EXPRESSION OF INTEREST (EOI)

FOR SELECTION OF

PRIVATE VENDOR FOR SETTING UP THE ELECTRIC CHARGING STATIONS FOR PUBLIC USE AT METRO STATIONS, PUNE METRO RAIL, PUNE

Background

India has announced aspirational target of 30% plug in electric vehicle (PEV) share by 2030. Accelerating the adoption of electric vehicles (EV) in India requires a strong EV ecosystem which includes allocating a total budget of INR 10,000 crore over three years to promote PEV deployment and charging infrastructure. Approximately 86% of this funding is set aside for consumer incentives for PEV purchases, and 10% is allocated to fund charging infrastructure.

The newly revised electric vehicle policy of Maharashtra with a financial outlay of Rs. 930 Crores was released early this year with a target to achieve 10% battery electric vehicle (BEV) registration by 2025 and at least 2375 charging stations in the whole state. It plans to install around 500 charging stations in Pune urban agglomeration EV ready, by 2025. The Ministry of Power guidelines state a minimum one fast charger connector, one Bharat DC-001 charger connector, three Bharat AC-001 connectors, and a minimum requirement of at least two chargers (CCS and CHAdeMO, or any fast DST/BIS approved) of one connector gun each is specified in a public charging station for long distance and heavy duty EVs.

The industrial city of Pune is expected to have operational Metro lines from 2021, implemented by Maharashtra Metro Rail Corporation Limited (Maha-Metro), a SPV (Special Purpose Vehicle) of Government of India and Government of Maharashtra. As part of Maharashtra's goals to go electric, Maha-Metro plans to common charging stations at all the metro stations and at parking locations to facilitate faster and easy adoption of EV in the city.

Objective

Maharashtra Metro Rail Corporation (Maha Metro - Pune) is undertaking provisions of Multi-Modal Integrated facilities at Pune Metro stations. Provision of seamless, hassle-free, convenient, smooth and integrated first and last mile connectivity through efficient Feeder Service providers/ operators at the Metro Stations in the city of Pune. The work on Reach 1, the priority Metro Stations are nearing the completion and are expected to 'Go Live' for commercial services in few months from now.

In this regard, Maha-Metro invites Expression of Interest (EOI) for "***Selection of Public & Private Vendors for installation, Development, Management, Operations and maintenance of the Electric Charging Stations at the Pune Metro stations***". In due course, this process may be followed by a Request for Proposal (RfP) to engage the Prospective bidders/firms/agencies who can be Vendors.

Table 1: The salient features of EOI

Sr No	Description	Details
1.	Issuing officer	Director (Works), Maha-Metro, Pune
2.	Address of issuing officer	Pune Metro Rail Project Office, Inside Mahatma Phule Museum, Ghole Road, Shivaji Nagar, Pune 411005
3.	Phone and Fax No	Direct: 7680074890 DGM – MMI/TP – Pune Metro
4.	Website	https://www.punemetrorail.org
5.	Date of issue of EOI	August 26, 2021
6.	Last date and time of submission of EOI	September 16, 2021, 17.00 Hrs
7.	EOI Meeting - Date and time of meeting with Private Operators/Aggregators/Vend	September 09, 2021, 11.00 Hrs at Pune Metro Rail Project Office, Inside Mahatma Phule Museum, Ghole Road, Shivaji Nagar, Pune-411005.

Sr No	Description	Details
	ors/Dealers/Manufacturers (Discussions/ Brain storming)	
8.	All concerned are requested to send in their company and business profile, to enable Maha Metro Pune	
9.	Fee for EOI submission	Nil
10.	Mode of Submission	Submission of EOI in Hard Copy with all required enclosures at Pune Metro Rail Project Office, Inside Mahatma Phule Museum, Ghole Road, Shivaji Nagar, Pune-411005 or soft copy vide email to manoj.kumar@mahametro.org.
11.	Project Name	Selection of Vendor for Setting Up Common Electric Charging Stations to Develop, Manage, Operate and Maintenance and provide the charging facilities at Pune Metro stations
12.	Scope of Authority	To set up electric charging stations, Develop, Manage, Operate and Maintenance and provide the charging facilities with own team or through an appointed efficient operator and to make payment as per T&C.
13.	Scope of operators	To setup electric charging stations at metro stations and at parking places as specified by Maha-Metro at Pune Metro Rail Stations
14.	Project location	Pune Metro Stations (Table 2) and at parking locations as mentioned by Maha Metro
15.	Details of Charging Stations	As per Annexure – B
16.	No of Charging Stations	30 (min)
17.	No of metro stations	30
18.	Mode of engagement	Will be discussed based in EOI meeting
19.	No of vendors	As per the clusters/bundling
20.	Revenue Sharing	By Operator/By Authority depending on the Bidding model
21.	Operation period	5 years to 10 years
22.	Charging Station ownership	Public & Private Vendors
23.	Consortium	Can be allowed
24.	Basis of payment	Will be discussed in EOI meeting and innovative models (if any) benefiting citizens suggested are also welcome which could be discussed during brainstorming. Some of these or any other mode of payment, depending on bid parameter shall be incorporated in the Request for Proposal document (RfP), which shall follow the present EOI process.

Table 2: Pune Metro Stations

Corridor 1	Corridor 2
PCMC (Pimpri Chinchwad Municipal Corporation) to Swargate	**Vanaz – Ramvadi**
17.4 kilometers	**15.7 kilometers**
Stations: 14 • PCMC • Sant Tukaram Nagar • Bhosari(N.P.) • Kasarwadi • Phugewadi • Dapodi • Bopodi • Khadki • Range Hill • Shivaji Nagar • Civil Court • Budhwer Path • Mandai • Swargate	**Stations: 16** • Vanaz • Anand Nagar • Ideal Colony • Nal Stop • Garware College • Deccan Gymkhana • Chhatrapati Sambhaji Udyan • PMC • Civil Court • Mangalwar Peth • Pune Railway Station • Ruby Hall Clinic • Bund Garden • Yerawada • Kalyani Nagar • Ramwadi

Scope of work:

1. Develop, Manage, Operate and Maintenance of the charging stations and provide the charging facilities the electric chargers along with its associated infrastructure for all segments of electric vehicles as per agreed arrangement between both Parties.
2. Design easily accessible charging stations with framework architecture, protocols, and processes that cater to the utilization rate depending on the number of EVs expected to utilize the charging stations at a given time.
3. Procure pre-specified electric vehicle supply unit (EVSE) hardware parts and voltage level specifications for charging of EVs as formulated by government of India- Bharat AC-001, DC-001 EVSE, Type 2 (IEC 62196), CCS2, CHAdeMO.
4. Inter-linking of renewable energy sources with charging infrastructure, smart grid, use of ICT etc. shall be encouraged.
5. Plan and work out input electricity requirement from state DISCOMS and state nodal agency for meeting the system requirement of Charging Stations.
6. Enable procurement of requisite permissions, connections, approvals, and certifications for the EV charging facility from state nodal and executing authorities.
7. Operation & Monitoring of electric vehicle charging station on centralized management software for backend network management, including user registration and permissions management, EV charger classification (by location & charger type), remote monitoring and digital payment gate way for EV charging infrastructure.
8. Arrange appropriate incentives on procurement of chargers for installation of charging station under government grant from Government of Maharashtra.

