Charging Infrastructure Guidelines

Speaker : *Sameer Pandita, Director, Bureau of Energy Efficiency*

Decarbonizing the Indian Transport sector

13% of CO2 emission from transport sector in India

Road transport accounts for 90% of the total emissions

70% of diesel and 99.6% petrol is consumed by transport sector

Total Fuel Consumption more than doubled in ten years

Highest **CAGR of 6.7% between 2000 to 2018**

Import dependency of **crude oil at 84% and 36% of natural gas** in FY19

2W constitutes ~74% of all vehicles

EVs **contributes less than 1% in total vehicles**

Target of **30% of new vehicle sales from EVs by 2030**

Total Cost of Ownership

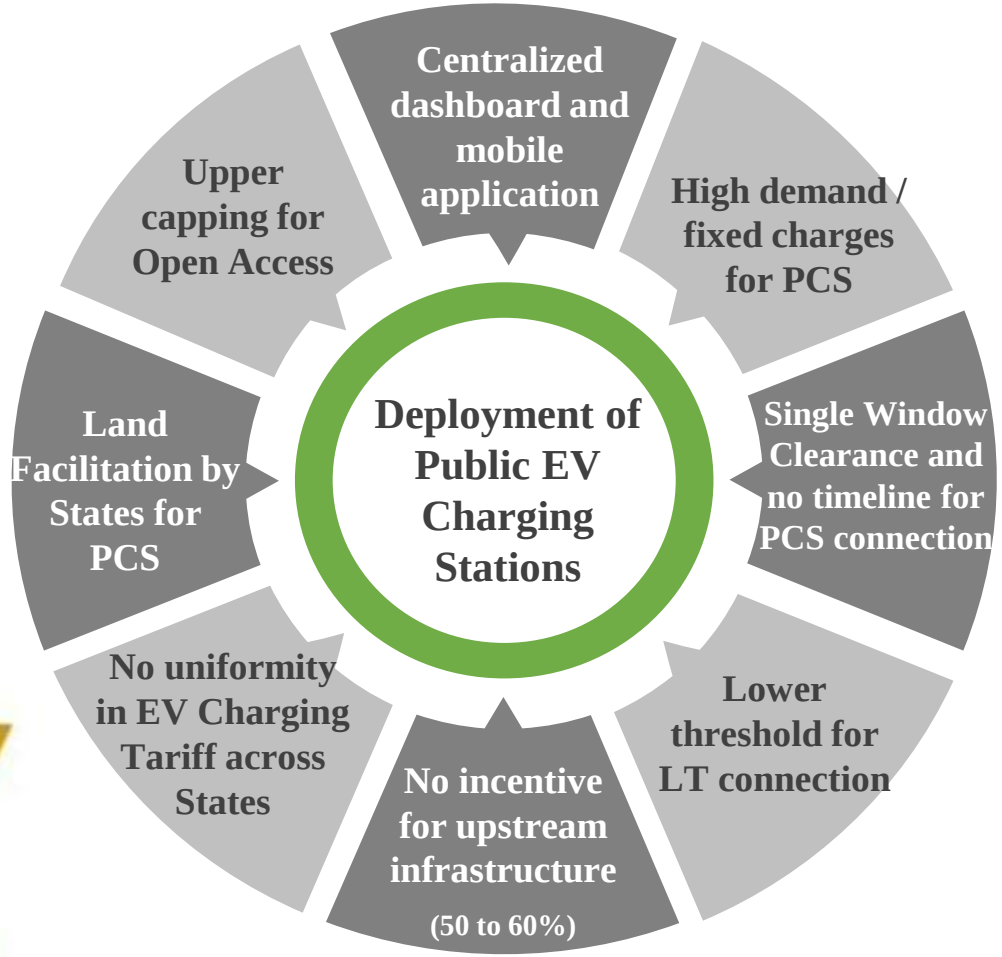
ICE 4W – **INR 6 / km**

EV 4W **– INR 0.88 / km**

Number of operational PCS is ~1630

Challenges for installation of EVCS

Challenges in installation of PCS



Revised Consolidated MoP Guidelines issued on 14th Jan , 2022

- ✓ Time period for providing EVCS connection is 7 days - metro cities, 15 days - other Municipal areas and 30 days- rural areas (Electricity Rules 2020)
- ✓ Open Access allowed for EVCS with cross subsidy not more than 20% as per Tariff Policy Guidelines
- ✓ BEE to maintain National online database for Public Charging Stations
- ✓ Tariff for PCS shall be single part and not to exceed ACoS till 31st March 2025
- ✓ Government / Public Entity land provision for setting up PCS (Rs. 1/kWh for Govt. entity and Rs.1/kWh (floor price) for private entity
- ✓ Funding for upstream infra can be leveraged from RDSS

BEE's initiatives to promote Electric Mobility

Web Portal and Mobile Application for EVCS

- Central web based portal for Public EV Charging stations installed across India
- Mobile Application for providing real time info to users like its GPS coordinates, types of chargers installed in the station, availability of charging slots, etc.

