REPORT NO.
317

PARLIAMENT OF INDIA
RAJYA SABHA

DEPARTMENT-RELATED PARLIAMENTARY STANDING COMMITTEE ON INDUSTRY

THREE HUNDRED AND SEVENTEENTH REPORT

ON

Action taken by the Government on the recommendations/observations contained in the 309th Report of the Committee on Electric & Hybrid Mobility – Prospects And Challenges in Automobile Industry pertaining to the Ministry of Heavy Industries

(Presented to the Rajya Sabha on 28th July, 2022)
(Laid on the Table of Lok Sabha on 29th July,2022)

Rajya Sabha Secretariat, New Delhi
July, 2022 / Shravana, 1944 (Saka)

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* To be appended later.

COMPOSITION OF THE COMMITTEE (2021-22)

(Constituted w.e.f. 13th September, 2021)

RAJYA SABHA

1. **Dr. K. Keshava Rao** - ***Chairman***
2. Shri Hardwar Dubey
3. Shri Narain Dass Gupta
4. Dr. Amee Yajnik
5. *Shri Luizinho Joaquim Faleiro
6. #Shri Jose K. Mani
7. %Vacant
8. @Vacant
9. $Vacant
10. &Vacant

LOK SABHA

11. Shri Hanuman Beniwal
12. Ms. Mimi Chakraborty
13. Shri Bharatsinghji Shankarji Dabhi
14. Shri Hemant Godse
15. Dr. S. T. Hasan
16. Shri Ravi Kishan
17. Shri Mohanbhai Kalyanjibhai Kundariya
18. Shri Ravinder Kushawaha
19. Shrimati Poonamben Hematbhai Maadam
20. Shri Bidyut Baran Mahato
21. Shri Ramprit Mandal
22. Shri Vincent H. Pala
23. Shri Chirag Kumar Paswan
24. Shri T. R. V. S. Ramesh
25. Shri Y. S. Avinash Reddy
26. Ms. Jothimani S.
27. Shrimati Gomti Sai
28. Shri Sunil Soren
29. Shri Sunil Dattatray Tatkare
30. Shri Thirunavukkarasar S.U.
31. Shri Vijay Kumar (alias) Vijay Vasanth

SECRETARIAT

1. Shri Jagdish Kumar, *Additional Secretary*
2. Shri Arun Sharma, *Joint Secretary*
3. Shri Narendra Kumar, *Additional Director*
4. Smt. Sreeja. V., *Deputy Secretary*
5. Shri Pratap Shenoy, *Under Secretary*
6. Miss Deepti Rana, *Assistant Committee Officer*

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*Nominated to the Committee w.e.f. 24.01.2022

#Nominated to the Committee w.e.f. 11.03.2022

%Retirement *w.e.f. 2nd* April, 2022

@Retirement *w.e.f. 9th* April, 2022

$*Resignation w.e.f. 2nd May*, 2022

&Retirement *w.e.f. 4th July*, 2022

INTRODUCTION

I, the Chairman of the Department-related Parliamentary Standing Committee on Industry, having been authorized by the Committee, hereby present this 317th Report on Action Taken by the Ministry of Heavy Industries on the recommendations/observations contained in the Committee's 309th Report on Electric & Hybrid Mobility – Prospects And Challenges in Automobile Industry pertaining to Ministry of Heavy Industries.

2. The 309th Report of the Department-related Parliamentary Standing Committee on Industry was presented to the Rajya Sabha on 6th December, 2021 and laid on the Table of the Lok Sabha on 6th December, 2021.

3. The Ministry of Heavy Industries furnished the Action Taken Replies on the 309th Report of the Committee on the 28th March, 2022.

