









# What is EV Charging? - The Future of Refueling

EV charging is the process of replenishing an electric vehicle's battery using an external power source. Chargers vary by power level, communication features, and connectivity to the grid or on-site generation like solar panels and batteries. Choosing the right charger ensures fast, safe, and cost-effective charging for homes, workplaces, or commercial fleets.

## \* Key Benefits of EV Charging

- Fast & Safe Significantly faster than standard outlets with built-in safety mechanisms
- Smart & Efficient Schedule charging with solar or battery storage to optimize energy usage
- Cost-Effective Minimize electricity costs with off-peak charging and smart controls
- User-Friendly Easy plug-and-charge operation with mobile app integration
- Reliable Consistent performance for homes, workplaces, and commercial fleets



# India's EV Mission: 80 Million EVs by 2030



India has set an ambitious mission to put 80 million electric vehicles (EVs) on the road by 2030, marking one of the largest clean mobility transitions in the world. This target supports the country's sustainability agenda, reduces oil imports, and positions India as a global EV leader.

## The Target

- 30% of private cars, 70% of commercial vehicles, 40% of buses, and 80% of two- & three-wheelers to go electric by 2030.
- Combined, this equals ~80 million EVs across India's roads.

## Incentives for EV adoption + charging infra.



#### **Private-Public Initiatives**

Encourages private players to set up EV charging stations with financial support.



#### **FAME India**

Faster Adoption and Manufacturing of EVs with subsidies for buyers & infrastructure.



#### State-Level Incentives

States provide EV subsidies, tax benefits & incentives for charging stations.



#### PM E-DRIVE

Boosts EV adoption & builds charging infrastructure. Outlay: ₹10,900 Cr.

# AC CHARGING VS DC CHARGING





## **AC Charging**

- Uses alternating current and converts power inside the vehicle, making it a simple and widely adopted charging method.
- Ideal for overnight charging: Because of its slower speed, it is best suited for plugging in at night and waking up to a fully charged battery.
- Affordable & widespread: Known for being cost-effective and easily available, it is the most common charging option in homes and public areas.
- Slower but perfect for daily use: Although not the fastest, it provides more than enough power for everyday commuting and regular travel needs.

## DC Charging

- Supplies direct current straight to the battery, bypassing the onboard charger to deliver much higher power levels.
- Ideal for quick top-ups: Designed for speed, it can add a significant range within minutes, making it perfect for long-distance travel or busy schedules.
- More expensive & less common: Due to higher installation and maintenance costs, DC fast chargers are mainly found in public charging stations and highways.
- Fast but not for everyday use: While extremely convenient for quick charging, it is best used occasionally as frequent use may impact long-term battery health.

# Find Your Perfect EV Charger



#### Portable EV Charger - 3.3 kW / 7.2 kW

- Compact and lightweight design easy to carry and store
- Available in 3.3 kW (single-phase) and 7.2 kW (single-phase) models
- IEC 62196 Type-2 connector for wide EV compatibility
- Plug & play operation no installation required
- Built-in safety protections: over/under voltage, over current, surge, short circuit, residual current, over temperature
- IP65-rated safe for both indoor and outdoor use
- Adjustable current levels (3.3 kW: 8A-16A | 7.2 kW: up to 32A)
- Supplied with a 5-meter charging cable for convenience
- Reliable for home, office, or travel use ideal as a backup charger



#### AC Smart Socket - Home (3.3 kW)

- Compact wall-socket style charger space-saving and easy to install
- Available in 3.3 kW (single-phase) model perfect for overnight charging
- IEC 62196 Type-2 socket for universal EV compatibility
- Simple plug & charge operation user-friendly setup
- Integrated safety protections: over current, leakage, surge, over temperature
- IP54-rated suitable for indoor and semi-outdoor use
- Energy metering for basic monitoring of consumption
- Compatible with smart app control (optional)
- Affordable and practical solution for home EV charging



#### AC Smart Socket - Commercial (7.2 kW / 22 kW)

- Robust and durable design engineered for commercial use
- Available in 7.2 kW (single-phase) and 22 kW (three-phase) models
- IEC 62196 Type-2 socket for wide EV compatibility
- Smart access control via RFID / QR code / OCPP 1.6J
- Built-in protections: over/under voltage, over current, surge, leakage, over temperature
- IP65-rated weatherproof for indoor and outdoor installations
- Energy metering with billing support for multiple users
- Connectivity options: Ethernet / Wi-Fi / GSM for remote management
- Ideal for offices, malls, hotels, and commercial parking operators

