



PUNJAB ELECTRIC VEHICLE POLICY (PEVP) 2019



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List of Abbreviations

#	Abbreviation	Full Form
1	2W	Two Wheelers
2	3W	Three Wheelers
3	4W	Four Wheelers
4	AKIC	Amritsar Kolkata Industrial Corridor
5	ASDC	Automotive Skill Development Council
6	BEV	Battery operated Electric Vehicle
7	CMVR	Center Motor Vehicle Rules
8	COE	Centre of Excellence
9	DLIC	District Level Implementation Committee
10	E2W	Electric Two Wheelers
11	E3W	Electric Autos, E-Rickshaws & E-Karts
12	E4W	Electric-Passenger Carrier, LCV, State Carriage, Maxi Cabs & Taxis
13	EV	Electric Vehicles
14	EVI	Electric Vehicles Initiative
15	FAME	FAME India Scheme [Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India]
16	FCI	Fixed Capital Investment
17	G.S.R.	General Statutory Rules
18	GST	Goods & Service Tax
19	IEC	Information, Education and Communication
20	kVAh	Kilo Volt Ampere Hours
21	LCV	Light Commercial Vehicles
22	MBBL	Model Building Bye-Laws
23	MoHUA	Ministry of Housing & Urban Affairs
24	MoRTH	Ministry of Road Transport & Highways
25	NATRiP	National Automotive Testing & R&D Infrastructure Project
26	NEMMP	National Electric Mobility Mission Plan
27	OEM	Original Equipment Manufacturer
28	PEPSU	PEPSU Road Transport Corporation
29	PEVA&M	PUNJAB ELECTRIC VEHICLE ADOPTION & MANUFACTURING POLICY
30	PSDM	Punjab Skill Development Mission
31	PSERC	Punjab State Electricity Regulatory Commission
32	PSPCL	Punjab State Power Corporation Limited
33	PUNBUS	Punjab State Bus Stand Management Company
34	R&D	Research & Development
35	RFP	Request for Proposal
36	RTA	Road Transport Authority
37	RWA	Residents Welfare Association
38	SDGs	Sustainable Development Goals

#	Abbreviation	Full Form
39	SLNA	State Level Nodal Agency

FINAL DRAFT

1. Context and Need for Policy

Adoption of Electric Vehicles ('EVs') for road transport contributes to a wide range of goals. These include - better air quality, reduced noise pollution, enhanced energy security and in combination with a low carbon power generation mix, reduced greenhouse gas emissions. India is a member of the Electric Vehicles Initiative (EVI), a multi-governmental policy forum dedicated to accelerating the deployment of EVs. The EV@30 campaign, launched in 2017, sets a collective aspirational goal for all EVI members to have EVs contribute to 30% of all vehicle sales by 2030.

In order to enable this paradigm shift in road transport, Government of India formulated a roadmap-National Electric Mobility Mission Plan 2020 with a vision to facilitate EV sales of 6-7 mn units by 2020. As a part of the plan, FAME (Faster Adoption and Manufacture of (Hybrid and Electric Vehicles) pilot scheme was launched in 2015 with an objective to promote new technologies, promotion and adoption followed by launch of FAME 2 with much bigger budget to enable demand and infrastructure creation to support transformation of mobility. Additionally, the Phased Manufacturing Program as been launched to promote indigenous manufacturing of EVs & EV components and provide a thrust to EV manufacturing in India.

It is estimated that the success of FAME II coupled with other policy initiatives including State policies would result in EV sales penetration of 30% of private cars, 70% of commercial cars, 40% of buses and 80% of 2Ws and 3Ws can be achieved by 2030¹.

1.1. Need for a Punjab EV Policy:

With various initiatives/schemes launched by Government of India, both EV adoption and manufacturing is expected to be bolstered in next decade. Now, the impetus has to come from States & Cities to develop policy and implementation framework to provide necessary enablers and eco system to drive EV manufacturing and adoption.

Punjab is well placed as an Auto & Auto Ancillary manufacturing destination **with leading players already present in the State, access to large consumption markets and state of art infrastructure**. Further, Government of Punjab recognizes the need for promoting cleaner mobility considering high level of vehicular emissions in Major Cities- Ludhiana, Jalandhar, Patiala, Amritsar & Bhatinda contribute to more than 50% of Vehicular Emissions in the State.

Therefore, Government of Punjab recognizing the potential of EVs as a long-term sustainable solution for India, has decided to develop a dedicated policy for promoting EV & EV Component Manufacturing and supporting EV adoption in the State with a prime focus on promoting cleaner mobility and creating jobs.



1.2. 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, the incentives shall be extended only for the policy period unless otherwise mentioned/notified.





¹ India's Electric Mobility Transformation, NITI AAYOG, April 2019


2. Objectives of the Policy



Punjab EV policy has been developed with the following objectives, designed for direct and indirect impact on multiple UN Sustainable Development Goals (SDGs). Detailed rationale for alignment with various targets under SDGs is appended as Annexure 1.




- 2.1 **Reducing Vehicular Emission** – To bring about reduction in vehicular emissions by end of policy





- 2.2 **Adoption** – To drive adoption with an aim to have 25% of annual vehicle registrations as Electric Vehicles in the last year of policy







- 2.3 **Infrastructure** - To promote creation of public and private EV Charing Infrastructure in the state






- 2.4 **Manufacturing** – To establish Punjab as a favoured destination for manufacturing electric vehicles, components and batteries



- 2.5 **R&D** – To establish Punjab as a R&D hub in electric vehicles led by a Centre of Excellence (CoE)




- 2.6 **Human Resource** – To enable job creation and introduce vocational (skilling and up-skilling) and academic training programmes for catering to human resource needs of EV ecosystem



- 2.7 **Startups** – To foster an environment of innovation by promoting start-ups in EV sector



- 2.8 **Ensuring sustainability** – To minimize damage to environment by promoting recycling and reuse of discarded batteries

3. Developing a Robust EV Ecosystem

Almost half of the vehicular emissions in Punjab are contributed by 5 cities - Ludhiana, Jalandhar, Patiala, Amritsar & Bhatinda, additionally there is a large inter-state vehicle moment in Mohali being a part of tri-city. These cities shall be collectively referred as “Target Cities” under this policy.