4. The Committee considered the draft-Report and adopted the same at its meeting held on 21st July, 2022.

Dr. K. Keshava Rao
Chairman
Department -related Parliamentary
Standing Committee on Industry

New Delhi
21st July, 2022
Ashadha 30, 1944 (Saka)

ACRONYMS

CSR	-	Corporate Social Responsibility
EV	-	Electric Vehicle
GHG	-	Green House Gas
PLI	-	Production Linked Incentive
HEV	-	Hybrid Electric Vehicles
BEV	-	Battery Electric Vehicles
ICE	-	Internal Combustion Engine
4W	-	Four Wheeler
RFP	-	Request for Proposal
GSR	-	General Statutory Rules
RVSF	-	Registered Vehicles Scrapping Facility
PPP	-	Public Private Partnership
OMC	-	Oil Marketing Companies
BEE	-	Bureau of Energy Efficiency
AC	-	Alternate Current
LEV	-	Light Electric Vehicle
DISCOM	-	Distribution Company
RoI	-	Return on Investment
GARC	-	Global Automotive Research Centre
NATRAX	-	National Automotive Test Tracks
VRDE	-	Vehicles Research and Development Establishment
NIAIMT	-	National Institute for Automotive Inspection Maintenance and Training
PHEV	-	Plug-in Hybrid Electric Vehicles
FCEV	-	Fuel Cell Electric Vehicles
PCS	-	Public Charging Station
MoP	-	Ministry of Power
EESL	-	Energy Efficiency Services Limited
CC	-	Cubic Centimetre
MoF	-	Ministry of Finance
DST	-	Department of Science and Technology
BIS	-	Bureau of Indian Standards
MoEFCC	-	Ministry of Environment, Forest and Climate Change
DoR	-	Department of Revenue
IIT	-	Indian Institute of Technology
MHI	-	Ministry of Heavy Industries
2W	-	Two Wheeler
3W	-	Three Wheeler
ACC	-	Advanced Chemistry Cell
ARAI	-	Automotive Research Association of India
BE	-	Budget Estimates

BS	-	Bharat Stage
CO2	-	Carbon Dioxide
FAME	-	Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles
FY	-	Financial Year
GST	-	Goods and Services Tax
GWH	-	Giga Watt Hour
iCAT	-	International Centre for Automotive Technology
KWh	-	Kilo Watt Hour
MoRTH	-	Ministry of Road, Transport and Highways
NATRiP	-	National Automotive Testing and R & D Infrastructure Project
OEM	-	Original Equipment Manufacturer
R&D	-	Research and Development
UT	-	Union Territory

REPORT

The Action Taken Report of the Committee deals with the Action Taken by the Ministry of Heavy Industries on the recommendations contained in the Committee's Three Hundred and Ninth Report on Electric & Hybrid Mobility – Prospects and Challenges in Automobile Industry pertaining to Ministry of Heavy Industries.

2. Action Taken Replies have been received from the Ministry of Heavy Industries in respect of the recommendations contained in the 309th Report. These have been categorized as follows:

Chapter-I- The recommendations/observations which have been accepted by the Ministry.
Para: 22(iii), 22(iv), 27, 42, 49, 52, 66,71(i), 71(ii), 71(iv), 71(v), 82, 90, 91, 92, 97, 102, 109(i), 109(ii) and 109(iii) **(Total: 20)**

Chapter-II- The recommendations/ observations which the Committee does not desire to pursue further in view of the Ministry's replies.
Para: 16 (i), 16(ii) and 22(i) **(Total: 03)**

Chapter-III- The recommendations/observations in respect of which the Committee has not accepted replies of the Ministry.
Para: 11, 22(ii), 33, 87, 37, 40, 47, 58, 60, 89, 94 and 100 **(Total: 12)**

Chapter-IV- The recommendations/observations in respect of which the final replies of the Ministry are still awaited.
Para: 44, 71(iii), 71(vi) , 78, 81, 83, 85 and 96 **(Total: 08)**

3. The details of the Action Taken Replies of the Ministry and further recommendations/observations of the Committee thereon wherever found necessary are given in the succeeding pages.

CHAPTER – I

THE RECOMMENDATIONS/OBSERVATIONS WHICH HAVE BEEN ACCEPTED BY THE MINISTRY

Recommendation/ Observation

1. The Committee further notes that currently the FAME scheme is limited to subsidising xEV purchase & charging infrastructure. The Committee is of the view that its scope should be broadened to include funding/grants for xEV components development and R&D, Development of components for charging infrastructure & capital subsidy/incentive for manufacturing xEV components.

(Para 22 (iii))

Action Taken Replies

Advance Automotive components including xEV components and Electric vehicle are covered under PLI Scheme for Automobile and Auto Components.

