CHANDIGARH ADMINISTRATION DEPARTMENT OF SCIENCE & TECHNOLOGY & RENEWABLE ENERGY

Draft Notification

Whereas the Government of India have urged upon all States and Union Territories to adopt a well defined 'Electric Vehicle Policy' in their respective States/UTs.

Now, therefore, the Chandigarh Administration have framed a "Draft Electric Vehicle Policy, 2022" to build UT Chandigarh as a 'Model EV City' by achieving one of the highest penetration of zero emission vehicles amongst all Indian cities by the end of the Policy period. The details of the draft EV Policy-2022 is annexed herewith as Annexure-1.

Whereas the Administrator, Union Territory, Chandigarh intends to keep the "Draft Electric Vehicle Policy, 2022" in the public domain for a period of thirty days for inviting suggestions/comments of all the stakeholders and general public of UT Chandigarh.

This Draft Policy is available on official website of the department; **solar.chd.gov.in** under **News & Updates Section** as well as on Chandigarh Administration's website; **chandigarh.gov.in**.

Any suggestion/comment for inclusion or omission in the draft EV Policy may be brought to the notice of the Chief Executive Officer, Chandigarh Renewable Energy & Science & Technology Promotion Society (CREST), UT Chandigarh, Office: Paryavaran Bhawan (1st Floor), Sector 19-B, Chandigarh, within the stipulated period from the date of issue of this notification, either in-person, post or email (crestchandigarh@gmail.com).

Chandigarh dated the 10th February, 2022 DHARAM PAL, IAS
Adviser to the Administrator
Chandigarh Administration

Endst.No.

Chandigarh, Dated the

A copy is forwarded to all HODs/ Boards/ Corporations, Chandigarh Administration for information.

- Sd -

(Debendra Dalai), IFS Secretary (S&T&RE) Chandigarh Administration

Endst.No.	
	Chandigarh, Dated the
1.	PS to Hon'ble Administrator, UT Chandigarh, for kind information please.
2.	PS to Adviser to the Administrator, for kind information please.

(Debendra Dalai), IFS Secretary (S&T&RE) Chandigarh Administration

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Endst.No. 1524

Chandigarh, Dated the 10 62 2022

- 1. The Director Public Relation, Chandigarh Administration with the request that the above notification may kindly be given wide publicity.
- 2 The Director Information Technology, Chandigarh Administration, Chandigarh, for information with a request to get it uploaded on the website of Chandigarh Administration.
- 3. The Nodal Officer of e-Gazette Notification, Department of Science & Tech. & RE, UT Chandigarh for uploading this notification on the Chandigarh Administration e-Gazette portal.

(Debendra Dalai), IFS Secretary (S&T&RE) Chandigarh Administration

CHANDIGARH Draft Electric Vehicle Policy – 2022





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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 among others. With vehicular pollution being a growing source of air pollution in Chandigarh and contributing substantially to particulate pollution in city, rapid adoption of zero-tailpipe-emission vehicles is essential.

The government adopted the Faster Adoption and Manufacturing of Hybrid and EV (FAME) scheme to promote adoption and manufacturing of EVs. While there has been growth in EV adoption, the low penetration of electric vehicles is largely due to four critical barriers:

- a) High upfront purchase price of EVs
- b) Limited EV product offerings comparable to ICE vehicles
- c) Inadequate public charging infrastructure
- d) Low levels of awareness about EVs and their benefits.

The slow uptake of EVs and the changing policy, technology, and market landscape have created a need for the Chandigarh Administration to draft its EV Policy, in order to accelerate EV adoption in the UT. This policy prioritizes public and shared transport, goods carriers and two-wheelers to drive adoption of EVs.

2. Definitions

2.1 Electric Vehicle (EV)

All vehicles in with advanced batteries (both fixed and swappable) having passed all the eligibility and testing conditions as specified under FAME II scheme AND purchased & registered in Chandigarh shall be eligible for incentives. Any conditions/specifications/inclusions/exclusions other than FAME II are either specified in this policy or shall be separately notified by CREST from time to time.

