Compendium of State EV Policies

In India

(Source : all state policies)

Contents

ANDHRA PRADESH

GOVERNMENT OF ANDHRA PRADESH

ABSTRACT

Industries & Commerce Department – "Electric Mobility Policy 2018-23" – Orders - Issued.

INDUSTRIES AND COMMERCE (P&I) DEPARTMENT

G.O.MS.No. 74 Dated: 08-06-2018

ORDER

1. Electric Vehicles also known as EVs, driven by high-density batteries or fuel cells, are becoming economical, fueled by falling prices of Lithium-ion batteries, increased research into fuel cells and cheaper renewable energy.

2. In this context, the Government of Andhra Pradesh has set for itself an ambitious target to be one amongst the three best States in India by 2022, the best State by 2029 and a leading global investment destination by 2050. Accordingly, the Government of Andhra Pradesh has identified Electric Mobility space to be robust growth driver in the years to come. It aims to be a frontrunner in building a sustainable transportation infrastructure by promoting Electric Mobility Ecosystem in Andhra Pradesh.

3. Government with a view to make Andhra Pradesh one of the major hubs for electric mobility, hereby introduces "Electric Mobility Policy 2018-23" after extensive consultations with stakeholders, Industrial Associations and Industrial experts. This Policy aims to support every aspect of Electric Mobility and accelerating adoption of Electric Vehicles that eventually lead to healthier climate. The detailed policy document is appended at Annexure-I.

4. Under the Electric Mobility Policy, Government approved the following benefits covering the areas of (1) Manufacturing (2) Charging Infrastructure (3) Demand Creation (4) Research and Development in order to make projects under these areas viable.

4.1. **Financial Support to Manufacturing Firms**

4.1.1. **Large Project** is defined as a project, with capital investment over the threshold of a Medium industry and upto INR 200 Crores or creating an employment for over 1000 people.

4.1.2. **Mega Project** is defined as a project with capital investment more than INR 200 Crores or creating an employment for over 2000 people.

4.1.3. **Mega Integrated Automobile Project:** The Mega Integrated Automobile Project will mean automobile projects that will have EV powertrain assembly, press shop, body shop, EV battery assembly or Fuel cell assembly, assembly line, paint shop etc. either on its own or in consortium or joint venture mode in the same location with investments over and above 1000 crore which will bring ancillary units of a minimum of INR 200 crore investment within 3 years.

4.1.4. **Ultra-Mega Battery Plant (UMBP):** A lithium Ion battery (or other advanced battery) plant setup for manufacturing batteries with an annual output of 1 GWh or above with a minimum investment of INR 1,000 Cr.

(P.T.O)

4.1.5. **Capital subsidy**:

(i) 25% of Fixed Capital Investment (FCI)) up to a maximum of INR 15 lakhs for Micro industries.

(ii) 20% of Fixed Capital Investment (FCI) up to a maximum of INR 40 lakhs for Small and INR 50 lakhs for Medium Industries.

(iii) 10% of Fixed Capital Investment (FCI) up to a maximum of INR 10 Crores for first two units, under Large industries, in each segment of Electric Vehicle (2 wheelers, 3 wheelers, 4 wheelers, buses), battery and charging equipment, hydrogen storage and fueling equipment manufacturing.

(iv) 10% of Fixed Capital Investment (FCI) up to a maximum of INR 20 Crores for first two units, under Mega category, in each segment of Electric Vehicle (2 wheelers, 3 wheelers, 4 wheelers, buses), battery and charging equipment, hydrogen storage and fueling equipment manufacturing.

(v) For specific clean production measures, as certified by Andhra Pradesh Pollution Control Board (APPCB), 35% subsidy on cost of plant & machinery for Micro, Small & Medium Enterprises (MSME) upto a maximum of INR 35 lakhs and 10% subsidy on cost of plant & machinery for Large projects upto a maximum of INR 35 lakhs.

(vi) 25% subsidy, for Micro Small and Medium Enterprises (MSMEs) and Large projects, for sustainable green measures on total Fixed Capital Investment (FCI) of the project (excluding cost of land, land development, preliminary and pre-operative expenses and consultancy fees) with a ceiling of INR 50 crore.

(vii) Special incentives will be given according to their need for Mega, Mega Integrated Automobile Projects and Ultra-Mega Battery Manufacturing Plants on a case to case basis.

4.1.6. **Stamp Duty**

(i) 100% of stamp duty and transfer duty paid by the industry on purchase or lease of land meant for industrial use will be reimbursed.

(ii) 100% of stamp duty for lease of land/shed/buildings, mortgages and hypothecations will be reimbursed.

4.1.7. **External Infrastructure Subsidy**

All external infrastructure such as power supply, water supply, roads will be provided at the doorstep of the industrial unit, charging & battery swapping stations at 50% of the cost of the infrastructure with an overall limit of INR 2 crores per project.

4.1.8. **Land**

In case of Mega Integrated Projects, Government will offer land to dependent ancillary units at the same rates as offered to respective Original Equipment Manufacturer (OEM) (wherever Government allocates land to OEM) up to a maximum of 50% of the land allocated to OEM.

4.1.9. **Power**

(i) Government of Andhra Pradesh will provide fixed power cost reimbursement @ Rs. 1.00 per unit for a period of five (5) years from the date of commencement of commercial production.

(Cont…)

(ii) The electricity duty will be reimbursed for a period of five (5) years.
(iii) A dedicated line along with special discount for night time/non-peak time usage will be offered for testing of BEV batteries based on requirements.

4.1.10. **Water**

(i) Water Supply will be made at 50% of the price of existing industrial supply tariff for the initial three (3) years from the date of commencement of commercial production.
(ii) The Government of Andhra Pradesh will provide water supply and also facilitate/support setup of water treatment plants in/around major auto hubs in order to meet this requirement wherever necessary.
(iii) In order to provide quality water, the Government of Andhra Pradesh will reimburse 25% of the cost of water treatment plant wherever necessary, with a limit of INR 2 crores on this subsidy.

4.1.11. **Tax Incentives**

100% net SGST accrued to the State will be reimbursed for a period of five (5) years for micro and small, seven (7) years for medium, ten (10) years for large industries. This reimbursement will be limited to 100% of capex or for the period Stated, whichever is earlier.

4.1.12. **Skill Development Incentives**

Stipend of INR 10,000 per employee per year to a maximum of first 50 employees for a single company for Micro, Small, Medium and Large firms.

4.1.13. **Marketing Incentives**

50% of cost of participation with a maximum amount of INR 5 lakhs to be reimbursed to a maximum of 10 MSME units per year for participating in International Trade Fairs.

4.1.14. **Industrial Parks & Clusters**

(i) The Government of Andhra Pradesh will allocate 500 to 1,000 acres of land for developing EV Parks with plug and play internal infrastructure, common facilities and necessary external infrastructure.
(ii) Developers of Auto Clusters and Automotive Suppliers Manufacturing Centers (ASMC) specific to Electric Vehicles shall be provided financial assistance of 50% of fixed capital investments in building and common infrastructure, up to a maximum of INR 20 crore.

4.1.15. **Recycling**

Battery recycling plants will be incentivized to mine for compounds from used batteries.

4.2. **Financial Incentives for Private Charging Stations & Hydrogen generation & refueling infrastructure**

(i) Direct-Current (DC) Chargers (100V and above): Capital Subsidy of 25% of the value of the charging station equipment/machinery for first 100 stations upto a maximum subsidy of INR 10,00,000

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(ii) Direct-Current (DC)Chargers (Below 100V): Capital Subsidy of 25% of the value of the charging station equipment/machinery for first 300 charging stations upto a maximum subsidy of INR 30,000

(iii) Capital subsidy of 25% of Fixed Capital Investment (for eligible assets excluding cost of battery inventory) up to a maximum subsidy of INR 10 lakhs for swapping stations for the first 50 stations

(iv) 100% net State Goods and Services Tax (SGST), accrued to the State, as reimbursement for purchase of fast chargers (DC chargers of capacity 100V and above).

(v) 100% net State Goods and Services Tax (SGST), accrued to the State, as reimbursement for purchase of advanced batteries for BATTERY ELECTRIC VEHICLES swapping

(vi) Capital subsidy of 25% of the Fixed Capital Investment (FCI), for hydrogen generation and fueling plants, with a maximum subsidy of INR 10 Crore/unit for the first 10 units.

4.3. Financial Incentives for Private Purchase and Use towards Demand Creation

(i) Reimbursement of registration charges and road tax on sale of Electric Vehicles until 2024.

(ii) Reimbursement of the Net State Goods and Services Tax (SGST) for services rendered, accrued to the State, for firms involved in services such as leasing of fleet of Electric Vehicles, owning or operating EV fleets and providing charging/battery swapping/Hydrogen Stations for recharging/refueling Electric Vehicles, until 2024.

4.4. R&D Grants

A research grant of INR 500 Cr will fund the most innovative solutions in the mobility space. This fund will support Center for Advanced Automotive Research (Research Labs working on battery, EV, EV component research etc), Center for Advancement of Smart Mobility (incubators, startups, prototyping centers etc are covered under this), Research Scholars and testing and quality labs as needed.

5. Other Initiatives by the Government

5.1. Targets of the Government

(i) Target to convert 100% of APSRTC bus fleet of over 11,000 buses into electric buses (Battery Electric Vehicles or Fuel Cell Electric Vehicles) by 2029, with the first phase of 100% conversion of bus fleet in top 4 cities by 2024.

(ii) Phase out all fossil fuel based commercial fleets and logistics vehicles in top 4 cities by 2024 and all cities by 2030.

(iii) All forms of Government vehicles, including vehicles under Government Corporations, Boards and Government Ambulances etc. will be converted to electric vehicles by 2024.

5.2. Investment by the Government departments

(i) The State Power Distribution Companies (DISCOMs) will invest in setting up both slow and fast charging networks in Government buildings and other public places. These charging points will be accessible to both Government as well as private vehicles.

(ii) DISCOMs will setup the charging infrastructure on its own or through third party operators using appropriate Public Private Partnership models. Such costs can be recovered as part of Aggregate Revenue Requirement (ARR).

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(iii) Andhra Pradesh State Road Transport Corporation (APSRTC) depots, bus terminals and bus stops will have charging stations.
(iv) Public parking spaces will be mandated to have charging stations.
(v) Government buildings will set a roadmap to setup charging or swapping stations in all of its parking spaces.
(vi) Charging infrastructure will be installed at least every 50 km on highways, other major roads etc.

5.3. Initiatives facilitating investments from private infrastructure developers

(i) Land across major cities will be allocated for private developers for setting up charging or battery swapping stations in a form similar to a contemporary fuel station as per statutory clearances.
(ii) Facilities will be provided to setup swapping stations in the form of a kiosk to service 2 and 3 wheelers.
(iii) Existing private buildings such as malls and other commercial buildings will be incentivized to setup charging/battery swapping stations.
(iv) All new permits for commercial complexes, housing societies and residential townships with a built-up area 5,000 sq.mt and above will mandate charging stations.
(v) DISCOM shall release supply to charging/battery swapping stations within 48 hours of application.
(vi) Municipalities shall issue provisional permissions online immediately to setup charging/battery swapping stations. Any verification shall only be post sanction of provisional permission.

5.4. City & Building codes

(i) City codes will be modified for both public places and private buildings in order to make the infrastructural changes needed for charging/battery swapping infrastructure.
(ii) Urban Local Bodies, Municipality rules/regulations will be modified to allow charging and battery swapping stations to be setup within its limits as and when required.

5.5. Energy sale

(i) A separate EV tariff category will be created.
(ii) Time of day sale of power to Battery Electric Vehicles will be considered to provide cheaper power during non-peak hours.
(iii) Andhra Pradesh Electricity Regulatory Commission (APERC) will issue regulations, defining tariff and related terms & conditions, for vehicle to grid (V2G) sale of power to meet the requirements of real time and ancillary services for DISCOM. Sale of power from battery swapping stations to the grid will also be considered as V2G sale of power.
(iv) Third party EV charging infrastructure providers will be allowed to procure power from DISCOM at regulator determined tariff and will be allowed to provide the charging service to Electric Vehicles.
(v) Third party EV charging service providers will be allowed to procure power through open access route from renewable energy sources irrespective of the size of the demand. APERC will determine the appropriate process and charges related to open access.
(vi) Third party EV charging service providers can also setup their own renewable energy generating stations at their premises for charging Electric Vehicles only.

(Cont…)

(vii) Cloud charging features will be encouraged in order to have all metering and transactions done digitally with payment apps, Near Field Communication (NFC) enabled devices, Radio Frequency Identification (RFID) tags etc. while keeping it flexible and customer friendly.

5.6. **Demand Creation**

(i) The cities of Vijayawada, Vishakhapatnam, Amaravati and Tirupati will be declared as Model Electric Mobility (EM) cities with phase-wise goals to adopt Electric Vehicles, charging & hydrogen refueling infrastructure and new EV enabling building codes.

(ii) Model EM cities will have a deadline to convert 100% of all commercial & logistics fleets to electric fleet by 2024. These fleets can belong to any Government Organization, APSRTC, Educational Institutes, Hospitals or Corporates and other institutions.

(iii) DISCOM will plan to setup 100 DC public charging stations in each of these cities.

(iv) Smart city proposals to the Central Government will include support for charging infrastructure and hydrogen fueling stations. Identified areas will be designated as "Green Zones" with entry only to non-fossil fuel based vehicles.

(v) These cities will develop specific goals of charging and Hydrogen refueling infrastructure density within a defined timeline linked to target for deployment of Electric Vehicles. These cities will create mobility blueprints and make provision in infrastructure needs to support the charging stations and EV only zones.

(vi) One or more of higher registration, renewal, parking fees, congestion charges, taxes/cess on sale, and limitation of entry into city limits etc. will be levied on sale/usage of highly polluting vehicles in order to support the switch to environmentally friendly vehicles.

5.7. **Revision of transport regulations for Electric Vehicles.**

(i) All regulations below are applicable only for Fuel cell Electric Vehicles using hydrogen fuel cells and Battery Electric Vehicles using advanced battery technologies with energy/power density similar or more than that of a Lithium Ion battery.

(ii) Electric Autos will be given permits on priority.

(iii) Low power Electric rickshaws will be allowed only in certain areas or outside major cities to avoid congestion.

(iv) Corporates will be allowed to own and operate electric 3-wheelers.

(v) Registration will be allowed for 2 wheelers, 3-wheelers and 4-wheelers retrofitted with an electric motor and an electric powertrain using advanced battery technologies and certified by Automotive Research Association of India (ARAI) or other Government recognized agency.

(vi) In order to avoid congestion in cities, Electric Vehicles will be mandated in cities while phasing out polluting vehicles in parallel.

(vii) The model EM cities will come up with a timeline for phasing out all fossil fuel based 3 and 4 wheelers in all vehicle fleets from corporates, medical institutions, and educational institutes and logistics providers by 2024. Eventually these restrictions will also be implemented in all cities within the State by 2030.

(viii) Electric Mobility blueprint will be created for the entire State for a phase wise transition to Electric Vehicles.

(ix) Registration of Electric Vehicles will be done online immediately.

5.8. **Smart Mobility Corporation**

A Corporation will be setup to coordinate all necessary activities for promoting futuristic needs of transportation.

(Cont…)

6. The policy will come into operation from the date of issue of this order and shall remain in force for five (5) years or upto 07.06.2023. Necessary amendments/orders will be issued by the Department of Energy, Department of Transport, Roads and Buildings (TR&B), Department of Municipal Administration and Urban Development and other concerned departments and Government Corporations. The incentives mentioned in the Policy will be extended to industries as per guidelines to be notified separately by the Commissioner of Industries.

7. This order is issued with the concurrence of Finance (FMU-REV-I&C) Department, vide their U.O.No.45027/498/FMU-REV- I&C) Department, dt:29.01.2018.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

SOLOMON AROKIA RAJ
SECRETARY TO GOVERNMENT & CIP

To
Commissioner of Industries, Govt., of A.P, Vijayawada.
The VC & MD, APIIC, Vijayawada.
The MD, APSFC, Vijayawada.
The Water resources Department
The Revenue (Lands.) Department
The Revenue (CT) Department.
The Revenue (Regn.) Department.
The Energy Department.
The Municipal Administration & Urban Development department
The Transport, Roads and Buildings department
The MD, APSRTC.
The MD, APTRANSCO
All the Departments in the A.P. Secretariat.

Copy to
The Finance (Expr. Ind. & Com) Department.
The Law (H) Dept.
The I& I Dept.
The IG & Commissioner of Registration and Stamps, A.P., Vijayawada
The Commissioner of Commercial Taxes, Government of Andhra Pradesh, Vijayawada.
All the HODs under the administrative control of Ind.& Com. Dept.
The P.S. to C.S
The P.S. to Prl. Secy. to C.M.
The P.S. to Minister for Industries.
The P.S. to Secy.to Govt. & CIP., Ind. & Com. Dept.

//FORWARDED:: BY ORDER//

SECTION OFFICER

Annexure-I

(G.O.MS.No. 74, Ind. & Com. (P&I) Dept., Dt:08.06.2018)

ELECTRIC MOBILITY POLICY
2018-23

DEPARTMENT OF INDUSTRIES & COMMERCE
GOVERNMENT OF ANDHRA PRADESH

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LIST OF ABBREVIATIONS

APERC	Andhra Pradesh Electricity Regulatory Commission
APSRTC	Andhra Pradesh State Road Transport Corporation
ARR	Aggregate Revenue Requirement
BEV	Battery Electric Vehicle
DC	Direct Current
EV	Electric Vehicle
FCEV	Fuel Cell Electric Vehicle
FCI	Fixed Capital Investment
GoAP	Government of Andhra Pradesh
GoI	Government of India
GW	Gigawatt
GWh	Gigawatt Hour
ICE	Internal Combustion Engine
MSME	Micro, Small & Medium Enterprise
OEM	Original Equipment Manufacturer
PPP	Public Private Partnership
RFID	Radio Frequency Identification
SGST	State Goods and Services Tax

1 BACKGROUND

1. Internal combustion engines (ICEs) are one of the key technological innovations that have facilitated faster and efficient movement of both people as well as goods. Over the decades, an improvement in their efficiency, an increase in oil drilling and innovation in manufacturing have brought considerable momentum to adoption and growth of automobiles and fueled economic growth. In the last decade, governments around the world have unanimously decided to pursue sustainable economic development with reformation of transportation at the center of the agenda.

2. Today, transportation is ready for yet another technological leap with the advent of vehicles running on alternative fuels and electricity. Globally, Electric Vehicles also known as EVs, driven by high-density batteries or fuel cells, are becoming economical, fueled by falling prices of Lithium-ion batteries, increased research into fuel cells and cheaper renewable energy.

3. Globally, various countries have been setting targets and formulating action plans for achieving full electric mobility. By 2020, China plans to have charging infrastructure to support 5 million EVs while Netherlands aims to achieve the target of 75,000 privately owned EVs by 2020. Norway has also seen a rapid increase in demand for EVs with heavy support through government subsidies[1].

4. Fuel Cell Electric Vehicles (FCEVs) are also gaining traction as seen through launch of Europe's -Hydrogen Mobility Europe (H2ME)[2]network, Japan's target of 40,000 hydrogen FCEV by 2020[3] and California's Fuel Cell Partnership (CaFCP)[4] to manufacture FCEVs & develop Hydrogen infrastructure in the United States.

5. The GoI has provided tremendous support for EVs through incentives under "Faster adoption and manufacturing of hybrid and electric vehicles" (FAME) Policy. The Ministry of New and Renewable Energy has also supported R&D and demonstration projects on various aspects of hydrogen energy including its production, storage and use as a fuel for generation of mechanical/thermal/electrical energy.

6. Indian manufacturers have started to transition towards Battery Electric Vehicles (BEV) 4-wheelers and buses. The Indian market is also seeing a large number of startups launching 2 and 3 wheeler BEVs. Tenders from Energy Efficiency Services Ltd (EESL) for purchasing electric cars and charging stations and tenders from individual state government transportation units (STU's) for purchasing/renting electric buses are seeing tremendous interest from both Indian as well as International manufacturers.

7. Within the context of the state of Andhra Pradesh, the State Government has set for itself an ambitious target to be one amongst the three best states in India by 2022, the best state by 2029 and a leading global investment

[1] www.theicct.org
[2] www.h2me.eu
[3] International Energy Agency, "An Industrial perspective on Hydrogen Energy"
[4] www.cafcp.org

destination by 2050. As part of the vision, the state is targeting to achieve sustainable double digit growth for the next decade and half. This requires the state to foster futuristic growth engines for sustainable growth.

8. Accordingly, the Government of Andhra Pradesh has identified Electric Mobility space to be robust growth driver in the years to come. It aims to be a frontrunner in building a sustainable transportation infrastructure by promoting Electric Mobility Ecosystem in Andhra Pradesh.

9. The Government understands that the transformation has to begin in cities over the next decade while the charging infrastructure & hydrogen stations are built to support the adoption of EVs. It is foreseen that adoption of EVs might begin with public transportation, stage carriers and commercial taxi & scooter fleet providers, given the comparable total cost of ownership between EVs and ICE vehicles in their usage model. As parity between the cost of an EV and ICE vehicle is achieved along with proliferation of charging infrastructure and hydrogen fueling stations on highways, the end of next decade could potentially see mass adoption of EVs.

10. The Government envisages Andhra Pradesh to be a prime destination for development and manufacturing of batteries, fuel cells, hydrogen generation and storage stations, Battery EVs (BEV) as well as Fuel cell EVs (FCEV), EV components and charging equipment not only for India but also for the world. The Government is fully committed to build a prosperous and healthy future for its citizens as well as bring affordable and environmentally sustainable technologies to global population. In this regard, this policy aims to support every aspect of Electric Mobility towards accelerating adoption of EVs that eventually lead to healthier climate.

11. The best-in-class environment for "Ease of Doing Business" along with competitive incentives provided in this Policy are expected to create a robust ecosystem for Electric Mobility in the State of Andhra Pradesh.

2 DEFINITIONS

12. **Electric Vehicle:** Electric Vehicle (EV) refers to automobiles using an electric motor that is driven by either batteries, ultra capacitors or fuel cells

13. **Battery Electric Vehicle:** The term battery electric vehicle (BEV) refers to automobiles with only electric motor and advanced batteries (to power the engine) with similar or more energy density than that of a Lithium Ion battery. Hybrid electric vehicles with fossil fuel based engines, are not covered under this policy.

14. **Fuel Cell Electric Vehicle:** Fuel Cell Electric Vehicle (FCEV) refers to the vehicle which uses a fuel cell in combination with a battery or supercapacitor, to power its on-board electric motor. Fuel cell in vehicles generate electricity to power the motor, by using hydrogen as fuel.

15. **Charging/Battery Swapping equipment:** Equipment that is exclusively used to charge the battery or swap the battery inside a BEV. These equipment can be installed at existing fuel stations or separate charging or battery swapping

stations. This policy doesn't cover incentives for manufacturing any supporting equipment (such as transformers, junction boxes etc.) that is not exclusive to BEV charging/swapping equipment.

16. **DISCOM** refers to Andhra Pradesh Eastern Power Distribution Company and Andhra Pradesh Southern Power Distribution Company.

17. **Electric Mobility Ecosystem:** This policy addresses various components and end products of the electric mobility ecosystem. Such an ecosystem encompasses the "Electric Vehicles and components such as Lithium Ion Batteries (or other advanced batteries with comparable energy/power densities), Super capacitors, Fuel cell systems, EV Charging equipment, Hydrogen generation, storage and refueling equipment, Battery swapping equipment, EV Motors & Controllers and other EV powertrain components, Battery management systems, EV electronics, electric harness etc. integral to the functioning of an EV.

18. **Fixed Capital Investment** (FCI): Fixed Capital Investment refers to Land, Building and Plant & Machinery, as specified in operating guidelines.

19. **Micro, Small and Medium Enterprise (MSME):** GoAP will follow the MSME definition laid out by GoI for MSME as per MSME Act 2006 (as amended from time to time). This policy specifies incentives for MSME firms manufacturing components and end products that are part of the electric mobility ecosystem.

20. **Large Project:** A unit, manufacturing intermediate components or end products that are part of the electric mobility ecosystem, with capital investment over the threshold of a medium enterprise and up to a maximum of INR 200 crore or creating employment for over 1000 people will be accorded Large project status.

21. **Mega Project:** A unit, manufacturing intermediate components or end products that are part of the electric mobility ecosystem, with capital investment of over INR 200 crore or creating employment for over 2000 people will be accorded Mega project status and tailor made incentives will be offered based on factors such as investment and technology.

22. **Mega Integrated Automobile Project:** The mega integrated automobile project will mean automobile projects that will have EV powertrain assembly, press shop, body shop, EV battery assembly or Fuel cell assembly, assembly line, paint shop etc. either on its own or in consortium or joint venture mode in the same location with investments over and above 1000 crore which will bring ancillary units of a minimum of INR 200 crore investment within 3 years.

23. **Ultra-Mega Battery Plant (UMBP):** A lithium Ion battery plant setup for manufacturing batteries with an annual output of 1 GWh or above with a minimum investment of INR 1,000 Cr.

3 POLICY VALIDITY

24. The policy will be valid for a period of 5 years from the notification.

4.1 Objectives

25.This Policy has the following Objectives

a. To make AP a global hub for electric mobility development and manufacturing.
b. Attract manufacturers across the EV ecosystem to the state to setup their manufacturing units and supply to a global market.
c. Promote innovation actively through grants and venture funds to research organizations, incubators, and startups working on next generation battery technology, fuel cell technologies, EV power trains and EV electronics.
d. To create best in class ecosystem via Industrial parks to hasten product development, manufacturing & testing.
e. Enable investment into charging/battery swapping infrastructure and hydrogen generation and fueling station development.
f. Create a skilled workforce which is attuned to the needs of EV ecosystem.
g. Promote usage of EVs to enable transition to environmentally friendly cities.
h. Build next generation transportation infrastructure using Vehicle to Everything (V2X) platforms.

4.2 Targets

26.This Policy aims to achieve the following targets:

a. Attract combined investments of over INR 30,000 Crore in the next 5 years across the electric mobility ecosystem with an employment potential for 60,000 people
b. Target to bring in manufacturing units of high density energy storage of at least 10GWh capacity in the next 5 years to cater to both domestic as well as export market.
c. Target to convert 100% of APSRTC bus fleet of over 11,000 buses into electric buses (BEVs/FCEVs) by 2029, with the first phase of 100% conversion of bus fleet in top 4 cities by 2024.
d. Phase out all fossil fuel based commercial fleets and logistics vehicles in top 4 cities by 2024 and all cities by 2030.
e. All forms of government vehicles, including vehicles under government corporations, boards and government ambulances etc. will be converted to electric vehicles by 2024.
f. Target to have 10 lakh EVs, combined across all segment of vehicles, by 2024.
g. Target to have 1,00,000 slow and fast charging stations by 2024[5].

4.3 Strategy

27.The GoAP wants to achieve its objectives by emphasizing on

a. Manufacturing of EV and its components
b. Charging Infrastructure
c. Hydrogen generation and Refueling infrastructure

[5]It is understood that as EV technology evolves, definition of a slow and fast charging station will change. This target will also be adjusted accordingly.

d. Demand creation for EVs
e. Research & Development

5 MANUFACTURING

28. Development of Electric Mobility Industrial Parks
    a. The GoAP will allocate 500 to 1,000 acres of land for developing EV Parks with plug and play internal infrastructure, common facilities and necessary external infrastructure.
    b. The parks will attract manufacturers across the EV ecosystem.
    c. An incubation center for handholding startups will also be planned in the EV Park.
    d. Developers of Auto Clusters and Automotive Suppliers Manufacturing Centers (ASMC) specific to EVs shall be provided financial assistance of 50% of fixed capital investments in building and common infrastructure, up to a maximum of INR 20 crore.

29. Infrastructural Support to Manufacturing Firms
    a. Land: In case of Mega integrated projects, government will offer land to dependent ancillary units at the same rates as offered to respective Original Equipment Manufacturer (OEM) (wherever Government allocates land to OEM) up to a maximum of 50% of the land allocated to OEM.
    b. Water: The GoAP will provide water supply and also facilitate/support setup of water treatment plants in/around major auto hubs in order to meet this requirement wherever necessary.
    c. Rail and Road Connectivity: The GoAP shall strive to construct elevated expressways to decongest roads to the industrial areas and will also look to ensuring better road access to ports.
    d. Export Oriented Units: For export focused units, the incentives as per the Export policy of the state shall be applicable, over and above what is made available under this policy.

30. Financial Support to Manufacturing Firms
    a. Capital subsidy of Fixed Capital Investment (FCI) in the following amounts:
        i. 25% of FCI up to a maximum of INR 15 lakhs for Micro industries
        ii. 20% of FCI up to a maximum of INR 40 lakhs for Small and 50 lakhs for Medium Industries
        iii. 10% of FCI up to a maximum of INR 10 Crores for first two units, under Large industries, in each segment of EV (2 wheelers, 3 wheelers, 4 wheelers, buses), battery and charging equipment, hydrogen storage & fueling equipment manufacturing.
        iv. 10% of FCI up to a maximum of INR 20 Crores for first two units, under Mega category, in each segment of EV (2 wheelers, 3 wheelers, 4 wheelers, buses), battery and charging equipment, hydrogen storage & fueling equipment manufacturing.
        v. Additionally, special incentives will be given according to their need for Mega, Mega Integrated automobile projects and Ultra-Mega battery manufacturing plants on a case to case basis.
        vi. For specific clean production measures, as certified by Andhra Pradesh Pollution Control Board (APPCB), 35% subsidy on cost of

plant & machinery for MSMEs upto a maximum of 35 lakhs and 10% subsidy on cost of plant & machinery for Large projects upto a maximum of 35 lakhs.

vii. 25% subsidy, for MSMEs and Large projects, for sustainable green measures on total FCI of the project (excluding cost of land, land development, preliminary and pre-operative expenses and consultancy fees) with a ceiling of INR 50 crore.

b. Stamp Duty
    i. 100% of stamp duty and transfer duty paid by the industry on purchase or lease of land meant for industrial use will be reimbursed.
    ii. 100% of stamp duty for lease of land/shed/buildings, mortgages and hypothecations will be reimbursed.
    iii. Stamp duty will be reimbursed only one time on the land. Stamp duty will not be waived on subsequent transactions on the same land.

c. External Infrastructure Subsidy
    i. All external infrastructure such as power supply, water supply, roads will be provided at the doorstep of the industrial unit, charging & battery swapping stations at 50% of the cost of the infrastructure with an overall limit of 2 crores per project.

d. Power
    i. AP is one of the three states selected under the centrally-sponsored "Power For All" scheme. GoAP is committed to supplying uninterrupted 24x7 quality power to all qualified EV related industries operating in the state. GoAP will provide dedicated feeders to all units involved in manufacturing components for EV as required.
    ii. GoAP will provide fixed power cost reimbursement @ 1.00 per unit for a period of 5 years from the date of commencement of commercial production. The power cost reimbursement for certain specific sector/sub-sector may be higher.
    iii. The electricity duty will be reimbursed for a period of 5 years.
    iv. A dedicated line along with special discount for night time/non-peak time usage will be offered for testing of BEV batteries based on requirements.

e. Water
    i. Water Supply will be made at 50% of the price of existing industrial supply tariff for the initial 3 years from the date of commencement of commercial production.
    ii. In order to provide quality water, the GoAP will reimburse 25% of the cost of water treatment plant wherever necessary, with a limit of 2 crores on this subsidy.

f. Tax Incentives
    i. 100% net SGST accrued to the state will be reimbursed for a period of 5 years for micro & small, 7 years for medium, 10 years for large industries. This reimbursement will be limited to 100% of capex or for the period stated, whichever is earlier.

g. Skill Development Incentives

i. Stipend of INR 10,000 per employee per year to a maximum of first 50 employees for a single company for Micro, Small, Medium and Large firms.

h. Marketing Incentives
   i. 50% of cost of participation with a maximum amount of 5 lakhs to be reimbursed to a maximum of 10 MSME units per year for participating in international trade fairs.

i. Recycling: Battery recycling plants will be incentivized to mine for compounds from used batteries.

6 CHARGING INFRASTRUCTURE

31. Investment by the Government departments
    a. The DISCOM will invest in setting up both slow and fast charging networks in government buildings and other public places. These charging points will be accessible to both government as well as private vehicles.
    b. DISCOM will setup the charging infrastructure on its own or through third party operators using appropriate PPP models. Such costs can be recovered as part of ARR.
    c. APSRTC depots, bus terminals and bus stops will have charging stations.
    d. Public parking spaces will be mandated to have charging stations.
    e. Government buildings will set a roadmap to setup charging or swapping stations in all of its parking spaces.
    f. Charging infrastructure will be installed at least every 50 km on highways, other major roads etc.

32. Investments from private infrastructure developers
    a. Land across major cities will be allocated for private developers for setting up charging or battery swapping stations in a form similar to a contemporary fuel station as per statutory clearances.
    b. Facilities will be provided to setup swapping stations in the form of a kiosk to service 2 and 3 wheelers.
    c. Existing private buildings such as malls and other commercial buildings will be incentivized to setup charging/battery swapping stations.
    d. All new permits for commercial complexes, housing societies and residential townships with a built-up area 5,000 sq.mt and above will mandate charging stations.
    e. DISCOM shall release supply to charging/battery swapping stations within 48 hours of application.
    f. Municipalities shall issue provisional permissions online immediately to setup charging/battery swapping stations. Any verification shall only be post sanction of provisional permission.

33. City & Building codes
    a. City codes will be modified for both public places and private buildings in order to make the infrastructural changes needed for charging/battery swapping infrastructure
    b. Urban local bodies, Municipality rules/regulations will be modified to allow charging and battery swapping stations to be setup within its limits as and when required.

34. Energy sale

a. A separate EV tariff category will be created.
b. Time of day sale of power to BEVs will be considered to provide cheaper power during non-peak hours.
c. APERC will issue regulations, defining tariff and related terms & conditions, for vehicle to grid (V2G) sale of power to meet the requirements of real time and ancillary services for DISCOM. Sale of power from battery swapping stations to the grid will also be considered as V2G sale of power.
d. Third party EV charging infrastructure providers will be allowed to procure power from DISCOM at regulator determined tariff and will be allowed to provide the charging service to EVs.
e. Third party EV charging service providers will be allowed to procure power through open access route from renewable energy sources irrespective of the size of the demand. APERC will determine the appropriate process and charges related to open access.
f. Third party EV charging service providers can also setup their own renewable energy generating stations at their premises for charging EVs only.
g. Cloud charging features will be encouraged in order to have all metering and transactions done digitally with payment apps, NFC enabled devices, RFID tags etc. while keeping it flexible and customer friendly.

35. Quality and standards
    a. Standards for charging equipment will also be created in close association with the central government departments and scientific bodies.
    b. The state will follow the charging specifications as per the guidelines issued by Department of Heavy Industries, GOI.

36. Financial Incentives for Private Charging Stations
    a. DC Chargers (100V and above): Capital Subsidy of 25% of the value of the charging station equipment/machinery for first 100 stations upto a Maximum subsidy of INR 10,00,000
    b. DC Chargers (Below 100V): Capital Subsidy of 25% of the value of the charging station equipment/machinery for first 300 charging stations upto a Maximum subsidy of INR 30,000
    c. Capital subsidy of 25% of Fixed Capital Investment (for eligible assets excluding cost of battery inventory) up to a maximum subsidy of 10 lakhs for swapping stations for the first 50 stations
    d. 100% net SGST, accrued to the state, as reimbursement for purchase of fast chargers (DC chargers of capacity 100V and above).
    e. 100% net SGST, accrued to the state, as reimbursement for purchase of advanced batteries for BEV swapping stations.

7 HYDROGEN GENERATION AND REFUELING INFRASTRUCTURE

37. The first few Hydrogen generation and refueling stations will be developed by government
38. Private developers will be allowed to setup hydrogen stations
39. The refueling station will be available at every 200 km.
40. APSRTC will have dedicated Hydrogen stations at their depots.

41. GoAP will also support in making appropriate changes in standards/policies at national level that are required for allowing the use of Type-3 and Type-4 cylinders to store the Hydrogen at high pressure at the refueling stations as well as on board in case of FCEVs.
42. In coordination with GOI, GoAP will also list out all the safety standards that need to be adhered to by developers of hydrogen generation and refueling stations.
43. Developers of Private Hydrogen Generation and Re-fueling Infrastructure will be eligible for - 100% net SGST, accrued to the state, as reimbursement for purchase of machinery for Hydrogen generation and refueling stations.
44. Financial Incentives
    a. Capital subsidy of 25% of the FCI, for hydrogen generation and fueling plants, with a maximum subsidy of INR 10 Crore/unit for the first 10 units.

8 DEMAND CREATION

45. Model Electric Mobility (EM) cities
    a. 2018-19 shall be announced as the "Year of the Electric Vehicle" in AP
    a. The cities of Vijayawada, Vishakhapatnam, Amaravati and Tirupati will be declared as model EM cities with phase-wise goals to adopt EVs, charging & hydrogen refueling infrastructure and new EV enabling building codes.
    b. Visakhapatnam will be the pilot city for all new initiatives
    c. Model EM cities will have a deadline to convert 100% of all commercial & logistics fleets to electric fleet by 2024. These fleets can belong to any government organization, APSRTC, educational institutes, hospitals or corporates and other institutions.
    d. DISCOM will plan to setup 100 DC public charging stations in each of these cities.
    e. Smart city proposals to the central government will include support for charging infrastructure and hydrogen fueling stations. Identified areas will be designated as "Green zones" with entry only to non-fossil fuel based vehicles.
    f. These cities will develop specific goals of charging and Hydrogen refueling infrastructure density within a defined timeline linked to target for deployment of EVs. These cities will create mobility blueprints and make provision in infrastructure needs to support the charging stations and EV only zones.
    g. One or more of higher registration, renewal, parking fees, congestion charges, taxes/cess on sale, and limitation of entry into city limits etc. will be levied on sale/usage of highly polluting vehicles in order to support the switch to environmentally friendly vehicles.
    h. Multiple government offices and public areas will be chosen for installing public charging equipment that can be used by all.
    i. GoAP will support CSR initiatives in the Electric mobility ecosystem, as per the guidelines of GOI
    j. PPP models in public transport, using purely EVs, will be offered based on selected routes/EV Zones.

46. Revision of transport regulations for EVs.

a. All regulations below are applicable only for FCEVs and BEVs using advanced battery technologies with energy/power density similar or more than that of a Lithium Ion battery.
b. Electric Autos will be given permits on priority.
c. Low power Electric rickshaws will be allowed only in certain areas or outside major cities to avoid congestion.
d. Corporates will be allowed to own and operate electric 3-wheelers.
e. Registration will be allowed for 2 wheelers, 3-wheelers and 4-wheelers retrofitted with an electric motor and an electric powertrain using advanced battery technologies and certified by ARAI or other government recognized agency.
f. In order to avoid congestion in cities, EVs will be mandated in cities while phasing out polluting vehicles in parallel.
g. The model EM cities will come up with a timeline for phasing out all fossil fuel based 3 and 4 wheelers in all vehicle fleets from corporates, medical institutions, and educational institutes and logistics providers by 2024. Eventually these restrictions will also be implemented in all cities within the state by 2030.
h. Electric mobility blueprint will be created for the entire state for a phase wise transition to EVs.
i. Registration of EVs will be done online immediately

47. Smart Mobility Corporation
    a. A corporation will be setup to coordinate all necessary activities for promoting futuristic needs of transportation.
    b. This organization will coordinate with various departments in central government as well as state governments to further the adoption of vehicles both for government as well as private use.
    c. It will also periodically review the incentives and suggest amendments as necessary.
    d. This corporation will also help adoption of futuristic technologies for EVs and associated infrastructure.

48. Communication
    a. The government notices that communication to create awareness amongst people is very crucial to further the growth of electric vehicle.
    b. Test rides in collaboration with various vehicle manufacturers, green days in the capital region and other cities will be promoted to take the new technology to the common man.

49. Financial Incentives for Private Purchase and Use
    a. Reimbursement of registration charges and road tax on sale of EVs until 2024.
    b. Phase wise/City wise, promotional discounted tariff will be offered for charging BEVs.
    c. Time of use tariff for BEV to be introduced
    d. Reimbursement of the Net SGST for services rendered, accrued to the state, for firms involved in services such as leasing of fleet of EVs, owning or operating EV fleets and providing charging/battery swapping/Hydrogen stations for recharging/refueling EVs, until 2024.