The most emitting vehicle segments² in these cities are buses, taxis, LCVs, 3W and 2W. EV adoption in these segments would maximize reduction in vehicular emissions. Government of Punjab recognizes that catalysing adoption in these segments would require incentives towards making the EVs cost competitive and development of adequate charging infrastructure. Hence, this policy focuses on:

- a) Driving adoption of two wheelers by the way of adoption incentives
- b) Supporting adoption of electric vehicles for public, shared and goods transport (buses, taxis, LCVs and 3W)
- c) Creation of adequate provisions for EV Charging Infrastructure

3.1. Encouraging Adoption of EVs

3.1.1. Definition:

- a) **Electric Vehicle:** which are listed as eligible as per FAME II and having passed all the eligibility and testing conditions as specified under the scheme OR vehicles with swappable batteries/ any other vehicle notified eligible by Transport Department, Government of Punjab.

3.1.2. E-Two Wheelers:

- a) More than three-fourths (76%) of new vehicle registrations in the state comprise of 2Ws (motorcycles, mopeds and scooters) during the period 2013-19. This policy aims to increase the share of e-2Ws significantly to reach 25% of new sales over the policy period.
- b) **Supporting Transition of E2W** Following incentives shall be provided under Punjab EV Policy in addition to incentives under FAME II to support the transition
 - i. **Private E2W:**
 - 100% waiver on Motor Vehicle Tax during policy period. Additionally for vehicles manufactured in Punjab, this waiver shall be applicable for a period of 10 years.
 - ii. **Commercial E2W:**
 - 100% waiver on Permit Fee & Motor Vehicle Tax during policy period. Additionally, for vehicles manufactured in Punjab this waiver shall be applicable for a period of 10 years.
 - Fleet & delivery companies will be encouraged to achieve 100% transition towards electric in “target cities” in a phased manner.

3.1.3. E-3W- Electric Autos, E-Rickshaws & E-Karts

- a) **E-Autos-** The total number of passenger 3Ws sold during the period FY13-19 was 29,918 which were ~13% of total transport vehicles and ~0.6% of total vehicle sales during the period. In addition, more than 75% of the existing 3W fleet in Punjab is diesel based. This scenario presents an attractive opportunity to leapfrog from diesel

² Excluding HCVs and Tractors

autos to e-autos. This policy aims to increase the share of e-autos significantly to reach 25% of new sales over the policy duration period in the target cities.

- b) **E- Rickshaws**-The number of registered e-rickshaws sales during the period FY'13-19 was just 191. This may be because of a large number of these vehicles being not registered. E-rickshaws provide an excellent value proposition for last mile connectivity and have also emerged as a livelihood opportunity. The policy will aim to support the use of e-rickshaws that are safe and driven in compliance with regulations.
- c) **Supporting Transition of E3W:** Following incentives shall be provided under Punjab EV Policy in addition to incentives under FAME II to support the transition:
- i. **E-Autos:**
 - 100% waiver on Permit Fee and Motor Vehicle Tax during policy period. Additionally, for vehicles manufactured in Punjab this waiver shall be applicable for the period of 10 years.
 - Only E-autos will be granted fresh permit in “target cities”. Fleet owners will be allowed to obtain and hold e-auto permits subject to guidelines issued by Department of Transport, Government of Punjab.
 - ii. **E-Rickshaws:** A special drive for mandatory **free registration** of existing e-rickshaws will be organized by Department of Transport. 100% waiver on Permit Fee and Registration Fees during policy period. Additionally, for vehicles manufactured in Punjab this waiver shall be applicable for a period of 10 years.
 - iii. **Goods Carrier 3W:**
 - 100% waiver on Permit Fee & Motor Vehicle Tax during policy period. Additionally, for vehicles manufactured in Punjab this waiver shall be applicable for a period of 10 years.
 - Fleet & businesses will be encouraged to achieve 100% transition towards electric in “target cities” in a phased manner.

3.1.4. E-4W- Passenger Carrier, LCV, Stage Carriage, Maxi Cabs & Taxis

- a) The total number of taxis registered in Punjab during the period FY13-19 is 38,155, almost 80% of these registered taxis in Punjab are diesel based. This policy aims to increase the share of e-taxis significantly to reach 25% of new sales over the policy duration period in the target cities and also promote usage of e-LCV for goods carriage within the cities.
- b) **Supporting Transition of E2W:** Following incentives shall be provided under Punjab EV Policy in addition to incentives under FAME II to support the transition:
- i. **Private 4W:** 100% (50% for Hybrids) waiver on Motor Vehicle Tax during policy period. Additionally for vehicles manufactured in Punjab this waiver shall be applicable for a period of 10 years.
 - ii. **Commercial 4W (Goods & Passenger Transport):** 100% (50% for Hybrids) waiver on Permit fee & Motor Vehicle Tax during policy period. Additionally, for vehicles manufactured in Punjab this waiver shall be applicable for a period of 10 years. Fleet & businesses will be encouraged to

achieve 100% transition towards electric in “target cities” in a phased manner.

- iii. **Vehicles in Public fleet (Owned or Contracted by Govt.):** Government of Punjab would target to achieve 100% transition of public fleet to electric in a phased manner. BEVs would be given priority in all fresh procurement of vehicles/services.
- iv. **Corporate Fleets:**
 - 100% (50% for Hybrids) waiver on Motor Vehicle Tax during policy period. Additionally, for vehicles manufactured in Punjab this waiver shall be applicable for a period of 10 years.
 - All corporates/institutions in the “target cities” will be encouraged to sign up for a phased transition of their fleet. Government of Punjab shall organize special felicitation to recognize and encourage such corporates.

