

DC/OPS/TPT/1260/2018/5378-81

Dated:27.11.2018

**CIRCULAR**

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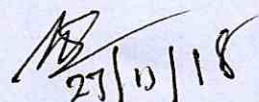
(S.S. CHAUHAN)  
DY. COMMISSIONER (OPERATIONS)

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# Delhi Electric Vehicle Policy 2018

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## 1.0 Background

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. With vehicular pollution being a consistent source of air pollution in the National Capital Territory of Delhi ('Delhi') and contributing up to 30% of particulate pollution, rapid adoption of zero emission electric vehicles is of great importance to the city.

Sales of new electric cars worldwide surpassed a million units in 2017, with the stock of electric cars having crossed the 3 million mark in 2017. More than half of the EV sales worldwide in 2017 were in China, where electric cars had a market share of 2.2% in 2017. In the world's most developed market for electric cars - Norway, electric cars accounted for 39% of new car sales in 2017. Electrification of other modes of transport has also been developing rapidly with about 30 million two wheelers and 100,000 electric buses being sold in 2017, the vast majority being sold in China. Bloomberg New Energy Finance (BNEF) expects EVs to reach upfront cost parity with internal combustion engine ('ICE') vehicles by 2025, largely driven by rapid reductions in battery costs. This in turn is expected to drive global sales of EVs to 11 million vehicles in 2025 and 30 million in 2030.

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 2013, Government of India launched a 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 has subsequently been extended up to 31 March, 2019. Several states have also announced an EV policy (e.g., Karnataka, Kerala, Telangana, Maharashtra and Andhra Pradesh and Uttar Pradesh) to complement national policy and address state specific needs.

Despite Central and State government incentives, pure electric vehicle penetration currently (i.e., in 2017) remains quite low in India, about 0.1% for cars, ~0.2% for 2 wheelers and practically nil for commercial vehicles. This is largely driven by following critical hurdles: a) high upfront purchase price of EVs, b) almost non-

existent public charging infrastructure, c) lack of products comparable to ICE vehicles (especially in the 2 wheeler category) and d) low levels of investment in EV manufacturing capacity.

The Draft Delhi EV Policy 2018, to be notified by the Government of the National Capital Territory of Delhi ('GNCTD') and which will remain valid for five years from the date of notification, recognises that a new approach is required to kick-start EV adoption in Delhi. It will therefore seek to put in place measures that address the key hurdles to EV adoption. The GNCTD will also develop a communication plan focused on driving awareness regarding the benefits of adopting electric vehicles and the key elements of this policy.

This policy will apply exclusively to Battery Electric Vehicles (as defined in Annexure -1, FAME India). Mild Hybrid, Strong Hybrid and Plug-in Hybrid Electric Vehicles will not be targeted by this policy. 'FAME India' in this policy refers to the Scheme for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India as notified on 13th March, 2015 by the Govt. of India and any subsequent amendments thereof.

## 2.0 Objectives

- The primary objective of the Delhi EV Policy 2018 is to bring about a material improvement in Delhi's air quality by bringing down emissions from transport sector. To do so, this policy will seek to drive rapid adoption of Battery Electric Vehicles (BEVs) in a manner where they contribute to 25% of all new vehicle registrations by 2023.
- This policy will also seek to put in place measures to support the creation of jobs in driving, selling, financing, servicing and charging of EVs.

## 3.0 Driving EV Adoption

Two-thirds of new vehicle registrations in Delhi comprise two wheelers (i.e., motorcycles and scooters), with the most popular segments being motorcycles between 110-125cc and scooters between 90-125cc. Any attempt at electrification of Delhi's vehicle fleet needs to address these segments. In addition, the highest proportion of passenger-kilometers traveled are by public and shared transport vehicles (e.g., buses, auto rickshaws and cabs). These vehicles are used intensively and their electrification will generate a disproportionate reduction in air pollution.

To drive large scale adoption of EVs and maximise reduction of vehicle emissions, this policy will therefore focus attention on:

- i. incentivising the purchase and use of electric two wheelers, and
- ii. supporting the electrification of public/shared transport.