9 RESEARCH & INNOVATION ORIENTED INDUSTRIAL DEVELOPMENT

50. AP wants to be the hub not only for manufacturing but also for R&D focusing on next generation of battery management systems, drivetrain components, battery chemistries, fuel cell systems and intelligent transportation systems.

51. R&D Grants
    a. A research grant of INR 500 Cr will fund the most innovative solutions in the mobility space. Public or private research labs, incubators, startups that work on products and solutions in electric mobility space will also be provided land and office space to quickly setup their facility.
    b. Research scholars who move to the state to work for research in electric mobility and its components will be offered one time grant and incentivized via accommodation and transportation benefits.
    c. GoAP proposes to provide financial assistance towards expenses incurred for patent registration and for quality certifications. The financial assistance will be limited to 75% of the cost, subject to a maximum of 25 lakhs for obtaining patent registration and 50% of all charges, subject to a maximum of 5 Lakhs paid for obtaining quality certification. This would be applicable only to MSME's.

52. Centre for advanced automotive research (CAAR)
    a. The center will collaborate with research organizations like IISER, ISRO, IIT-Chennai and other domestic and foreign universities to foster centers of advance research in the domains of chemical, mechanical, electrical and electronics engineering.
    b. Focus will be on next generation battery chemistries, fuel cell systems, powertrains, automotive electronics and electrical road systems (ERS).
    c. The center will bring together universities in state and Indian and foreign researchers along with technology innovators for development of Vehicle to Everything (V2X) communication platform. V2X platforms include technologies such as Vehicle to Vehicle (V2V), Vehicle to Infrastructure (V2I), Vehicle to Grid (V2G), Vehicle to Device (V2D) and Vehicle to Pedestrians (V2P) etc.
    d. Commercialization of technology will be done via JV with private or public corporations.

53. Center for Advancement of Smart Mobility (CASM)
    a. This center will be setup in 100 acres of land along with a test track for all new electric vehicles and autonomous vehicles.
    b. This center will be a hub for startups, centers of excellence in electric mobility and prototyping centers for latest innovations.
    c. Well-funded incubators within CASM will bring in investors, banks and venture fund to finance innovative startups, provide fast track approvals and help them create a prototype and transition into viable businesses.
    d. Innovations pioneered here will be used not only in the Greenfield capital "Amaravati" but also in existing major cities of Visakhapatnam, Vijayawada and Tirupati. Autonomous vehicles will be given limited time period testing window to simulate performance under realistic conditions.

54. Testing and Quality control labs

a. In coordination with National automotive testing and R&D Infrastructure (NATRiP), GoAP shall strive to set-up quality testing center for EVs.
b. These facilities would be accessible to all manufacturers in the sector.

10 SCOPE OF POLICY

55. This policy is applicable only to EVs and the components (such as electric drive train, electronics, Fuel cell etc.) that are integral to its manufacturing and operation (Hydrogen infrastructure, BEV charging or BEV battery swapping infrastructure) only. Firms availing incentives under this policy will not be eligible for incentives under the Automobile policy or the industrial policy of the GoAP. Separate guidelines will be issued for implementation of this policy.

11 NODAL ORGANIZATION

56. The government will setup a high level committee consisting of stakeholders from all concerned departments. The government will issue new directives to the respective departments to include any support needed for furtherance of EV in their operational policy under ease of doing business.

12 SKILL DEVELOPMENT INITIATIVES

57. State will identify required quantum of skilled manpower, map EV specific skill sets and provide courses at different levels of education – matriculation and above. Local Industrial Training Institutes (ITIs), employment exchange centers, technical institutes will be prepared to introduce EV courses & train technicians and engineers.

58. Additional subsidy on training and stipend will be provided for every company with a cap on employees per type of firm.

13 OPERATIONAL GUIDELINES

59. Operating Guidelines for this policy will be issued separately.

SOLOMON AROKIA RAJ
SECRETARY TO GOVERNMENT & CIP

BIHAR

Version-4

DRAFT

AMENDMENT TO BIHAR INDUSTRIAL INVESTMENT PROMOTION POLICY- 2016

for inclusion of EV sector under high priority

(as per 14.1 of First Schedule to Rules of Executive Business, 1979)

1. INTRODUCTION

Electric Vehicles especially electric rickshaws have become increasingly popular in the state in recent times because of lower acquisition cost, lower operating cost, eco-friendliness etc. Dept. of Heavy Industries. Government of India has been supporting electric mobility efforts in the country through National Mission on Electric Mobility and has now notified Phase – II (Faster Adaptation and Manufacturing of Electric Vehicles) on 08.03.2019. **Para -11 of FAME- II requires state government to supplement support being provided by the Central Government by notifying bouquet of fiscal and non-fiscal incentives.**

Incentives for Industries in Bihar are governed through Bihar Industrial Investment Promotion Policy-2016. It recognizes ten priority / high priority sectors and as such EV Manufacturing and Allied Activities (EV sector) are non-priority sector in Bihar. Although Bihar is amongst one of the fastest growing markets for e-rickshaw, it has not been able to leverage its market strength for development of manufacturing eco-system of e-Vehicles in the state. Currently Maharashtra, Gujrat and Karnataka are leading in this sector and have separate EV Policies. It is therefore proposed to include EV Sector as high priority sector in the Bihar Industrial Investment Promotion Policy-2016 by suitable amendment to the said Policy.

2. VISION, MISSION & STRATEGY

Vision of the Bihar Electric Vehicle Incentive Policy 2019 is to establish Bihar as the most preferred investment destination by leveraging its market strength and maximize employment opportunities in this sector in the state. It also envisions creation of manufacturing eco- system for e-vehicles in the state and fulfill Sustainable Development Goals in the transport system.

Mission of the state Policy, inter alia, is to

- Supplement the GoI in its mission to bring 100% e-mobility by 2030 by doing its bit,
- End manual pedaling of rickshaws in the state and upgrade them into 100% electric mobility by 2022,
- Create normal/fast charging/swapping stations at every 25 Km on state highways/national highways in the state and every 3 km in the city,
- Make Bodh Gaya and Rajgir 100% EV city/no emission zone,
- Attract on- ground investments of Rs. 1500 crore (Rs. 300 cr p.a), and
- Create direct empowerment opportunities for 50,000 persons (10,000 p.a.) in the state.

The above is proposed to be achieved through a bouquet of fiscal and non- fiscal incentives as detailed in para 4. Dovetailing of incentives with the Central Government schemes would be allowed subject to conditions laid out in para 6.3 of Bihar Industrial Investment Promotion Policy, 2016.

3. DEFINITIONS:

a. EV - For the purpose of this Policy EV shall have the same meaning as "Battery Operated Vehicle" under Rule no. 2 (u) of Central Vehicle Rule 1989.
b. EV Component - shall include motor controller, electric engine, regenerative braking, drive system and related parts.
c. EV Battery - battery used to power battery electric vehicles.
d. EV Battery component - mechanical and electrical component which perform the required functions of the battery pack.
e. EV Charging station and equipment - an infrastructure or device that supplies electric energy for charging of EVs.
f. EV charging infrastructure-There could be four types of charging infra, viz., domestic, public charging, commercial and common facility for users of the property.

4. DEMAND INCENTIVES:

e-mobility incentives through Transport Department:

I. In terms of para 14 of FAME II dated 8.3.2019, demand incentive to give impetus to manufacturing in Bihar shall be available for consumers (buyers/end users) in the form of an upfront reduced purchase price of hybrid and electric vehicles

II. Following categories of vehicles shall be eligible for demand incentives:
   a) Electric buses
   b) Four wheelers (EV), Plug in hybrid (PHEV) and Strong Hybrid (SHEV)
   c) Three Wheeler (Electric)
   d) Two Wheelers (Electric)

   Definition of these shall be as notified by the nodal department in Govt. of India for implementation of FAME II, i.e., DHI

The state shall offer incentive for the first 100,000 vehicles manufactured within the state of Bihar. Vehicle segment wise incentive and no. of vehicles to be supported shall be as under:

Sr. No	Vehicle Segment	Max vehicle to be supported	Approx. battery size	Approx incentive @10,000 per kwh
1	e-2 wheeler	24,000	2 kwh	20,000/-
2	2-3 wheeler	70,000	5 kwh	50,000/-
3	e-4 wheeler	4000	15 kwh	150,000/-
4	4 wheeler (SHEV)	1000	1.3 kwh	13,000/-
5	e-bus	1000	250 kwh	25,00,000/-

All categories of buyers, i.e, private transporter and individual buyer shall get end user subsidy over policy period. In order to qualify for these incentives, all such vehicles must be accompanied by 3-year comprehensive warranty including that of battery from manufacturer.

III. Additional incentive of Rs. 7,000/- per kWh shall be given on electric rickshaw and e-2 wheelers using Lithium ion battery instead of conventional lead acid battery.

IV. Interest subvention of 10% to buyer of light electric freight vehicle or e-bus

V. Special grant of Rs. 10,000/- per kwh to manual pedal rickshaw puller for conversion/upgradation to 100% electric mobility. For pedal rickshaw fleet owner interest subvention of 10% on loan taken for conversion/upgradation to 100% electric mobility.

VI. Top up subsidy of Rs. 8000/- on ex-showroom price if the end user is below poverty line or belong to MBC or S.C./S.T.

VII. In order to qualify for these incentives, all such vehicles must be accompanied by 3-year comprehensive warranty including that of battery from manufacturer

VIII. 100% Exemption from road tax and registration fees for Electric, 50% exemption for Strong Hybrid Vehicles and 25% exemption for CNG vehicles.

IX. The government shall encourage tie up with mobility service providers for introducing leasing models for e-rickshaws in the state.

X. Green plate registration for EV for both private and commercial vehicles

XI. Exemption from toll charges and public parking lots.

XII. All government departments to buy EVs as a strategy to promote EV

XIII. Interest subvention of 10% to buyers on EVs manufactured in Bihar.

XIV. Tailor made incentives for EVs for schools/hospitals by transport department in consultation with SIPB.

XV. A suitable Information, Education and Communication (IEC) Program shall be undertaken by the Transport Dept. for creating consumer awareness and promotion of e-mobility.

5. SUPPLY INCENTIVES:

5.1 Incentives for manufacturers of Electric Vehicles (EVs) and its components:

I. All incentives as mentioned in Chapter 6 of Bihar Industrial Investment Promotion Policy, 2016.

II. The Bihar government shall incentivize the manufacturing and assembly of–
   a. Electric vehicles (EV);
   b. Components;
   c. Cells for EVs
   d. Batteries for EVs;

III. An EV manufacturing cluster shall be created including common facilities, R&D Centre and vehicle testing track.

IV. Additional seed fund of Rs. 10 lakh to first fifty start ups operating in the EV domain.

5.2 Incentives for manufacturers of EV chargers and service providers:

I. All incentive as mentioned in Chapter 6 of Bihar Industrial Investment Promotion Policy, 2016.

II. Commercial public EV charging stations will be eligible for 25% capital subsidy on equipment/machinery (limited to Rs. 5 lacs per station) for first 500 commercial public EV charging stations.

III. Across the state, the rate of Electrical power required for EV charging shall be industrial rate of electricity.

5.3 e-mobility incentives through Transport Department

IV. The Government of Bihar will identify and allot suitable land across the state on lease basis based on traffic movement and population distribution, for setting up of charging/swapping stations.

V. The government will encourage PPP for setting up of charging/swapping stations.

VI. All charging infra shall be established as per Ministry of Power notification vide no. 12/2/2018-EV dated 14.12.2018 on the subject "Charging infra for EV- Guidelines and standards".

VII. Bihar Government shall support EV charging service providers with electricity connections, extension of supply and any other connectivity issues.

VIII. Common charging points in residential areas, societies, bus depots, public parking areas, railway stations and fuel pumps etc. will be allowed. Development Control Rules (DCR) of all local self- Government & special Planning Authorities will be suitably modified to allow for setting up of common public charging facilities in parking areas of malls, residential properties & parking areas etc.

IX. Petrol pumps will be allowed to setup charging/swapping station freely subject to charging station areas qualifying fire & safety standard norms of relevant authorities under relevant acts/rules.

X. The application received for setting up a charging/swapping point shall get the benefit of single window system under the Bihar Industrial Investment Promotion Act, 2016

XI. As per requirement facility of Robotic Battery Swapping Arm shall be created at public bus stations by the Transport Dept.

XII. Fast charging infrastructure (normal and fast) shall be created at all major govt. offices by the Transport Dept.

XIII. Charging infrastructure (normal and fast) shall be created by the Transport Dept. at all "Rain Baseras" for rickshaw pullers and shall be charged at concessional rate to be announced from time to time by Energy Department.

XIV. Captive power production and open access for all charging station entities shall be allowed.

XV. 100KW load connection for charging outlets shall be provided at each location.

XVI. Charging/swapping station at all municipal parking stands with 100 locations being identified within 6 months of notification of the policy.

6. RESEARCH AND DEVELOPMENT

I. In order to promote e-mobility research and development in the state, the government will issue a request for proposal (RFP) for companies in interested in establishing their R&D units.

II. State will offer R&D funding, as decided by SIPB, to companies that have set up a plant in Bihar with minimum investment of Rs. 200 Cr and generating employment of 200 persons.

7. POLICY VALIDITY:

The Bihar Industrial Investment Promotion Policy, 2016 shall be amended to this extent. These amendments to the Policy shall come into effect from the date of notification and will remain effective during the entire policy period or notification of new policy in this regard. In view of rapidly changing techno-commercial scenario in EV sector, review of the policy may be done annually by SIPB.

8. Overview for policy implementation:

SIPB shall monitor the implementation of this policy, develop further procedure and modalities where required and shall be final authority on interpretation of the policy.

DELHI

OFFICE OF MINISTER OF TRANSPORT
GOVERNMENT OF NCT OF DELHI
8TH LEVEL, 'A' WING, DELHI SECRETARIAT, I.P. ESTATE, NEW DELHI 110002

Key Highlights – Delhi Electric Vehicle Policy 2019

(as approved by Council of Ministers, GNCTD on 23.12.2019)

BACKGROUND

- The draft Delhi EV Policy was put in public domain for inviting comments and suggestions on 27.11.2018 in response to which wide-ranging suggestions were made by various stakeholders including international and national think-tanks, non-profits, experts from academia, EV manufacturers, battery manufacturers, multi-lateral bodies, and concerned individuals.
- A day long Stakeholder Consultation event was also held on 18.12.2018 by the Dialogue & Development Commission of Delhi (DDCD). The consultation was inaugurated by Hon'ble Chief Minister and Hon'ble Minister Transport, and saw in-depth discussions from over 200 participants from across the country on thematic areas such as charging infrastructure, two-wheelers, three-wheelers, industry perspectives and citizen perspective on the draft Delhi EV policy.
- On 26.06.2019 and 27.06.2019, Delhi government organized the Urban Mobility Lab in Delhi with a special focus on identifying obstacles and collaboratively designing solutions to enable innovative start-ups in e-mobility space take off in Delhi.
- Based on the various comments and suggestions received through the above multi-staged process, and keeping in mind the developments in FAME India Phase II scheme at the national level, the final draft of Delhi EV policy 2019 was prepared.

GOAL and IMPACT

- The primary goal is to improve Delhi's air quality by bringing down emissions from the transport sector. To do so, this policy will seek to drive rapid adoption of Battery Electric Vehicles (BEVs) such that they contribute to 25% of all new vehicle registrations by 2024.
- The policy particularly focuses on electric two-wheelers, shared transport vehicles (e.g. three-wheelers/buses) and goods carriers/freight vehicles, since they contribute to majority of the vehicular pollution. Currently, electric two-wheelers constitute to only 0.2% of annual two-wheeler sales, electric cars contribute to 0.1% of car sales and the sales of electric three-wheelers (autos/goods carriers) are almost NIL.
- Within a year, Delhi government is targeting the induction of 35,000 electric vehicles (2/3/4 Wheelers and buses), 1000 EVs for last mile deliveries and 250 public charging/swapping stations to come up in Delhi.
- In the next 5 years, Delhi government is targeting to put 5 lakh new EVs register in Delhi due to this policy. Over their lifetime, these EVs are estimated to avoid

approximately Rs 6,000 crores in oil and liquid natural gas imports and 4.8 million tonnes of CO2 (carbon dioxide) emissions, which is equivalent to avoiding CO2 emissions from nearly 1 lakh petrol cars over their lifetime. They will also help avoid about 159 tonnes of PM 2.5 (fine particulate matter) tailpipe emissions.

- Delhi government's vision is to make Delhi the EV capital of India

Following are the key provisions under Delhi Electric Vehicle Policy 2019:

TWO WHEELERS

- Purchase incentive of ₹5,000 per kWh of battery capacity. For an average e-two wheeler with 2kWh battery, applicable incentive would be approx. Rs 10,000 as compared to Rs 5,500 presently being offered by DPCC as subsidy for battery electric vehicles.
- Scrapping incentive of up to Rs 5000 to be offered subject to evidence of matching contribution from the dealer or OEM
- For the first time in Delhi, ride hailing service providers will be allowed to operate electric two wheeler taxis, which will be a big boost to clean last-mile connectivity
- All two-wheelers engaged in last-mile deliveries (e.g., food delivery, e-commerce logistics etc.) will be expected to transition 50% of their fleet to electric by March 2023, and 100% of their fleet by March 2025

ELECTRIC AUTOS (E-AUTOS)/E-RICKSHAWS/E-CARRIERS

- Purchase Incentive of ₹30,000 per vehicle (NIL at present)
- Interest subvention of 5% on loans and/or hire purchase scheme for the purchase of an e-auto. So a loan of typically 12% interest from DFC will now be made available at 7% - the lowest anywhere in India for EVs.
- For E-autos, open permit system will apply for individuals who will be given permits on a first-come-first basis, subject to the cap of maximum number of autos permissible in Delhi as per SC orders.
- E-Carriers will be completely exempt from the prohibition on plying and idle parking of lights goods vehicles on identified roads of NCT of Delhi during specified timings

FOUR WHEELERS (E-CARS)

- Purchase incentive of ₹10,000 per kWh of battery capacity for first 1000 cars subject to a cap of Rs 1,50,000 per vehicle
- All leased/hired cars used for commute of GNCTD officers will be transitioned to electric within a period of 12 months from the date of notification of this policy

BUSES

- Subsidy as decided by GNCTD from time to time with a commitment that pure electric buses shall constitute at least 50% of all new buses (including smaller buses for last mile connectivity) to be added to the city bus fleet.

ACROSS ALL VEHICLES

- All financial incentives will be applicable for both fixed battery models and swappable battery models. Delhi EV policy is technology agnostic and encourages innovation in all technologies.
- Road tax and registration fees to be waived for all Battery Electric Vehicles during the period of this policy

PRIVATE CHARGING INFRASTRUCTURE (At Homes/Workplaces)

- All new home and workplace parking will need to be 'EV ready' with 20% of all vehicle holding capacity/parking required to be EV ready
- Delhi government to provide a 100% subsidy for the purchase of charging equipment up to ₹6,000 per charging point for the first 30,000 charging points at homes/workplaces. Subsidy to be routed through DISCOMS who will be in-charge of charger installations

PUBLIC CHARGING INFRASTRUCTURE

- Providing accessible public charging/battery swapping facilities within 3 km travel from anywhere in Delhi is a key objective of this policy
- 'Energy Operators' (EOs) will be invited to set up charging and battery swapping stations across Delhi in multiple phases by pooling and providing Concessional Locations for charging stations at bare minimum lease rentals. Delhi government shall provide a capital subsidy for the cost of chargers installation.
- 100% of net SGST will be provided as reimbursement to EOs for purchase of Advanced Batteries to be used at swapping stations.

POLICY IMPLEMENTATION

- A dedicated EV cell shall be established within the Transport Department for effective day-to-day implementation of the Delhi State EV Policy
- Funding for the various incentives under Delhi EV Policy will be obtained from multiple sources such as Pollution/Diesel Cess, Road Tax, Environment Compensation Charge (ECC) etc. using the 'Feebate' concept. It will be aggregated under an umbrella, non-lapsable 'State EV Fund'.
- State EV Board shall be constituted as the apex body for effective implementation of Delhi EV Policy 2019.
- Policy shall be valid for three years from the date of notification.
- All financial incentives/subsidies will take effect from the date of notification of the policy and will be provided directly to buyers of electric vehicles, after the purchase is made. Until then, the present subsidies being offered under Air Ambience Fund of DPCC shall continue.

KARNATAKA

PROCEEDINGS OF THE GOVERNMENT OF KARNATAKA

Sub: Karnataka Electric Vehicle & Energy Storage Policy 2017.

Ref: Hon'ble Chief Minister's Budget Speech 2017-18.

-:0:-

PREAMBLE:

The twentieth century has been an era of Internal Combustion Engines (ICE) primarily on account of accessibility - ease of use and affordability-low-cost of fossil fuels. The shift to electric mobility has become necessary due to the fast depletion of fossil fuels, increase in energy costs, impact of transportation on the environment and concerns over climate change.

Electric Vehicles (EVs) are becoming increasingly popular because of important advantages they offer: eco-friendliness from a systemic standpoint; cheaper fuel cost; lower maintenance expenses etc. Government of India (GoI) has been supporting electric mobility efforts in the Country. It has been funding research, design, development, demonstration projects and also spearheading the electric mobility initiative in the Country.

Karnataka has a ready eco system for a vibrant automotive sector with large pool of technical manpower, robust R&D capabilities and manufacturing expertise. Hon'ble Chief Minister during his Budget Speech 2017-18 had announced that Government of Karnataka wishes to make *Bengaluru-the Electrical Vehicle Capital of India.*

It is estimated that from 2006 to 2030, the global energy consumption is likely to rise by 54% and about three quarter of the projected increase in oil demand will come from transportation sector. These concerns are driving Governments and Industry alike to invest towards developing vehicles based on alternate propulsion systems including electric mobility. Government of India has plans to introduce electric vehicles in a very big way and to produce only electric vehicles by 2030.

With the Government of India endorsing and supporting the electric vehicle boom, there is a real possibility that electric vehicles will become widely available and cheaper too. Karnataka, being the home to many advanced engineering and high tech firms and research institutions, is best place to take the first mover advantage. However, there is a need for a comprehensive and well-designed policy push that enables the electric vehicle sector to bloom in the State.

In the light of the above, a decision has been taken by the Government to formulate and adopt a **Karnataka Electric Vehicle & Energy Storage Policy -2017**. Karnataka Electric Vehicle & Energy Storage Policy 2017 is expected to give the necessary impetus to the electric mobility sector in the State and also attract investments.

Hence the following order:

GOVERNMENT ORDER No: CI 117 SPI 2017, BENGALURU,

DATED 25.09.2017

In the circumstances explained in the preamble, Government is pleased to announce the **Karnataka Electric Vehicle & Energy Storage Policy 2017** as detailed in Annexure to this Government Order.

The Karnataka Electric Vehicle & Energy Storage Policy 2017 and package of incentives & concessions shall come into effect from the date of issue of Government Order and will be valid for a period of five years or till a new policy is announced.

This order issues with the concurrence of Finance Department vide Note No. FD 342 Exp-1/17, dated 07.09.2017, Transport Department Vide File No. CI 117 SPI 2017 (P-4), dated 12.9.2017, Revenue Department Vide Note No. ಕಂಇ 60 ಮುನೋಮು 2017, dated 12.09.2017, Skill Development, Entrepreneurship and Livelihood Department vide Note No. ಕೌಉಜೀಇ 7 ಕೌಗುಪ 2017, dated 12.09.2017, Forest Ecology & Environment Department vide File No. CI 117 SPI 2017 (P-5), dated 10.8.2017, Energy Department vide File No. CI 117 SPI 2017 (P-3), dated 18.8.2017, Urban Development Department vide File No. CI 117 SPI 2017 (P-2), dated 11.8.2017, Planning Department vide File No. CI 117 SPI 2017 (P-8), dated 18.8.2017, IT/BT Department vide Letter No. ITD 07 PRM 2017, dated 21.08.2017 and Cabinet approval dated 13.09.2017.

By Order and in the name of the
Governor of Karnataka,

(D.V. PRASAD)
Additional Chief Secretary to Govt.,
Commerce & Industries Department.

To,

1) The Compiler, Karnataka Gazette, Bengaluru for publish in the special Gazette and supply 1,000 copies to this office.
2) The Principal Accountant General (G&SSA), Karnataka, New Building, 'Audit Bhawan', Post Box No. 5398, Bengaluru-01.
3) The Principal Accountant General (E&RSA), Karnataka, New Building, 'Audit Bhawan', Post Box No. 5398, Bengaluru-01.
4) The Principal Accountant General (A&E), Karnataka, Park House Road, Post Box No. 5329, Bengaluru-01.
5) The Chief Secretary to Government, Vidhana Soudha, Bengaluru-01.

6) The Additional Chief Secretary to Government, Vidhana Soudha, Bengaluru-01.

7) The Additional Chief Secretary to Government, and Development Commissioner, Vidhana Soudha, Bengaluru-01.

8) All Additional Chief Secretaries/Principal Secretaries/Secretaries to Government.

9) The Commissioner for Industrial Development and Director of Industries and Commerce, Khanija Bhavan Race Course Road, Bengaluru-01.

10) The Commissioner for Commercial Taxes, Vanijya Therige Karyalaya, Gandhi Nagar, Bengaluru-09.

11) The Managing Director, KPTCL, Cauvery Bhavan, K.G. Road, Bengaluru-09.

12) The Managing Director, BESCOM, MESCOM, CHESCOM, HESCOM.

13) The Chairman, Karnataka State Pollution Control Board, #49, Church Street, Parisara Bhavan, Bengaluru-01.

14) The Inspector General of Registration and Commissioner of Stamps and Chief Controlling Revenue Authority, Kandaaya Bhavan, 8th floor, K.G. Road, Bengaluru-09.

15) The Deputy Commissioners of all Districts of Karnataka.

16) The Joint Directors of all District Industries Centers of Karnataka.

17) The Chief Executive Officer & Executive Member, Karnataka Industrial Area Development Board, Khanija Bhavan, Race Course Road, Bengaluru-01.

18) The Managing Director, KSFC, 1/1,Thimmiah Road, Bengaluru-51

19) The Managing Director, Karnataka Udyog Mitra (KUM), Khanija Bhavan, Race Course Road, Bengaluru-01.

20) The Deputy Secretary to Govt., (Cabinet Section), DPAR, Vidhana Soudha, Bengaluru-01.

21) The President, Federation of Karnataka Chambers of Commerce & Industry, P.O. Box 9996, K.G.Road, Bengaluru-09.

22) The President, Confederation of Indian Industry, 1086, HAL 2nd Stage, 12th Main, Indira Nagar, Bengaluru-38.

23) The Chairman, FICCI, VITC Building 1st Floor, Kasturba Road, Bengaluru-01.

24) The President, Bengaluru Chamber of Commerce and Industry, No. 3/4, 3rd Floor, 'C' Block, Unity Building, J.C. Road, Bengaluru-02.

25) The President, Karnataka Small Scale Industries Association, No. 2/106, 17th Cross, Magadi Chord Road, Vijaya Nagar, Bengaluru-40.

26) The President, North Karnataka Small Scale Industries Association, Industrial Estate, Gokul Road, Hubli-30.

27) The President, AWAKE, No. B-76, KSSIDC Industrial Estate, Rajaji Nagar, Bengaluru-10.

28) General Secretary, Hebbal Industrial Association, Hebbal Industrial Estate, Mysuru-16.

29) The President, Peenya Industries Association, 1st Stage 1st Cross, Peenya Industrial. Estate, Bengaluru-58.

30) The President, Hyderabad-Karnataka Chamber of Commerce & Industry, Chambers Building Complex, Super Market, Kalaburagi.

31) The President, Laghu Udyog Bharathi, #15/47, 47th 'A' Cross, 8th Block Jayanagar, Near Gelli Apartment Bengaluru - 82

32) Guard File / Spare Copies.

Karnataka Electric Vehicle & Energy Storage Policy 2017

Preamble:

Globally, automotive industry is passing through a paradigm shift. The twentieth century has been an era of Internal Combustion Engines *(ICE)* primarily on account of accessibility - ease of use and affordability-low-cost of fossil fuels. The shift to electric mobility has become necessary due to the fast depletion of fossil fuels, increase in energy costs, impact of transportation on the environment and concerns over climate change.

As per International Energy Agency *(IEA)* report of 2009, globally the fossil fuel based transportation is the second largest source of CO_2 emissions. From 2006 to 2030, the global energy consumption is estimated to increase by 53% and about three quarters of this projected increase will be due to the oil demand in transportation. Against these changing landscape, Government and automotive industries are transitioning to invest heavily towards developing vehicles based on alternate propulsion systems, including electric mobility.

Electric vehicles (EVs) of all types lie at the heart of future sustainable transport system due to the advantages they offer: eco-friendliness from a systemic standpoint; cheaper fuel cost; lower maintenance expenses. The deployment of EVs across all models is also in line with the 2030 UN Sustainability Agenda.

Industry, Governments and early adopters have succeeded in demonstrating that electric vehicles can deliver the practicality, sustainability, safety and affordability characteristics expected from them. The global overview is mentioned below:

- **Norway**- *EVs accounted for 23% of all new car sales in 2015. All EVs are exempt from non-recurring vehicle taxes, including road tax and VAT. They are also exempt from paying any toll and parking fees.*
- **Netherlands**- *EVs accounted for 9% of all new car sales in 2015. All EVs are exempt from registration fees and road taxes. Free charging is also provided in public parking spaces.*
- **China**- *China is the world's single largest electric bus market, with 173,000 such buses plying on the roads. It also became the top selling electric passenger car market in the world in 2015. Direct subsidies are provided to consumers buying EVs where EVs are exempt from Beijing's road rationing scheme and are provided with distinctive number plates.*

For a rapidly growing economy like India with an objective to achieve inclusive growth and balanced development the need to find sustainable and eco-friendly transportation / mobility solutions is imperative.

However, the adoption of EV uptake in India has been comparatively low. Therefore, there is a strong need for transparent and incentive mechanism for manufactures and consumers to address the EV adoption and deployment gap.

Given that in India, the transportation sector alone accounts for about one-third of the total crude oil consumption and road transportation accounts for more than 80% of this consumption, the Government will need to focus on the sector and initiate strategic industry collaborations to invest in sustainable mobility solutions and make electric mobility a reality in India.

The first electric three wheeler Vikram SAFA was developed by Scooters India Ltd., Lucknow in 1996. Mahindra Ltd. Launched its 1st electric three wheeler in 1999. In 2001, REVA, Bengaluru entered the EV sector in the Car category built with a state of the art battery management system. Hero Cycles launched two wheelers in 2007; other Companies such as Electrotherm India, TVS Motor, Hero Electric etc. are also manufacturing and selling electric two wheelers.

Government of India has been spearheading the electric mobility initiative in the country. The Faster Adoption and Manufacturing of Electric Vehicle (FAME) Scheme was introduced and according to the report, eight two wheeler manufacturers and three four wheeler manufacturers have registered and availed benefits under the scheme. The Government of India has also been supporting the transition to electric mobility in the country through funding research, design, development, demonstration projects.

A rapidly developing Karnataka is at the cusp of making a transition to new mobility solutions. Karnataka has a ready eco system for a vibrant automotive sector with large pool of technical manpower, robust R&D capabilities and manufacturing expertise. The sector has deep backward linkages with metal industries, capital equipment, trucking, warehousing and logistics. In addition, it also has a strong forward linkage with dealership, retails, credit and financing, advertising, repair and maintenance, petroleum products, gas stations and service parts etc.,.

Therefore, to explore the available opportunity and to allow EV sector to bloom in Karnataka, a comprehensive and well-designed policy is formulated based broadly on the principles of Karnataka Industrial Policy 2014-19 with a focus on creating enabling environment for investors in EV segment.

Need for EV Policy of Karnataka:

Every day, nearly 50,000 new motor vehicles *(two, three and four wheelers)* are registered in India, with a 10% increase in registration annually. As on May-2017, Bengaluru alone witnessed the registration of 69,31,873 vehicles of different categories out of which the two wheeler segment had a major share of 48,00,298 followed by the private cars whose share stood at 13,40,424. Bengaluru is also known as a city which registers maximum number of two wheelers in the Country. According to the 2016 World Health Organization Study, India is home to 10 of the World's 20 most polluted Cities. In 2015, India imported more than 80% of its oil at a cost of Rs 4.2 lakh crore.

The various initiatives taken nationally to promote electric mobility could not yield the much desired results mainly due to higher cost of EVs, challenges in battery technology, limited range of EVs, lack of charging infrastructure and consumer mindset. In addition, the past efforts also did not have the desired level of synergy, continued top level support & ownership both in the Government and Industry. As such, most of the efforts undertaken faded and fizzled out since they were isolated in nature, lacked collaborative approach and did not tackle all the issues holistically.

Now, Government of India is endorsing and supporting the EV boom, with a real possibility that EVs could become widely available and cheaper. In line with this, Karnataka, being home to many advanced engineering and high tech firms and research institutions, is best placed to take the first mover advantage. Therefore, in order to achieve the potential, a well designed, systemic and collaborative approach is required with a clear long term roadmap to develop a robust, pro-growth landscape for the EV sector to bloom in the State.

Today, the convergence of low cost technologies, smart design and integration, innovative business models with supportive policies will establish certain market segments as economically viable. Capturing these segments, electric vehicles can play an important role in cleaning the air, reducing congestion and strengthening the State's economy.

Government of Karnataka intends to make Bengaluru-*the Electrical Vehicle Capital of India*. In this regard, a round table conference in association with Carnegie India was held along with the Stakeholders from EV Industry, Academia, Center for Study of Science, Technology and Policy (CSTEP), Taxi aggregators to discuss and drive the growth of EV in Karnataka, taking into account global trends and existing challenges in the manufacturing sector etc. With the valuable recommendations, suggestions, interventions from the round table conference, Government of Karnataka desirous of formulating the Karnataka Electric Vehicle & Energy Storage Policy which would enable growth of the electric mobility sector in the State.

1. Vision

To make Karnataka, a preferred investment destination for manufacturing of Electric Vehicles (EVs) by leveraging advantages and opportunities available for sustained development of this promising segment".

2. Mission

- *To make Karnataka, a preferred destination for development of Electric Mobility*
- *To promote a conducive manufacturing ecosystem in collaboration with the industry*
- *To develop human capital to meet the need of the Industry*

3. Objectives

- *To maintain the lead share of Karnataka as a preferred destination for attracting investments in manufacture of Electric Vehicles.*
- *To attract investments of Rs 31,000 crore and create employment opportunities to 55,000 persons both from supply & demand side.*
- *To create a conducive environment for transition to Electric Vehicle environment from Internal Combustion (IC) engines.*
- *To provide opportunities for developing R&D in Electric Mobility.*

4. Strategies

- *Special Initiatives for EV manufacturing*
- *Support for charging infrastructure*
- *Support for Research Development and Skill Development*
- *Incentives and Concessions*

5. Policy Measures

5.1 Special Initiatives for EV manufacturing

5.1.1 EV manufacturing Parks / Zones

Quality infrastructure with comprehensive facilities is the pre-requisite for rapid development of any industry. Realizing this, following measures are proposed:

a) *Make industrial land available, preferably in clusters so that EV manufacturing zones can be created.*

b) *Infrastructure in the form of readymade flatted factories with power, water, sewage and testing facilities on a ready built basis to enable ancillaries to be set up through PPP mode.*

c) *Encourage establishment of a dedicated testing track and facility for electric vehicles and associated technologies, to make it easier for researchers and start-ups to test new technologies in a safe environment through PPP mode.*

5.1.2 Migrating to EV environment

5.1.2.1 EV in non-transport and transport vehicles

In order to promote adoptability of EVs, Government of Karnataka has exempted from payment of taxes on all electric non-transport and transport vehicles including e-rickshaws and e-cart under Karnataka Motor Vehicles Taxation Act 1957 with effect from 01/04/2016 vide Notification No. SARIE 76 SAEPA 2016 dtd 31/03/2016.

5.1.2.2 EV in Private Transport

In order to promote adoptability of EV in private transport the following measures will be taken in line with the announcements of Government of India.

a) *To support short distance shared mobility, electric two wheeler taxies will be encouraged.*

b) *Existing auto rickshaws will be encouraged for retrofitting and move towards EV segment.*

c) *The following segments of vehicles in Bengaluru will be encouraged to move towards EVs with an intention to achieve 100% electric mobility by 2030.*

- *Auto Rickshaws*
- *Cab Aggregators*
- *Corporate Fleets*
- *School Buses/ Vans*

d) *To encourage adoption of EV in short route public transport, a flexible stage carrier permit policy for electric buses allowing multiple/variable routes outside the BMTC Area will be examined.*

5.1.2.3 EV in Public Transport

In order to promote adoptability of EV in public transport the following measures will be taken in line with the announcements of Government of India.:

a) *BMTC, KSRTC, NWKSRTC and NEKRTC will introduce 1,000 EV buses during the policy period.*

b) *As a pilot project, BMTC will introduce "EV Vaayu Vajra" services in select routes to Kempegowda International Airport by the end of 2018.*

5.1.2.4 EV in Goods Transport

In order to promote adoptability of EV in goods transport the following measures will be taken in line with the announcements of Government of India.:

a) *EV-Three wheelers / Four wheelers mini Goods vehicle in Bengaluru will be encouraged to move towards EVs in a phased manner with an intention to achieve 100% electric mobility by 2030.*

b) *E-commerce and delivery companies in Bengaluru will be encouraged to replace their fleet of two wheelers/ three wheelers to EVs in a phased manner with an intention to achieve 100% electric mobility by 2030.*

5.1.3 Facilitation to EV, Battery & Charging Equipment Manufacturing

In order to promote investments in the EV, Battery & Charging Equipment Manufacturing, the following measures will be taken:

a) *Karnataka Udyoga Mitra will facilitate, speed-track and enable a combined online application in order to get the clearances from environmental, labour and other line departments.*

b) *Battery component contribute a substantial part of the total cost of EVs. Government of Karnataka will offer incentives to encourage manufacture of modular design lithium ion batteries with higher mileage per charge in the State.*

5.2 Support for Charging Infrastructure

Availability of charging infrastructure is a prerequisite for electric mobility. Government of Karnataka will develop charging infrastructure as a commercially viable business venture that attracts private investment. It is proposed to adopt BIS standards for charging equipment, mandating charging infrastructure in public buildings, amending building bylaws for provision of charging outlets, regular electricity supply etc.

