



GOVERNMENT OF TAMIL NADU



TAMIL NADU

Electric Vehicles Policy

2023





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**TAMIL NADU
ELECTRIC VEHICLES
POLICY
2023**

INDUSTRIES, INVESTMENT PROMOTION
& COMMERCE DEPARTMENT

GOVERNMENT OF TAMIL NADU

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1. Preamble

1.1 Overview

Tamil Nadu has transformed into India's leading Electric Vehicles (EV) manufacturing hub over the last five years. There is heightened interest from EV Original Equipment Manufacturers (OEMs) and component manufacturers who wish to establish their units in the State. Notwithstanding the effects of the Covid-19 pandemic, the State has signed MoUs with an investment interest of nearly Rs. 24,000 crore and employment potential of 48,000 jobs in the EV value chain during this period.

The growth of the EV manufacturing sector in Tamil Nadu is built up on the solid foundation of automotive supply chain linkages in the State. Tamil Nadu's prowess as an automotive manufacturing hub reflects in the presence of large automobile OEMs like Hyundai, Nissan, TVS, Mahindra, and Daimler in the State. The availability of skilled workforce, network of ancillary industries, and excellent industrial infrastructure are the other key elements of the automotive ecosystem. It ensures that Tamil Nadu retains its leading position vis-à-vis other automotive hubs in India over the last three decades. The strong manufacturing ecosystem in the State has encouraged new entrants like Ather Electric, Ola Electric, Ampere and others to establish their EV manufacturing units here. From a demand perspective, Tamil Nadu is a significant automobile market, accounting for the third largest vehicular population¹ in India. Tamil Nadu's strong economic growth over the past four decades along with a high rate of urbanisation (~50%) is central to the State's sustained vehicular demand (annual growth rate of 11.64% in this period). The strong automotive demand in Tamil Nadu is underpinned by excellent connectivity and transport infrastructure in the State.

The Government of Tamil Nadu expects EVs to play a crucial role, especially in the electrification of last-mile connectivity. To support this goal, Tamil Nadu aims to electrify the vehicular fleets operating in the State by leveraging its vibrant automotive ecosystem comprising OEMs, auto component ancillaries, a large and highly skilled workforce, and robust R&D capabilities. The Government of Tamil Nadu shall leverage the expertise of leading industrial players and the support from multilateral development agencies to help propel the adoption of EVs.

Finally, Tamil Nadu has always accorded the highest importance to sustainability and has undertaken the following initiatives:

- Established Tamil Nadu Green Climate Company, a Special Purpose Vehicle (SPV), to collaborate and strengthen community engagement to build a long-term commitment toward a Net-Zero Carbon future.
- Creating and developing sustainable transport systems for its residents. The transport systems comprises components like rapid transport trains, Chennai Metro Rail, and dedicated cycling lanes.
- Been promoting a circular economy by encouraging recycling units to establish their centres in the State.
- Emerged as the leading renewable energy producer with more than 16 GW of renewable energy in installed capacity. This shall allow Tamil Nadu to support the electrification of vehicular fleets through decarbonised electricity.

¹2.98 crore registered vehicles till Jun 2022

1.2 Need for a Revised Policy

The rapidly changing dynamics of the EV sector require an agile policy approach and periodic revisions. The Government of Tamil Nadu is cognisant of the sectoral challenges and seeks to address these through interventions mapped out across the supply, demand, and ecosystem segments in this Policy. These interventions shall enhance and strengthen the EV manufacturing value chains, improve EV adoption across vehicular segments, increase electric public mobility solutions, improve green electricity value chains, promote rapid EV infrastructure development, and leverage the synergies of the existing R&D centres in the State.

1.3 Scope & Definitions

This Policy covers manufacturing units engaged in the manufacturing of Electric Vehicles, EV Components, Electric Vehicle Supply Equipment (EVSE) and EV Charging Infrastructure, charging stations/charging point operators, and customers purchasing EVs in Tamil Nadu. The EVs incentivised in this policy will need to comply with FAME II² guidelines issued by the Ministry of Heavy Industry, Government of India. Similarly, charging stations would need to comply with the Charging Infrastructure for Electric Vehicles – Guidelines and Standards³ issued by the Ministry of Power, Government of India.

In the context of this policy, the following terms are defined as hereunder:

1. EVs comprise battery electric vehicles (BEV), plug-in electric vehicles (PEV), plug-in hybrid electric vehicles (PHEV) and strong hybrid electric vehicles (SHEV).
2. OEMs refer to proprietor firms, private/public companies, or partnership firms which are manufacturing vehicles compliant with FAME II.
3. Recycling firms refer to firms engaged in recycling or reprocessing of waste batteries or their components and having facilities (as per Draft Battery Waste Management Rules 2020 issued by the Ministry of Environment, Forest and Climate Change).
4. Charger shall refer to electric kiosk/board with one or multiple charging guns/points of different charging standards which adhere to the prevailing Charging Infrastructure for Electric Vehicles – Guidelines and Standards.
5. Fast Charging Stations shall mean EV Charging Stations with a minimum active load of 50 kW, having one or more DC fast chargers as per the prevailing Charging Infrastructure for Electric Vehicles– Guidelines and Standards.
6. Slow Charging Stations shall mean EV Charging Stations where no DC fast charger, as per the prevailing Charging Infrastructure for Electric Vehicles – Guidelines and Standards, is present.
7. Public Charging Station shall refer to an EV Fast/Slow Charging Station where any Electric Vehicle can get its battery recharged. Each Public Fast/Slow Charging Station shall have at least 3 chargers & adhere to the prevailing Charging Infrastructure for Electric Vehicles – Guidelines and Standards.

²Scheme for Faster Adoption and Manufacturing of Electric Vehicles in India Phase II (FAME India Phase II) dated 08.03.2019, notified by the Ministry of Heavy Industry, and including subsequent amendments/clarifications

³Charging Infrastructure for Electric Vehicles – Guidelines and Standards dated 14.12.2018 published by Ministry of Power, and including subsequent amendments/clarifications

8. Private Charging stations shall refer to an EV Fast Charging Station where only Electric Vehicle belonging to commercial fleet operators can get its battery recharged.
9. Public Battery Swapping Stations shall mean a station where any EV privately or commercially owned, can get its discharged/partially discharged electric battery replaced by a charged battery and the discharged/partially discharged electric battery is recharged.
10. Eligible Fixed Assets (EFA) has the meaning ascribed to such term in the Tamil Nadu Industrial Policy 2021 (Annexure IV Clause 1.1) or the prevailing industrial policy of the State. This includes land (including development costs such as fencing, construction of internal roads, and other basic infrastructure facilities); permanent buildings; plants, indigenous machinery & equipment, imported equipment, computer equipment, material handling equipment (like forklifts, cranes, etc); tools, dies, moulds, jigs, and fixtures and similar production tools owned and used within the plant or elsewhere within Tamil Nadu; appliances; electrical installations; pollution control, quality control and laboratory equipment; fixtures, tubes, pipes, fittings, and storage tanks, to the extent paid for by the project (for more details refer to Tamil Nadu Industrial Policy 2021).