### 3.1 Two Wheelers

The incentives listed below at 3.1.1 to 3.1.3 will be available for electric two wheelers that meet the following eligibility criteria:

- i. vehicles should be listed as being eligible under FAME India, having fulfilled all the eligibility and testing conditions as specified under the scheme OR should have been notified as being eligible by the Transport Department, GNCTD, and
- ii. should be 'High Power' two wheelers with an 'Advance Battery' (i.e., 'High Power' as defined under Table A2.3, FAME India as having max power exceeding 250 Watts, and 'Advance Battery' as defined under 26 (b), FAME India).

The above eligibility criteria will allow targeting of incentives on electric two wheelers that are comparable to >90cc ICE two wheelers. Following incentives shall be provided by GNCTD in addition to the FAME India demand incentive:

- 3.1.1. 'Purchase Incentive' equivalent to 50% of the demand incentive offered under FAME India. Existing subsidies provided through the Air Ambience Fund of Delhi Pollution Control Committee (DPCC) will stand withdrawn and subsumed under the Purchase Incentive.
- 3.1.2. An additional 'Top-up Incentive' of up to 50% of the FAME India incentive will be provided to vehicles with swappable batteries for a period of three years from the date of notification of this policy. List of approved vehicles for the 'Top-up Incentive' will be notified by the Transport Department, GNCTD from time to time.
- 3.1.3 Ride hailing and two wheeler rental service providers will be allowed to operate electric two wheeler taxis subject to obtaining a commercial vehicle registration in Delhi and operating within guidelines notified by the Transport Department, GNCTD from time to time.
- 3.1.4 Road tax, registration fees and MCD one-time parking fee will be waived for all electric two-wheelers with an 'Advance Battery'.
- 3.1.5 Existing ICE two wheeler owners will get a scrapping and de-registration incentive of up to ₹15,000 per vehicle for scrapping two wheelers that are not BS [IV] certified. This incentive will be applicable for up to two years from the date of notification of this policy. The incentive will be provided by the RTO as a certificate on completion of the prescribed de-registration process. Incentive certificates will be transferable but can only be utilised as additional incentive towards the purchase of an electric vehicle in the same financial year as the year of issuance of the certificate.

Incentives listed above will be applied and paid out as per FAME India guidelines and procedures. In the event that FAME India incentives are reduced during the validity of this policy, the GNCTD will review the additional incentives offered by this policy in a manner that ensures price competitiveness of two wheeler EVs with equivalent internal combustion engine (ICE) vehicles. The GNCTD is committed to providing stable incentives with a view to encouraging long term investments by manufacturers, dealers and charging facility providers.

### **3.2 Three-Seater Auto-Rickshaws (TSRs)**

Passenger three wheelers or 'Three-Seater Auto-Rickshaws (TSRs)' or 'Autos' are a critical part of the public transport infrastructure in Delhi. Travelling up to 300 km per day, they provide last mile connectivity and access to areas that are underserved by public transport. Delhi EV Policy 2018 will aim to incentivise the purchase and use of new electric autos with swappable batteries ('e-autos') instead of ICE equivalents and simultaneously promote conversion of existing CNG autos to e-autos. Following incentives shall be provided by GNCTD in addition to the FAME India demand incentive:

- 3.2.1. An open permit system will apply to approved e-autos, with no limits on the number of Auto Rickshaw Permits ('e-auto Permits') to be issued. The list of approved e-autos will be notified by the Department of Transport, GNCTD. This list will comprise passenger three wheelers listed as being eligible under FAME India (having fulfilled all the eligibility and testing conditions as specified under the scheme) and additionally should be vehicles which use a swappable Advance Battery.
- 3.2.2. Road tax, registration charges, MCD one-time parking fee and Auto Rickshaw Permit fees will be waived for e-autos
- 3.2.3. Individuals with a valid light motor vehicle driving license (DL) and a PSV badge will be eligible to apply for e-auto permits. These e-auto permits will be non-transferable (except to legal heirs).
- 3.2.4. Hire purchase and hypothecation of e-autos will be allowed for Scheduled Banks and Non-Banking Financial Companies (NBFCs) duly approved by the Reserve Bank of India or any other competent authority notified by the Government of India
- 3.2.5. Fleet owners will also be allowed to obtain and hold e-auto Permits. Such permits may be transferred to individual drivers holding a valid DL pursuant to a hire purchase, lease or loan agreement