To support charging infrastructure the following measures will be taken:

a) *Government of Karnataka in association with Industry & Academia will come out with standards for battery, charging infrastructure & swapping mechanism etc with a view to build interoperable network where different vehicles from different OEMs can participate; and recommend to Government of India.*

b) *Government of Karnataka will encourage private players to set up Automotive Research Association of India (ARAI)-compliant/BIS Standard, EV charging Systems/ infrastructure.*

c) *Government of Karnataka will identify potential places and provide land belonging to Government / Government agencies, wherever available, on long lease basis for setting up of EV fast charging stations and battery swapping infrastructure by following a transparent bidding process.*

d) *An Special Purpose Vehicle (SPV) involving BBMP,BMTC, BESCOM, KREDL, KIADB and other related agencies will be mooted for creation of Charging infrastructure in Bengaluru.*

e) *Government of Karnataka will offer incentives by way of investment subsidy for setting up of the first lot of 100 fast charging stations.*

f) *Government of Karnataka will facilitate providing required electricity supply from grid and examine special tariff at commercially viable rates for EV charging stations.*

g) *ESCOMs will examine bringing in amendments to their policies and allow re-sale of power to encourage setting up of charging stations.*

h) *ESCOMs will examine permitting use of solar energy / renewable energy at low connection cost and offer zero wheeling charges by EV charging stations.*

i) *To facilitate EV mobility on highways between prominent cities with heavy density of vehicles such as the Bengaluru-Mysuru highway and others, fast charging station/ battery swapping infrastructure will be provided at every 50 kilometers.*

j) *Amendments will be made to building bye-laws for providing charging infrastructure for EVs in all high rise buildings/ new SEZ / Technology Park / Apartments in the State.*

k) *Existing apartment associations will be encouraged to provide special dedicated plug/ charging station facilitating adoption of EVs by their members.*

l) *BMRCL / BMTC / KSRTC / BBMP will provide charging stations for two wheelers at their parking stations to encourage EVs for last mile commute.*

m) *Charging infrastructure for personal transport vehicles of Government employees would be made available at Vikasa Soudha Basement / Multistoried Building parking area and covered parking areas in all Government buildings across the State.*

n) *Encourage lease / or pay-per-use business models with battery-swapping station network, integrated payment and tracking system in partnership with BMTC and other private players.*

o) *Government of Karnataka will facilitate deploying used EV batteries for solar application, create a secondary market and provide battery disposal infrastructure in PPP model.*

5.3 Support for Research & Development

Rapidly evolving technologies / convergence of low cost technologies, smart design and integration are the driving forces for encouraging penetration of electric vehicles. In order to encourage participation of industry, academia etc. the following initiatives are proposed.

a) *Government of Karnataka will constitute working groups for development of necessary technologies from concept to market in the areas of Drive technologies; Battery technologies; Charging infrastructure & network integration; standards and certification; materials and recycling; quality & training etc,.*

b) *Government of Karnataka will commission the 'Karnataka Electric Mobility Research & Innovation Centre' and extend necessary support to make it a world class research hub. It will have a state of the art laboratory along with an incubation centre for budding EV engineers and entrepreneurs and will be commissioned on a PPP mode.*

c) *Start up incubation centre will be set up to facilitate developments in EV mobility.*

d) *Start ups will be encouraged to develop business models focused on electric vehicles.*

e) *Research program in collaboration of EV industry with a focus on battery innovation will be introduced in Engineering College / Universities.*

f) *A Venture Capital fund will be set up for research in EV mobility.*

5.4 Support for Skill Development

An EV skill development centre will be set up in collaboration with the industry for up-skilling the work force to augment the manpower required for the EV industry which will implement the following:

- *Introduce curricula and courses suited to the EV industry in professional institutes, polytechnics as well as vocational education institutions.*
- *A short term course on electric mobility.*
- *To encourage in-plant training provided by the EV Manufacturers in the State by offering a stipend up to 50% of the cost of training subject to a limit of Rs.10,000/- per month per trainee. This incentive shall be available for maximum of 50 trainees per company. The benefit shall be available for 1,000 candidates per annum.*

5.5 Incentives and concessions

To attract investments in Electric Vehicle Manufacturing, EV Battery Manufacturing/Assembly and EV charging/Swapping Infrastructure Equipment Manufacturing Enterprises, attractive package of incentives and concessions will be offered by the Government.

It is also proposed to offer subsidies to EV charging infrastructure providers like charging stations, lithium ion battery switching/swapping stations etc. to popularize use of EVs in the State.

The details of incentives and concessions are at Appendix-1.

6. Special Package of Incentives & Concessions

Special package of incentives/concessions will be considered for Ultra Mega and Super Mega EV Enterprises/ lithium ion Battery manufacturers catering exclusively for EVs & EV charging/Swapping Infrastructure Equipment Manufacturing Enterprises, by giving due weightage to investment, location of the project, direct and indirect employment to be generated and potential for attracting further investment through vendors and ancillaries etc.

7. Technical Committee to define/certify an EV enterprise

A Technical Committee will be constituted under the Chairmanship of a Sector expert along with a maximum of 4 other members with Additional Director (ID), Department of Industries & Commerce as Member Secretary with a mandate to define/ certify EV components including EV lithium ion battery suppliers to EV manufacturing enterprises etc claiming incentives and concessions under the Karnataka Electric Vehicle & Energy Storage Policy.

Electric Vehicle manufacturing units will be automatically eligible to avail incentives and concessions without coming before the Technical Committee for certification.

8. Review, monitoring & course correction mechanism

A High Level Inter Departmental Review Committee will be constituted under the Chairmanship of Chief Secretary to regularly review implementation of all provisions of the policy and achieving the targets, suggest mid course corrections etc. Interpretation of provisions of the policy and decisions thereon of this committee shall be final.

Separate operational guidelines for administration of the policy with the approval of the High Level inter departmental review committee will be issued for the guidance of the concerned agencies and officers.

A Working Sub-Committee under the Chairmanship of Commissioner for ID and Director of I&C will also be constituted in the Department of I&C to regularly monitor implementation of the Policy. This Committee will ensure that, necessary facilitation is extended to investors and provide feedback to the High Level Committee on the progress at regular intervals.

9. Validity of the Policy

The Karnataka Electric Vehicle & Energy Storage Policy and package of incentives and concessions shall come into effect from the date of approval / issue of Government Order and will be valid for a period of five years or till a new policy is announced.

* * *

Appendix-1

Incentives & Concessions

Electric Vehicle Sector in the State is still in nascent stage and requires support & encouragement. In order to give fillip to the sector in all parts of the State, the entire State has been classified as a single zone and incentives and concessions proposed will be applicable equally in all parts of the State.

I. Incentives and Concessions to Electric Vehicle & its Components Manufacturing Enterprises

All the EV manufacturing Enterprises will be eligible for the incentives and concessions.

Manufacturing Enterprises of components required for Electric Vehicles such as Motors, Power Trains, Power Electronics kits etc. will be eligible for incentives and concessions as per the policy subject to approval of the Technical Committee which would be constituted & mandated to define / certify EV component manufacturing enterprises.

The following incentives & concessions shall be offered:

1. Micro, Small & Medium Enterprises

A. Investment Promotion Subsidy

a) **Micro Enterprises**
25% of the Value of Fixed Assets (VFA) (max. Rs. 15.00 lakh)

b) **Small Enterprises**
20% of the Value of Fixed Assets (VFA) (max. Rs.40.00 lakh)

c) **Medium Manufacturing Enterprises**
Rs.50.00 lakh

Note:

i. *The Investment Promotion Subsidy will be available only to enterprises availing a minimum of 50% of term loans on eligible fixed assets from Financial Institution/Banks. Such eligible units shall claim Investment Promotion subsidy within one year from the date of commencement of commercial production.*

ii. *There is no restriction on the quantum of loan to be availed from the financial institutions for availing other incentives and tax based incentives. Own financed units are also eligible for other incentives and tax based incentives.*

iii. *This Investment Promotion Subsidy will be available over and above any other subsidy as announced by the Government of India.*

B. Exemption from Stamp Duty

100 % Stamp duty to be paid in respect of (i) loan agreements, credit deeds, mortgage and hypothecation deeds executed for availing loans from State Government and/or State Financial Corporation, National Level Financial Institutions, Commercial Banks, RRBs, Co-operative Banks, KVIB/KVIC, Karnataka State SC/ST Development Corporation, Karnataka State Minority Development Corporation and other institutions which may be notified by the Government from time to time and (ii) for lease deeds, lease-cum-sale, sub-lease and absolute sale deeds executed in respect of industrial plots, sheds, industrial tenements by KIADB, KSSIDC, KEONICS, Industrial Co-operatives and approved private industrial estates/parks shall be exempted.

C. Concessional Registration Charges

For all loan documents, lease deeds and sale deeds as specified in B above, the registration charges shall be at a concessional rate of Rs.1 per Rs.1000.

Note:

i. *The exemption of stamp duty and concessional registration charges are also applicable to lands purchased under Section 109 of the KLR Act 1964 and also for direct purchase of industrially converted lands for the projects approved by SLSWCC / DLSWCC.*

ii. *The exemption of stamp duty and concessional registration charges are also available for registration of final sale deed in respect of lands, sheds, plots, industrial tenements after the expiry of lease period at the rate as specified which was in vogue at the time of execution of lease-cum-sale deed.*

D. Reimbursement of Land Conversion Fee

100% of the land conversion fee for converting the land from agriculture use to industrial use will be reimbursed.

E. Subsidy for Setting up Effluent Treatment Plant (ETP)

One time capital subsidy up to 50% of the cost of ETP, subject to a ceiling of Rs. 50 lakh.

F. Exemption from Tax on Electricity Tariff

100% exemption of duty / tax on electricity tariff for the initial period of Five years.

2. Incentives and Concessions to Large, Mega, Ultra Mega and Super Mega Enterprises

A. Exemption from Stamp Duty

100 % Stamp duty to be paid in respect of (i) loan agreements, credit deeds, mortgage and hypothecation deeds executed for availing loans from State Government including VAT /SGST loan from Department and / or State Financial Corporation, Industrial Investment Development Corporation, National Level Financial Institutions, Commercial Banks, RRBs, Co-operative Banks, and other institutions which may be notified by the Government from time to time only and (ii) for lease deeds, lease-cum-sale, sub-lease and absolute sale deeds executed in respect of industrial plots, sheds, industrial tenements, by KIADB, KEONICS, KSIIDC, Industrial Co-operatives and approved private industrial estates/parks shall be exempted.

B. Concessional Registration Charges

For all loan documents, lease deeds and sale deeds as specified in A above, the registration charges shall be at a concessional rate of Rs.1.00 per Rs.1,000.

Note:

i. *The exemption of stamp duty and concessional registration charges are also applicable to lands purchased under Section 109 of the KLR Act 1964 and also for direct purchase of industrially converted lands for the projects approved by SHLCC / SLSWCC.*

ii. *The exemption of stamp duty and concessional registration charges are also available for registration of final sale deed in respect of lands, sheds, plots, industrial tenements after the expiry of lease period at the rate as specified which was in vogue at the time of execution of lease-cum-sale deed.*

C. Reimbursement of Land Conversion Fee

100% of the land conversion fee for converting the land from agriculture use to industrial use will be reimbursed.

D. Subsidy for Setting up ETPs

One time capital subsidy up to 50% of the cost of Effluent Treatment Plants (ETPs), subject to a ceiling of Rs. 200 lakh.

E. Interest free loan on Net SGST to Large, Mega, Ultra Mega and Super Mega Enterprises.

All Large, Mega, Ultra Mega & Super Mega Enterprises established will be eligible for an interest free loan on Net SGST as below:

<table>
<tr><th>Investment range on fixed assets (Rs.cr.)</th><th>Interest free loan</th></tr>
<tr><td>Large Enterprises:

(i.e. investment on fixed assets above Rs.10 crore to Rs.250 crore)</td><td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table><tr><th>Max. Period</th><th>Loan limit</th></tr><tr><td>8</td><td>60% of VFA</td></tr></table>
The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td></tr>
</table>

<table>
<tr>
<td>Mega Enterprises :

(i.e. investment on fixed assets above Rs.250 crore up to Rs.500 crore)</td>
<td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table>
<tr><th>Max. Period</th><th>Loan limit</th></tr>
<tr><td>10</td><td>70% of VFA</td></tr>
</table>

The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td>
</tr>
<tr>
<td>Ultra Mega Enterprises:

(i.e. investment on fixed assets above Rs.500 crore up to Rs.1,000 crore)</td>
<td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table>
<tr><th>Max. Period</th><th>Loan limit</th></tr>
<tr><td>11</td><td>80 % of VFA</td></tr>
</table>

The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td>
</tr>
<tr>
<td>Super Mega Enterprises :

(i.e. investment on fixed assets above Rs.1,000 crore)</td>
<td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table>
<tr><th>Max. Period</th><th>Loan limit</th></tr>
<tr><td>13</td><td>95 % of VFA</td></tr>
</table>

The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td>
</tr>
</table>

II. Incentives and Concessions to EV Battery Manufacturing/Assembly Enterprises

The State has set itself a target of inviting investments in setting up to 5 GWh of EV Battery manufacturing capacity which is expected to generate 5,000 direct employment in this industry and around 7,500 more in the overall EV Battery manufacturing/assembly supply chain. All the EV Battery manufacturing/ Assembly Enterprises will be eligible for the incentives and concessions.

Manufacturing and assembly of the major component required for Electric Vehicles such as lithium ion batteries, will be eligible for incentives as per the policy subject to approval of the Technical Committee which would be constituted & mandated to certify / define EV battery manufacturing enterprises.

Note: These incentives are applicable to advanced battery chemistries only as defined by the technical committee and applicable to both battery cell manufacturing and battery pack/module assembly.

The following incentives & concessions shall be offered:

1 Investment Promotion Subsidy

A. Micro, Small & Medium Enterprises

a) **Micro Enterprises**
25% of the Value of Fixed Assets (VFA) (max. Rs. 15.00 lakh)

b) **Small Enterprises**
20% of the Value of Fixed Assets (VFA) (max. Rs.40.00 lakh)

c) **Medium Manufacturing Enterprises**
Rs.50.00 lakh

B. Large /Mega/Ultra/Super Mega EV Cell Manufacturing , ,EV Battery Pack/Module Manufacturing Enterprises

Investment Subsidy of 20% of the Value of Fixed Assets (VFA) *(max. Rs. 20 crore per project)* will be available for first **TWO units** in the State.

Note:

i. *The Investment Promotion Subsidy will be available only to enterprises availing a minimum of 50% term loans on eligible fixed assets from Financial Institution/Banks. Such eligible units shall claim Investment Promotion subsidy within one year from the date of commencement of commercial production.*

ii. *There is no restriction on the quantum of loan to be availed from the financial institutions for availing other incentives and tax based incentives. Own financed units are also eligible for other incentives and tax based incentives.*

iii. *This Investment Promotion Subsidy will be available over and above any other subsidy as announced by the Government of India.*

2 Exemption from Stamp Duty for all EV Cell Manufacturing , EV Battery Pack/Module Manufacturing & Assembly Enterprises

100 % Stamp duty to be paid in respect of (i) loan agreements, credit deeds, mortgage and hypothecation deeds executed for availing loans from State Government including VAT /SGST loan from Department and / or State Financial Corporation, Industrial Investment Development Corporation, National Level Financial Institutions, Commercial Banks, RRBs, Co-operative Banks, and other institutions which may be notified by the Government from time to time only and (ii) for lease deeds, lease-cum-sale, sub-lease and absolute sale deeds executed in respect of industrial plots, sheds, industrial tenements, by KIADB, KEONICS, KSIIDC, Industrial Co-operatives and approved private industrial estates/parks shall be exempted.

3 Concessional Registration Charges for all EV Cell Manufacturing , EV Battery Pack/Module Manufacturing & Assembly Enterprises

For all loan documents, lease deeds and sale deeds as specified in 2 above, the registration charges shall be at a concessional rate of Rs. 1.00 per Rs. 1,000.

Note:

i. *The exemption of stamp duty and concessional registration charges are also applicable to lands purchased under Section 109 of the KLR Act 1964 and also for direct purchase of industrially converted lands for the projects approved by SHLCC / SLSWCC.*

ii. *The exemption of stamp duty and concessional registration charges are also available for registration of final sale deed in respect of lands, sheds, plots, industrial tenements after the expiry of lease period at the rate as specified which was in vogue at the time of execution of lease-cum-sale deed.*

4 Reimbursement of Land Conversion Fee for all EV Cell Manufacturing, EV Battery Pack/Module Manufacturing & Assembly Enterprises

100% of the land conversion fee for converting the land from agriculture use to industrial use will be reimbursed.

5 Exemption from Electricity duty for EV Cell Manufacturing MSMEs, EV Battery Pack/Module Manufacturing & Assembly MSMEs

100% exemption of electricity duty / tax on electricity tariff shall be available for initial period Five years for MSMEs.

6 Subsidy for Setting up ETPs for all EV Cell Manufacturing , EV Battery Pack/Module Manufacturing & Assembly Enterprises

MSMEs:

One-time capital subsidy up to 50% of the cost of Effluent Treatment Plants (ETPs), subject to a ceiling of Rs. 50 lakhs.

Large/Mega/Ultra/Super Mega Enterprises:

One-time capital subsidy up to 50% of the cost of Effluent Treatment Plants (ETPs), subject to a ceiling of Rs. 200 lakhs.

7 Interest free loan on Net SGST to Large, Mega, Ultra Mega and Super Mega - all EV Cell Manufacturing, EV Battery Pack/Module Manufacturing & Assembly Enterprises.

All Large, Mega, Ultra Mega & Super Mega Enterprises established will be eligible for an interest free loan on Net SGST as below:

<table>
<tr><th>Investment range on fixed assets (Rs.cr.)</th><th>Interest free loan</th></tr>
<tr><td>Large Enterprises:

(i.e. investment on fixed assets above Rs.10 crore to Rs.250 crore)</td><td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table><tr><th>Max. Period</th><th>Loan limit</th></tr><tr><td>8</td><td>60% of VFA</td></tr></table>
The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td></tr>
<tr><td>Mega Enterprises :

(i.e. investment on fixed assets above Rs.250 crore up to Rs.500 crore)</td><td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table><tr><th>Max. Period</th><th>Loan limit</th></tr><tr><td>10</td><td>70% of VFA</td></tr></table>
The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td></tr>
</table>

<table>
<tr>
<td>Ultra Mega Enterprises:

(i.e. investment on fixed assets above Rs.500 crore up to Rs.1 000 crore)</td>
<td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table>
<tr><th>Max. Period</th><th>Loan limit</th></tr>
<tr><td>11</td><td>80 % of VFA</td></tr>
</table>

The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td>
</tr>
<tr>
<td>Super Mega Enterprises:

(i.e. investment on fixed assets above Rs.1000 crore)</td>
<td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table>
<tr><th>Max. Period</th><th>Loan limit</th></tr>
<tr><td>13</td><td>95 % of VFA</td></tr>
</table>

The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td>
</tr>
</table>

III. Incentives and Concessions to EV Charging/Swapping Infrastructure Equipment Manufacturing Enterprises

Manufacturing of EV charging or EV battery swapping infrastructure equipment and/or components will be eligible for incentives as per the policy subject to approval of the Technical Committee which would be constituted & mandated to certify / define EV charging or EV battery swapping infrastructure equipment and/or components enterprises.

The following incentives and concessions shall be offered:

1 Investment Promotion Subsidy

A. Micro, Small & Medium Enterprises

a) **Micro Enterprises**
25% of the Value of Fixed Assets (VFA) (max. Rs. 15.00 lakh)

b) **Small Enterprises**
20% of the Value of Fixed Assets (VFA) (max. Rs.40.00 lakh)

c) **Medium Manufacturing Enterprises**
Rs.50.00 lakh

B. Large/Mega/Ultra/Super Mega EV Charging Infrastructure Equipment /Components Manufacturing, EV Battery Swapping Infrastructure Equipment/Components Manufacturing Enterprises

Investment Subsidy of 20% Value of Fixed Assets (VFA) *(max. Rs. 5 crore per project)* will be available for first **FIVE units** in the State.

Note:

i. *The Investment Promotion Subsidy will be available only to enterprises availing a minimum of 50% term loans on eligible fixed assets from Financial Institution/Banks. Such eligible units shall claim Investment Promotion subsidy within one year from the date of commencement of commercial production.*

ii. *There is no restriction on the quantum of loan to be availed from the financial institutions for availing other incentives and tax based incentives. Own financed units are also eligible for other incentives and tax based incentives.*

iii. *This Investment Promotion Subsidy will be available over and above any other subsidy as announced by the Government of India.*

2 Exemption from Stamp Duty for all EV Charging Infrastructure Equipment /Components Manufacturing, EV Battery Swapping Infrastructure Equipment/Components Manufacturing Enterprises

100 % Stamp duty to be paid in respect of (i) loan agreements, credit deeds, mortgage and hypothecation deeds executed for availing loans from State Government including VAT /SGST loan from Department and / or State Financial Corporation, Industrial Investment Development Corporation, National Level Financial Institutions, Commercial Banks, RRBs, Co-operative Banks, and other institutions which may be notified by the Government from time to time only and (ii) for lease deeds, lease-cum-sale, sub-lease and absolute sale deeds executed in respect of industrial plots, sheds, industrial tenements, by KIADB, KEONICS, KSIIDC, Industrial Co-operatives and approved private industrial estates/parks shall be exempted.

3 Concessional Registration Charges for all EV Charging Infrastructure Equipment /Components Manufacturing, EV Battery Swapping Infrastructure Equipment/Components Manufacturing Enterprises

For all loan documents, lease deeds and sale deeds as specified in 2 above, the registration charges shall be at a concessional rate of Rs. 1.00 per Rs. 1,000.

Note:

i. *The exemption of stamp duty and concessional registration charges are also applicable to lands purchased under Section 109 of the KLR Act 1964 and also for direct purchase of industrially converted lands for the projects approved by SHLCC / SLSWCC.*

ii. *The exemption of stamp duty and concessional registration charges are also available for registration of final sale deed in respect of lands, sheds, plots, industrial tenements after the expiry of lease period at the rate as specified which was in vogue at the time of execution of lease-cum-sale deed.*

4 **Reimbursement of Land Conversion Fee for all EV Charging Infrastructure Equipment/ Components Manufacturing, EV Battery Swapping Infrastructure Equipment/ Components Manufacturing Enterprises**

100% of the land conversion fee for converting the land from agriculture use to industrial use will be reimbursed.

5 **Exemption from Electricity duty for MSMEs - *EV Charging Infrastructure Equipment / Components Manufacturing, EV Battery Swapping Infrastructure Equipment/ Components Manufacturing.***

100% exemption of electricity duty / tax on electricity tariff shall be available for initial period Five years for MSMEs.

6 **Subsidy for Setting up ETPs for all EV Charging Infrastructure Equipment / Components Manufacturing, EV Battery Swapping Infrastructure Equipment/ Components Manufacturing Enterprises**

MSMEs:

One-time capital subsidy up to 50% of the cost of Effluent Treatment Plants (ETPs), subject to a ceiling of Rs. 50 lakh.

Large/Mega/Ultra/Super Mega Enterprises:

One-time capital subsidy up to 50% of the cost of Effluent Treatment Plants (ETPs), subject to a ceiling of Rs. 200 lakh.

7 Interest free loan on Net SGST to Large, Mega, Ultra Mega and Super Mega - all EV Charging Infrastructure Equipment/Components Manufacturing, EV Battery Swapping Infrastructure Equipment/Components Manufacturing Enterprises.

All Large, Mega, Ultra Mega & Super Mega Enterprises established will be eligible for an interest free loan on Net SGST as below:

<table>
<tr><th>Investment range on fixed assets (Rs.cr.)</th><th>Interest free loan</th></tr>
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(i.e. investment on fixed assets above Rs.10 crore to Rs.250 crore)</td><td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows
<table><tr><th>Max. Period</th><th>Loan limit</th></tr><tr><td>8</td><td>60% of VFA</td></tr></table>
The loan shall be repaid as follows:
The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.
This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td></tr>
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(i.e. investment on fixed assets above Rs.250 crore up to Rs.500 crore)</td><td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows
<table><tr><th>Max. Period</th><th>Loan limit</th></tr><tr><td>10</td><td>70% of VFA</td></tr></table>The loan shall be repaid as follows:
The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.
This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td></tr>
</table>

<table>
<tr>
<td>Ultra Mega Enterprises:

(i.e. investment on fixed assets above Rs.500 crore up to Rs.1,000 crore)</td>
<td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table>
<tr><th>Max. Period</th><th>Loan limit</th></tr>
<tr><td>11</td><td>80 % of VFA</td></tr>
</table>

The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td>
</tr>
<tr>
<td>Super Mega Enterprises :

(i.e. investment on fixed assets above Rs.1000 crore)</td>
<td>100% of Net SGST will be sanctioned as interest free loan from the date of commencement of commercial production as follows

<table>
<tr><th>Max. Period</th><th>Loan limit</th></tr>
<tr><td>13</td><td>95 % of VFA</td></tr>
</table>

The loan shall be repaid as follows:

The loan availed in the first year shall be repaid in the 11th year and the second year in the 12th year & so on.

This incentive is limited to either the period or loan limits whichever is reached earlier and no carry forward is permitted.</td>
</tr>
</table>

IV. Incentives and Concessions to EV in non-transport and transport vehicles, Service Providers for EV Mobility

To facilitate penetration and use of EV, it is proposed to provide the following incentives to EV in non-transport and transport vehicles & service providers.

1. EV in non-transport and transport vehicles

a) In order to promote adoptability of EVs, Government of Karnataka has exempted from payment of taxes on all electric non-transport and transport vehicles including e-rickshaws and e-cart under Karnataka Motor Vehicles Taxation Act 1957 with effect from 01/04/2016 vide Notification No. SARIE 76 SAEPA 2016 dtd 31/03/2016.

2. Service Providers for EV mobility

a) All fast charging stations for electric 2-wheelers, 3-wheelers, cars and buses will be offered the following incentives

Capital subsidy of 25% on the equipments /Machinery subject to maximum of Rs 10,00,000/- per station for the first 100 fast charging stations in the State.

b) All EV battery switching/swapping stations for electric 2-wheelers and 3-wheelers

Capital subsidy of 25% on the charging equipments/machinery subject to maximum of Rs. 3,00,000 per station for the first 100 battery switching/swapping stations in the State.

c) All EV battery switching/swapping stations for electric cars

Capital subsidy of 25% on the charging equipments/machinery subject to maximum of Rs. 5,00,000 per station for the first 50 battery switching/swapping stations in the State.

d) All EV battery switching/swapping stations for electric buses

Capital subsidy of 25% on the charging equipments/machinery subject to maximum of Rs. 10,00,000 per station for the first 50 battery switching/swapping stations in the State.

Appendix-2

Definitions and Terms & Conditions for sanction of Incentives and Concessions under Karnataka Electric Vehicle & Energy Storage Policy 2017

1 Definition of Micro, Small and Medium EV Enterprises shall be as defined in the MSMED Act, 2006 of Govt. of India.

2 Large EV Enterprises is one where investment on plant & machinery is more than 10 crore in respect of manufacturing activities and Rs. 5 crore in respect of service oriented activities and the upper limit is up to Rs. 250 crore of the project cost.

3 Mega EV Enterprise is one where the project cost of the proposed project is more than Rs. 250 crore and up to Rs. 500 crore and employment for at least 150 persons.

4 Ultra Mega EV Enterprise is one where the investment on the project is more than Rs. 500 crore and up to Rs. 1000 crore and employment for at least 250 persons.

5 Super Mega EV Enterprise is one where the investment on the project is more than Rs.1,000 crore and direct employment for at least 500 persons.

6 Project cost includes the investment on land, building, plant & machinery, preoperative expenses, working capital margin, investment in Technology for design & manufacturing etc.

7 Fixed Asset: Fixed assets shall mean the total investment made on land, building and plant and machinery and any such other productive assets like tools, jigs, and fixtures, dies, utilities like boilers, compressors, diesel generating sets, cranes, material handling equipments and such other equipments directly related to production purposes.

8 Sanction of Incentives & Concessions as per this Government Order is subject to the following terms and Conditions:

a) *All new EV Enterprises shall create maximum possible additional employment opportunities and provide a minimum 70% of employment to the local people on overall basis [100% employment to local people in case of Group D category will be insisted] and this will be monitored during disbursement of incentives and concessions.*

b) *The above requirements regarding employment to local people will be monitored by the DIC for a period of 5 years. Failure of the industries to provide employment to local people as stipulated above will be reported to the concerned DLSWCC/ SLSWCC/SHLCC, which will recommend for recovery of incentives and concessions sanctioned to the unit, for which purpose a suitable under-taking will have to be furnished by the unit concerned before sanctioning incentives and concessions.*

c) *The incentives and concessions under this policy will be available to all new investments both for establishment of new Enterprises or for expansion, diversification and modernization of existing industries. To be eligible for considering as expansion/diversification/modernization, enterprises shall make an additional investment of at least 50% of the original investment of the existing unit.*

d) *The quantum of investment subsidy shall be computed on the value of fixed assets as approved by the financial institutions or commercial banks.*

e) *The definition of Micro, Small, Medium Enterprises and Large Enterprises as indicated above shall automatically stand revised as and when Government of India makes any changes in such definition and benefits under this package shall be available to the Micro, Small, Medium Enterprises and Large Enterprises as per the new definition from the respective dates.*

f) *The incentives and concessions under this policy will come into force from the date of issue of the Government Order.*

g) *Separate guidelines for administration of these incentives and concessions will be issued for the guidance of the concerned agencies and officers with the approval of the High Level Inter Departmental Review Committee under the Chairmanship of the Chief Secretary to Government, Interpretation of Government Order/ policy and the decision thereon of this Committee shall be final.*

(D.V. PRASAD)
Additional Chief Secretary to Govt.,
Commerce & Industries Department.

KERALA

Government of Kerala
Abstract

Transport Department – The Draft Policy on Electric Vehicles for the State of Kerala - approved – Orders Issued.

Transport(B) Department

GO(Ms) No. 58 /2018/Trans Dated, Thiruvananthapuram 29/09/2018

Read : GO(Rt) No.242/2017/E&ITD dated 10/10/2017

Order

The vehicular transport of the State predominantly depend on fossil fuels. The extensive use of fossil fuels leads to environmental pollution and health hazards, which necessitates the exploration of alternative energy. The over dependancy of fossil fuels badly affects the balance of payment of the Country and the political instability of oil producing countries always remains as a threat to the economic stability of our nation.

In this alarming circumstance, the State of Kerala, which is a forefront runner in many reforms and innovations, initiated early steps in the direction of framing a road map to an Electric Vehicle Policy for the State. As per the GO read above, Government have appointed a Special Task Force under the chairmanship of Prof.Jhunjhunwala, Principal Advisor to the Minister for Power, Govt. Of India, for framing a draft EV Policy for the state. The committe had prepared a draft policy and submitted before the Government.

The Government have examined the draft EV policy in detail. After evaluating and modifying the same with the prevailing circumstances of the State , the Government are pleased to approve the draft Electric Vehicle Policy for the State of Kerala appended herewith .

By Order of the Governor
K R JYOTHILAL
Principal Secretary to Government

To :

The Transport Commissioner, Thiruvananthapuram
The Chairman, K-DISC, Thiruvananthapuram
The Principal Secretary, Finance Department
The Principal Accountant General(Audit), Kerala, Thiruvananthapuram
The Director, Information & Public Relations Department

GA(SC) Department
Stock File/ Office Copy

Copy to:

Private Secretary to Minister (Transport)
PA to Principal Secretary (Transport)

Forwarded By Order

Section Officer

Government of Kerala

Policy on Electric Mobility

Introduction

The high vehicle population of over ten million vehicles on road in Kerala State has made mobility a challenge, and it is accompanied by increase in road accidents and air pollution. The State Government took several measures like improving the conditions of road, upgrading and widening the National Highway to 45 meters, constructing a Coastal Highway, and improving the Inland Waterways to permit large cargo traffic from Thiruvananthapuram in the south to Kasaragod in the north.

Electric Vehicles (EV) or e-mobility is another step forward. Kerala, known for its environmental sensitiveness, bio diversity and tourist attractions wishes to maintain its texture and ensure a sustainable development for its people. The transition to electric vehicles is a natural choice for the State in line with its development ethos.

The number of vehicles on the road will get reduced with the introduction of modern shared transport systems like the air-conditioned Electric Bus and e-Autorickshaw. They will provide comfortable and fatigue free ride, with no polluting gases, and much reduced vibration and noise. This will attract vehicle owners to move to shared mobility. The State plans a no-subsidy regime for EV, as articulated by the NITI Aayog. An air-conditioned bus is only 10% more costlier than the regular EV Bus. Large scale introduction of 3-wheelers (e-autos) can be made economically viable using battery swapping, with the CAPEX/ OPEX for the e-autos becoming similar or less compared to petrol autos.

The State Government plans to ensure a robust infrastructure for electric vehicles, that includes adequate power availability, network of charging points, and favorable power tariff. KSEBL will provide quality power for 24x7 throughout the year for a rate variable based on time of the day and season of the year.

The development of e-mobility must be integrated to the State's manufacturing ecosystem, particularly for the EV components. Kerala has developed a large number of start-ups and some of this talent pool is expected to be utilized for the e-mobility initiative.

Registered Vehicle in the state 2016 Economic Reveiw

		Kerala	TVM	ERKM	KZHKD
Goods	3 W	419857	36478	69643	34296
	4 W	136938	12188	17124	13984
Buses	Stage	42707	13247	4074	3630
	Contract	64051	10251	9945	3802
4 Wheeler	Cars	2070635	278468	336445	155605
	Taxies	107567	9027	17276	9729
3 Wheeler	Autorickshaw	610235	70689	58271	51449

2 Wheeler	Scooter/Motor cycle	6472302	834151	1004232	639437
Tractor/Trailer	Tractor	14213	741	2117	434
	Trailer	699	143	147	35
Others		232609	25211	39996	14987
	Total	**10171813**	**1290592**	**1559270**	**927388**

Vision

To embrace electric mobility as a tool to promote shared mobility and clean transportation and ensure environmental sustainability, pollution reduction, energy efficiency and conservation and to create an ecosystem for manufacturing EV components in Kerala.

EV Population targets

2022: 1 million EV's on the road

2020: Pilot Fleet of 200,000 two-wheelers, 50,000 three wheelers, 1000 goods carriers, 3000 buses and 100 ferry boats.

Investment targets

Component Manufacturing: Attract investments and create employment opportunities around Power Electronics, Battery Pack Assembly, Battery Management System (BMS), Electric Motors, Accessories and skilled areas like IT and R&D etc

Electric Vehicle manufacture in the long term: Create an enabling ecosystem of skilled manpower, infrastructure, R&D centers , favourable regulations and initial volumes through Government programs.

Centers of Excellence (CoE) in the EV value chain; build world class training/skilling centers for EV professionals with niche skills for the global EV industry

Key Policy Drivers

The transition to EVs is logical, as Kerala is committed to environment and welfare of the people. The EV drive has been triggered by multiple forces viz.,

- promoting shared mobility and clean transportation balancing of the peak and off-peak power demand for the electric utility (KSEBL),
- operational efficiency and savings for the transport utility (KSRTC),

  pollution reduction from fossil fuels
- the strategic intent to boost hardware and software manufacturing in the State.

Managing the Electricity Grid

The Kerala State Electricity Board (KSEBL) is looking at EV population as an option for generating demand during the off-peak hours. It would mean cheap electricity for EVs and load balancing for the grid. In Kerala nearly 80% of the

demand is the variable load from the domestic sector – unpredictable because a variation in atmospheric temperature can spike the power consumption. KSEBL will participate in the e-mobility development for ensuring a firm and optimally high baseload on the grid at attractive power tariffs.

Upgrading the Bus Transport Fleets

The Kerala State Road Transport Corporation (KSRTC) should transition a part of its fleet of 6000+ buses into Electric Vehicles by 2025 through funding from GoI. This is expected to substantially reduce heavy outflow due to fuel cost. KSRTC currently procures around 1000 new buses annually and some of these can be replaced with EVs and with appropriate sizing of the batteries, charging infrastructure and innovative electricity tariff, the cost of the bus operations is expected to be comparable with the present fleet of diesel buses. The huge reduction in maintenance cost of electric buses, reduced break down losses coupled with the reduction of fuel cost per KM can be securitised for a longer period and used to service the initial capital cost of deploying the EV Buses.

Industrial Growth

Kerala needs to focus on growing its internal manufacturing ecosystem and turn away from being an export-dependent, consumption-driven economy. This drive can be given an initial boost by providing an early market in the Government driven programs (aggregation of demand). The highly skilled manpower and a buoyant domestic demand will help to establish high tech manufacturing in niche areas like design, power electronics and IT components for Electric Vehicles.

Transition Strategy

The transition strategy would be multipronged, which would include the creation of common charging infrastructure, incentivising the transition (end user), standardising the specifications, creating enabling policies and regulations, promoting localisation coupled with training and skill development.

Technical Advisory Committee

A technical advisory Committee-Mobility State Level Task Force (e-MobSLTF) has been set up by the State Government to initiate, develop and sustain e-mobility in the State. This Committee shall be mandated to define the policies and strategies for the development and growth of the sector in the State.

The eMobSLTF shall scrutinise the technology adoption and manufacturing proposals in this area and recommend to the Government for the adoption of the same.

Categories of Vehicles

Light Electric Vehicles

Electric Vehicles with battery packs of below 120V is considered as Light EV, and in India they include the two-wheelers, three-wheelers and some car models also.

Two wheelers:

- e-Scooters with a built in 50KM range battery (suitable for charging at home) with provision for additional 50 KM range extension battery (that could be swapped at public stations as and when required).
- e-Scooters with two swappable batteries (as in international models like Gogoro etc).
- e-Bikes to leverage the tourism potential of the state in the coastal and hilly destinations.

Three wheelers:

Currently, Auto-rickshaws in the State have base price of Rs. 1.40 to1.70 Lakhs with a running cost in the range Rs.1.30 to 1.40 per KM. Converting these as e-autoes can be made Revenue Neutral, if the EV battery is addressed as a separate component from the base EV. The cost of an e-Auto without battery can be in the range of Rs 1.40 to 1.70 lakhs, with sufficient assured numbers to enable the auto manufacturers to go for adequate supply tie ups. It would be necessary to provide promotional incentives wherever possible in the form of concessions in road tax, toll fee, parking fee etc. A policy decision has to be taken to give new/renewed permit only for e-autos leading to a gradual ban on ICE autos. Schemes would be devised to procure 15,000 + 25,000 + 50,000 e-autos year-wise from 2019 onwards, which could attract local manufacturing. In order to enable the State to realize the transition to e-Autos, there is a need to start manufacturing facility within the State. For this, discussions have already initiated on the revival of Kerala Automobiles Ltd (KAL) which will be taken forward.

Four Wheelers

Electric Cars can be introduced for government use and as modern, eco-friendly taxi cars. Technologically the optimal solution would be to have electric cars with built in batteries with hire-able 'Range extension batteries' of different capacities for different models of EV.

- Built in batteries could be charged at home over night and could run for about 80 – 100 KM distance daily, which would be the normal demand of the car owners, whereas the range extension batteries could be hired for longer drives.
- There could also be a number of DC fast charging stations as well as swapping stations for range-extension batteries established in strategic locations in the cities and along the national highways and state highways.
- It would also be possible to provide the public the list and geographic location of all available swapping stations over as mobile app accessible to all.

Once the availability of sufficient electric vehicles and charging-swapping stations are in place, State may also take up certain environmentally fragile locations -like Munnar – and mandate to convert all four wheelers as electric vehicles, enforcing them as pollution free EV zones.

Small Cargo carriers would be another category that may be converted to EVs through policy mandates.

Heavy Electric Vehicles/ Electric Buses

Electric Vehicles with a battery pack of more than 500 Volts is considered as Heavy EV.

Buses are the first preference for conversion to e-vehicle regime, due its large impact on the on-road vehicle population, potential to reduce pollution and promote shared mobility. Buses, primarily for public transport shall be of 9 meter and 12 meter length, with an average driving range of 50 km to 100 km. The Bureau of Indian Standards is developing standards for the following type of Bus Battery Charging Options, as India specific solutions.

Fixed Battery System: Buses are expected to charge at the bus depots using 3-phase AC connections dedicatedly connected to each parked bus. In addition, small top up charging done en-route. This system is currently under consideration in Kolkata.

Replaceable Battery Systems: Battery Swapping at Bus Depots/Terminals to cater to trip lengths of up to 35 km. A battery pack that provides 50 km range could be adopted for use across the State. This option is being closely watched as there are no large scale deployments of it and the robotic arm or battery switch systems is presently under demonstration stage.

Automated Bus Charging Systems: This is an emerging option, currently being deployed and evaluated in Northern Europe . It involves deployment of pantograph-charger (or "docker") at the Bus Terminal every time the bus returns to the terminal. The battery size can be configured similar to option 2 or 5 above, depending on system configuration.

Electric Boats

Boats - Kerala has already done a pilot in this area with solar charging. However optimising the economics and looking for specific technology improvement is an area that may be looked into with specific details on the type of boats, loads to be carried and the requirements of its shuttling distance per day. This is to be studied and evaluated separately.

EV Charging Infrastructure:

Fast Charging and swapping stations will be established all over cities and on highways to create the infrastructure for EVs. The Central Electricity Authority (CEA) has prepared an Approach Paper for Standardizing the Grid Access for the EV Charging Infrastructure. These will be adopted as standards or regulations by the CERC. The solutions planned in Kerala State will adhere to such grid side requirements, including power quality assurance, power tariff, central management system etc.

These stations could be set -up by DISCOMs or companies in partnership with DISCOMs. Besides, DISCOM will set-up AC charging stations (as per DHI standard AC-001) on streets and parking lots, including locations where vehciles are parked over-night (if not parked at home). These will be standard 15A outlets for slow-charging of vehicles. They would have payment mechanism, time-of day metering and facility where the user can decide to charge vehicles overnight, but only in off-peak hours. Single vehicle charger of this kind should cost no more than ₹5000.