3.1.5. Buses

- a. At present almost 90% of bus fleet in Punjab are diesel based. The policy shall focus on progressively replacing 25% of bus fleet under Department of Transport to e- buses. Department of Transport in consultation with PUNBUS/PEPSU would identify:
 - High Volume inter-city bus routes to be considered for transition to EV on priority
 - City Bus fleet routes within in target cities to be considered for transition to EV
- b. PUNBUS/ PEPSU to formulate an action plan for transitioning the fleet to EV and would be encouraged to procure/operate e-buses as per FAME II guidelines.
- c. Private Bus operators would be encouraged to operate buses in identified routes and would be offered 100% waiver on Permit Fee for these routes & Motor Vehicle Tax for a period of 5 years and in case such bus is manufactured in Punjab this waiver shall be applicable for a period of 10 years

NOTE:

- All adoption incentives listed above would be paid in accordance to notification issued to respective RTA by Transport Department, Government of Punjab.
- The applicability of annual waiver shall be administered only in the policy period. Please refer to the following illustration for more clarity:
Suppose the policy becomes effective in Jan'2020 & an eligible vehicle under this policy is registered in 2021, in such case the annual waiver will be applicable till 2025 (i.e. for 4 years). Additionally, if the vehicle bought is manufactured in Punjab the validity of annual waiver would be till 2030 (i.e. for 9 years).

3.1.6. Green Number Plates

- a. In line with the notification G.S.R. 749(E) dated 7th August, 2018 in Central Motor Vehicles Rules, 1989, Rule 50, after sub-rule (2) a provision for Green number plates has been made for commercial and private vehicles. The sub rule referred above is:

“In case of Battery Operated Vehicles, the registration mark shall be exhibited in Yellow colour on Green background for transport vehicles and for all other cases, in White colour on Green background”

- b. The above shall be suitably implemented in State of Punjab.
- c. Following incentives shall be provided under Punjab EV Policy to vehicles with Green Number Plates:
 - i. **Tolls and Parking**
 - Tolls on select state highways, as notified by Government of Punjab, shall be waived off for Electric Vehicles with Green Number plates
 - Reserved slots shall be made available in all major public parking spaces across target cities and charging infrastructure installation shall also be promoted in these slots
 - Designated street parking spots to be identified and to be equipped with street-pole charging facility in “target cities”.
 - ii. **Green zones & Green Transportation Corridors**
 - Special ‘Green Zones’ shall be declared at strategic locations where only electric vehicles shall be permitted entry in “target cities”.
 - Special transport routes will be demarcated as ‘Green Corridors’ that shall encourage plying of electric vehicles in the route. Special focus shall be laid on developing charging infrastructure in the Green Corridors

3.1.7. IEC efforts

- a. Information, Education and Communication (IEC) efforts shall be undertaken by Department of Transport, Government of Punjab to make public at large aware about Electric Vehicles and advantages of adoption

3.1.8. Old Vehicles

- a. Department of Transport shall notify a detailed scrapping policy in line with the draft scrapping guidelines of MoRTH. Efforts would be made to incentivize EV buyers through transition credits.

3.1.9. Electric Micro Mobility- to enable last mile connectivity

Government of Punjab recognizes the significance of micro mobility as last mile mobility mode in the cities and through this policy would encourage private players to establish clean last mile micro mobility options in consultation with District Level Implementation Comm

3.2. Developing Network of EV Charging Infrastructure

Availability of robust charging infrastructure is a prerequisite and key driver for adoption of Electric Vehicles. This implies modification of infrastructure, such as roadways and parking spaces, to incorporate charging. The EV Charging industry is at a nascent stage both in terms of technology and operational models. Technology is evolving for ensuring compatibility with maximum type of vehicles and making charging faster and hassle free. Various operating models are emerging where swapping and charging are being offered as a service to public, private and fleet vehicles. It is therefore imperative that the policy gives a direction towards creation of charging infrastructure by the public and private sector.

3.2.1. Public Charging Infrastructure

The policy aims to provide easy access to a public charging facilities in 'Target cities' and major highways over the first 3 years of policy notification. This shall be extended to the entire state over the complete duration (5 years) of the policy implementation.

This shall be achieved through the following set of guidelines & incentives

a. **Regulations & Framework:**

- i. The state shall encourage setup of EV charging infrastructure as per Revised Charging Infrastructure guidelines & standards of Ministry of Power dated 1st October 2019 at strategic locations including public parking, railway stations, fuel pumps, stand-alone sites and major highways.
- ii. Punjab State Power Corporation Limited (PSPCL) is the state level nodal agency for implementation of Charging Infra. This agency would be responsible for setting up charging infra on State Highways in co-ordination with PWD and also aggregate procurement at the State Level
- iii. As described in the Institutional Structure section of this policy, each district shall have a District Level Implementation Committee (DLIC) which shall be responsible for creation/approval of charging infrastructure. The committee shall initially create a district level implementation roadmap which shall identify the needs and locations for public charging station, charging and swapping spots across existing infrastructure viz Parking Spots/Lanes/ Street pole Charging. Broad responsibilities of key departments are defined in the Institutional Structure section of this policy.
- iv. PSPCL and DLIC would be responsible for providing permit and inspection of charging infra and would develop detailed guidelines for the same to simplify the approval, renewal and inspection process to be completed in a time bound manner.

b. Incentives for Creation of Public Charging Infra through PPP:

- i. **Capital Subsidy:** First 1000 charging points shall be eligible for 25% capital subsidy on equipment/machinery (limited up to a total of Rs. 50,000 per charging point). In case the charging equipment is manufactured in Punjab, the maximum capital subsidy shall be 50% (limited up to a total of Rs.1 Lakh per charging point).
- ii. **Concessional Locations:** the state shall identify appropriate locations along busy routes/highways, public parking zones, bus depots, terminals etc. that can offer easy entry and exit of vehicles wherein concessional lease rentals shall be charged for establishment of public charging stations.
- iii. **Enhanced usage rights-** To make the public charging stations viable, the operators shall be allowed to operate/sub-let up a certain percentage of the allocated space from charging station for lounges/retail kiosks etc. for which separate guidelines/notifications shall be issued
- iv. All incentives shall be dovetailed with FAME 2 or any other Central Government Schemes.

