Uttar Pradesh Electric Vehicles Manufacturing Policy 2018

Preamble

Electric Vehicles are widely gaining market across the globe. The automotive industry is rapidly shifting from traditional fuel based technology to eco-friendly technologies. 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 of decarbonising the transport system.

Market for Electric Vehicles is expanding and new registrations for Electric Vehicles crossed over 750,000 sales worldwide, hitting a new world record in 2016. The global Electric Car stock doubled between 2015 and 2016 and surpassed 2 million vehicles in 2016. With rapid expansion in electric vehicles on road, 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 in 2016 on global level.

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. It is estimated that more than 25million vehicles were produced in FY17, reporting a jump of 5.41% from the previous fiscal. This includes passenger vehicles, commercial vehicles, three wheelers and two-wheelers. Since the industry is seen to largely contribute to pollution, the government has been aggressively trying to control the situation. Promoting Electric Vehicles in a core component of this endeavour.

In order to boost the manufacturing of hybrid and electric vehicles in India, Govt 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 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, thereby creating wide opportunities in EV manufacturing.

So far under Union Government’s FAME scheme, incentives worth INR 211.74 Crores have been disbursed, enabling 1,77214 are on roads, saving 21.3 lac litres of fuel and reducing 104553 kgs of Carbon Dioxide per day. The government has determined to curb polluting emissions from automobile industry and envisions to switch to 100%

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hybrid or electric vehicles by 2030. Uttar Pradesh has been the third largest beneficiary under the FAME scheme, with 14,564 EVs on road, largely comprising 2-Wheelers (max power not exceeding 250 Watts), followed by 4-wheelers (passenger cars – Category M1 as per CMVR)⁴.

Recent developments in EV market in India have been positive, with Tata Motors has rolling out its first batch of Tigor EV, as part of the tender for 10,000 electric vehicles floated by the Government’s EESL⁵. Similarly, Suzuki and Toyota have teamed up to bring electric vehicles to India by 2020, Ola and Indian Oil have launched the country’s first charging station in Nagpur.

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 2027⁶.

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 2030⁷. Prices of Lithium Batteries are rapidly going down, thereby making EVs cheaper. Presently, average cost of a Lithium Battery is around INR 19,500/kWh (2017-18), which is estimated to go down to INR 9,945/kWh⁸ by 2022-23. Electric Vehicles Storage Opportunities (in GW) in India is anticipated to grow at CAGR 44% till 2022⁹.

<table>
<thead>
<tr>
<th>Segment / Year</th>
<th>EV Motorcycles and Scooter</th>
<th>EV Auto rickshaw</th>
<th>EV Cars &amp; Jeeps</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2020</td>
<td>73,52,000</td>
<td>6,46,000</td>
<td>26,000</td>
<td>80,24,000</td>
</tr>
<tr>
<td>2025</td>
<td>1,40,35,000</td>
<td>23,64,000</td>
<td>15,92,000</td>
<td>1,79,91,000</td>
</tr>
<tr>
<td>2030</td>
<td>2,65,14,000</td>
<td>40,72,000</td>
<td>1,59,11,000</td>
<td>4,64,97,000</td>
</tr>
</tbody>
</table>

Source: NITI Aayog and RMI Analysis, November 2017

Since Uttar Pradesh is country’s largest consumer base, the Electric Vehicle market is set to boom in the State. The State’s capital is one of the 10-cities identified for pilot project of Multi-Modal Electric Public Transport under FAME India Scheme of Govt of

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The e-rickshaw market is already booming in the State, and transition in 2-wheelers, 4-wheelers and specifically in public transportation will be witnessed gradually. The State is committed to control pollution from automobile industry.

The State is determined to strengthen and expand the industrial base in the Uttar Pradesh, and has therefore launched its Industrial Investment and Employment Promotion Policy 2017. Taking this forward, this Electric Vehicles Manufacturing Policy supports the expansion of eco-friendly automobile industry in Uttar Pradesh, and opens the market for electric vehicles manufacturing here, supporting the set targets of Government of India.

Government of Uttar Pradesh will give special incentives and concessions to attract investments in Electric Vehicles manufacturing, EV Battery manufacturing/assembling, and developing charging and swapping infrastructure for EVs in the state on lines of State’s Industrial Investment and Employment Promotion Policy (IIEP), 2017. The Uttar Pradesh Electric Vehicles Policy, 2018 will come into effect on the date of its notification and will remain in force for the period of 5 years.