2.2 Retrofit Kits

Retrofit kits eligible for incentives under this policy include kits for conversion from ICE to advanced battery-operated Electric Vehicles and shall be approved by a competent agency under Rule 126 of CMVR, 1989 or as notified by the Transport Department, Chandigarh Government.

2.3 Electric Vehicle Supply Equipment (EVSE)

Electric Vehicle Supply Equipment (EVSE) shall mean an element in Electric Vehicle (EV) charging infrastructure that supplies electric energy for recharging the battery of Electric Vehicles. EVSE shall be type tested by an agency/lab accredited by National Accreditation Board for Testing and Calibration Laboratories (NABL)/ Bureau of Indian Standards (BIS) from time to time.

3. Vision, Mission, Objectives

3.1 Vision

To enable zero emission mobility adoption for achieving carbon neutrality in Chandigarh by 2030.

3.2 Mission

To provide an enabling framework through incentives and initiatives for promoting zero emission mobility with societal, economic and environmental considerations at forefront.

3.3 Policy Objectives

To accelerate adoption of EVs in the UT so that they contribute to 80% of new vehicle registrations by the end of policy period.

• To support adoption of Electric Vehicles in every vehicle category prioritizing phase-wise transition with following targets:

Category	Target (Share of EVs in new vehicle registrations by the end of policy period)				
	Year-1	Year-2	Year-3	Year-4	Year-5
e-2W	35%	70%	100%	100%	100%
e-3W (Passenger Autos)	35%	70%	100%	100%	100%
e-3W (Goods)	20%	40%	60%	80%	100%
e-4W Goods	20%	40%	60%	80%	100%
e-Cars - Personal	10%	20%	30%	40%	50 %
e Cars -Commercial (Local Permit)	20%	40%	60%	80%	100%
e Buses	40%	50%	80%	90%	100% Electric/Alternate Fuel
EV Charging stations	50	100	EV Charging	stations will be requiremen	increased as per t

- To establish Chandigarh as a 'Model EV City' by achieving one of **the highest penetration of Zero Emission Vehicles** amongst all Indian cities, by the end of policy period.
- To leverage the cycling track infrastructure of city for promoting usage of **Electric Bicycles** as a replacement of 2/4W especially for short trips.
- To establish wide network of **Charging points** by enabling availability of power supply and related processes.
- To harness the **New & Renewable Energy sources** for charging of EVs to positively impact the indirect emissions.
- To enable **fleet operators** like E-commerce companies, last-mile delivery/logistics players and mobility aggregators transition to zero emission vehicles.
- To nurture skill development, R&D and startup for electric mobility space in the UT.
- To develop a **communication plan** focused on driving awareness regarding the key elements of this policy and the benefits of adopting EVs.

4. Policy Period

The policy shall be valid for a period of 5 years from the date of notification with a detailed review to be undertaken annually or as required. The incentives shall be extended only for the policy period unless otherwise stated/notified.

5. Policy Actions

The policy lays out various financial, non-financial incentives and initiatives which would support adoption of Electric Vehicles, establishment of a wide network of Charging stations, Entrepreneurship development and roll out of training programmes for skilled manpower to support the Electric Vehicle ecosystem

5.1 Driving Electric Vehicle Adoption

Electric Vehicles transition has several inherent challenges including high upfront purchase cost in comparison to ICE Vehicles, range anxiety, limited Charging Infrastructure and lack of awareness about lower total cost to ownership (TCOs) for some segments. Chandigarh Electric Vehicle Policy recognizes these challenges and creates provisions to incentivize adoption of all vehicle categories as listed below:

