

**Dated December 2024**

**Draft Guidelines**

**For Inviting Proposals to avail incentives under the PM E-DRIVE Scheme  
For deployment of EV charging infrastructure in India**

**Last date of Submission of Proposal**

**Ministry of Heavy Industries,  
Government of India  
Udyog Bhawan, New Delhi**



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## **1 Background**

Government of India has approved PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) Scheme with an outlay of Rs.10,900 crore over a period of two years, vide Gazette notification S.O. 4259 (E) on September 29, 2024. One of the objectives of the PM E-DRIVE scheme is to expedite the adoption of EVs by facilitating the establishment of EV Public Charging Stations (EVPCS).

With increase in EV Penetration, PM E-DRIVE scheme will support the setting up of adequate public charging infrastructure to instil confidence amongst EV users, through active participation and involvement of various stakeholders like Charge Point Operators, EV Charger OEMs, State Governments, Urban Local Bodies (ULBs), Government agencies, Central-level ministries, Discoms, Highway Authorities and various Central Public Sector Enterprises (CPSEs).

To cater to the need for fast chargers, PM E-DRIVE scheme has an outlay of Rs. 2,000 crores for setting up public fast charging stations. Under this scheme, MHI intends to support the development of EVPCS by extending up to 80% subsidy on upstream infrastructure (behind the meter infrastructure) required for setting up public fast charging stations. However, in exceptional cases, the Ministry may consider higher funding for the establishment of charging infrastructure to the extent of 100% of cost (including upstream power infrastructure) of the project.

## **2 Eligible Entities**

In PM E-DRIVE, proposals will be invited from Government of India ministries and State Governments. These entities will aggregate demand for EV charging stations across different cities and highways through organisations under their control. The indicative implementation mechanism for them is provided below:

### **i. States:**

States will appoint a nodal agency (SNA) for setting up charging stations. The demand aggregation for EV PCS in the state shall be done by this nodal department in coordination with Urban Local Bodies (ULBs), municipal corporations, state highway authorities, State PSUs, utilities/ DISCOMs, and other public departments. A committee headed by the Chief Secretary of the respective states will be empowered to consider and recommend the proposals for EVPCS for approval by MHI.

### **ii. Government of India Ministries:**

The PM E-DRIVE scheme shall include the following central-level ministries eligible to submit the proposals:

**Central Ministries** like MoPNG, MoRTH, Ministry of Telecommunications, Ministry of Tourism, Ministry of Health and Family Welfare, Ministry of Railways, Ministry of Civil Aviation, Ministry of Ports, Shipping and Waterways etc.

These ministries will coordinate with organizations under their control, including CPSEs, to identify suitable locations and aggregate the demand for EV charging stations. After aggregation, a consolidated proposal shall be prepared by the respective ministry and submitted to the Ministry of Heavy Industries (MHI) through the Secretary of the concerned ministry or department.

Central authorities, including Metro Corporations, Railways, and the Airport Authority of India, are encouraged to identify suitable locations within their areas of control and saturate these spaces for setting up public EV charging stations.

### 3 Coverage

PM E-DRIVE will prioritize cities and highways to ensure a focused approach. The scheme will target cities with a high share of EVs, particularly e-2Ws, e-3Ws, and e-4Ws, for the deployment of fast public charging infrastructure.

Similarly, select high-density highways with heavy vehicular traffic, connections between major cities and industrial hubs, and wayside amenities will be prioritized for e-Buses and e-Trucks.

The selection of cities and highways will be done in consultation with stakeholders. The scheme’s coverage, including the parameters for prioritizing cities and highways, is detailed below:

#### 3.1 Cities

To achieve economies of scale, State / Central agencies are encouraged to aggregate the number of charging stations in specific cities or municipal areas. States may shortlist the initial list of cities based on the criteria outlined below.

**Table 1:** Shortlisting Criteria for the Cities

Category	Total Nos. of target Cities
40 lakhs Plus Population Cities	9
10 lakhs Plus Population Cities	44
Satellite towns	
Capital Cities and cities from Special Category States	
NCAP Cities	131
Other– (Heritage places, Tourist, Religious Places)	

**Note:** The above list is indicative. States or any eligible entities may choose to install EV PCS at other locations based on their specific requirements and land availability.

The states shall consider the current EV stock viz number of e2Ws, e3Ws, e4Ws, and E-buses registered till date at the city level for prioritization of cities. The tentative list of top 40 cities shortlisted based on these criteria are provided in the Annexure A.

### 3.2 Highways

**National Highways / Expressways:** Proposals are invited from the Ministry of Road Transport and Highways (MoRTH) for the deployment of EV charging stations along expressways and national highways. MoRTH may coordinate with the respective national highways and expressways authorities to aggregate demand for EV charging stations.

**State Highways:** State governments shall aggregate the demand for EV public charging stations (PCS) on state highways through State nodal agency (SNA), in coordination with state highway authorities.