### Objectives of the Policy

1. To establish Uttar Pradesh as preferred destination for attracting investments in manufacturing of Electric Vehicles (EV).
2. To create employment opportunities both from supply side and demand side.
3. To create a conducive environment for shift from Internal Combustion (IC) engines to Electric Vehicles (EVs).
4. To encourage use of Hybrid EVs in Uttar Pradesh during the transition phase.
5. To develop human capital and augment the power capacity to meet the needs of the industry promoting electric mobility in the state

### Definitions

1. **Electric Vehicle and its components manufacturing units (EVMUs)** – All manufacturing enterprises involved in manufacturing/assembling of EVs and their components such as motors, power electronic kits, etc. will be eligible for incentives and concessions under this policy.

<table>
<thead>
<tr>
<th>MSME EVMUs</th>
<th>Capital Investment as defined under MSMED Act 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large EVMUs</td>
<td>Capital Investment more than MSMEs, but –</td>
</tr>
<tr>
<td></td>
<td>• Less than INR 150 crores in Bundelkhand &amp; Puranchal region</td>
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<tr>
<td></td>
<td>• Less than INR 200 crores in Madhyanchal &amp; Puranchal (except GB Nagar, Ghaziabad)</td>
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</tbody>
</table>

2. **EV Battery Manufacturing or Assembly Units (EBUs)** – All EV battery manufacturing or assembly units will be eligible for incentives and concessions under this policy. Govt of Uttar Pradesh targets to create a capacity of 2000MWh for manufacturing or assembling of EV battery in the state, thereby creating 10,000 job opportunities over time.

3. **Service Units** – Units providing fast/slow charging stations and/or battery swapping stations to 2-wheelers, 3-wheelers, cars, buses and other 4-wheeler Electric Vehicles. This would also include EV and battery repair and maintenance stations.

### Period of Policy

1. This policy will come into effect on the date of its notification and will remain in force for the period of 5 years.
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.
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.
1. Policy Framework

1.1. Transition to Electric Vehicles –

- In order to favour transition from combustible vehicles to EV vehicles, Govt of Uttar Pradesh will promote hybrid vehicles and give incentives to boost demand of EVs in the state. In the transition phase, the State will encourage use of EVs in Public transportation and Goods transportation.
- 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 identified by 2020 in GB Nagar, Ghaziabad, Lucknow, Kanpur, Varanasi for 100% EV public transportation.
- Private Transportation - State Govt will encourage electric 2-wheeler taxies for short distance mobility, and existing auto rickshaws will be encouraged to resort to EV technology. Further in this context, Auto rickshaws, Cabs, School buses/vans, etc will be targeted to achieve 100% electric mobility by 2030 in five cities - GB Nagar, Ghaziabad, Lucknow, Kanpur, Varanasi.
- Goods Transportation - Further, to promote adaptability of EV in Goods transportation, EV-3 Wheelers, 4-Wheelers mini Goods vehicles will be encouraged in GB Nagar, Ghaziabad, Agra, Lucknow, Kanpur, Varanasi and Jhansi.
- Lastly, the State Govt will promote EV battery and charging equipment manufacturing in Uttar Pradesh. Govt of UP will incentivise manufacturing of lithium batteries with higher mileage per charge in Uttar Pradesh. Also, the state will incentivise manufacturing of Hydrogen-powered fuel cells and Sower powered cells, as an alternative clean energy source.

1.2. Charging Infrastructure – Govt of UP will develop charging infrastructure as a commercially viable business venture in the state.

- Public Sector units will be encouraged in setting up Charging infrastructure in the state. State will facilitate land to such PSUs at concessional rates in designated areas.
- Charging infrastructure in public buildings, public places shall be developed, and ensure provisions to set up charging outlets, regular electric supply, etc.
- In addition to these, to promote EV mobility on prominent highways, such as Yamuna Expressway, Agra-Lucknow Expressway with heavy density of vehicles, will be provided fast charging stations, battery swapping infrastructure, at every 50kilometers.
- New apartments, high rise buildings, technology parks in the state will be provided charging infrastructure for EVs. Nonetheless, the state will encourage creation of secondary market for disposal of EV batteries in PPP model.
The policy encourages Clean fuel and Renewable energy based Charging/Battery Swapping Station – for hydrogen powered fuel cells, or solar powered cells.