Recommendation/ Observation

2. The Committee notes that the 2nd Phase of FAME Scheme was launched on 1st April, 2019 with an outlay of 10,000/- crores for a period of 3 years and the scheme tenure has been extended for further two years. However, the expenditure outlay has not been enhanced. The Committee feels that with the extension of the period, there is likelihood for the requirement of more funds for incentivizing more number of vehicles in the new segments like e3W & e4W for boosting the EV sale in the immediate future. The Committee, therefore, recommends that fund assessment may be carried out by the Ministry of Heavy Industries to ensure successful implementation of the Scheme and if required, outlay may be enhanced and sufficient funds may be demanded in the coming years.

(Para 22 (iv))

Action Taken Replies

As per fund assessment carried out by the Ministry of Heavy Industries BE 2021-22 for Rs 756.67 have been revised to Rs 800 crore under RE 2021-22 and BE allocation for 2022-23 has been steeply enhanced to Rs 2908.28 crore.

Recommendation/ Observation

3. The Committee has been informed that to qualify for the PLI Scheme for Advanced Chemistry Cells (ACCs), a high threshold has been set by the Government as manufacturers have to set up production units with a capacity of at least 5 GWh. Similarly, to become eligible for the Automotive Champion Scheme, a company should earn revenue of Rs.1000 crore from overseas operations. Most of the existing Original Equipment Manufacturers (OEMs) in the EV industry are nascent and don't have such international operations. The Committee, therefore, is of the view that the specification and criteria prescribed in PLI Scheme should be revisited to enable the Indian OEMs to be eligible for the Scheme.

(Para 27)

Action Taken Replies

Under ACC PLI, MHI issued RFP on 22nd Oct, 21 inviting proposals from domestic/international manufactures for setting up ACC manufacturing plants in India. As per technical bids opened on 15th Jan, 2022 proposals from 10 domestic/international manufacturers, for 128 GWh ACC has been received.

Similarly overwhelming response have been received under Auto PLI. The Production Linked Incentive (PLI) Scheme for Automobile and Auto Component Industry in India has been successful in attracting proposed investment of ₹ 74,850 crore against the target estimate of investment ₹ 42,500 croreover a period of five years.

Recommendation/ Observation

4. The Committee recommends that the Government should regularly monitor and ensure implementation of the measures issued through M/o Road Transport and Highways advisory dated 17.07.2019 by all State Governments to expedite transition to EVs.

(Para 42)

Action Taken Replies

MORTH has informed that the same is noted for compliance.

Recommendation/ Observation

5. The Committee is deeply concerned to note the poor uptake in the sales of EV i.e., less than 1% sale compared to that of the Internal Combustion Engine (ICE) vehicle since the launch of FAME-I Scheme in the year 2015 by the Ministry of Heavy Industries, which was primarily targeted to promote Electric Mobility in India. For proliferation of a robust EV transition, it is imperative to layout a clear and planned strategy for introduction of new technology or investments. The Committee feels that the Ministry could not anticipate the evolution and adoption of the Electric Mobility, which at this point of time demands urgent mid-term course correction to see the desired off-take in mass adoption of EVs.

(Para 49)

Action Taken Replies

i) In order to increase the sale of xEVs subsidy/incentive has been increased from Rs. 10,000/- per Kwh to Rs. 15000/- per Kwh and increase in the cap on incentive for e2W from 20% to 40% of the cost of vehicles. It resulted in sharp increase in sale of e-2W which is evident from the fact that as on 18th Feb 21 in FY 2021-22, total 1.7 lakh EV were sold which is over 4 times than the total EV sold during entire FY 2020-21 as per vahan portal. Further, there is significant growth of EV sector in India during FY 2021-22. As on 18th Feb 22 in FY 2021-22, total 3.3 lakh EV were sold which is over 2.5 times than the total EV sold during entire FY 2020-21 as per vahan portal.

(ii) The Government on 12th May, 2021 approved a Production Linked Incentive (PLI) scheme for manufacturing of Advanced Chemistry Cell (ACC) in the country in order to bring down prices of battery in the country. Drop in battery price will result in cost reduction of electric vehicles.