The indicative list of parameters that MoRTH and States may consider in their assessment of shortlisting highways are:

- i. Vehicular volume on highways / corridors (e.g. toll data can be referred)
- ii. Highways with freight corridors
- iii. Highways that connect major cities and industrial hubs
- iv. Number of existing retail outlets (RO) of OMCs on the highway / corridors
- v. Existing way-side amenities on the highway / corridors

The tentative list of top 40 corridors on major highways for e-Buses and top 20 corridors on major highways for e-Trucks are provided in the Annexure B and C respectively. MoRTH / States may select the highways from this list of high-demand corridors or any other as per their requirement.

## 4 Charger Configuration

The PM E-DRIVE will support EV charging infrastructure for all major EV segments, including e2W, e3W, e-Buses, and e-Trucks.

To be eligible under the PM E-DRIVE scheme, charging infrastructure must meet specific standards and capacities as defined by Ministry of Power (MoP) guidelines issued vide No. 12/2/2018-EV dated 17th September 2024 on the subject “Guidelines for Installation and Operation of Electric Vehicle Charging Infrastructure-2024” and as amended from time to time.

The detailed charging standard requirements for various vehicle segments:

**Table 2:** Minimum Charging Standards

Segment	Charging Standard	Minimum Charger Capacity
e2W / e3W	LEVDC (IS-17017-2-6) or LECCS (IS-17017-2-7)	12 kW
e4W	CCS Type-2 (IS-17017-2-3)	60 kW
e-Buses / e-Trucks	CCS Type-2 (IS-17017-2-3)	240 kW

To support the widespread adoption of EVs, specific charging configurations are suggested for public charging stations in cities and along highways. These configurations are designed to ensure accessible charging solutions across different locations.

**i. Public Fast Charging Stations for Cities (indentation can be improved)**

These stations shall have at least one fast charger for e4W and at least two fast chargers for e2W/e3W, preferably with dual guns.

- i. Minimum 1 – 60 Kw CCS-II
- ii. Minimum 2 – 12 Kw LECCS / LEVDC

This requires a minimum area of 40-60m<sup>2</sup>.

- iii. Two car parking space x 12m<sup>2</sup> (24 m<sup>2</sup>)
- iv. Four 2W/3W parking space x 6m<sup>2</sup> (24 m<sup>2</sup>)

**ii. Fast Charging Stations at highways for Long Distance & Heavy Duty EVs**

These stations shall have at least one fast charger for e-Buses/e-Trucks and at least two fast chargers for e4W, preferably with dual guns.

- i. Minimum 1 – 240 Kw CCS-II
- ii. Minimum 2 – 60 Kw CCS-II

This requires a minimum area of 250-300 m<sup>2</sup>.

- i. Two bus parking spaces x 105 m<sup>2</sup> (210 m<sup>2</sup>)
- ii. Four car parking spaces x 12m<sup>2</sup> (48 m<sup>2</sup>)

*Note: The above configuration and minimum area requirements are indicative. States or any eligible entities may choose to modify them based on their specific requirements and land availability.*

## **5 Total Chargers Proposed**

The PM E-DRIVE will support EV charging infrastructure for all major EV segments, including e2W, e3W, e4W [including e-ambulances & light goods vehicles (LGV)], e-Buses, and e-Trucks. Below are the three sub-components of the scheme:

1. **Fast Charging Infrastructure for e-4W** (including ambulances, light passenger vehicles, light commercial vehicles, and light goods vehicles): Under the PM E-DRIVE scheme, it is proposed to set up 22,100 fast public chargers to support public charging requirements of various e-4W segments.
2. **Fast Charging Infrastructure for e-2W / e-3W:** To address the public charging infrastructure requirements of e2W/ e3W segments, PM E-DRIVE will support setting up of 48,400 public fast chargers.
3. **Fast Charging Infrastructure for e-Buses / e-Trucks:** PM E-DRIVE will support setting up of 1,800 fast chargers for e-Buses and e-Trucks.



**Table 3:** Number of EV Chargers Supported under PM E-DRIVE

<b>EV Segment</b>	<b>Charger Type</b>	<b>Number of Chargers Supported under PM E-DRIVE</b>
e2W / e3W	LECCS / LEVDC	48,400
e4W (Including Cars and LGV)	CCS-II	22,100
e-Buses / e-Trucks	CCS-II	1,800
	<b>Total</b>	<b>72,300</b>

## **6 Subsidy proposed and total outlay under PM E-DRIVE**

The PM E-DRIVE scheme will support EV charging infrastructure for all major EV segments, including e-2W, e-3W, e-4W, e-ambulances, e-buses, e-trucks & other new emerging EV categories.

The scheme will offer financial support for the development of charging infrastructure, providing up to 80% subsidy on upstream infrastructure required for setting up EV charging stations.

The benchmark prices for determining financial support for upstream infrastructure costs will be determined in consultation with MoP/BEE. The following table outlines the subsidy details as per BEE benchmark dated for different types of chargers and the total outlay of the scheme.