# Find Your Perfect EV Charger



#### 3x3 Pin Smart Socket Charger - ACOO1 (10 kW)

- Bharat AC-001 standard compliant EV charger with multiple outputs
- Delivers up to 10 kW power using 3 × 3.3 kW sockets (three vehicles at once)
- Compatible with cars, e-rickshaws, scooters, and 3-wheelers
- Input: 230V AC, 50Hz, Three-Phase supply
- Smart access & monitoring with RFID, QR code, and OCPP 1.6 support
- Built-in safety protections: over/under voltage, overload, residual current, short circuit, surge, and over-temperature
- IP65 weatherproof housing reliable for indoor and outdoor installations
- Compact design with wall or pedestal mounting options
- Ideal for public charging stations, fleet depots, and community hubs



#### AC EV Charger - Home (7.4 / 11 / 22 kW)

- Sleek wall-mounted design blends with home garages & apartments
- Available in 7.4 kW (single-phase), 11 kW & 22 kW (three-phase) models
- Smart features: App monitoring, scheduling, RFID access, OCPP 1.6J
- Adjustable current control for efficient load management
- Weatherproof (IP65) safe for both indoor & outdoor installation
- Supplied with a 5-7 m Type-2 cable for convenience
- Perfect for overnight charging or faster daily charging depending on model
- Best For: Homeowners, apartment complexes & private villas



#### AC Smart Socket - Commercial (7.2 kW / 22 kW)

- Compact smart socket solution for offices, malls, and shared parking areas
- Available in 7.2 kW (single-phase) and 22 kW (three-phase) versions
- Built-in billing & authentication system (RFID / QR code / OCPP 1.6J)
- Supports energy metering & load balancing for commercial setups
- Connectivity: Ethernet, Wi-Fi, or GSM for centralized monitoring
- Strong build quality for heavy-duty, high-usage environments
- Weather-resistant (IP65) for outdoor public installations
- Best For: Offices, retail, hospitality & commercial parking operators

# Find Your Perfect EV Charger



#### Hybrid Charger - 14 kW

- · Compact smart socket for offices, malls, and shared parking
- Available in 7.2kW (single-phase) & 22kW (three-phase)
- Built-in billing & authentication (RFID / QR / OCPP 1.6J)
- Energy metering & load balancing for commercial use
- Connectivity: Ethernet, Wi-Fi, or GSM for centralized monitoring
- Durable, weather-resistant (IP65) for high-usage outdoor areas
- Ideal for offices, retail, hospitality, and commercial parking



#### DC Charger - 15 - 30 kW

- Provides fast and efficient charging for electric vehicles, reducing downtime and keeping operations smooth.
- Built with a robust, weather-resistant design to withstand heavy usage and outdoor conditions.
- Easy to install and operate, offering a seamless experience for both users and operators.
- Perfect for offices, malls, and commercial parking areas, supporting high-traffic EV charging needs.



## DC Charger - 15 - 30 kW

- Delivers ultra-fast and efficient charging for electric vehicles, minimizing wait times and maximizing convenience.
- Built with a durable, weather-resistant design to handle heavy usage in outdoor and commercial settings.
- Simple to install and operate, ensuring a seamless experience for both operators and users.
- Ideal for high-traffic areas like offices, malls, and commercial parking, supporting multiple EVs efficiently



#### DC Charger - 120 - 240 kW

- Provides ultra-fast, high-capacity charging for electric vehicles, ideal for minimizing downtime in busy locations.
- Engineered with a robust, weather-resistant design to withstand heavy usage and outdoor conditions.
- Easy to install and operate, offering a seamless charging experience for users and operators.
- Perfect for commercial hubs, malls, and high-traffic parking areas, supporting multiple EVs simultaneously.

# Powering Every Market: EV Charging Solutions for All



#### Residential

- For daily vehicle charging
- Slower AC chargers suitable for overnight charging
- Easy to install in garages or driveways
- Can be smart, with apps to monitor charging



#### Commercial

- For Offices, malls, & parking lots
- Charge multiple vehicles at once
- Faster than home chargers
- With payment or access control systems



# Industrial/ Fleet EV Chargers

- For buses, trucks, and delivery vehicles
- Handle heavy and frequent use
- Designed for large fleets and industrial areas
- Reduce downtime with rapid charging



## Public/Special Use EV Chargers

- Found at highways, city hubs, or events
- Fast charging to quickly top up vehicles
- Can be portable or permanent
- Supports sustainable and green transportation

# ReNova's Projects – Delivering Excellence Through Every Project















"Transforming Rhythm of Sustainability"

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