In this context, State Govt will encourage private players to set up EV charging systems and infrastructure in the state. Govt of UP will facilitate electricity supply to charging stations at commercially viable rates. Special Power Tariff Policy will be introduced in this context, by Dept of Power, GoUP within three months of notification of this Policy.

1.3. 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 up to 2022.

Thereafter, the State aims at promoting use of methanol fuel cell vehicles, to smoothen transition and reduce pollution.

1.4. EV Manufacturing Zones/Parks – The State ensures quality infrastructure with comprehensive facilities to develop the state as EV manufacturing hub. Industrial land shall be made available to be developed as clusters and zones for EV manufacturing. These zones/parks/clusters will be well equipped with infrastructure including power, water, sewage treatment, testing facilities, etc.

1.5. Use of Clean Fuel – 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. Adopting a more sustainable approach, Govt of Uttar Pradesh aims at promoting use of Clean Fuel for EVs under this policy. Therefore, 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 more particularly, Solar-powered cells. EBUS and Service providers will be encouraged in UP in this context.

1.6. Research and Development – With advent of modern technologies, it is important to encourage participation of academia, industry in adapting to low cost technologies, smart design and promoting transition to EV vehicles in the state. This includes development of Battery technologies, charging infrastructure, certification and training. The R&D ecosystem support in Uttar Pradesh will largely emphasize development of clean fuel technologies in EVs.

1.7. Start up and Innovation – To strengthen the research ecosystem promoting EV manufacturing and developing the technology in the state, the State will also
emphasize startup and innovation in this field. Electric Vehicle Incubation centres will be set up at IIT-Kanpur, and other leading engineering institutions to facilitate EV mobility and encourage business models on EVs. Start up Fund created under UP Startup Policy 2017 shall also be put to use to promote Startups in this context.

1.8. **Skill Development** – Taking this ahead, in order to augment the manpower requirements of the industry, EV Skill centres will be set-up in collaboration with the industry. Sectoral curricular and courses will be introduced in professional institutes, polytechnics and other vocational education institutions. Even short term courses on electric mobility, repair and maintenance, battery manufacturing and maintenance will be introduced. Further, fiscal incentives will be given to trainees/students, manufacturers providing training.

1.9. **Augmenting the Power Capacity** – Higher market penetration of Electric Vehicles will put pressure on the existing electricity supply, particularly on low voltage (LV) distribution grid. Presently, the power deficit in the state is improving, but still persists. As against 107569 MU required, only 105700 MU power supply is available in the State (2016-17)11. The peak demand in Uttar Pradesh is the second highest in the country after Maharashtra at 17183 MW in 2016-1712. Therefore, in order to meet the rising power demands, Govt of Uttar Pradesh will endeavour to augment power supply in the state.

1.10. **Sustainable Ecosystem support** – In order to meet the rising power demands for EVs, Govt of Uttar Pradesh will achieve demand side management through smart metering systems, variable tariff rates, and off-peak battery charging. Service Providers for Electric Vehicles in the State will be encouraged through variable tariff rates to use electricity supply from solar grid. Further, the Govt of Uttar Pradesh will encourage smart chargers and mass charging stations. Therefore, service providers installing charging infrastructure at Parking spaces, developing common parking spaces at particular zones where most offices are located, and other common charging spaces at public places, will be encouraged.

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2. Private EV Parks (PEV Parks) – Both Manufacturing and Assembling units

Govt of Uttar Pradesh incentivises PEV Parks developed on atleast 100acres of land area in NCR districts and Kanpur, and minimum 150 acres in other districts, by private developers. These parks will be given following incentives as under UP Industrial Investment and Employment Promotion Policy 2017 –

2.1. Interest subsidy in the form of reimbursement of interest of up to 50% of annual interest on the loan taken to buy land, calculated on the basis of prevalent circle rate, for 7 years subject to a maximum ceiling of INR 50 lacs/per annum/per PEV park.

2.2. Interest subsidy in the form of reimbursement of interest of up to 60% of annual interest for 7 years on the loan taken for building supporting infrastructure at the PEV parks subject to maximum limit of INR 10 crore per year with an overall ceiling of INR50 crore per PEV-park.

