Requirements & Government Approvals for Setting Up DC Fast EV Chargers in India

This comprehensive document delineates all statutory approvals, permissions, and regulatory compliances mandated for establishing DC Fast Charging Infrastructure (30 kW to 500 kW) across Indian territory. The framework presented herein encompasses Central Government policies, State-level regulations, technical certifications, and authority-specific clearances essential for lawful operation of EV charging facilities.

Setting up DC Fast Charging Infrastructure in India does not necessitate a traditional "license" as per Ministry of Power guidelines. However, multiple statutory approvals, compliances, and clearances remain mandatory under both Central and State regulatory frameworks. EV charging has been explicitly classified as a "Service" and not sale of electricity, as per Government of India policy directives issued under the Electricity Act, 2003.

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Central Government Policy Framework & Regulatory Authorities

The establishment and operation of DC Fast Charging Infrastructure in India is governed by a comprehensive Central Government policy framework that mandates compliance across multiple regulatory dimensions. The Ministry of Power (MoP) has issued authoritative Guidelines for Installation & Operation of EV Charging Infrastructure (2024 revision), which constitute the primary reference document for all stakeholders. These guidelines establish mandatory protocols for grid connectivity, safety standards, metering accuracy, and operational parameters applicable nationwide.

The Central Electricity Authority (CEA) exercises statutory oversight concerning safety regulations and grid connectivity standards, ensuring that all charging infrastructure adheres to prescribed technical specifications. The Ministry of Heavy Industries (MHI) administers the PM E-DRIVE scheme, providing conditional financial incentives for qualifying projects that meet benchmark cost criteria and comply with designated technical parameters. The Bureau of Indian Standards (BIS) enforces equipment certification requirements through IS 17017 and related standards, while the Department of Consumer Affairs (Legal Metrology Division) mandates metering and billing accuracy protocols to protect consumer interests.

Ministry of Power (MoP)

Guidelines for Installation & Operation of EV Charging Infrastructure (2024)

Status: Mandatory Compliance

Central Electricity Authority (CEA)

Safety Regulations & Grid Connectivity Standards

Status: Mandatory Compliance

Ministry of Heavy Industries (MHI)

PM E-DRIVE Scheme Administration

Status: Conditional (if availing subsidy)

Bureau of Indian Standards (BIS)

Charger Safety & Equipment Standards (IS 17017) (Only for 60kW Above)

Status: Mandatory Compliance

DISCOM Approvals & Electrical Infrastructure Requirements

Electricity Distribution Company (DISCOM) approval constitutes the most critical mandatory requirement for establishing DC Fast Charging Infrastructure. All charging stations, regardless of capacity or location, must obtain formal electrical load sanction from the jurisdictional DISCOM prior to commencement of operations. The sanctioned load determination depends directly upon aggregated charger rating—facilities deploying equipment rated at 60 kW, 240 kW, or 500 kW require correspondingly scaled electrical infrastructure. Connection type classification (Low Tension, High Tension, or Dedicated Feeder) is determined based on total connected load and local DISCOM technical specifications.

For installations exceeding 60 kW connected load, dedicated transformer approval becomes mandatory, necessitating submission of detailed load flow studies, single-line diagrams, and equipment specifications. DISCOM authorities prescribe specific metering requirements, mandating installation of dedicated EV charger meters with remote monitoring capabilities where applicable. Tariff categorization under EV Charging or Public Charging categories ensures appropriate billing structures aligned with state-level tariff orders. It is explicitly noted that absence of DISCOM approval renders any charging infrastructure operation legally impermissible and subjects operators to penalties under the Electricity Act, 2003.

1

Electrical Load Sanction

Based on aggregated charger rating (80 kW / 240 kW / 500 kW)

Connection classification: LT / HT / Dedicated Feeder

2

Transformer Approval

Mandatory for installations ≥ 60 kW connected load

Requires load flow studies and technical specifications

3

Metering Approval

Dedicated EV charger meter with remote monitoring

Compliance with Legal Metrology Act provisions

4

Tariff Category Assignment

EV Charging / Public Charging tariff classification

As per State Electricity Regulatory Commission orders

Critical Compliance Note: No charging infrastructure may commence operations without valid DISCOM approval. Unauthorized operation constitutes a violation under Section 135 of the Electricity Act, 2003, and attracts penalties including disconnection and monetary fines.