However the conversion of three wheelers and transport buses would be of first priority of the State along with promotional role in conversion of four wheelers and two wheelers.

KSEB will setup battery charging stations. Swapping operations will be done by independent player found through a transparent process by KSEB.

Strategic Initiatives

The policy aims at improving affordability and acceptance leading to adoption of electric vehicles through the following strategic initiatives:

1. Addressing the viability gap for buses and Government fleet (if any)
2. Creating adequate charging infrastructure that are interoperable with several models of EVs,
3. Promotion of local manufacturing,
4. Awareness creation and promotion of shared mobility
5. Human capacity building and re-skilling

1. Addressing the Viability Gap

The Government shall consider the following fiscal and non-fiscal incentives to the vehicle owners to adopt EVs.

The Road tax on the electric vehicles may be fully exempted for the initial 3 years (new registration)

2. Creating Adequate Charging Infrastructure - Interoperable

The KSEBL would setup the entire charging infrastructure and shall be the power provider for the system. Further it is possible to establish additional battery swapping stations as part of the present petrol bunks itself, which could be taken up jointly by oil companies like BPCL and KSEBL.

Demand aggregation of home and workplace chargers (AC charging) shall be adopted to reduce prices and achieve scale.

Employers shall be incentivized to allow employees charge at subsidized rate.

Energy companies (like IOCL, HPCL, IGL) shall be encouraged to invest in charging networks,

Adoption of renewable electricity source would be encouraged.

Battery swapping infrastructure for 2-wheelers, 3-wheelers and buses will be as per the Standards for battery swapping to be formulated under the policy.

For city buses, depot charging mechanisms will be made based on techno-commercial feasibility and route planning.

State of the art Electric Vehicle Supply Equipment (EVSE) Management Systems will be deployed which will help EV drivers to locate nearest charging/swapping stations, schedule a charging slot, payment settlement etc.

3. Manufacturing in the State

The State is keen to promote manufacturing facilities in the following areas in an attempt to boost localisation of the components/vehicles. The following component manufacturing shall be promoted and they shall be eligible for the incentives under the ESDM and IT Policy

a. Drive Technology

Complete Vehicle: Steps are to be taken for constituting an e-Auto manufacturing facility as collaborative venture under Kerala Automobiles Ltd (KAL) with private sector partners

b. Electric Drive Train and Power Electronics: This includes the major constituents of the electric drivetrain and power electronics viz., Motor, motor controller and Inverter, On board charger , Power distribution unit , DC/DC converter , Vehicle control unit

c. Energy Systems and Storage. This includes the Battery management system (BMS), Cell technologies and battery pack assembly and Second life applications for retired batteries

d. Charging Technology/Mode: The State envisions the adoption of the swappable battery model as a predominant mode of recharging the batteries.

4. Incentives and subsidies for localisation

The manufacturing units' setup for EV shall enjoy all the benefits (financial and regulatory) of manufacturing units applicable under the industrial and IT policies of the State.

Support to local manufacturers to acquire and develop technology and collaborate globally with technology suppliers. A Fund shall be created for technology acquisition for multiple manufacturers in the state.

To support local R&D for development of EV's as per the ESDM policy.

Concession in electricity tariff, property taxes and tax breaks as per IT& ESDM policy

Priority allotment of land and speedy execution of land allotment as per the IT policy

Investment allowance or capital subsidy provisioned in ESDM policy shall be available to EV manufacturers.

Support to the auto-component industry, especially for MSMEs, start-ups and academia. (In alignment with the respective policies)

Setting up of EV clusters where EV and EV component manufacturing can be incentivized through speedy land allotment, availability of reliable supporting infrastructure like roads, power and water.

Pilot Projects and Promotion

1. Creation of E Mobility Zones (pilot regions)

To familiarise the public on the e-mobility aspects and usage and to create initial demonstration hubs select regions will be adopted as e-mobility zones. The potential areas are:

Tourist villages/spots (Kovalam, Munnar etc) – ebikes, e scooters, e-autos

Technology hubs (Technopark/Infopark) – ebikes, e scooters, e-autos

CBD of Trivandrum, Kochi and Kozhikode - e-buses. e-autos, e-scooters

Last mile connectivity for urban transportation networks (eg. KMRL) - ebikes, e-scooters, e-autos

2. Support schemes for early adoption

To create awareness among public about EV's and to promote adoption of the same the following promotional schemes are proposed -

Incentives of Rs 30000 or 25% of the EV whichever is lower for the 3 wheelers that are procured by the public (under the scheme for promotion of EV's), will be only for the initial period of one year. In Thiruvananthapuram, Kochi and Kozhikode Corporation, hence forth permit would be given only for EV Autorickshaw.

other fiscal incentives on EVs such as state tax breaks, road tax exemptions, and free permits to fleet drivers.

Non-fiscal incentives such as exemption fo free parking etc.

Subsidized electricity with tariff between Rs. 5-5.5 per unit for EV charging stations.

KSEBL to setup initial charging and swapping stations across vehicle segments. (charging stations 20 each in the initial pilot districts of Trivandrum, Ernakulam and Kozhikode and swapping stations 150 across the 3 districts for 2W/3W/4W. The bus charging stations could be in the depots)

3. Human Capacity Building

1. Centre of Excellence for Electric and Autonomous Vehicles:

The State Government shall establish centres of innovation and excellence for various components of EVs and Autonomous Vehicles (AV) Industry including battery technology, drive train technologies, software development and charging technologies.

2. Curriculum updates for EVs and AVs

The curriculum of the technical schools (in engineering and science) to be updated to incorporate emerging technologies in the industry

3. Skilling Programs for EV & AV industry

Specific skilling programs shall be formed to deliver hands on learning for the graduates and professionals in the areas related to EVs & AVs.

4. Connected and Autonomous vehicle testing corridor:

A state-of-the-art infrastructure for safely testing of autonomous and connected vehicle technologies shall be built in Trivandrum. This Mobility Corridor will be equipped with high-capacity fiber optic cable connecting various road infrastructure.

MAHARASHTRA

महाराष्ट्र शासन
उद्योग, ऊर्जा व कामगार विभाग,
शासन निर्णय क्र. विवाधो-२०१७/ प्र.क्र.१८८/उद्योग-२
मादाम कामा रोड, हुतात्मा राजगुरु चौक,
मंत्रालय, मुंबई - ४०० ०३२.
दिनांक :- १४ फेब्रुवारी, २०१८.

प्रस्तावना :-

इलेक्ट्रीक व्हेईकल तंत्रज्ञान हे यापुढील कालावधीतील जागतिक स्तरावर दळणवळणाच्या क्षेत्रातील आमूलाग्र बदल घडवून आणणारी बाब आहे. इलेकट्रीक व्हेईकलमुळे जागतिक स्तरावर व देशांतर्गत पेट्रोलियम पदार्थावरील अवलिंबत्व कमी होईल, पर्यायाने कार्बन डाय ऑक्साईडचे उत्सर्जन कमी झाल्यास प्रदूषण कमी होण्यास मदत होणार आहे. याशिवाय पर्यावरण पूरक स्वस्त इंधन खर्च, तसेच वाहनांची देखभाल कमी होणे इत्यादीबाबत मदत होणार आहे. संयुक्त राष्ट्र संघटना (युनो) चा सन २०३० पर्यंत इलेकट्रीक व्हेईकलला उत्तेजन देण्याचा उद्देश आहे. यासाठी भारत सरकारने सन २०३० पर्यंत "इलेक्ट्रीक व्हेईकल नेशन" घडविण्याचे योजिले आहे.

२. "नॅशनल इलेक्ट्रीक मोबिलीटी प्लॅन" (NEMMP) अंतर्गत भारत सरकाने सन २०२० पर्यंत ६० लाख इलेक्ट्रीक व हायब्रीड व्हेईकल रस्त्यावर उतरविण्याचा मानस ठेवला आहे. यासाठी Faster Adoption & Manufacturing of (Hybrid) & Electric Vehicles (FAME) ही योजना केंद्र शासनाने सुरु केली आहे. जेणेकरुन १२० दशलक्ष बॅरल इंधन बचतीचे व ४० लाख टन कार्बन डाय ऑक्साइड उत्सर्जन कमी करण्याचे उद्दिष्ट ठेवले आहे. या योजनेत तंत्रज्ञान विकास, मागणीत वाढ, पथदर्शी प्रकल्प व Charging सुविधा हे घटक समाविष्ट आहेत. ही योजना सन २०२० पर्यंत राबविण्याचे केंद्र शासनाने ठरविले असून प्रथम टप्प्यात एप्रिल-२०१५ ते मार्च-२०१७ या कालावधीसाठी रु.७९५ कोटी नियतव्यय ठेवला होता.

३. इलेक्ट्रीक व्हेईकल व तद्अनुषंगीक इतर घटक हे नवे उभरते क्षेत्र असून या क्षेत्रातील दडलेल्या सामर्थ्याचा लाभ घेऊन राज्यात मोठया प्रमाणात गुंतवणूक आणणे तसेच कुशल व अकुशल क्षेत्रात रोजगार निर्मिती करणे तसेच प्रस्तूत इलेक्ट्रीक व्हेईकलचा पर्यावरणपूरक उद्योग बिजांकुरित करण्यासाठी नियमित प्रोत्साहनाशिवाय वरीलप्रमाणे अधिकची प्रोत्साहने देण्याच्या उद्देशाने राज्याचे स्वतंत्र इलेक्ट्रीक व्हेईकल धोरण असणे आवश्यक आहे.

४. महाराष्ट्र राज्य हे उत्पादन क्षेत्रासाठी सहाय्यभूत ठरणाऱ्या योजना आखणारे अग्रेसर असे राज्य आहे. उत्पादन क्षेत्र हे राज्याची आर्थिक उन्नती घडविणेसाठी चालना देणारे प्रमूख साधन आहे, ही बाब राज्य शासनाने अधोरेखित केलेली आहे. राज्यामध्ये उद्योगांसाठी प्रस्थापित असलेल्या पोषक परिस्थितीचा फायदा घेवून त्याआधारे इलेक्ट्रीक व्हेईकल क्षेत्रामध्ये राज्यात गुंतवणूक आकर्षित करण्यासाठी राज्यशासन प्रयत्नशिल आहे.

५. राज्याच्या औद्योगिक क्षेत्रासंदर्भातील धोरणे राबवितांना आलेला अनुभव आणि वाहन उत्पादन क्षेत्रात होत असलेल्या जागतिक तसेच देशांतर्गत उत्पादनाच्या बाबतील अलीकडील बदलांना सामोरे

जाण्यासाठी, नवीन इलेक्ट्रीक व्हेईकल क्षेत्र उत्पादनासाठी धोरणाची तातडीची गरज आहे. तसेच इलेक्ट्रीक व्हेईकल क्षेत्रांच्या उत्पादनांच्या विकासात येत असलेल्या अडचणी, त्यावर करावयाच्या उपाययोजना, नविन धोरणात विचारात घ्यावयाची क्षेत्रे व त्यासाठी लागणाऱ्या पायाभूत सुविधा या बाबीही हे धोरण तयार करताना विचारात घेण्यात आल्या आहेत.

६. इलेक्ट्रीक व्हेईकल क्षेत्र उत्पादन धोरणाची आखणी करताना, इलेक्ट्रीक व्हेईकल क्षेत्र उत्पादन क्षेत्रातील विविध उत्पादकांशी चर्चा करण्यात आली. सदर चर्चेच्या निष्कर्षाच्या आधारे आणि या क्षेत्रातील उत्पादक, इलेक्ट्रीक व्हेईकल क्षेत्रातील तज्ञ प्रतिनिधी, कंपन्यांचे संचालक, उद्योगाचे प्रतिनिधी, इतर संबंधित संस्था यांच्याशी विस्तृत चर्चा करण्यात आली. यापूर्वीची राज्याच्या औद्योगिक क्षेत्रासंदर्भातील धोरणे राबवितांना आलेल्या अनुभवांच्या आधारे, प्रस्तुत धोरणाचा मसुदा तयार करण्यात आला आहे. सदर धोरणास मान्यता देण्याची बाब शासनाच्या विचाराधीन होती.

शासन निर्णय :-

महाराष्ट्र राज्य हे जागतिक स्तरावर इलेक्ट्रीक व्हेईकल व त्यांच्या सुट्या भागांचे उत्पादन आणि जास्तीत जास्त इलेक्ट्रीक व्हेईकल वापर करणारे स्पर्धात्मक राज्य बनविणे, जागतिक स्तरावरील गुंतवणूकदारांकरीता सर्वाधिक पसंतीच्या ठिकाणामध्ये महाराष्ट्राचा समावेशक करणे. तसेच प्रवर्तन नितीद्वारे स्पर्धात्मक आणि शाश्वत गुंतवणूकीस योग्य वातारवण असेलेले राज्य म्हणून विकसित करुन महाराष्ट्राला सर्वाधिक पसंतीचे आर्थिक आकर्षणाचे केंद्र बनविणे तसेच इलेक्ट्रीक व्हेईकल क्षेत्रामधील सुक्ष्म, लघू व मध्यम उद्योग (MSMEs) यांना जागतिक स्पर्धात्मक वातावरणासाठी सक्षम करण्याच्या दृष्टीकोनातून सोबत जोडल्याप्रमाणे महाराष्ट्राचे इलेक्ट्रीक व्हेईकल उत्पादन धोरण-२०१८ या शासन निर्णयान्वये पुढीलप्रमाणे जाहीर करण्यात येत आहे.

२. धोरणाचा उद्देश :-

अ) इलेक्ट्रीक व्हेईकल उत्पादन व वापरामध्ये महाराष्ट्र राज्याचे स्थान अग्रेसर ठेवणे.

ब) नवरोजगाराच्या संधी निर्माण करणे.

क) इलेक्ट्रीक व्हेईकलच्या निर्यातीस प्रोत्साहन देणे, सुटे भाग, बॅटरी आणि चार्जींग उपकरणास प्रोत्साहन देणे.

ड) इलेक्ट्रीक व्हेईकल क्षेत्रामध्ये संशोधन व विकास, नवनिर्मिती आणि कौशल्य विकासास प्रोत्साहन देणे.

इ) शाश्वत परिवहन पध्दती विकसित करणे.

३. धोरणाचे लक्षांक :-

अ) महाराष्ट्रामध्ये नोंदणीकृत इलेक्ट्रीक व्हेईकलची संख्या ५ लाखापर्यंत वाढविणे.

ब) राज्यामध्ये इलेक्ट्रीक व्हेईकल, इलेक्ट्रीक व्हेईकल उत्पादन आणि त्यांच्या सुटे भागाचे उत्पादन, बॅटरी उत्पादन / एकत्रिकरण उपक्रम (assembly enterprises) आणि चार्जींगच्या मुलभूत सुविधा उपकरणाचे उत्पादन यामध्ये रु.२५,००० कोटीची गुंतवणूक निर्माण करणे.

क) १,००,००० मनुष्यबळासाठी रोजगार निर्मिती करणे.

४. धोरणांची कार्यतंत्रे :-

i) इलेक्ट्रीक व्हेईकल तंत्रज्ञानाच्या वापरास प्रोत्साहन :-

वित्तीय आणि बिगर वित्तीय प्रोत्साहन प्रदान करुन इलेक्ट्रीक व्हेईकलची व्यवहार्यता वाढविणे.

ii) इलेक्ट्रीक व्हेईकलच्या चार्जींगसाठी समर्पित पायाभूत सुविधांचा निर्मितीचा विकास :-

या क्षेत्रातील गुंतवणूकीवर अनुदान देणे.

iii) संशोधन व विकास तसेच नवनिर्मिती केंद्राचा विकास करणे :-

राज्यात संशोधन आणि विकास केंद्र तसेच नवनिर्मित केंद्र स्थापन करण्यास सहाय्य करणे. तसेच "सेंटर ऑफ एक्सलेन्स" स्थापन करण्यास प्रोत्साहन देणे.

५. व्याख्या :-

या धोरणाच्या संदर्भात इलेक्ट्रीक व्हेईकल क्षेत्रामध्ये इलेक्ट्रीक व्हेईकल, सुटे भागाचे उत्पादन, बॅटरी उत्पादन / एकत्रिकरण (assembling) चार्जींग मुलभूत सुविधा, चार्जींग उपकरणे उत्पादन या खालील व्याख्या पूर्णत: तांत्रिक बाबी असल्याने इंग्रजी मध्ये त्याचा अन्वयार्थ लावण्यात येईल.

i) Electric vehicle (EV):

An electric vehicle or EV uses energy stored in its rechargeable batteries, which are recharged by common household electricity. An electric vehicle (EV) uses one or more electric motors for propulsion. Depending on the type of vehicle, motion may be provided by wheels or propellers driven by rotary motors, or in the case of tracked vehicles, by linear motors. EV include industrial fork-lift trucks, electric carts, electric scooters, electric motorcycles, electric three wheelers, full-size electric cars, trucks, vans, buses and other electric vehicles.

OR

As per Government of India Notification dated १६.०९.२००५ under Central Motor Vehicle Rule १९८९ Rule no. २(u) "Battery Operated Vehicle" means a vehicle adapted for use upon roads and powered exclusively by an electric motor whose traction energy is supplied exclusively by traction battery installed in the vehicle.

ii) EV Components:

Major components of EV include motor controller, electric engine (motor), regenerative braking, drive system and related parts/assemblies.

iii) EV Battery:

An electric-vehicle battery (EVB) or traction battery is a battery used to power the propulsion of battery electric vehicles (BEVs). Vehicle batteries are usually a secondary (rechargeable) battery. EV battery will not include Lead-acid batteries.

iv) EV Battery Components:

Battery pack designs for Electric Vehicles (EVs) incorporate a combination of several mechanical and electrical component systems which perform the basic required functions of the pack. Battery pack consists of many discrete cells connected in series and parallel to achieve the total voltage and current requirements of the pack. A battery comprises of smaller stacks called modules, which are placed into a single pack. Modules also incorporate cooling mechanisms, temperature monitors, other devices and Battery Management System (BMS).

v) EV Charging Station & Equipment:

An electric vehicle fast charging station (Charging time under १ hour) also called EV charging station, electric recharging point, charging point, charge point and EVSE (electric vehicle supply equipment), is an element in an infrastructure that supplies electric energy for the recharging of electric vehicles. The charging stations equipment shall include charging posts, charging cabinets, fully automated charging stations integrated with power distribution equipment etc.

vi) EV Charging Infrastructure:

The policy envisages four type of charging facilities, viz.

a) Domestic user facility (individual)
b) Public charging facility (government facilities, bus depots, railway stations, fuel stations etc.)
c) Common charging facility (malls, residential building, educational institutions etc.)
d) Commercial charging facility (roadside, fuel stations etc.)

vii) Pioneer units:

Pioneer unit shall mean first two Mega projects in the State setup for manufacturing of EV, EV components & batteries. One Pioneer unit in EV/EV components & one in battery manufacturing sector will be considered separately in each category.

viii) Mega EV Enterprises :

a) Mega EV enterprise for A & B areas (as classified under Package scheme of Incentives in force) is a manufacturing enterprise defined in para ४(i), ४(ii), ४(iii) and ४(iv) above where fixed capital investment (FCI) on manufacturing facility is more than Rs. २५० crore or which creates direct employment for at least ५०० persons.

b) Mega EV enterprise for C, D & D+ areas is a manufacturing enterprise where fixed capital investment (FCI) on manufacturing facility is minimum of Rs. १०० crore or which creates direct employment for at least २५० persons.

c) Ultra mega EV enterprises, is a manufacturing enterprise where fixed capital investment on manufacturing across state is १५०० crore which generates ३००० employment.

ix) Large EV Enterprises:

Large EV enterprise is an industrial enterprise where fixed capital investment (FCI) on plant and machinery for the manufacturing facility is fromRs. १० crore to Mega project qualifying limit.

x) MSME EV Enterprises:

Definition of Micro, Small and Medium EV Enterprises shall be as defined in the MSMED Act २००६ of Government of India.

६. **प्रोत्साहने :-**

अ) इलेक्ट्रीक व्हेईकल उत्पादक, इलेक्ट्रीक व्हेईकल सुटे भाग उत्पादक व इलेक्ट्रीक व्हेईकल बॅटरी उत्पादक / एकत्रिकरण उपक्रम (assembly enterprises), इलेक्ट्रीक बॅटरी चार्जर

उत्पादक. यांना खालील प्रोत्साहने अनुज्ञेय राहतील. ही प्रोत्साहने केंद्र शासनाच्या योजने शिवाय अधिकची असतील. (Over & above GOI Scheme)

१) प्रणेता उद्योगास विशाल, अतिविशाल उद्योग यांना द्यावयाची प्रोत्साहने :-

प्रणेता उद्योगास, विशाल व अतिविशाल इलेक्ट्रीक व्हेईकल उद्योगांना एकत्रित सामुहिक प्रोत्साहने 'Template' प्रमाणे राहतील. सदर एकत्रित प्रोत्साहने कालपरतवे व प्रकरणपरतवे विशाल / अतिविशाल प्रकल्पांसाठी गठीत उच्चाधिकार समितीच्या अभिप्रायाने मा.मंत्री मंडळ उपसमितीच्या मान्यतेने बदल करण्याचे अधिकार राहतील.

२) सुक्ष्म, लघू व मध्यम प्रकल्पांसाठी तसेच मोठया प्रकल्पांसाठी प्रोत्साहने.

संपूर्ण राज्यात, इलेकट्रिक व्हेईकल धोरण २०१८-अंतर्गत उत्पादन करणाऱ्या सुक्ष्म, लघु व मध्यम उपक्रम आणि मोठे घटकांना प्रचलित सामुहिक प्रोत्साहन योजनेप्रमाणे प्रोत्साहने अनुज्ञेय असतील .

"अ" आणि "ब" प्रवर्गातील (सामुहिक प्रोत्साहन योजनेमध्ये व्याख्या केल्यानुसार) पात्र घटकांना प्रोत्साहने "क" प्रवर्गा प्रमाणे अनुज्ञेय असतील. इतर प्रवर्गातील घटकांना एक टप्पा वरची प्रोत्साहने अनुज्ञेय असतील. (उदा. "ड" प्रवर्गातील पात्र घटकांना "डी+" प्रवर्गाप्रमाणे प्रोत्साहने अनुज्ञेय असतील)

ब) इलेक्ट्रीक व्हेईकल (EV) चार्जींगसाठी प्रोत्साहने व सहाय्य.

१) राज्य भरात इलेक्ट्रीक व्हेईकल चार्ज करण्यासाठी लागणाऱ्या वीजेसाठी (Electric Power) "EV चार्जिंग स्टेशन" ज्या ठिकाणी स्थापित केले जाईल, त्या ठिकाणी लागू असलेला दर लागू होईल. (उदा. EV चार्जिंग स्टेशन मॉल मध्ये असेल तर मॉल साठी लागू असलेला दर लागू होईल, औद्योगिक क्षेत्रात असेल तर औद्योगिक दर लागू होईल व निवासी क्षेत्रात असेल तर निवासी दर लागू होईल.)

२) पार्कींग क्षेत्र, निवासी क्षेत्र, सोसायट्या, बस डेपो, रेल्वे स्टेशन आणि इंधन पंप इत्यादी ठिकाणी सार्वजनिक चार्जींग पाईंटला परवानगी देण्यात येईल. चार्जिंग पॉईंट स्थापित करण्याची मागणी प्राप्त झाल्यानंतर संबंधित नियोजन प्राधिकरण व वीज पुरवठा करणारी यंत्रणा १५ दिवसात परवानगी देईल. १५ दिवसात परवानगी न मिळाल्यास, ती मिळाल्याचे गृहीत धरले जाईल.

३) सर्व स्थानिक स्वराज्य संस्था व विशेष नियोजन प्राधिकरण यांच्या विकास नियंत्रण नियमावली (DCR) मध्ये अनुरुप सुधारणा करुन मॉल मधील पार्कींग क्षेत्रामध्ये व निवासी मालमत्तांमध्ये व पार्कींग क्षेत्रामध्ये सार्वजनिक चार्जींग सुविधा उभारण्यास परवानगी देण्यात येईल.

४) अग्नि सुरक्षा व इतर अन्य सुरक्षततेच्या अधीन राहून संबंधित नियोजन प्राधिकरणाच्या प्रचलित नियम/कायद्यातील तरतूदीनुसार त्यांचे मान्यतेने अस्तित्वातील पेट्रोल पंपाच्या ठिकाणी चार्जींग स्टेशन उभे करण्याची मुभा असेल.

५) दूचाकी, तीन चाकी, कार आणि बसेस साठीच्या विद्युत वाहन सार्वजनिक जलद चार्जींग केंद्रांच्या उपकरणे / यंत्रे यामधील गुंतवणूकीच्या २५ टक्के भांडवली अनुदान (यासाठी प्रती चार्जींग स्टेशनला रु.१० लक्ष इतकी कमाल मर्यादा असेल) पहिल्या २५० चार्जींग केंद्रांना देण्यात येईल.

६) आवश्यक त्या सार्वजनिक बस स्थानकांवर Robotic Battery Swapping Arm ची व्यवस्था निर्माण करण्यात येईल.

क) इलेक्ट्रीक व्हेईकल खरेदीदारांसाठी प्रोत्साहन आणि तरतुदी :

१. केवळ बॅटरी इलेक्ट्रिक व्हेइकल (बीईव्ही) साठी प्रोत्साहन.

२. राज्य शासनाकडून इलेक्ट्रीक व्हेईकलच्या वापरास प्रोत्साहन देणेसाठी मुंबई, पुणे, औरंगाबाद, ठाणे, नागपूर आणि नाशिक या सहा शहरांत सार्वजनिक वाहतुकीमध्ये इलेक्ट्रीक व्हेईकलचा वापर प्रथम करण्यात येईल.

३. राज्यात नोंदणी झालेल्या इलेक्ट्रीक व्हेईकलच्या पहिल्या १,००० खाजगी सार्वजनिक बस वाहतुक खरेदीदार यांना पाच वर्षांच्या धोरण कालावधीसाठी अनुदान प्राप्त होईल.

४. राज्यात नोंदणी झालेल्या प्रवासी बसेससाठी खाजगी / सार्वजनिक बस वाहतूक खरेदीदार यांना वाहनाच्या मुळ किंमतीच्या १० टक्के अनुदान (जास्तीत जास्त २० लाखांच्या कमाल मर्यादेत) प्रति वाहन अनुदान देण्यात येईल. वाहन खरेदी तारखेपासून ३ महिन्यात अनुदान खरेदीदाराच्या बँकखात्यात हस्तांतरीत केले जाईल.

५. राज्यात नोंदणी झालेल्या पहिल्या १,००,००० इलेक्ट्रीक व्हेईकलना (दूचाकी वाहने - ७०,०००, तीन चाकी वाहने - २०,००० आणि चार चाकी वाहने -१०,०००) खाजगी वाहतूक आणि वैयक्तिक खरेदीदारांना ५ वर्षांच्या धोरणाच्या वैधतेच्या कालावधीत "अंतिम वापरकर्ता अनुदान" मिळेल.

६. राज्यात नोंदणी झालेल्या इलेक्ट्रीक व्हेईकलच्या खरेदीवर खाजगी वाहतुकदारास व वैयक्तीक खरेदीदार यांना वाहनांच्या मुळ किंमतीवर १५ टक्के अनुदान मिळेल (दुचाकी साठी ५,००० रुपये कमाल मर्यादेत, तीन चाकी वाहनांसाठी १२,००० रुपये कमाल मर्यादेत, कारसाठी १ लाख रुपये कमाल मर्यादेत). वाहन खरेदी तारखेपासून ३ महिन्यात अनुदान खरेदीदाराच्या बँक खात्यात हस्तांतरीत केले जाईल.

७. रस्ते कर आणि नोंदणी शुल्कातून इलेक्ट्रीक व्हेईकल्सना माफी दिली जाईल.

ड) इलेक्ट्रीक व्हेईकल क्षेत्रातील संशोधन व विकास, नवीन उपक्रम आणि कौशल्य विकासाचा प्रचार

१) उच्चाधिकार समितीच्या मान्यतेने या क्षेत्रातील व्यवहार्यता आणि अन्य तपशिलांचे मूल्यांकन केल्यावर, उत्कृष्टता आणि संशोधन आणि विकास केंद्र, प्रयोगशाळा आणि सेंटर ऑफ एक्सलन्ससह इतर रोजगाराभिमुख केंद्रांची स्थापना करण्यासाठी प्रस्ताव तयार केला जाईल.

२) महाराष्ट्र राज्य तंत्रशिक्षण मंडळ (MSBTE) आणि महाराष्ट्र राज्य कौशल्य विकास सोसायटी (MSSDS) इतर प्रशिक्षण संस्था या विषयावर आधारित प्रमाणपत्र (Certification) कोर्सेस आणि प्लेसमेंट कार्यक्रम उभारतील. राष्ट्रीय ऑटोमोटिव्ह बोर्ड (NAB) आणि इतर संघटनांच्या सहकार्याने या क्षेत्रातील कुशल मनुष्यबळ उपलब्ध करुन देणेसाठी आवश्यक उपाय योजना MSBTE व MSSDS करतील. त्यानुसार आवश्यकतांवर आधारित, गुणवत्ता आधारित, परिभाषित प्रमाणपत्र कोर्सेस आणि प्लेसमेंट प्रक्रियेंची सुरुवात केली जाईल जेणेकरुन इलेक्ट्रीक व्हेईकल उद्योगासाठी योग्य प्रशिक्षित मनुष्यबळ निर्माण होईल.

७. धोरण अंमलबजावणीसाठी व्यवस्थापनाची चौकट :

उच्चधिकार समितीचे गठण:- राज्यस्तरावर या धोरणाच्या अंमलबजावणीचे संनियंत्रण करणे आणि आवश्यकतेनुसार कार्यपध्दती व नियमावली तयार करण्यासाठी एक उच्चाधिकार समिती गठण करण्यात येईल. सदर उच्चाधिकार समितीची रचना पुढील प्रमाणे असेल.

१) मुख्य सचिव - अध्यक्ष
२) अतिरिक्त मुख्य सचिव (उद्योग)- सदस्य
३) अतिरिक्त मुख्य सचिव (वित्त) - सदस्य
४) प्रधान सचिव (नवि-१) - सदस्य
५) प्रधान सचिव (नियोजन) - सदस्य
६) प्रधान सचिव (कौशल्य विकास) - सदस्य
७) प्रधान सचिव (ऊर्जा) - सदस्य
८) प्रधान सचिव (नवि-२) - सदस्य
९) प्रधान सचिव (परिवहन) - सदस्य
१०) आयुक्त, बृहनमुंबई महानगरपालिका - सदस्य
११) राज्यातील इलेक्ट्रीक व्हेकल उद्योगाचे दोन प्रतिनिधी
१२) विकास आयुक्त (उद्योग) - सदस्य सचिव

टिप :- उच्चाधिकार समिती कामकाजाच्या आवश्यकतेनुसार अन्य विभाग / संघटना / असोसिएशन अथवा व्यक्तीला बैठकीसाठी आमंत्रण देऊ शकते.

८. उच्चाधिकार समितीची सनद :

१) प्रस्तूत धोरणाच्या अनुषंगाने विविध विभागाचे शासन निर्णय / अधिसूचना /अधिनियमात सुधारणा इत्यादी बाबी विहित कालावधीत निर्गमित करण्याबाबत देखरेख व संनियंत्रण.

२) प्रस्तूत धोरणाच्या अनुषंगाने विविध विभागाचे कार्यान्वयन आदेश निर्गमित करणे व धोरणाच्या प्रभावी अंमलबजावणीसाठी विहीत कालावधी मध्ये उपाय योजना करणे.

३) धोरणाच्या अंमलबजावणी संदर्भात आंतरविभागीय समन्वय साधून समस्यांचा निपटारा करणे.

४) धोरणातील नमूद इलेक्ट्रीक व्हेईकल, इलेक्ट्रीक व्हेईकल सुटे भाग, चार्जींग स्टेशन व अन्य व्याख्यांच्या अन्वयार्थ लावणे त्यांचे पुर्नविलोकन करणे व आवश्यकतेनुरुप सुधारणा करणे.

५) या धोरणातील बेस्ट प्रॅक्टीसेसचा आढावा घेणे.

६) प्रस्तूत धोरणाच्या अंमलबजावणीसाठी उच्चाधिकार समिती दर ६ महिण्यांनी आढावा घेईल तसेच धोरणाच्या प्रभावी अंमलबजावणीसाठी धोरणात आवश्यक सुधारणा व अन्य उपाय योजना करेल.

९. धोरणाची वैधता :-

सदरचे धोरण शासन निर्णय निर्गमित झाल्यापासून पाच वर्षाकरीता वैध राहील .

१०. या शासन निर्णयानुसार सर्व संबंधीत विभागांनी परिशिष्ट-१ मध्ये दर्शविल्याप्रमाणे त्यांचेशी संबंधित विषयाबाबत आवश्यक ते आदेश/अधिसुचना त्वरीत निर्गमित कराव्यात.

११. सदर शासन निर्णय महाराष्ट्र शासनाच्या संकेत स्थळावर www.maharashtra.gov.in येथे उपलब्ध असून त्याचा संगणक संकेतांक २०१८०२१४१८०७१८९८१० आहे. सदर शासन निर्णय डिजीटल स्वाक्षरीने साक्षांकित करुन काढण्यात येत आहे.

महाराष्ट्राचे राज्यपाल यांच्या आदेशानुसार व नावाने.

Sanjay Shamkant Degaonkar

Digitally signed by Sanjay Shamkant Degaonkar
DN: c=IN, o=Industry, Energy and Labour Department, ou=Government Of Maharashtra, postalCode=400032, st=Maharashtra, 2.5.4.20=de0a2ca7914a3c02f24aa23655f609f41f2d36b0ec57da4c71f19aaf08230a79, serialNumber=56cf8c8577584adc42f070185c585c41084cc34f6683553d21ccacbfa33d4d1f, cn=Sanjay Shamkant Degaonkar
Date: 2018.02.15 15:47:38 +05'30'

(संजय देगांवकर)
सह सचिव (उद्योग), महाराष्ट्र शासन.

प्रति,

१. मा.राज्यपालांचे प्रधान सचिव.

२. मा.मुख्यमंत्री यांचे प्रधान सचिव.
३. मा.मंत्री (उद्योग) यांचे खाजगी सचिव.
४. मा.राज्यमंत्री (उद्योग) यांचे खाजगी सचिव.
५. मा.मंत्री) सर्व (व मा. राज्यमंत्री (सर्व) यांचे खाजगी सचिव.
६. मा. विरोधी पक्ष नेता, महाराष्ट्र विधानसभा यांचे खाजगी सचिव, महाराष्ट्र विधानमंडळ सचिवालय, विधानभवन, मुंबई.
७. मा. विरोधी पक्ष नेता, महाराष्ट्र विधानपरिषद यांचे खाजगी सचिव, महाराष्ट्र विधानमंडळ सचिवालय, विधानभवन, मुंबई.
८. मा. मुख्य सचिव.
९. अपर मुख्य सचिव (वित्त), वित्त विभाग, मंत्रालय, मुंबई.
१०. प्रधान सचिव (ऊर्जा), उद्योग, ऊर्जा व कामगार विभाग, मंत्रालय, मुंबई.
११. प्रधान सचिव, नियोजन विभाग, मंत्रालय, मुंबई.
१२. प्रधान सचिव (नवि-१) नगर विकास विभाग, मंत्रालय, मुंबई.
१३. प्रधान सचिव (महसूल), महसूल व वन विभाग, मंत्रालय, मुंबई.
१४. प्रधान सचिव, कौशल्य विकास व उद्योजकता विभाग, मंत्रालय, मुंबई.
१५. प्रधान सचिव (परिवहन), गृह विभाग, मंत्रालय, मुंबई.
१६. प्रधान सचिव (नवि-१), नगर विकास विभाग, मंत्रालय, मुंबई.
१७. सचिव, पर्यावरण विभाग, मंत्रालय, मुंबई.
१८. विकास आयुक्त (उद्योग), उद्योग संचालनालय, मंत्रालयासमोर, मुंबई.
१९. मुख्य कार्यकारी अधिकारी, महाराष्ट्र औद्योगिक विकास महामंडळ, अंधेरी (पूर्व), मुंबई.
२०. महानगरपालिका आयुक्त, महानगर पालिका (सर्व)
२१. अध्यक्ष, महाराष्ट्र राज्य विद्युत वितरण कंपनी लि. (MSEDCL), मुंबई.
२२. व्यवस्थापकीय संचालक, सिडको, मुंबई.
२३. विभागीय आयुक्त, पुणे/नाशिक/नागपूर/औरंगाबाद/अमरावती/मुंबई.
२४. सर्व जिल्हाधिकारी, सर्व जिल्हे.
२५. महानिरीक्षक, नोंदणी व नियंत्रक, मुद्रांक शुल्क, पुणे.
२६. निमंत्रक, उद्योग मित्र, मुंबई.
२७. अतिरिक्त उद्योग संचालक, उद्योग संचालनालय, मुंबई.
२८. उप महानिरीक्षक, मुंद्रांक शुल्क, मुंबई.
२९. उद्योग विभागातील सर्व सहसचिव/उपसचिव/कक्ष अधिकारी.
३०. मुख्य सचिव यांचे वरिष्ठ स्वीय सहाय्यक, मंत्रालय, मुंबई.
३४. अपर मुख्य सचिव (उद्योग) यांचे स्वीय सहाय्यक, उद्योग, ऊर्जा व कामगार विभाग, मंत्रालय, मुंबई.
३५. सह सचिव (उद्योग-२) यांचे स्वीय सहाय्यक, उद्योग, ऊर्जा व कामगार विभाग, मंत्रालय, मुंबई.
३६. निवड नस्ती (उद्योग-२).

परिशिष्ट-१
शासन निर्णय क्रमांक विवाधो-२०१७/ प्र.क्र.१८८/उद्योग-२, दिनांक : १४ फेब्रुवारी २०१८ सोबतचे विवरणपत्र

अ.क्र.	सोबतच्या शासन निर्णयातील परिच्छेद क्रमांक	कार्यवाही विषय	कार्यवाही अपेक्षित संबंधित विभागाचे नाव
१.	६ -ब (१)	चार्जिंगसाठी वीज दर आकारणी	उर्जा विभाग
२.	६-ब (२) ६-ब (३)	सार्वजनिक चार्जिंग पॉईटला परवानगी विकास नियंत्रण नियमावलीत सुधारणा	नगर विकास विभाग (नवि-१)
३.	६-ब (४)	पेट्रोल पंपाचे ठिकाणी चार्जिंग पॉईटला मुभा	नगर विकास विभाग (नवि-२)
४.	६-क (३) ६-क (४) ६-क (५) ६-क (६)	पहिल्या १००० सार्वजनिक बस वाहतूक खरेदीदारांना अनुदान खाजगी / सार्व. बसेसना अनुदान अंतिम वापरकर्ता अनुदान अनुदान बँक खात्यात	उद्योग संचालनालय
५.	६-क (७)	रस्ते कर व नोंदणी शुल्कातून माफी	गृह (परिवहन) विभाग
६.	६-ड (१) ६-ड (२)	रोजगार केंद्रांची स्थापना प्लेसमेंट कार्यक्रम	कौशल्य विकास व उद्योजकता विभाग

महाराष्ट्राचे इलेक्ट्रीक व्हेईकल प्रोत्साहन धोरण-२०१८

प्रस्तावना-:

इलेक्ट्रीक व्हेईकल तंत्रज्ञान हे यापुढील कालावधीतील जागतिक स्तरावर दळणवळणाच्या क्षेत्रातील आमूलाग्र बदल घडवून आणणारी बाब आहे. इलेक्ट्रीकल व्हेईकलमुळे जागतिक स्तरावर व देशांतर्गत पेट्रोलियम पदार्थावरील अवलिंबत्व कमी होईल पर्यायाने कार्बन डाय ऑक्साईडचे उत्सर्जन कमी झाल्याने होणारे प्रदूषण कमी होण्यास मदत होणार आहे. याशिवाय पर्यावरण पूरक स्वस्त इंधन खर्च, वाहनांची देखभाल कमी होणे इत्यादी बाबत देखील मदत होणार आहे. त्यामुळे जागतिक उद्योग, शासन इत्यादि यांनी इलेक्ट्रीक व्हेईकल हे सुरक्षित, किफायतशीर, पर्यावरण पूरक असल्याचे यशस्वीरित्या दाखवून दिले आहे. युनायटेड नेशनचा २०३० पर्यंत इलेक्ट्रीक व्हेईकलला उत्तेजन देण्याचा उद्देश आहे. यासाठी भारत सरकारने २०३० पर्यंत "इलेक्ट्रीक व्हेईकल नेशन" घडविण्याचे योजिले आहे.