3.2.6. To support wide ownership and improved incomes of individual e-auto owners, the GNCTD will provide following support to individuals with a valid DL and PSV badge who want to finance the purchase of an e-auto in Delhi:

- i. 5% of the purchase price (net of FAME India subsidy) will be provided as down payment subsidy to an empaneled finance provider subject to a maximum of ₹12,500, and
- ii. 5% interest subvention will be provided subject to the loan amount being capped at ₹2,50,000 and a maximum loan tenor of 3 years

Finance providers will be empaneled by the Delhi Financial Corporation (DFC) on the basis of applications from Scheduled Banks and NBFCs. These applications will be evaluated for empanelment based on attractiveness of terms offered to potential borrowers.

3.2.7. Existing TSR Permit holders will get an incentive of up to ₹15,000 per vehicle if they de-register and scrap vehicles that are more than seven years old provided they also surrender their permits. This incentive will be provided by the RTO as a certificate on completion of the prescribed de-registration process. Incentive certificates will be transferable but can only be utilised towards the purchase of an e-auto in the same financial year as the year of issuance of the certificate. Auto Rickshaw Permits linked to the de-registered vehicle can be exchanged for an e-auto Permit at no additional cost.

### **3.3 E-rickshaws**

The number of e-rickshaws in Delhi has grown rapidly and they provide useful means for last mile connectivity. This policy will aim to support the use of e-rickshaws that are safe and driven in compliance with regulations, and for the replacement of e-rickshaws with lead acid batteries with those having advanced, swappable batteries. Existing subsidies provided through the Delhi Pollution Control Committee (DPCC) from the Air Ambience Fund will stand withdrawn and subsumed under the following:

3.3.1. Delhi Financial Corporation (DFC) will provide a hire-purchase scheme for approved e-rickshaws and to drivers with a valid driving license and PSV badge. Drivers will have to provide 5% of the purchase price of the e-rickshaw as an initial deposit and pay the remainder of the purchase price along with interest at 5% over a 36 month period. Details of the hire-purchase scheme will be notified by DFC and a list of approved e-rickshaws will be notified by the Department of Transport, GNCTD.

3.3.2. The GNCTD will also provide following support to individuals with a valid DL who want to finance the purchase of an e-rickshaw through a DFC empaneled NBFC or Scheduled Bank :

- i. 10% of the purchase price will be provided as down payment subsidy to an empaneled finance provider subject to a maximum of ₹20,000
- ii. 5% interest subvention will be provided subject to the loan amount being capped at ₹1,80,000 and a maximum loan tenor of 3 years

### **3.4 Promoting usage of App based e-autos and e-cabs**

Increased use of e-cabs and e-autos will have a positive impact on air pollution. With a view to promote the use of these vehicles, the following measures will be adopted for a period three years from the date of notification of this policy:

- 3.4.1. App-based aggregators and ride hailing service providers who provide mobility solutions will be invited to participate in the “App-based e-cab/e-auto user incentive scheme”. App-based aggregators who participate will need to aggregate a fleet of e-autos and/or e-cabs and offer rides in these vehicles.
- 3.4.2. For all e-cab/e-auto rides taken through an App-based aggregator, the GNCTD will offer ‘cash back’ rebates for short first and last mile connectivity trips. These rebates will be capped at a maximum of 20% of trip cost and an absolute value of ₹10 per ride. The objective of the rebate will be to make an e-cab/e-auto ride at least 10-20% cheaper than an equivalent ride in an ICE cab/auto.

### **3.5 Buses**

Substantial additions of buses to the public transport fleet are expected in the period 2019-2023. The GNCTD commits to pure electric buses being at least 50% of all new state-carriage buses procured for the city fleet including for last mile connectivity, starting with the induction of 1000 pure electric buses in 2019. This will help achieve a target of making 50% of the public transport bus fleet zero emission by 2023.

In addition, GNCTD will offer reasonable incentives to operators of private stage-carriage vehicles of all sizes to ensure that battery electric vehicles make up least 50% of the entire public transport system in Delhi by 2023.