2.3. Interest subsidy in form of reimbursement of interest of upto 60% of annual interest for 7years on loan taken for building hostel/dormitory housing for workers at the PEV park, subject to INR 5crore per year, with overall maximum limit of INR 30 crore per park.

2.4. The developer shall be eligible for reimbursement of 100% stamp duty paid on purchase of land for building the PEVM Park, and 50% exemption on stamp duty to first individual buyers of the plots at the Park.

3. Incentives–

The EVMUs and/or EBUs or MSME units as defined in this policy shall be eligible for incentives on case to case basis as under UP Industrial Investment and Employment Promotion Policy 2017. These incentives include -

3.1. Capital Interest Subsidy to the extent of 5% per annum for 5years in the form of reimbursement on loan taken for procurement of plant & machinery, subject to an annual ceiling of INR 50lacs.

3.2. Infrastructure Interest Subsidy - Both EVMUs and EBUs setup in the state, will for a maximum period of 5 years be reimbursed the amount of interest at the rate of 5% per annum payable on loan taken by them for developing supporting infrastructure such as self use roads, drainage, powerlines, etc. The overall ceiling limit of the same will be INR 1Crore.
3.3. **Industrial Research subsidy** for procurement of plant and machinery for industrial research, quality improvement and setting up testing labs, quality certification labs, tool rooms, etc. 5% per annum subsidy in form of reimbursement on interest on loan taken for the mentioned purpose, subject to maximum ceiling of INR 1 crore per unit.

3.4. **Electricity duty exemption**: All new EVMUs and EBU as defined under the policy will be exempted from paying electricity duty for first 10 years.

3.5. **Stamp duty reimbursement** - 100% Stamp duty will be reimbursed to all new units in EV sector as defined under this policy for purchase of land in Bundelkhand & Poorvanchal, 75% in Madhyanchal & Paschimanchal region of the state (except Gautambuddhnagar & Ghaziabad districts) 50% in Gautambuddhnagar & Ghaziabad districts.

3.6. **EPF reimbursement facility** to the extent of 50% of employer’s contribution to all such new units in EV sector providing direct employment to 100 or more unskilled workers, and additional 10% of employer’s contribution on direct employment to 200 skilled and unskilled workers.

3.7. **SGST reimbursement** – 90% for SGST reimbursement for MSME and Large Units for 5 years in EV sector, 70% reimbursement to Mega EVMU and EBU for 10 years.

**NOTE** –

A. All incentives in the form of reimbursement, subsidies, exemptions etc., will be subject to a maximum of 100% of fixed capital investment made in Poorvanchal and Bundelkhand, 90% of fixed capital investment made in Madhyanchal & Paschimanchal (except Gautambuddh Nagar & Ghaziabad districts) and 80% of fixed capital investment made in Gautambuddh Nagar & Ghaziabad districts, for MSME and Large EVMUs. All incentives will be subject to a maximum of 100% of fixed capital investment made by Large and MSME EBU.

B. All incentives for eligible mega projects in the form of reimbursement, subsidies, exemptions etc., will be subject to a maximum of 300% of fixed capital investment made in Poorvanchal and Bundelkhand area of UP, 200% of fixed capital investment made in Madhyanchal, 100% in Paschimanchal (except Gautambuddh Nagar & Ghaziabad districts) and 80% of fixed capital investment made in Gautambuddhnagar & Ghaziabad districts, for Mega EVMUs. All incentives will be subject to a maximum of 200% of fixed capital investment made by Mega EBU.
4. **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 -

**4.1. Tax exemptions to buyers** – 100% exemption of road tax on Transportation EVs purchased within Uttar Pradesh, applicable over the period of this policy. Other buyers will be fully exempted from paying Vehicle registration fees of EVs manufactured within the State. Further in this context, state will exempt SGST on purchase of electric vehicles manufactured within the state.

**4.2. 100% Interest free loans** to State Government employees for purchase of EVs in the state.

**4.3. 30% subsidy on road price of EV** in form of reimbursement to Individual families with Single-girl child in the State on purchase of EVs, applicable over the period of this policy.

**4.4. Incentives to service providers** – The Service units as defined under this policy will be provided following incentives -

4.4.1. Service units setting up charging stations with capital investment of more than INR 25lacs but less than INR 5crore, will be provided Capital Interest Subsidy @5% per annum for 5years in the form of reimbursement on loan for procurement of plant & machinery and setting up charging infrastructure (excluding land cost) subject to maximum ceiling of INR 10lacs per annum per unit.