(iii) Electric Vehicles are covered under Production Linked Incentive (PLI) scheme for Automobile and Auto Components, which was approved on 15th September 2021 with a budgetary outlay of Rs. 25,938 crore for a period of five years.

Recommendation/ Observation

6. The demand for Electric vehicles in India have surged in the last five years, but there is still a long way to go for the industry to reach a parity point with Internal Combustion Engine (ICE) vehicles. The Committee recommends that Government should endeavour to make India a global manufacturing hub of electric vehicles through various measures like policy support and creating a conducive and comprehensive EV ecosystem to bring a parity with ICE vehicles so that consumers are encouraged to buy Electric Vehicles without any concern.

(Para 52)

Action Taken Replies

Adoption of EVs is being promoted through three major policy interventions as per below:

(i) In order to make India a global manufacturing hub of Automobile & Auto Components a Production Linked Incentive (PLI) scheme for Automobile and Auto Components was approved on 15th September 2021 with a budgetary outlay of Rs. 25,938 crore for a period of five years. Electric Vehicles are covered under Production Linked Incentive (PLI) scheme for Automobile and Auto Components.

(ii) The Government on 12th May, 2021 approved a Production Linked Incentive (PLI) scheme for manufacturing of Advanced Chemistry Cell (ACC) in the country in order to bring down prices of battery in the country. Drop in battery price will result in cost reduction of electric vehicles.

(iii) FAME-II, which is being implemented for a period of 5 years w.e.f. 01st April, 2019 with a total budgetary support of Rs. 10,000 crores, focusses on supporting electrification of public & shared transportation and aims to support, through subsidies, 7090 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakh e-2Wheelers.

Recommendation/ Observation

7. The Committee notes that the EV industry is initially facing many challenges for take-off due to poor demand from consumers owing to high upfront cost of EVs in comparison to Internal Combustion Engine (ICE) vehicles, inadequate charging infrastructure etc. The Committee urges the Government to play an important role as a catalyst for enabling faster adoption of Electric Mobility through subsidies, incentives and long-term sustainable policies for demand creation. Further, States which have not fully waived off road tax/registration fee on EVs should be directed to do so in order to attract consumers to go for EVs. Lowering the price of EVs and additional incentives on scrapping ICE vehicles for EVs can also fast-track transition to Electric Mobility.

(Para 66)

Action Taken Replies

The Ministry of Heavy Industries formulated a Scheme namely Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India (FAME India) Scheme in 2015 to promote adoption of electric/ hybrid vehicles (xEVs) in the country. At present,Phase-II of FAME India Scheme is being implemented for a period of 5 years w.e.f. 01st April, 2019 with a total budgetary support of Rs. 10,000 crores. This phase focusses on supporting electrification of public & shared transportation and aims to support, through subsidies, 7090 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakh e-2Wheelers. In addition, creation of charging infrastructure is also supported to address range anxiety among users of electric vehicles.

Further, following steps have been taken by the Government for adoption of electric vehicles in the country:

i. The demand incentive for electric two wheelers has been increased to Rs. 15,000/KWh from Rs. 10,000/KWh with an increase in cap from 20% to 40% of the cost of vehicle from 11th June, 2021, thus enabling cost of Electric two wheelers at par with that of ICE two wheeler vehicles.

ii. The Government on 12th May, 2021 approved a Production Linked Incentive (PLI) scheme for manufacturing of Advanced Chemistry Cell (ACC) in the country in order to bring down prices of battery in the country. Drop in battery price will result in cost reduction of electric vehicles.

iii. Electric Vehicles are covered under Production Linked Incentive (PLI) scheme for Automobile and Auto Components, which was approved on 15th September 2021 with a budgetary outlay of Rs. 25,938 crore for a period of five years.

iv. GST on electric vehicles has been reduced from 12% to 5%; GST on chargers/ charging stations for electric vehicles has been reduced from 18% to 5%.

v. Ministry of Road Transport & Highways (MoRTH) announced that battery-operated vehicles will be given green license plates and be exempted from permit requirements.

vi. MoRTH issued a notification advising states to waive road tax on EVs, which in turn will help reduce the initial cost of EVs.

viii. Further, As on 18th Feb, 2022 Eighteen states (Andhra Pradesh, Delhi, Karnataka, Kerala, Maharashtra, Tamil Nadu, Telangana, Odisha, Uttar Pradesh, Madhya Pradesh, Meghalaya, Gujarat, Assam, Goa, Meghalaya, West Bengal and Uttarakhand) have approved/notified dedicated EV policies providing fiscal and nonfiscal incentives for Electric vehicles.