3.2.2. Private Charging Infra:

- a. It is anticipated that most private EV users will use home and workplace charging points and would access public charging points for non-daily routes.
- b. Appropriate amendments shall be undertaken in building bye-laws to ensure EV Charging infrastructure availability in both residential and non-residential buildings in line with **Amendments in Model Building Bye-Laws (MBBL-2016) for EVCI by Ministry of Housing and Urban Affairs. (MoHUA) as under:**

	New and Renovated Buildings
Non- Residential (Shopping complexes, malls, hotels, office spaces etc.) with parking demarcated for at least 10 cars	Atleast 1 Electric Charging Spots (ECS) for every 3 parking slots 100% EV ready with conduits in place
Residential (housing societies run through co-operatives, group housing and those managed through RWAs) with parking demarcated for at least 10 cars	Atleast 1 Electric Charging Spots (ECS) for every 5 parking slots 100% EV ready with conduits in place

- c. All corporates/developers/RWAs in “Target Cities” shall be encouraged to establish EV charging infrastructure in their respective existing premises.
- d. The state envisages that a section of vehicles including 2W and 3W may employ a battery swapping model for carrying out operations. Swapping stations shall be considered at par with Private Charging Stations under this policy.
- e. **Enablers for Private Charging/ Swapping Infra Creation**
 - i. **Dedicated approval & inspection desk:** A dedicated desk for quick and easy approval for permission, creation of infra provision and inspection of private/fleet EV charging infra will be setup under PSPCL (State Level Nodal Agency).
 - ii. **Concessional Locations:** the state/cities shall identify locations which can be provided at a concessional rate for setting up fleet/private EV Charging/Swapping Infra.

3.2.3. Power Tariffs:

- a. Currently Punjab State Electricity Regulatory Commission through its order dated 27th May 2019 has defined EV Charging Stations as a separate category under Single Part Tariff rate of ₹ 6.00 per kVAh under the Schedule of Tariff applicable for Non Residential Supply (NRS) category.
- b. The above power tariff shall also be applicable for fleet charging/ swapping stations
- c. 100% electricity duty exemption for the policy period (5 years) for EV Charging points
- d. **Time of Day tariffs:** A special ToD tariff may be considered for EV charging infrastructure in off-peak hours, if needed.
- e. **Encouraging Renewable Power:** In order to increase clean energy and achieve reduction in well to wheel emissions, Charging Infra operators would be encouraged to use Renewable Energy (RE), for such operators wheeling charges shall be waived off subject to approval of PSERC.

3.3. Strategic Initiatives – R&D and Innovation

3.3.1. Punjab E Mobility Centre of Excellence (CoE) - The state will enable development of a Centre of Excellence in e-mobility in partnership with an academic partner. The State shall encourage premier technical institutions in the state to partner on merit basis for setting up this centre, along with the industry. It is expected that the CoE would set world class benchmark in design, development and validation for EVs and smart mobility.

Following would be the broad scope of work for the CoE:

Domain	Broad scope
Analytics	Provide analytics to the state in terms of adoption, vehicular emissions and other electric mobility related parameters for policy implementation evaluation and improvement
Collaboration	It shall establish tie-ups with leading international and national institutions for effective knowledge transfer and development of technology
Standards & related guidance	Provide guidance/ set up of state standards (as needed) for EV Charging infrastructure, vehicles and other related items taking into account guidelines by Central Government and state needs
Research & Development	The CoE shall act as a focal point for Research & Development in the state, across EV value chain, including research towards reduction of battery costs, increasing range of vehicles and assimilation of global developments in EV technology.
Incubation	Provide necessary incubation support/ facilities to E-Mobility start-ups in collaboration with 'Startup Punjab'
Skill Development	Facilitate skill development in EV sector by involving all relevant stakeholders
Special state needs	Tractors in Punjab account for one of the largest share in vehicular emissions, the CoE shall encourage R&D for development of electric tractors in collaboration with industry players

3.3.2. EV Testing Centre: a state of the art testing, validation and R&D infrastructure is critical for creating a robust EV ecosystem in the state. The state will explore the possibility of setting up a new test centre in Punjab with appropriate authorization, which could cater to requirements of the entire region.

3.3.3. Start-ups & Entrepreneurship: Innovation led entrepreneurship is key to development of a fast emerging sector like EV. Acceleration to EV adoption shall be led by start-ups offering innovations in e-mobility to users and manufacturing companies.

- a. The mobility startups shall be supported by incentives to incubators and start-ups laid down in Punjab Industrial and Business Development Policy, 2017
- b. The state shall encourage participation of Startups in public procurements by waiving off prior experience or turnover requirements so long as the product meets the desired specifications in line with notification No.Cos/Start-ups/2019/11288 dated August 16, 2019.

3.4. Recycling/Reuse of EV Batteries

The global stockpile of EV batteries is forecasted to exceed the equivalent of about 3.4 million packs by 2025³. Since, EV batteries are fairly usable for additional years post their primary useful life, there is a need to create an effective mechanism for re-use and recycle of these devices.

3.4.1. Reuse of EV batteries:

- a. Disposal/Dumping of EV Batteries in trash and landfills will be prohibited, a separate notification would be issued in this regard.
- b. Relevant OEMs and private eco system players will be encouraged to operate schemes for Battery buy back; Government would encourage creation of an e-marketplace for resale of used batteries

3.4.2. Recycling of EV Batteries:

- a. Relevant OEMs and private eco system players will be encouraged to set up recycling facilities for batteries.
- b. The CoE shall support the state in adopting suitable methods of disposing and recycling of batteries and create solutions for challenges facing the industry.
- c. The state will facilitate setting up of recycling units for EV batteries with suitable incentives.