The Government of Tamil Nadu may amend/clarify these definitions, if required, from time to time.



2. Objectives

The Government of Tamil Nadu has a vision of attracting Rs. 50,000 crore worth of investments in EV manufacturing, creation of 1.5 lakh new jobs during the Policy period, and development of a robust EV ecosystem in the State.

The policy objectives are as follows:

a) Transform Tamil Nadu into the preferred destination for EV manufacturing in South-East Asia

- (i) Develop robust infrastructure & industrial ecosystem to attract manufacturing units.
- (ii) Create indigenous EV manufacturing value chains by attracting EV OEM & Component manufacturers to establish units in the State.

b) Accelerate adoption of EVs in Tamil Nadu

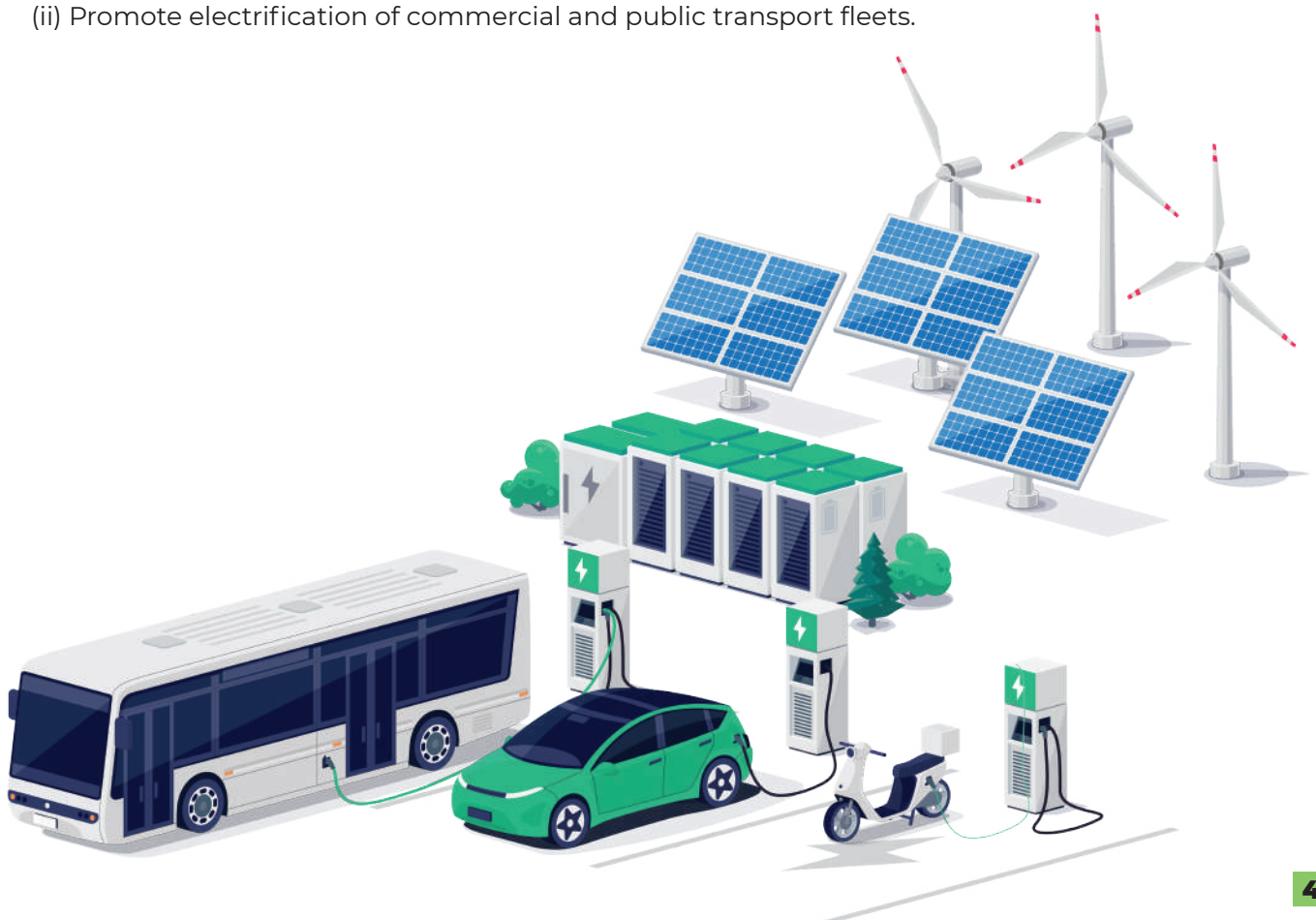
- (i) Provide initial impetus for early adopters of Electric Vehicles through special demand incentives.
- (ii) Develop charging infrastructure with favourable power tariffs through public/ private measures.

c) Enhance the development of the EV ecosystem in Tamil Nadu

- (i) Develop industry-academia linkages to create a skilled workforce pool for EVs.
- (ii) Promote R&D and innovations in automotive and shared mobility.
- (iii) Promote the recycling industry to develop a circular economy in the State.

d) Develop EV Cities in Tamil Nadu

- (i) Promote Chennai, Coimbatore, Tiruchirappalli, Madurai, Salem, and Tirunelveli as pilot cities for implementing e-mobility solutions.
- (ii) Promote electrification of commercial and public transport fleets.



3. Supply Side Policy Measures

Tamil Nadu has seen significant and rapid growth in the EV sector over the lustrum as the demand for EVs has increased. Hosur, in particular, has emerged as the leading region for EV manufacturing with several EV OEMs establishing their manufacturing operations in this region. Since the sector is still in a nascent stage, the Government of Tamil Nadu seeks to facilitate and support the manufacturing of EVs, components particularly EV cell technologies, batteries, EVSE, and charging infrastructure in the State with an “EV Special Manufacturing Package” as detailed herein.

3.1 Eligibility

Projects for which investments are made during the policy period as stated in the Section 7.4 of this Policy would be considered eligible for availing incentives under this policy.

Projects for which a package of incentives has already been sanctioned under the Tamil Nadu EV Policy 2019 (TNEV Policy 2019) and the commercial production has commenced prior to the notification of this Policy, shall be eligible for benefits under the TNEV Policy 2019.

In order to avail incentives under the EV Special Manufacturing Package, the investment in EFA should be greater than Rs. 50 crore and create at least 50 direct jobs in the form of new/expansion projects. For projects with investment in EFA below Rs. 50 crore, the Tamil Nadu MSME Policy 2021 would be applicable.

3.2 EV Special Manufacturing Package

The Government of Tamil Nadu seeks to provide manufacturing firms operating in the EV sector with a flexible incentive package through the EV Special Manufacturing Package instead of a one size fits all model. The multiple options provided under the Package shall be beneficial for firms operating across the EV manufacturing value chain viz. – OEMs, component manufacturing, battery manufacturing, and charging infrastructure manufacturing by allowing them the choice based on their business models and cashflows.