4.4.2. Service units setting up charging stations with capital investment of less than INR 25lacs, will be provided Capital Interest Subsidy @5% per annum for 5years in the form of reimbursement on loan for procurement of plant & machinery and setting up charging infrastructure (excluding land cost) subject to maximum ceiling of INR 2lacs per annum per unit.

4.4.3. All the defined service units will be eligible for 100% exemption from paying electricity duty for 10years.
5. Environment Protection Incentives -

Since Electric vehicle and battery manufacturing industry is polluting in nature, it is important to induce eco-friendly manufacturing in the State. Therefore, Govt of Uttar Pradesh provides following incentives in this context under this policy -

5.1. **Common Effluent Treatment Plant** –
   The developers will be provided incentives for setting common Effluent Treatment Plant (ETP) at Private Electric Vehicle (PEV) Manufacturing/Assembling Parks. They will be eligible for 50% reimbursement of interest on loan taken to set-up such common purpose ETP, for 7 years subject to a maximum ceiling of INR 5 crore per project.

5.2. **Setting up ETPs** –
   Units setting up ETPs will be reimbursed –
   - 50% interest on loan taken for 7 years to set-up ETP to EVMUs upto maximum INR 1 crore per unit.
   - 50% interest on loan taken for 7 years to set-up ETP to EBU's upto maximum INR 75lacs per unit.

6. Capacity building

6.1. **Skill Development**
   Institutes giving skill training in EV and battery repair, maintenance, etc. will be reimbursed 20% of expenditure incurred in imparting such training over the period of this policy. Also, Stipend at the rate of INR1000 per trainee per month over 6 months will be provided to the trainees undertaking such skill development courses over the period of this policy.

6.2. **Green Innovation Incentives** –
   R&D in EV sector to adopt sustainable practices, particularly, renewable energy based fuel-cells such as solar powered batteries, hydrogen powered batteries will be incentivised. 5% subsidy in form of reimbursement on interest on loan taken for setting up such technologies or innovation centres at Electric Vehicles manufacturing Parks and zones in the state, subject to maximum ceiling of INR 1 crore per project.

**NOTE**-

All incentives will be subject to a maximum of 200% of fixed capital investment made by the defined service units.
7. **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.

7.1. **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 by NIVESH MITRA. For this, a dedicated Nodal officer shall be provided to each unit.

7.2. **Time bound clearances** –
Providing speedy and time bound clearances is one of the prime intention of this policy. Towards this goal, the GoUP will regularly review all its existing acts, rules and procedures related to industrial services/ clearances/ approvals/ permissions/ licenses and wherever possible.

7.3. **Simplifying procedures** –
This policy ensures to rationalise existing regulatory regime and simply procedures by supporting self-certification, deemed approval and third party certification.

7.4. **Ease of Commercial Business** –
The business interests of new units will be protected and will be provided conducive environment.

7.5. **Industrial Security** –
Govt of Uttar Pradesh will provide safe and secure industrial environment in the state.

8. **Policy Implementation**

Department of Infrastructure and Industrial Development will be nodal department for implementation and monitoring of this policy.

8.1. **Policy Implementation Unit (PIU)** will be set up under the Infrastructure and Industrial Development Commissioner and Principal Secretary, Department of Infrastructure and Industrial Development. The PIU shall take decisions on matters pertaining to effective and successful implementation of UP Electric Vehicles Manufacturing Policy 2018.
The Unit shall be responsible for providing recommendation and approval for incentives applicable to units defined under this policy, and shall provide timely grievance redressal. The Policy Implementation Unit will comprise of Nodal Officers from Department of Transport, Department of Power and Department of New and Renewable Energy.

8.2. **Empowered Committee** under the chairmanship of Chief Secretary/an officer delegated by him, shall oversee the development of UP Electric Vehicles Manufacturing Policy 2018 and monitor the implementation of the same. The Principal Secretaries/Secretaries of different departments will be its member. Secretary of Infrastructure and Industrial Development Department will be the Coordinating Secretary of the Committee. Representatives of the Industry Associations will be invitee member.

Note – All EVMUs, EBU, 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.