9. Arrange available subsidies from FAME II scheme for charging infrastructure deployment
10. Extend all necessary assistance to Maha-Metro for smoother & faster creation of EV ecosystem.
11. Manage operational functions including scheduling charging availability, revenue collection, live tracking and analysis of charger usage, energy management, load balancing, charger performance diagnostics, etc.
12. Provide specified data to DISCOMs and other government agencies, as required by law or regulation

Eligibility Criteria:

The participation in the EOI is invited from vendors who meets all the following criteria:

1. The vendor should be registered company under company act 1956/2013 OR LLP/Partnership/ proprietorship firm in India and should be in existence for over 3 years on EOI published date.
2. The vendor should have experience in the business of manufacturing of electrical equipment related to battery chargers, storage, AC - DC converters and metering/ business & operation of EV charging infrastructure.
3. The vendor should have experience in mobile application development, know-how of information technology, online platform etc. and should have trained IT manpower and IT infrastructure facilities.
4. The vendor shall not be under a Declaration of Ineligibility for corrupt or fraudulent practices or blacklisted with any of the Government agencies.
5. The product offered by the vendor (including Consortium) for supply must meet the Technical Specifications as stipulated in the RfP, and the vendor must be able to provide the after-sales warranty and Annual Maintenance Contract.

Submission of EOI:

Interested vendors are advised to read this document in detail and assess their capabilities before submission of Expression of Interest. Prospective vendors concerned are requested to send in their company and business profile, project details including technical details, technology used etc. in the format requested through **Annexure A** attached with this EOI notice. Prospective vendors can also give suggestions on the technology they propose and the preferred mode of engagement with Maha-Metro for the present work in the cover letter separately; to enable Maha-Metro, Pune to evolve a suitable mechanism through RfP to engage the prospective vendors within the next 1 (one) month period.

Prospective vendors are requested to send a signed copy of this EOI document along with the company profile and the details requested through **Annexures A**, along with a signed cover letter with their queries if any, on the information/criteria provided in the EOI document, to Manoj Kumar (manoj.kumar@mahametro.org) through email or submit the same at Maharashtra Metro Rail Corporation Limited, Inside Mahatma Phule Museum, Ghole road, Shivaji Nagar Pune-411005, through post or by-hand before **16th September, 2021 till 5 p.m.**

Maha-Metro, Pune shall also organize a meeting to discuss further on this EOI, the eligibility criteria, the technical, financial and operations aspects along with preferred mode of engagements with the prospective bidders/firms/agencies/feeder operators on **09th September, 2021 at 11.00 a.m. to 1.30 pm at** Maharashtra Metro Rail Corporation Limited, Inside Mahatma Phule Museum, Ghole road, Shivaji Nagar Pune-411005. All participants are requested to visit punemetrorail.org for further information, addendum, replies to queries &

other details on regular basis. Maha-Metro, Pune reserves the right to accept or reject any EOI document and to annul this process at any time, without incurring any liability and without assigning any reason thereof.

Timeline:

All selected agencies will be required to follow the following timeline for the deployment of charging infrastructure:

Activity	**Timeline**
Issue of EOI for charging Infrastructure	T_0
Last date of submission of interest in response to EOI to Maha-Metro	T_0+ 4 weeks
Meeting with the interested agencies	T_0+ 4 weeks, say T
Issue of Tender for inviting bid	T + 3 weeks
Last date of submission of bid by the interested bidder/supplier	T + 9 weeks
Finalization of bidding process and issue of supply order	T + 12 weeks, say M
Completion of installation of all chargers as per the approved RfP(s)	M+9 months (Maximum)

Annexure A

Technical Capacity / Experience Statement of Prospective vendors

Information provided to be signed by an authorised representative of the prospective vendor

Name of the prospective vendor:
1. Name of the Project/Contract:
2. Location:
3. Project Details: Technology used (Vehicle type), Mode of Engagement, prospective vendor's role in the same etc
4. Name, Address, Contact Person, Tel/Fax of the Other Members, and their roles in the Project:
5. Any Other related information:

Note:

a) Prospective vendor shall provide self-attested copies of all the documents regarding experience (Agreement copies, work orders, letter of intents, completion certificates (if any) etc if required by Maha-Metro at any time.

b) Shall submit the profile of the organization and all credentials.

Annexure B

1. Electric Vehicle Charger Specification:

The desired functional and technical specifications of charging equipment (as per Indian conditions) have been mentioned in the subsequent sections of this document. However, the intent is not to specify and capture all the aspects of design and installation associated with charging equipment mentioned herein. It shall be the obligation of vendors(s) that all the systems, sub-systems and equipment/devices shall conform in all respect to high standards of engineering, design, and workmanship, and shall be capable of performing continuous commercial operation as per best industry standards.

2. Product Details -Technical (Current & Future):

The Project details including technical details, technology used etc. The product specifications of the proposed EV Charging Station with the advantages and reasons for suggestions and recommendations.

3. Power Source / Expected Requirements & Estimated Consumption)

The Service Provider /Bidders/Firms/Agencies/EV Feeder Operator to provide the complete details on the expected source (Maha Metro / MSEDSL/DISCOM or Any other), share the expected requirement and consumption.

Specify the support required from Maha Metro in case if the Power is sourced from MSEDSL/DISCOM.

4. Expectations from Maha Metro:

1) Power (if any).
2) Space (Sqft).
3) Type of Cable / Connections (if any).
4) Holiday Period for the Pilot Project (if any) – Please specify the period (Months).
5) Any other (Specify).

5. Bharat EV AC Charger (BEVC-AC001)

This section presents the specifications of a Public metered AC outlet (PMAO) which is to provide AC input to the vehicle which has on-board chargers. This applies to electric road vehicles for charging at 230V standard single phase AC supply with a maximum output of 15A and at a maximum output power of 3.3kW. PMAO is a slow charger for low-power vehicles.

6. General Requirements

The EV shall be connected to PMAO for conductive energy transfer function. The system will have following general specifications:

1) PMAO is supplied with three phase AC power and outputs single phase AC power.
2) Energy Transfer Mode is Conductive.
3) Each outlet will have up to three independent charging sockets.
4) The PMAO has built-in metering, safety & monitoring.
5) PMAO and Central Management System (CMS) communicate with each other to

serve purposes of firmware, reservation, cancellation, addition and deletion of PMAOs etc.

7. Input Requirements

1) A.C. Supply System is 3 phases, 5 wire AC system (3 phases + N + PE)
2) Nominal Input Voltage is 415V (+6% and -10%) as per IS 12360
3) Input Frequency is 50Hz ± 1.5 Hz
4) Input Supply Failure back-up: Battery backup for minimum 1 hour for the control system and billing unit. Data logs should be synchronized with CMS during back up time in case battery drains out.

8. Output Requirements

1) Number of Outputs: 3
2) Type of each output: A.C., 230V (+6% and -10%) single phase as per IS 12360
3) Output Details: 3 Independent charging sockets as per IEC 60309. Female connector to be used on the PMAO Side
4) Output Current: Three vehicles charging simultaneously, each at 15A current
5) Output Connector Compatibility: IEC 60309 Industrial Blue connectors to be used.
6) Connector Mounting: ensure IP 54. Angled connector mounted looking downwards for outdoor use is preferred.
7) Double-pole breaking RCD (IEC 60309 Blue connector) of less than 30mA (As per section 7.4 of AIS 138 Part 1) is recommended.
8) Limiting Output Current: Circuit breaker for each outlet limited to 16A current output. Breaker should be reset to resume operation.
9) Output selection: the breaker inside to be energized in sequence - one round of all three phases before the second round.
10) Socket readiness: An LED to indicate that the socket is ready.
11) Three LEDs, one for each Phase/socket shall indicate the readiness/in-use status
12) LED failure/ LED not glowing shall mean that socket is not ready
13) Isolation: Charger shall comply with class 1 or class 2 insulation class as defined in AIS 138 Part 1, clause 3.3.1 and 3.3.2.