Recommendation/ Observation

8. The Committee observes that the number of existing charging stations is very negligible and is concentrated only in Metros and select cities. For a vast country like India with huge population of vehicles, the existing charging facility is too inadequate. Lack of visible number of charging stations have been the major reason for strong hesitancy in consumers to accept Electric Mobility. Unless and

until the issue of inadequate charging facility is addressed, the adoption of Electric Mobility is hardly going to take-off. The Committee, therefore, recommends that the Government should emphasize on establishing dense, robust and fast charging infrastructure across the country over and above the FAME (India)-II Scheme and if need be with Public Private Partnership (PPP), to allay the fears of range anxiety of customers and instill confidence in them for opting to EV.

(Para 71 (i))

Action Taken Replies

The Ministry of Heavy Industries had also sanctioned 520 Charging Stations/ for developing charging Infrastructure under Phase-I of FAME-India Scheme.

This Ministry has sanctioned 2,877 Electric Vehicle Charging Stations in 68 cities across 25 States/UTs. Further, 1576 charging stations across 9 Expressways and 16 Highways under Phase II of FAME India Scheme has also been sanctioned. Further, as per information received from Ministry of Petroleum & Natural Gas, 1536 electric vehicle charging stations have been installed at Oil Marketing Companies (OMCs) retail outlets in the country as on 01.01.2022.

Further, Oil marketing companies are being expedited to install charging stations across their ~22000 retail outlets.

Recommendation/ Observation

9. The Committee desires that all the EV manufacturers should make provisions for EV Charging facility in their showrooms & service stations, which will add up to the charging infrastructure to alleviate consumer's range anxiety.

(Para 71 (ii))

Action Taken Replies

Noted for compliance.Some OEMs are installing charging stations.

Recommendation/ Observation

10. To improve the mobility services, it is advisable to have a live database of active charging stations installed all over the country and the locations readily available for the consumers for their reference enabling them to easily track the nearest charging station at times of need while on the move. The Committee, therefore, urges that the MHI in coordination with the Ministries/Agencies concerned, may put in place such a facility for enhancing the e-Mobility services.

(Para 71 (iv))

Action Taken Replies

As per clause 6.1 of the "Charging Infrastructure for Electric Vehicles (EV) - the Revised Guidelines and Standards" issued by MoP on 14.01.2022, Bureau of Energy Efficiency (BEE) as the Central Nodal Agency has been tasked with developing this live database. As per BEE, the work of developing a mobile app and web portal is currently under progress.

Recommendation/ Observation

11. The Committee desires that for increasing numbers of charging stations, the Government may explore installing Smart Meters on electric Poles at dedicated locations and make small charging stations across the city/villages/highways and issue smart cards to the EV owners, who can charge their batteries anywhere which can be a good booster for faster adoption of EVs.

(Para 71 (v))

Action Taken Replies

As per "Charging Infrastructure for Electric Vehicles (EV) — the Revised Guidelines and Standards" issued by MoP on 14.01.2022, the consolidated Guidelines include Indian standards for AC chargers for charging light Light Electric vehicles (LEV) like 2- wheelers and 3-wheelers. As per BEE, these chargers will have built in provision to measure and register electric energy delivered and a provision for EV charging upon user authentication using mobile App. Such chargers may be mounted on poles in public parking by DISCOMs.

Recommendation/ Observation

12. The Committee further recommends that Government should endeavour to achieve self-dependency in manufacturing Lithium-ion batteries to reduce dependency on other countries, especially China for unhindered availability of raw materials used in batteries.

(Para 82)

Action Taken Replies

PLI scheme Advance Chemistry Cells envisages to achieve self-dependency in manufacturing Lithium-ion batteries.