Standard & Labeling for EVs and EVSEs

- Energy performance benchmarking for EVs, EVSEs and Battery Swapping Stations
- Define average efficiency of EV, EVSE, BSS and other performance related parameters

"Go Electric" Awareness Campaign

Impact assessment of EVs on grid

- Impact assessment of EV charging on grid infrastructure
- Pilot demonstration for V2G technology in India
- Software tool for planning and identifying feasible locations for deployment of Public EV chargers

Standard & Labeling for traction batteries

- BEE launched S&L program (voluntary) for high energy Li-ion traction battery packs and system
- The program rates performance of High-energy Li-ion Battery packs and systems on like cycle life, specific energy (Wh/kg), and energy efficiency of the battery packs

Recommendations for faster deployment of PCS in India

- Prioritize electrification of 2W & 3W (commercial segment) and public transport with target of electrifying 100% 2Ws, 3Ws and Buses
- Encourage deployment of Battery Swapping at Fuel Retail Outlets with interoperability among OEMs.
- Saturate 9 Mega cities with public EV charging stations to support e-mobility adoption
- Create EV Accelerator Cells in 9 mega cities to create awareness on EVs and implement technology demonstrators.
- Reduce GST rate for public EV charging services from 18% to 5%.
- Implement pilot demonstrations for managed charging of EVs in 9 mega cities to establish techno commercial viability of V2G technologies.
- SERCs may examine DSM regulations to include V2G enabling EVs to be used for grid support services and Demand Response.

Thank You

For discussions/suggestions/queries email: www.indiasmartgrid.org
www.isgw.in
Links/References (If any)

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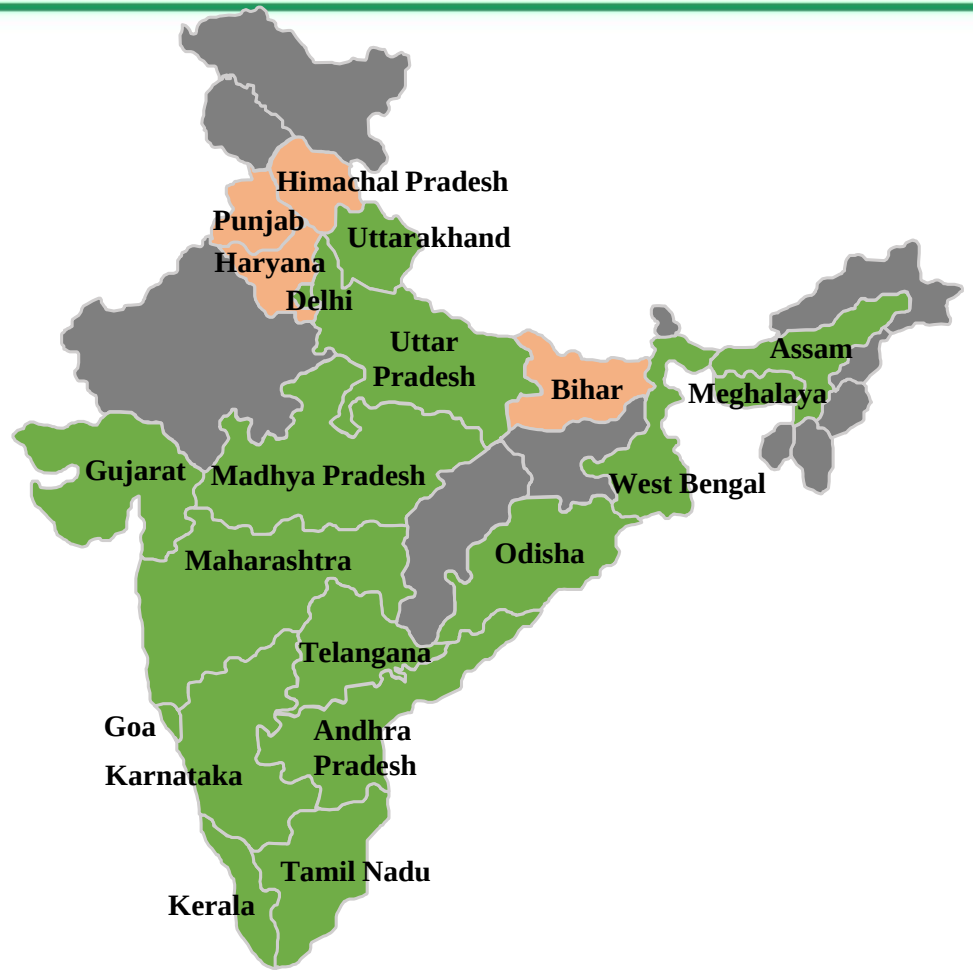
Electric Mobility – Status



16 Notified EV Policies

5 Draft EV Policies

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No. of States having dedicated EV Tariff

LT Load Limit – 9 Cities

S No.	Cities	DISCOM	LT load limit
1	**Ahmedabad**	Torrent Power	100 kW
2	**Surat**	Torrent Power DGVNL	100 kW
3	**Bengaluru**	BESCOM	150 kW
4	**Chennai**	TANGEDCO	150 kW
5	**Delhi**	BSES Rajdhani Power Limited BSES Yamuna Power Limited Tata Power New Delhi Municipal Corporation	150 kW
6	**Hyderabad**	Southern Power Distribution Company Of Telangana Limited	75 kW
7	**Kolkata**	WBSEDCL	160 kW
8	**Mumbai**	MSEDCL BEST Adani Electricity Tata Power	150 kW
9	**Pune**	MSEDCL	150 kW