4. Encouraging Manufacturing Ecosystem for EVs in Punjab

The policy aims to create an enabling environment for manufacturing of EV and energy storage devices so that the state can attract investments expected in the sector. Towards this objective, the following is proposed:

4.1. Manufacturing units

- a. The state of Punjab has identified e-vehicle and energy storage devices as one of the thrust areas in the manufacturing sector. The definition of e-vehicles and energy storage devices would be elaborated as below:

“e- vehicles and energy storages units (herein after called EV Units)” would include end to end ecosystem i.e. battery manufacturing, EV Manufacturing, EV Component Manufacturing- motors, controllers, powertrains, battery management systems, charging equipment, swapping equipment, power convertors, telematics, solar systems for EVs”

“EV Related technology companies” would be added to list of service enterprises under MSME or large category eligible for fiscal incentives under Punjab Industrial and Business Development Policy 2017

- b. As per the Punjab Industrial and Business Development Policy 2017, the state shall make endeavours and provide special incentives to attract anchor unit for EV manufacturing in the state. Also the state shall encourage EV manufacturing and setup special facilities in the automobile park to be developed as a part of Amritsar Kolkata Industrial Corridor (AKIC).
- c. Further EV would also be added as Sector for Anchor Units with Minimum FCI INR of 50 Cr. OR Minimum Direct Employment Generation of 500. As per the Punjab Industrial and Business Development Policy 2017, the state shall enable creation of infrastructure in the form of readymade Flatted factories with power, water, sewage

³ Source: Bloomberg NEF Data

- and testing facilities on a ready built basis to enable ancillaries to be set up. EV-related technology companies for telematics, autonomous driving and other related electronics/IT units shall also be facilitated for setting up in vicinity of factories.
- d. The following are the existing incentives under Punjab Industrial and Business Development Policy 2017 for Anchor Units.
- i. **GST Reimbursement:** 100% reimbursement of net SGST for a period of 15 years subject to maximum 200% of fixed capital investment
 - ii. **Employment Subsidy:** employment generation subsidy of Rs. 36,000 per male employee per year for a period of 5 years and Rs. 48,000/ per employee per year for a maximum period of 5 years in case of females and SC/ST/OBC employee (as certified by a government agency). This will be applicable without any domicile restriction
 - iii. **Change of Land Use (CLU)/ External Development (EDU) Charges:** 100% exemption from CLU/EDU charges for anchor units
 - iv. **Electricity Duty:** 100% exemption from electricity duty for 15 years
 - v. **Labour Flexibility:** Subject to applicable guidelines on security for night shifts, anchor units will be eligible to run three shifts (24x7) operations

All other incentive for Startups/ MSME/ Large units as defined under Punjab Investment and Business Development Policy would be applicable for EV Units.

4.2. Hi-tech Cycle Valley, Ludhiana

- a. The state will encourage setting up EV/Battery units in the new industrial park located over 380 acres in Dhanansu village of Ludhiana district.
- b. The valley has already emerged as the hub of e-bikes. It is being equipped with state of the art infrastructure including common facilities for effluent treatment, water treatment plant, design facilities, convention and exhibition centre, warehousing and logistic services amongst other facilities.

4.3. Special concessions for EV Units

- a. **Giga Battery Manufacturing Unit:** State will actively encourage and engage with EV battery manufacturers to enable setting up of at least one Giga battery manufacturing unit in the state. Incentives for the same will be customized on case to case basis.
- b. **E-tractor manufacturing:** Punjab is the leading manufacturer of tractors in the country and envisions being the leader in e-tractors manufacturing and usage. The state will encourage existing and new tractor OEMs to develop prototype suitable for Indian conditions. The state will encourage proposals from the industry to set up dedicated anchor units to manufacture e-tractors in the state and shall provide additional incentives over and above those applicable for anchor units of other EVs. These shall be decided on merit of proposals received by the State.

All above listed incentives would be paid in accordance to "Detailed Scheme and Operational Guidelines'2018 for availing fiscal incentives under Industrial and Business Development Policy'2017"

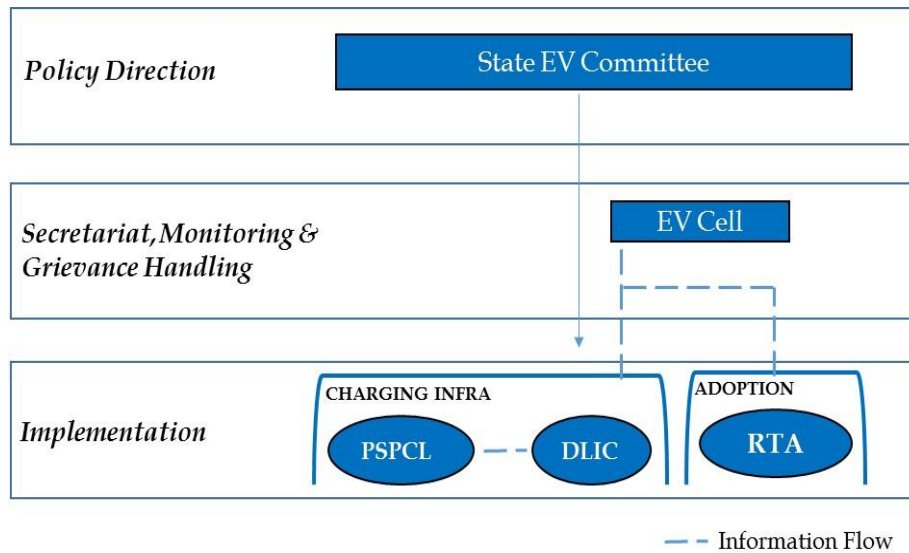
4.4. Skilling Initiatives for EV Ecosystem