**Table 4:** EV PCS subsidy outlay under PM E-DRIVE

<b>Charger Type</b>	<b>BEE benchmarks of Upstream Infrastructure Cost</b>	<b>Upstream Subsidy / charger (@80%)</b>	<b>Total Outlay</b>
<b>Connector</b>	<b>INR Lakhs</b>	<b>INR Lakhs</b>	<b>INR Crores</b>
LECCS/LEVDC 12 kW	1.5	1.2	581
CCS-II – 60 kW	6.0	4.8	1,061
CCS-II – 240 kW	24.0	19.2	346
<b>Total</b>			<b>1,988 Cr.</b>

## **7 Ecosystem enablers for Setting up EV charging infrastructure**

It is essential to develop the entire ecosystem that supports the deployment of EV charging stations. State Governments and Central ministries may support this effort through the following enablers to ensure the successful establishment of EV public charging stations:

### **i. Capex subsidies and other incentives under State EV Policies**

Currently, the EV charging business may not be viable for CPOs due to low utilization levels and high electricity tariffs. With subsidies on upstream infrastructure, MHI aims to improve the viability for CPOs and also lower the tariff for EV users.

Many states are providing capex subsidies for EV charging equipment under their state EV policies. States may also consider allowing additional incentives to further improve the viability of the charging business and reduce EV charging tariffs for users, increasing EV adoption.

### **ii. Suitable land parcels for EV PCS and provision of land as per MoP guidelines**

In addition to charger capex and the corresponding need for upstream infrastructure, one major component is land availability. Access to land and high land rentals present major hurdles in deploying charging infrastructure.

State Governments and Central ministries may provide access to land at suitable locations for EV charging stations by coordinating with various stakeholders under their control. This will encourage CPOs and other ecosystem players to deploy EV PCS in locations with high land rents.

- a. **Feasibility Study:** State Governments and Central ministries are also encouraged to carry out feasibility studies to identify suitable locations for EV PCS. These site assessments will help identify potential locations based on traffic patterns, proximity to major commercial spaces, land accessibility, sufficient power supply, and potential for grid upgrades to support the additional load.
- b. **Amending Building Codes:** Municipal corporations/ULBs may consider amending building byelaws to incorporate relevant provisions from MoHUA's advisory to states, allocating a specific percentage of parking spaces for EV charging stations.
- c. **Land Provision:** State Governments/Central ministries may consider providing land in accordance with MoP guidelines. States may take this decision based on land availability and commercial aspects associated with the land.

### **iii. Ease of Doing Business and provisions for a single-window clearance mechanism**

One of the major challenges in deploying EV charging infrastructure is obtaining electricity connections and other regulatory clearances. State Governments and Central

ministries may support this process by providing a single-window clearance system for necessary electricity connections and regulatory approvals.

#### **iv. Fair and Transparent tendering process with deployment through CPOs**

State Governments and Central ministries shall adopt a transparent, competitive bidding process, with CPOs onboarded for the deployment of EV charging stations. CPOs bring technical expertise in operating charging stations and offer mobile applications and other features that enhance the usability of EV charging stations, making chargers more accessible to EV users.

Recently, many state government agencies, such as UPEIDA, West Bengal State Electricity Distribution Co. Ltd. (WBSEDCL), Delhi Transco, and various municipal corporations like Amritsar Smart City Limited, Agra Development Authority, Ahmedabad Municipal Corporation, and the Airport Authority of India, have floated tenders for EV charging station deployment.

State governments and GoI ministries may refer to these tenders, available on MHI website, for best practices regarding bidding parameters, minimum charger configurations, available area, etc. These tenders, along with MHI guidelines, should be reviewed for developing state/ministry-level tenders for deploying EV charging stations.

#### **v. Promoting Renewable Energy (RE) based EV charging and other smart solutions**

With increasing EV charging demand, there may be a significant load on the grid as EV adoption rises in the coming years. This increased peak load will impact cities with higher EV penetration, leading to grid congestion.

Therefore, integrating renewable energy sources with charging infrastructure and developing a smart grid is encouraged. Additionally, projects for charging infrastructure may include innovative solutions for electrification, such as pantograph charging, flash charging, etc., to support the growing number of EVs.

## **8 Implementation Mechanism**

To effectively deploy EV charging infrastructure across cities, highways, and central departments, a structured implementation mechanism has been established.

### **8.1 Implementation Mechanism: States**

The following section outlines the step-by-step procedure for preparing proposals for EV charging infrastructure at the state level.

#### **Step 1: Setting up a State Nodal Department**

Each state shall set up a State Nodal Department tasked with aggregating demand for EV public charging stations across cities and highways and submitting suitable proposals to MHI.

States may select the nodal department from existing entities with aligned mandates, such as State Nodal Agency under BEE for EV charging infrastructure. Alternatively, states may appoint other departments—such as DISCOMs, Transport, Urban, or Public Works Departments—whose operations align with EV charging infrastructure implementation.

Additionally, states may consider establishing a dedicated department specifically for this purpose, as demonstrated by Uttar Pradesh, which has created a specialized company, “UP Renewable and EV Infrastructure Limited (UPREV),” with the objective of developing EV charging infrastructure.

States may also onboard CPSEs with expertise in deploying EV charging infrastructure, such as Convergence Energy Services Limited (CESL) and Rajasthan Electronics & Instruments Limited (REIL), etc. for deployment of EV PCS.