3.2.1 Inclusion of R&D in EFA

As per Tamil Nadu Industrial Policy (TNIP) 2021, EFA includes investment in R&D such as land, building, plant, and machinery. To encourage R&D in EV manufacturing, EFA shall include the following intangible R&D-related expenditure, subject to a ceiling of up to 20% of EFA:

- i. Expenditure incurred on new R&D – Test and measuring instruments, prototypes used for testing, purchase of design tools, software cost (directly used for R&D) and license fee, expenditure on technology, IPR, patents, and copyrights for R&D.
- ii. Expenditure related to Transfer of Technology (ToT) Agreements – This shall include the cost of technology and initial technology purchase related to the manufactured goods that are related to manufacturing and R&D in Electric Vehicles.

All non-creditable taxes and duties would be included in such expenditure.

3.2.2 Investment Promotion Subsidy

New/expansion projects in manufacturing of Electric Vehicles, EV Components, Electric Vehicle Supply Equipment (EVSE) or EV Charging Infrastructure in the State can avail incentives under one of the four options provided below based on their eligibility. These options are mutually exclusive, and a one-time choice has to be exercised at the beginning of the Project by the investor.

A. Reimbursement of SGST

New/expansion projects of EV OEM for manufacturing of Electric Vehicles shall be eligible for 100% reimbursement of the Gross SGST payable on the sale of EVs manufactured, sold, and registered in the State for a period of 15 years from the date of commercial production upon achieving the minimum eligible investment threshold of Rs.50 crores and minimum employment threshold of 50 jobs, whichever is later.

(Or)

B. Turnover-based Subsidy

New/expansion projects in manufacturing of Electric Vehicles, EV Components, Electric Vehicle Supply Equipment (EVSE) or EV Charging Infrastructure in the State shall be eligible for a subsidy of up to 2% of the project's annual turnover, subject to an annual cap of 4% of the cumulative investment in EFA for a period of 10 years from the date of commercial production. The turnover-based subsidy shall be scaled as per the project's employment commitment as provided below:

$$\text{Annual Turnover Subsidy} = 2\% \times \frac{\text{Employment (jobs)}}{4000} \times \text{Annual Turnover}$$

(Or)

C. Capital Subsidy

New/expansion projects in manufacturing of Electric Vehicles, EV Components, Electric Vehicle Supply Equipment (EVSE), or EV Charging Infrastructure in the State shall be eligible for a Capital Subsidy of 15% of investment in Eligible Fixed Assets to be disbursed in 10 (ten) equal annual installments. The company can choose to avail of the Capital Subsidy from the date of commercial production or upon achieving the minimum eligible investment threshold of Rs.50 crores and minimum employment threshold of 50 jobs, whichever is later. If the company chooses to avail of the Capital Subsidy prior to the completion of the investment and employment commitment, the Capital Subsidy shall be disbursed in tranches corresponding to the cumulative investment made until then and subsequent tranches for actual annual incremental investment within the investment period.

(Or)

D. Special ACC Capital Subsidy

New/expansion projects in EV battery manufacturing shall be eligible for a special capital subsidy of 20% of investment in Eligible Fixed Assets to be disbursed in 15 (fifteen) equal annual instalments.

New/expansion projects in advanced chemistry cells (ACC) manufacturing shall be eligible for a special capital subsidy of 20% of investment in Eligible Fixed Assets to be disbursed in 10 (ten) equal annual instalments. A company can choose to avail of the Special ACC Capital Subsidy from the date of commercial production or upon achieving the minimum eligible investment threshold of Rs.50 crore and minimum employment threshold of 50 jobs, whichever is later. If the company chooses to avail of the Special ACC Capital Subsidy prior to the completion of the investment and employment commitment, the Special ACC Capital Subsidy shall be disbursed in tranches corresponding to the cumulative investment made until then and subsequent tranches for actual annual incremental investment within the investment period.

3.2.3 Electricity Tax Exemption

Projects will be provided 100% exemption on electricity tax for a period of 5 years on power purchased from the Tamil Nadu Generation & Distribution Corporation Limited (TANGEDCO) or generated and consumed from captive sources.

3.2.4 Stamp Duty

- a) Projects that obtain land by sale or lease shall be entitled to 100% exemption on stamp duty for purchase/lease of land obtained from government agencies such as TIDCO/SIPCOT/ ELCOT till the policy period.
- b) In case of private land, 100% stamp duty concession shall be provided as a back ended subsidy for up to 50 acres after the commencement of commercial production or fulfilment of investment and employment commitment, whichever is earlier.

3.2.5 Subsidy on Cost of Land

The Government strives to provide land to industries at competitive rates. For eligible projects government industrial estates (SIPCOT/TIDCO/ELCOT etc.), land allotment will be made at 10% concessional rate in “A” & “B” districts and at a 50% concessional rate in “C” districts for land up to 20% of EFA. For private land in “C” districts, 50% subsidy will be offered on the cost of land as per guideline value up to an extent of 50 acres and subject to land cost not exceeding 20% of EFA and a cap of Rs. 2 cr. provided that at least 70% of the land is used for manufacturing operations. In case the investor chooses to avail of the land cost subsidy, land will be excluded from Eligible Fixed Assets for the purpose of Investment Promotion Subsidy.

3.2.6 Employment Incentive

Projects will be provided an employment incentive in the form of the reimbursement of the employer's contribution to the EPF for all new jobs created during the policy period. This incentive shall be paid for a period of one year and shall not exceed Rs.48,000 per employee for residents of Tamil Nadu.

3.2.7 Green Industry Incentive

The Government of Tamil Nadu is focused on encouraging the growth of sustainable manufacturing practices. Therefore, projects under the scope of this Policy shall be eligible to avail of the Green Industry Incentive of up to Rs. 1 crore as per the Tamil Nadu Industrial Policy 2021 (Para 13.5.3 of TNIP 2021).

3.2.8 Quality Certification Incentive

Certification activities for EVs are extensive and form a major expense for EV firms, especially startups due to the high costs involved. The Government of Tamil Nadu through the Quality Certification Incentive seeks to support firms in obtaining certifications for their products.

Under the Quality Certification Incentive, 50% of the total cost incurred by the project for obtaining certifications from ARAI, ICAT, or any other national or international agencies as certified by a Chartered Accountant, limited to Rs. 1 crore for the period of investment, during the policy period.

3.2.9 Intellectual Property Creation Incentive

The unique proposition in the EV sector is through proprietary technology across different segments such as batteries, electric drivetrains, and charging, among others. The Government of Tamil Nadu aims to provide an Intellectual Property Creation Incentive to encourage firms in developing such technology in the State.

Under this incentive component, projects shall be eligible for 50% reimbursement on the cost incurred for patents, copyrights, and trademarks, subject to a maximum of Rs. 1 crore for the period of the investment, during the policy period.