Availability of skilled manpower for the sunrise sector of e-mobility is critical for creation of a robust ecosystem. In this regard, the state will undertake the following:

- a. **Masters' Programs:** State will encourage technical institutions under Dr. BR Ambedkar University, Punjab University, NIT Jalandhar and IIT Ropar to develop and run specialised master's programs dedicated to smart mobility solutions. Education institutions will be encouraged to rope in industry partners in designing the curriculums and training required for such programs. The state shall establish a scholarship program for the first 2000 students, for training of new engineers in EV domain.
- b. **Skilling Centre:** In line with the aim of setting up one skill centre for each identified industrial cluster, the Government will set up at least one skill centre under the aegis of the Punjab Skill Development Mission dedicated to smart mobility solutions in the vicinity of the Hi-tech cycle valley.
- c. **Short-term Courses:** To satisfy the immediate needs of the EV industry, re-skill people working in existing auto/auto-ancillaries industries and manpower required for repair/maintenance of EVs, short term courses of 3-6 months will be introduced in partnership with technical institutions and NSDC training providers. Education institutions will also be encouraged to explore partnership with global universities and leading industries to roll out certified short term courses.
- d. **Punjab Skill Development Mission (PSDM)** in collaboration with Automotive Skill Development Council (ASDC) shall introduce courses related to maintenance and manufacturing of Electric Vehicles in existing skill development initiatives being implemented and also collaborate/support "EV Units" for launching Apprenticeship Program

5. Policy Implementation and Institutional Structure

The Department of Transport Government of Punjab will be the nodal department for the implementation of Punjab State EV Policy. Following measures shall be taken to ensure a smooth implementation of various proposals in the State EV Policy:



5.1. EV Cell:

A dedicated EV cell shall be established within the Transport Department for effective day-to-day implementation of the EV Policy. It will be led by a Chief EV Officer who shall be supported by adequate and competent staff to exclusively deal with all matters related to electric mobility & this policy including grievance handling.

5.2. State EV Committee:

- a. The Working Group which was created to formulate the state EV policy shall be re-established into a State EV Committee as the apex body for effective implementation of the State EV Policy. It will be chaired by the Hon'ble Minister of Transport, Government of Punjab, and comprise of the following members:
 - Principal Secretary, Department of Transport (Member Secretary)
 - CEO- Punjab Bureau of Investment Promotion, Department of Industries
 - Principal Secretary- Local Government, Department of Local Government
 - Principal Secretary- Department of Housing and Urban Development
 - Principal Secretary- Power, Department of Power
 - Member Secretary, Punjab Pollution Control Board
 - Chief EV Officer, Government of Punjab
 - Industry Experts from the EV industry to be nominated from the domains of OEM-vehicles, OEM-Batteries, Charging Infra Operators and others key EV ecosystem stakeholders
- b. The State EV Committee shall be fully empowered for the various incentive schemes and projects emanating out of the State EV Policy. The Committee will meet at least once every three months (or earlier) and will perform the following roles:

- i. Review the implementation and effectiveness of the policy and undertake necessary and sufficient corrective measures / changes / amendments if required to achieve the objectives desired under the policy including but not limited to formulating detailed operating guidelines and issue relevant notification as per the Policy.
 - ii. Put in place relevant institutional decisions necessary to implement this policy (e.g., notifying list of approved vehicles, identifying public charging spaces and battery swapping locations etc.)
 - iii. Bring about inter-departmental coordination in respect of matters related to this Policy.
 - iv. Review the definitions of EV, EV components, Battery and Charging Station or any other related definitions and approve the amendments as deemed appropriate.
 - v. Invite industry to understand their challenges and take appropriate policy decisions to meet the challenges
- c. Broad responsibilities of each of the departments of the Committee are as follows:
- **Department of Transport**
 - As a nodal agency of this policy, the department shall undertake periodic review of the policy as per local needs and directives/guidelines from Central Government
 - Issue notifications/directives for smooth implementation of the policy
 - **Department of Industries**
 - The department shall be responsible for making arrangements of funds for providing incentives to electric mobility businesses setup in the state.
 - Punjab Bureau of Investment Promotion shall facilitate activities for attracting investment in EV sector.
 - **Department of Local Government & Department of Housing and Urban Development**
 - The department shall make suitable changes to the building bye-laws
 - Implementation of modified bye-laws at city level
 - Facilitate land and other relevant approvals
 - **Department of Power**
 - The department shall periodically review tariffs and consider special incentives on power usage for EV Charging Infrastructure.
 - The department shall periodically consider power related guidelines issued by Central Government and adapt the same for state.
 - It shall also issue directives to electricity distribution companies for facilitating required connections for Public and Private EV Charging infrastructure on a priority basis.
 - **Punjab Pollution Control Board**
 - i. Board shall monitor vehicular emissions in the State to support policy strategies and evaluate effectiveness

5.3. State Level Nodal Agency for Charging Infrastructure

As per MoP letter no 12/2/2018-EV dated 14th December, 2018, PSPCL shall be designated as SLNA for implementation of EV Charging Infra the roles and responsibilities of SLNA are as below:

- i. Development of Public Charging Infra at Highways.
- ii. Preparation of Model RFP for appointment of consultant for developing EV Charging Infra Implementation and Financing Roadmap for Cities. This shall result in a comprehensive implementation roadmap study for understanding the needs and identification of locations for the cities.
- iii. Aggregate City Implementation Roadmap(s) and formulate a State Level procurement strategy for EV Charging Infra.
- iv. Develop agreements/RFPs and standards for establishment of Public Charging Infrastructure based on guidelines from Central Government with assistance of EV cell.
- v. Invite tenders for all the 'target cities' on an aggregated level with common standards and model
- vi. Act as a "Single Gate" for all approvals required for setting up EV Charging Infra in coordination with District Level Implementation Committee.