०२. नॅशनल इलेक्ट्रीक मोबिलीटी मिशन प्लॅन) NEMMP (अंतर्गत भारत सरकारने २०२० पर्यंत ६० लाख इलेक्ट्रीक व हायब्रीड वाहने रस्त्यावर उतरविण्याचा मानस ठेवला आहे. यासाठी Faster Adoption & Manufacturing of (Hybrid) & Electric Vehicles (FAME) ची योजना केंद्र शासनाने सुरु केली आहे. जेणेकरुन १२०दशलक्ष बॅरल इंधनाची बचत व ४०लाख टन कार्बन डाय ऑक्साइड उत्सर्जन कमी करण्याचे उद्दिष्ट साध्य केल्यास ,एकंदरीत वाहनांमुळे होणारे प्रदुषणाची मात्रा सन २०२० पर्यंत१ . ३% नी कमी होईल. या योजनेत तंत्रज्ञान विकास , मागणीत वाढ ,पथदर्शी प्रकल्प व चार्जींग सुविधा हे घटक समाविष्ट आहेत .ही योजना सन २०२०पर्यंत राबविण्याचे केंद्र शासनाने ठरविले असून प्रथम टप्प्यात एप्रिल २०१५ ते मार्च २०१७ या कालावधीसाठी रु .७९५ कोटी नियतव्यय ठेवला होता.

०३. इलेक्ट्रीक व्हेईकल व तद्अनुषंगीक इतर घटक हे नवे उभरते क्षेत्र असून या क्षेत्रातील दडलेल्या सामर्थ्याचा लाभ घेऊन राज्यात मोठया प्रमाणात गुंतवणूक आणणे तसेच कुशल व अकुशल क्षेत्रात रोजगार निर्मिती करणे या उद्देशाने राज्याचे स्वतंत्र इलेक्ट्रीक व्हेईकल धोरण असणे आवश्यक आहे.

उपरोक्त प्रमाणे राज्याच्या स्वतंत्र इलेक्ट्रीक व्हेईकल धोरणाची आवश्यकता विचारात घेऊन राज्याचे स्वतंत्र **महाराष्ट्र इलेक्ट्रीक व्हेईकल प्रोत्साहन धोरण-२०१८** तयार करण्यात आले आहे .

२) दृष्टीक्षेप, अभियान, उदिष्ट व लक्षांक :-

i) **दृष्टीक्षेप :-** महाराष्ट्र राज्य हे जागतिक स्तरावर इलेक्ट्रीक व्हेईकल, सुटे भाग उत्पादन आणि जास्तीत जास्त इलेक्ट्रीक व्हेईकल वापर करणारे स्पर्धात्मक राज्य बनविणे.

ii) **अभियान :-** जागतिक स्तरावरील गूंतवणूकदारांकरीता सर्वाधिक पसंतीच्या ठिकाणामध्ये महाराष्ट्राचा समावेश करणे. तसेच प्रवर्तन नितीद्वारे स्पर्धात्मक आणि शाश्वत गुंतवणूकीस योग्य वातावरण असलेले राज्य म्हणून विकसित करुन महाराष्ट्राला सर्वाधिक पसंतीचे आर्थिक आकर्षणाचे केंद्र बनविणे.

iii) धोरणाचा उद्देश :-

अ) इलेक्ट्रीक व्हेईकल उत्पादन व वापरामध्ये महाराष्ट्र राज्याचे स्थान अग्रेसर ठेवणे.

ब) नवरोजगाराच्या संधी निर्माण करणे.

क) इलेक्ट्रीक व्हेईकलच्या निर्यातीस प्रोत्साहन देणे, सुटे भाग, बॅटरी आणि चार्जींग उपकरणास प्रोत्साहन देणे.

ड) इलेक्ट्रीक व्हेईकल क्षेत्रामध्ये संशोधन व विकास, नवनिर्मिती आणि कौशल्य विकासास प्रोत्साहन देणे.

इ) शाश्वत परिवहन पध्दती विकसित करणे.

iv) **धोरणाचे लक्षांक :-**

अ) महाराष्ट्रामध्ये नोंदणीकृत इलेक्ट्रीक व्हेईकलची संख्या ५ लाखापर्यंत वाढविणे.

ब) राज्यामध्ये इलेक्ट्रीक व्हेईकल, इलेक्ट्रीक व्हेईकल उत्पादन आणि त्यांच्या सुटे भागाचे उत्पादन, बॅटरी उत्पादन / एकत्रिकरण उपक्रम (assembly enterprises) आणि चार्जींगच्या मुलभूत सुविधा उपकरणाचे उत्पादन यामध्ये रु.२५,००० कोटीची गुंतवणूक निर्माण करणे.

क) १,००,००० मनुष्यबळासाठी रोजगार निर्मिती करणे.

३) धोरणांची कार्यतंत्रे :-

i) इलेक्ट्रीक व्हेईकल तंत्रज्ञानाच्या वापरास प्रोत्साहन :-

वित्तीय आणि बिगर वित्तीय प्रोत्साहन प्रदान करुन इलेक्ट्रीक व्हेईकलची व्यवहार्यता वाढविणे.

ii) इलेक्ट्रीक व्हेईकलच्या चार्जींगसाठी समर्पित पायाभूत सुविधांचा निर्मितीचा विकास :-

या क्षेत्रातील गुंतवणूकीवर अनुदान देणे.

iii) संशोधन व विकास तसेच नवनिर्मिती केंद्राचा विकास करणे :-

राज्यात संशोधन आणि विकास केंद्र तसेच नवनिर्मित केंद्र स्थापन करण्यास सहाय्य करणे. तसेच "सेंटर ऑफ एक्सलेन्स" स्थापन करण्यास प्रोत्साहन देणे.

४) व्याख्या :-

या धोरणाच्या संदर्भात इलेक्ट्रीक व्हेईकल क्षेत्रामध्ये इलेक्ट्रीक व्हेईकल, सुटे भागाचे उत्पादन, बॅटरी उत्पादन / एकत्रिकरण (assembling) चार्जींग मुलभूत सुविधा, चार्जींग उपकरणे उत्पादन या खालील अ.क्र.१ ते ५ व्याख्या पूर्णत: तांत्रिक बाबी असल्याने इंग्रजी मध्ये त्याचा अन्वयार्थ लावण्यात येईल.

i) Electric vehicle (EV):

An electric vehicle or EV uses energy stored in its rechargeable batteries, which are recharged by common household electricity. An electric vehicle (EV) uses one or more electric motors for propulsion. Depending on the type of vehicle, motion may be provided by wheels or propellers driven by rotary motors, or in the case of tracked vehicles, by linear motors. EV include industrial fork-lift trucks, electric carts, electric scooters, electric motorcycles, electric three wheelers, full-size electric cars, trucks, vans, buses and other electric vehicles.

OR

As per Government of India Notification dated 16.09.2005 under Central Motor Vehicle Rule 1989 Rule no. 2(u) "Battery Operated Vehicle" means a vehicle adapted for use upon roads and powered exclusively by an electric motor whose traction energy is supplied exclusively by traction battery installed in the vehicle.

ii) EV Components:

Major components of EV include motor controller, electric engine (motor), regenerative braking, drive system and related parts/assemblies.

iii) EV Battery:

An electric-vehicle battery (EVB) or traction battery is a battery used to power the propulsion of battery electric vehicles (BEVs). Vehicle batteries are usually a secondary (rechargeable) battery. EV battery will not include Lead-acid batteries.

iv) EV Battery Components:

Battery pack designs for Electric Vehicles (EVs) incorporate a combination of several mechanical and electrical component systems which perform the basic required functions of the pack. Battery pack consists of many discrete cells connected in series and parallel to achieve the total voltage and current requirements of the pack. A battery comprises of smaller stacks called modules, which are placed into a single pack. Modules also incorporate cooling mechanisms, temperature monitors, other devices and Battery Management System (BMS).

v) EV Charging Station & Equipment:

An electric vehicle fast charging station (Charging time under 1 hour) also called EV charging station, electric recharging point, charging point, charge point and EVSE (electric vehicle supply equipment), is an element in an infrastructure that supplies electric energy for the recharging of electric vehicles. The charging stations equipment shall include charging posts, charging cabinets, fully automated charging stations integrated with power distribution equipment etc.

vi) EV Charging Infrastructure:

The policy envisages four type of charging facilities, viz.

a) Domestic user facility (individual)
b) Public charging facility (government facilities, bus depots, railway stations, fuel stations etc.)
c) Common charging facility (malls, residential building, educational institutions etc.)
d) Commercial charging facility (roadside, fuel stations etc.)

vii) Pioneer units:

Pioneer unit shall mean first two Mega projects in the State setup for manufacturing of EV, EV components & batteries. One Pioneer unit in EV/EV components & one in battery manufacturing sector will be considered separately in each category.

viii) Mega EV Enterprises :

a) Mega EV enterprise for A & B areas (as classified under Package scheme of Incentives in force) is a manufacturing enterprise defined in para 4(i), 4(ii), 4(iii) and 4(iv) above where fixed capital investment (FCI) on manufacturing facility is more than Rs. 250 crore or which creates direct employment for at least 500 persons.

b) Mega EV enterprise for C, D & D+ areas is a manufacturing enterprise where fixed capital investment (FCI) on manufacturing facility is minimum of Rs. 100 crore or which creates direct employment for at least 250 persons.

c) Ultra mega EV enterprises, is a manufacturing enterprise where fixed capital investment on manufacturing across state is 1500 crore which generates 3000 employment.

ix) Large EV Enterprises:

Large EV enterprise is an industrial enterprise where fixed capital investment (FCI) on plant and machinery for the manufacturing facility is from Rs. 10 crore to Mega project qualifying limit.

x) MSME EV Enterprises:

Definition of Micro, Small and Medium EV Enterprises shall be as defined in the MSMED Act 2006 of Government of India.

५) प्रोत्साहने :-

अ) इलेक्ट्रीक व्हेईकल उत्पादक, इलेक्ट्रीक व्हेईकल सुटे भाग उत्पादक व इलेक्ट्रीक व्हेईकल बॅटरी उत्पादक / एकत्रिकरण उपक्रम (assembly enterprises), इलेक्ट्रीक बॅटरी चार्जर उत्पादक यांना खालील प्रोत्साहने अनुज्ञेय राहतील. ही प्रोत्साहने केंद्र शासनाच्या योजने शिवाय अधिकची असतील. (Over & above GOI Scheme)

१) **प्रणेता उद्योगास विशाल, अतिविशाल उद्योग यांना द्यावयाची प्रोत्साहने :-**

प्रणेता उद्योगास, विशाल व अतिविशाल इलेक्ट्रीक व्हेईकल उद्योगांना एकत्रित सामुहिक प्रोत्साहने (Template of Incentive) प्रमाणे राहतील. सदर एकत्रित प्रोत्साहने कालपरत्वे व प्रकरणपरत्वे विशाल / अतिविशाल प्रकल्पांसाठी गठीत उच्चाधिकार समितीच्या अभिप्रायाने मा.मंत्री मंडळ उपसमितीच्या मान्यतेने बदल करण्याचे अधिकार राहतील.

२) **सुक्ष्म, लघू व मध्यम प्रकल्पांसाठी तसेच मोठया प्रकल्पांसाठी प्रोत्साहने**.

संपूर्ण राज्यात, इलेकट्रिक व्हेईकल धोरण-२०१८ अंतर्गत उत्पादन करणाऱ्या सुक्ष्म , लघु व मध्यम उपक्रम आणि मोठे घटकांना प्रचलित सामुहिक प्रोत्साहन योजनेप्रमाणे प्रोत्साहने अनुज्ञेय असतील .

"अ"आणि "ब" प्रवर्गातील (सामुहिक प्रोत्साहन योजनेमध्ये व्याख्या केल्यानुसार) पात्र घटकांना प्रोत्साहने "क" प्रवर्गा प्रमाणे अनुज्ञेय असतील. इतर प्रवर्गातील घटकांना एक टप्पा वरची प्रोत्साहने अनुज्ञेय असतील. (उदा. "ड" प्रवर्गातील पात्र घटकांना "डी+" प्रवर्गाप्रमाणे प्रोत्साहने अनुज्ञेय असतील)

ब) इलेक्ट्रीक व्हेईकल (EV) चार्जींगसाठी प्रोत्साहने व सहाय्य.

१) राज्य भरात इलेक्ट्रीक व्हेईकल चार्ज करण्यासाठी लागणाऱ्या वीजेसाठी (Electric Power) "EV चार्जिंग स्टेशन "ज्या ठिकाणी स्थापित केले जाईल, त्या ठिकाणी लागू असलेला दर लागू होईल) .उदा .EV चार्जिंग स्टेशन मॉल मध्ये असेल तर मॉल साठी लागू असलेला दर लागू होईल, औद्योगिक क्षेत्रात असेल तर औद्योगिक दर लागू होईल व निवासी क्षेत्रात असेल तर निवासी दर लागू होईल(.

२) पार्कींग क्षेत्र, निवासी क्षेत्र, सोसायट्या, बस डेपो, रेल्वे स्टेशन आणि इंधन पंप इत्यादी ठिकाणी सार्वजनिक चार्जींग पाईंटला परवानगी देण्यात येईल. चार्जिंग पॉईंट स्थापित

करण्याची मागणी प्राप्त झाल्यानंतर संबंधित नियोजन प्राधिकरण व वीज पुरवठा करणारी यंत्रणा १५दिवसात परवानगी देईल .१५ दिवसात परवानगी न मिळाल्यास ,ती मिळाल्याचे गृहीत धरले जाईल .

३) सर्व स्थानिक स्वराज्य संस्था व विशेष नियोजन प्राधिकरण यांच्या विकास नियंत्रण नियमावली (DCR) मध्ये अनुरुप सुधारणा करुन मॉल मधील पार्कींग क्षेत्रामध्ये व निवासी मालमत्तांमध्ये व पार्कींग क्षेत्रामध्ये सार्वजनिक चार्जींग सुविधा उभारण्यास परवानगी देण्यात येईल.

४) अग्नि सुरक्षा व इतर अन्य सुरक्षततेच्या अधीन राहून संबंधित नियोजन प्राधिकरणाच्या प्रचलित नियम/कायद्यातील तरतूदीनुसार त्यांचे मान्यतेने अस्तित्वातील पेट्रोल पंपाच्या ठिकाणी चार्जींग स्टेशन उभे करण्याची मुभा असेल.

५) दूचाकी, तीन चाकी, कार आणि बसेस साठीच्या विद्युत वाहन सार्वजनिक जलद चार्जींग केंद्रांच्या उपकरणे / यंत्रे यामधील गुंतवणूकीच्या २५ टक्के भांडवली अनुदान (यासाठी प्रती चार्जींग स्टेशनला रु.१० लक्ष इतकी कमाल मर्यादा असेल) पहिल्या २५० चार्जींग केंद्रांना देण्यात येईल.

६ (आवश्यक त्या सार्वजनिक बस स्थानकांवर Robotic Battery Swapping Arm ची व्यवस्था निर्माण करण्यात येईल.

क) इलेक्ट्रीक व्हेईकल खरेदीदारांसाठी प्रोत्साहन आणि तरतुदी:

१. केवळ बॅटरी इलेक्ट्रिक व्हेइकल (बीईव्ही) साठी प्रोत्साहन.

२. राज्य शासनाकडून इलेक्ट्रीक व्हेईकलच्या वापरास प्रोत्साहन देणेसाठी मुंबई, पुणे, औरंगाबाद, ठाणे, नागपूर आणि नाशिक या सहा शहरांत सार्वजनिक वाहतुकीमध्ये इलेक्ट्रीक व्हेईकलचा वापर प्रथम करण्यात येईल.

३. राज्यात नोंदणी झालेल्या इलेक्ट्रीक व्हेईकलच्या पहिल्या १,००० खाजगी सार्वजनिक बस वाहतुक खरेदीदार यांना पाच वर्षांच्या धोरण कालावधीसाठी अनुदान प्राप्त होईल.

४. राज्यात नोंदणी झालेल्या प्रवासी बसेससाठी खाजगी / सार्वजनिक बस वाहतूक खरेदीदार यांना वाहनाच्या मुळ किंमतीच्या १० टक्के अनुदान (जास्तीत जास्त २० लाखांच्या कमाल मर्यादेत) प्रति वाहन अनुदान देण्यात येईल. वाहन खरेदी तारखेपासून ३ महिन्यात अनुदान खरेदीदाराच्या बँकखात्यात हस्तांतरीत केले जाईल.

५. राज्यात नोंदणी झालेल्या पहिल्या १,००,००० इलेक्ट्रीक व्हेईकलना (दूचाकी वाहने - ७०,०००, तीन चाकी वाहने - २०,००० आणि चार चाकी वाहने -१०,०००) खाजगी वाहतूक आणि वैयक्तिक खरेदीदारांना ५ वर्षांच्या धोरणाच्या वैधतेच्या कालावधीत "अंतिम वापरकर्ता अनुदान" मिळेल.

६. राज्यात नोंदणी झालेल्या इलेक्ट्रीक व्हेईकलच्या खरेदीवर खाजगी वाहतुकदारास व वैयक्तीक खरेदीदार यांना वाहनांच्या मुळ किंमतीवर १५ टक्के अनुदान मिळेल (दुचाकी साठी ५,००० रुपये कमाल मर्यादेत, तीन चाकी वाहनांसाठी १२,००० रुपये कमाल मर्यादेत, कारसाठी १ लाख रुपये कमाल मर्यादेत). वाहन खरेदी तारखेपासून ३ महिन्यात अनुदान खरेदीदाराच्या बँक खात्यात हस्तांतरीत केले जाईल.

७. रस्ते कर आणि नोंदणी शुल्कातून इलेक्ट्रीक व्हेईकल्सना माफी दिली जाईल.

(डी) इलेक्ट्रीक व्हेईकल क्षेत्रातील संशोधन व विकास, नवीन उपक्रम आणि कौशल्य विकासाचा प्रचार:

i) उच्चाधिकार समितीच्या मान्यतेने या क्षेत्रातील व्यवहार्यता आणि अन्य तपशिलांचे मूल्यांकन केल्यावर, उत्कृष्टता आणि संशोधन आणि विकास केंद्र, प्रयोगशाळा आणि सेंटर ऑफ एक्सलन्ससह इतर रोजगाराभिमुख केंद्रांची स्थापना करण्यासाठी प्रस्ताव तयार केला जाईल.

ii) महाराष्ट्र राज्य तंत्रशिक्षण मंडळ (MSBTE), महाराष्ट्र राज्य कौशल्य विकास सोसायटी (MSSDS) आणि इतर प्रशिक्षण संस्था या विषयावर आधारित प्रमाणपत्र (Certification) कोर्सेस आणि प्लेसमेंट कार्यक्रम उभारतील. राष्ट्रीय ऑटोमोटिव्ह बोर्ड (NAB) आणि इतर संघटनांच्या सहकार्याने या क्षेत्रातील कुशल मनुष्यबळ उपलब्ध करुन देणेसाठी आवश्यक उपाय योजना MSBTE व MSSDS करतील. त्यानुसार आवश्यकतांवर आधारित, गुणवत्ता आधारित, परिभाषित प्रमाणपत्र कोर्सेस आणि प्लेसमेंट प्रक्रियेंची सुरुवात केली जाईल जेणेकरुन इलेक्ट्रीक व्हेईकल उद्योगासाठी योग्य प्रशिक्षित मनुष्यबळ निर्माण होईल.

६. धोरण अंमलबजावणीसाठी व्यवस्थापनाची चौकट :

उच्चधिकार समितीचे गठण:- राज्यस्तरावर या धोरणाच्या अंमलबजावणीचे संनियंत्रण करणे आणि आवश्यकतेनुसार कार्यपध्दती व नियमावली तयार करण्यासाठी एक उच्चाधिकार समिती गठण करण्यात येईल. सदर उच्चाधिकार समितीची रचना पुढील प्रमाणे असेल.

१) मुख्य सचिव - अध्यक्ष
२) अतिरिक्त मुख्य सचिव (उद्योग)- सदस्य
३) अतिरिक्त मुख्य सचिव (वित्त) - सदस्य
४) प्रधान सचिव (नगरविकास -१) - सदस्य
५) प्रधान सचिव (नियोजन) - सदस्य
६) प्रधान सचिव (कौशल्यविकास) - सदस्य
७) प्रधान सचिव (ऊर्जा) - सदस्य
८) प्रधान सचिव (नगरविकास२) - सदस्य

९) प्रधान सचिव (परिवहन) - सदस्य

१०) आयुक्त, बृहनमुंबई महानगरपालिका - सदस्य

११) राज्यातील इलेक्ट्रीक व्हेईकल उद्योगाचे दोन प्रतिनिधी

१२) विकास आयुक्त (उद्योग) - सदस्य सचिव

टिप:-उच्चाधिकार समिती कामकाजाच्या आवश्यकतेनुसार अन्य विभाग / संघटना / असोसिएशन अथवा व्यक्तीला बैठकीसाठी आमंत्रण देऊ शकते.

६.१ उच्चाधिकार समितीची सनद :

१) प्रस्तूत धोरणाच्या अनुषंगाने विविध विभागाचे शासन निर्णय / अधिसूचना /अधिनियमात सुधारणा इत्यादी बाबी विहित कालावधीत निर्गमित करण्याबाबत देखरेख व संनियंत्रण.

२) प्रस्तूत धोरणाच्या अनुषंगाने विविध विभागाचे कार्यान्वयन आदेश निर्गमित करणे व धोरणाच्या प्रभावी अंमलबजावणीसाठी विहीत कालावधी मध्ये उपाय योजना करणे.

३) धोरणाच्या अंमलबजावणी संदर्भात आंतरविभागीय समन्वय साधून समस्यांचा निपटारा करणे.

४) धोरणातील नमूद इलेक्ट्रीक व्हेईकल, इलेक्ट्रीक व्हेईकल सुटे भाग, चार्जींग स्टेशन व अन्य व्याख्यांच्या अन्वयार्थ लावणे त्यांचे पुर्नविलोकन करणे व आवश्यकतेनुरुप सुधारणा करणे.

५) या धोरणातील बेस्ट प्रॅक्टीसेसचा आढावा घेणे.

६) प्रस्तूत धोरणाच्या अंमलबजावणीसाठी उच्चाधिकार समिती दर ६ महिण्यांनी आढावा घेईल तसेच धोरणाच्या प्रभावी अंमलबजावणीसाठी धोरणात आवश्यक सुधारणा व अन्य उपाय योजना करेल.

७. धोरणाची वैधता -:

सदरचे धोरण शासन निर्णय निर्गमित झाल्यापासून पाच वर्षाकरीता वैध राहील .

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Maharashtra's Electric Vehicle Policy – 2018

1. Introduction

Electric Vehicle (EV) technology is considered globally to be the game changer in transportation sector. It offers advantages such as eco-friendliness, cheaper fuel-cost, lower maintenance expenses, energy efficient and increased safety. Global industry, governments and early movers have successfully demonstrated that EV is practical, sustainable, safe and affordable. United Nations (UN) aims to promote EV under its sustainable development agenda for 2030. Government of India (GoI) plans to make India an 'electric vehicle nation' by 2030.

Under the National Electric Mobility Mission Plan (NEMMP), GoI envisions 6 million electric and hybrid vehicles on India's roads by 2020. Towards this purpose, Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles (FAME) has been launched by GoI, and it targets a saving of 120 million barrels of oil and 4 million tons of CO_2, and lowering of vehicular emissions by 1.3 percent by 2020, by promoting use of EV. FAME India scheme has four focus areas – technology development, demand creation, pilot projects, charging infrastructure. This scheme is proposed to be implemented over a period of 6 years, till 2020. The Phase-1 of the scheme was implemented from April, 2015 till March, 2017 with an approved outlay of Rs. 795 crore.

Based on the recent techno-economic developments in EV sector and the vision of GoI, a need was felt by Government of Maharashtra to formulate a policy for promotion of this sector in Maharashtra. Government of Maharashtra envisions to build Maharashtra as a model state in EV. Further, EV sector will create a huge opportunity for creation of jobs in manufacturing as well as service providing sectors.

2. Vision, Mission, Objectives and Targets

i. **Vision:** Maharashtra - a globally competitive state for Electric Vehicle and component manufacturing, and maximize adoption of EV in Maharashtra.

ii. **Mission:** To place Maharashtra amongst the most preferred investment destinations for global investors through promotional strategies combined with developing a competitive and sustainable investment environment, thereby making Maharashtra as one of the most favored economic magnet and center of attraction for EV.

iii. **Policy Objectives:**

a) To develop Maharashtra as the leader in EV manufacturing and use of EV.
b) To create newer employment opportunities.
c) To promote export of EV, components, battery and charging equipment's.
d) To promote R&D, innovation and skill development in EV Sector.
e) To promote sustainable transport system.

iv. **Policy Targets:**

a) Increase number of EV registered in Maharashtra to 5 lacs.
b) To generate an investment of Rs.25,000 crores in EV, EV manufacturing and component manufacturing, battery manufacturing/assembly enterprises and charging infrastructure equipment manufacturing in the state.
c) To create jobs for 1,00,000 persons.

3. Strategic Drivers of the Policy

i. **Promotion of adoption of EV technology:** To increase the viability of EV by way of providing fiscal and non-fiscal incentives.

ii. **Promotion of creation of dedicated infrastructure for charging of EVs:** Through subsidization of investment.

iii. **Promotion of R&D and Innovation:** To promote the establishment of Research & Development Centers and Center of Excellence across the state.

4. Definitions

In the context of this Policy, the Electric vehicle sector consists of EV and component manufacturing, battery manufacturing/assembling, charging infrastructure, charging equipment manufacturing as defined below:

i) Electric vehicle (EV):

An electric vehicle or EV uses energy stored in its rechargeable batteries, which are recharged by common household electricity. An electric vehicle (EV) uses one or more electric motors for propulsion. Depending on the type of vehicle, motion may be provided by wheels or propellers driven by rotary motors, or in the case of tracked vehicles, by linear motors. EV includes industrial electric scooters, electric motorcycles, electric three wheelers, full-size electric cars, vans, buses and other electric passenger vehicles.

OR

As per Government of India Notification dated 16.09.2005 under Central Motor Vehicle Rule 1989 Rule no. 2(u) "Battery Operated Vehicle" means a vehicle adapted for use upon roads and powered exclusively by an electric motor whose traction energy is supplied exclusively by traction battery installed in the vehicle.

ii) EV Components:

Major components of EV include motor controller, electric engine (motor), regenerative braking, drive system and related parts/assemblies.

iii) EV Battery:

An electric-vehicle battery (EVB) or traction battery is a battery used to power the propulsion of battery electric vehicles (BEVs). Vehicle batteries are usually a secondary (rechargeable) battery. EV battery will not include Lead-acid batteries.

iv) EV Battery Components:

Battery pack designs for Electric Vehicles (EVs) incorporate a combination of several mechanical and electrical component systems which perform the basic required functions of the pack. Battery pack consists of many discrete cells connected in series and parallel to achieve the total voltage and current requirements of the pack. A battery comprises of smaller stacks called modules, which are placed into a single pack. Modules also incorporate cooling mechanisms, temperature monitors, other devices and Battery Management System (BMS).

v) EV Charging Station & Equipment:

An electric vehicle charging station, also called EV charging station, electric recharging point, charging point, charge point and EVSE (electric vehicle supply equipment), is an element in an infrastructure that supplies electric energy for the recharging of electric vehicles. The charging station equipment shall include charging posts, charging cabinets, fully automated charging stations integrated with power distribution equipment etc pertaining to fast charging stations only.

vi) EV Charging Infrastructure:

The policy envisages four type of charging facilities, viz.

a) Domestic user facility (individual)
b) Public charging facility (government facilities, bus depots, railway stations, fuel stations etc.)
c) Common charging facility (malls, residential building, educational institutions etc.)
d) Commercial charging facility (roadside, fuel stations etc.)

vii) Pioneer units:

Pioneer unit shall mean first two Mega projects in the State setup for manufacturing of EV, EV components & batteries. One Pioneer unit in EV/EV components & one in battery manufacturing sector will be considered separately in each category.

viii) Mega EV Enterprises:

a) Mega EV enterprise for A & B areas (as classified under Package scheme of Incentives in force) is a manufacturing enterprise defined in para 4(i), 4(ii), 4(iii) and 4(iv) above where fixed capital investment (FCI) on manufacturing facility is more than Rs. 250 crore or which creates direct employment for at least 500 persons.

b) Mega EV enterprise for C, D & D+ areas is a manufacturing enterprise where fixed capital investment (FCI) on manufacturing facility is minimum of Rs. 100 crore or which creates direct employment for at least 250 persons.

c) Ultra mega EV enterprises, is a manufacturing enterprise where fixed capital investment on manufacturing across state is 1500 crore which generates 3000 employment.

ix) Large EV Enterprises:

Large EV enterprise is an industrial enterprise where fixed capital investment (FCI) on plant and machinery for the manufacturing facility is from Rs. 10 crore to Mega project qualifying limit.

x) MSME EV Enterprises:

Definition of Micro, Small and Medium EV Enterprises shall be as defined in the MSMED Act 2006 of Government of India.

5. Incentives

A. Incentives for EV Manufacturing, EV Component Manufacturing and EV Battery Manufacturing/Assembly Enterprises, Manufacturers of Electrical Battery Chargers :

Following incentives will be admissible to EV Manufacturing, EV Component Manufacturing and EV Battery Manufacturing/Assembly Enterprises, Manufactures of Electric Battery Chargers. These incentives will be over and above the incentives under schemes of Government of India.

1. Incentives to Pioneer Units, Mega Units & Ultra Mega Units :-

The package of incentives to Pioneer Units, Mega Units & Ultra Mega Units manufacturing Electric vehicles shall be as per the 'Template'. The Package of Incentives can be modified with the recommendation of High Power Committee formed for Mega/Ultra Mega Projects approved by the cabinet sub-committee.

2. Incentives to MSME and Large units

Under the Electric Vehicle Policy-2018, throughout the state, manufacturing MSMEs and Large units will be eligible for incentives as per Package Scheme of Incentives(PSI) in force. However, eligible units in A & B zone (as defined under PSI) will be provided incentive as per those available in C zone. Other zones will be eligible for incentives at one scale higher. (Example: Unit in D zone will be eligible for incentives of D+ zone).

B. Incentives & assistance for EV Charging:

1. Across the state, the rate of Electrical power required for EV charging will be applicable as per location where the EV charging station will be installed (e.g. If the EV charging station is installed in the Mall, the rate applicable to the malls will be applicable, if it is in industrial area industrial rate will be applicable & if it is in the residential area then residential rate will be applicable).
2. Common charging points in residential areas, societies, bus depots, Public Parking areas, railway stations and fuel pumps etc. will be allowed. After the

receipt of application for setting up a charging point is received, the concerned planning authority & electricity supplying agency shall grant permission within 15 days. If permission is not received within 15 days, it will be deemed to be permitted.

3. Development Control Rules (DCR) of all local self-Government & Special Planning Authorities will be suitably modified to allow for setting up of common public charging facilities in parking areas of malls, residential properties & parking areas etc.
4. Petrol pumps will be allowed to setup charging station freely subject to charging station areas qualifying fire & safety standard norms of relevant authorities under relevant acts/rules.
5. Commercial public EV charging stations for 2 wheelers, 3 wheelers, cars and buses will be eligible for 25% capital subsidy on equipment/machinery (limited up to Rs. 10 lacs per station) for first 250 commercial public EV charging stations.
6. As per requirement facility of Robotic Battery Swapping Arm will be created at public bus stations.

C. Incentives & provisions for EV Buyer:

1. Incentives for only Battery Electric Vehicle (BEV).
2. Initially Government of Maharashtra to promote EV in public transport in six cities ie :- Mumbai, Pune, Aurangabad, Thane, Nagpur and Nashik.
3. First 1,000 EV private/public passenger bus buyer whose vehicles are registered in the state will be eligible for user subsidy over policy period of 5 years.
4. 10% subsidy for passenger buses registered in the State to private/public bus transport buyer, on base price (maximum limit of Rs. 20 lacs per vehicle) will be eligible to buyer. Subsidy will be transferred to buyer's bank account within 3 months of purchase date.
5. First 1,00,000 EV (2 wheeler-70,000, 3 wheeler-20,000 and 4 wheeler-10,000 all categories combined) registered in the State, private transporter and individual buyer to get end user subsidy over policy period of 5 years.
6. 15% subsidy (maximum limit of Rs.5,000 for 2 wheeler, Rs. 12,000 for 3 wheeler, and Rs 1 lac for 4 wheeler) per vehicle to private transport and individual buyer for Electrical Vehicles registered in the State, on base price will be paid to buyer. Subsidy will be transferred to buyer's bank account within 3 months of purchase date.
7. Exemption from road tax and registration fees for Electric Vehicles.

D. Promotion of R&D, Innovation and Skill Development in EV Sector:

i. Based on an assessment of feasibility and other details by the High Power committee, proposal will be prepared for the establishment of center of excellence and research and development centers, finishing schools and other employment oriented centers.

ii. The Maharashtra State Board of Technical Education (MSBTE), Maharashtra State Skill Development Society (MSSDS) and other agencies will institute training-based certification and placement programmes. They would collaborate with National Automotive Board (NAB) and other associations to understand their human resource requirements. Based on these requirements, a merit based, defined certification and placement procedure shall be instituted so that appropriate manpower is created for the EV industry.

6. Management Framework for Policy Implementation

A High Power Committee will be constituted at the state level to monitor the implementation of this Policy, and develop procedures and modalities where required. The composition of the High Power Committee will be as follows:

i) Chief Secretary – Chairperson
ii) Additional Chief Secretary (Industries) – Member
iii) Additional Chief Secretary (Finance) – Member
iv) Principal Secretary (Urban Development I) – Member
v) Principal Secretary (Planning) – Member
vi) Principal Secretary (Skill Development) – Member
vii) Principal Secretary (Energy) – Member
viii) Principal Secretary (Urban Development II) – Member
ix) Principal Secretary (Transport) – Member
x) Municipal Commissioner, MCGM – Member
xi) Two representatives from EV Industry – Invitee
xii) Development Commissioner (Industries) – Member Secretary

The High Power Committee may invite any Department/Organization/representative of Association or a person for its meeting as per need.

Charter of the High Power Committee:

i. Monitor and ensure timely release of relevant Orders / Government Resolutions / Government Notifications and amendments required.
ii. Approve the framework/modalities of implementation proposed by the committee in time bound manner.
iii. Bring about inter-departmental co-ordination 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 may be appropriate.
v. Review the best practices.

vi. The High Power Committee shall review the implementation and effectiveness of the policy every six months and corrective measures / changes / amendments if required shall be done.

7. Policy Validity :

The policy will be valid for Five years from the date of issue of relevant government resolution**.**

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PUNJAB

PUNJAB ELECTRIC VEHICLE POLICY (PEVP) 2019

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

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 2030[1].

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.

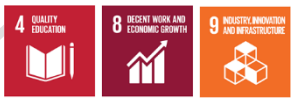
2.1 **Reducing Vehicular Emission –** To bring about reduction in vehicular emissions by end of policy

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 segments[2] 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 though 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 2025[3]. 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.

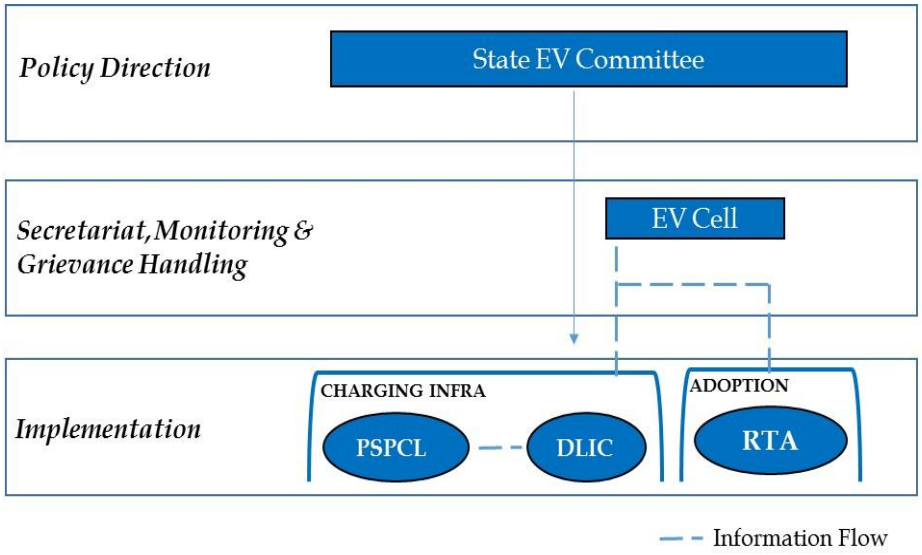
b. **Skilling Centre:** In line with the aim of setting up one skill centre for each identified industrial cluster, the Government will set up at least one skill centre under the aegis of the Punjab Skill Development Mission dedicated to smart mobility solutions in the vicinity of the Hi-tech cycle valley.

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 Panning 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
	**Ensure healthy lives and promote well-being for all at all ages** **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 infections[4]. 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. **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 pollution[5]. 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.
	**Ensure inclusive and equitable quality education and promote lifelong** **learning opportunities for all** **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 jobs[6]. 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

[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

	entrepreneurship by way of providing incentives and suitable environment for promotion of this upcoming industry.
	**Ensure access to affordable, reliable, sustainable, and modern energy for all** **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 transport[7]. This policy will support the transition towards a cleaner mode of transportation powered by reliable and renewable source of energy. **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 energy[8], 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.
	**Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all** **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 jobs[9]. 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 vehicles[10]. 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.

[7] https://www.automotivelectronics.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

	**Resilient Infrastructure, sustainable industrialization and innovation** **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.
	**Make cities and human settlements inclusive, safe, resilient and sustainable** **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
	**Ensure sustainable consumption and production patterns** **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 all[12]. 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.

[11] https://www.teriin.org/resilient-cities/urbanisation.php
[12] http://in.one.un.org/page/sustainable-development-goals/sdg-12/

	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
	**Take urgent action to combat climate change and its impacts** **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

[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 28th March 2019	DHI	Eligibility of 2W, 3W & 4W under FAME 2
PSERC dated 27th 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

TAMIL NADU

GOVERNMENT OF TAMIL NADU

TAMIL NADU ELECTRIC VEHICLE POLICY 2019

TAMIL NADU

LAND OF ABUNDANT OPPORTUNITY

GOVERNMENT OF TAMIL NADU

TAMIL NADU ELECTRIC VEHICLE POLICY 2019

CONTENTS

I. Preamble

Tamil Nadu is one of the most advanced states in India. It is one of Asia's most preferred investor destinations. It is the second largest state economy in the country, which contributes to 8.4% of India's GDP. It is also an industrial powerhouse of the nation with a very strong and diverse industrial base.

Tamil Nadu has a highly developed industrial eco-system and is very strong in sectors like automobiles and auto-components, textiles, leather products, light and heavy engineering, pumps and motors, electronic software and hardware. Many globally renowned companies have set up their manufacturing facilities in Tamil Nadu.

The State Government, in its mission to further enhance the position of Tamil Nadu as the most preferred state for manufacturing, with a reputation for efficiency and competitiveness, is guided by the objective of having an environmentally sustainable growth in consonance with the Sustainable Development Goals framework of the United Nations.

Globally, the automotive industry is at the cusp of a great revolution in electric mobility. The twentieth century was fuelled by the development and diffusion of Internal Combustion Engines, primarily on account of accessibility of vehicles and affordability of fuel. Clean transport remains

one of the most pressing questions of this century. The shift to clean transport has become necessary due to rapid depletion of fossil fuel and increase in fuel cost, vehicle population and environmental pollution. These push factors are driving governments and vehicle manufacturers to invest in developing vehicles based on alternate propulsion systems including electric mobility on rechargeable batteries. The electrification of transport is important for achieving goals of reducing GHG emissions and improving local air quality. Electric Vehicles (EVs) are generally considered to be safer than their Internal Combustion Engines (ICE) counterparts because of a low centre of gravity due to the low position and density of the battery pack, and increased frontal crumple zone. EVs generally have an increased crumple zone since electric motors take up much less space than ICEs which makes EVs much safer.