9. User Interface and Display requirements

1) Visual Indicator: Error indication, Presence of input supply indication, Charge process indication and other relevant information.
2) Display Messages: PMAO should display appropriate messages for user during the various charging stages like
3) Suggestive sequence of charger operation
4) Vehicle plugged in / Vehicle plugged out
5) Duration since start of charge, kWh consumed
6) Authorization status
7) Fault conditions
8) ON- OFF (Start-Stop) switches
9) Emergency Stop Switch is mushroom headed push button type (Red color), visible and easily accessible
10) Display Screen Size is minimum 3.5” inches with 720x480 pixels, user interface can be touch screen or keypad.
11) User Authentication is by using mobile application or user interface (OCPP gives only a field mandate, media to be used is open).

12) Metering Information: Consumption Units

10. Billing and Payment Requirements

1) Metering - metering as per units consumed for charging the battery of each vehicle as per Indian standards.
2) Billing – Grid Responsive Billing
3) Payment –BHIM / Bharat QR or UPI complaint mobile application payment.

11. Protection and Safety Requirements

1) Safety Parameters: Safety and protection to be ensured for India specific environment (As per AIS 138 Part1).
2) EMI/EMC: as per AIS 138-1 (section 11.11.3.2)
3) Start of Charging: The outlet will be locked and covered, the connector will be exposed to charging only after user authentication using user interface or mobile application. Only when the lock opens and connector is properly connected, the switch/relay will turn ON to feed power to EV.
    a. Lock will be opened only after full charging and authentication by user or the operator (the authentication procedure is detailed in Annexure B)
    b. Once disconnected, the charging session terminates.
4) Power failure: If there is a power failure, user is indicated
    a. If the user wants to terminate the session, the user can shut-off the switch and remove the plug
    b. If user does not remove the plug, the charging resumes when power comes back.
5) Interruption of Charging:
    a. Temperature based safety mechanism to trigger switching off the charging to ensure the temperature is not more than 80°C for a duration less than 10s. In such situation, an appropriate signal will be sent to turn the switch/relay OFF to stop the charging. Once disconnected, the charging session terminates.
    b. If plug is taken out (for more than 2 seconds) and then reinserted for charging, the charging-session will disconnect. A new session will be required to continue charging.
    c. These shall ensure that no one can remove a vehicle being charged and insert their own cable and use the infrastructure without paying or at someone else's account.

12. Mechanical Requirements

1) Suggested Cable Security: PMAO should have locking mechanism for the connector while charging. The vehicle may also have locking mechanism during charging to ensure the safety of the cable (Suggestion to OEM to have shutter lock for security purpose of the cable during charging session).
2) Mechanical Stability:
    a. Shall not be damaged by mechanical impact energy: 20 J (5 kg at 0.4 m) (Section 11.11.2.2. of AIS 138 Part 1).
    b. IP Ratings: IP 54 (Section 11.11.2.4. of AIS 138 Part 1).
    c. Cooling: Air cooled or forced air cooled to protect the equipment against temperature hazards.

13. Environment Requirements

1) Ambient Temperature Range: 0 to 55°C
2) Ambient Humidity: 5 to 95% as per AIS 138 Part 1 section 11.2
3) Ambient Pressure: 86 kpa to 106 kpa as per AIS 138 Part 1 section 11.11.2.4
4) Storage temperature: 0 to 60°C

14. Communication Requirements

1) Communication between PMAO and Central Management System: Open Charge Point Protocol (OCPP) 1.5 protocol.
    a) The higher versions of OCCP if used should be compatible to OCCP1.5.
    b) Should enable handshaking between PMAO and CMS for discovery.
    c) It should authorize the operation, before electric vehicle can start or stop charging
    d) PMAO should respond to CMS for various queries and commands like reservation, cancellation and other functions specified on OCPP.
2) Metering: Grid responsive metering as per units' consumption of each vehicle
3) Interface between charger and central management system (CMS): Reliable Internet Connectivity

15. AC001 Specification Summary

The specifications discussed previously are summarized in the table below:

#	Parameter	Requirement
	General Requirements	
1	EVSE Type	AC
2	Energy Transfer Mode	Conductive
	Input Requirements	
1	AC Supply System	Three-Phase, 5 Wire AC system (3Ph.+N+PE)
2	Nominal Input voltage	415V (+6% and -10%) as per IS 12360
3	Input Frequency	50Hz, ±1.5Hz
4	Input Supply Failure backup	Battery backup for minimum 1 hour for the control system and billing unit. Data logs should be synchronized with CMS during back up time, in case battery drains out.
	Environmental Requirements	
1	Ambient Temperature Range	0 to 55°C
2	Ambient Humidity	5 to 95%
3	Ambient Pressure	86 kpa to 106 kpa
4	Storage temperature	0 to 60°C
	Mechanical Requirements	
1	Suggested Cable Security	PMAO and the vehicle connector outlet to have provision for locking mechanism during charging to ensure the safety of the cable
2	Mechanical Stability	Shall not be damaged by mechanical impact energy: 20 J (5 kg at 0.4 m)

#	Parameter	Requirement
3	IP Ratings	IP 55
4	Cooling	Air cooled or forced air cooled to protect the equipment against temperature hazards
	Output Requirements	
1	Number of outputs	3
2	Type of each output	230V (+6% and -10%) single phase, 15A as per IS 12360A.C.
3	Output Details	3 Independent charging sockets, given in Annex-A
4	Output Current	Three Vehicles charging simultaneously, each at 15A current
5	Output Connector Compatibility	IEC 60309
6	Limiting output current	Circuit breaker for each outlet limited to 16A current output. Breaker should be reset to resume operation
7	Connector Mounting	Angled connector mounted looking downwards for outdoor use
8	Isolation	class 1 or class 2 insulation as per AIS138 (3.3.1 and 3.3.2)
	User Interface & Display Requirements	
1	ON- OFF (Start-Stop) switches	Mandatory
2	Emergency stop switch	Mushroom headed Push button type (Red color), visible and easily accessible
3	Visual Indicators	Error indication, Presence of input supply indication, Charge process indication and other relevant information
4	Display size	Minimum 3.5” inches with 720 x 480 pixels, user interface through touch screen / keypad
5	Display Messages	EVSE should display appropriate messages for user during the various charging states like • Vehicle plugged in / Vehicle plugged out • Fault conditions; metering: unit consumption; Duration since start of charge, kWh
6	User Authentication	Using mobile application or User interface (OCPP gives only a field mandate, media to be used is open)
7	Metering Information	Consumption Units
	Billing & Payment Requirements	
1	Metering	Metering as per units’ consumption for charging each vehicle
2	Billing	Grid responsive billing
3	Payment	BHIM / Bharat QR or UPI compliant mobile application payment
	Communication Requirements	
1	Communication between EVSE and Central Server	Open Charge Point Protocol (OCPP) 1.5 protocol or higher versions compatible to OCPP 1.5
2	Metering	Grid responsive metering as per units’ consumption of each vehicle
3	Interface between charger and central	Reliable Internet Connectivity

#	Parameter	Requirement
	management system(CMS)	
	Protection & Safety Requirements	
1	Safety Parameters	Safety and protection to be ensured for India specific environment (As per AIS 138 Part1)
2	Start of Charging	The outlet will be locked and covered, the connector will be exposed to charging only after user authentication using user interface or mobile application. Only when the lock opens and connector is properly connected, the switch/relay will turn ON to feed power to EV. Lock will be opened only after full charging and authentication by user or the operator. Once disconnected, the charging session terminates. The authentication procedure is detailed in Annex B.
3	Power failure	If there is a power failure, user is indicated about this. The charging resumes when power comes on. If the user wants to terminate the session during power failure, the user can shut-off the switch and remove the plug
4	Interruption of Charging	Connector terminals to be mounted with temperature sensors to avoid burning of connectors. Safety mechanism to trigger switching off of the charging at temp.>80°C for a duration <10s.In such situation, an appropriate signal will be sent to turn the switch/relay OFF to stop the charging. Once disconnected, the charging session terminates. If the above locking mechanism is mandated then the following point won't be required: If plug is taken out (for more than 2 seconds) and then reinserted for charging, the charging-session will disconnect. A new session will be required to continue charging to ensure that no one can remove a vehicle being charged and insert their own cable and use the infrastructure without paying or at someone else's account
Marking Requirements		
	Marking Requirements	Logo, markings, and paint of BEVC to be approved by customer.
Work pertaining to Wiring Infrastructure Prior to Distribution Box - Supply & Installation of Items for various activities on need basis depending upon site conditions.		
1	Electrical and Civil work	**A. Supply & laying of cables of different 1100 Voltage Grade**