Vehicle Category	Incentive	Maximum Incentive	Number of Electric Vehicles to be incentivized
e-Bicycle	Upfront: 25% of Cost of Bicycle	Rs. 3,000	First 25,000 Bicycle purchased during the policy period
	<u>Upfront :</u> <u>Fixed Battery</u> : Rs. 5,000/kWh	Rs. 30,000	First 10,000 vehicles
e-2W	Swappable Battery: Rs. 3000/kWh	Rs. 15,000	registered during the policy period
	Scrapping: Rs 5,000	Rs. 5,000	
	<u>Upfront :</u>		
	Fixed Battery: Rs. 5000/kWh	Rs. 30,000	First 1000 e-Carts
e-Cart	Swappable Battery: Rs. 3000/kWh	Rs. 10,000	registered during the policy period
	Retrofit Kit: 15% of cost	Rs.10,000	ропсу репои
	Upfront :		
e-Autos	Fixed Battery: Rs. 5000/kWh	Rs. 30,000	First 1000 e-Autos
C /\dt03	Swappable Battery: Rs. 3000/kWh	Rs. 15,000	registered during the policy period
	Retrofit Kit: 15% of cost	Rs. 15,000	policy period

	Scrapping: Rs 7,500	Rs. 7,500	
	Upfront :		
	Fixed Battery: Rs. 5000/kWh	Rs. 50,000	First 1000 Goods Carrier
e-Goods	Retrofit Kit: 15% of cost	Rs. 15,000	L5N registered during the
Carrier L5N	15/0 01 0000	1.3. 13,000	policy period
	Scrapping: 15,000	Rs. 15,000	
	<u>Upfront:</u>		
	Fixed Battery: Rs. 5000/kWh	Rs. 80,000	First 1000 Goods Carrier
e-Goods Carrier N1	Retrofit Kit: 15% of cost	Rs. 25,000	N1 registered during the
Carrier NI			policy period
	Scrapping: 15,000	Rs. 15,000	
	Upfront:		First 2000, 4 W- e-Cars
	Fixed Battery: Rs. 5,000/kWh	Rs. 1,50,000	(Personal) (including
	Tixed Battery. 113. 3,000/ KWII	1.3. 1,30,000	Hybrids as defined in
4 W- e-Cars			FAME II) registered during the policy period.
(Personal)	Scrapping: 7000	Rs. 7,000	Applicable only for
			vehicles with ex-
			showroom price below
			INR 20 lakhs
	<u>Upfront:</u>		
4 W- e-Cars	Fixed Battery: Rs. 10,000/kWh	Rs. 2,00,000	First 1000, 4 W- e-Cars
			(Commercial) (including
(Commercial)	Scrapping: 7000	Rs. 7,000	Hybrids as defined in FAME II) registered
			during the policy period

All above incentives are over and above FAME-II policy incentives of GOI and are applicable only to those Electric Vehicles (EV) which are Purchased and registered in Chandigarh.

5.1.1 Driving Electric Vehicle Adoption: Early Bird Incentive

To drive quick adoption of Electric Vehicles and maximize reduction of Vehicle pollution, the policy provides for special Early Bird incentives as given in the below table:-

Vehicle Category	Early Bird Incentive	Maximum Early Incentive	Bird
e-Bicycle	Rs. 2000	Rs. 2,000	
e-2W, e-Cart, e-Autos, e Goods			
Carrier (L5N and N1), e-4W	Rs 3,500/kWh	Rs. 50,000	
(personal & commercial)			

<u>VALIDITY</u>: Electric Vehicles categories as mentioned under section 5.1 registered within 1st year of the policy period are eligible for early bird scheme.

<u>Scrapping Incentive Eligibility Criteria</u>: Registered owner of Electric Vehicles as under section 5.1 shall also be eligible for a Scrapping Incentive. This shall be applicable only if the scrapped vehicle is:

- i. of same vehicle category as of Electric Vehicle and,
- ii. registered in Chandigarh.

5.1.2 Provisions applicable across vehicle segments.

- 1. Road Tax and registration fees shall be waived for all eligible vehicles registered during the period of this policy.
- 2. Operational guidelines notification for availing incentives shall be issued by CREST with the approval of Competent Authority.
- 3. All electric vehicles registered in Chandigarh shall be issued a green number plate in accordance with the notification No. F. No. RT-11028/03/2018-MVL dated 07.08.2018 of the Ministry of Road Transport and Highways, Govt. of India.