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 emissions. In addition to being

very efficient in reducing local air pollution, EVs can also lead to a reduction in overall pollution when electricity is generated from clean or renewable sources. This is particularly relevant for the State of Tamil Nadu which is the leader in renewable energy with an installed capacity of 12,180 MW.

In this decade alone, there has been tremendous innovation in EV Technology which has led to a decrease in battery costs and increase in performance and range. This progress can be expected to continue at an accelerated pace. Within the next decade, there is a clear possibility of cost reduction in electric mobility through advancements such as:

a) Battery cost is expected to decrease by half.

b) Electric Vehicle performance is expected to improve by two-folds.

c) Charging time is expected to decrease from 5 hours to less than 1 hour, thereby, reducing the range anxiety.

II. Electric Vehicles in India and FAME India Guidelines

In 2013, Government of India launched the National Electric Mobility Mission Plan 2020. Under the mission plan, the Scheme for Faster Adoption and Manufacturing of (Hybrid) Electric Vehicles in India (FAME India) was launched in March, 2015 for two years as Phase-I, which was subsequently extended up to 31 March, 2019.

The Government of India in its Automotive Mission Plan 2016 has laid a vision of "Safe, Comfortable and Efficient mobility" with an eye on environmental protection and affordability through Public and Personal Transport. After review of the Phase-I, Government of India came up with FAME India Phase-II (FAME II) for period of three years from 1 April 2019 with verticals such as Demand Incentives, Establishment of Network of Charging Station and Administration of Scheme.

FAME II aims to boost electric mobility and increase the number of electric vehicles in commercial fleets with an outlay of ₹10,000 crore (₹ 100 billion) for three years till 2022. The Government will offer the incentives for electric buses, three-wheelers and four wheelers to be used for commercial purposes. Plug-in hybrid vehicles and vehicles with a sizeable lithium-ion battery and electric motor will also be included in the scheme. Fiscal support shall be offered based on the size of the battery.

Several states have announced their EV Policy to complement the National scheme and to address state-specific needs. The EV30@30 campaign, launched in 2017 under Electric Vehicle Initiative (EVI), a multi-governmental policy forum, of which India is a member, sets a collective aspirational goal for all members to have EVs contribute up to 30% of all vehicle sales by 2030.

III. Vehicle Population in Tamil Nadu

Sustained economic development and expanding road network have led to rapid increase in the number of motorized vehicles in Tamil Nadu. The total number of registered motor vehicles in Tamil Nadu has increased from about 3.21 lakhs in 1981 to over 2.77 crores (27.7 million) in 2019; recording a compounded annual growth rate (CAGR) of 12.4%. As on 31.03.2019, there were 12.7 lakh (1.27 million) transport vehicles and 2.64 crore (26.4 million) non-transport vehicles plying in the State. As of 31.07.2019, Tamil Nadu accounts for 6.4% electric vehicles sold in India.

The projected total vehicle population for the year 2030 is 9.8 crore vehicles. Given that the transportation sector currently accounts for nearly one-fourth of GHG emissions and the projected growth of the fleet in the State, there is an immediate need to transition to an alternate cost-effective fuel that creates less pollution.

IV. Need for Electric Vehicle Policy in Tamil Nadu

Tamil Nadu has the second highest vehicle population in the country with 2.77 crore vehicles. This accompanies an increase in air pollution and accidents in the state. Tamil Nadu has the highest rate of urbanisation in the country with close to 50% of its people residing in urban areas. The Government of Tamil Nadu has led many initiatives to reduce air pollution and congestion on roads . At the end of FAME Phase I, the electric vehicle penetration remained low in Tamil Nadu. A dedicated strategy to address price of EVs, public charging infrastructure and investment in EV manufacturing and charging infrastructure is required to promote adoption of EVs in the state.

The Vision 2023 Tamil Nadu envisages Tamil Nadu to be the most prosperous and progressive state free from poverty, and where its people enjoy all the basic services of a modern society and live in harmonious engagement with the environment and with the rest of the world. In order to attain the objectives as per the priorities of the State of Tamil Nadu and the Govenment of India, the formulation of a dedicated Electric Vehicles Policy has become imperative.

V. Advantage of EV Ecosystem for Tamil Nadu

Tamil Nadu is on the verge of transitioning to new mobility solutions and has an established ecosystem for its vibrant automotive sector with a large pool of technical manpower, robust R&D capabilities, ancillaries auto components and manufacturing expertise.

The sector has deep backward linkages with metal industries, capital equipment, trucking, warehousing, and logistics. In addition, it also has strong linkages with dealership, retail, credit and financing, repair and maintenance, gas stations and service parts.

Chennai is home to major automobile manufacturing companies in India, such as Hyundai, Ford, Nissan, TVS, Mahindra, Daimler, etc. It has a huge scope for upgradation and expansion for producing Electric Vehicles within the existing manufacturing facilities. The first EV SUV made in India was manufactured in Tamil Nadu by Hyundai. The Government of Tamil Nadu supported this project with a very innovative model of financial incentives and facilitations through an MoU signed with Hyundai during the Global Investors Meet, 2019.

Tamil Nadu is one of the power surplus states with two nuclear plants and many thermal and hydro-electrical power stations in the State offering a steady source of electricity required for the EV ecosystem. In particular, the State has one of the highest installed capacity for renewable energy such as wind energy and solar energy. This offers a reduction in overall pollution in addition to reduction in local air pollution.

The state has many technical institutions that provide a pool of skilled workforce for the industry. On the demand side, there is predominant and growing urban population augmented with a high growth of vehicles.

This makes Tamil Nadu a unique destination for developing electric mobility ecosystems.

VI. Scope and Applicability of EV policy

Vehicles, companies and charging infrastructure firms need to fulfil the FAME II guidelines issued by the Ministry of Heavy Industry, Government of India, as mandated and in order to be eligible for demand side incentives from the State Government. Charging infrastructure and its components should fulfil the guidelines and norms issued by the Ministry of Power, Government of India. In the case of supply side incentives to promote EV Manufacturing within Tamil Nadu as mentioned in Para X subsequently, the manufactured products must conform to either national or international standards.

The term EVs as used in the policy refers to battery electric vehicles (BEV), plug-in electric vehicles (PEV), plug-in hybrid electric vehicles (PHEV) and strong hybrid electric vehicles (SHEV).

VII. Objectives of EV Policy

It is the vision of the Government of Tamil Nadu to attract ₹50,000 crore (₹500 billion) of investment in EV manufacturing and create a comprehensive EV ecosystem in the State. Such investment is expected to create 1.5 lakh new jobs. The broad objectives of this policy are the following:

I) Create robust infrastructure for electric vehicles including adequate power supply and network of charging points with favourable power tariff.

ii) Promote innovation in EV for automotive and shared mobility by providing the ecosystem and infrastructure to make Tamil Nadu, the EV Hub of India.

iii) Create a pool of skilled workforce for the EV industry through the technical institutions available in the State and create new jobs in the EV industry.

iv) Make Tamil Nadu the preferred destination for Electric Vehicles and component manufacturing units including battery and charging infrastructure.

v) Create a conducive environment for Industry and Research Institutions to focus on cutting edge research in EV Technologies and reap the benefit from the outcome.

vi) Recycle and reuse used batteries and dispose the rejected batteries in an environment friendly manner to avoid pollution.

VIII. Policy Measures

The Government of Tamil Nadu will focus on policy interventions intended to encourage EV manufacturing as well as EV marketing in the State. To promote investments in Electric Vehicle Manufacturing, EV Battery Manufacturing or Assembly and EV Charging Infrastructure manufacturing, and Equipment Manufacturing Enterprises, incentives and concessions will be offered by the Government of Tamil Nadu. Further, it is envisaged that network and diffusion effects shall spur early market creation through demand side incentives and creation of charging infrastructure will promote the culture of EV usage in the State. The State's approach to each class of vehicles will be as follows.

A. Electric Cars and Two-Wheelers

Nearly 25 lakh personal cars have been registered in the State, so far. Nearly 85% of vehicle population is two-wheeler and there is a great potential for cars and two-wheelers in the EV segment. The two-wheeler segment has relatively lower battery capacity requirements which enables fast charging solutions through standard charging infrastructure. The conversion to EV will be encouraged through fiscal concessions and creation of charging network.

B. Electric Vehicle in Shared Mobility

The State will promote conversion of all Auto Rickshaws in six major cities - Chennai, Coimbatore, Trichy, Madurai, Salem and Tirunelveli to EVs within a span of ten years. This will be extended to other cities and towns in a gradual manner. Similarly, the State will support conversion of all taxis and app-based transport operators and aggregators in the six major cities to EVs within a span of ten years.

C. Electric Vehicle in Public Transport

Around 21,000 Public Transport buses are operated by State Transport Undertakings (STUs) in the State. STUs will strive to replace

around 5% of the buses as EV every year and around 1000 EV buses may be introduced every year.

Buses are expected to be charged at the Bus Depots using 3-Phase electric connection. In addition, small top up charging can be done en-route station or bus terminals. One slow-charging unit for every electric bus and one fast-charging station for every 10 electric buses shall be provided.

Private Operators of buses will also be encouraged to transition to EV buses. The Private Bus owners shall convert ICE buses into electric buses at their choice. Conversion of the buses operated to pilgrimage centres, tourist places, national parks, etc. into EVs will be encouraged.

D. Electric Vehicle in Educational Institutions

There are 32,000 buses, mini buses and vans run by Educational Institutions such as schools and colleges in the State. These institutional vehicles will be encouraged to transition all their vehicles to EVs gradually.

E. Electric Vehicles in Goods Carrier

Small commercial vehicles used for delivering light loads such as mini goods vehicles in cities will be encouraged to convert to EVs. E-commerce and delivery companies in Tamil Nadu will be encouraged to transition their vehicles to mini goods EVs gradually. Due to the current battery capacity constraints, goods transport lorries may require longer to transition to EVs as the technology evolves.

IX. Demand-Side Incentives

A. Incentives for Purchase of Electric Two Wheelers

I) 100% road tax exemption will be provided till 30.12.2022.

ii) Waiver on Registration charges/fees will be done as per Government of India's notification.

B. Incentives for Three-Seater Auto-Rickshaws

An Open Permit System will apply to approved e-Auto Permits to be issued. The list of approved e-autos will be notified by the Department of Transport. The following further incentives will be offered:

i) Auto Rickshaw permit fees will be waived for e-autos till 30.12.2022.

ii) 100% Road Tax exemption for e-autos till 30.12.2022.

iii) Waiver on Registration charges/fees will be done as per Government of India's notification.

C. Incentives for Transport Vehicles such as Taxi, Tourist Cars, etc.

i) Taxi permit fees will be waived for Electric Transport Vehicles till 30.12.2022.

ii) 100% Road Tax exemption for all Electric Transport Vehicles till 30.12.2022.

iii) Waiver on Registration charges/ fees will be done as per Government of India's notification.

iv) STUs will be provided with subsidy to enable purchase of EV buses.

D. Incentives for Light Goods Carriers (including Three Wheelers)

i) There will be no requirement of permit for the three-wheeler goods, e-carriers as well as electric Light Goods carrier.

ii) 100% Road Tax exemption for all e-carriers registered till 30.12.2022.

iii) Waiver on Registration charges/fees will be done as per Government of India's notification.

E. Incentives for Private Cars

i) Private car owners shall be encouraged to switch over to electric cars.

ii) Waiver on Registration charges/fees will be done as per Government of India's notification.

iii) Road tax exemption will be enhanced from 50% to 100% till 30.12.2022.

F. Incentives and Support for Charging Stations

Experience in other cities across the globe indicates that availability of charging stations is a key driver for EV adoption. The objective of this policy is to create an enabling environment to provide private and public charging infrastructure in the State. In this regard, the State Government commits to the following:

I) Adequate policy support will be provided for the development of charging infrastructure in cities and other places.

ii) The State will invest in setting up charging stations, with the active participation of public sector units including TANGEDCO and private players.

iii) The Government will develop schemes with appropriate capital subsidy to enable private operators to set up public charging stations.

iv) Provision for charging stations will be made in commercial buildings such as hotels, shopping malls, cinema halls, apartments, etc.

v) The Government will take effort to set up 3*3 Grid charging stations in Chennai, Coimbatore, Trichy, Madurai, Salem and Tirunelveli.

vi) One charging station will be set up at 25 km intervals on both sides of NHAI and State Highways.

vii) Charging points will be provided in the Government office parking lots in Chennai, Coimbatore, Madurai, Trichy, Salem, Tirunelveli and other places based on the requirements.

viii) TANGEDCO will invest in setting up both slow and fast charging networks in Government buildings and other public places.

ix) TANGEDCO will setup the charging infrastructure on its own or through private operators using appropriate Public Private Partnership models.

x) EV charging service providers can also setup their own renewable energy generating stations at their premises for charging Electric Vehicles.

xi) The tariff applicable for domestic consumption shall be applicable for Private Charging Station at home and classified as LT Tariff-IA-230 Volt /415 Volt as per Tariff order T.P.No:1 of 2017 dt 11.08.2017 (LT Tariff-IA). Typically, most of the slow charging or overnight charging for EV (2 Wheelers, 3 Wheelers or small 4 Wheelers) may be done from this domestic service connection. Private charging in case of Offices, Malls, Gated Community, etc can be done in the common supply with the LT Tariff-V of TANGEDCO.

xii) Tariff for the supply of electricity to Public Charging Stations (PCS) will be determined by TNERC and it will be endeavoured to fix the tariff as not more than the 15% above the average cost of supply.

xiii) Supply of Renewable Energy will be ensured on preferential basis at for EV charging stations with zero connection cost.

X.Supply-Side Incentives to Promote EV Manufacturing Within Tamil Nadu

The Government of Tamil Nadu offers attractive incentives to promote new industrial investments in the State under the Tamil Nadu Industrial Policy. The manufacture of electric vehicles, their auto components, particularly EV batteries and manufacture of charging infrastructure will be provided a special package of incentives.

The condition of eligibility for availing incentives under the special package shall be that the units engaged in EV, their component or charging infrastructure manufacture shall make investments above ₹50 crore (₹ 500 million) and create at least 50 direct jobs in the form of new projects or expansion projects. Investments made from April 1, 2018 will be considered eligible for availing incentives. The incentives will include the following:

A. Reimbursement of SGST

100% of the SGST paid on the sale of EVs manufactured, sold and registered for use in the State will be reimbursed to the manufacturing companies. The reimbursement will be given for sales by manufacturers effective till 31.12.2030. The reimbursement will be given up to 100% of the eligible investment.

B. Capital Subsidy

In the case of intermediate products used in the manufacture of EV and charging infrastructure, where SGST reimbursement is not applicable, a capital subsidy of 15% will be given on eligible investments over 10 years. The capital subsidy will be payable on eligible investments made in the State till 31.12.2025. The cost of land shall not exceed 20% of the total eligible investments reckoned for the purpose of capital subsidy.

C. Electricity Tax Exemption

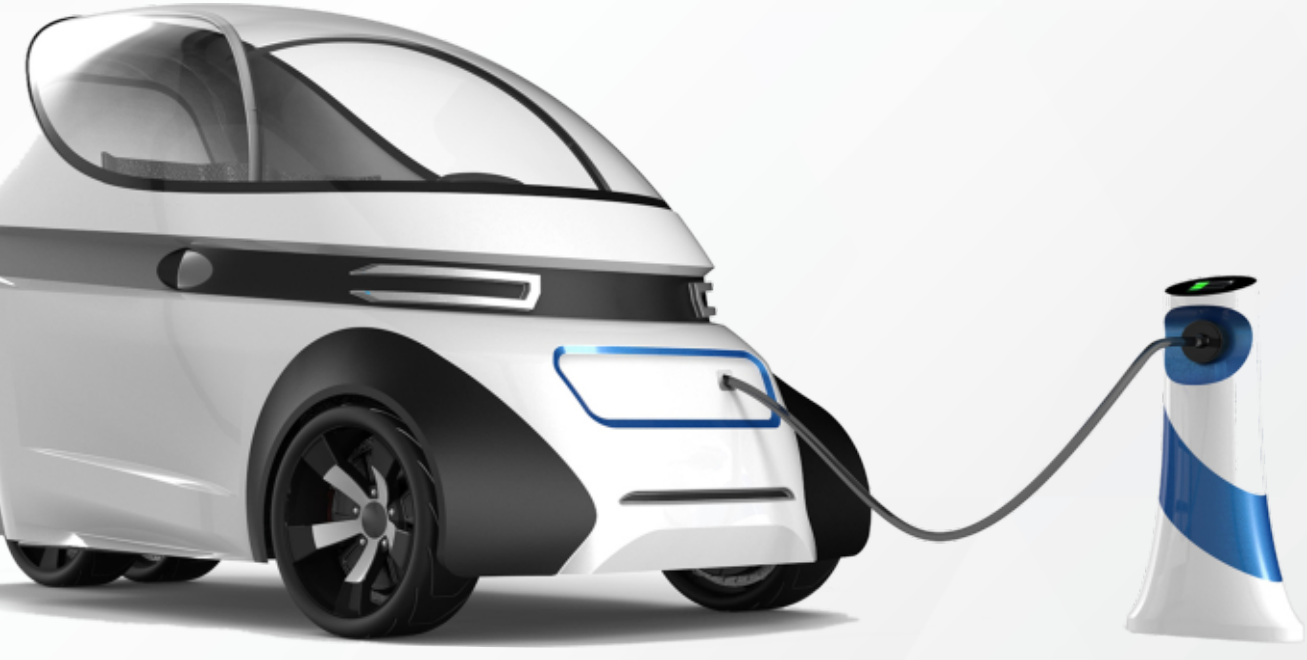
EV related and charging infrastructure manufacturing industries in the State will be provided 100% exemption on electricity tax till 31.12.2025.

D. Stamp Duty Exemption

EV related and charging infrastructure manufacturing industries in the State that obtain land by sale or lease shall be entitled to 100% exemption on stamp duty for transactions till 31.12.2022.

E. Subsidy on Cost of Land

EV related and charging infrastructure manufacturing industries in the State that obtain land from SIPCOT, SIDCO or other Governmental agencies will be provided a 15% subsidy on the cost of land, and will be provided 50% subsidy if the investment is in Southern districts. This incentive is subject to the condition that the land cost is already not claimed as part of capital subsidy. This subsidy will be available on allotments made till 31.12.2022.



F. Employment Incentive

EV related and charging infrastructure manufacturing units will be provided an employment incentive in the form of the reimbursement of employer's contribution to the EPF for all new jobs created till 31.12.2025. This incentive shall be paid for a period of one year and shall not exceed ₹48000 per employee.

G. Special Package for EV Battery Manufacturing

The Government will provide higher capital subsidy of 20% of the eligible investment over 20 years in cases where manufacturing units are engaged in EV battery manufacturing. Such units shall also be provided land at 20% subsidy and at 50% subsidy in Southern districts. The special package will be applicable for investments made till 31.12.2025.

H. Creation of EV parks and Vendor Ecosystem

The Government recognises that major investments by the EV OEMs can be attracted only if there is a dedicated infrastructure and developed vendor eco system. To create the same, the Government will develop exclusive EV parks in major auto manufacturing hubs and also in areas which have potential to attract EV investments.

These EV parks will enable the creation of a vendor ecosystem that will serve OEMs. Common facilities will be provided to the vendor industries for proto typing, testing, training, etc. in these EV parks. Incentives under various schemes applicable to the MSME sector and major Industries shall be extended to these industries, subject to their eligibility.

The Government will also promote Logistic Parks and Free Trade Warehousing Zones for better inventory management. Further, Plug and Play manufacturing facilities will be created where vendors and OEMs can commence production with minimal capital investment in land and building.

I. 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 will be applicable for units that are set up till 31.12.2025.

J. Transition Support

With a view to assisting existing investors to transition into the EV manufacturing system, the principle of maintaining base volume production for expansion projects will not be applicable for EV manufacturers. Further, existing automobile manufacturing companies will be provided a one-time re-skilling allowance for every existing employee in the production line.

K. Institutional Mechanism

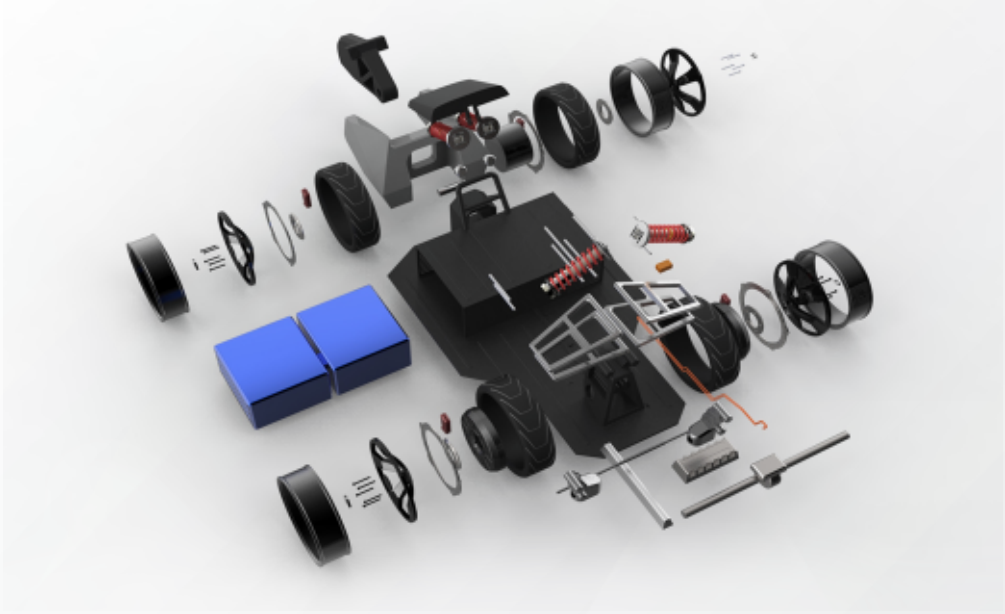
The incentives mentioned in Clauses A-J above shall constitute the '**EV Special Manufacturing Package**'. It will be sanctioned to eligible industries by the Government based on the recommendation of the **Tamil Nadu Industrial Guidance and Export Promotion Bureau**. The existing institutional mechanism for disbursal of investment related incentives to major industries and MSME sector shall be applicable to the

EV sector also. All investment proposals under the EV sector will be provided the necessary facilitation through the Single Window Clearance facility.

The respective Industrial Guidance Bureaus for Large industries and MSME sector shall provide the necessary handholding services for E-vehicle related investments in the State. The Industries Department will notify the list of eligible auto-components and charging infrastructure components whose manufacture will be eligible for concessions under this chapter based on the advice of a technical committee constituted for this purpose.

XI. Revision of Transport Regulation of Electric Vehicles

In order to distinguish the Electric Vehicles (battery operated vehicles) from other vehicles, Registration Mark (Vehicle number plate) shall be exhibited in yellow colour on a green background for transport vehicles and white colour on green background for all other EVs. All the vehicles should fulfil conditions stipulated to register under Central Motor Vehicle Rule.



XII. City Building Codes

i) Amendment 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 will be encouraged to provide charging points in parking lots.

iii) Existing Residential Townships with 500 + families will be encouraged to install charging stations.

iv) At least 10% of Parking Space will be earmarked for EVs in commercial buildings such as hotels, shopping malls, cinema halls, apartments, etc. and charging stations will be set up in the earmarked space.

XIII. Capacity Building and Skilling

Tamil Nadu has a good young demographic and skilled manpower in all trades which is critical to support any industrial operations. The State will identify the nature and level of skills required by the EV industry to develop and execute training programmes on EV design, development, & manufacturing through various channels.

Higher education Department will redesign the curriculum in Engineering as well as Polytechnic colleges in Electrical and Electronics, Mechanical and Automobile courses to suit to the EV industry requirements, including setting up of Centres of Excellence. Similarly, ITI curriculum will also be updated accordingly.

Tamil Nadu Skill Development Corporation (TNSDC), in the lines of National Skill Development Corporation (NSDC), is a not-for-profit company under Companies Act, 2013 that was established in 2013 to provide skill training to the required industries. This will provide the finishing and short term skilling to the existing technical person on the EV based on the skill qualification approved by NSDC.

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 short internship module at partnering OEMs. The Government will focus on training in light and precision assemblies, electrical powertrains and mechatronics.

XIV. Steering Committee for EV and Charging Infrastructure

A high-level Committee shall be formed to monitor the implementation of E-Vehicle with Chief Secretary, Government of Tamil Nadu as the Chairman and the following Committee Members:

- Additional Chief Secretary, Home Department
- Principal Secretary, Transport Department
- Principal Secretary, Finance Department
- Principal Secretary, Energy Department
- Principal Secretary, Highways Department
- Principal Secretary, Industries Department
- Principal Secretary, MA & WS Department
- Chairman, TANGEDCO
- Commissioner of Transport
- MD & CEO, TN Industrial Guidance Bureau
- Upto Five experts from various fields pertaining to E-Vehicles manufacture, battery charging etc.,

XV. Implementing Agencies

The Industries Department will be the nodal department for the implementation of all manufacturing related incentives under Electric Vehicle Policy in Tamil Nadu. The Energy Department will ensure that public and private charging stations are provided with all necessary facilitations and incentives. The Transport Department shall be the nodal department for issuing guidelines to achieve the other objectives of the policy.

XVI. R&D and Business Incubation

A. Working Group

The Government of Tamil Nadu will constitute Working Groups for development of necessary technologies from concept to market in the areas of Drive Technologies, Battery Technologies, Charging Infrastructure and Network Integration, Standards and Certification; Materials and Recycling; Quality and Training, etc.

B. Centre of Excellence

The State Government will partner with premier Technical Institutes and research establishments across the State for establishing Centres of Excellence for conducting market focussed research on Battery Technologies, Battery Management, EV Motors and Controllers. The State Government will seek industry participation and leverage with Government Of India to provide grant to these centres. Research programs in collaboration with EV industry with a focus on battery innovation will be introduced in Engineering Colleges / Universities.

C. Incubation Centres

The Government of Tamil Nadu will encourage start-ups in the E-Vehicle sector and will offer incubation services to them in the form of office space, common facilities and mentoring support.

D. EV Venture Capital Fund

An EV Venture Capital Fund will be created by the Government to offer financial support to EV start-ups to enable them to scale up their business.

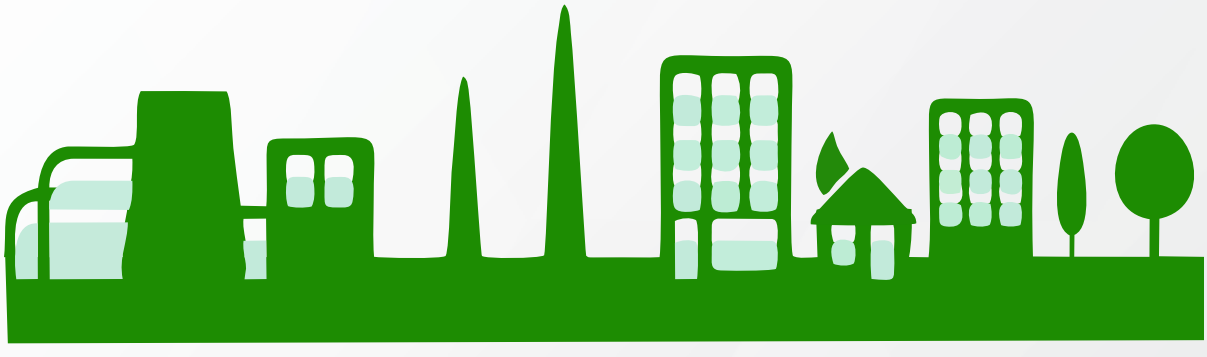
XVII. Recycling Ecosystem-Battery and EVs

The Government will encourage the re-use of EV batteries that have reached the end of life and is setting up recycling business in collaboration with battery and EV manufacturers that focus on “Urban Mining” of rare materials within the battery for re-use by battery manufacturers.

Charging Station Operators will be encouraged to operate as end-of-life battery recycling agencies. Electrical Vehicle owners can deposit their vehicle batteries that have reached their end of life. The Government of Tamil Nadu will invite battery recycling business to establish their presence in Tamil Nadu. Appropriate protocols and investment subsidies for setting up such a business shall be notified by the Government of Tamil Nadu after consultation with stakeholders. OEMs should take responsibility of recycling of old batteries and its components.

XVIII.Validity of the Policy

The Tamil Nadu Electric Vehicle Policy and package of incentives and concessions shall come into effect from the date of issue of Government Order and will be valid for a period of ten years or till a new Policy is announced.

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TELANGANA ELECTRIC VEHICLE POLICY- DRAFT 27.09.2017

1. PREAMBLE

Global Automobile Industry is going through one of its most radical transformation since the Ford model T rolled out in 1908, as Electric Vehicles(EV) emerge as a promising alternate to ICE(Internal Combustion Engine) vehicles. Zero tailpipe emissions and innovation in battery technologies make EVs an economically viable and sustainable mobility solution and is fast finding global support from Policy makers and Industry leaders alike.

EV technology is breaking new grounds at frequent intervals as discussed below, showing promise of a price/performance parity with ICE vehicles by 2025 resulting and the dominant mobility solution

a) Battery cost dropping rapidly and may reach to half of its current level in less than 10 years

b) Electric Vehicle performance is expected to improve by 2 times from its current levels in 10 years

c) Charge time is decreasing from 5 hours to less than 1 hour thus reducing the Range anxiety

d) Energy cost per km for electric vehicles is 4-5 times less than gasoline equivalents

However, the initial ownership cost of Electric vehicles is currently on the higher side, prompting various countries to roll out policy and financial support to ensure a transition to electric vehicles, as given below

Norway- Electric Vehicles enjoy exemption from non-recurring vehicle taxes, including road tax, toll and parking fees. This scheme has resulted in EVs reaching a record market share of 48.4% in Sept 2017

China- Electric Vehicles are exempt from acquisition and excise taxes and are allowed total or partial waivers from license plate availability restrictions and offer financial incentives, thus explaining strong sales volumes (336 000 cars) and 40 % growth rate in 2016 compared to 2015.

Japan: A subsidy scheme introduced in 2016 grants progressively higher subsidies as the electric range of the model increases, with maximum subsidy equivalent to $7700. Electric Vehicle sales (typically with larger batteries and higher electric ranges) increased by almost 50% in 2016

The policy support has helped accelerate the demand for EVs. Over 2.1 M vehicles are estimated to have been sold globally so far and sales trends showing huge growth (from 0.3 M in 2014 to 0.78 M in 2016).

The global trend is also reflecting on the Indian Auto Sector roadmap for a sustainable mobility solution in view of the rising vehicle population on the roads and resulting pollution. Government of India(GOI) in its Automotive Mission Plan 2016 has laid a vision of 'safe, comfortable and efficient mobility with an eye on environmental protection and affordability through both public and personal transport options'.

2. CONCERNS WITH ICE VEHICLES- INDIA CONTEXT

a) Nearly 80% of India's crude requirement is imported, with the import bill at $64 B in 2015-16. The projected vehicle numbers in 2030 make the crude import dependence and spending even worse.

b) ICE vehicles, particularly diesel based cause air quality degradation that perpetuate climate change.

c) Diesel exhaust contain pollutants causing major health risks such as heart diseases, lung cancer etc

3. ELECTRIC VEHICLES IN INDIA

Electric vehicles in India has received little public interest despite being available for a significant period (REVA was launched in 2001), primarily due to the following issues

a) Inadequate charging infrastructure and high charging time with existing battery technologies

b) Absence of an Electric Vehicle portfolio across segments comparable with available ICE Vehicles

c) Maturity of current Battery technologies as well as the cost parity of EV's with ICE vehicles

4. NEED FOR EV POLICY

India currently has roughly 20 cars per 1000 persons, compared to 800 cars per 1000 persons in the United States, creating the growth opportunity but also posing challenges in terms of energy security, and environmental/infrastructure balance. The Indian Auto market size is projected anywhere between 9.8 M(@5.8 % growth) to 13.4 M(@7.5 % growth) cars alone in year 2026 (from 2.8 M in 2015-16).

As per a study report, India can save as much as $60 billion in energy costs by 2030 and one Gigatonne of carbon emissions between 2017 and 2030 by adopting more electric and shared vehicles. GOI launched its FAME scheme in 2015, outlining subsidies for EV adoption and bringing focus on four key areas of technology development, demand creation, pilot projects and charging infrastructure.

However, the pace of adoption despite the government push failed to meet expectations, primarily due to lack of adequate charging infrastructure along with high price & low performance of EVs. While the Pace of EV and battery technologies developments forecast a price/ performance parity with ICE vehicles by 2025, availability of charging infrastructure remains a challenge and key to mass EV adoption.

5. ADVANTAGE TELANGANA FOR AN EV ECOSYTEM DEVELOPMENT

I. Telangana was judged as No. 1 state in Ease of Doing Business for 2016 in DIPP rankings. As per a recent report by ASSOCHAM, Telangana surpassed its southern peer states in attracting investments. These results are built upon radical industrial reforms initiated since formation of Telangana state in year 2014.

   A major highlight of this reform process is TSi-PASS, a path breaking industrial project approval system that provides time bound clearances (15 days for mega projects) based on self-certification. Investments worth 15.4 B USD from over 5000 units processed through TSi-Pass generating employment for 36600 people since Jan 2015 is a testimony to Industries confidence in the system.

II. Telangana State policy support goes beyond Ease of Doing Business and industrial infrastructure in form of preferential allotment to Made in Telangana products for government orders

III. Telangana has the desired social and urban infrastructure to translate into a strong demand and nurturing ground for EV technologies. Vehicle registrations in Telangana has for long registered double digit growth, making it one of major Automotive Market status within the country.

IV. Telangana has attracted significant investments from new and existing Automotive units since its formation and is home to Mahindra & Mahindra and MRF manufacturing base along with Hyundai and ZF global R&D centres. Many more marquee names are at various stages of setting up their operations in the state. A strong base of Tier I & II suppliers is also present to support the OEMs.

V. EV manufacturing has a large power electronics dependence, giving Telangana a strong supply chain advantage over other Automotive Hubs in India. Telangana holds the legacy of a strong Electric & Electronics(core, defence and aerospace) manufacturing base led by PSUs like ECIL & BHEL.

VI. Telangana has a strong knowledge sector presence with some of biggest global IT major and research establishment presence in the state. Good supply of knowledge workers from premier technical Institutes such as IIT and IIIT has well supported these knowledge based entities which can be further leveraged to support Research and Innovation initiatives for Electric Vehicles

VII. Telangana Industrial Infrastructure is unmatched with its vast Industrial land bank, 24*7 Power and water supply. Telangana holds a strong logistic advantage with its location on India's Map and excellent highway network, giving quick access to major automotive markets & supply chain bases.

VIII. Telangana has abundant native labour supply for all shop floor activities in an manufacturing environment. Besides Telangana is also known for its harmonious Industrial Relations environment.

6. Vision Statement

To establish Telangana as the benchmark state in India and a showcase model of International standards for Electric Vehicle adoption across segments (personal, shared and commercial), supported by a world class infrastructure and ecosystem.

7. Mission Statement:

The EV policy is targeted to achieve 100% migration to Electric Vehicles by 2030 in Telangana state in alignment with Government of India vision, supported by an enabling infrastructure and local manufacturing base for Electric Vehicles and related components

8. Objectives

1. To attract investments worth 3.0 B USD and create employment for 50000 persons by 2022 through EV manufacturing & charging infrastructure development.

2. Provide best in class ecosystem & infrastructure to make Telangana the EV Hub of India

3. Develop a proving ground for viable Business models through accelerated demand for EVS

4. Promote innovation in EVs and other emerging trends such as Autonomous/Connected Mobility

5. Make Telangana state the preferred destination for Electric Vehicle & component manufacturing

6. Creating of a pool of skilled workforce for the Industry

7. Create a conducive environment for Industry & Research institutions to focus on cutting edge research in EV technologies

9. Strategies

1. Clear Definition of incentives on Supply and Demand Side of an Electric Vehicle ecosystem
2. Support and clear roadmap for developing charging infrastructure in the state
3. Incentives related to various components of ownership cost of Electric Vehicles
4. Mandating Use of EVs at Institutional Level Starting with Government entities
5. Establishing a start-up ecosystem to nurture innovation in EV technology space
6. Support for Research & Innovation in Electric, Autonomous & Connected Mobility
7. Emphasis on skill development for EV design, development & manufacturing
8. Promote manufacturing of Battery cells and packs through special status/ incentives

10. Policy Measures

This policy builds upon the Telangana Industrial Policy framework 2014 that defined Auto Sector as one of the priority sectors. However, considering current shift in the Auto Sector towards Electric Vehicles, special status is accorded here to EV and EV component Industry. Both demand and supply side is assigned equal importance for policy support as demand is key to establishing an EV ecosystem.

10.1 Demand Side Incentives: GOI launched FAME scheme in 2015 to accelerate EV adoption but could not entice desired response from targeted users, attributing to lack of adequate charging infrastructure and resulting range anxiety. A recent NITI AYOOG report identified shared mobility as the initial driver of EV adoption and charging infrastructure development. The demand side policy support is targeted at accelerating EV adoption through shared mobility, complemented by a strong charging infrastructure.

Following roadmap is defined to ensure an accelerated adoption across segment and usage categories

a) Road tax exemption for all electric vehicles till 2025, expected year of price parity with ICE vehicles

b) Simulate demand for EVs through areas of quick adoption such as Taxi services, Public Transport and Institutional transportation

c) Establish an adequate network of charging/swapping infrastructure to cater to the EVs on the road

d) Preferential Allotment will be made to Make in Telangana Vehicles for Government Orders

10.1.1 EV in Shared Mobility

a) Battery operated shuttle services at all Hyderabad Metro Stations for last mile connectivity

b) A time bound mandate for all auto rickshaws within GHMC to switch to EV, followed by other cities

c) Encourage cab operators/ aggregators to switch to full EV fleet in phased manner.

d) Permission for corporate ownership of e-auto rickshaws/e-Ricks to enable entrepreneurship and create jobs for the economically backward segments.

e) Extension of transport department retro fitment rule for existing vehicles to cover Electric kits for passenger vehicles, Auto Rickshaws and e-Rickshaws

f) Permission for ARAI certified E-rickshaws in fringe areas at the periphery of GHMC limits in predefined zones and routes. Similar permission will be granted in other cities across the state

10.1.2 EV in Public/Institutional Transport

a) Telangana State Transport corporation to set a target of 100% electric buses by 2030 for intra-city, intercity and interstate transport (key milestones – 25% by 2022, 50% by 2025 and 100% by 2030)

b) Airport flight shuttles and PUSHPAK buses to be transitioned to EV on priority

c) Government vehicles (owned and contractual)to switch to all electric by 2025, in phased manner.

d) Contract carriage permits for private operators with EV fleet operations

e) Tourist places (national parks, ecological sites) in the state to switch to all EVs by 2025 for transportation in and around their premises.

10.1.3 EV in Corporate Transport, Hospitals and Educational Institutes

a) Corporate offices with annual turnover of Rs 100+ Crore operating within GHMC limits to compulsorily migrate 25% of their employee commuting fleet to EVs by 2022 and 100% by 2030. The same rule will be extended to corporate entities operating in other cities in the state.

b) Allow use of CSR funds for electrification of employee commuting fleets

c) Encourage educational institutions & hospitals for a 25% switch by 2022(100% by 2030) of their Buses/ Derivatives/Passenger vehicles fleet to Electric Vehicles

10.1.4 EV in Freight Transport, Logistics & Delivery Services and other applications

a) Encourage all freight and logistics firms to use Electric Vehicles in a phased manner

b) Intra-city goods delivery services (sub 2T category) to switch to EVs only by 2030 in a phased manner

c) Encourage all app based and e-commerce delivery services to migrate 25% of their vehicles fleet to EVs by 2022 and 100% by 2030

d) Use of Battery operated Application vehicles will be encouraged in government departments such as Municipal Corporations, Postal Services etc. across Telangana State.