### **3.6 Goods carriers (3 Wheeler)**

Three wheeler goods carriers are useful for low capacity, short haul deliveries in congested areas of the city. This policy recognises their importance and will seek to incentivise the electrification of this fleet. Specific measures aimed at supporting this segment of vehicles are:

- 3.6.1. Fleet owners, businesses using three wheeler goods carriers and individual owners will be encouraged to adopt electric three wheeler goods carriers ('e-Carriers') by providing an additional purchase incentive equivalent to 50% of the incentive offered under FAME India. This 'e-Carrier Incentive' will be available for approved list of vehicles as notified by the Transport Department, GNCTD and will be available for the first 5000 e-carriers to be registered. The list of approved e-Carriers will comprise three wheelers (goods carriers) listed as being eligible under FAME India (having fulfilled all the eligibility and testing conditions as specified under the scheme) and additionally should be vehicles which use a swappable, advance battery
- 3.6.2. Road tax, registration fees and MCD one-time parking fee will be waived for e-Carriers that are eligible for e-Carrier Incentive
- 3.6.3. e-Carriers that are eligible for e-Carrier Incentive will be exempt from the prohibition on plying and idle parking of lights goods vehicles during specified timings as notified by the Transport Department, GNCTD from time to time.

### **3.7 Other vehicles**

Road tax, registration fees and MCD one-time parking fee will be waived for all other electric vehicles that are eligible for FAME India demand incentives. This waiver will apply for the period of this policy i.e. 2018-2023. A summary of FAME India and Delhi EV policy incentives applicable to various classes of vehicles can be found in **Annexure I**; the existing DPCC subsidies are also listed for comparison.



## 4.0 Charging infrastructure

Experience in other cities across the globe indicates that availability of charging infrastructure is a key driver of EV adoption. The objective of this policy will be to create an enabling environment for the provision of private as well as public charging infrastructure.

### 4.1 Private charging points

It is expected that most EV users will use home and workplace charging points for their core charging needs. The following policy measures will be put in place to encourage installation of private charging infrastructure:

4.1.1. Following changes in building bye-laws will be made to make home and work place parking 'EV ready':

- a) All new and renovated non-residential buildings with parking demarcated for more than 10 equivalent car spaces ('ECS') will need to have at least 20% 'EV ready' ECS spots with conduits installed.
- b) All new and renovated residential buildings, Co-op, Group Housing Societies and colonies managed by Residents Welfare Associations (RWAs) with more than 10 ECS parking space will need to make 100% of demarcated ECS parking, EV ready with conduits installed.

4.1.2. All existing residential building owners, RWAs and Co-op Group Housing Societies with demarcated parking area of more than 10 ECS will be encouraged to install one EV AC charger (i.e., a charger with either single phase or three phase input but confirming to other BEVC- AC001 specifications) for every three ECS. The GNCTD will provide a grant of 100% of the purchase and installation cost of these charging points up to ₹30,000 per charging point for the first 10,000 charging points. Grants will be available only for chargers that are either single phase or three phase input but comply with all other BEVC-AC001 specifications

4.1.3. All non-residential building owners and Market Associations with parking demarcated for more than 10 ECS will be encouraged to install one Bharat EV AC charger (i.e., a charger with BEVC- AC001 specifications) for every three ECS. The GNCTD will provide a grant of 100% of the purchase and installation cost of these charging points up to ₹ 30,000 per charging point for the first 10,000 charging points. Grants will be available only for chargers that comply with BEVC-AC001 specifications

- 4.1.4. Power distribution companies (DISCOMS) will work with owners of residential and non-residential buildings, RWAs and Co-op Group Housing Societies to ensure adequate supply infrastructure is made available for the installation of these charging points.
- 4.1.5. Electricity tariff applicable for Charging Stations for e-rickshaws/e-vehicle on single point delivery (₹5.50 per kWh for supply at LT with ToD rebates as applicable) will be extended to include all charging points that are BEVC-AC001 compliant and are connected to an on-site single point of delivery meter. The GNCTD will endeavour to maintain the existing special electricity tariff for EV charging at the same rate or lower for the entire duration of this policy.