16. Type testing

Sr. AIS No	Criteria	Parameter	Clause No. of Part 1
1	Safety functions Verification	Earth Presence Detection (Socket - EVSE)	6.4.1.1
		Earth Continuity Check (EVSE-EV)	6.4.1.2
		Over Current and Short- Circuit Protection	6.4.1.5
		Leakage Current (RCD)	6.4.1.6
		Dielectric withstand voltage	11.6.1
2	Mechanical Stability	Mechanical impact	11.11.2.2
		IP TESTING	11.11.2.4
3	Climatic environmental tests	Ambient air temperature	11.11.1.2
		Ambient humidity	11.11.1.4
4	EMC Verification	Immunity to electrostatic Discharges	11.11.3.2
		Supply voltage dips and interruptions.	11.11.3.2
		Fast transient bursts	11.11.3.2
		Voltage surges	11.11.3.2

Maharashtra State

Electric Vehicle Policy - 2021

Government of
Maharashtra

Maharashtra State EV Policy – 2021 (Draft)

Maharashtra State EV Policy – 2021 (Draft)

1. Introduction

The adoption of electric vehicles (EVs) contributes to a wide range of sustainability goals. These include better air quality, reduced noise pollution, enhanced energy security, and reduced greenhouse gas emissions. With vehicular pollution being a growing source of air pollution in Maharashtra and contributing substantially to particulate pollution in cities, rapid adoption of zero-tailpipe-emission vehicles is essential, especially in the heavily polluted urban areas.

In 2013, Government of India launched the National Electric Mobility Mission Plan 2020. Under the Mission, the Faster Adoption and Manufacturing of Electric Vehicles in India Scheme (FAME India) was launched in March 2015 for two years. It was subsequently extended up to 31 March 2019. In February 2019, the Government of India (GoI) approved Phase-II of FAME India for a period of three years starting 1 April 2019. Since 2017, several states including Maharashtra have notified state EV policies to complement FAME India Scheme and address state-specific needs.

Maharashtra was one of the first states in the country to design and notify an EV policy. Maharashtra's EV policy was released in February 2018.[1] The Policy provided fiscal and nonfiscal incentives to accelerate the adoption and manufacturing of EVs in the state.

The penetration of battery electric vehicles (BEVs) in Maharashtra has remained low despite the support offered under the FAME India Scheme and the state EV policy. This is largely due to four critical barriers:

a) high upfront purchase price of EVs,

b) lack of products comparable to ICE vehicles,

c) inadequate public charging infrastructure,

d) low levels of awareness about EVs or their benefits.

The slow uptake of EVs and the changing policy, technology, and market landscape have created a need for the Government of Maharashtra (GoM) to revisit

[1] Maharashtra's Electric Vehicle Policy – 2018, https://www.msins.in/guidelines_docs/english/EV_Policy.pdf

and update its EV Policy, in order to accelerate EV sales and stimulate manufacturing in the state.

The updated Maharashtra EV Policy aims to capitalise on the recent policy and technology developments and further the state's EV ambition. The policy suggests strong demand- and supply-side measures to increase the BEV penetration in the state. The policy plans to aggressively target state's five Urban Agglomerations (UAs)[2] (with a high share of PM2.5 emissions) to become lighthouse regions in EV adoption.

The policy prioritizes public and shared transport, goods carriers and two-wheelers to drive adoption of EVs. The government will develop a communication plan focused on driving awareness regarding the key elements of this policy and the benefits of adopting EVs.

This policy shall apply exclusively to BEVs. Mild Hybrid, Strong Hybrid, and Plug-in Hybrid Electric Vehicles are not covered under this policy.

2. Vision & Mission

2.1 Vision

The policy aims to support adoption of sustainable and clean mobility solutions in Maharashtra. It aims to transform Maharashtra into a leading state in terms of adoption of electric vehicles in the country. It envisions to retain Maharashtra's leadership in automotive manufacturing in India and emerge as one of the leading manufacturing and investment hubs for the EV ecosystem globally.

2.2 Mission

To bring a transition in the transportation ecosystem of Maharashtra by creating demand for the purchase and use of EVs in the state through demand-side initiatives.

To stimulate manufacturing of EVs in the state through a set of supply-side initiatives that aim to attract investment, facilitate the establishment of manufacturing units, and encourage the production of EVs, EV components including Advance Chemistry Cell (ACC) batteries and electric vehicle supply equipment (EVSE).

[2] Greater Mumbai UA, Pune UA, Nagpur UA, Nashik UA, and Aurangabad UA.

2.3 Policy Objectives

The primary objective of Maharashtra EV Policy 2021 is **to accelerate adoption of BEVs in the state so that they contribute to 10% of new vehicle registrations by 2025**.

Other important policy objectives include:

a. In the five targeted urban agglomerations in the state[3], achieve 25% electrification of public transport and last-mile delivery vehicles by 2025.
b. Convert 15% of Maharashtra State Road Transport Corporation's (MSRTC) existing bus fleet[4] to electric.
c. Make Maharashtra the country's top producer of BEVs in India, in terms of annual production capacity.
d. Target establishment of at least one Gigafactory for the manufacturing of advanced chemistry cell (ACC) batteries in the state.
e. Promote research and development (R&D), innovation, and skill development across the EV ecosystem in the state.

2.4 Policy Targets

The policy aims for EV penetration and charging infrastructure targets as described in Table 1.

Table 1: Policy Targets

Sr.No.	Parameter	Target	Remarks
1.	All vehicles	**10%**	Share of EVs in new vehicle registrations in the state in 2025
2.	2 wheelers	**10%**	
3.	3 wheelers	**20%**	
4.	4 wheelers	**5%**	
5.	Fleet operators	At least **25%** of the urban fleet operated by the fleet aggregators/ operators in the state to transition to EVs by 2025.	Applies to e-commerce companies, last-mile delivery/logistics players and mobility aggregators operating in urban areas.

[3] Greater Mumbai UA, Pune UA, Nagpur UA, Nashik UA, and Aurangabad UA.
[4] Bus fleet as of March 2021.

Sr.No.	Parameter	Target	Remarks
6.	Buses	i) In the five targeted UAs, achieve 25% electrification of public transport by 2025 ii) MSRTC to convert its existing bus fleet[5] to **15%** electric fleet	
7.	Charging infrastructure	**Cities:** By 2025, city-wise targets of public and semi-public charging stations are, as listed below- Greater Mumbai UA – 1500 Pune UA – 500 Nagpur UA – 150 Nashik UA – 100 Aurangabad UA – 75 Amravati – 30 Solapur – 20 **Highways:** Make following four highways/ expressways fully EV ready by 2025 i. Mumbai Nagpur Expressway ii. Mumbai Pune iii. Mumbai Nashik iv. Nashik Pune	i. Setup at-least one public charging station in a 3 km x 3 km grid or a minimum of 50 charging stations per million population, whichever is higher. ii. Setup public charging stations on highways at 25 km distance (on both sides of the highways). These stations should cater to charging requirements of long-haul passenger and freight vehicles like e-buses, electric trucks, etc.
8.	Government vehicle fleet	Starting April 2022, all new govt. vehicles (owned/leased) operating within the major cities to be electric.	