The state nodal department appointed by state govt. shall have the following responsibilities:

1. Aggregate the demand for EV charging stations in coordination with ULBs, municipal corporations, state highway authorities, State PSUs, utilities/ DISCOMs, and other private landowners.
2. Oversee the proposal preparation, facilitating the feasibility study to ensure that the selected cities meet the criteria for a high EV share and that highways fall within high-demand corridors.
3. Obtain project approval from the State-level committee, headed by the Chief Secretary.
4. Facilitate coordination among key stakeholders, including DISCOMs, Transport, Urban, Public Works Departments, and highways authorities, to streamline the process.
5. Monitor the implementation of approved proposals to ensure timely installation and operational readiness of EV charging stations.

## **Step 2: Preparing the Aggregated Proposal and Feasibility Study**

**Demand Aggregation:** The State Nodal Department will aggregate the demand for the deployment of public EV charging stations. To facilitate this, the nodal department will identify land required for EV PCS such as municipal parking, state government departments, semi-government land, or from private entities. The nodal department will also coordinate with the public works department and state highway authorities to aggregate the demand for EV charging stations across highways.

**Feasibility Study:** The nodal department shall also facilitate the feasibility study for identifying suitable locations for charging stations. For this purpose, the nodal department may hire independent specialized consultants to carry out these feasibility studies. These studies may consider factors such as site accessibility, existing electricity infrastructure, current and projected vehicle volume, and proximity to commercial/public spaces for identifying suitable locations for charging stations.

Based on the feasibility study outcomes, the nodal department will submit the aggregated proposals to the state government, specifying:

- i. Identified locations for EV charging stations city-wise.
- ii. Total number of chargers category wise at state level
- iii. Number of EV chargers at each location.
- iv. Vehicle segments and charger capacities for EV chargers.
- v. Total financial outlay and subsidy requested.

## **Step 3: Project Approval by State Level Committee and Proposal Submission to MHI**

Each state will establish a State-Level Committee for evaluating the proposals for EV charging stations for further submitting it to MHI. The committee will be chaired by the State's Chief Secretary and will include members from relevant departments. An indicative composition of the committee is as follows:

- I. Chief Secretary: Chairman
- II. Principal Secretary (Finance Department): Member
- III. Principal Secretary (Power Department): Member
- IV. Principal Secretary (Urban Development): Member
- V. Principal Secretary (Transport Department): Member
- VI. Principal Secretary (Public Works Department – Building & Roads/ Department in-charge of Highways): Member

The committee may co-opt or induct additional members as required.

The State-level committee will approve the proposal prepared by the nodal department including the selected locations for each city and the number of charging stations at each

location based on the outcomes of the feasibility study and recommendations from nodal department.

Following the approval of the State Level Committee, the nodal department will submit the aggregated proposal to MHI, with copies sent to the relevant cities, departments, and highway authorities. The proposal will include:

- i. Identified locations for EV charging stations
- ii. The number of EV Public Chargers at each location
- iii. Charger requirements for different vehicle segments and capacities
- iv. Total Financial Outlay and Subsidy Requested
- v. Detailed deployment plans for EV charging stations,
- vi. Approval letter from State Level Committee (SLC)
- vii. Details of Tender Issuing Authority (TIA)

#### **Step 4: Subsidy Approval by MHI and Initiating Tendering Process**

MHI will review the proposal submitted by the state government based on predefined evaluation criteria. Based on the evaluation matrix, MHI will approve the proposals with required modifications and sanction the number of EV charging stations.

Upon MHI's approval, the state-appointed nodal department will initiate the tendering process. The state nodal department may act as the Tender Inviting Authority (TIA) or appoint any other department or agency for this purpose.

TIA will float the tender to deploy the approved number of EV charging stations via Charge Point Operators (CPOs). States can refer to tenders floated by various agencies such as municipal corporations, highway authorities, airport authorities, discoms, etc., for the deployment of charging infrastructure. These tenders are available on MHI website. States may refer to these while developing tenders for EV charging stations.

The tender shall include identified locations for EV PCS, minimum charger configurations, available area, and bidding parameters to be followed. The bid parameters can either be the lowest service charge or the maximum revenue share offered by CPOs to the tendering authority, or a mix of both. States may choose any of these or any other bidding criteria based on their specific requirements.

#### **Step 5: Subsidy Disbursement and setting up of EV PCS**

After completing the tender process, the state nodal department will send a copy of the Letter of Award to MHI with details of the winning bidder, bidding criteria, financial quotes, selected locations, and the total number of EV chargers.

MHI will review the LoA document to ensure the tender includes the sanctioned number of EV chargers, specifies the minimum charger configuration, and details the EV PCS subsidy per charger.

After completing the evaluation, MHI will disburse the subsidy. This subsidy will be provided in three tranches:

1. The first tranche at the tender award stage (30%)
2. The second tranche at the deployment of EV PCS (40%)
3. The third tranche after successful commercial operation (30%)

The nodal department needs to ensure that CPOs shall bear the remaining costs for upstream infrastructure, cover capital expenditure for EVSE, and install and operate the charging stations for pre-defined period. CPOs shall manage the operations of EV charging stations as per the agreed technical and operational specifications provided in the tender.

## **8.2 Implementation Mechanism: Government of India Ministries**

The following section outlines the step-by-step procedure for developing proposals for EV charging infrastructure by central ministries.