3.2.10 Interest Subvention

The Government of Tamil Nadu shall provide an interest subvention of 5% as a rebate on the rate of interest, on actual term loans taken for the purpose of financing the project, for a period of 6 years subject to the limits as mentioned in the table below.

| Investment Range (Rs. crore) | Maximum Interest Subvention Period | Ceiling per annum (Rs) |
|------------------------------|------------------------------------|------------------------|
| 50-300 | 6 | 5 lakhs |
| 300-500 | 6 | 20 lakhs |
| 500-5000 | 6 | 1 crore |
| 5000+ | 6 | 4 crore |

3.3 Special Incentives for the MSME Sector

An additional capital subsidy of 20% will be offered over and above the eligibility limit for capital subsidy under the existing capital subsidy scheme to MSME units that are engaged in E-vehicle component or charging infrastructure manufacturer. Further, for such E-Vehicle component and charging infrastructure, manufacturing firms falling under the Medium Industries category that avail loans from Tamil Nadu Industrial Investment Corporation, 6% interest subvention will be provided as against 3% under the existing scheme. These incentives shall be provided as per the Tamil Nadu MSME Policy 2021.

3.4 Transition Support

Tamil Nadu is well known as an automotive manufacturing hub, contributing to ~32% of India's automotive exports in FY 2021-22 due to the presence of several OEMs and a robust vendor ecosystem. As these companies are engaged predominantly in the manufacture of ICE vehicles, the Government of Tamil Nadu shall support companies who wish to transition/diversify into EV manufacturing. Automotive companies shall be eligible for an up-skilling allowance for up to 10% of their existing workforce working on the EV production line. Transition support can be availed in form of Training Subsidy of Rs. 4000 per worker per month for 6 months for residents of Tamil Nadu. For women and transgender employees, persons with benchmarked disabilities, persons from SC/ST communities the training subsidy shall be Rs. 6000 per worker per month for 6 months.

4. Demand Side Measures

Globally, the growth of the EV sector has been driven by policy measures and regulatory interventions. From a demand perspective, purchase incentives and lower registration fees serve as key strategic levers to spur adoption. The Government of Tamil Nadu shall utilise a mix of support, regulatory, and special demand side incentives measures to spur the demand for EVs in the State.

4.1 Support Measures

The Government of Tamil Nadu shall undertake support measures to encourage the adoption of EVs in the State such as prioritising electrification of commercial vehicular fleets, promoting EVs in manufacturing hubs, and taking steps to aggregate EV demand.

4.1.1 Electrification of Vehicular Fleets in the State

The Government of Tamil Nadu shall develop a roadmap to electrify public and institutional fleets operating in the State in a phased manner.

The State Transport Undertaking (STUs) operated buses constitute a substantial percentage of the public transport in Tamil Nadu. The Government of Tamil Nadu will electrify these fleets through a phased augmentation and replacement plan. The State shall endeavour to increase the share of electric buses to 30% of the fleet by 2030.

The Government of Tamil Nadu shall develop bus charging development through budgetary allocations. It shall also explore the possibility of providing bus charging infrastructure as a service for private operators.

The STUs shall be encouraged to electrify their fleets through loan programs from multi-lateral agencies. Vehicular fleets of educational institutions such as schools and colleges and private bus fleets in the State shall be encouraged to transition to EVs in a gradual manner.

Staff bus operators for industrial establishments and service sector enterprises shall also be encouraged to transition to an EV fleet given the advantage in the total cost of ownership.

Aggregators shall be encouraged to partner with e-mobility providers and EV manufacturers to phase out ICE vehicles from their fleet.

4.1.2 Promoting EVs in Manufacturing Facilities

The Tamil Nadu Industrial Policy 2021 encourages the usage of EVs in the transportation of passengers and goods within the manufacturing units and the use of EV buses for transportation of personnel working in these facilities by providing a 25% subsidy on the cost of procuring such EVs up to Rs 1 crore as mentioned in Clause 19.4.ii, subject to eligibility.

4.1.3 Demand Aggregation

The Government shall undertake efforts to collaborate with demand aggregators such as Convergence Energy Services Limited (a subsidiary of Energy Efficiency Services Limited) to conduct a demand assessment study and aggregate demand for EVs to enable cost discovery and reduce procurement costs. At the onset, aggregation of demand from Government departments & public sector units in EV pilot cities shall be prioritised.

4.2 Regulatory Measures & Concessions

Regulatory tailwinds are essential to assist in the growth of the EV sector as it is a sunrise sector. The Government of Tamil Nadu cognisant of this has undertaken a favourable regulatory approach to aid the growth of the EV ecosystem in the State.

4.2.1 City Building Codes

The Government of Tamil Nadu is in the process of amending the Tamil Nadu Combined Development and Building Rules, in line with the Model Building Bylaws (MBBL) 2016 for EV Charging Infrastructure issued by the Government of India. Additionally, the State shall undertake the following efforts:

- i) Amendments to building and construction laws will be made to ensure that charging infrastructure is integrated at the planning stage itself for all new constructions and apartments in cities.
- ii) All existing apartment associations with 50+ families shall be encouraged to provide charging
- iii) Existing Residential Townships with 500 + families shall be encouraged to install charging stations.
- iv) Commercial building operators shall be encouraged to establish EV Charging Stations/Points in commercial buildings such as hotels, shopping malls, cinema halls, and apartments.

4.2.2 Revised Transport Regulation of Electric Vehicles

In order to distinguish Electric Vehicles (battery operated vehicles) from other vehicles, the Government of Tamil Nadu has implemented a measure for EV number plates to be exhibited in yellow colour on a green background for transport vehicles and white colour on green background for all other EVs. Until 30.04.2022, more than 1.15 lakh EVs have been registered in the State out of which 93% are non-commercial vehicles.

4.2.3 Private Vehicles, Shared Mobility & Commercial Vehicle Segments

Private vehicles account for 91% of all vehicles registered in the State. Out of this, two-wheelers account for 78%, while private four-wheelers account for 13%. Thus, there is a clear need for the State to encourage private vehicle owners to switch to EVs, thereby increasing EV adoption. Since the two-wheeler segment has relatively lower battery capacity requirements, which enables faster charging through standard charging infrastructure. The Government of Tamil Nadu shall encourage conversion of private and commercial vehicles to EVs through waivers and exemptions, creation of charging networks, and by enabling registration of commercial EVs.

4.2.3.1 Exemption/Waiver of Road Tax/Registration Charges

The Government of Tamil Nadu has provided exemptions and waivers of the road tax and registration fees to battery-operated vehicles till 31.12.2022. The Government of Tamil Nadu through this Policy & vide G.O. (Ms.) No. 17 dated 13.01.2023 issued by the Home (Transport-I) Department, shall extend these benefits as detailed below:

A. Road Tax Exemption

100% road tax exemption will be provided till 31.12.2025 for the following categories of EV battery-operated vehicles, namely, two-wheelers, private cars, three-seater auto-rickshaws, transport vehicles (such as taxis, tourist cars etc.), light goods carriers (including three-wheelers), and buses.

B. Waiver on Registration Charges/Fees

Waiver on Registration charges/fees will be provided till 31.12.2025 for the following categories of EV battery-operated vehicles, namely, two-wheelers, private cars, three-seater auto-rickshaws, transport vehicles (such as taxis, tourist cars, etc.), light goods carriers (including three-wheelers) and buses.