5.2 Charging Infrastructure

Experience in other cities across the globe indicates that availability of charging infrastructure is a key driver of Electric Vehicle adoption. The objective of the policy shall be to create an enabling environment for establishing private as well as public charging infrastructure in-line with the Guidelines on Charging Infrastructure for Electric Vehicles (EV) as notified by Ministry of Power from time to time.

5.1.1 Private Charging points:

It is expected that most Electric Vehicle users shall use home and workplace charging points for their core charging needs. However, charging points at these locations need to be engineered for safe charging of Electrical Vehicles, communicate with DISCOM to enable load management, and net metering (as per prevailing rules related to New & Renewable Energy). Following policy measures shall be put in place to encourage installation of such charging points within homes and workplaces to be implemented by this policy period

 Chandigarh shall amend existing building bye-laws in accordance with Model Building Bye Laws, 2016 for Electric Vehicle Charging Infrastructure issued by the Ministry of Housing and Urban Affairs, Government of India. This shall make all new home and workplace parking slots 'EV ready' (i.e., with conduits and power supply infrastructure in place for Electric Vehicle chargers) for atleast 20% of all vehicle holding capacity/ parking.

- 2. The building premises shall also enable additional power load, equivalent to the power required for all charging points to be operated simultaneously.
- 3. All New /Renovated residential and non-residential building owners shall be encouraged to install Private Charging Points (PCPs) within their premises.
- 4. In order to facilitate establishment of EV Charging infrastructure in housing societies, offices and other places for private/semi-private usage, CREST shall make an IT based platform. This platform shall provide one stop solution within defined timeline by enabling features such as power connection, standard models of EVSEs, cost of equipment & installation and empaneled vendors.
- 5. Incentive Structure for Private Charging Stations is provided in the table-1 (Incentive Structure for Charging Infrastructure).

5.2.2 Public Charging Infrastructure:

Providing accessible public charging facilities within every sector in Chandigarh is a key objective of this policy. Following are the key steps for public charging is taken through this policy: -

1. Electricity tariff applicable for all Public and Captive charging stations for commercial use (i.e. charging facilities used by fleet owners) shall be as notified as per applicable JERC Tariff Order for every financial year. CREST shall endeavor to maintain the special electricity tariff for EV charging at the same rate as at present or lower for the entire duration of this policy as per specified under the table below:

Current Energy Charges Notified by JERC for Public Charging Stations

Energy Charges	Fixed Charges
Rs. 3.60 / kWh	Nil

- Tariff applicable to Public Charging Station (PCS) shall also be applicable to Battery Charging Stations (BCS) and Battery Swapping Stations (BSS).
- Domestic charging shall be treated akin to domestic consumption

NOTE: EV Charging Infrastructure is mandatory for all the Petrol Pumps (Both Private and Govt. Owned) operational in UT Chandigarh in 6 Months from the issuance of the final EV policy. If space is not available with the petrol pump, then the owner will make necessary arrangements for installing the Charging Stations in some nearby parking area belongs to U.T., Chandigarh.

- 2. Procedural guidelines regarding public charging station shall be notified separately by CREST.
- 3. Competent authority shall define and notify rates that may be offered by Public Charging Stations.

