

GOVERNMENT OF INDIA
MINISTRY OF HEAVY INDUSTRIES
RAJYA SABHA
UNSTARRED QUESTION NO. 3266
ANSWERED ON 28.03.2025

INSTALLATION OF EV CHARGING INFRASTRUCTURE

3266. SHRI LAHAR SINGH SIROYA:

Will the Minister of HEAVY INDUSTRIES be pleased to state:

- (a) whether Government proposes to standardize the charging infrastructure, vehicle charging and battery swapping for Electric Vehicle (EV) across the country and if so, the details thereof;
- (b) the number of charging stations proposed to be set up in the country during the coming years, State/UT-wise; and
- (c) whether Government has any plans to include private sector for installation and operation of EV charging infrastructure and if so, the details thereof?

ANSWER

THE MINISTER OF STATE FOR HEAVY INDUSTRIES
(SHRI BHUPATHIRAJU SRINIVASA VARMA)

(a): As per information received from Ministry of Power, development of standards for electric mobility is an ongoing process. So far, 21 standards have been published by Bureau of Indian Standards (BIS) for charging Infrastructure. Similarly, 9 standards for Electric Vehicles (EVs) and battery have been published. These standards also include standards of safety. The details are at **Annexure-I**.

(b) & (c): The Ministry of Heavy Industries (MHI) has sanctioned Rs.873.50 crore to three Oil Marketing companies (OMCs) under the Ministry of Petroleum and Natural Gas (MoPNG), under FAME-II Scheme for setting up of 10,585 Electric Vehicle Charging Stations (EVCS). As per information received from MoPNG, 5,817 EVCS have been installed by OMCs at their Retail Outlets (ROs) under FAME-II scheme, as on 01.03.2025. In addition to this, OMCs have set up 20,035 EVCS at their ROs from their own funds. Details of charging stations as on 01/03/2025 is annexed at **Annexure II**.

Further, the PM Electric Drive Revolution in Innovative Vehicle Enhancement (PM E-DRIVE) scheme, notified on 29th September, 2024, has allocated a budget of ₹10,900 crore for two years, with ₹2,000 crore specifically earmarked for the installation of Electric Vehicle Public Charging Stations (EVPCS) across the country.

Ministry of Power has issued “Guidelines for Installation and Operation of Electric Vehicle Charging Infrastructure-2024”, on 17.09.2024. These guidelines emphasize the role of public-private partnerships in expanding the EV charging infrastructure. Setting up EV charging station has been designated as de-licensed activity, simplifying the process for businesses.

Published standards for charging infrastructure (21)

S. no.	IS Number	Title
1	IS/ISO 15118-1 : 2013	Road vehicles - Vehicle to grid communication interface: Part 1 general information and use - Case definition
2	IS/ISO 15118-2 : 2014	Road vehicles - Vehicle - To - Grid communication interface: Part 2 network and application protocol requirements
3	IS/ISO 15118-3 : 2015	Road vehicles - Vehicle to grid communication interface: Part 3 physical and data link layer requirements
4	IS/ISO 15118-4 : 2018	Road vehicles - Vehicle to grid communication interface: Part 4 network and application protocol conformance test
5	IS/ISO 15118-5 : 2018	Road vehicles - Vehicle to grid communication interface: Part 5 physical layer and data link layer conformance test
6	IS/ISO 15118-8 : 2020 ISO 5400:1984 ISO 5400:1984 (First Revision)	Road Vehicles - Vehicle to Grid Communication Interface Part 8: Physical Layer and Data Link Layer Requirements for Wireless Communication (First Revision)
7	IS 17017 (Part 1) : 2018	Electric Vehicle Conductive Charging System Part 1 General Requirements
8	IS 17017 (Part 2/Sec 1) : 2020	Electric Vehicle Conductive Charging System Part 2 Plugs, Socket-Outlets, Vehicle Connectors, and Vehicle Inlets Section 1 General requirements
9	IS 17017 (Part 2/Sec 2) : 2020	Electric Vehicle Conductive Charging System Part 2 Plugs, Socket - Outlets, Vehicle Connectors and Vehicle Inlets Section 2 Dimensional compatibility and interchangeability requirements for a.c. pin and contact-tube accessories
10	IS 17017 (Part 2/Sec 3) : 2020	Electric Vehicle Conductive Charging System Part 2 Plugs, Socket - Outlets, Vehicle Connectors and Vehicle Inlets Section 3 Dimensional compatibility and interchangeability requirements for d.c. and a.c./d.c. pin and contact-tube vehicle couplers
11	IS 17017 (Part 2/Sec 6) : 2021 ISO 622 : 2016 ISO 622 : 2016	Electric Vehicle Conductive Charging System Part 2 Plugs, Socket-Outlets, Vehicle Connectors and Vehicle Inlets Section 6 Dimensional compatibility requirements for DC pin and contact-tube vehicle couplers intended to be used for DC EV supply equipment where protection relies on electrical separation
12	IS 17017 (Part 2/Sec 7) : 2023	Electric Vehicle Conductive Charging System Part 2 Plugs, Socket-Outlets, Vehicle Connectors and Vehicle Inlets Section 7 Dimensional Compatibility and Interchange Ability Requirements for a.c., d.c. and a.c./d.c. Pin and Contact-Tube Vehicle Couplers Intended to be used for a.c./d.c. EV Supply Equipment where Protection Relies on Electrical Separation
13	IS 17017 (Part 21/Sec 1) : 2019 IEC 61851-21-1 : 2017 IEC 61851-21-1 : 2017	Electric Vehicle Conductive Charging System Part 21 Electromagnetic Compatibility (EMC) Requirements Section 1 On-board chargers
14	IS 17017 (Part 21/Sec 2) : 2019 IEC 61851-21-2 : 2018 IEC 61851-21-2 : 2018	Electric Vehicle Conductive Charging System Part 21 Electromagnetic Compatibility (EMC) Requirements Section 2 Off-board chargers
15	IS 17017 (Part 22/Sec 1) : 2021 ISO 21084:2019	Electric Vehicle Conductive Charging Systems Part 22 AC Charging Configurations Section 1 - AC Charge Point for Light Electric Vehicle