Notes:

I. The 3-wheeler and 4-wheeler targets are inclusive of passenger as well as goods carrier vehicles.

II. E-commerce companies, last-mile delivery/logistics players and mobility aggregators should submit an EV transition plan to the Transport Department, GoM within six months from the date of notification of EV policy.

III. E-commerce companies include companies like Amazon, Flipkart, etc. Last-mile delivery/logistics players include Zomato, Swiggy and other courier and delivery firms and mobility aggregators include Ola, Uber, Black-yellow taxi, etc.

[5] Bus fleet as of March 2021.

3. EV ecosystem development Incentives

3.1 Demand side incentives

The Government of Maharashtra will provide the fiscal incentives, as described in Table 2 and subsequently, to the buyers of EVs in the state. The incentives are linked to the vehicle type—two-wheelers, three wheelers, four-wheelers and buses—and to the vehicle use case. Vehicle models approved under FAME II Scheme of Govt of India will be eligible for these incentives and the state incentives will be provided in addition to FAME II incentives.

Table 2: Demand Incentives for electric vehicles

Sr. No.	Vehicle segment	Incentive available	No. of vehicles to be incentivized	Maximum incentive per vehicle (INR)
1	e-2W (L1 & L2)	INR 5000/kwh	1,00,000	10,000
2	e-3W autos (L5M)	INR 5000/kwh	15,000	30,000
3	e-3W goods carrier (L5N)	INR 5000/kwh	10,000	30,000
4	e-4W cars (M1)	INR 5000/kwh	10,000	1,50,000
5	e-4W goods carrier (N1)	INR 5000/kwh	10,000	1,00,000
6	e-buses*	10% of vehicle** cost	1,000	20,00,000

**Incentive shall be available for STU buses only. State government shall also consider extending support to STUs for procurement of additional e-buses, if required.*
***Ex-factory cost*

Note: In case, Govt of India makes changes to FAME II incentives, Govt of Maharashtra will review the same and accordingly make changes to the incentives offered by the state.

a. **Buyers purchasing the EVs (except e-buses) before 31st Dec 2021 shall be eligible for 'Early bird discount'[6] of INR 5,000/kWh of the vehicle battery capacity.** This discount shall be provided over and above the demand incentives described in Table 2. The maximum early bird discount availed per vehicle shall be capped at INR 1,00,000.
b. For vehicles sold without battery, 50% of the incentive amount shall be provided to the vehicle OEM and the remaining incentive amount (up to 50%) shall be

[6] Early bird target sales are expected to not exceed 10% of the policy targets for number of vehicles to be incentivized, as described in Table 2. If early bird sales targets are achieved before 31st Dec, 2021, GoM may decide to end the early bird discount before 31st Dec 2021.

provided to the battery swapping energy operator for defraying the cost of any deposits that may be required from the end user for the use of type approved swappable battery, type approved along with corresponding OEM vehicle. The vehicle OEMs should pass on all the incentive benefits to the EV buyers.

c. All the EVs sold in the state shall be exempted from road tax till the duration of the policy.
d. As per the Ministry of Road Transport and Highways' notification of 18th June 2019, all the EVs sold in the state shall be exempted from the payment of fees for purpose of issue or renewal of registration certificate.[7]
e. An individual buyer will be able to avail the incentives only once for the respective vehicle category. Fleet aggregators/operators will be able to avail the incentives for the fleet owned by them. Operational guidelines will outline the details for the same.
f. The vehicles eligible for demand incentives under this policy will be eligible for the scrappage incentive. Vehicle segment-wise scrappage incentives are described in Table 3. Scrappage incentive shall be reimbursed by the Government of Maharashtra provided:
    - Evidence of matching contribution from the dealer or OEM
    - Confirmation of scrappage of the ICE vehicle in the same vehicle category.

Table 3 Vehicle segment-wise Scrappage Incentives

Sr. No.	Vehicle Segment	Scrappage Incentive
1.	e-2W	Up to INR 7,000
2.	e-3W	Up to INR 15,000
3.	e-4W	Up to INR 25,000

g. State government shall engage and encourage financial institutions and banks to offer preferential interest rates for EV customer segments like e-autos, goods carriers, and taxis.

[7] https://morth.nic.in/sites/default/files/notifications_document/Draft_Notification_no._G.S.R_430%28E%29_dated_18.06.2019_regarding_exemption_of_registration_fee_for_battery%C2%A0%28303KB%2C%C2%A0.pdf

Incentives on extended battery warranty and buyback agreement

Concerns about battery life lead to anxiety about the resale value as well as difficulties in obtaining loans from financial institutions. To address these concerns for the electric 2W and 3W users, the Maharashtra EV policy will provide OEMs additional incentives (to be transferred to the customers) for offering a minimum 5-year warranty for batteries as per Table 4.

OEMs who offer buyback schemes for vehicles which are up to 5 years old at a value reduced by not more than 7.5% per year of the age will be eligible for additional incentives as per Table 4. An OEM can avail both the incentives simultaneously, however the total incentive amount will be limited to INR 12,000. This will be over and above the incentives mentioned in Table 2 and based on the net value after considering all the above incentives.

Table 4 Assured Buyback and Warranty Incentives

Sr. No.	Description of Incentives	Incentives
1.	Assured Buyback, as described above	6% of total vehicle cost capped at INR 10,000/-
2.	Battery warranty of at least 5 years	4% of total vehicle cost capped at INR 6,000/-

1. The operational guidelines laying down the process of incentive disbursement under the Policy shall be notified within 60 days from the date of notification of the policy.
2. The incentive disbursement process will be designed to ensure transfer of incentives to the beneficiaries within 30 days from the date of incentive application.
3. The incentives disbursement mechanism (for demand incentives, scrappage incentives, charging infrastructure incentives, supply-side incentives, tax exemptions and reimbursements, etc.) shall be made through online portal to ensure timely transfer to beneficiaries and transparency.

3.2 Charging Infrastructure Incentives

a. Public and semi-public charging stations (PCS and SPCS), as defined in Annexure 1, will be eligible for demand incentives as per Table 5. The charging station shall be eligible for the incentives only after commencement of the operation of the station. The operational guidelines will define the eligibility criteria for availing these incentives. Public and semi-public charging stations availing FAME II charging infrastructure incentive will not be eligible for these incentives.

Table 5 Incentives for charging Infrastructure

Sr. No.	Type of PCS/SPCS**	Incentive amount	Maximum Incentive available per PCS/SPCS	Maximum number of PCS/SPCS to be incentivized
1.	Slow	60% of the cost*	INR 10,000	15,000
2.	Moderate/fast	50% of the cost*	INR 5,00,000	500

Note: *Cost of charging station only (does not include land and any ancillary cost to set up charging station). **Definitions of PCS/SPCS are provided in Annexure 1.

b. Charging infrastructure service providers will be allowed to install charging stations in the state as per their business plans. Charging stations developed by the service providers will eventually be dovetailed into the state-level charging infrastructure plan prepared by the State Nodal Agency.
c. Urban local bodies will be encouraged to provide property tax rebates to residential owners for installing private charging infrastructure within their premises. Details will be announced soon.
d. The tariff applicable for all the EV charging stations and battery swapping stations in the state shall be as per Order 322 of 2019 dt 30.03.2020 issued by Maharashtra Electricity Regulatory commission (MERC) or any such future order/s by MERC.[8]
e. Charging of EVs is a service as clarified by the Ministry of Power (MOP).[9] In cases where any charging station has been installed in the state with Government (Central or State) incentives (financial or otherwise), service providers will be required to follow any regulations related to service charges, as may be notified by the State

[8] https://www.mahadiscom.in/consumer/wp-content/uploads/2020/03/Order-322-of-2019.pdf
[9] https://powermin.gov.in/sites/default/files/uploads/Revised_MoP_Guidelines_01_10_2019.pdf