C. Waiver on Permit Fees

Waiver on Permit Fees will be provided till 31.12.2025 for the following categories of EV battery-operated vehicles, namely, auto-rickshaws, transport vehicles (such as taxis, tourist cars, etc.), light goods carriers (including three-wheelers) and buses.

4.2.3.2 Registration of Commercial EVs

The State shall undertake measures to electrify shared transport vehicles in a gradual manner beginning from the EV cities. E-commerce and other e-aggregator companies in Tamil Nadu shall be encouraged to transition their vehicles to EVs gradually. Presently, the registration of EVs is limited to private vehicles. The Home (Transport) Department shall issue guidelines and undertake capacity building of RTOs to enable registration of commercial Electric Vehicles, including EV-2 wheelers for commercial use. The State is in the process of formulating and issuing guidelines for exempting permits for e-Autos operating in the State. The list of approved e-autos will be notified by the Home (Transport) Department.

4.3 Special Demand Side Incentives

Globally, various governments such as the USA, China, and Norway among others, have utilised purchase incentives as a policy measure to spur EV adoption. The purchase incentives aid EVs to overcome competition barriers such as higher purchase costs and range anxiety brought about by limited charging infrastructure.

Electrification of commercial vehicles is economically viable and provides higher benefits due to higher utilisation rates, and faster payback periods vis-à-vis private vehicles and as it services the public. Thus, the Government of Tamil Nadu shall seek to provide the initial impetus for driving EV adoption in the State by incentivising commercial vehicles by providing the following incentives till 31.12.2025.

| Type | Vehicle Category | Incentive based on battery capacity (Rs/kWh) | Maximum Incentive (Rs.) | Number of Vehicles (#) to be incentivised per year |
|------------|---|--|-------------------------|--|
| Private | e-Cycles* | - | 20% of cost up to 5,000 | 6,000 |
| Commercial | e-2Wheelers | 10,000/ kWh | 30,000 | 6,000 |
| Commercial | e-3Wheelers (autos/ Light Goods Carriers) | 10,000/ kWh | 40,000 | 15,000 |
| Commercial | e-4Wheelers (Cabs/ Goods Vehicles) | 10,000/ kWh | 1,50,000 | 3,000 |
| Commercial | e-Buses | 20,000/ kWh | 10,00,000 | 300 |

This shall be subject to the following terms:

- i) To avail the special demand side incentives, consumers shall need to submit an incentive application on the TN EV Portal. After due scrutiny, the incentive will be provided to the consumer through a Direct Benefit Transfer (DBT) system. Operational guidelines shall be issued separately.
- ii) Only those EVs, which are manufactured, sold and registered in the State complying with FAME II standards would be eligible for the mentioned incentives. E-cycles would need to be manufactured & sold in the State to be eligible for the mentioned incentives⁴.
- iii) Only e-cycles procured for initiatives under Government programmes such as Smart Cities in EV Cities shall be eligible for availing incentives listed in the Table above.
- iv) The demand incentives for each category shall be provisioned for each year of the policy period. If the demand offtake in a particular segment does not meet the year wise limit, the unutilised balance shall be carried over to the next financial year provided the policy period has not expired.
- v) The Government of Tamil Nadu may choose to modify the vehicle categories to be incentivised, incentive based on battery capacity (Rs/kWh), maximum incentive or number of vehicles to be incentivised per year, at its discretion, subject to the demand/offtake.

⁴Further, E-cycles will need to adhere to the definition provided under Chapter 1 Section 2 (u) of the Central Motor Vehicles Act 1989 as mentioned below

- i) The thirty minutes power of the motor is less than 0.25 kW.
- ii) The maximum speed of the vehicle is less than 25 km/h.
- iii) Bicycles with pedal assistance which are –
 - a) equipped with an auxiliary electric motor having a thirty-minute power less than 0.25 kW, whose output is progressively reduced and finally cut off as the vehicle reaches a speed of 25 km/h, or sooner, if the cyclist stops pedalling.
- iv) Fitted with suitable brakes and retro-reflective devices, i.e., one white reflector in the front and one red reflector at the rear.

5. Charging Infrastructure

The availability of charging stations is a key driver for EV adoption as it helps lower range anxiety as can be seen from other places such as the USA, China, and Europe. Under FAME II, a total of 281 charging Stations have been sanctioned for Tamil Nadu, which will serve as an impetus for charging infrastructure development. The Government of Tamil Nadu aims to boost this further through this Policy through the development of public and private charging infrastructure in the State. This Policy provides a mix of support measures and incentives as detailed below. operating in the State in a phased manner.

5.1 Support Measures

The Government shall seek to support the development of public charging stations through the following pathways:

5.1.1 Government Interventions

The Government shall actively encourage private sector to establish Public Charging Stations. The EV Cell shall coordinate with the various governmental stakeholders to undertake the following interventions:

- i) Demand assessment to ascertain State's peak electricity requirements due to higher EV adoption.
- ii) Identification of sites for public slow and fast charging stations in Government offices and public places, Smart City Missions/Corporations of the EV Cities.
- iii) Identify and prioritise the establishment of charging stations on National and State Highways at 25 km intervals on both sides.
- iv) Undertake measures to simplify requirements for establishment of public charging stations in the State

5.1.2 Tariff for EV Charging

a. As per the prevailing Tariff Order (TNERC Order No: 7 in of 2022 in T.P.No.1 of 2022 dated: 09.09.2022), a new category has been created for Public EV Charging Stations and private charging stations shall be treated as domestic consumption, as applicable:

- i. The tariff applicable for domestic consumption shall be applicable for Private Charging Station at home and classified as LT Tariff - I-A.
- ii. The supply of electricity to Public/Private Charging Stations & Public Battery Swapping Stations for LT supply shall be classified as LT Tariff - VII and for HT supply shall be classified as HT Tariff - V.

b. To support the growth of Public Charging Stations, the Government shall undertake a revision of the demand and energy tariffs, with due approval from Tamil Nadu Electricity Regulatory Commission. The proposed revision shall seek to decrease the cost of operations for Public Charging Stations operators with the following changes-

- i. Reduction in Demand Charges - Reduction of existing charges by 75% for the first 2 (two) years and thereafter by 50% for the subsequent 2 (two) years.
- ii. Reduction in Energy Charges - Reduction of charges by 50% between 8 AM and 4 PM to incentivise charging during non-peak hours to promote usage of renewable energy for EV charging.

c. The supply of renewable energy shall be ensured to Public/Private Charging Stations & Public Battery Swapping Stations on a preferential basis with applicable TNERC levies. The State has introduced a renewable energy-based 'Green tariff' for HT services. The green tariff would be an additional 10% over the HT category's respective tariffs.

d. EV charging service providers shall be encouraged to set up their own renewable energy generating stations at their premises for charging Electric Vehicles.

e. The Public & Private Charging Stations shall adhere to the safety provisions prescribed by the Central Electricity Authority in its measures relating to Safety & Electrical Supply Regulations.