## **4.2. Public Charging Infrastructure**

Providing accessible public charging facilities within 3 km travel from anywhere in Delhi is a key objective of this policy. Keeping this in mind, the following steps will be followed to set a public charging network across Delhi:

- 4.2.1. The city will be divided into 11 'travel districts' mapping onto existing revenue districts. 'Energy Operators' (EOs) will be invited to bid to set up charging stations in each of the travel districts. Specifications for charging infrastructure to be provided will be defined by the Department of Transport, GNCTD. In defining specifications for public charging infrastructure, the Department of Transport, GNCTD will use the existing BEVC-AC001 and DC001 specifications notified by the Government of India and any subsequent changes thereon.
- 4.2.2. Concessional locations for charging stations will be made available by the GNCTD in every district along with bare minimum lease rentals. These Concessional locations will be carved out from existing public parking zones, bus depots and terminals, metro stations and other GNCTD identified locations such that they offer easy entry and exit. EOs will also be allowed to sublet or operate up to 20% of the allocated charging station space as retail kiosks. Outside of the Concessional locations, EOs can set up any number of other sites as long as they have required public access.
- 4.2.3. EOs will be selected for each travel district based on competitive bidding on the basis of lowest capital subsidy requested per charging point installation and the density of charging points (i.e., points/sq.km.) being installed within a two year period — this will include charging points at both Concessional locations and other sites. Successful bidders will be given the exclusive right to operate public charging stations within the assigned travel district for a

period of 10 years subject to meeting the conditions laid out in the bid documents.

- 4.2.4. GNCTD will provide a capital subsidy covering cost of chargers and installation expenses to the winning bidder in a district. Subsidy levels will differ based on bids received from EOs for each travel district. Subsidies will be paid out as per a pre-agreed schedule as laid out in the bid documents. Successful EOs will be free to price their service as they want. No operational subsidies will be provided to the EOs.

### **4.3. Public Battery Swapping Infrastructure**

- 4.3.1. GNCTD will also invite bids from battery manufacturers and others interested in setting up a battery swapping business. Bids will be invited for up to three 'Battery Swapping Operators' (BSOs) who can operate across Delhi. Bidders will have to bid on the basis of price they will charge per kWh to users (all inclusive – including the price for power, lease rental for the battery and any other charges) and the number of swapping kiosks they commit to set up across the city within a two year period.
- 4.3.2. BSOs thus selected based on a competitive bidding process will have the right to set up and operate battery swapping kiosks/points within public parking zones bus depots and terminals, metro stations and other GNCTD identified locations. Space within these sites will be allocated by the GNCTD at bare minimum lease rentals. BSOs can operate these kiosks either on their own or in partnership with Energy Operators. BSOs can also set up and operate either themselves or through a business associate/franchisee - 'mini swapping stations' across the city.
- 4.3.3. 100% of net SGST, accrued to the GNCTD, will be provided as reimbursement to BSOs for purchase of Advanced Batteries to be used at swapping stations. This reimbursement will be available for a period of two years from the date of notification giving effect to this reimbursement scheme.

### **4.4. Favourable electricity tariff for EOs and BSOs**

- 4.4.1. Electricity tariff applicable for BSOs and EOs will be as notified in the DERC Tariff Schedule for 2018-19 as being applicable for "Charging Stations for e-rickshaws/e-vehicle on single point delivery" (i.e., ₹5.50 per kWh for supply at LT with ToD rebates as applicable). The GNCTD will endeavour to maintain the existing special electricity tariff for EV charging at the same rate or lower for the entire duration of this policy.

4.4.2. EOs and BSOs who have won a concession to operate will be encouraged to use low cost and renewable sources of power. In consultation with DERC, the GNCTD will look to provide:

- a) Open Access without the condition of having contract demand of 1MW and above at every charging station or swapping kiosk; so long as cumulative demand for the EO or BSO is more than 1MW.
- b) Power banking — EOs and BSOs who set up captive renewable energy facilities will be given power banking facilities with the DISCOMS operating in Delhi over a period of one year. This will encourage generation and use of renewable power. Terms for Power Banking will be notified in due course.