Nodal Agency/State Government/Appropriate Commission, provided due consultations have been done with the stakeholders.

f. The Government of Maharashtra will implement a timebound, single-window process for installing EV connections that offer EV-specific tariffs.

g. Urban local bodies of all NCAP cities[10] should prepare a charging infrastructure plan for their cities with an aim to cater to 2025 levels of EV penetration. The plan should identify charging station locations and land parcels (including on existing fuel stations) available with different government/land owning agencies that could be made available for charging infrastructure installation at concessional rentals.

h. 15th Finance Commission (FCC) has allocated grant to 42 NCAP cities for 2020-21 to implement measures for improving air quality as per their approved city action plans.[11] Six cities[12] in Maharashtra have been allocated grants by the FCC. Given that adoption of e-mobility would help cities in improving the air quality, funds should be made available from this FCC grant in the NCAP cities to support the Discoms in setting up the charging infrastructure and for the upstream infrastruture upgradation. The policy also envisages additional resource mobilization (over and above NCAP/FCC funds) from various schemes and programmes of Central/State Governments and Urban Local Bodies for funding the charging infrastructure and the upstream infrastruture upgradation.

i. EV charging stations should be considered as amenities and further amenity spaces should be earmarked for EV charging stations in the Development plans for the cities.

j. MSRDC/PWD should identify locations on major national and state highways for charging infrastructure installation.

k. In 2019, Ministry of Housing and Urban Affairs, Government of India (MoHUA) released an amendment of building code and town planning rules for provisioning of EV charging stations in private and commercial buildings. These amendments should be duly incorporated and will be applicable for new buildings.

l. Charging service providers will be encouraged to provide centralized EV charging station management system portal and user application (Android, iOS and/or other)

[10] Cities in Maharashtra under the National Clean Air Programme are Akola, Amravati, Aurangabad, Badlapur, Chandrapur, Jalgaon, Jalna, Kolhapur, Latur, Mumbai, Nagpur, Nashik, Navi Mumbai, Pune, Sangli, Solapur, Thane, and Ulhasnagar.

[11] https://fincomindia.nic.in/ShowContentOne.aspx?id=29&Section=1

[12] Greater Mumbai UA, Pune UA, Nagpur UA, Nashik UA, Aurangabad UA and Vasai-Virar UA.

along with cashless payment option to ensure information accessibility of all public charging systems and its live usage status in public domain.

3.3 Supply Side Incentives

The Government of Maharashtra aims to attract investments to develop a robust EV manufacturing and R&D ecosystem in the state. Incentives will be provided to make the state more lucrative for setting up manufacturing and R&D facilities related to EVs (component manufacturing, vehicle assembly, battery assembly, cell manufacturing, electronics parts manufacturing, recycling of EVs and EV batteries, etc.). **All the benefits under 'D+' category of mega projects/other categories will be provided to these industries irrespective of location of manufacturing unit in the state.** The incentives shall be applicable from the date of public notification of this policy and shall be disbursed by the Industries, Energy and Labour Department of the Government of Maharashtra.

The Government of India approved the production-linked incentive (PLI) scheme for advance chemistry cell (ACC) battery manufacturing on 11 November 2020. The state Govt of Maharashtra aims to attract at least one Gigafactory for the manufacturing of Advance Chemistry Cells under this Scheme by 2023. It is expected that the Government of India will invite states (through a challenge process) to express interest for setting up of the first 4-5 Giga factories. Government of Maharashtra will endeavour to offer competitive incentives that significantly enhance/complement the incentives offered under GoI's PLI scheme.

EV start-ups will be encouraged on priority basis under Maharashtra State Innovation Society.

The state also aims to create an ecosystem for environment-friendly scrapping of vehicles (including electric vehicles) and plans to prepare a 'State Scrapping Policy', which will be notified in due course of time by the Transport Department of Maharashtra. Maharashtra state shall also notify guidelines for safe handling and disposal of electric vehicle batteries and its components.

All the fiscal incentives under the policy, as described above, shall be provided from the package scheme of incentives budget allocated to Industries, Energy and Labour Department of the Government of Maharashtra.

3.4 Upskilling, training and Job creation

- The policy shall aim to amend existing courses and/or create new courses on electric vehicle ecosystem to be offered by the state Industrial Training Institutes.
- Government of Maharashtra, in partnership with relevant/interested OEMs and service providers, shall develop skill enhancement centres for delivering vocational courses on the EV ecosystem. The skill enhancement centres will aim to train the ICE mechanics/workforce in repairing and servicing of EVs and charging stations.

3.5 Other Non-fiscal benefits

The Government will offer non-fiscal incentives in order to make it easier to register and operate EVs/EV fleets. The non-fiscal incentives are/will be provided across various vehicle forms depending on the use case of the vehicle. The details of the non-fiscal incentives are provided below.

1. The policy shall endeavour to fast-track and ensure time bound registration of EVs, including EV fleets owned by aggregators[13], last mile delivery providers, logistics players, etc.
2. All the EVs in the state shall be registered with green number plates, irrespective of vehicle type.
3. No permits shall be required for e-autos as per Ministry of Road Transport and Highways' notification dated 18th October, 2018 and the provisions thereof will be strictly implemented.[14] City specific restrictions on auto rickshaws shall continue to apply also on e-autorickshaws, based on local traffic considerations.

[13] Motor Vehicle aggregator guidelines define vehicle aggregators as digital mediators or marketplaces for passengers to connect with a driver for the intent of transportation

[14] https://morth.nic.in/sites/default/files/notifications_document/Notification_no_S_O_5333E_dated_18_10_2018_regarding_exemption_to_Battery_Operated_Transport_Vehicles_and_Transport_0.pdf

4. Policy will encourage fleet aggregators to operate electric vehicles, as per the Motor Vehicle Aggregator Guideline 2020[15] issued by Ministry of Road Transport and Highways.
5. The five targeted UAs, listed earlier, will create low-emission zones that shall be served primarily by zero tailpipe emission vehicles, as decided and notified by the city-agencies.
6. Urban local bodies shall be encouraged to provide lane and parking preferences to EVs, subject to local traffic conditions.
7. New residential buildings will be mandated to have at least 20% of the total parking spaces as EV ready[16], of which 30% should be in common parking spaces or parking spaces unallotted to any individual residence owner.
8. Developers of new residential projects would be required to give option of buying EV-ready parking from 2022 onwards.
9. All dedicated off-road public parking spaces shall convert at least 25% of their total capacity to be EV ready by 2023.
10. All institutional and commercial complexes shall convert at least 25% of their total parking spaces to be EV ready by 2023.
11. All government office complexes shall convert 100% of their total parking spaces to be EV ready at the earliest, but not later than 2025.
12. All the future public parking spaces, allotted by bidding process, shall provide free parking to all the EVs.

3.6 Zero Emission Vehicle (ZEV) Credit Program

Widespread adoption of EVs is critical to achieving Maharashtra's vision for becoming a leading producer and adopter of EVs and reducing both local air pollution and carbon dioxide (CO_2) emissions. Experience from leading EV markets indicates that a zero-emission vehicle (ZEV) requirement is a transformative policy measure that can stimulate EV manufacturing and adoption.

[15] https://morth.nic.in/sites/default/files/notifications_document/Motor%20Vehicle%20Aggregators27112020150046.pdf

[16] A parking spot is defined as EV ready when it is provided with charging infrastructure and a separate meter connection.

The Government of Maharashtra plans to further explore the feasibility of a ZEV requirement and credit program for the state. Technical details shall be released in due course of time.

3.7 Awareness program

An awareness program will be designed and implemented by the state government in partnership with industry players and civil society organizations. The program will aim to create awareness on EVs, their benefits and incentive support available under state and central government policies.

