Registered No. WB/SC-247

No. WB(Part-I)/2021/SAR-234

The Kolkata Gazette

सत्यमेव जयते

Extraordinary

Published by Authority

JASTHA 13] THURSDAY, JUNE 03, 2021 [SAKA 1943

PART I—Orders and Notifications by the Governor of West Bengal, the High Court, Government Treasury, etc.

POWER DEPARTMENT
GOVERNMENT OF WEST BENGAL

No.: 189-POW-2021 **Date: 03rd June, 2021**

Electric Vehicle Policy 2021

1. Preamble

The transport sector accounts for 18% of total energy consumption in India. This translates to an estimated 94 million tonnes of oil equivalent (MTOE) energy. If India were to follow the current trends of energy consumption, it would require an estimated 200 MTOE of energy supply annually, by the year 2030 to meet the demand of this sector. At the moment, this demand is being met mostly through imported crude oil, which therefore makes this sector vulnerable to the volatile International crude oil prices. Moreover, the sector also contributes estimated 142 Million Tonnes of CO_2 emissions annually, out of which 123 million tonnes is contributed by the road transport segment alone.

Keeping in view the climate change commitments made by Government of India during the COP21 Summit held at Paris to reduce emission intensity by 33-35% by 2030 from 2005 levels, it is pertinent to introduce alternative means in the transport sector which can be coupled with India's rapid economic growth, rising urbanization, travel demand and country's energy security. Electric mobility presents a viable alternative in addressing these challenges, when packaged with innovative pricing solutions, appropriate technology and support infrastructure and thus, has been on the radar of Government of India.

Most importantly, electric mobility will enhance electricity demand which is seriously affecting our Discoms and also contribute to balancing energy demand, energy storage and environmental sustainability. Electric vehicles could help diversify the energy needed to move people and goods thanks to their reliance on the wide mix of primary energy sources used in power generation, greatly improving energy security. They could help support the uptake of clean electricity, enabling greater use of variable renewable in electricity production. If coupled with the decarburization of the power sector, electric vehicles would also provide major contributions to keep the world on track to meet its shared climate goals.

The Electric Vehicle industry in India is far behind, with less than 1% of the total vehicle sales. Currently, Indian

roads are dominated by conventional vehicles and have approximately 0.4 million electric two-wheelers and a few thousand electric cars only. The Indian EV industry has been on the back seat due to various challenges.

The Government of India had undertaken multiple initiatives to promote manufacturing and adoption of electric vehicles in India. With support of the government, electric vehicles have started penetrating the Indian market. However, availability of adequate Charging Infrastructure is one of the key requirements for accelerated adoption of electric vehicles in India. Availability of adequate Charging Infrastructure is one of the key requirements for accelerating the adoption of electric vehicles in India. In this regard, Ministry of Power has issued "Charging Infrastructure for Electric Vehicles - Guidelines and Standards[1&2]" mentioning the roles and responsibilities of various stakeholders at Central & State level, for expediting the development of public EV charging infrastructure across the country. The Ministry of Power has designated Bureau of Energy Efficiency (BEE) as the Central Nodal Agency (CNA) for the National-level rollout of charging infrastructure in the country and State Nodal Agencies (SNA) have been designated already. For our State, WBSEDCL is the SNA[3]. It has also clarified that charging the batteries of electric vehicles does not require a licence under the Electricity Act, 2003[4]. The Urban Development Ministry of GoI has also framed model building byelaws for integrating electric vehicle charging infrastructure into the town planning as well as for housing colonies[5]. Recently, the Government of India unveiled the second phase of FAME (Faster Adoption and Manufacture of (Hybrid and) Electric Vehicles) scheme to promote adoption of Electric Vehicles (EVs) in the country. Under FAME-II scheme, INR 10,000 crores has been allocated to promote EV adoption in the country.

West Bengal is India's sixth-largest state in terms of economic size, with a gross state domestic product (GSDP) of INR 10trillion in 2017-18, estimating an average annual GSDP growth rate from 2011-12 to 2018-19 of about 12.06%. West Bengal accounted for 6.3% of India's cumulative GSDP. The state boosts a per capita GSDP of INR 117,704 (US$ 1,681.49) compared to India's per capita GDP of INR 138,253 (US$ 1,975.05).[6]

Geographically, West Bengal is the 13th largest state with an area of 88,752 square km and accounts for almost 7.5% of the India's population. With an average density of 1,029 people per square km, West Bengal is the 4th largest state in terms of population.[7] The state of West Bengal shares international borders with Bangladesh, Bhutan and Nepal with the Bay of Bengal in the south of the state. West Bengal is situated in eastern India and shares its borders with five Indian states Jharkhand, Bihar, Odisha, Sikkim and Assam. Location advantage makes the state a traditional market for eastern India, the Northeast, Nepal and Bhutan. It is also a strategic entry point for markets in South-East Asia.