#### **4.5. Payment infrastructure and information sharing**

4.5.1. EOs, BSOs and mini swapping station operators will be expected to accept payments by multiple modes (e.g., cash, cards, mobile wallets, UPI); payments through the common mobility card payment system will also need to be offered as an option for payments.

4.5.2. An open, publicly owned database will be developed by Transport Department, GNCTD offering users up to date and real time information on public charging infrastructure (i.e., location, number and type of swapping kiosks/chargers, queue lengths/availability and pricing). EOs, BSOs and mini swapping station operators will have to provide data to this public database. The database can be used free of charge by in-vehicle navigations systems and charging apps and maps.

## **5.0 Recycling Ecosystem – Battery and EVs**

EV batteries typically need to be replaced once they have degraded to operating at 70-80% of their capacities. EVs are therefore going to outlive the batteries powering them, with a vehicle requiring about two batteries in a 10-year life span.

Batteries that have reached their end of life will need to be either reused or recycled. Lack of adequate reuse or recycling will have a high environmental cost. Not only do EV batteries carry a risk of giving off toxic gases if damaged during disposal, but core materials such as lithium and cobalt are finite and very expensive to extract.

The Delhi Electric Vehicle Policy 2018 will encourage the re-use of EV batteries that have reached the end of their life and setting up of recycling businesses in collaboration with battery and EV manufacturers that focus on 'urban mining' of rare materials within the battery for re-use by battery manufacturers.

### **5.1 Reuse of EV batteries**

5.1.1. EOs and BSOs will be operate as end of life battery recycling agencies. EV owners can deposit vehicle batteries that have reached their end of life at any charging point or swapping station operated by an EO or BSO and in return get a remunerative price for this battery. Disposal of EV batteries in any other manner – e.g., in landfills or as scrap, will not be allowed.

5.1.2. A nodal agency shall be appointed by GNCTD to act as an aggregator to purchase EV batteries that are at least 70% of rated capacity. These batteries will be purchased from EOs and BSOs and will then be re-used as 'power banks' to store renewable energy. Batteries procured in such manner will be auctioned to renewable generators within and outside Delhi. The nodal agency shall publish purchase price of end of life batteries every month based on auction prices achieved and a margin for itself and the EO/BSO.

### **5.2 End-of-life battery and EV recycling**

EV batteries that cannot be re-used, either because of poor condition of the battery or lack of demand for reuse, will be sent to recycling facilities. At these recycling facilities, high value battery materials (e.g., Nickel and Cobalt) will be recovered and then sold to battery manufacturers for re-use.

5.2.1 The GNCTD will invite battery recycling businesses to establish a presence in Delhi. Appropriate protocols and investment subsidies for setting up such a business shall be notified by the GNCTD after consultation with stakeholders, especially battery and EV manufacturers. Battery recycling businesses will purchase end of life batteries from EOs and BSOs as per mutually agreed prices.

## **6.0 Funding**

The GNCTD will seek to fund a high proportion of the incentives proposed in this policy using the 'feebate' concept i.e. by adopting measures by which inefficient or polluting vehicles incur a surcharge (fee-) while efficient ones receive a rebate (-bate). As per NITI Aayog and Rocky Mountain Institute (RMI), Austria, Denmark, France, the Netherlands, Norway, Ontario (Canada), and Singapore have introduced variations of feebates. Funding for the various incentives under Delhi EV Policy will be obtained from the following sources and aggregated under an umbrella, non-lapsable 'State EV Fund':

### **6.1 Pollution Cess**

All petrol and diesel-powered vehicle users will pay a 'Pollution Cess' on the sale of fuel beginning with April 2019. A higher cess will be levied on Diesel, being a more polluting fuel and a known carcinogen, and the existing Diesel Cess will be subsumed under this. The Pollution Cess will be reviewed and revised once every year to fund the increased subsidy bill due to higher adoption of Electric Vehicles. Fees collected will be deposited on a daily basis with the GNCTD and allocated exclusively to the State EV Fund.