5.2 Incentives for Charging Stations

Charging infrastructure has three different models – fast charging, slow charging, and battery swapping. The benefits associated with each model varies based on whether the vehicle is private/commercial, the vehicular category (2W/3W/4W), and the end use case (private usage, commercial usage – goods and/or transport). The Government of Tamil Nadu shall adopt a technology agnostic approach towards charging infrastructure and seek to encourage different models.

The charging infrastructure projects in the State shall be eligible to avail of the incentives listed below post the commencement of sales. However, the cost of land (purchase/lease cost) for setting up charging stations shall be excluded while computing the incentives applicable.

Additionally, the Government of Tamil Nadu seeks to encourage decarbonisation in the charging network. Therefore, the cost of renewable energy equipment such as rooftop solar panels shall be considered as a part of the equipment and machinery cost for charging/swapping stations provided at least 75% of the energy produced is used by the charging station.

5.2.1 Public Charging Stations

Firms, which establish public charging stations in Tamil Nadu complying with the guidelines and standards issued by the Ministry of Power, Government of India will be eligible for a 25% subsidy of the cost involved in the purchase of equipment & machinery during the policy period.

| Type | Incentive (Rs.) | Number of Public Charging Stations to be incentivised |
|-----------------------|--------------------|---|
| Fast Charging Station | Up to Rs 10,00,000 | 200 |
| Slow Charging Station | Up to Rs 1,00,000 | 500 |

5.2.2 Private e-Aggregator Charging Stations

There are an increasing number of private e-aggregators providing e-mobility solutions who require a charging infrastructure setup to deal with their specific needs, which might not be met by public charging stations. Private charging stations further enable these aggregators to improve utilisation of charging infrastructure and optimise logistical planning.

The first 50 private charging stations set up in Tamil Nadu shall be eligible for a capital subsidy of 25% on the cost involved in the purchase of equipment and machinery during the policy period.

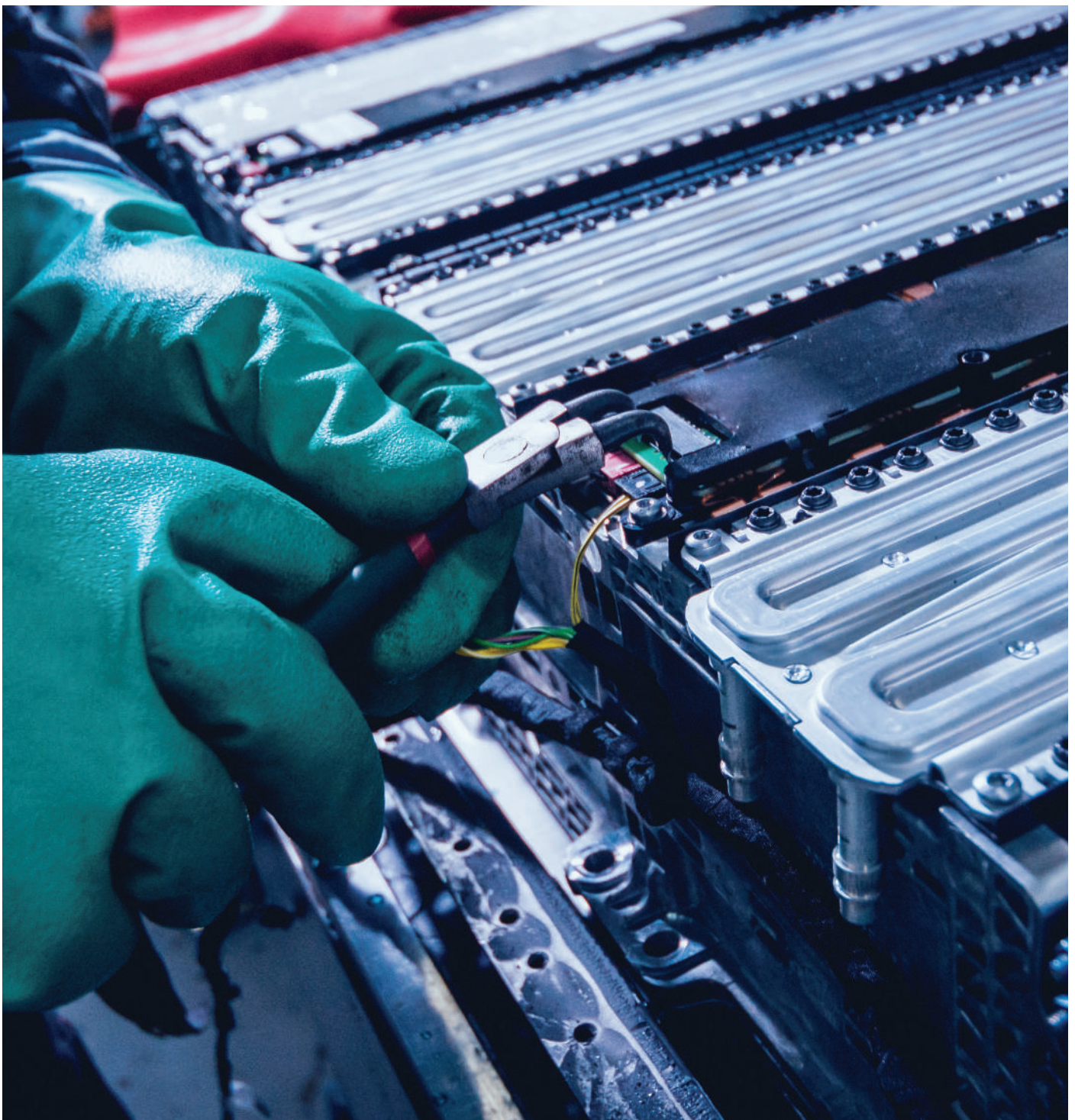
| Type | Incentive (Rs.) | Number of Public Charging Stations to be incentivised |
|-----------------------|--------------------|---|
| Fast Charging Station | Up to Rs 10,00,000 | 50 |

5.3 Incentives for Public Battery Swapping Stations

Battery as a Service (Baas) is a business model, which is seeing considerable offtake owing to reduced upfront costs. Battery swapping, a subset of BaaS, has emerged as a cost-effective alternative to charging stations based on lower space requirements. It further reduces the operational downtime for vehicles and battery maintenance costs thereby, emerging as a popular alternative to battery charging.

The first 200 public battery swapping stations set up in Tamil Nadu shall be eligible for a capital subsidy of 25% on the cost involved in the purchase of equipment and machinery limited to Rs. 2 lakh per station

| Type | Incentive (Rs.) | Number of Public Charging Stations to be incentivised |
|--------------------------|-------------------|---|
| Battery Swapping Station | Up to Rs 2,00,000 | 200 |



6. Ecosystem Development

Tamil Nadu has a burgeoning EV ecosystem with the presence of several R&D centres, industrial hubs, and an abundance of skilled workforce. To accelerate the development of the EV ecosystem, the Government of Tamil Nadu shall undertake a concerted approach. This shall provide the necessary impetus in furthering Tamil Nadu's position as a leading EV hub.