Technical Certifications, Safety Compliance & Local Authority Approvals

Electrical Safety & CEA Compliance

The Local Electrical Inspectorate, operating under CEA regulatory framework, mandates comprehensive electrical safety certification for all DC Fast Charging installations. Facilities must obtain Electrical Safety Certificates confirming adherence to fire prevention and electrical shock safety protocols. Earthing compliance as per CEA (Measures relating to Safety and Electric Supply) Regulations, 2010 remains non-negotiable, requiring documented earthing resistance measurements and periodic testing schedules.

Protection schemes incorporating Miniature Circuit Breakers (MCB), Molded Case Circuit Breakers (MCCB), Surge Protection Devices (SPD), and Residual Current Circuit Breakers (RCCB) must be installed and certified. Single Line Diagrams (SLD) require mandatory submission and approval prior to energization, detailing all electrical components, protection devices, and earthing arrangements.

Fire Department Clearances

Fire Department No Objection Certificate (NOC) constitutes a mandatory requirement for all DC Fast Charging installations, regardless of capacity or location. Fire safety protocols mandate installation of appropriate fire extinguishers (CO_2 or Dry Chemical Powder type) with adequate capacity and accessibility. Emergency shut-off mechanisms must be prominently marked and functionally tested prior to commissioning.

Clearance distances from combustible materials, building structures, and public access areas must conform to National Building Code and local fire safety regulations. Periodic fire safety audits and extinguisher maintenance records form part of ongoing compliance obligations.

01

BIS Type Test Certificate (Only for 60kW Above)

NABL-accredited laboratory testing as per IS 17017

02

IEC 61851 / 62196 Compliance

International safety and interoperability standards

03

IP Rating Certification

Minimum IP54 for environmental protection (dust and water ingress)

04

Municipal / ULB Approvals

Civil construction permits, public parking NOC, signage approval (location-dependent)

Local Urban Bodies (Municipal Corporations, Municipalities) exercise jurisdiction over civil construction activities, public space utilization, and road infrastructure modifications. Charging stations involving structural construction require Building / Civil Permission as per local bye-laws. Installations in public parking areas necessitate Municipal NOC explicitly authorizing EV charging operations. Road access modifications or footpath encroachments require Right of Way (ROW) permissions. Signage installations must comply with local advertising and traffic regulations, obtaining prior approval where mandated.

Commercial Requirements, Subsidy Schemes & Approval Process Flow

Commercial operation of DC Fast Charging Infrastructure necessitates GST registration under applicable service categories, with EV charging classified as a taxable service. Operators must maintain tariff display transparency, ensuring prominently visible rate cards at all charging locations. Consumer grievance redressal mechanisms, as mandated by consumer protection regulations, require establishment of accessible complaint channels with documented resolution protocols. Public liability insurance coverage, while recommended rather than mandatory, provides prudent risk mitigation against operational liabilities.

1. **Site Finalization**
   Location assessment and feasibility study
2. **DISCOM Application**
   Load sanction application with technical documentation
3. **Design Approvals**
   SLD, electrical drawings, fire safety plans
4. **Civil & Municipal Clearances**
   Building permits, parking NOC (if applicable)
5. **Installation & Inspection**
   Equipment installation and safety certification
6. **Commissioning**
   Final inspection and operational go-live

The PM E-DRIVE scheme administered by Ministry of Heavy Industries provides conditional financial incentives for qualifying charging infrastructure projects. Availing subsidy benefits requires formal project approval from MHI, adherence to benchmark cost norms specified in scheme guidelines, compliance with mandatory branding and signage requirements, and submission of periodic audit reports to designated Project Management Agency (PMA). It is categorically clarified that subsidy participation remains optional; non-subsidized projects require only core statutory approvals without MHI-specific compliance obligations.

Not Required

- Electricity trading license
- Power generation license
- Separate CEA business approval
- PCB clearance (charger-only sites)

Mandatory Approvals (Only for 60kW Above)

- DISCOM load sanction
- Electrical safety certificate
- Fire Department NOC
- BIS equipment certification

Conditional Requirements

- Municipal approvals (civil works)
- PM E-DRIVE compliance (subsidy cases)
- PCB consent (battery storage / DG backup)

Official Statement for Government Reference: As per Ministry of Power guidelines issued under the Electricity Act, 2003, EV charging infrastructure operation constitutes a service activity and does not require electricity trading or generation licenses. However, installation and operation mandate statutory approvals from DISCOMs, Electrical Inspectorate, Fire Department, and compliance with BIS and CEA safety regulations. The regulatory framework is enabling rather than restrictive, with approvals being procedural and non-discretionary in nature.