<u>Table-1: Incentive Structure for Charging Infrastructure</u>

Category	Incentive	Maximum Incentive	Maximum Number to be incentivized
Private Charging	Infrastructure Incentive: Grant on purchase and installation of charging equipment	Rs. 6,000	Only for first 30,000 private chargers installed during policy period.
	Reimbursement of GST paid 100% reimbursement of GST paid on the Fast Charging/Swapping Electric Vehicle Supply Equipment (EVSE) procured by private enterprises/individual	Rs. 50,000	Only for first 50 fast charging /Swapping EVSE installed during policy period. (Will not be applicable on Chargers under Central Subsidy)
Public Charging	Upfront electricity infrastructure: Upfront cost on infrastructure for bringing power supply to Electric Vehicle Charging Station	Rs. 5,00,000	Only for first 50 Public fast Charging/Swapping Stations installed in the state during policy period. (Will not be applicable on Chargers under Central Subsidy)
	Electricity Duty Exemption: 100% Electricity duty exemption for Public Charging and Swapping stations	For policy period	For policy period

5.3 Mobile application-based IT Platform for Public Charging Stations (PCS)

- CREST will develop a mobile application whereby all the real time information on Electric Vehicle Charging Stations such as real time updates on time slot availability, type of charging infrastructure, available load of Charging Station, distance from present location of Electric Vehicle user and applicable tariff.
- CREST as a nodal agency will develop a single window platform which is integrated with all the stakeholders to provide the one stop solution to the User for various incentives under this policy.

6 Innovation & Technology

This policy aims to foster research and innovation in electric mobility in Chandigarh and promote entrepreneurship in this space. The UT will support these objectives through following:

i. **Entrepreneurship Development**: Electric Vehicle startups will be encouraged through following provisions:

Startup Incentives

Category	Incentive	Maximum Incentive	Maximum Number to be incentivized
Infrastructure Incentive	Grant of Rs 3000 per seat on monthly basis.	Rs. 18,000/Month	Only for first 10 start-ups related to Zero Emission Mobility for policy period
Patent Fee Reimbursement	Start-ups registering national and international patents will be reimbursed up to 50% of the cost incurred by the start-up in fees and all other costs associated registration of IP subject to a cap of INR 2 lakh for national IP and INR 5 lakh for international IP.	National 2,00,000 International 5,00,000	Only for first 10 eligible patents

• Eligibility Criteria for Startups

- Start-ups should be registered with Startup India with valid certificate of startup from GOI.
- Only those start-ups who has registered office in Chandigarh are eligible for this scheme.
- Only those startups who has their product/services/USP in EV-sector/ ecosystem are eligible for the above incentives.
- Under no circumstances shall the benefits under this scheme be considered an entitlement. The CREST shall reserve the sole right to accept or reject applications.
- ii. **E-Mobility Centre of Excellence (CoE)**: Administration of Chandigarh shall promote industry led CoEs for advance electric and automotive research in partnership with leading academic institutions/angel networks/ industry partners in Chandigarh.

7 Recycling Ecosystem – Battery and Electrical Vehicles

- 1. The Policy shall encourage the reuse of EV batteries that have reached the end of their life and setting up of recycling businesses in collaboration with battery.
- 2. The Chandigarh administration will promote second-life usage and recycling of electric vehicle batteries.
- 3. **Reuse of EV batteries:** Disposal of Electric Vehicle Batteries in trash/landfills will be strictly prohibited. OEMs, through their networks, partnerships and retail centers will channelize battery collection for reuse. The guidelines for the same will be notified separately.

Note: The businesses to invite battery recycling, reuse, storage etc. shall be finalized only after the amendment of Industrial Policy 2015 and subject to the clearance of CPCC only.

8 Skill Development, training and Job creation

- Electric Vehicle manufacturing and servicing requires skilled manpower which varies from conventional automobiles. In order to ensure smooth transition to electric mobility, special efforts shall be undertaken for skill development in Electric Vehicles.
- Short-term courses on electric mobility, EVSE, repair and maintenance, battery manufacturing and maintenance shall be developed and introduced by Education Department in collaboration with Transport department, Chandigarh. Polytechnics shall offer two-week duration courses on Electric Vehicle awareness for skill upgradation.
- Chandigarh Administration, in partnership with relevant/interested OEMs and service providers, shall develop skill enhancement centers for delivering vocational courses on the EV ecosystem. The skill enhancement centers will aim to train the ICE mechanics/workforce in repairing and servicing of EVs and charging stations.