6.1 Capacity Building & Skilling

Tamil Nadu has a young demographic and skilled workforce in all trades, critical to supporting industrial operations. The State shall identify the nature and level of skills required by the EV industry to develop and execute training programmes on EV design, development, and manufacturing through various channels.

- i) Higher Education - The Higher Education Department has initiated efforts to redesign the curriculum in Engineering as well as Polytechnic colleges in Electrical, Electronics, Mechanical, and Automobile courses to suit the EV industry requirements, including setting up of Centres of Excellence. Core and elective courses on Hybrid and EV design, mechanics, and control have been introduced at Anna University and affiliated institutions. Similar efforts are being undertaken to update the ITI curriculum in addition to installing EV practical modules to enable practical lab experiments.
- ii) Skilling - TNSDC (Tamil Nadu Skill Development Corporation), on the lines of the National Skill Development Corporation (NSDC), is a not-for-profit company under the Companies Act, 2013 that was established in 2013 to provide skill training to the required industries. This will provide finishing and short-term skilling to the personnel on EVs based on the skill qualification approved by NSDC a few of which are mechatronics technician, battery technician, and EV technician. Additionally, the Apex Skill Development Centre for Automobiles shall focus on imparting EV-related training to the workforce. Short-term (4-6 months) finishing course post-completion of graduate Engineering course will be introduced in select Engineering Colleges and Premier Technical Institutes in collaboration with TNSDC. These courses will be designed in consultation with EV Industry and will include a short internship module at partnering OEMs. The Government will focus on training in light and precision assemblies, electrical powertrains and mechatronics.
- iii) Industry – Academia Linkage - The Government of Tamil Nadu has set up WorkLabs, a cell within Guidace, to promote, facilitate and expand partnerships between industries and academic institutions. WorkLabs shall endeavour to equip graduates with industry-ready skill sets. WorkLabs shall also drive experiential learning initiatives such as live projects, internships, and skilling programs to improve industry-academia linkages.

6.2 R&D and Business Incubation

The Government shall seek to support the development of public charging stations through the following pathways:

- i) Promotion of EV R&D – The Government of Tamil Nadu through the Tamil Nadu Industrial Development Corporation’s “Centres of Excellence for Emerging Technologies in Manufacturing” scheme promote Centres of Excellence (CoE) for EVs in the State in conjunction with private players. There are several CoEs in the State which exist currently such as Siemens CoE, Centre for Battery Engineering & Electrical Vehicles (IIT Madras), Global Automotive Research Centre CoE, and many more.

The State shall undertake efforts to develop linkages between industry, academia, and startups to foster the ecosystem. Research programmes shall be introduced in technical institutes and research establishments in areas such as batteries, battery management systems, powertrains, and motors/controllers in collaboration with industries.

The Tamil Nadu R&D Policy 2022 strives to provide an accelerated push to R&D activities in the State.

- ii) Incubation Centres – The Government of Tamil Nadu shall undertake steps to increase the number of incubation centres for EV startups, which provide incubation services such as office space, common facilities, and mentoring support. Tamil Nadu is home to several college/university based EV incubation centres, which are currently operational.
- iii) Emerging Sector Seed Fund – The Tamil Nadu Infrastructure Fund Management Corporation Limited has established the Tamil Nadu Emerging Sector Seed Fund to invest in startups operating in sunrise sectors. The Government of Tamil Nadu, through TANSIM, shall provide the necessary handholding services to startups wishing to apply.
- iv) Research & Technology Fund – The Government of Tamil Nadu has set up a Research & Technology Fund under the Tamil Nadu Industrial Policy 2021 with a corpus of Rs. 100 crore, which shall be open to proposals for EV R&D.

6.3 Creation of a Circular Sustainable Economy

The Government of Tamil Nadu has always accorded the highest importance to sustainable industrial practices and mitigating the impact of industries on the environment. The recycling industry forms a critical part of the EV value chain, especially urban mining of used batteries. Recycling will also aid the development of a circular economy and address the gaps in the supply chain. This closed loop system shall aid in minimising the use of resources, waste generation, pollution & carbon emissions.

6.3.1 Renewable Energy Sourcing

In order to develop green manufacturing value chains in the State, the Government of Tamil Nadu shall support manufacturing units, which utilise renewable energy to meet their energy demands.

Up to 20% of the expenses incurred in setting up captive renewable energy power plants (windmills, solar farms) shall be considered as part of eligible fixed assets if 50% or more of the energy produced is used for captive consumption.

6.3.2 Retrofitting & Remanufacture

The Government shall also incentivise commercial vehicles, which shall retrofit their existing ICE vehicles and convert them into EVs. Retrofitted vehicles that comply with Automotive Research Association of India (ARAI) standards shall be eligible for the following incentives up to 31.12.2025:

| Vehicle Category | Incentive (Rs.) | Maximum Incentive (Rs) | Number of Vehicles (#) to be incentivised |
|---|-----------------|------------------------|---|
| E-2Wheelers | 10,000/ KWh | 15,000 | 30,000 |
| E-3Wheelers (autos/ Light goods carriers) | 10,000/ KWh | 20,000 | 15,000 |

6.3.3 Recycling

The Government of Tamil Nadu shall encourage a circular economy by promoting the re-use and recycling of EV batteries that have reached the end-of-life stage through recycling centres set up by EV/ EV battery manufacturers and other players. Recycling projects established during the policy period shall be eligible for incentives on par with battery manufacturing projects.

Appropriate protocols for setting up such centres shall be notified by the Government of Tamil Nadu after consultation with stakeholders.

6.4 Creation of EV Parks & Vendor Ecosystem

The Government of Tamil Nadu recognises that major investments by the EV OEMs can be facilitated only if there is dedicated infrastructure and developed vendor eco-system. Tamil Nadu has a notable advantage due to the presence of the Global Automotive Research Centre (GARC), one of the four premier automotive testing institutes in India. GARC has a full-fledged R&D and homologation test facilities and is accredited by the National Accreditation Board for Testing and Calibration Laboratories (NABL). Its Electric Vehicle Lab offers FAME II testing with facilities for battery lifecycle & safety, electric motor analysis, EV component durability, EV charging infrastructure, vehicle benchmarking, and design verification. These facilities are used by several EV and ICE OEM manufacturers operating in Tamil Nadu and adjoining States.

To cater to new investments in EV, the Government shall develop exclusive EV parks in Krishnagiri and Manallur (Chennai). The Government has planned to develop a Future Mobility Park in over 300 acres in Krishnagiri. The Park shall provide innovative solutions for sustainable transport using advanced data science, artificial intelligence, and future engineering with supporting research centres for greener and cleaner transport systems. These parks will be in close proximity to existing auto hubs and will have excellent connectivity to export and import gateways in the State. Further, the parks shall have common facilities for firms to undertake prototyping, testing, and training activities. Incentives under various schemes applicable to the MSME sector and large industries shall be extended to these industries, subject to their eligibility in order to develop a strong vendor ecosystem in the State. The Government will also promote Logistics Parks and Free Trade Warehousing Zones for better inventory management. Plug and Play manufacturing facilities will be created where vendors and OEMs can commence production with minimal capital investment in land and building.