### **Step 1: Setting up the Nodal Department**

Each ministry/department shall identify a Nodal Department/agency tasked with aggregating the demand for EV public charging stations for organizations under their control, including CPSEs, and submitting suitable proposals to MHI. Ministries may appoint any relevant department or a CPSE under them to become the nodal department for EV charging infrastructure implementation.

Ministries may also select CPSEs with expertise in deploying EV charging infrastructure, such as Convergence Energy Services Limited (CESL) and Rajasthan Electronics & Instruments Limited (REIL), etc. for installation of EV PCS.

The nodal department appointed by respective ministry shall have the following responsibilities:

1. Aggregate the demand for EV charging stations in coordination with various organizations under the ministry's control, including CPSEs.
2. Oversee the preparation of the proposal and facilitate a feasibility study to identify suitable locations for EV charging stations.
3. Obtain project approval from the Ministry.
4. Facilitate coordination among key stakeholders, including DISCOMs, Transport, Urban, Public Works Departments, and highways authorities, to streamline the process.
5. Monitor the implementation of approved proposals to ensure timely installation and operational readiness of EV charging stations.

### **Step 2: Preparing the Aggregated Proposal and Feasibility Study**

**Demand Aggregation:** The Nodal Department will aggregate the demand for the deployment of public EV PCS. To facilitate this, the nodal department will coordinate with organisations under Ministry's control including CPSEs and identify suitable locations for installation of EV Public Charging Stations.

**Feasibility Study:** The nodal department shall also facilitate the feasibility study for identifying suitable locations for charging stations. For this purpose, the nodal department may hire independent specialized consultants to carry out these feasibility studies. These studies may consider factors such as site accessibility, existing electricity infrastructure, current vehicle volume, and proximity to commercial/public spaces for identifying suitable locations for charging stations.

### **Step 3: Project Approval by Central Ministry or Department and Proposal Submission to MHI**



Each ministry will establish a Ministry-level committee, led by the Secretary of the ministry or department, for evaluating the proposals for EV charging stations for further submitting it to MHI. The committee will approve the number of charging stations at each location based on the outcomes of the feasibility study and recommendations from nodal department.

Following the approval of the Ministry Level Committee, the nodal department will submit the aggregated proposal to MHI, with copies sent to the respective organisations under their control including CPSEs. The proposal will include:

- i. Identified locations for EV charging stations
- ii. The number of EV Public Chargers at each location
- iii. Charger requirements for different vehicle segments and capacities
- iv. Total Financial Outlay and Subsidy Requested
- v. Detailed deployment plans for EV charging stations,
- vi. Approval letter from Ministry Level Committee
- vii. Details of Tender Issuing Authority (TIA)

#### **Step 4: Subsidy Approval by MHI and Initiating Tendering Process**

The Project Implementation Steering Committee (PISC), headed by the Secretary, MHI, will review the proposal. MHI will consider the proposal forwarded by PISC for approval, subject to any required modifications, and sanction the number of EV charging stations.

Upon MHI's approval, the nodal agency appointed by the relevant agency will initiate the tendering process. The nodal department may act as the Tender Inviting Authority (TIA) or appoint any other department or agency for this purpose.

TIA will float the tender to deploy the approved number of EV charging stations via Charge Point Operators (CPOs). Ministries can refer to tenders floated by various agencies such as municipal corporations, highway authorities, airport authorities, discoms etc., for the deployment of charging infrastructure. These tenders are available on MHI website. Ministries may refer to these while developing tenders for EV charging stations.

The tender shall include identified locations for EV PCS, minimum charger configurations, available area, and bidding parameters to be followed. The bidder parameters can either be the lowest service charge or the maximum revenue share offered by CPOs to the tendering authority, or a mix of both. Ministries may choose any of these or any other bidding criteria based on their specific requirements.

### **Step 5: Subsidy Disbursement and setting up of EV PCS**

After completing the tender process, the nodal agency will send a copy of the Letter of Award to MHI with details of the winning bidder, bidding criteria, financial quotes, selected locations, and the total number of EV chargers.

MHI will review the LoA document to ensure the tender includes the sanctioned number of EV chargers, specifies the minimum charger configuration, and details the EV PCS subsidy per charger.

After completing the evaluation, MHI will disburse the subsidy for upstream infrastructure, covering up to 80% of costs to the TIA. This subsidy will be provided in three tranches:

1. The first tranche at the tender award stage (30%)
2. The second tranche at the deployment of EV PCS (40%)
3. The third tranche after successful commercial operation (30%)

The nodal department needs to ensure that CPOs shall bear the remaining costs for upstream infrastructure, cover capital expenditure for EVSE, and install and operate the charging stations. CPOs shall manage the operations of EV charging stations as per the agreed technical and operational specifications provided in the tender.

## **9 Role of key government authorities**

### **9.1 Ministry of Power**

- i. Ministry of Power (MoP) may ensure that Discoms adhere to “Revised Guidelines & Standards for Electric Vehicle Charging Infrastructure”.
- ii. This shall include Tariff Regulations, cost of electricity, HT/LT Connection Approval Process etc.

