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Government of Kerala

Abstract

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

Transport(B) Department

GO(Ms) No.24 /2019/Trans Dated, Thiruvananthapuram 10/03/2019

Read : 1. GO(Rt) No.242/2017/E&ITD dated 10/10/2017
2. GO(Ms) No.58/2018/Trans. dated 29/09/2018

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 on 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 of Electric Vehicle Policy for the State. As per the GO read as 1st paper above, Government had 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. In light of the proposal of the committee a draft Electric Vehicle policy for the State of Kerala had been published as per the GO read as 2nd paper above.

After detailed discussion with the various stakeholders, the draft policy was modified according to the prevailing circumstances of the State incorporating various changes, the Government are pleased to approve the Electric Vehicle Policy for the State of Kerala as 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
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Copy to:

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

Forwarded By Order

Section Officer

Government of Kerala
Electric Vehicle Policy

1. 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 is taking several measures like improving the conditions of roads, 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 is known for its environmental sensitiveness, bio diversity and tourist attractions, and the State wishes to maintain its texture and ensure 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 is expected to get reduced with the introduction of modern shared transport systems like Electric Buses and e-Autorickshaws. 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 EVs, as articulated by the NITI Aayog.

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 Vehicles in Kerala (2016 Economic Review)

		Kerala	**TVM**	**EKM**	**KKD**
Goods	3W	419,857	36,478	69,643	34,296
	4W	136,938	12,186	17,124	13,984
Buses	Stage	42,707	13,247	4,074	3,630
	Contract	64,051	10,251	9,945	3,802
4W	Cars	2,070,635	278,468	336,445	155,605
	Taxis	107,567	9,027	17,276	9,729
3W	Autorickshaw	610,235	70,689	58,271	51,449
2W	Scooter/Motorcycle	6,472,302	834,151	1,004,232	639,437
Tractor/Trailer	Tractor	14,213	741	2,117	434
	Trailer	699	143	147	35

Others		232,609	25,211	39,996	14,987
	Total	**10,171,813**	**1,290,592**	**1,559,270**	**927,388**

2. 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, 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

3. Key Policy Drivers

The EV drive for Kerala has been triggered by multiple forces viz.

1. Support the National commitment to reduce greenhouse gas emissions
2. Improving air quality, especially in cities
3. Promoting shared mobility and clean transportation
4. Balancing of the peak and off-peak power demand for the electric utility (KSEBL),
5. Operational efficiency and savings for the transport utility (KSRTC) as well as the transport sector in general, and
6. Strategic intent to boost hardware and software manufacturing in the State.

Managing the Electricity Grid

In Kerala, nearly 80% of the demand is the variable load from the domestic and service sectors which is unpredictable because a variation in atmospheric temperature can spike the power consumption. The Kerala State Electricity Board Ltd. (KSEBL) is looking at EV adoption as an option for generating demand during the off-peak hours. It would mean cheap electricity for EVs and load balancing for the grid. 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 Transportation Corporation (KSRTC) shall transition its entire fleet of 6000+ buses into Electric Vehicles by 2025. This is expected to substantially reduce the heavy outflow due to fuel cost. KSRTC currently procures around 1000 new buses annually and these can be replaced with EVs. 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 import-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.

4. Structure

A technical advisory Committee "E-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 and shall also scrutinise the technology adoption and manufacturing proposals in this area and recommend to the Government for the adoption of the same.

The State Government has also constituted a high-level, inter-departmental Steering Committee for the smooth implementation of the EV roadmap. The Steering Committee shall review the progress of the plans and also suggest necessary course corrections.

5. Vehicle Categories

Conversion of three wheelers and transport buses to electric would be the first priority for the State along with a promotional role in conversion of two and four wheelers.

Kerala has also done a pilot in the area of electric boats using solar power for ferrying passengers, which has been running successfully. Steps shall be taken