6.5 Promoting Startups in the EV Sector

The growth of the EV sector is based on the disruption of the automobile sector and has created opportunities for startups in areas such as EV charging, Electric Mobility as a Service (e-MaaS), and battery technology, to name a few.

Tamil Nadu has a flourishing EV startup ecosystem with several startups having transitioned to commercial production in the State. The presence of several incubation centres, most notably the IIT Madras Research Park has played a key role in the growth of startups across the EV value chain.

To attract and nurture the growth of EV startups in the State, the Government of Tamil Nadu shall facilitate partnerships with industries through Tamil Nadu Startup and Innovation Mission (TANSIM). Further, EV startups would be eligible to apply for benefits under the Tamil Nadu Startup and Innovation Policy.

6.6 Investment Facilitation

The Government of Tamil Nadu through its Single Window Portal (SWP) offers investors access to 100+ digitised services across 24 Government Departments. With advanced features such as AI chatbot, video conferencing query modules, real-time monitoring, and a dedicated help desk the SWP provides unmatched functionality and ease of doing business for investors. The SWP provides the necessary clearances for EV Charging Station operators such as planning permits, building permits, drawing approvals, electricity connection, trade license, and NOC approval/compliances. The State allows investors to pay fees for required clearances/approvals instead of a lumpsum fee⁵. This measure has been implemented to improve transparency and to support sunrise sectors such as EV which require only specific clearances/approvals.

Further, through Biz Buddy (Industry Help Desk Portal) the State provides investors with a streamlined redressal mechanism and enhanced aftercare service delivery.

6.7 Safety & Awareness

As witnessed during the growth ICEs, the growth of EVs in the State may also lead to possibilities of accidents with a higher share of EVs. While EV safety standards are on par or better than ICE vehicles, the former present a new set of risks due to the different components present on board including high voltage contactors, connectors, and batteries.

The Government of Tamil Nadu shall undertake a cohesive approach to mitigate the risks arising from the change in technology. Departments such as Fire & Rescue Services, Transport, and Police shall undertake capacity-building exercises to develop emergency service operating procedures and training programmes for dealing with EV-related incidents in line with national/international safety standards. Further, existing equipment used by Government agencies shall be augmented and upgraded.

⁵G.O (Ms.) No.5, Industries (MIB.1) Department dated 11.01.2022

6.8 EV Cities

To provide an impetus towards EV adoption, the Government of Tamil Nadu shall declare six cities viz. Chennai, Coimbatore, Tiruchirappalli, Madurai, Salem, and Tirunelveli, as EV cities. In each of these cities, the Smart City Commissioner will be appointed as the Nodal Officer to coordinate and drive EV adoption. In the absence of a Smart City Commissioner, the Corporation Commissioner shall be the Nodal Officer. The Smart City Mission shall design a smart mobility programme with a focus on EVs to prepare a roadmap including electrification of auto rickshaws and buses within 10 years in a phased manner. The implementation programme shall also provide interventions on supporting taxi fleets and app-based transport aggregators in transitioning to an electric fleet.

The Government of Tamil Nadu shall also undertake the development of public charging infrastructure in these cities through public private collaboration.



7. Policy Implementation Mechanism

7.1 Sanctioning & Implementing Agency

All investment proposals in this sector will be provided the necessary facilitation through the Single Window Clearance Facility, with the necessary handholding services provided by Guidance/FaMe TN. The following agencies shall be responsible for the implementation of the different incentives provided under the policy:

- Industries, Investment Promotion, and Commerce Department will be the nodal department for the implementation of manufacturing related incentives for large industries and special demand side incentives (Section 3.2, Section 3.4, Section 4.3, Section 5.2, Section 5.3, Section 6.3.2, and Section 6.3.3). Guidance shall provide recommendations for eligible investments.
- MSME Department will be the nodal department for the implementation of the special incentives for MSMEs (Section 3.3). FaMe TN shall provide recommendations for eligible MSME investments.
- TANGEDCO will serve as the nodal agency for facilitating the development of charging infrastructure (Section 5.1).
- Housing & Urban Development Department will be the nodal department for issuing amendments to the Combined Development and Building Rules (Section 4.2.1).
- Home (Transport) Department will serve as the nodal department for issuance of guidelines to achieve electrification of public transport & exemptions for EVs, (Section 4.2.2 and Section 4.2.3).

The existing institutional mechanism for disbursement of investment related incentives to large Industries & MSMEs in the State shall be extended to this policy. Further, a nodal officer will be appointed in each Department for coordination & implementation of the policy.

7.2 EV Steering Committee

The implementation of this policy shall be based on interventions by different departments of the Government. To facilitate these interventions and ensure a concerted effort, the EV Steering Committee shall be reconstituted to monitor the implementation of the policy with Chief Secretary, Government of Tamil Nadu as the Chairman, and the following Committee Members:

1. Secretary, Industries, Investment Promotion and Commerce Department
2. Secretary, Finance Department
3. Secretary, Home Department
4. Secretary, Housing and Urban Development Department
5. Secretary, Municipal Administration and Water Supply Department
6. Chairman and Managing Director, Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO)
7. Secretary, Transport Department
8. Secretary, Micro, Small and Medium Enterprises Department
9. MD & CEO, Guidance (Convenor)

Officers from the Government of Tamil Nadu and experts from the industry across different fields such as manufacturing, industry associations, charging infra operators shall be called upon as special invitees to provide inputs and suggestions to the committee as and when required.

7.3 EV Cell

An EV Cell shall be set up in Guidance to promote EV adoption in the State. The EV Cell shall perform the following functions:

- Facilitate investors wishing to establish EV manufacturing units across the investment lifecycle or clean energy alternatives pilot projects.
- Facilitate investors wishing to enter into power purchase agreements with renewable energy generators or distributors.
- Develop and maintain a dedicated EV Portal providing information on applicable policies, guidelines, and charging station locations. This portal shall also include appropriate mechanisms for providing incentives to consumers through a DBT system.
- Coordinate and support in identification of sites for Public Charging Stations in Government offices & public places, Smart City Missions/Corporations of the EV Cities.
- Organise EV conclaves comprising different EV stakeholders – Government agencies, industry associations, manufacturers, research associations, and think tanks.
- Collaborate with public & private stakeholders to host campaigns & events for promoting EV adoption in the State.
- Inter-departmental coordination with departments such as HUDD, Energy, and Transport to enable swifter decision making for investment proposals.
- Assist the EV Steering Committee in the implementation of the EV Policy.
- Smart City Commissioners of the EV Cities shall be appointed as city nodal officer to roll out city-specific EV programme interventions.

7.4 Policy Period

This Policy shall be valid for a period of 5 years from the date of the policy notification, or till a new Policy is announced. The Government of Tamil Nadu may periodically revise this Policy from time to time.

7.5 Guidelines

The Guidelines mentioned in Annexure 4 of the Tamil Nadu Industrial Policy 2021 will be applicable for availing of incentives under this Policy. Operational guidelines for demand side incentives shall be issued shortly. Other guidelines and clarifications may be issued from time to time.



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