### **9.2 Ministry of Housing and Urban Affairs**

- i. MoHUA may advise Urban Local Bodies (ULBs) to publish guidelines and amend building codes to include provisions for EV charging infrastructure for new buildings.
- ii. ULBs are expected to incorporate the amended building codes into their local building bylaws, ensuring compliance in new construction projects.
- iii. ULBs may ensure that land is provided, preferably at INR 1/kWh, i.e., as per MoP guidelines.

### **9.3 Bureau of Energy Efficiency**

- i. BEE may integrate all public charging stations into the National Portal (EV-Yatra), including features for slot booking and payment services.

### **9.4 Ministry of Road Transport and Highways**

- i. NHAI / NHLM to include public charging stations under wayside amenities contracts.
- ii. Provision of land along highways and ease out the land acquisition process.

### **9.5 Line Ministries (Ministry of Railways, MoPNG, Civil Aviation, Ports etc.)**

- i. Line ministries may submit proposals to MHI for the installation of public charging infrastructure based on their assessment of the requirement for EV chargers.
- ii. The proposals should adhere to the guidelines mentioned in this document, including the provision of land for deploying EV charging stations as per MoP guidelines.

## 10 Selection Procedure

### 10.1 Documents to be submitted

- i. The aggregated proposal must be submitted to the Ministry of Heavy Industries to avail incentives under the PM E-DRIVE scheme. Among other things, the proposals must contain the following:
  - a. Identified locations for EV charging stations
  - b. The number of EV Public chargers at each location
  - c. Charger requirements for different vehicle segments and capacities
  - d. Total financial outlay and subsidy requested
  - e. Detailed deployment plans for EV charging stations,
  - f. Approval letter from State / GOI Ministry level committee
  - g. Details of Tender Issuing Authority (TIA)
- ii. The proposals submitted by the State Govt./ Central ministries should be sent with a cover letter along with other necessary information.
- iii. The complete proposals along with relevant documents shall be submitted to the DS EM M/o Heavy Industry at the following address.

*The Deputy Secretary (EM)*  
*Ministry of Heavy Industries*  
*Room No. 275-E, Udyog Bhawan, New Delhi -110011*  
*Tel. No. 011-23061745*

### 10.2 Approval Mechanism

The establishment of EV charging infrastructure involves a coordinated effort among various entities. Tender Inviting Authorities have been designated at both state and central levels for demand aggregation. Project approvals will be managed by the respective agencies, while subsidy approvals will be handled by the Ministry of Heavy Industries (MHI).

**Table 5:** Approval Mechanism

<b>Entity</b>	<b>Demand Aggregation</b>	<b>Project Approval Authority</b>	<b>Subsidy Approval</b>
States	Nodal Agency appointed by the state government	State level committee, chaired by Chief Secretary	MHI
Central Ministry / Department	Nodal Agency appointed by the Central Ministry / Department	Secretary, GOI Ministry	MHI

### 10.3 Assessment matrix for evaluation of Proposals

An assessment matrix has been developed to evaluate the performance of states in promoting EV charging infrastructure development. This matrix includes parameters across three main categories: Existing EV policies, EV penetration, and enablers for deploying EV charging stations.

**Table 6:** Assessment Matrix for evaluation of EV PCS Proposals

S. No.	Category	Parameter
1	State Level EV Policy	Separate EV policy at state level
2		Direct Subsidies- Capex subsidies on purchase of EVs
3		Waiving of Registration charges/Road Tax/Toll/ Parking fee
4	Existing EV	Number of E2W, E3W, E4W and E-buses registered in the city / state
5	Penetration	Number of charging stations installed in the city / state
6	Enablers for Deploying EVPCS	Provision of land on a concessional basis
7		State level subsidies for EVSE + Upstream Infrastructure
8		Adoption of model building bye laws to ensure provision for EV PCS
9		Single part tariff and Concessional electricity Tariffs
10		Provision of LT connections more than 100 kW for EV PCS
11		Single window system to grant electricity connections

### 10.4 Evaluation by MHI

- i. MHI will form a Technical Committee, for evaluation of the EV PCS, proposals under the chairmanship of Additional/ Joint Secretary, MHI with members from NITI Aayog, M/o Power, ARAI, etc;
- ii. The Technical Committee will shortlist the proposals based on the information sought in section 10.3 as decided by the committee.
- iii. Recommendations of the technical committee will be placed before the Project Implementation and Sanctioning Committee.
- iv. With the approval of PISC, the proposal will be processed in the Ministry of Heavy Industries for approval by the competent authority in consultation with Internal Finance Wing.
- v. After the approval by the competent authority, participating State Govt/ Central Ministry will be informed about the total number of sanctioned charging stations with a request to initiate the tendering process.