4. State EV Fund

The Government of Maharashtra aims to create a 'State EV Fund'. The Fund shall be used to promote EV adoption, including providing incentives for EVs and EV infrastructure. The State EV Fund will aggregate the funds allocated from different instruments like green tax and green cess.

5. Policy implementation

The Government of Maharashtra aims to put in place an effective governing structure for implementation of the EV Policy and ensure coordination among various government departments.

1. An apex Steering Committee of the Govt. of Maharashtra shall guide and monitor the implementation of the policy. The composition of the Committee shall be as stated in Table 6. The Steering Committee will monitor policy progress, address major impediments to policy implementation and make amendments to the policy, as may be required. The apex committee shall also consider providing incentives to new emerging technologies like fuel cell vehicles as and when these technologies may become more popularly available. The steering committee can form sub-committees or special task forces on priority areas, as may be required.
2. Steering Committee shall be supported by a dedicated team, or a secretariat called the "**Maharashtra State EV Secretariat**". The Secretariat will comprise of a team of professionals and will be responsible for day-to-day operations of the EV Policy. The Secretariat will be housed in the Transport Department of Maharashtra.

Table 6 Steering Committee Structure

S No.	Representation from Depts.	Designation
1.	Chief Secretary	Chairman
2.	Addl Chief Secretary, Transport, GoM	Member Secretary
3.	Principal Secretary, Industries, GoM	Member
4.	Principal Secretary, UD – 2, GoM	Member
5.	Principal Secretary, Energy, GoM	Member
6.	Principal Secretary, Environment & Climate Change, GoM	Member
7.	Industry representatives and/or experts, as nominated by GoM	Member

6. Policy Validity:

Policy will be valid till 31 March 2025 from the date of the public notification of policy and will be reviewed and extended thereafter, as may be decided by the Govt. of Maharashtra.

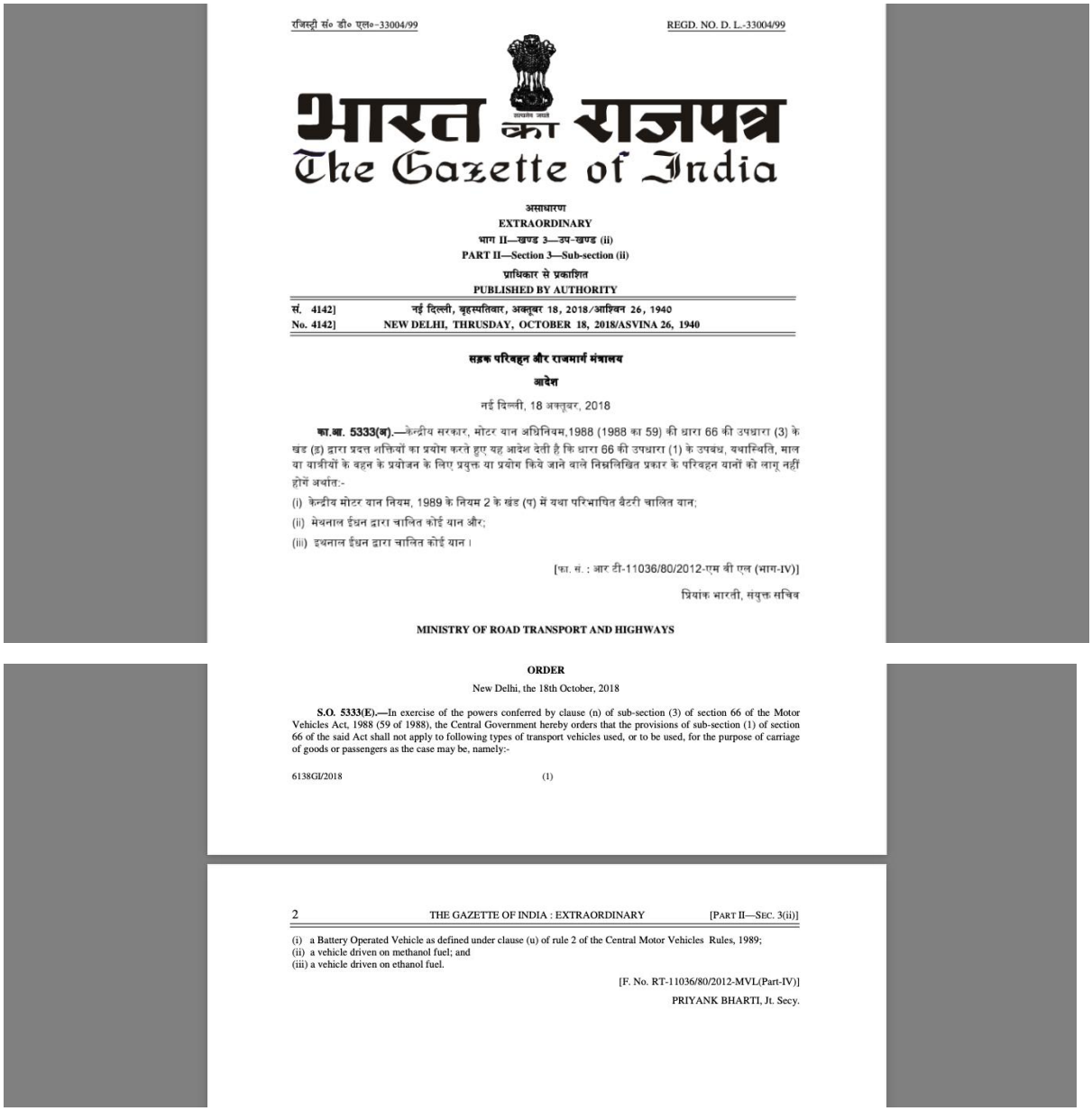
Annexure 1: Key Definitions

- **Public Charging Stations (PCS)** consists of charging station, associated electrical infrastructure, space for parking (with clearance), ingress/egress for vehicles and has open (unrestricted) access for the public. Additionally, PCS must not have any usage restriction for any EV user. For instance, PCS usage cannot be restricted by providing services only on a subscription basis.
- **Semi- public charging stations (SPCS)** consists of the charging stations, associated electrical infrastructure, space for parking (with clearance), ingress/egress for vehicles and has restricted access for the public (build in semi-public locations like existing commercial and institutional buildings, including malls, shopping complex, hospitals, cinema halls/multiplexes, office spaces, hotels, restaurants, etc.).
- For the purpose of this policy, **a slow charger** includes AC-001 and any charger (AC or DC) that delivers a maximum output power of 3.3 kW per charging point, is compliant to the technical and safety standards as laid down by CEA, and is type tested by an agency/lab accredited by NABL. 1 PCS/ SPCS equivalent is at least 3 charging points of maximum 3.3 kW power output per charging point.
- For any other charging station (other than slow) -
    - If the charging station has one charging gun, it will be equivalent to 1 PCS/SPCS
    - If the charging station has more than one charging guns, each charging gun will be considered equivalent to 1 PCS/SPCS, provided all the charging guns can charge vehicles simultaneously.

The Steering Committee will periodically review and update definitions of charging infrastructure as per latest guidance from the Bureau of Indian Standards or the Government of India.