Recommendation/ Observation

13. During the course of discussion it was suggested that Ministry of Heavy Industries and EV Manufacturers should jointly work together to undertake R&D for furthering the cause of 'Make-In-India' so that in the coming years country can become self-reliant in manufacturing EV batteries and components indigenously. The Committee, therefore, recommends that MHI and EV manufacturers should make concerted efforts for setting up of a robust R&D infrastructure to promote indigenous manufacturing to reduce imports and achieving self-reliance through technology improvements and advancements (R&D).

(Para 90)

Action Taken Replies

PLI Scheme for Automobile & Auto Components and PLI Scheme for Advance Chemistry Cells promote domestic manufacturing and decreases imports of Electric Vehicles/Components which will encourage buyers to purchase xEVs.

Recommendation/ Observation

14. The Committee further recommends that the Government should focus on creating local manufacturing ecosystem at global scale in order to lower the price of EV batteries, which will ultimately help to create EV demand. The Government should also focus on global competitiveness of indigenous EV industry. However, the most important element is to develop local EV parts manufacturing eco-system that is at global scale & quality.

(Para 91)

Action Taken Replies

PLI Scheme for Automobile & Auto Components and PLI Scheme for Advance Chemistry Cells promotes domestic manufacturing and decreases imports of Electric Vehicles/Components which will encourage buyers to purchase xEVs.

Recommendation/ Observation

15. At present, there is no Government Scheme for incentivizing the local manufacturing of EV components other than battery cells. The Committee, therefore, recommends that Government may mull over bringing a scheme focused on localization of other critical EV components as that would give a good boost to Electric Mobility in India.

(Para 92)

Action Taken Replies

PLI Scheme for Automobile & Auto Components and PLI Scheme for Advance Chemistry Cells promotes domestic manufacturing and decreases imports of Electric Vehicles/Components which will encourage buyers to purchase xEVs.

Recommendation/ Observation

16. The Committee further recommends that skill and capability building measures and skills improvement of manpower in handling fire safety hazards in case of EVs should be ensured. Up-skilling of workshop manpower to handle servicing and repair of electric powertrain, connected features, vehicle analytics etc. should be done expeditiously.

(Para 97)

Action Taken Replies

Noted for compliance.

Recommendation/ Observation

17. The Committee observes that the intervention by the Government for promoting EV adoption by way of subsidies, financial support, R&D etc. in India is very minimal compared to other countries, which is the reason why the offtake of EV adoption in India has been very low. The Committee desires that the Government should have focused strategy for enhancing its involvement for supporting the EV transition.

(Para 102)

Action Taken Replies

Adoption of EVs is being promoted through three major policy interventions as per below:

(i) In order to make India a global manufacturing hub of Automobile & Auto Components a Production Linked Incentive (PLI) scheme for Automobile and Auto Components was approved on 15th September 2021 with a budgetary outlay of Rs. 25,938 crore for a period of five years. Electric Vehicles are covered under Production Linked Incentive (PLI) scheme for Automobile and Auto Components.

(ii) The Government on 12th May, 2021 approved a Production Linked Incentive (PLI) scheme for manufacturing of Advanced Chemistry Cell (ACC) in the country in order to bring down prices of battery in the country. Drop in battery price will result in cost reduction of electric vehicles.

(iii) FAME-II, which is being implemented for a period of 5 years w.e.f. 01st April, 2019 with a total budgetary support of Rs. 10,000 crores, focusses on supporting electrification of public & shared transportation and aims to support, through subsidies, 7090 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakh e-2Wheelers.

Recommendation/ Observation

18. The objective of the Government for adoption of Electric & Hybrid Mobility is to achieve reduction in fossil fuel consumption, pollution and Carbon Emission, reducing net imports, realizing energy security, enhancing local manufacturing, creation of jobs etc. The Automobile Industry as a whole, even before the onset of Covid-19 Pandemic was going through slowdown due to poor demand because of non-availability of finance to consumers. Moreover, the automobile and auto components manufacturers had made huge investments for the transition from BS-IV to BS-VI emission norms w.e.f. 1st April, 2020. The Covid-19 Pandemic has further stalled the Auto Industry. Hence, given the prevailing precarious situation in the automobile sector, the Committee feels that to achieve the end objective, a technology neutral approach to the EV Mobility would be prudent to ensure de-risking from the rapid technology transformations.

(Para 109 (i))

Action Taken Replies

Noted for compliance.

