br>Chief Executive Officer, EV-Motors                               | ❖ <b>Yogesh Khakre</b><br>Company Secretary, Bhopal Smart City                       |
| ❖ <b>Mahesh Babu</b><br>Chief Executive Officer, Mahindra Electric                        | ❖ <b>Mahesh Moroney</b><br>CEO, Nagpur Smart City                                    |
| ❖ <b>Pankaj Batra</b><br>Member, Planning, CEA  | ❖ <b>PrakashPandya</b><br>Deputy Engineer, Traffic Cell, Surat Municipal Corporation |
| ❖ <b>Aniruddha Kumar</b><br>Joint Secretary, Ministry of Power                            | ❖ <b>Devdutt Salpekar</b><br>General Manager, Technical, EESL                        |
| ❖ <b>Saurabh Kumar</b><br>Managing Director, EESL   | ❖ <b>Santanu Sen</b><br>Deputy General Manager, CESC                                 |
| ❖ <b>Awadhesh Kumar Jha</b><br>Vice President – Charge & Drive and Sustainability, Fortum | ❖ <b>Anil Srivastava</b><br>Adviser, Transport and DG, DMEO, NITI Aayog              |

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## Registration Fee

	INR	GST@18%	Total INR	Total USD
1 Login	9,000	1,620	10,620	150
2 - 3 Logins	15,000	2,700	17,700	250
4 - 5 Logins	21,000	3,780	24,780	350
6 - 9 Logins	27,000	4,860	31,860	450
10 - 20 Logins	33,000	5,940	38,940	550

- GST @18 per cent is applicable on the registration fee.
- Registration will be confirmed on receipt of the payment.

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- Full payment must be received prior to the conference.
- Payments for "early bird" registrations should come in before the last date of discount. Discount offers cannot be combined with any other offer.
- Conference fees cannot be substituted for any other product or service being extended by India Infrastructure Publishing Pvt. Ltd.

## Organisers

The conference is being organised by **India Infrastructure Publishing**, the leading provider of information on the infrastructure sectors through magazines, newsletters, reports and conferences. The company publishes **tele.net**, **Indian Infrastructure** and **Smart Utilities** magazines. The recent research reports published are **Green Hydrogen Market In India** and **India's Renewable Energy Outlook 2021**, **Charging Infrastructure for Electric Vehicles**, **Electricity Tariff Trends in India**, **Urban Rail in India**, **Clean Bus Market in India: Hybrid, Electric**. In addition, it publishes **Telecom News** (a weekly newsletter), and the **Telecom Directory and Yearbook**.

Contact: Harshita Wadehra, Conference Cell, India Infrastructure Publishing Pvt. Ltd.

B-17, Qutab Institutional Area, New Delhi 110016.

Tel: +91-9871976468 | Email: harshita.wadehra@indiainfrastructure.com