	ISO 21084:2019	
16	IS 17017 (Part 23) : 2021 ISO/IEC 11160-1:1996 ISO/IEC 11160-1:1996	Electric Vehicle Conductive Charging Systems Part 23 dc Electric Vehicle Supply Equipment
17	IS 17017 (Part 24) : 2021 ISO/IEC 18000-64:201	Electric Vehicle Conductive Charging System Part 24 : Digital Communication between a DC Electric Vehicle Supply Equipment and an Electric Vehicle for control of DC Charging
18	IS 17017 (Part 25) : 2021 ISO 6658 : 2017 ISO 6658 : 2017	ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM Part 25: DC EV supply equipment where protection relies on electrical separation
19	IS 17017 (Part 31) : 2024	ELECTRIC VEHICLE CONDUCTIVE CHARGING SYSTEM Part 31: ac or dc EV supply equipment for where protection relies on electrical separation
20	IS 17896 (Part 1) : 2022 62751-2:2014+AMD1:2019CSV 62751-2:2014+AMD1:2019CSV	Electric vehicle battery swap system - Part 1: General and Guidance
21	IS 17896 (Part 2) : 2022 62823:2015+AMD1:2019 CSV 62823:2015+AMD1:2019 CSV	Electric vehicle battery swap system - Part 2: Safety requirements
ETD 51 Standard under development (1)		
	ETD/51/21658	Electric Vehicle Conductive Charging System Part 30 Dual Gun DC EVSE

Standards for Electric Vehicle and Battery (9)

S. no.	IS Number	Title
1	IS 15886 : 2010 Reviewed In : 2017	Road Vehicles - Battery Operated Vehicles - Code Of Practice
2	IS 17191 (Part 1) : 2019 Reviewed In : 2024	Electric Power Train Vehicles Part 1 Measurement of Electrical Energy Consumption
3	IS 17191 (Part 2) : 2019 Reviewed In : 2024	Electric Power Train Vehicles Part 2 Method of Measuring the Range
4	IS 17191 (Part 3) : 2019	Electric Power Train Vehicles Part 3 Measurement of Net Power and the Maximum 30 Minute Power
5	IS 17855 : 2022 TR 63262 : 2019 TR 63262 : 2019	Electrically propelled road vehicles - Test specification for lithium-ion traction battery packs and systems - Part 4: Performance testing
6	IS 18073 : 2023	Electric Traction Motor - Performance and Functional Requirements
7	IS 18294 : 2023	Electric Rickshaw E-Kart Construction and Functional Safety Requirements Specification
8	IS 18590 : 2024	Electric Power Train of L Category Vehicles Specific Requirements
9	IS 18606 : 2024	Electric Power Train of M and N Category Vehicles Specific Requirements

Annexure II

State/UT	No. of EV charging stations installed as on 01.03.2025
Andaman & Nicobar	7
Andhra Pradesh	1309
Arunachal Pradesh	53
Assam	518
Bihar	818
Chandigarh	22
Chhattisgarh	571
Dadra & Nagar Haveli	18
Delhi	358
Goa	85
Gujarat	1470
Haryana	1287
Himachal Pradesh	165
Jammu & Kashmir	197
Jharkhand	458
Karnataka	1972
Kerala	834
Ladakh	15
Lakshadweep	1
Madhya Pradesh	1328
Maharashtra	2010
Manipur	69
Meghalaya	81
Mizoram	18
Nagaland	47
Odisha	893
Pondicherry	36
Punjab	1064
Rajasthan	1901
Sikkim	13
Tamil Nadu	2434
Telangana	1313
Tripura	58
Uttar Pradesh	2901
Uttarakhand	252
West Bengal	1276
Total	25852