Recommendation/ Observation

19. The Committee has also been informed that technology innovations are occurring rapidly and other options i.e. Hydrogen and alternate fuels such as Ethanol are also coming up. Therefore, the Committee is of the view that widening the technology options would be a better approach in the journey ahead. Further, Government policy support may be provided to all electrified technologies (BEV, HEV, PHEV & FCEV), which will ensure a disruption free and faster transition from ICE vehicles.

(Para 109 (ii))

Action Taken Replies

Electric Vehicles and hydrogen fuel cell vehicles are covered under Production Linked Incentive (PLI) scheme for Automobile and Auto Components. Further, Advance automotive components used in EV, Hydrogen and alternate fuels such as Ethanol are covered under Auto PLI.

Recommendation/ Observation

20. The Committee is hopeful that with the trend of fall in battery prices and indigenous production of batteries and EV Components, the gap between the price of EV in comparison with similar Internal Combustion Engine (ICE) model/category will be bridged soon and the consumers will shift to e-mobility given its low total cost of ownership. The Committee further hopes that measures such as creation of demand for local manufacturing, reduction in GST rate for Hybrid EVs, announcements of long-term policy measures for Electric and Hybrid Vehicles, provision of subsidy for EVs, revisiting PLI Scheme, incentive for scrapping of ICE vehicles while purchasing EVs, availability of easy and affordable financing options for EV components, inclusion of EVs in Priority Sector Lending, extension of subsidy under FAME-II scheme to e3Ws and private e4Ws, enhancing awareness among people about EV adoption, extension of Government support for Research & Development in the field of EV manufacture, robust EV charging infrastructure etc. would accelerate the EV penetration in transport sector, as per the targets set by the Government.

(Para 109 (iii))

Action Taken Replies

PLI Scheme for Automobile & Auto Components and PLI Scheme for Advance Chemistry Cells promotes domestic manufacturing and decreases imports of Electric Vehicles/Components which will encourage Electric Vehicles buyers to purchase xEVs.

CHAPTER–II
THE RECOMMENDATIONS/OBSERVATIONS WHICH THE COMMITTEE DOES NOT DESIRE TO PURSUE FURTHER IN VIEW OF THE MINISTRY'S REPLIES

Recommendation/ Observation

21. The Committee notes that Hybrid Electric Vehicles (HEVs) complement Battery Electric Vehicles (BEVs) by not only contributing to meet key national objectives of reducing fossil fuel consumption and carbon emissions by replacing Internal Combustion Engine (ICE) vehicles but also in speeding up BEV adoption as both these technologies have common EV parts. The Committee further notes that since the Hybrid vehicles use dual power train the gross weight is higher resulting in relatively lower efficiency, in comparison to EVs.

(Para 16 (i))

Action Taken Replies

Noted

Recommendation/ Observation

22. The Committee further notes that BEV enjoys some distinct advantages. Firstly, the electricity cost associated with operating a BEV over one mile is significantly lower than the gasoline cost required for operating a comparable ICE Vehicle over the same distance. Secondly, BEV costs less to maintain, owing to the relative elegance and simplicity of a battery-electric motor system compared with the frequent maintenance required for operation of an ICE. Further, given the high tank-to-wheel efficiency of EVs, overall CO_2 emissions per vehicle will remain lower than ICEs. The trend towards a higher share of renewable energy in energy generation will further make EVs even more CO_2 efficient. The Committee, therefore, hopes that the EV Sector in India will witness growth in the coming years, with more consumers opting to adopt EVs.

(Para 16 (ii))

Action Taken Replies

EV Sector witnessed significant growth during FY 2021-22 as registered EVs sold (~3.3 lakh as on 18th Feb 22) in FY 2021-22 is over 2.5 times than the total registered EV sold during entire FY 2020-21 (~1.34 lakh EV) as per vahan portal.

Recommendation/ Observation

23. The Committee appreciates the amendments made by Ministry of Heavy Industries in Phase-II of the Scheme, in order to accelerate the transition to Electric Mobility. India primarily being a Two-Wheeler (2W) driven market with almost 22 million sales per year, the Committee welcomes the recent decision under FAME-II scheme to increase the subsidy/incentive from Rs. 10,000/- per

Kwh to Rs. 15000/- per Kwh and increase in the cap on incentive for e2W from 20% to 40% of the cost of vehicles. The Committee hopes that the increase in subsidy and the ceiling limit would help in demand creation in e2w segment.