## 11 Procurement Cycle Timelines

All TIAs appointed by respective State Govt/ Central Ministry are required to adhere to the following timelines for the deployment of charging infrastructure:

**Table 7:** Incentive Disbursement milestones

S. No	Activity	Timeline
1	Issue of EOI for development of EV charging Infrastructure in cities and along highways	To
2	Last date of submission of proposal in response to EoI to MHI	8 weeks
3	Finalisation of selection process and issue of sanction letter by MHI	12 weeks
4	Issue of Tender for inviting bids	16 weeks
5	Last date of submission of bid by the interested bidder/supplier	22 weeks
6	Finalisation of Bidding Process and issue of supply order	26 weeks
7	Release of the first instalment as mobilization advance - up to 30% of the incentive amount	28 weeks
8	Release of the second instalment after deployment and of EVSEs- up to 40% of the incentive amount	48 weeks
9	Release of the third instalment after commercial operation of EVSEs- up to 30% of the incentive amount	52 weeks

### Note:

- i. TIA appointed by respective State Govt/ Central Ministries should ensure completion of the procurement process and issue supply order to the selected bidder as per prescribed timelines. Failure to stick to this timeline may result in cancellation of sanctioned grant without any further notice.
- ii. In order to have seamless charging of different categories and models of EVs at charging stations, EV chargers intended to be setup should be tested and certified as per applicable BIS standards (as mentioned in MoP guidelines).
- iii. To be eligible under the scheme, EV chargers must be manufactured in accordance with the Phased Manufacturing Program (PMP) guidelines issued by MHI, as amended from time to time. These guidelines are available on MHI website.
- iv. Additionally, the EV chargers procured under this scheme must come with a comprehensive warranty.

## 12 Incentive Disbursement Mechanism

The applicable incentive payable to a State Governments and Govt. of India Ministries will be calculated based on the price per kW of the benchmark upstream cost established by BEE, as revised from time to time. Once the incentive is finalized and communicated, MHI will release it according to the following instalments:

**Table 8:** Incentive Disbursement milestones

<b>Instalment no.</b>	<b>Milestones to be Completed</b>	<b>% demand incentive to be released by MHI</b>
1	After the issuance of tender as mobilization advance	30%
2	After deployment of EVSEs as per bid documents	40%
3	After successful commercial operation of charging stations	30%

This amount will be exclusively used for reimbursement of the upstream infrastructure cost based on the type of charging station. The applicable incentive amount will be released to the Tender Inviting Authority. However, the Upstream Infrastructure (assets up to the meter) will always belong to the relevant Discom in all circumstances.

## 13 Resolution of Disputes

Any dispute shall be resolved by mutual discussion and reconciliation. In case of difference of opinion, the decision of the JS/AS (Auto), Ministry of Heavy Industries shall be final.

## Annexure A: Priority cities for 4 wheelers: Top 40 cities

**Table 9:** List of top 40 cities with high EV share

S. No.	City	e4W stock	e4W share
1	Delhi	29,744	14.6%
2	Bangalore	24,767	12.2%
3	Mumbai	19,303	9.5%
4	Hyderabad	15,000	7.4%
5	Pune	10,520	5.2%
6	Chennai	6,719	3.3%
7	Jaipur	5,525	2.7%
8	Ahmedabad	5,424	2.7%
9	Kochi	3,894	1.9%
10	Thiruvananthapuram	3,437	1.7%
11	Kolkata	4,221	2.1%
12	Surat	2,762	1.4%
13	Thrissur	2,628	1.3%
14	Goa	2,534	1.2%
15	Coimbatore	2,353	1.2%
16	Chandigarh	2,166	1.1%
17	Nagpur	2,303	1.1%
18	Malappuram	2,074	1.0%
19	Bhubaneswar	2,018	1.0%
20	Lucknow	1,861	0.9%
21	Kozhikode	1,654	0.8%
22	Kollam	1,471	0.7%
23	Visakhapatnam	1,456	0.7%
24	Raipur	1,407	0.7%
25	Nashik	1,347	0.7%
26	Kannur	1,294	0.6%
27	Indore	1,282	0.6%
28	Bhopal	1,092	0.5%
29	Vadodara	1,064	0.5%
30	Patna	974	0.5%
31	Aurangabad	909	0.4%
32	Vijayawada	894	0.4%
33	Rajkot	864	0.4%
34	Dehradun	835	0.4%
35	Kolhapur	744	0.4%
36	Kanpur	662	0.3%
37	Bhilai Nagar	648	0.3%
38	Ludhiana	632	0.3%
39	Jodhpur	612	0.3%
40	Udaipur	568	0.3%