10.1.5 EV for personal mobility

a) Exemption of registration charges on personal vehicles purchased till 2025

b) Interest Free loans up to 50% of the cost to all state government employees for purchase of EVs

c) Only Electric vehicles will be allowed in high traffic density areas, Heritage zones, IT SEZs and similar EV Zones in Hyderabad by 2025. Same will be applied to other cities in Telangana State.

d) Free Parking in public parking places and Toll exemption on State Highways for EVs till 2025

10.2 Support for Charging Infrastructure

a) Adequate policy support will be provided for the development of charging/swapping infrastructure

b) Government of Telangana will work with GOI for the development of common standards for batteries and charging infrastructure to ensure interoperability wherever possible.

c) Government will set up first 100 fast charging stations in GHMC and other cities in a phased manner.

d) Charging points for personal vehicles of Government employees would be provided at Government office parking lots, starting with Hyderabad, followed by other cities in the state.

e) A viable business model will be developed for Private players to set up ARAI compliant EV charging stations/ infrastructure at public places such as airports, railway/ metro stations, parking lots, bus depots, markets and malls.

f) Electricity distribution companies will bring in amendments to their policies to enable setting up of private charging station and allow re-sale of power

g) A separate category of Power tariff will be created for EV Charging, both public and private. Duty exemption on power tariff will be extended to public charging stations for a duration of 5 years

h) Land belonging to Government Agencies within Hyderabad and other cities will be offered to private players on long term lease at subsidized rates and 2 year moratorium period on rental payment for setting up charging/swapping stations, through a transparent bidding process.

i) Provision for charging spots will be made mandatory in all commercial buildings such as hotels, shopping malls and technology parks.

j) Amendment to building and construction laws will be made to ensure charging infrastructure is integrated at the planning stage itself for all new constructions.

k) All existing apartment associations with 200+ families will be encouraged to provide charging points in parking lots and will be supported by capital subsidy of up to 25%, capped at 5 lakh

l) Existing Residential Townships with 1000+ families will be encouraged to develop charging stations , supported by capital subsidy of up to 25%, capped at 10 lakh for each station with 4 fast chargers

m) 75% of SGST paid on the fast charging equipment / machinery procured by any entity for setting up private/public/institutional charging stations will be reimbursed.

n) Supply of Renewable energy will be ensured on preferential basis at special tariffs for EV charging stations with zero connection cost and wheeling charges

o) A battery disposal infrastructure model will be created to facilitate deployment of used EV batteries

p) Charging/ swapping station will be provided at every 50 kms within state boundaries on highway to cities like Bengaluru, Mumbai and Chennai, followed by other national/state highways

q) HMR stations and TSRTC Bus depots(across state) will provide reserved parking and free charging stations for two wheelers in their parking zones to encourage EVs for last mile commute.

10.3 Supply Side Incentives: Local manufacturing and R&D is key to reaching price/performance parity between Electric and ICE Vehicles. In cognizance of this fact, support will be extended to the EV industry through policy interventions and Incentives with focus on research, innovation and skilling

The Government will provide benefits/incentives, depending upon the scale of investment as per the categories defined in MSMED act 2006 and Telangana Industrial Policy framework 2014. Investments beyond 200 Crores will be treated as Mega Projects and will be offered tailor made benefits

10.3.1 Infrastructure Support:

EV Cluster: A mega Automotive Park with global standard infrastructure is currently at planning stage and the development work is expected to commence by mid 2018. A designated EV cluster spread over 1500-2000 acres catering to EV/EV component manufacturing for two wheelers, Cars, Buses & Trucks will be integrated with the Automotive Park plan. The EV cluster will have common facilities specific to the requirements of EV units, as given below

i. Shared facilities to meet staffing and training requirements

ii. A common facility for Design, prototyping and testing available to all units in the cluster

iii. An Automotive Suppliers Park(ASP) to improve the logistics competitiveness for the units

iv. Common infrastructure such as Drainage/ ETP/ STP & utilities such as Power, Gas &Water

v. A State-of-art Business environment with facilities such as Convention & exhibition centres

vi. A Logistics Hub to provide with multimodal transport for for safe and efficient handling of cargo

vii. Built-Up Space with ready factory sheds will be developed to be used mainly by MSME units.

a) **Automotive Electronics Cluster:** Electronics constitute a major chunk of an EV with battery at the core of the product. An Automotive Electronics Cluster will be developed within the proposed Electronics city near Hyderabad where Special status and incentives will be accorded to units manufacturing electronic components including batteries cells/Packs for Electric Vehicles.

b) **Land: -** Allotment of land will be carried out across three categories: -

I. Plots in Integrated Automotive Parks & EV Clusters developed by TSIIC for purchase or on lease with common facilities including ETP, internal infrastructure and other common facilities

II. Individual Plots on Stand Alone Basis outside the Industrial Parks developed by TSIIC

III. Land for Development of Automotive Park / EV Cluster developed through privately owned or PPP modes of investments

c) **Industrial Water: -** Government has earmarked 10% water from all existing and new irrigation sources for industrial utilization. Water will be provided at subsidised rates to Mega Projects

d) **Industrial Power:** 24*7 Power supply is a norm for Industrial units operating in Telangana State. Furthermore, Power Tariff Subsidy and duty exemption will be extended to EV units in the state.

EV units will be allowed to avail renewable energy under open access system from within the state after paying cost component to DISCOMs as fixed by ERC (up to 1/3rd of their power requirements).

e) **Support Infrastructure: -** Support infrastructure like roads, power and water will be provided at door step of the industry for standalone units through Infrastructure assistance under IIDF (including exemption from paying various charges to local bodies and government agencies)

f) **Environmental Infrastructure:** - In the Auto Parks / EV Clusters, Government will facilitate the development of a Common Effluent Treatment Plant (CETP)/Sewage Treatment Plant (STP) in PPP mode by engaging experienced firms. Units in that Park will use the CETP/STP on pay-per-use basis.

10.3.2 Research & Development: Considering that the EV technologies is fast evolving, the need for Research & Development is key to accelerate the parity point of price/ performance with ICE vehicles. It will also help develop solutions as per local operating conditions and local supply chain considerations.

a) **Smart Mobility Technologies Cluster (SMT):** Tech start-ups are the new breeding ground for ground breaking innovation and Telangana supports them through T-Hub, India's biggest Incubation centre. T-Hub has launched a start-up incubation programme named Smart Mobility Technologies cluster, to promote innovation in advance mobility space, particularly EVs.

SMT Cluster will form a mentor board in partnership with EV, shared mobility and Energy firms to help start-ups translate their ideas into viable business model. An Incubation fund with Industry support will be created to provide financial support to Start-ups in EV space. State government will work with PSU banks to develop a mechanism to provide collateral free loans to start-ups.

b) **Mobility Engineering Cluster:** A Mobility Engineering Cluster (on the lines of the MCity at Univ. of Michigan, US) will be developed with Industry partnership. This facility with its state of the art infrastructure is envisaged to establish a global benchmark in design, development and validation for EVs and autonomous/ connected mobility. The services of this facility will be available to EV makers across India, with preferential access to partnering OEMs and units based out of Telangana.

c) **Centre of Excellences:** State Government will partner with premier Technical Institutes and research establishments across the state to establishing Centre of Excellences for conducting market focused research on Battery Technologies, battery management, motors and controllers. State Government will seek Industry participation and leverage GOI EV policy to provide grant to these centres. NFTDC is running once such COE on motors and controllers, under GOI FAME scheme.

d) **EV Research Hub:** A dedicated facility with special incentives will be developed to house EV R&D centres by domestic and global EV Majors. Hyderabad's strength in Technology domain will be leveraged to provide quality manpower for such centres. This hub is also expected to attract global R&D activities on other emerging mobility trends such as connected and autonomous vehicles

e) **Telangana EV Innovation Fund:** An Innovation fund will be created by the government to offer financial support to EV OEMS, ancillaries and Start-ups for research and innovation in Battery technologies. Yearly awards will be instituted to recognise breakthrough work in Battery Technologies in separate categories for OEM's, ancillaries and start-ups.

f) **EV Testing Facility:** One of the major costs for the industry is the testing of components and vehicles for compliance to global standards. Telangana State will pursue with the GOI to bring a National Automotive Testing and R&D Infrastructure Project (NATRIP) for Electric Vehicles to the state

g) **T-Works Automotive Prototyping centre:** Recognised as India's largest Prototyping Center, T-WORKS will have a dedicated wing for prototyping of Electric Vehicle components/assembly. Industry partnership in the same will be invited from EV OEMs and large component manufacturers. The facility will serve start-ups and MSME units in the EV space at subsidised rates.

10.3.3 SKILLING: Availability of quality manpower in good supply is key to supporting any Industrial operation. State will identify nature and quantum of skillset required by the institute to develop and execute training programmes on EV design, development & manufacturing through various channels

a) **TASK:** Telangana Government has set up a body called TASK (Telangana Academy of Skill and Knowledge) on lines of the National Skill Development Corporation (NSDC), a not-for-profit company under the Companies Act, 2013. A dedicated Skill development Centre for EV/EV component manufacturing on PPP model will be set up under the aegis of TASK and with support from EV Industry. TASK will also develop digital certificate courses for EV technologies for continued skill enhancement in view of evolving EV technologies.

b) Finishing Courses: Short term (4-6 months) finishing course post completion of graduate Engineering courses will be introduced in select Engineering Colleges and Premier Technical Institutes in collaboration with Global Tech Universities. These courses will be designed in consultation with EV Industry and will include short internship module at partnering OEMs

c) **PG Courses on EVs:** 2-year PG course on EV Technology with scholarship assistance will be initiated in partnership with premier institutes such as IIT Hyderabad and IIIT Hyderabad and in consultation with EV industry. NIT Warangal is already running one such master's programme.

10.3.4 Battery Cell Manufacturing and Assembly Promotion: Batteries and related components make up substantial part of EV. Manufacture and assembly of Advance* batteries will be encouraged in the State by means of special status and incentives. Preferential allotment will be made to units involved in Advance Battery products and related electronics in the Automotive Electronics Park.

*Lithium ion and other battery chemistries with energy density higher than the Li-ion battery

10.3.5 Charging/swapping Equipment Manufacturing Promotion: Development of a charging network is dependent on quality supply of charging/swapping equipment & machinery. Local manufacturing of Charging/Swapping equipment will be encouraged by means of policy support and incentives.

10.4 OTHER POLICY INTERVENTIONS

a) **Single-Window System:** Telangana implemented TSi-PASS in 2015, an Industrial Project approval system based on self-certification. It also protects Investors interest with Right to Single Window Clearance and provision for penal action on the officers who delay the applications.

An escort officer will be appointed at Commissioner of Industries and TSIIC office to ensure fast-tracked clearance and grievance redressal for applications received from EV vehicle/component manufacturers. Escalation at various levels and regular monitoring will be done on a time bound basis to ensure quick turnaround time for any application pertaining to EV Manufacturing.

b) **Exit Mechanism:** Considering the high volatility and the risk associated with maturing of EV Technologies, Government of Telangana in consultation with Government of India will put in place a mechanism for reasonable exit strategy for the EV enterprises.

c) **Labour Environment**: Subject to applicable laws as far as possible, the Government will consider giving permission to the Electric Vehicle and components industry for 24x7 (three shifts) operations, employment of women in night shifts, flexibility in employment conditions including working hours for women and shorter/ longer shift timings and hiring of contract workers. The EV industry will be declared a 'Public Utility' under the Industrial Disputes Act, 1947 in order to prevent flash strikes

d) **Technical Committee to certify/define an EV enterprise:** A Technical Committee will be constituted with a mandate to certify/define Vehicle/ components Manufacturers including EV lithium ion battery units claiming incentives and concessions under Telangana Electric Vehicle Policy.

e) **Steering Committee for EV Charging Infrastructure:** A steering Committee will be constituted with a mandate of time bound implementation of charging station network in Hyderabad City followed by other cities/smart cities within Telangana State

f) **Telangana State EV Advisory council:** A "State Electric Vehicle Advisory Council" shall be constituted with support from SIAM, ACMA, SMEV, CII, FICCI and other industry associations. This council and will have distinguished members from Industry, Academia and Research who will review the progress of EV policy initiatives on both demand and supply side. The council will advise the Government on remedial measures needed to address any concern as well as course corrections at policy level. This Consultative Committee shall also facilitate coordination with Government of India in areas requiring support for effective development of EV ecosystem in the state

UTTAR PRADESH

Uttar Pradesh Electric Vehicle Manufacturing and Mobility Policy 2019
(English Translation)

Background

Electric Vehicles are widely gaining market across the globe. Due to high pressure and fast depletion of fossil fuels, electric mobility has become necessary to reduce impact of transportation on environment and climate change. The recent Paris Agreement enforced in November 2016 provides to limit Carbon dioxide emissions to control global warming and threats of climate change. Electrification of automotive industry aims at achieving the set objectives by decarbonising the transport system.

Indian automobile industry is one of the largest growing industry in the world, and the sector promises further growth in manufacturing sector driving country's economic growth. Since presently the automobile industry largely contributes to pollution, the government is promoting electric mobility towards this.

In 2018, the global electric car fleet exceeded 5.1 million from 2 million in the previous year and almost doubling the number of new electric car sales. With rapid expansion in electric mobility, the private and public charging infrastructure has been continuously expanding. Annual growth rate of publicly available charging infrastructure was higher than the electric car stock growth rate on global level.

The Electric Vehicle market in India is set to go enormous and is estimated to be around 80 lacs by 2020, and approximately 5 crores by 2030[1]. Prices of Lithium Batteries are rapidly going down, thereby making EVs cheaper. Electric Vehicles Storage Opportunities (in GW) in India is anticipated to grow at CAGR 44% till 2022[2].

In a recent report published by FICCI and Rocky Mountain Institute, it has been estimated that India's shift to shared, electric and connected mobility could help save up to INR 20 Lakh Cr in oil imports and nearly 1 Giga Tonnes of carbon dioxide emissions by 2030. The report further states that the sales of 4-wheel EVs is expected to exceed that of internal combustion engines (ICEs) in India by 2027[3].

In order to boost the manufacturing of hybrid and electric vehicles in India, Government of India has launched The Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME Scheme) in 2015, under National Electric Mobility Mission Plan (NEMMP) with an aim to promote eco-friendly vehicles in the country. It has set an ambitious target of 6-7 million sales of hybrid and electric vehicles year on year from 2020 onwards in India[4], thereby creating wide opportunities in EV manufacturing. Extending the Scheme, Government of India has

[1] NITI Ayog and RMI analysis, '*Enabling the transition to Electric Mobility in India*', November 2017. Refer https://www.rmi.org/wp-content/uploads/2017/11/report_electric_mobility_india_FICCI_RMI.pdf
[2] Enincon research, IESA. Refer https://enincon.com/wp-content/uploads/2017/07/Flyer-EV-Market-in-India_enincon.pdf
[3] Refer http://ficci.in/PressRelease/2938/ficci-press-nov20-smart2.pdf
[4] Press Releases: Ministry of Heavy Industries & Public Enterprises, Refer http://pib.nic.in/newsite/PrintRelease.aspx?relid=154119

come up with FAME II, and National Mission on Electric Mobility & Battery Storage has been launched.

Indian automobile industry became the 4th largest in the world by producing a total of nearly 30.92 million vehicles including passenger vehicles, commercial vehicles, three wheelers, two wheelers in April-March 2019 as against 29.09 million in April-March 2018 registering a growth of 6.26% over the same period last year. Domestic automobile production increased at 7.08 % CAGR between FY 2013-18.

India is also a prominent auto exporter where automobile exports grew 15.54% during April-March and now the country is also on course to become the third largest producer of car in the world. Transforming this large sector, Government of India is determined to curb polluting emissions from automobile industry and envisions to switch to 100% hybrid or electric vehicles by 2030.

1. Advantage Uttar Pradesh

Since Uttar Pradesh is country's largest consumer base, the Electric Vehicle market is set to boom in the State. Uttar Pradesh is country's 4th largest economy, contributing nearly 8% to country's GDP. Uttar Pradesh is amongst the top 5 manufacturing state and has highest number of MSME units with strong foothold in automobile industry.

1.1. Enabling Infrastructure

Strategically located along the Golden quadrilateral, the State is well connected to major national and international airports. 57% catchment area of the Eastern Dedicated Freight Corridor (EDFC) passes through UP and connects to the eastern part of the country. Similarly, 8.5% catchment area of Western Dedicated Freight Corridor (WDFC) falls in UP. Nonetheless, the upcoming international airport at Jewar will be country's largest international airport in North India.

Known as the State of Expressways, the existing Yamuna and Agra-Lucknow Expressway connect the NCR to the State capital. To add to this advantage, Poorvanchal Expressway, Bundelkhand Expressway, is coming up to ensure seamless connectivity to eastern and central India. The NW 1 waterways connecting Allahabad to Haldia sea port is a unique project connecting the State export hubs to the eastern ports. With an existing strong logistics infrastructure, Uttar Pradesh is coming up multi modal logistics/ transport hubs at Noida, Boraki and Varanasi.

1.2. Large Market Base

Home to nearly 16.5% of India's population, the state is a promising market for automobile industry. State ranks 3rd in number of vehicles registered in India, sharing

10.3% of total vehicles registered in India (2012). Almost 81% increase in vehicle registration was accounted in the state between 2010 and 2015[5].

Demand of the motor vehicle can easily be gauged by the no. of registrations for authorised driver in the state. No. of authorised driving licenses issued by the Transport department in the state was nearly 1.39 million in year 2015[6], which makes it one of the largest consumer base in the country.

With a growing middle class the automobile industry in India is all set to become the largest sector in Indian economy. With 34% of Indians living in urban areas, India is rapidly urbanizing. The decadal growth rate in urban population is nearly 31% (2001-11). With 44.4 million urban populations, Uttar Pradesh constitutes nearly 12% of total Indian urban population. Uttar Pradesh has a high percentage of urban population to total population in the State at 22.27% (Census 2011) and is continuously rising.

As the cost of running the EVs is as low as INR 1 per km and that of petrol vehicles is about INR 5.5 per km, it shows a great running economics for the owners of EVs. Given to the transition process to boost electric vehicle mobility, Uttar Pradesh has been the 3rd largest beneficiary under the FAME scheme (2019)[7], and has the highest registered EVs amounting to 1.39 Lakh[8].

The State's capital - Lucknow is one of the 10-cities identified for pilot project of Multi-Modal Electric Public Transport under FAME India Scheme of Government of India[9]. The e-rickshaw market is already booming in the State, and transition to EVs in 2-wheelers, 4-wheelers and specifically in public transportation sector will be witnessed gradually.

1.3. Key Investment Zones

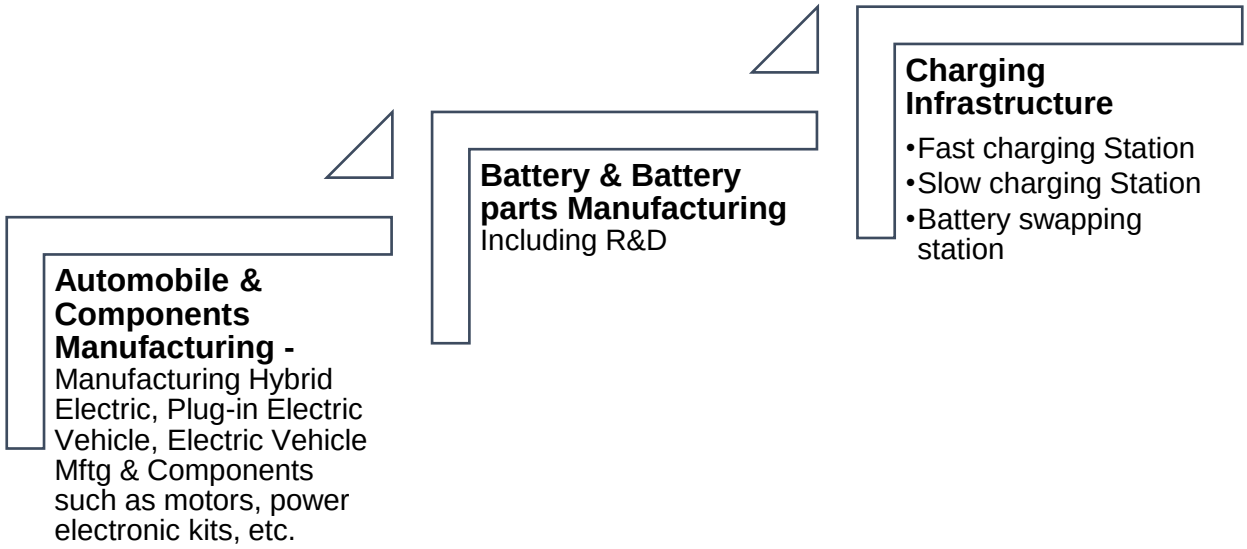
The industrial corridors in the NCR region, including Noida Industrial Area, Greater Noida Industrial Area and Yamuna Expressway Industrial Area and state capital Lucknow are major contributors to the growth of automobile industry in UP.

Uttar Pradesh shares a considerable part of NCR Cluster of Automobile & Automobile components manufacturing hub[10], and hosts manufacturers including India Yamaha Motors, Honda Siel Cars India, New Holland Agriculture/CHN, etc. at Greater Noida, and Tata Motors at Lucknow. In 2016, Tata motors launched Hybrid Electric buses for which the module was designed in their Lucknow plant.

Besides, given to the large SME manufacturing base in automobile sector, Kanpur, Lucknow, Noida, Ghaziabad, Aligarh, Agra, Meerut, Jhansi are other investment zones. Other zones involved in manufacturing battery in the State are located across Greater Noida, Ghaziabad, Fatehpur, Kanpur, Lucknow, Gorakhpur, etc.

[5] Motor Vehicles - Statistics as on 31-03-2015, Ministry of Roads, Transport & Highways.
[6] Data accessed from http://uptransport.co.in/license.aspx
[7] FAME Dashboard http://www.fame-india.gov.in/# (Accessed on 10-1-2018)
[8] Response to Lok Sabha Question, July 2019
[9] Press Releases: Ministry of Heavy Industries & Public Enterprises, Refer http://pib.nic.in/newsite/PrintRelease.aspx?relid=174902
[10] http://www.makeinindia.com/article/-/v/india-s-automobile-hubs

1.4. Key Opportunities



2. About Policy

Towards this, the Uttar Pradesh Electric Vehicles Manufacturing and Mobility Policy 2018 provides attractive fiscal and non-fiscal to attract investments to promote Electric mobility in the state. The policy also promotes early adoption of EVs in the state as well as create demand in the sector. Therefore, the policy contains 3-components:-

(1) Manufacturing

(2) Charging infrastructure

(3) Demand Creation.

This policy complements the UP Industrial Investment and Employment Promotion Policy (UP IIEP), 2017. Besides the department of infrastructure & industrial development, department of transport, department of power and department of urban development play pivotal role in the implementation of this policy.

2.1. Objectives of the Policy

- To promote adoption of EVs in state to create greener environment in the state.
- To establish Uttar Pradesh as preferred destination for attracting investments in manufacturing of Electric Vehicles (EV).
- To create employment opportunities both from supply side and demand side of Electric Vehicles.
- To create a conducive environment for shift from Internal Combustion (IC) engines to Electric Vehicles (EVs).

- To encourage use of Hybrid EVs (HEVs) and Plug-in-electric vehicles (PEVs) during the transition phase.
- To develop human capital and augment the power capacity to meet the needs of the industry promoting electric mobility in the state
- To develop a strong and sustainable ecosystem for battery management, right from production stage to disposal stage

2.2. Policy Targets

1. To attract investments of over INR 40,000 crore in the next 5 years across the electric mobility ecosystem with an employment potential for 50,000 people
2. To launch 1000 electric buses (BEVs/FCEVs), and achieve 70% EV public transportation on identified green routes in identified 10 EV cities by 2030.
3. To phase out all conventional commercial fleets and logistics vehicles and achieve 50% EV mobility in Goods Transportation in identified 10 EV cities by 2024 and all cities by 2030.
4. To roll out nearly 10 lakh EVs, combined across all segment of vehicles, by 2024.
5. To bring in manufacturing units of high density power storage of at least 5GWh capacity in the next 5 years for smooth electric mobility
6. To set up nearly 2 lakh slow and fast charging, swapping stations by 2024

2.3. Definitions

2.3.1. **Electric Vehicle** (EV) refers to all automobiles using an electric motor that is driven by either batteries, ultra-capacitors, or fuel cells. This includes all 2-wheeler, 3-wheeler and 4-wheeler Hybrid Electric Vehicles (HEV), Plug in Electric Vehicles (PHEV), Battery Electric Vehicles (BEV), and Fuel Cell Electric Vehicle (FCEV).

2.3.2. **Electric Vehicle Battery** refers to all energy storage systems used in the defined EVs above. This includes Lithium ion batteries, nickel metal hydride batteries, lead acid batteries, ultra-capacitors and even fuel cells (direct methanol, alkaline, phosphoric acid, molten carbonate, solid oxide and reversible fuel cells).

2.3.3. **Electric Vehicle Manufacturing units (EVMUs)** – All manufacturing enterprises manufacturing Electric Vehicles as defined in this policy (section 2.2.1.) will be eligible for incentives and concessions under this policy.

2.3.4. **EV Battery Manufacturing or Assembly Units (EBUs)** – All EV battery or fuel cell manufacturing (as mentioned in section 2.3.2) will be eligible for incentives and concessions under this policy.

2.3.5. **Service Units** – Units providing facility of fast/slow charging stations and/or battery swapping stations or Hydrogen refuelling stations for 2-wheelers, 3-wheelers, cars, buses and other 4-wheeler Electric Vehicles. Battery recycling units will also be considered as service unit in this policy.

2.3.6. **DISCOM** refers to the Power distribution companies of Uttar Pradesh. This includes all the 5 DISCOMs viz., Paschimanchal Vidyut Vitran Nigam Ltd., Madhyanchal Vidyut Vitran Nigam Ltd., Kanpur Electricity Supply Company Ltd., Purvanchal Vidyut Vitran Nigam Ltd. and Dakshinanchal Vidyut Vitran Nigam Ltd.

2.4. Investment Criteria

2.4.1. **Mega Anchor Project** will be an integrated project and will have EV powertrain assembly, press shop, body shop, EV battery assembly or Fuel cell assembly, assembly line, paint shop etc. either on its own or in consortium or joint venture mode in the same location, investing atleast INR 1000 crores which will bring ancillary units of a minimum of INR 200 crore investment within 3 years of establishment.

2.4.2. Anchor units

Anchor EVMU	Indian Original Equipment Manufacturers (OEM) that design, manufacture Electric Vehicles as defined in this policy, investing at least INR 500 Cr and brings along at least 10 vendor units as defined in this policy in the same cluster
Anchor EBU	Indian Original Equipment Manufacturer (OEM) which design, manufacture or assemble EV battery or fuel cell with recycling set up, investing at least INR 300 Cr and brings along at least 10 vendor units as defined in this policy in the same cluster

2.4.3. **Vendor units (EVMU/EBU) -** Units which are located in the same cluster as Anchor unit (EVMU or EBU) and supply at-least 50% of its end product to the Anchor unit.

2.4.4. Large projects

Large EVMUs	• Fixed capital investment of atleast INR 200 crores or creating at least 1000 direct employment in Bundelkhand region • Fixed capital investment of atleast INR 300 crores or creating at least 1500 direct employment in rest of UP (except Bundelkhand)
Large EBUs	Fixed capital investment of more than equal to INR 100 crores or creating at least 1200 direct employment.

2.4.5. **MSME units** – Government of Uttar Pradesh will follow the MSME definition laid out by Government of India for MSME as per MSME Act 2006 (as amended from time to time) as applicable under UP IIEPP 2017. This policy specifies incentives for MSME firms manufacturing components and end products that are part of the electric mobility ecosystem. These firms can be suppliers to both EVMUs and/or EBUs, or can be Service units providing repair and maintenance services.

2.4.6. **Ultra-Mega Battery Plant** - A plant setup for manufacturing batteries with an annual output of 1 GWh or above, or fuel cell with an annual output of 1.5 GW or above integrated with recycling facilities with a minimum investment of INR 1,000 Crores.

2.4.7. **Service units criteria:** The following criteria will be considered –

Slow charging	Set up with minimum capital investment (excluding land cost) size of INR 25 lakh, providing charging range of more than 15kms but less 80 kms per hour of charging at 10-50 kW power level
Fast category	Set up with minimum capital investment (excluding land cost) size of INR 50 lakh, providing charging range of more than 80 kms per half an hour of charging at 50-150 kW power level
Swapping Station	Set up with minimum capital investment (excluding land cost) size of INR 20 lakh, providing integrated services for battery swapping, repair and maintenance atleast at 5 places in a city.

3. Policy Framework

3.1. **EV Manufacturing Zones/Parks –** The Government of Uttar Pradesh envisages to create quality infrastructure with comprehensive facilities to develop the state as EV manufacturing hub – including EV manufacturing and EV Battery (including fuel cell, etc.) manufacturing. Towards this, EV manufacturing zones and parks will be incentivised and will be well equipped with common infrastructure including waste disposal, sewage treatment, testing facilities, etc.

3.2. **EV mobility** – 10 cities including Noida, Ghaziabad, Meerut, Mathura, Agra, Kanpur, Lucknow, Allahabad, Gorakhpur and Varanasi will be declared as model EM cities in first phase to adopt EVs, charging & hydrogen refuelling infrastructure and new EV enabling building codes. Noida will be the pilot city for all new mobility initiatives in the first phase till 2020. Government of Uttar Pradesh will support CSR initiatives in the Electric mobility ecosystem, as per the guidelines of Government of India.

3.3. **Transition to Electric Vehicles –** In order to favour transition from combustible vehicles to EV vehicles, Govt of Uttar Pradesh will promote hybrid electric vehicles and give incentives to boost demand of HEVs in the state.

3.3.1. **Hybrid EVs (HEVs) during Transition phase**- HEVs are combinational vehicles from both internal combustion engine propulsion system and electric motor propulsion system. Use of HEVs not only reduces the air pollution in the environment, also helps in conservation of natural resources. Therefore, State of UP will encourage use of HEVs during the transition phase in the state so as to overcome the barriers in migrating to EVs from ICE Vehicles upto 2022. Thereafter, the State aims at promoting use of fuel cell based vehicles, to smoothen transition and reduce pollution. In the transition phase, the State will encourage use of EVs in Public transportation and Goods transportation.

3.3.2. **Public Transportation** - In order to promote EV vehicles in Public Transportation, 1000 EV buses will be introduced by the State by 2030, in phases. 25% in phase I by 2020, remaining 35% in phase II by 2022, and rest 40% in phase III by 2030. Further in this context, green routes will be promoted in the 10 model EM cities (section 4.2 of this policy) to ensure 70% EV public transportation on these routes. Also, all forms of government vehicles, including vehicles under government corporations, boards and government ambulances etc. will be converted to electric vehicles by 2024.

3.3.3. Private Transportation - State Government will promote adoption 2-wheeler EV taxies for short distance mobility, and also encourage transition of Cabs, School buses/vans, Ambulances, etc. towards adoption of electric technology. Further in 10 model EM cities, 50% electric mobility in these segments will be targeted by 2024.

3.3.4. Goods Transportation – State will promote adoption of EV in Goods transportation and will encourage EV-3 Wheelers, 4-Wheelers mini Goods vehicles in 10 Model EM cities. The State aims at achieving 50% EV in Goods Transportation in these top 10 cities by 2024, and all cities by 2030.

Lastly, the State Government will promote EV battery and charging equipment manufacturing in Uttar Pradesh. Also, the state will incentivise manufacturing of Hydrogen-powered fuel cells and Sower powered cells, as an alternative clean energy source.

3.4. **Charging Infrastructure** – Government of Uttar Pradesh will promote development of charging infrastructure as a commercially viable business venture in the state. Towards this -

3.4.1. Public Sector units will be encouraged to set up 'Charging infrastructure' in the state. State will facilitate acquisition of land to such PSUs at concessional rates in designated areas.

3.4.2. The DISCOM will invest in setting up both slow and fast charging networks in government buildings and other public places. These charging points will be accessible to both government as well as private vehicles. DISCOM will plan to setup 100 DC public charging stations in each of the 10 model EM cities (section 4.2 of this policy).

3.4.3. Charging infrastructure in public buildings, and public places shall be developed, and provisions to set up charging outlets, regular electric supply, etc. will be promoted. UPSRTC depots, bus terminals and bus stops will have charging stations. Public parking spaces will be mandated to have charging stations.

3.4.4. In addition to these, to promote EV mobility on prominent highways, such as Yamuna Expressway, Agra-Lucknow Expressway and upcoming expressways including Purvanchal Expressway, with heavy density of vehicles, fast charging stations, battery swapping infrastructure, at every 50kilometers will be promoted.

3.4.5. New apartments, high rise buildings, technology parks in the state will be encourage to make provisions for charging infrastructure for EVs. All new permits for commercial complexes, housing societies and residential townships with a built-up area 5,000 sq.mt and above will mandate charging stations.

3.4.6. In this context, UPERC is already planning Special Power Tariff Policy to facilitate low-cost EV Charging. Time of day sale of power to EVs will be considered to provide cheaper power during non-peak hours.

Nonetheless, the state will develop a strategy towards disposal of EV Batteries, and will promote companies engaged in Battery disposal.

3.5. **Development of Fuel based EV**– Since the prime objective of promoting Electric Vehicles is to de-pollute the transportation system, it is important to reduce the dependency of EVs on traditional sources of electricity or polluting batteries. Adopting a sustainable approach, Government of Uttar Pradesh aims at promoting use of clean fuel for EVs under this policy.

In the transition phase, the state shall promote use of methanol fuel cells for Electric Hybrid Cars. Further, to overcome the hazards of lithium batteries, the State aims at promoting development and use of Hydrogen powered fuel cells and Solar-powered cells. Also, Private developers will be allowed to setup hydrogen stations. Electric Vehicle Battery Units (EBUs) and Service providers will be incentivised to adopt such technologies in UP.

3.6. **Battery recycling ecosystem** – The Battery recycling sector will certainly expand with expansion in EV mobility. The State Government through this

policy aims to develop a management ecosystem for electric car batteries from production to disposal. This will restrict the hazardous materials from entering the waste stream, both at the end of a battery's useful life, as well as during its production. So, the policy will incentivise the battery recycling units using smelting, direct recover or intermediate processes. The State Government would encourage EV manufacturers in the state to establish recycling service outlets and cooperate with battery manufacturing units and scrap merchants to build regional recycling systems.

3.7. **Research and Development** – As EV technologies are still maturing, it is important to encourage participation of academia, industry and other stakeholders to develop low cost technologies, smart design and promote transition to EVs in the state. Towards this, the policy intends to promote development of Battery technologies, charging infrastructure, certification and training. Also, the policy will support development of R&D ecosystem in EV technologies, particularly clean fuel technologies in EVs in the state.

3.8. **Start up and Innovation** – To strengthen the research and innovation ecosystem promoting EV manufacturing and developing relevant technologies in the state, the Govt of UP will also promote startups in this area. Incubation centres facilitating EV mobility or innovative business models will be encouraged at leading engineering institutions. Start-up Fund created under UP IT and Startup Policy 2017 shall also be put to use to promote Startups in this context.

4. Fiscal Incentives

4.1. Incentives to manufacturing units (EVMUs and EBUs) –

4.1.1. **Land Subsidy** – Mega Anchor Project and Ultra mega battery plant as defined in this policy will be reimbursed upto 25% of the cost of land at prevalent circle rate or purchase price, whichever is less. This incentive will be provided only on land purchased in the notified areas in Uttar Pradesh. Such notification will be issued by Government of Uttar Pradesh from time to time.

4.1.2. The defined Large, Anchor EVMUs/EBUs and MSME units will be provided incentives at par to those provided to industrial units under UP IIEPP 2017. These incentives include capital interest subsidy, infrastructure interest subsidy, industrial quality subsidy, Stamp duty and electricity duty exemption, SGST reimbursement, etc.

4.1.3. Technology Transfer for alternate Clean Fuel Mobility – EBUs manufacturing alternate clean sources of fuel for electric mobility, including hydrogen based fuel cells or methanol/biofuel based fuel cells or solar based cells, etc. will be supported in technology transfer –

4.1.3.1. **Anchor EBUs** will be reimbursed 100% cost of technology transfer towards first 5 vendor units and 75% towards next 5 vendor units, subject to maximum INR 50 lakh towards each vendor unit in the same cluster.

4.1.3.2. **Ultra mega Battery plant** will be reimbursed 50% cost of technology transfer, subject to maximum ceiling of INR 10 lakh per annum and overall ceiling of INR 50 lakh. Only 5 such projects will be considered over the period of this policy.

NOTE 1: The incentive will be provided to eligible units after they have obtained a validation certificate on the prototype from Department of Transportation or Uttar Pradesh Pollution Control Board, Government of Uttar Pradesh.

4.2. Incentives to Service Units –

The Service units as defined under this policy will be provided following incentives –

4.2.1. **Capital Subsidy** @25% on fixed capital investment (excluding land cost) to first 100 charging stations subject to maximum Rs 6 lakh per charging station.

4.2.2. **To set up Hydrogen enabled refuelling Infrastructure –** 50% Capital interest subsidy on fixed capital investment (excluding land cost) will be provided for setting up hydrogen generation and fuelling plants in the form of reimbursement to first 10 units in UP, subject to maximum INR 50 lakh per unit over the period of this policy.

4.3. Environment Protection Incentives –

The Large, Anchor EVMUs/EBUs and Service units will be provided following incentives for adopting sustainable and green production measures –

4.3.1. **Setting up Waste Treatment plant** – The Large & Anchor EVMUs/EBUs will be provided subsidy of 50% on annual interest on loan taken in form of reimbursement to set up Waste Treatment Plant for 5years upto maximum INR 1 crore per unit

4.3.2. **For Battery Recycling –** Large, Anchor EBUs and Service units will be provided Capital Interest Subsidy @50% per annum for 5years in the form of reimbursement on loan taken for procuring equipment/machinery for battery recycling subject to maximum ceiling of INR 1 crore per annum.

5. Private EV Parks –

The Government of Uttar Pradesh will provide incentives to the developers of private EV parks & clusters with plug and play facilities. The park must be developed over more than 150 acres of land and must include –

- Manufacturing area (components, sub-components, sub-assemblies, etc.)
- R&D and Testing Centres
- Battery manufacturing/ handling areas
- Common facilities
- Recycling ecosystem, waste treatment facilities, etc.

Towards this, the Government of Uttar Pradesh will provide incentives at par to those provided to Private Industrial Parks & Estates in the state to Private EV Parks & Clusters. (Refer UP IIEPP 2017, Section 3.2.3)

6. Research & Development

Through this policy, Uttar Pradesh not only aims to be green automobile manufacturing hub, but also to be an R&D hub focusing on next generation of battery management systems, drive train components, battery chemistries, fuel cell systems and intelligent transportation systems. Towards this, following provisions will be made -

6.1. **Incubation & Start-ups** – Incubation centres facilitating EV mobility or innovative EM models will be provided incentives as per prevailing UP Startup Policy. The Start-up Fund shall also be mobilised to promote Startups promoting electric mobility in the State.

6.2. **Academic tie up & Research** – Government of Uttar Pradesh will encourage Universities (in India and abroad) with excellence in automobile manufacturing, training and research to tie up with universities, engineering colleges in the State to enhance pedagogy and R&D promoting Electric mobility. Focus will be on next generation battery chemistries, fuel cell

systems, powertrains, automotive electronics and electrical road systems (ERS).

6.3. **Patent & quality certifications** – The MSME units as defined in this policy will be provided financial assistance towards expenses incurred for patent registration and for quality certifications. The financial assistance will be limited to 75% of the cost, subject to a maximum of 25 lakhs for obtaining patent registration and 50% of all charges, subject to a maximum of 5 Lakhs paid for obtaining quality certification.

6.4. **Testing Facilities** – Government of Uttar Pradesh shall strive to set-up quality testing centre for EVs. These facilities would be accessible to all manufacturers and service providers in the sector.

NOTE 2: All incentives to eligible EVMUs, EBUs and Service units as defined in this policy in the form of reimbursement, subsidies, exemptions etc., will be subject to a maximum of 100% of fixed capital investment, subject to annual ceiling of 20% of fixed capital investment.

7. EV mobility incentives –

In order to induce demand and create market for Electric Vehicles in the state, Government of Uttar Pradesh will extend following incentives -

7.1. First 1,00,000 buyers of Private EVs manufactured within the State of Uttar Pradesh over the period of this policy will be provided following exemptions -
  7.1.1. 100% exemption from Vehicle registration fees
  7.1.2. 100% exemption on road tax for 2-wheeler EVs and 75% road tax exemption for other EVs

7.2. Department of Industries, Government of Uttar Pradesh will integrate the mobility incentives provided by Government of India to promote Electric Vehicle and Mobility.