Annexure 2

Notification on permit exemption for e-autos as per Ministry of Road Transport and Highways' notification dated 18th October, 2018



रजिस्ट्री सं० डी० एल०-33004/99 REGD. NO. D. L.-33004/99

भारत का राजपत्र
The Gazette of India

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सड़क परिवहन और राजमार्ग मंत्रालय

आदेश

नई दिल्ली, 18 अक्तूबर, 2018

का.आ. 5333(अ).—केन्द्रीय सरकार, मोटर यान अधिनियम,1988 (1988 का 59) की धारा 66 की उपधारा (3) के खंड (ङ) द्वारा प्रदत्त शक्तियों का प्रयोग करते हुए यह आदेश देती है कि धारा 66 की उपधारा (1) के उपबंध, यथास्थिति, माल या यात्रीयों के वहन के प्रयोजन के लिए प्रयुक्त या प्रयोग किये जाने वाले निम्नलिखित प्रकार के परिवहन यानों को लागू नहीं होंगे अर्थात:-

(i) केन्द्रीय मोटर यान नियम, 1989 के नियम 2 के खंड (प) में यथा परिभाषित बैटरी चालित यान;

(ii) मेथनाल ईंधन द्वारा चालित कोई यान और;

(iii) इथनाल ईंधन द्वारा चालित कोई यान।

[फा. सं. : आर टी-11036/80/2012-एम वी एल (भाग-IV)]

प्रियांक भारती, संयुक्त सचिव

MINISTRY OF ROAD TRANSPORT AND HIGHWAYS

ORDER

New Delhi, the 18th October, 2018

S.O. 5333(E).—In exercise of the powers conferred by clause (n) of sub-section (3) of section 66 of the Motor Vehicles Act, 1988 (59 of 1988), the Central Government hereby orders that the provisions of sub-section (1) of section 66 of the said Act shall not apply to following types of transport vehicles used, or to be used, for the purpose of carriage of goods or passengers as the case may be, namely:-

6138GI/2018 (1)

2 THE GAZETTE OF INDIA : EXTRAORDINARY [PART II—SEC. 3(ii)]

(i) a Battery Operated Vehicle as defined under clause (u) of rule 2 of the Central Motor Vehicles Rules, 1989;
(ii) a vehicle driven on methanol fuel; and
(iii) a vehicle driven on ethanol fuel.

[F. No. RT-11036/80/2012-MVL(Part-IV)]

PRIYANK BHARTI, Jt. Secy.

Maharashtra State EV Policy – 2021 (Draft)

Annexure 3 – Abbreviations

EV	Electric Vehicle
ICE	Internal Combustion Engine
PHEV	Plug-in hybrid Electric Vehicle
BEV	Battery Electric Vehicle
OEM	Original Equipment Manufacturer
R&D	Research and Development
RTO	Regional Transport Office
CPO	Charging Point Operator
PCS	Public Charging Station
e2W	Electric 2 wheeler
e3W	Electric 3 wheeler
e4W	Electric 4 wheeler / Passenger cars
CCS	Combined Charging system
ChaDeMO	Charge De Move
Li	Lithium
AC	Alternating Current
DC	Direct Current
BMS	Battery Management System
GoM	Government of Maharashtra
MSRDC	Maharashtra State Road Development Corporation
MoHUA	Ministry of Housing and Urban Affairs
MSEDCL	Maharashtra State Electricity Distribution Corporation Limited
MPCB	Maharashtra Pollution Control Board
UD	Urban Development
DTE	Directorate of Technical Education
NA	Not applicable
mtr	Meter/s
INR	Indian National Rupee
Cr	Crore
GVW	Gross Vehicle weight
CMVR	Central Motor Vehicle Rules
FAME	Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles
HVAC	Heating Ventilation and Air Conditioning

Environment & Climate Change Department

Maharashtra Electric Vehicle (EV) Policy 2021

To promote adoption of electric vehicles, electric vehicle production and strengthen the electric vehicle infrastructure in the State, a committee (Task force) under Chairmanship of Principal Secretary (Transport) was constituted. The committee reviewed and developed the revised electric vehicle policy, 2021, and presented the same to Environment and Climate Change Department. The Policy was discussed during the State Cabinet meeting held on 4th July 2021. The State Cabinet reviewed and approved the Electric Vehicle Policy, 2021. Summary of the policy is as follows:

1. Vision –

- Faster adoption of sustainable and clean mobility solutions in Maharashtra
- Transform Maharashtra into a leading state in terms of adoption of electric vehicles in the country
- Maharashtra should be the leading manufacturing and investment hubs for the EV ecosystem globally

2. Policy Targets –

- The primary objective of Maharashtra EV Policy 2021 is **to accelerate adoption of BEVs in the state so that they contribute to 10% of new vehicle registrations (~ 3 L vehicles /yr) by 2025**.
- In the six targeted urban agglomerations in the state (Mumbai, Pune, Nagpur, Aurangabad, Amravati & Nashik), achieve 25% electrification of public transport and last-mile delivery vehicles by 2025.
- Development of Charging infrastructure (~ 2500 charging stations) in 7 major urban agglomerates (Mumbai, Pune, Nagpur, Aurangabad, Nashik, Amravati and Solapur) and 4 major highways (Mumbai – Pune, Mumbai – Nashik, Mumbai – Nagpur and Pune - Nashik)
- From April 2022, all new govt. vehicles will be electric vehicles

3. Policy Validity –

Proposed Policy will be inforce from Notification in 2021 to 2025 (4 yrs)

4. Policy Structure –

Policy encompasses 3 direct incentives – demand side incentives, supply side incentives and incentives for charging infrastructure. Along with these, nonfiscal incentives and developing skilled manpower to support the EV transition is proposed in the policy.

5. Proposed Incentives –

5.1 Demand side Incentives

Proposed incentives are addition to FAME II (Govt. of India) Incentives and will be awarded to vehicle manufacturers based on no. of vehicles registered in Maharashtra

Sr. No.	Vehicle Type	General Battery Capacity (kWh)	Basic Incentives	Early Bird Incentives	Assured Buyback and Battery Warranty Incentives	Scrappage Incentives	Total Incentives
1a	e2W (Prior 31st Dec. 2021)	3	10,000	15,000	12,000	7,000	44,000
1b	e2W (After 31st Dec. 2021)	3	10,000	NA	12,000	7,000	29,000
2a	e3W (Prior 31st Dec. 2021)	7	30,000	35,000	12,000	15,000	92,000
2b	e3W (After 31st Dec. 2021)	7	30,000	NA	12,000	15,000	57,000
3a	e4W (Prior 31st Dec. 2021)	30	1,50,000	1,00,000	NA	25,000	2,75,000
3b	e4W (After 31st Dec. 2021)	30	1,50,000	NA	NA	25,000	1,75,000

5.2 Charging Infra. development Incentives

- Slow Chargers (15,000 nos) will get incentives upto Rs. 10,000 per charger and Fast Chargers (500) will receive incentives upto Rs. 5,00,000 per charger
- Urban local bodies will be encouraged to provide property tax rebates to residential owners for installing private charging infrastructure within their premises
- ULBs / PWD / MSRDC should identify locations for charging infrastructure installation

5.3 Supply Side Incentives

- All the benefits under 'D+' category of mega projects will be provided to these industries irrespective of location of manufacturing unit in the state.
- This incentive will be applicable from the date of notification of policy and will be disbursed through Industries, Energy and Labour Dept.

5.4 Non-fiscal Incentives

- The policy shall endeavor to fast-track and ensure time bound registration of EVs, including EV fleets owned by aggregators, last mile delivery providers, logistics players, etc.
- Policy will encourage fleet aggregators to operate electric vehicles, as per the Motor Vehicle Aggregator Guideline 2020 issued by Ministry of Road Transport and Highways
- Following property developers will be mandated for min. mandatory EV parking as per following table

Upcoming type of property projects	Mandatory EV ready parking
Residential	20%
institutional & commercial complexes	25%
Govt. Offices	100%

6. Policy Implementation Mechanism

- Steering Committee under the chairmanship of Chief secretary and other concerned dept. principal secretaries will assess the policy effectiveness and revise the policy on timely manner considering the EV ecosystem
- Environment & Climate Change Dept. will instigate the ‘EV monitoring Cell’

7. Budgetary Provision

- Max. budgetary provision for ‘Demand side’ and ‘Charging infra’ incentives is total Rs. 930 Cr for 4 yrs.
- The policy implementation can be funded through green tax levied on re-registration of old vehicles, fuel cess etc.