### **6.2 Parking surcharge**

An Air Quality Parking Surcharge will be levied on Base Parking Fees -BPF (as defined under the draft Delhi Maintenance and Management of Parking Rules, 2017) and applicable to all ICE vehicles only. The level of the surcharge will be notified by the Department of Transport, GNCTD and will be determined based on traffic density in an area. Funds raised through the Air Quality Surcharge will be allocated to the State EV Fund and the surcharge will be reviewed and revised once every year.

### **6.3 Road tax**

Additional road taxes will be levied on diesel and petrol vehicles, especially luxury cars. Additional taxes will be based on a sliding scale with high price diesel vehicles paying the highest additional road tax and low price two wheelers incurring a small addition. Revised Road Tax rates in line with this principle will be notified by the Department of Transport, GNCTD and the additional road tax thus collected will be allocated to the State EV Fund.

#### **6.4 Congestion fee**

A congestion fee up to 2.5% on fare will be levied on all trips originating or terminating within the NCT of Delhi and taken through cab aggregator and ride hailing services. This tax will be waived for rides taken in an e-two wheeler, e-auto or e-cab. Tax due will have to deposited with the GNCTD every month and will be allocated to the State EV Fund.

#### **6.5 Other Sources**

Any gaps left after funding from the State EV Fund has been entirely utilised will be filled either through allocations from the Environment Compensation Charge (ECC) already being collected in Delhi, after obtaining necessary approvals from the Hon'ble Supreme Court, or through budgetary allocations from the GNCTD. It is expected that budgetary allocations will not be the major source of funding for incentives detailed in this policy. The State EV Fund, with contributions from the Pollution Cess, the Air Quality Parking Surcharge, additional Road Tax, Congestion Fee and ECC should be the primary contributor towards funding the proposals in this policy.

## **7.0 Creating Jobs – Vocational Training and R&D**

A large number of new jobs can be created due to increasing EV adoption – e.g., e-auto and e-cab drivers, charging station operators and EV service mechanics. Delhi has the opportunity to become a hub for the provision of training related to jobs in the EV eco-system. Following policy measures will be taken to train personnel for the EV eco-system:

- 7.1. In partnership with auto OEMs, EOs and BSOs, vocational courses will be designed to train EV mechanics and charging station staff. These courses will be delivered through the World Class Skill Centres (WCSCs) set up by the GNCTD
- 7.2. Private sector partners – i.e., auto OEMs, EOs and BSOs will be allowed to conduct their own captive staff training at the WCSCs. Space and faculty will be provided at concessional rates
- 7.3. The GNCTD will conduct regular recruitment ‘fairs’ at the WCSCs for private sector recruiters who would like to hire trained personnel
- 7.4. WCSCs will also offer short re-training courses for ICE mechanics who would like to be trained in repairing and servicing EVs. These part time courses will be offered through the year at concessional fees
- 7.5. High levels of EV penetration and availability of charging infrastructure will offer an opportunity to design and test new models of electric mobility and charging equipment. A Centre of Excellence focused on design and use of EVs will be funded by the GNCTD and set up at one of the Central or State universities within Delhi. This Centre will focus on improving usage and efficiency of EVs and charging equipment.



## 8.0 Policy implementation

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

- 8.1. A dedicated EV cell shall be established within the Transport Department for effective day-to-day implementation of the Delhi State EV Policy. It will be led by a Chief EV Officer hired on a contractual basis with relevant technical expertise and supported by adequate and competent staff to exclusively deal with all matters related to electric mobility in the NCT of Delhi.
- 8.2. A State EV Board shall be constituted as the apex body for effective implementation of the State EV Policy. It will be chaired by the Hon'ble Minister of Transport, GNCTD, and comprise of the following members:
  - a) Vice Chairman, Dialogue and Development Commission
  - b) Secretary-cum-Commissioner (Transport) – Member Secretary
  - c) Principal Secretary (Finance)
  - d) Principal Secretary (Power)
  - e) Chief EV Officer, GNCTD
  - f) Up to 5 experts from Industry, Academia and Civil society to be nominated by Hon'ble Minister of Transport
- 8.3. The State EV Board will be fully empowered to sanction the expenditure of funds collected under the State EV Fund for the various incentive schemes and projects emanating out of the Delhi EV Policy. The Board will meet at least once every three months and will perform the following roles:
  - g) Review the implementation and effectiveness of the policy and undertake necessary and sufficient corrective measures / changes / amendments if required to achieve the goals desired under the policy
  - h) Put in place the institutional mechanisms required to implement this policy (e.g., notifying list of approved vehicles, identifying public charging and battery swapping locations etc.)
  - i) Bring about inter-departmental coordination in respect of matters related to this Policy.
  - j) Review the definitions of EV, EV components, Battery and Charging Station or any other related definitions and approve the amendments as may be appropriate.