West Bengal has a history to be associated with electrification of transportation systems. Kolkata, the capital of West Bengal was the first city in the entire Asia, that introduced public transportation system running on electricity in 1902 and has also been the first to introduce electric buses for public transport in the city. Currently it has a low electric vehicle population of only 5,895 petrol hybrid, 4,254 diesel hybrid, 35,999 e-Rickshaws, 1,240 two-wheelers, 93 four-wheelers, 93 buses and 24 trucks out of 93.36 lakh non-transport and 10.07 lakh transport vehicle population in the State[8]. The introduction of electric mobility represents a unique opportunity to leverage the electricity infrastructure for accelerated and cost-effective mobility deployment.

As an economic powerhouse of India, the state of West Bengal whileunderstanding the technical, commercial and social impact of the electric mobility sector, has felt the need to provide a strategic direction to the emerging electric

---

1 **"Charging infrastructure for Electric Vehicles (EVs)-Revised Guidelines and Standards" issued on 01.10.2019** (web-link)

2 Amendment in the revised Guidelines and Standards for Charging Infrastructure for Electric Vehicles June 2020 - https://powermin.gov.in/sites/default/files/uploads/Amendment_in_Revised_Guidelines.pdf(link is external)

3 State Nodal Agencies under the provision of "Charging Infrastructure for Electric Vehicles Guidelines and Standards" issued by Ministry of Power on 14.12.2018

4 Regulation regarding delicensing the sale of electricity at charging stations April 2018 - https://powermin.gov.in/sites/default/files/uploads/Clarification_EV.pdf(link is external)

5 Guidelines issued by Ministry of Housing and Urban Affairs (MoHUA), 2016 - http://mohua.gov.in/upload/whatsnew/5c6e472b20d0aGuidelines%20(EVCI).pdf(link is external)

6 IBEF - https://www.ibef.org/states/west-bengal.aspx

7 Census of India 2011

8 Transport Department, WB figures for January 2021

mobility sector. The Government of West Bengal envisions to build upon a century old history of electric transportation and envisions to build West Bengal as the 'model state' in the electric mobility in India.

2. Electric Vehicles in India and FAME India Guidelines

In India, the transport sector accounts for over 40% of the total oil consumption with around 90% of the demand arising from the road transport. By 2020, 330 mt (million tons) of carbon emissions are expected to arise from the transportation sector, 90% of which may be from road transport alone[9].

The phase II of the scheme titled as FAME II will be implemented over a period of 3 years w.e.f. 1st April 2019, with an overall outlay of ₹ 10,000 Crores. The scheme aims to provide an impetusto the adoption of electric and hybrid vehicles by offering an upfront incentive on the purchase of electric vehicles and establishing necessary charging infrastructure.

Department of Heavy Industry (DHI) will be the nodal agency responsible for planning, implementation and review of the scheme, addressing issues related to the guidelines and for removal of difficulties in the implementation of the scheme. DHI will also issue guidelines as and when necessary to meet the objectives of the scheme.

The proposed verticals of the scheme and breakup of fund allocation are listed below:

Table 1: FAME II scheme components (All amounts are in ₹ Crore)

S.No	Component	2019-20	2020-21	2021-22	Total fund requirement
1.	Demand incentives	822	4,587	3,187	8,596
2.	Charging infrastructure	300	400	300	1,000
3.	Administrative expenditure including publicity, ICE (Information, Communication and Education) activities	12	13	13	38
	Total allocation for FAME-II	1,134	5,000	3,500	9,634
4.	Committed expenditure of Phase-I	366	0	0	366
Total		**1,500**	**5,000**	**3,500**	**10,000**

Following categories of vehicles are eligible for demand incentives under the FAME II scheme -

- Buses (only Electric Vehicle technology)
- Four Wheelers (Electric (EV), Plug-in Hybrid (PHEV) and Strong Hybrid (SHEV))
- Three-wheeler (Electric) including Registered E-Rickshaws
- Two Wheelers (Electric)

Keeping in view the fact that cost of batteries is one of the significant factors of difference in acquisition price of EVs and ICE vehicles, the demand incentives will be based on battery capacity (i.e. energy content measured in kWh).

With greater emphasis on providing affordable and environmentally friendly public transportation options for the masses, the scheme will apply mainly to vehicles used for public transport or those registered for commercial purposes in 3W, 4W and Bus segments. However, privately owned registered 2Ws will be covered under the scheme considering them as a mass segment.