9 Responsibility Matrix

The responsibility of operationalization of the actionable in this policy will rest with the following departments:

Jai tillei	165.	
	Policy Section	Nodal and Other Related Departments
5.1	Driving Adoption	 Nodal Department: CREST Transport Department Finance Department
5.2	Electric Vehicle Charging Infrastructure	 Nodal Department: Electricity Department Municipal Corporation, Chandigarh Urban Estate CREST Chandigarh Housing Board.
6	Innovation & Entrepreneurship	 Nodal Department: Information Technology Department Industries Department Education Department CREST
7	Recycling & Reuse	 Nodal Department: CPCC CREST Industries Department
8	Skill Development & Training	 Nodal Department: Education Department IT Department CREST

		•	Nodal Department: CREST
9	Capacity Building and IT System	•	Transport Department
9	update	•	Education Department
		•	IT Department

10 Institutional Structure

There should be a dual level Institutional structure for smooth implementation of Electric Vehicle initiatives is as under:

10.1 UT Electric Vehicle Advisory Committee

Hon'ble Advisor	Chairman
CEO, CREST	Member Secretary
Secretary Home	Member
Secretary Finance	Member
Secretary Transport	Member
Secretary Power	Member
Secretary Estates	Member
Deputy Commissioner	Member
ACO, CREST	Member

The UT Electric Vehicle Advisory Committee shall meet at least once every 6 months and will perform the following roles:

- Review the implementation and effectiveness of the UT Electric Vehicle policy and undertake necessary amendments if required to achieve the objectives of the policy.
- Recommend/Amend enabling institutional structure necessary to implement this policy if required.
- Advise on inter-departmental coordination on matters related to this policy.

10.2 UT Electric Vehicle Implementation Committee

CEO, CREST	Chairman
Director Transport	Member
Commissioner, MC	Member
Estate Officer	Member
Special Secretary, Finance	Member
Chief Architect, Urban planning	Member
Chief Engineer, Engineering Department	Member
Project Director , CREST	Member Secretary

The UT Electric Vehicle implementation Committee shall meet at least once in every 2 months and will perform the following roles:

• Implement the framework of this policy and undertake necessary amendments if required at the ground level to achieve the objectives of the policy

- Develop/formulate SOPs/notifications/guidelines for further progression of this policy.
- Invite industry stakeholders to understand their challenges and adopt suitable measures to mitigate the same and propose any amendments as required
- Recommend to Advisory committee for amendment in the members of the implementation committee as per the requirements from time to time bases.

10.3 Electric Vehicle Cell

UT Electric Vehicle implementation Committee will be operationally supported by a dedicated Electric Vehicle Cell under the leadership of CEO, CREST. An Officer In-charge for Electric Vehicle will be engaged to play a pivotal role in day-to-day monitoring and implementation of projects towards achieving the objectives of the Electric Vehicle Policy. The Electric Vehicle Cell shall also be responsible for addressing any grievances related to the Chandigarh Electric Vehicle Policy.

11 UT EV Fund

The Chandigarh Administration aims to create a 'UT EV Fund'. The Fund shall be used to promote EV adoption, including providing incentives for EVs and EV infrastructure. The UT EV Fund will aggregate the funds by following ways:-

- 1. Through annual Budgetary Provision by UT administration.
- 2. Allocated funds from combination of "Green Cess" on:
 - a. Road tax applicable to all ICE vehicles only,
 - b. Conventional Fuel,
 - c. Electricity

'Green Cess' rates in line with this provision shall be notified separately by CREST, U.T., Chandigarh.

12 Financial Outlay to implement the policy:

The UT Administration would provide necessary budgetary allocation during the policy period. The overall budget would be allocated across the target segments in line with the guidelines prescribed in the FAME II.

13 Annexure I – 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
СРО	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
MoHUA	Ministry of Housing and Urban Affairs
JERC	Joint Electricity Regulatory Comission
CPCC	Chandigarh Pollution Control Committee
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