- k) Review the best practices
- l) Recommend the formation of sub-committees or special task forces on priority areas from time to time.

8.4. The GNCTD is committed to providing stability in the EV policy framework in the NCT of Delhi. The State EV Board will be fully empowered to make any changes in the level of incentives or subsidies or to take measures for effective targeting of such subsidies such that the primary objective of this policy i.e. to drive rapid adoption of Battery Electric Vehicles (BEVs) in a manner where they contribute to 25% of all new vehicle registrations by 2023, is achieved.

**Annexure 1 - Summary of incentives available for various classes of EVs**

<b>Vehicle categories</b>	<b>FAME India, 2015 (and subsequent amendments)</b>	<b>Air Ambience Fund/DPCC</b>	<b>Draft Delhi EV Policy 2018</b>
Mild, Strong and Plug in Hybrid Vehicles	Demand incentive as applicable	NIL	NIL
Pure Electric - Battery Electric Vehicles	Demand incentive as applicable	Subsidy as per cost of vehicle provided to purchaser	<ul style="list-style-type: none"> <li>- Purchase Incentive</li> <li>- Top Up Incentive</li> <li>- Scrapping Incentive (all incentives applicable at time of purchase and payable to Auto OEM or dealer)</li> </ul>
Two wheelers	Demand incentive - Level 1&2 (₹9400 - 22,000 per vehicle)	Subsidy to purchaser <ul style="list-style-type: none"> <li>- ₹1000 for vehicles that cost up to ₹20,000</li> <li>- ₹2000 for vehicles that cost more than ₹20,000 but less than ₹25,000</li> <li>- ₹5,500 for vehicles that cost more than ₹25,000</li> </ul>	<ul style="list-style-type: none"> <li>- Purchase and Top Up Incentives for specific vehicle categories (i.e., High power with Advance Battery); ₹11,000-22,000 per vehicle</li> <li>- Scrapping Incentive of up to ₹15,000</li> </ul>
Three wheelers (passenger)/ e-Autos	Demand incentive (₹25,000 - 61,000 per vehicle)	NIL	<ul style="list-style-type: none"> <li>- E-auto permits issued without any restrictions</li> <li>- Grant for down payment and interest subvention to individual drivers for vehicles with swappable batteries (~₹50,000 per vehicle over a</li> </ul>

Vehicle categories	FAME India, 2015 (and subsequent amendments)	Air Ambience Fund/DPCC	Draft Delhi EV Policy 2018
			3 year period) - Scrapping Incentive of up to ₹15,000 - Cash back for passengers up to ₹10 per trip
e-rickshaws	Demand incentive of ₹37,500-45,000 for specified models	Subsidy of ₹30,000	Hire purchase scheme at concessional terms (~₹49,000 over a 3 year period) for vehicles with advance, swappable batteries
Three wheeler (goods)/ e-Carriers	Demand incentive of ₹25,000-61,000	NIL	Purchase Incentive of ₹12,500-20,500 for vehicles with advance, swappable batteries
Buses and Other Stage carriage vehicles	Subsidy for public transport purchases in specified cities	NIL	Subsidy as decided by GNCTD from time to time to ensure 50% of fleets comprise of EVs by 2023
Passenger cars/ e-Cabs	Demand incentives as per specification	Subsidy of ₹30,000 for vehicles that cost upto ₹5 lacs and ₹1,50,000 for vehicles that cost more than ₹5 lacs	- Waiver registration fees, road tax and MCD one-time parking fee - Cash back for passengers up to ₹10 per trip
LCVs	Demand incentives as specified	NIL	Waiver registration fees, road tax and MCD one-time parking fee
Retrofitment	Demand incentive as per vehicle category	-	NIL