## Annexure B: Priority highways for bus: Top 40 highways basis bus traffic

**Table 10:** List of top 40 highway corridors based on bus traffic

S. No.	Route	Length(km)	Bus Current Traffic (in PCU)	Car Current Traffic (in PCU)
1	Hyderabad-Vijayawada	270	8,803	26,223
2	Pune-Kolhapur	230	3835	13621
3	Chandigarh-Delhi	240	4489	28998
4	Delhi-Agra	240	3374	11747
5	Delhi-Lucknow	554	1466	4736
6	Bangalore-Tirupati	250	3120	6218
7	Chennai-Madurai	460	5643	14653
8	Jaipur-Delhi	310	3027	15717
9	Delhi-Haridwar	170	2102	6800
10	Mumbai-Kolhapur	380	3290	12181
11	Hyderabad-Bangalore	580	6558	18126
12	Delhi-Dehradun	250	1005	2862
13	Indore-Bhopal	194	1645	6717
14	Hyderabad-Ongole	320	2111	7849
15	Ahmedabad-Mumbai	520	2638	13756
16	Bangalore-Nellore	390	3185	7498
17	Mumbai-Nashik	160	2102	8418
18	Delhi-Manali	550	1968	12541
19	Coimbatore-Bangalore	363	4098	13710
20	Coimbatore-Chennai	500	4156	11917
21	Bangalore-Ernakulam	540	3642	15157
22	Bangalore-Vijayawada	650	3325	8217
23	Chennai-Bangalore	334	2877	10822
24	Hyderabad-Visakhapatnam	620	10673	34379
25	Bangalore-Mangaluru	400	4268	17505
26	Hyderabad-Nellore	460	2350	7184
27	Guntur-Hyderabad	280	8803	26223
28	Pune-Nagpur	800	1129	4466
29	Bangalore-Mumbai	1,020	4922	13061
30	Hyderabad-Tirupati	560	2679	8301
31	Goa-Pune	480	3835	13621
32	Bangalore-Madurai	420	3985	11407
33	Mumbai-Hyderabad	700	2443	7780
34	Chennai-Nagercoil	700	3384	9529
35	Delhi-Amritsar	460	3162	21875
36	Mumbai-Indore	580	3260	6065
37	Bangalore-Goa	560	2694	5865
38	Pondicherry-Bangalore	310	6153	24802
39	Chennai-Vijayawada	450	3025	7382
40	Hyderabad-Chennai	630	2357	6493

### Annexure C: Priority highway for trucks: Top 20 highways

**Table 11:** List of top 20 highway corridors based on trucks traffic

S. No.	Point A	Point B	Length (km)
1	Delhi	Chandigarh	223
2	Jaipur	Delhi	292
3	Gorakhpur	Lucknow	277
4	Vijayawada	Vishakhapatnam	338
5	Chandigarh	Ludhiana - Amritsar	228
6	Ahmedabad	Mundra	336
7	Jaipur	Jodhpur	328
8	Delhi	Agra	189
9	Aurangabad	Pune	228
10	Paradeep	Barbil	290
11	Coimbatore	Kochi	173
12	Dhanbad	Ranchi - Jamshedpur	263
13	Pune	Nashik	204
14	Indore	Bhopal	163
15	Chennai	Bengaluru	344
16	Kolkata	Haldia	115
17	Chennai	Viluppuram	164
18	Mumbai	Nashik	160
19	Coimbatore	Salem	140
20	Hosapete	Chitradurga	123

## **Annexure D: Technical and Operational Specifications**

### **Technical Specifications**

The Charging Infrastructure installed shall comply with Ministry of Power (MoP) guidelines issued vide No. 12/2/2018-EV dated 17th September 2024 on the subject “Guidelines for Installation and Operation of Electric Vehicle Charging Infrastructure-2024” and as amended from time to time.

### **Safety Provisions**

“Safety Provisions for Electric Vehicle Charging Stations” of Central Electricity Authority (Measures relating to Safety and Electric Supply), (Amendment) Regulations, 2019<sup>1</sup> to be followed for the technical requirements of a Charging Station.

### **Operational Specifications**

Charging station must support following functionalities for EV users:

- a. Monthly Uptime Percentage of 98% (excluding for power failure related downtime and scheduled downtime) which means that charging services should be operational and available to the EV users at least 98% of the time.
- b. Provision of mobile application: The Charging Station should be equipped with advanced features like Smart Metering, Cellular capability, and Network connectivity - tie ups with at least one Network Service Provider to enable advance remote/ on-line booking of charging slots.
- c. EV User must be able to access these services through a mobile application.
- d. User functionalities
  - i. Availability of slots at Charging Station (whether the EVSE is connected to an EV or not).
  - ii. Such online information to EV owners should also include information regarding location, type, and numbers of chargers installed/available, service charges for EV charging etc.
  - iii. including the ability to make payment through the mobile application.
  - iv. Waiting time and option for booking a slot in case of congestion (whether the charger is available or booked for particular slots).
  - v. Authentication methods available (at least 2 methods: App-based and RFID cards).
- e. The CPO shall share Charging Station data with appropriate State Nodal Agency (SNA) and adhere to protocols as prescribed by Central Nodal Agency (CNA) i.e. Bureau of Energy Efficiency for this purpose. The CNA and SNA shall have access to this database.

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1 [https://cea.nic.in/old/reports/regulation/measures\\_safety\\_2019.pdf](https://cea.nic.in/old/reports/regulation/measures_safety_2019.pdf)

## **Annexure E: EV Charging deployment tenders by state & central agencies**

1. Yamuna International Airport Pvt Ltd, Jewar, Uttar Pradesh
2. Amritsar Smart City Limited
3. Delhi Transco Ltd
4. Agra Development Authority
5. Haryana Mass Rapid Transport Corporation Ltd (HMRTCL)
6. Uttar Pradesh Expressways Industrial Development Authority (UPEIDA)
7. AAI-Bhopal
8. AAI- Amritsar
9. AAI- Gaya
10. AAI-Jammu
11. Ahmedabad Municipal Corporation
12. Amritsar Smart City
13. BEST, Mumbai
14. West Bengal State Electricity Distribution Co. Ltd (WBSEDCL)

Note: These tenders are available on MHI website