5.4. District Level Implementation Committee (DLIC)

A District Level Implementation Committee shall be formed to operationalize the policy in the 'target cities'. The committee shall oversee the implementation of policy initiatives special projects and provide necessary approvals for the city as decided by the State EV Committee. The committee shall provide necessary progress reports to the State EV Committee. The committee shall be District Collector and co- chaired by Municipal Commissioner of the city and shall be comprised of following members:

- District Collector
- Commissioner, City Development Authority/ ULB (Member Secretary)
- CEO, Smart City (if any)
- Incharge, Regional Transport Authority
- Senior Representative of local Power Distribution Company
- Manager, District Industries Center
- Representative of Department of Town and Country Planning
- District representative of Punjab Pollution Control Board
- Representative from Fire Department

Broad responsibilities of departments are as follows:

- i. **Transport Department** - Policy interpretation and coordination with state EV Cell. Enable implementation of incentives related to the department
- ii. **Urban Development Department/ ULB/ SMART City** - dovetail funds such as SMART City funds and other urban development funds; Town and Country Planning rules amendments at local level to facilitate establishment of such infra
- iii. **City Government** - act as a nodal agency for setup of city level infrastructure, identification of charging locations & facilitation and dovetailing of funds from various sources. Facilitate for city level implementation through RFPs developed by State Level Nodal Agency.
- iv. **Power Distribution Company** - establish public charging infrastructure or provide power supply to Charging Infra on best effort basis

Annexure 1 - Punjab EV Policy contribution towards achieving SDGs

Implementation of this policy towards the objectives shall result in direct and indirect impact on multiple Sustainable Development Goals (SDGs). The major direct impact would be due to reduction in usage of fossil fuels and thereby limiting vehicular emissions.


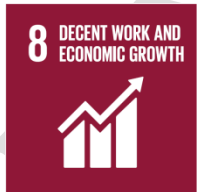
Following are some of the SDGs that shall be impacted directly or indirectly by implementation of this policy.

SDG	Target and Rationale
	<p>Ensure healthy lives and promote well-being for all at all ages</p> <p>Target 3.4 - by 2030 reduce by one-third pre-mature mortality from non-communicable diseases (NCDs) through prevention and treatment, and promote mental health and wellbeing - World Health Organization (WHO) estimates that around 7 million people die every year from exposure to fine particles in polluted air that penetrate deep into the lungs and cardiovascular system, causing diseases including stroke, heart diseases, lung cancer and respiratory infections⁴. Adoption of electric vehicles will improve overall air quality and lower carbon emissions thus mitigating the risks associated with air pollution resulting longer and healthier life span.</p> <p>Target 3.9 - by 2030 substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution contamination - 43% of all lung diseases and lung cancer deaths are attributable to air pollution⁵. Additionally 80% of people living in urban areas that monitor air pollution are exposed to air quality levels that exceed WHO guideline limits, with low and middle income countries suffering from the highest exposures. This policy shall lead to adoption of EVs that help in reducing vehicular emissions which lead to reduction in pollution and contamination of the environment.</p>
	<p>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</p> <p>Target 4.4 - by 2030, increase participation of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship - Government of India Automotive Mission Plan 2026 estimates to generate 65 million new jobs in automotive industry. Within the plan electric mobility mission is expected to generate 10 million jobs⁶. The plan involves creating a skilled workforce with electric vehicle expertise in areas such as design and testing, battery manufacturing and management, sales, services and infrastructure. The policy promotes skill development and</p>

⁴ <https://www.who.int/news-room/detail/02-05-2018-9-out-of-10-people-worldwide-breathe-polluted-air-but-more-countries-are-taking-action>

⁵ https://www.who.int/gho/phe/outdoor_air_pollution/en/

⁶ <http://www.siamindia.com/uploads/filemanager/47AUTOMOTIVEMISSIONPLAN.pdf>




	<p>entrepreneurship by way of providing incentives and suitable environment for promotion of this upcoming industry.</p>
	<p>Ensure access to affordable, reliable, sustainable, and modern energy for all</p> <p>Target 7.1 - By 2030, ensure universal access to affordable, reliable and modern energy services- Cars and buses exponentially expand opportunities and represent personal freedoms for individuals worldwide. But this also resulted in exponential increase in global air pollution levels. Research indicates that automobiles are the primary source of air pollution in India's major cities. The transportation sector emits an estimated 261 tonnes of CO₂, of which 94.5% is contributed by road transport⁷. This policy will support the transition towards a cleaner mode of transportation powered by reliable and renewable source of energy.</p> <p>Target 7.3 - double the global rate of improvement in energy efficiency by 2030 - 80% of the global energy consumption for transportation comes from non-renewable sources of energy⁸, thus renewable penetration remains low yet unexploited potential exists. One avenue for sustainable and modern energy would be shifting into electricity, such as electric vehicles. Adoption of EVs driven by this policy shall lead to improvement in energy efficiency with reduction on dependency towards greenhouse emitting fossil fuels.</p>
	<p>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</p> <p>Target 8.2 - achieve higher levels of economic productivity through diversification, technological upgrading and innovation, including through a focus on high-value-added and labour-intensive sectors - Government of India launched the automotive mission plan 2016-26 with the potential for incremental number of both direct and indirect jobs. It is been estimated that Indian automotive industry over the next decade would produce nearly 65 million jobs⁹. This is complimented by India's electric mobility mission which aims at generating 10 million specialized jobs in design and testing, battery manufacturing and management, sales, services and infrastructure of electric vehicles¹⁰. This policy aims to attract investments in EV, components and battery manufacturing which shall promote employment directly and adoption shall also lead to employment for operations and maintenance of EVs.</p>