8. Ease of business

Taking forward the vision and mission of State's Industrial Investment and Employment Promotion (IIEP) Policy, 2017, this policy also ensures ease of business in the state.

8.1. **Single Window –** All required approvals to EV manufacturing/ EV battery manufacturing units and service providers shall be provided under one roof through single window system of the state directly monitored by the Chief Minister's office.

8.2. **Single Sanction:** All incentive payments in the form of reimbursement, subsidies, etc. under the policy will be made with a single sanction order and from a single head of account by the nodal agency.

8.3. Simplifying procedures – This policy ensures to rationalise existing regulatory regime and simply procedures by supporting self-certification, deemed approval and third party certification. Towards this goal, the Government of Uttar Pradesh will regularly review all its existing acts, rules and procedures related to industrial services/ clearances/ approvals/ permissions/ licenses and wherever possible.

8.4. Quality Power- Government of Uttar Pradesh is committed to supply 24X7 reliable, quality power to EV/EV Battery manufacturing industry as per provisions in Industrial Investment & Employment Promotion Policy 2017.

8.5. **Power Permits-** DISCOM shall release supply to charging/battery swapping stations within 15days of application. Municipalities shall issue provisional permissions online immediately to setup charging/battery swapping stations. Any verification shall only be post sanction of provisional permission.

8.6. **Industrial Security –** Government of Uttar Pradesh will provide safe and secure industrial environment in the state. Towards this, dedicated police force headed by specialised officer will be deputed at industrial clusters/ areas in regions and integrated police cum fire station will also be established.

9. Implementation of the Policy

9.1. This policy will come into effect on the date of its notification and will remain in force for a period of 5 years.

9.2. If at any stage a situation arises which necessitates any amendment or supersession of the policy, only the cabinet will be authorised to approve such amendments/ supersession.

9.3. In case of any amendment in this policy, if any package of incentives is already committed by the state government to any unit, will not be withdrawn and the unit will continue to remain entitled to the benefits.

Note 3 – All EVMUs, EBUs, Service units and related MSME units availing incentives from any other policy or those sanctioned by the departments of the State government, will also be entitled to avail incentives/benefits mentioned in this policy provided the same kind of benefits/incentives are not being availed from any other policy.

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UTTARAKHAND

उत्तराखण्ड शासन
सूक्ष्म, लघु एवं मध्यम उद्यम अनुभाग
संख्या 1958 /VII-2-18/04(01)–एम0एस0एम0ई0/2018
देहरादूनः दिनांकः 05 अक्टूबर, 2018

कार्यालय–ज्ञाप

राज्यपाल, उत्तराखण्ड राज्य में इलेक्ट्रिक वाहन विनिर्माण की व्यापक सम्भावनाओं को दृष्टिगत रखते हुए इलेक्ट्रिक वाहन विनिर्माण को प्रोत्साहित करने, उच्च स्तरीय बुनियादी ढांचे के सृजन और अनुकूल विनिर्माण पारिस्थितिकी तंत्र को विकसित करने के लिए **उत्तराखण्ड इलेक्ट्रिक वाहन विनिर्माणक, ई0वी0 उपयोग संवर्द्धन और सम्बन्धित सेवा अवसंरचना नीति, 2018** प्रख्यापित किये जाने की सहर्ष स्वीकृति प्रदान करते हैः–

उत्तराखण्ड इलेक्ट्रिक वाहन विनिर्माणक, ई0वी0 उपयोग संवर्द्धन और संबंधित सेवा अवसंरचना नीति, 2018

1. **प्रस्तावनाः**

1.1 इलेक्ट्रिक वाहन प्रौद्योगिकी को परिवहन क्षेत्र में महत्वपूर्ण कदम माना जा रहा है, यह तकनीक प्रदूषण रहित, सस्ती ईंधन लागत, न्यूनतम अनुरक्षण व्यय एवं सुरक्षित होने के साथ ही आर्थिक रूप से भी व्यवहार्य है, केन्द्र सरकार 2030 तक भारत को **"इलेक्ट्रिक वाहन राष्ट्र"** बनाने की योजना बना रही है, जिससे स्वावलम्बी एवं आत्मनिर्भर राष्ट्र की संकल्पना को साकार किया जा सके।

1.2 इलेक्ट्रिक वाहन क्षेत्र में हुये तकनीकी–आर्थिक विकास एवं भारत सरकार के दृष्टिकोण के आधार पर उत्तराखण्ड राज्य में इलेक्ट्रिक वाहन क्षेत्र को विकसित करने के लिये एक नीति लाया जाना आवश्यक प्रतीत होता है।

2. **नीति के उद्देश्यः**

2.1 राज्य में हरित पर्यावरण के सृजन हेतु इलेक्ट्रिक वाहनों के अंगीकरण को प्रोत्साहित करना।

2.2 इलेक्ट्रिक वाहनों (ई.वी.) के निर्माण में निवेश को आकर्षित करने के लिए उत्तराखण्ड को पसंदीदा गंतव्य के रूप में स्थापित करना।

2.3 इलेक्ट्रिक वाहनों की आपूर्ति एवं मांग के क्षेत्र में रोजगार के अवसरों का सृजन।

2.4 आंतरिक दहन (आईसी) इंजन से इलेक्ट्रिक वाहन (ई.वी.) में परिवर्तन हेतु अनुकूल वातावरण का सृजन।

2.5 संक्रमण काल में हाइब्रिड इलेक्ट्रिक वाहनों और प्लग–इन–इलेक्ट्रिक वाहनों के उपयोग को प्रोत्साहन।

2.6 राज्य में विद्युत गतिशीलता को बढ़ावा देने वाले उद्योगों की आवश्यकता की पूर्ति के लिये मानव पूंजी तथा विद्युत क्षमता में वृद्धि।

3. **परिभाषाएंः**

3.1 इस नीति में प्रयोग की गई विभिन्न अभिव्यक्तियों की परिभाषाएं निम्नानुसार हैः–

(क) इलेक्ट्रिक वाहन (ईवी) से एक इलेक्ट्रिक वाहन (ई.वी.) अभिप्रेत है, जो अपनी रिचार्जेबल बैटरी में संग्रहित ऊर्जा का उपयोग करता है, जिसे आम घरेलू बिजली द्वारा रिचार्ज किया जाता है। एक इलेक्ट्रिक वाहन (ई.वी.) प्रणोदन के लिए एक या अधिक इलेक्ट्रिक मोटर का उपयोग करता है। वाहन के प्रकार के आधार पर, रोटरी मोटर्स द्वारा संचालित पहियों या प्रोपेलर्स द्वारा या गतिशील मोटरों द्वारा ट्रैक किए गए वाहनों के मामले में गति प्रदान की जा सकती है। ईवी में औद्योगिक इलेक्ट्रिक स्कूटर, इलेक्ट्रिक

मोटरसाइकिल, इलेक्ट्रिक थ्री व्हीलर, पूर्ण आकार की इलेक्ट्रिक कार, वैन, बसें और अन्य इलेक्ट्रिक यात्री वाहन भी सम्मिलित हैं। केंद्रीय मोटर वाहन नियम 1989 के नियम संख्या 2(प) में दी गयी परिभाषा के अनुसार "बैटरी संचालित वाहन" का अर्थ सड़कों पर प्रयोग किये जाने के लिए अनुकूलित और अनन्य रूप से एक इलेक्ट्रिक मोटर द्वारा संचालित वाहन से है, जिसकी संकर्षण ऊर्जा की आपूर्ति केवल वाहनों में लगायी गयी संकर्षण बैटरी से होती है;

(ख) **"ईवी घटक"** से ईवी घटक के मोटर नियंत्रक, विद्युत इंजन (मोटर), पुर्नउत्पादक ब्रेकिंग, ड्राइव सिस्टम और संबंधित घटक/असेंबलीज अभिप्रेत है;

(ग) इलेक्ट्रिक वाहन बैटरी (ईवीबी) या संकर्षण बैटरी से ऐसी बैटरी अभिप्रेत है; जो इलेक्ट्रिक वाहनों (ई.वी.) के प्रणोदन को शक्ति देने के लिए उपयोग की जाती है। वाहन बैटरी आमतौर पर एक द्वितीयक (रिचार्जेबल) बैटरी होती है। इस नीति में उल्लिखित प्रोत्साहन 'एडवांस बैटरी' से न्यू जनरेशन लेड रहित बैटरी जैसेः लिथियम पॉलिमर, लिथियम आयरन फॉस्फेट, निकल मेटल हाइब्रिड, जिंक एयर, सोडियम एयर, निकेल जिंक, लिथियम एयर इत्यादि, अभिप्रेत है;

(घ) **"इलेक्ट्रिक वाहन और इसकी घटक विनिर्माण इकाई (ईवीएमयू)"** में इलेक्ट्रिक वाहन व उनके घटक जैसे मोटर्स, पावर इलेक्ट्रॉनिक किट इत्यादि के निर्माण/असेंबलिंग में शामिल सभी विनिर्माण उद्यम सम्मिलित हैं;

(ड़) **"ईवी बैटरी विनिर्माण (ईबीयू)"** में सभी ईवी बैटरी विनिर्माण या असेंबलिंग इकाइयां सम्मिलित हैं;

(च) **ईवी बैटरी घटक,** से इलेक्ट्रिक वाहनों (ई.वी.) के लिए बैटरी पैक डिजाइन जो कई यांत्रिक और विद्युत घटक प्रणालियों के संयोजन को सम्मिलित करते हैं तथा जो पैक के मूल आवश्यक कार्यों को निष्पादित करते हैं अभिप्रेत हैं, बैटरी पैक में कुल वोल्टेज और विद्युत धारा प्राप्त करने के लिए कई अलग–अलग सेल श्रेणी व समानांतर क्रम में संयोज़ित होते हैं। एक बैटरी में मॉड्यूल नामक छोटे स्टैक्स होते हैं, जिन्हें एक ही पैक में रखा जाता है। मॉड्यूल में शीतलन तंत्र, तापमान मॉनीटर, अन्य डिवाइस और बैटरी प्रबंधन प्रणाली (बीएमएस) भी सम्मिलित हैं;

(छ) **"इलेक्ट्रिक वाहन चार्जिंग स्टेशन"**, जिसे ईवी चार्जिंग स्टेशन, इलेक्ट्रिक रिचार्जिंग पॉइंट, चार्जिंग पॉइंट, चार्ज पॉइंट और ईवीएसई (इलेक्ट्रिक वाहन सप्लाई उपकरण) भी कहा जाता है, से बुनियादी ढांचे का एक तत्व अभिप्रेत है, जो विद्युत ऊर्जा की आपूर्ति व बिजली के वाहनों की रिचार्जिंग करता है। चार्जिंग स्टेशन उपकरण में केवल फास्ट चार्जिंग स्टेशनों से संबंधित चार्जिंग पोस्ट, कैबिनेट चार्जिंग, पावर डिस्ट्रीब्यूशन उपकरण आदि के साथ एकीकृत स्वचालित चार्जिंग स्टेशन सम्मिलित हैं;

(ज) **ईवी चार्जिंग इंफ्रास्ट्रक्चर** में निम्नलिखित चार प्रकार की चार्जिंग सुविधाएं सम्मिलित हैं, अर्थातः

(i) घरेलू उपयोगकर्ता सुविधा (व्यक्तिगत)।

(ii) सार्वजनिक चार्जिंग सुविधा (सरकारी सुविधाएं, बस डिपो, रेलवे स्टेशन इत्यादि)।

(iii) सामान्य चार्जिंग सुविधा (मॉल, आवासीय भवन, शैक्षणिक संस्थान इत्यादि)।

(iv) वाणिज्यिक चार्जिंग सुविधा (सड़क के किनारे, ईंधन स्टेशन आदि)।

(झ) **सेवा उद्यम** से गतिशील सेवा प्रदान करने वाली इकाईयां/स्लो चार्जिंग स्टेशन और/या बैटरी स्वैपिंग स्टेशन टू–व्हीलर, थ्री–व्हीलर, कार, बसें और अन्य फोर–व्हीलर इलेक्ट्रिक वाहन अभिप्रेत है, इसमें ईवी और बैटरी की मरम्मत और रखरखाव के स्टेशन भी सम्मिलित हैं;

(ञ) सूक्ष्म, लघु और मध्यम ईवी उद्यमों से सूक्ष्म, लघु एवं मध्यम उद्यम विकास अधिनियम, 2006 (अधिनियम सं0 27 वर्ष 2006) के अंतर्गत सूक्ष्म, लघु एवं मध्यम उद्यम की परिभाषा में आने वाले ईवी उद्यम अभिप्रेत है;

(ट) **वृहद ईवी उद्यम** से ऐसे ईवी उद्यम अभिप्रेत है, जहां विनिर्माण गतिविधियों के सम्बन्ध में संयंत्र और मशीनरी पर निवेश रू. 10 करोड़ से रू. 50 करोड़ तक हो और सेवा प्रदाता गतिविधियों के सम्बन्ध में उपस्कर (equipment) में निवेश रू. 5 करोड़ से रू. 50 करोड़ तक हो।

(ठ) **लार्ज, मैगा तथा अल्ट्रा मैगा उद्यम/परियोजनाओं** से मैगा इण्डस्ट्रियल एण्ड इन्वेस्टमेंट नीति, 2015 में परिभाषित लार्ज, मैगा तथा अल्ट्रा मैगा उद्यम/परियोजनाएं अभिप्रेत हैं,

(ड) अचल परिसम्पत्तियों से भूमि, भवन, प्लांट व मशीनरी तथा अन्य ऐसे उपकरण जो सीधे उत्पादन प्रक्रिया से जुड़े हुए हैं; जैसे, टूल्स, जिक्स, डाईज, मोल्ड्स, यूटिलिटीज एवं अन्य हैण्डलिंग उपकरण अभिप्रेत हैं;

4. नीति का कार्यान्वयनः

4.1 यदि किसी भी स्तर पर ऐसी स्थिति उत्पन्न होती है जिसके लिए नीति मे किसी भी संशोधन या अधिक्रमण की आवश्यकता हो, तो केवल शासन यथा प्रक्रिया ऐसे संशोधन/अधिक्रमण को मंजूरी देने के लिए अधिकृत होगा।

4.2 यह नीति राज्य की मेगा औद्योगिक और निवेश नीति 2015, वृहद औद्योगिक निवेश एवं रोजगार प्रोत्साहन नीति–2018 तथा एम0एस0एम0ई0 नीति–2015 की पूरक है।

4.3 इस नीति के अन्तर्गत प्रोत्साहनों का दावा करने वाली पात्र इकाईयां मेगा औद्योगिक और निवेश नीति 2015 के अन्तर्गत प्रोत्साहन का दावा कर सकती हैं, यदि इस नीति में समान/समरूप शीर्ष के अधीन कोई प्रोत्साहन उपलब्ध नहीं है।

4.4 इस नीति के अंतर्गत पात्र इकाइयां एम0एस0एम0ई0 नीति–2015 तथा वृहद औद्योगिक निवेश एवं रोजगार प्रोत्साहन नीति, 2018 में प्रदत्त वित्तीय प्रोत्साहनों के लिए अर्हता के आधार पर दावा कर सकती हैं, यदि इस नीति में समान/समरूप शीर्ष के अधीन कोई प्रोत्साहन उपलब्ध नहीं है।

4.5 इस नीति में उल्लिखित प्रोत्साहन, लैड के साथ प्रमुख रासायनिक तत्व के रूप में "परम्परागत बैटरी" के असेम्बलिंग/विनिर्माण के लिये सभी उपलब्ध प्रोत्साहन का 50 प्रतिशत होगा।

5. नीतिगत ढांचा :

5.1 इलेक्ट्रिक वाहनों में परिवर्तनः

दहनशील वाहनों से इलेक्ट्रिक वाहन में परिवर्तन के लिए, उत्तराखण्ड सरकार हाइब्रिड इलेक्ट्रिक वाहनों को बढ़ावा देगी और राज्य में एचईवी की मांग को बढ़ावा देने के लिए प्रोत्साहन प्रदान करेगी। संक्रमणकाल में, राज्य सरकार सार्वजनिक परिवहन और वस्तुओं के परिवहन में ईवीएस के उपयोग को प्रोत्साहित करेगी। भारत सरकार द्वारा दीर्घ काल के लिये तय किये जा रहे Transition के मानकों के अनुरूप कार्यवाही की जायेगी।

5.2 लोक परिवहनः

लोक परिवहन में ईवी को बढ़ावा देने के लिए, संसाधनों की उपलब्धता के आधार पर चरणबद्ध ढंग से वर्ष 2030 तक की कार्ययोजना परिवहन विभाग अलग से निर्धारित करेगा।

इस संदर्भ में ईवी लोक परिवहन के लिए देहरादून, हरिद्वार, ऋषिकेश, रुद्रपुर, काशीपुर और हल्द्वानी तथा इनके मध्य इंटरसिटी रूट्स पर हरित मार्गों को बढ़ावा दिया जाएगा।

5.3 निजी परिवहनः

राज्य सरकार कम दूरी की गतिशीलता के लिए ईवी टू–व्हीलर और ईवी कारों को अपनाने के लिए बढ़ावा देगी, और इलेक्ट्रिक प्रौद्योगिकी को अपनाने के लिए कैब्स, स्कूल बसों/वैन, एम्बुलेंस इत्यादि के ट्रांजीशन को भी प्रोत्साहित करेगी। पांच प्रमुख शहरों– देहरादून, हरिद्वार, हल्द्वानी, रुद्रपुर और काशीपुर में वर्ष 2025 तक अधिक विद्युत गतिशीलता का प्रयास किया जायेगा।

5.4 माल परिवहन–

माल परिवहन में ईवी की स्वीकार्यता को बढ़ावा देने के लिए, देहरादून, हरिद्वार, ऋषिकेश, रुद्रपुर, काशीपुर में ईवी– थ्री–व्हीलर, फोर–व्हीलर और छोटे माल वाहनों को प्रोत्साहित किया जाएगा।

राज्य सरकार उत्तराखण्ड में ईवी बैटरी और चार्जिंग उपकरण निर्माण को बढ़ावा देगी। उत्तराखण्ड सरकार उच्च लाभ सहित लिथियम बैटरी के निर्माण को भी प्रोत्साहित करेगी।

5.5 चार्जिंग इंफ्रास्ट्रक्चर–

5.5.1 उत्तराखण्ड सरकार, राज्य में चार्जिंग अवस्थापना सुविधाओं के विकास के लिए व्यवहार्य व्यवसायिक उद्यम को प्रोत्साहित करेगी, इसके लिएः–

(i) सार्वजनिक क्षेत्र की इकाईयों को राज्य में चार्जिंग इंफ्रास्ट्रक्चर स्थापित करने के लिए प्रोत्साहित किया जाएगा।

(ii) सार्वजनिक भवनों और स्थानों में आधारभूत संरचना विकसित की जायेगी और चार्जिंग आउटलेट, नियमित विद्युत आपूर्ति आदि को स्थापित किये जाने की व्यवस्था करते हुए इन्हें प्रोत्साहित किया जायेगा।

(iii) इसके अतिरिक्त, प्रमुख राजमार्गों पर वाहनों की सघनता को प्रोत्साहित करने के लिए प्रत्येक 50 किलोमीटर की दूरी पर यथासंभव गतिशील चार्जिंग स्टेशन, बैटरी स्वैपिंग इंफ्रास्ट्रक्चर को प्रोत्साहित किया जाएगा।

(iv) राज्य में नए अपार्टमेंट, ऊंची इमारतों, प्रौद्योगिकी पार्कों में ईवी चार्जिंग इंफ्रास्ट्रक्चर को विकसित किया जायेगा। राज्य ईवी बैटरी के निस्तारण के लिए रणनीति विकसित करेगा, और बैटरी डिस्पोजल में लगी हुई कंपनियों को बढ़ावा देगा।

(v) हाइड्रोजन संचालित ईंधन कोशिकाओं, या सौर संचालित कोशिकाओं के लिए स्वच्छ ईंधन और नवीकरणीय ऊर्जा आधारित चार्जिंग/बैटरी स्वैपिंग स्टेशन को बढ़ावा दिया जायेगा।

5.5.2 इस संदर्भ में, राज्य सरकार निजी निवेशकों को राज्य में ईवी चार्जिंग सिस्टम और आधारभूत संरचना स्थापित करने के लिए प्रोत्साहित करेगी। उत्तराखण्ड सरकार विद्युत आपूर्ति स्टेशनों को वाणिज्यिक व्यवहार्य दरों के साथ विशेष डे–टाइम टैरिफ की सुविधा प्रदान करने पर विचार करेगी। इस नीति में अधिसूचना जारी होने के छः माह के भीतर ऊर्जा विभाग, उत्तराखण्ड शासन इस संदर्भ में भारत सरकार तथा अन्य राज्यों की नीति का संज्ञान लेकर विशेष पॉवर टैरिफ पॉलिसी लाने पर विचार कर सकता है।

5.6 संक्रमण काल (ट्रांजीशन पीरियड) के दौरान हाइब्रिड ईवीएस (एचईवी) को प्रोत्साहनः

एचईवी आंतरिक दहन इंजन प्रणोदन प्रणाली और विद्युत मोटर प्रणोदन प्रणाली दोनों का संयोजन है। एचईवी का उपयोग न केवल पर्यावरण में वायु प्रदूषण को कम करता है, बल्कि प्राकृतिक संसाधनों के संरक्षण में भी मदद करता है। अतएव, उत्तराखण्ड राज्य संक्रमणकाल के दौरान भी एचईवी के उपयोग को प्रोत्साहित करेगा।

5.7 ईवी विनिर्माण क्षेत्र/पार्कः

उत्तराखण्ड सरकार ने राज्य को ईवी विनिर्माण केंद्र के रूप में विकसित करने के लिए व्यापक सुविधाओं के साथ गुणवत्तायुक्त बुनियादी ढांचे के निर्माण की परिकल्पना की है। इसके लिए, ईवी विनिर्माण क्षेत्र और पार्कों को बढ़ावा दिया जाएगा और यह अपशिष्ट निस्तारण, सीवेज उपचार, परीक्षण सुविधाओं आदि सहित सामान्य बुनियादी ढांचे से सुसज्जित होंगे।

5.8 स्वच्छ ईंधन का उपयोगः

चूंकि इलेक्ट्रिक वाहनों को बढ़ावा देने का मुख्य उद्देश्य परिवहन प्रणाली को प्रदूषण मुक्त करना है, इसलिए बिजली के पारंपरिक स्त्रोत पर ईवी की निर्भरता को कम करना महत्वपूर्ण है। एक सतत अवधारणा को अपनाते हुए उत्तराखंड सरकार का उद्देश्य इस नीति के अन्तर्गत इलेक्ट्रिक वाहनों के लिए स्वच्छ ईंधन के उपयोग को बढ़ावा देना है। संक्रमणकाल में, राज्य इलेक्ट्रिक हाईब्रिड कारों के लिए मेंथाल ईंधन सेल के उपयोग को बढ़ावा देगा। इसके अलावा, लिथियम बैटरी के खतरों को दूर करने के लिए, राज्य का उद्देश्य हाइड्रोजन संचालित ईंधन सेल और सौर–संचालित सेल के विकास एवं उपयोग को बढ़ावा देना है। उत्तराखंड में ऐसी प्रौद्योगिकी को अपनाने के लिए इलेक्ट्रिक वाहन बैटरी इकाइयों (ईबीयू) और सेवा प्रदाताओं को प्रोत्साहित किया जाएगा।

5.9 अनुसंधान और विकासः

चूंकि ईवी प्रौद्योगिकी अभी विकसित हो रही है, इसलिए कम लागत वाली प्रौद्योगिकी, स्मार्ट डिजाइन और राज्य में ईवीएस में संक्रमण को बढ़ावा देने के लिए अकादमिक, उद्योग और अन्य हितधारकों की भागीदारी को प्रोत्साहित करना महत्वपूर्ण है। इसके लिए नीति, बैटरी प्रौद्योगिकी के विकास को बढ़ावा देने, बुनियादी ढांचे, प्रमाणन और प्रशिक्षण चार्ज करने का इरादा रखती है। इसके अलावा, यह नीति ईवी प्रौद्योगिकी में अनुसंधान और विकास पारिस्थितिकी तंत्र प्रौद्योगिकी को विकसित करने, विशेष रूप से राज्य में ईवीएस में स्वच्छ ईंधन प्रौद्योगिकी को सहायता प्रदान करेगी।

5.10 स्टार्टप्स और नवोन्मेषः

राज्य में ईवी विनिर्माण तथा प्रासंगिक प्रौद्योगिकी के विकास को प्रोत्साहित करने के लिए अनुसंधान और नवोन्मेष पारिस्थितिक तंत्र को मजबूत किया जायेगा। उत्तराखंड सरकार इस क्षेत्र में स्टार्टअप को भी प्रोत्साहित करेगी। अग्रणी इंजीनियरिंग संस्थानों में ईवी गतिशीलता या अभिनव व्यावसायिक मॉडल की सुविधा प्रदान करने वाले ऊष्मायन केंद्रों (Incubation Centre) को प्रोत्साहित किया जाएगा। उत्तराखंड सूचना प्रौद्योगिकी और स्टार्टअप नीति के तहत बनाए गए स्टार्ट–अप कोष का भी इस संदर्भ में उपयोग किया जाएगा।

5.11 कौशल विकासः

उद्योग की मानवशक्ति की आवश्यकताओं को बढ़ाने के लिए, ईवी कौशल केंद्रों को उद्योग के सहयोग से स्थापित किया जाएगा। क्षेत्रीय पाठ्यक्रम और कोर्सेज, पेशेवर संस्थानों, पॉलिटेक्निक और अन्य व्यावसायिक शिक्षा संस्थानों में शुरू किये जायेंगे। उद्योग की जरूरतों के अनुसार विद्युत गतिशीलता, मरम्मत और रखरखाव, बैटरी विनिर्माण और रखरखाव पर अल्पकालिक कोर्सेज भी शुरू

किये जायेंगे। ऐसी सेवाएं प्रदान करने वाली इकाइयों, प्रशिक्षुओं/छात्रों के लिए वित्तीय प्रोत्साहन बढ़ाया जाएगा। इन गतिविधियों को उत्तराखंड कौशल विकास मिशन एवं तकनीकी शिक्षा विभाग के तत्वावधान में किया जाएगा।

5.12 **विद्युत क्षमता को बढ़ानाः**

इलेक्ट्रिक वाहनों का उच्चतर बाजार में प्रवेश विद्यमान विद्युत आपूर्ति, विशेष रूप से कम वोल्टेज (एलवी) वितरण ग्रिड पर दबाव डालेगा। इसलिए, उत्तराखंड सरकार बढ़ती विद्युत मांगों को पूरा करने के लिए राज्य में विद्युत आपूर्ति बढ़ाने के लिए सामरिक रोडमैप तैयार करेगी।

5.13 **सतत पारिस्थितिकी तंत्र समर्थनः**

इलेक्ट्रिक वाहनों के सेवा प्रदाताओं को राज्य द्वारा सोलर ग्रिड से परिवर्तनशील टैरिफ रेट्स पर विद्युत आपूर्ति के लिए प्रोत्साहित किया जाएगा। इसके अलावा, उत्तराखंड सरकार स्मार्ट चार्जर्स और बड़े पैमाने पर चार्जिंग स्टेशनों को प्रोत्साहित करेगी। इसलिए, सेवा प्रदाता को पार्किंग स्पेस पर चार्जिंग इंफ्रास्ट्रक्चर स्थापित करने, विशेष क्षेत्रों, जहां पर अधिकांश कार्यालय स्थित हैं, में सामान्य पार्किंग स्पेस विकसित करने और अन्य सार्वजनिक स्थानों पर सामान्य चार्जिंग स्पेस की स्थापना के लिए प्रोत्साहित किया जाएगा।

6. <u>इलेक्ट्रिक वाहन विनिर्माणकर्ताओं को प्रोत्साहनः</u>

उत्तराखण्ड राज्य में स्थापित होने वाले उद्यम/इकाई/संयंत्र, जिन्हें इस नीति में इलेक्ट्रिक वाहन मैन्यूफैक्चरिंग यूनिट्स और/या इलेक्ट्रिक बैटरी मैन्यूफैक्चरिंग यूनिट्स के रूप में परिभाषित किया गया है, निम्नलिखित प्रोत्साहनों के लिए पात्र होंगेः

(i) **ब्याज उपादानः** अनुसूचित वाणिज्यिक बैंक/वित्तीय संस्था से लिये गये सावधि ऋण (Term Loan) पर देय ब्याज में उत्पादन प्रारम्भ करने की तिथि से 5 वर्ष तक के लिए एम0एस0एम0ई0 यूनिट्स को एम0एस0एम0ई0 नीति, 2015, रू0 10 करोड़ से रू0 50 करोड़ के बृहद उद्यमों को वृहद औद्योगिक निवेश एवं रोजगार प्रोत्साहन नीति–2018 तथा लार्ज, मैगा व अल्ट्रा मैगा उद्यमों को मैगा इण्डस्ट्रियल पॉलिसी, 2015 के उपबन्धों के अनुरूप।

(ii) **इलेक्ट्रिसिटी ड्यूटी की प्रतिपूर्तिः** वाणिज्यिक उत्पादन प्रारम्भ करने की दिनांक से 5 वर्ष तक के लिए विद्युत बिलों में देय इलेक्ट्रिसिटी ड्यूटी की शत प्रतिशत प्रतिपूर्ति।

(iii) **स्टाम्प शुल्क प्रभार से छूटः** एम0एस0एम0ई0 नीति, 2015, मैगा इण्डस्ट्रियल एवं इन्वेस्टमेंट नीति, 2015 तथा वृहद औद्योगिक निवेश एवं रोजगार प्रोत्साहन नीति, 2018 के उपबन्धों के अनुरूप।

(iv) **ईपीएफ प्रतिपूर्तिः** ईवी क्षेत्र में ऐसी सभी नई इकाइयां, जिन्होने 100 या उससे अधिक कुशल/अकुशल कर्मकरों को सीधे सेवायोजित किया है, वाणिज्यिक उत्पादन प्रारम्भ करने के दिनांक से 10 वर्ष के लिए, ईपीएफ अभिदान के 50 प्रतिशत मात्रा की प्रतिपूर्ति, अधिकतम सीमा रू. 2 करोड़।

(v) **एसजीएसटी प्रतिपूर्तिः** B2C को विक्रय किये गये तैयार माल पर इनपुट टैक्स क्रेडिट के समायोजन के पश्चात उत्पादन प्रारम्भ करने की तिथि से 5 वर्ष के लिए, रू0 10 करोड़ से रू0 50 करोड़ के वृहद उद्यमों एवं एम0एस0एम0ई0 क्षेत्र के उद्यमों को 30 प्रतिशत और लार्ज, मैगा तथा अल्ट्रा मैगा उद्यमों को मैगा इण्डस्ट्रियल पॉलिसी, 2015 के प्राविधानों के अनुरूप (30 प्रतिशत/50 प्रतिशत)

(vi) **सिडकुल औद्योगिक क्षेत्रों में भूमि की लागत में छूटः** लार्ज, मैगा तथा अल्ट्रा मैगा उद्यमों को मैगा इण्डस्ट्रियल पॉलिसी, 2015 तथा रू0 10 करोड़ से रू0 50 करोड़ के वृहद उद्यमों को बृहद औद्योगिक निवेश एवं रोजगार प्रोत्साहन नीति, 2018 के उपबन्धों के अनुरूप।

(vii) **ई0टी0पी0 उपादानः** मैगा इण्डस्ट्रियल पॉलिसी, 2015 के उपबन्धों के अनुरूप रू0 10 करोड़ से रू0 50 करोड़ के अनुसार।

राज्य में इलेक्ट्रिक वाहन क्षेत्र अभी भी प्रारम्भिक चरण में है और इसे समर्थन व प्रोत्साहन की आवश्यकता है। राज्य के सभी हिस्सों में इस क्षेत्र को बढ़ावा देने के लिए एक एकल क्षेत्र के रूप में वर्गीकृत किया गया है और प्रस्तावित रियायतें राज्य के सभी हिस्सों में समान रूप से लागू होंगी।

7. **पर्यावरण संरक्षण प्रोत्साहन :**

चूंकि इलेक्ट्रिक वाहन और बैटरी विनिर्माण उद्योग प्रकृति को प्रदूषणमुक्त कर रहा है, इसलिए राज्य में पर्यावरण अनुकूल विनिर्माण को बढ़ावा देने के लिए ई.टी.पी. संयंत्र की स्थापना में किये गये पूंजीगत व्यय पर रू0 10 करोड़ से 50 करोड़ के उद्यमों को वृहद औद्योगिक निवेश एवं रोजगार प्रोत्साहन नीति, 2018 तथा लार्ज, मैगा एवं अल्ट्रा मैगा उद्यमों को मैगा इण्डस्ट्रियल पॉलिसी, 2015 के उपबन्धों के अनुरूप प्रोत्साहन प्रदान किये जायेंगे।

8. **ईवी गतिशीलता प्रोत्साहन :**

राज्य में इलेक्ट्रिक वाहनों की मांग को प्रेरित करने तथा बाजार के सृजन के लिए, उत्तराखंड सरकार निम्नलिखित प्रोत्साहनों का विस्तार करेगी:–

(i) **क्रेताओं को कर में छूटः** उत्तराखंड राज्य के भीतर ईवीएस के **पहले एक लाख क्रेताओं को** नीति के प्रभावी रहने के दौरान निम्नलिखित छूट प्रदान की जाएगी–

(a) पांच वर्ष हेतु मोटरयान कर से शत प्रतिशत छूट।

(b) पंजीकरण की तिथि से 5 वर्ष के लिए वाणिज्यिक वाहनों के लिए स्टेज कैरिज परमिट शुल्क पर शत प्रतिशत छूट।

(ii) **विभागीय नीतियों के अंतर्गत इलेक्ट्रिक वाहन (Electrical Vehicle) सेवा उद्यमों को प्रोत्साहन सहायताः** इस नीति के अन्तर्गत एम0एस0एम0ई0 तथा रू0 10 से रू0 50 करोड़ की श्रेणी के ई0वी0 बैटरी चार्जिंग/संबंधित अवसंरचनात्मक उद्यमों को विभागीय नीतियों में वित्त पोषित परियोजना बनाया जायेगा।

9. **अन्य प्रोत्साहनः**

9.1 **कौशल विकासः** ईवी/एचईवी कॉम्पोनेंट विनिर्माणक तथा बैटरी मरम्मत/रखरखाव आदि की कौशल प्रशिक्षण प्रदान करने वाली इकाइयों को, 50 प्रशिक्षार्थियों के लिए 6 माह तक प्रतिमाह रू. 1000 प्रति प्रशिक्षार्थी की दर से प्रशिक्षण प्रतिपूर्ति सहायता दी जायेगी। ऐसी इकाइयों को उत्तराखंड कौशल विकास मिशन तथा तकनीकी शिक्षा विभाग के अंतर्गत पी0आई0ए0 के रूप में सूचीबद्ध और उत्तराखण्ड कौशल विकास से अनुमोदित पाठयक्रमों के अनुरूप प्रशिक्षण प्रदान करना होगा।

9.2 **रूट परमिटः** राज्य में विभिन्न शहरों/नगरों के अन्दर नगर बस सेवा के लिए रूट परमिट प्राप्त करने हेतु इलेक्ट्रिक वाहनों को प्राथमिकता दी जायेगी।

9.3 **प्रदूषण नियंत्रण प्रमाणपत्र (पीयूसी) से छूट** इलेक्ट्रिक वाहनों को मोटर वाहन अधिनियम, यदि लागू हो, के अधीन प्रदूषण नियंत्रण प्रमाणपत्र से छूट दी जायेगी।

10. **ईज ऑफ डुईंग बिजनेसः**

राज्य की मेगा औद्योगिक और निवेश नीति, 2015 की दृष्टि और लक्ष्य को आगे बढ़ाते हुए, यह नीति राज्य में व्यवसाय की उपलब्धता को सुनिश्चित करती है।

10.1 **एकल खिड़की:** ईवी विनिर्माण/ईवी बैटरी विनिर्माणक और सेवा प्रदाताओं इकाईयों की स्थापना के लिए अपेक्षित सभी आवश्यक अनुमोदन राज्य की एकल खिड़की प्रणाली के माध्यम से सीधे दिये जायेंगे।

10.2 **श्रमिक अनुज्ञा:** उत्तराखंड सरकार ईवी/ईवी बैटरी विनिर्माणक उद्योगों को श्रम सम्बन्धी विधियों के अधीन रहते हुये अनुमति प्रदान करेगी।

11. इलेक्ट्रिक वाहनों को प्रोत्साहन दिये जाने हेतु निम्नलिखित सुविधायें भी अतिरिक्त रूप में प्रदान की जायेंगी:–

(i) इलेक्ट्रिक वाहनों को परमिट उदार नीति से जारी किये जायें।

(ii) इलेक्ट्रिक बसों की उच्च लागत को देखते हुए मोटरयान अधिनियम 1988 की धारा 71 के अन्तर्गत किये गये प्राविधान के अनुसार प्रथम चरण में उत्तराखण्ड परिवहन निगम की वाहनों को परमिट जारी करने में प्राथमिकता प्रदान की जाय।

(iii) सिटी बसों को परमिट जारी करने की स्थिति में इलेक्ट्रिक वाहनों के स्वामियों को प्राथमिकता प्रदान की जाय।

(iv) संभागीय परिवहन प्राधिकरणों द्वारा इलेक्ट्रिक बसों के लिये ऐसे मार्गों के निर्धारण हेतु प्रस्ताव उपलब्ध कराये जायेंगे, जिससे इन वाहनों के सफल संचालन की संभाव्यता सुनिश्चित हो सके।

(v) इलेक्ट्रिक बसों को केन्द्रीय मोटरयान नियमावली, 1989 के नियम 115 के अन्तर्गत प्रदूषण नियंत्रण प्रमाण पत्र से भी छूट प्रदान की जायेगी।

12. **प्रारम्भ:**

उत्तराखण्ड इलेक्ट्रिक वाहन विनिर्माणक, ई0वी0 उपयोग संवर्द्धन और संबंधित सेवा अवसंरचना नीति, 2018 गजट में प्रकाशित होने की दिनांक से लागू होगी और पाँच वर्ष की अवधि के लिए प्रभावी रहेगी।

(मनीषा पंवार)
प्रमुख सचिव।

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प्रतिलिपिः–निम्नलिखित को सूचनार्थ एवं आवश्यक कार्यवाही हेतु प्रेषितः–

1 सचिव, श्री राज्यपाल, उत्तराखण्ड।
2 प्रमुख सचिव, मा0 मुख्यमंत्री, उत्तराखण्ड शासन।
3 निजी सचिव–मा0 मंत्री, सूक्ष्म, लघु एवं मध्यम उद्यम विभाग, उत्तराखण्ड सरकार।
4 मुख्य सचिव, उत्तराखण्ड शासन।
5 अपर मुख्य सचिव एवं स्थापना विकास आयुक्त, उत्तराखण्ड शासन।
6 अपर मुख्य सचिव एवं आयुक्त, वन एवं ग्राम्य विकास, उत्तराखण्ड शासन।
7 समस्त प्रमुख सचिव / सचिव / प्रभारी सचिव, उत्तराखण्ड शासन।
8 समस्त विभागाध्यक्ष, उत्तराखण्ड।
9 आयुक्त गढवाल / कुमाऊ मण्डल, उत्तराखण्ड।
10 महानिदेशक / आयुक्त, उद्योग, उद्योग निदेशालय, उत्तराखण्ड।
11 समस्त जिलाधिकारी, उत्तराखण्ड।
12 प्रबंध निदेशक, सिडकुल, देहरादून।
13 मुख्य स्थानिक आयुक्त, उत्तराखण्ड, नई दिल्ली।
14 मुख्य निवेश आयुक्त, उत्तराखण्ड, नई दिल्ली।
15 सचिव, गोपन, उत्तराखण्ड शासन।
16 समस्त क्षेत्रीय प्रबंधक, राष्ट्रीयकृत बैंक, उत्तराखण्ड।
17 एन0आई0सी0 सचिवालय परिसर, देहरादून।
18 गार्ड फाईल।

आज्ञा से,

(राजेन्द्र सिंह बिष्ट)
उप सचिव।