9 International Energy Agency (IEA) - World Energy Outlook 2018

Vehicle segment wise approximate amount of incentives, an initial target number of vehicles and other details are listed below:

Table 2: Incentive allocation and guidelines in the scheme

S. No.	Vehicle Segment	Maximum number of vehicles to be supported	Approx. size of battery in kWh	Total approx. incentive @ 10,000/ kWh for all vehicles and 20,000/ kWh for buses and trucks	Maximum ex-factory price to avail incentive	Total fund supported by DHI
1.	e-2wheelers	10,00,000	2 kWh	₹ 20,000	₹ 1.5 Lakhs	₹ 2,000 Crore
2.	e-3wheelers (including e- rickshaws)	5,00,000	5 kWh	₹ 50,000	₹ 5 Lakhs	₹ 2,500 Crore
3.	e-4wheelers	35,000	15 kWh	₹ 1,50,000	₹ 15 Lakhs	₹ 525 Crore
4.	4W strong hybrid vehicle	20,000	1.3 kWh	₹ 13,000	₹ 15 Lakhs	₹ 26 Crore
5.	e-bus	7,090	250 kWh	₹ 50 Lakhs	₹ 2 Crore	₹ 3,545 Crore
Total Demand Incentive						**₹ 8,596 Cr**

3. Vision of the Policy

Leverage on the history of electric mobility transportation ecosystem implementation in West Bengal to lead India's future of electric mobility.

4. Mission

The Power Department, Government of West Bengal has identified Electric Mobility as the need of the hour and an eminent transformation of the transportation ecosystem. The Power Department aims to place West Bengal as a frontrunner in building a sustainable transportation infrastructure by promoting the Electric Mobility Ecosystem in state thereby promoting, sustainability, and energy efficiency.

5. Objective

- Promote innovation actively through grants and venture funds to research organizations, incubators, and start-ups working on next generation battery technology, fuel cell technologies, EV power trains and EV electronics.
- Enable investment into charging/battery swapping infrastructure and hydrogen generation and fuelling station development.
- Promote usage of EVs to enable transition to environmentally friendly cities.

6. Targets

- Government of West Bengal has set for itself an ambitious target to be one amongst the top three best states in India in terms of the electric mobility penetration by the end of FAME II implementation year 2022 And further, the state will target to be the best State in electric mobility penetration by 2030.
- Target is to have 10 lakh EVs, combined across all segment of vehicles, during the policy implementation.
- Target to have 1,00,000 public, semi-public charging stations during the policy implementation.

- Achieve an Electric vehicle/public charge point ratio of 8 by the implementation of the policy. Create robust infrastructure for electric vehicles including adequate power supply and network of charging points with favourable power tariff.

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

7. Strategy

- Charging Infrastructure
- Demand creation for EVs
- Research & Development

8. Policy Measures

The Power Department, Government of West Bengal will focus on policy interventions intended to encourage EV adoption in the State. 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. Through the announcement of such progressive policy initiatives, West Bengal could eventually lead the race to zero emission vehicles (ZEVs) in the run-up-to COP26 and beyond.The State's approach to each class of vehicles will be as follows:

8.1. Establishment of an 'EV Accelerator Cell

- An EV Accelerator Cell will be established as a nodal-entity for implementing the electric mobility programme within the state. The Cell shall work with following objectives and suggested functions, which can expand over time:

- Facilitating inter-departmental coordination on framing regulatory mechanism and progressive policies to enhance uptake.

- Enabling faster decision-making, enhanced investments, and accelerated implementation of the West Bengal Electric Vehicle Policy so as to support cities' and the state's ambition towards electric mobility.

- The proposed EV Accelerator Cell could be housed within the Department of Transport/ Department of Power, Government of West Bengal, comprising of staff possessing relevant technical expertise to exclusively deal with all matters related to electric mobility in the state.

- EV Accelerator Cell shall facilitate ICE vehicles phasing-out plan across all vehicle segments including 2Ws, 3Ws, 4Ws passenger cars and vans, and buses (including inter-city fleets) for which the 'State EV Fund' could be utilised (refer to clause no. 8.2 below). It will further enable sustainability of the proposed EV Accelerator Cell.

- Setting up of EV Charging Infrastructure Working Group under the Cell to facilitate faster creation of charging points.

- Setting up 'EV Forum' possibly comprising of representatives from State Government Departments, businesses, industry associations, research organisations, think tanks, and international players, will be created within the EV Accelerator Cell for facilitating the EV transition.

8.2. State-level EV Awareness

- State-level EV awareness campaigns and intensive public outreach programmes could be formulated. The following areas could be focused upon with an aim that:

- These programs could focus on driving knowledge regarding the benefits of adopting EVs and key elements of the State EV policy.