⁷ <https://www.automotiveelectronics.com/vehicular-pollution-india/>

⁸ World Energy Resource Report - 2016


⁹ <http://www.siamindia.com/uploads/filemanager/47AUTOMOTIVEMISSIONPLAN.pdf>

¹⁰ <https://www.businesstoday.in/current/economy-politics/e-vehicles-industry-electric-mobility-mission-create-10-million-jobs-in-future/story/346804.html>

	<p>Resilient Infrastructure, sustainable industrialization and innovation</p> <p>Target 9.5 - Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, by 2030, encouraging innovation and increasing the number of research and development workers and public and private research and development spending - Investing in scientific research catalyses technological progress which holds the key for finding lasting solutions to economic and environmental challenges. Globally a revolution is unfolding in the transport industry which holds out the promise of significantly reducing deadly air and noise pollution in our cities. This policy promotes establishment of Centre of Excellence for Research and Development in area of Electric Vehicles which will promote development of this sector in South-East Asia.</p>
	<p>Make cities and human settlements inclusive, safe, resilient and sustainable</p> <p>Target 11.6 - by 2030, reduce the adverse per capita environmental impact of cities, including by paying special attention to air quality and municipal and other waste management - Almost half of the world's population live in urban centres with Africa and Asia urbanizing faster than the other regions. India's urban population is expected to grow from 410 million in 2014 to 814 million by 2050.¹¹ This rapid rate of urbanization and improvement in living standards would increase the spread of car ownership thus leading to degradation of air quality. Thus developing a sustainable transportation systems is vital for minimizing environment degradation in our cities. This policy shall promote adoption of private and public EVs, thereby reducing per capita environment impact</p>
	<p>Ensure sustainable consumption and production patterns</p> <p>Target 12.4 - By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment - Sustainable consumption and production aims is about promoting resources and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs and a better quality of life for all¹². This policy promotes the usage of EVs which will significantly reduce the contamination caused by vehicles. Additionally through this policy recycling and reuse of batteries after their life in EVs is encouraged therefore adverse impact on environment is minimized.</p>

¹¹ <https://www.teriin.org/resilient-cities/urbanisation.php>

¹² <http://in.one.un.org/page/sustainable-development-goals/sdg-12/>

	<p>Target 12.c - Rationalize inefficient fossil-fuel subsidies that encourage wasteful consumption by removing market distortions, in accordance with national circumstances, including by restructuring taxation and phasing out those harmful subsidies, where they exist, to reflect their environmental impacts, taking fully into account the specific needs and conditions of developing countries and minimizing the possible adverse impacts on their development in a manner that protects the poor and the affected communities - This policy promotes usage of EVs by providing several incentives and de-incentivising/ discouraging use of fossil fuel based vehicles</p>
	<p>Take urgent action to combat climate change and its impacts</p> <p>Target 13.2 - integrate climate change measures into policies, strategies and planning - The year 2017 was one of the three warmest on record and was 1.1 degrees Celsius above the pre-industrial period. It is been estimated that with each one degree Celsius of temperature increase in global mean temperature will reduce the average global yield of wheat by 6%, rice by 3.2% and maize by 7.4%¹³. One of the leading causes for global warming has been increase in global CO₂ levels. Within India's intended nationally determined contribution towards Paris Climate Agreement; adoption of the electric vehicles is identified as a key strategy. Therefore EV usage promotion and ecosystem development is a policy led initiative being taken by the Government which shall lead to combating climate change and its impacts</p>

¹³ <https://www.livemint.com/Politics/Each-degree-Celsius-rise-in-global-temperature-to-reduce-cro.html>

Annexure- 2

List of Notifications Enclosed:

Notification No. & Date	Issuing Agency	Subject
GSR 27E Dated 13 Jan 2014	MoRTH	Minimum Training required for E-Rickshaw/ E-Cart Registration of E-Rickshaw
GSR 709 E Dated 8 Oct 2014	MoRTH	Definition of E-Rickshaw & E-Cart Validity of Driving License for E-Rickshaw Fitness and Renewal Permit to Ply
GSR 903 E Dated 23 Sep 2016	MoRTH	Registration of E-Rickshaw
SO 2812 Dated 30 Aug 2016	MoRTH	Removal of Requirement of Permit
SO 2590 Dated 08 Oct 2014	MoRTH	Safety Standards for E-rickshaws and E-carts
SO3090(E) Date 8 Dec 2014	MoRTH	Corrigendum to Safety Standards
GSR 453 E Dated 15 May 2018	MoRTH	Green Plates for EVs
SO 441 Dated 9 Feb 2016	MoRTH	Standards EVs
SO 553 dated 18 Oct 2018	MoRTH	Removal of Requirement of Permit for EVs
MBBL 2016 dated Feb 2019	MoHUA	Charging Infra in Building Bye Laws
SO 1300 E dated 8 March 2019	DHI	FAME India Phase 2
No.21(48) /FAME/PHASE II/2019	DHI	FAME 2 Operational Guidelines
SO 1472 E dated 28 th March 2019	DHI	Eligibility of 2W, 3W & 4W under FAME 2
PSERC dated 27 th May 2019	PSERC	Tariff Order
GSR 430 E dated 19 June 2019- (Draft)	MoRTH	Exemption from Registration Fees for EVs
CEI 1/2/2018 dated 28th June 2019	MoP	Safety Standards for EV Charging Infra
S.O. 2068 dated 21st June 2019	DHI	FAME 2 Eligibility for Buses
CEA dated 27th June 2019	MoP CEA	Information on PCS
PIB dated 5th July 2019	MoF	Reduction of GST and Income Tax Exemption
F. No. RT.21018 (24)/ 2019-T dated 17 July 2019	MoRTH	Incentive of EVs & Shared Mobility
No.cos/Start-up/2019 dated 16 August 2019	Department of Industries, Government of Punjab	Relaxations of Norms in public procurement for Start_ups based in Punjab.
MoP order dated 1st October 2019	Ministry of Power	Revised Guidelines for Charging Infra