(Para 22 (i))

Action Taken Replies

It resulted in sharp increase in sale of e-2W which is evident from the fact that as on 18th Feb 22 in FY 2021-22, total 1.7 lakh registered EV were sold which is over 4 times than the total registered EV sold during entire FY 2020-21 as per vahan portal.

CHAPTER–III
THE RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH THE COMMITTEE HAS NOT ACCEPTED THE REPLIES OF THE MINISTRY

Recommendation/ Observation

24. The Committee notes that India being the fifth largest automobile market in the world, imports crude oil from outside to cover 80% of its transport fossil fuel, thereby draining public exchequer and also increasing pollution from traditional Internal Combustion Engine Vehicles is at alarming levels. The Committee further notes that India's EV Ecosystem is still at a nascent stage, as compared to several other countries in the world. Therefore, the need of the hour is to scale up the transition process to electric mobility. The Committee welcomes the decision taken by the Govt. of India to switch over to Hybrid & Electric Vehicles to tackle the GHG (CO2) emissions from transport sector, helping to reduce crude oil import and also be in line with the latest global technology.

(Para 11)

Action Taken Replies

Adoption of EVs is being promoted through three major policy interventions as below:

(i) In order to make India a global manufacturing hub of Automobile & Auto Components a Production Linked Incentive (PLI) scheme for Automobile and Auto Components was approved on 15th September 2021 with a budgetary outlay of Rs. 25,938 crore for a period of five years. Electric Vehicles are covered under Production Linked Incentive (PLI) scheme for Automobile and Auto Components.

(ii) The Government on 12th May, 2021 approved a Production Linked Incentive (PLI) scheme for manufacturing of Advanced Chemistry Cell (ACC) in the country in order to bring down prices of battery in the country. Drop in battery price will result in cost reduction of electric vehicles.

(iii) FAME-II, which is being implemented for a period of 5 years w.e.f. 01st April, 2019 with a total budgetary support of Rs. 10,000 crores, focusses on supporting electrification of public & shared transportation and aims to support, through subsidies, 7090 e-Buses, 5 lakh e-3 Wheelers, 55000 e-4 Wheeler Passenger Cars and 10 lakhs e-2wheelers.

<u>Further Recommendation/Observation</u>

The Committee notes that the Government on 12th May, 2021 has approved a Production Linked Incentive (PLI) scheme for manufacturing of Advanced Chemistry Cell (ACC) in the country to bring down prices of battery in the country. The Committee desires to be apprised of the Status Report regarding the progress made as on date in this direction.

Recommendation/ Observation

25. The Committee further suggests that similar measures to promote EV adoption also be taken in respect of other segments such as e3w & e4w (private vehicles). Further all the States should be made aware of the benefits of the FAME scheme to encourage consumers to opt for EVs.

(Para 22 (ii))

Action Taken Replies

In e3W and e4W segment, only public transport/commercial vehicles are incentivized in order to spread allocated fund to maximum beneficiaries as no of user of public transport/commercial vehicle is much more than private people. Further, vehicle used for commercial purpose/ public transport are having greater visibility. Further, fuel saving and reduction in emission is more in vehicles used for commercial/public transport purpose as compared to private vehicles. All States/UT have been informed about benefits of the FAME scheme.

Further Recommendation/Observation

The Committee notes the reply of the Ministry that all the states have been informed about the FAME scheme. The Committee recommends that the Ministry should organise regular meetings with the States to promote manufacturing of EVs, EV components and EV infrastructure. The Committee is of the opinion that even though only public transport/commercial vehicles in e-3W and e-4 W are being incentivized, there was an impending need to promote e-4W (private vehicles) as the basic purpose is to reduce dependence on ICE vehicles which are one of the major source of pollution. The Committee desires to be apprised of the measures taken as on date in this direction.

Recommendation/ Observation

26. The Committee notes that Ministry of Power had launched a nationwide campaign "Go Electric" on 19.02.2021 to educate the general public on the benefits of e-mobility and Govt. incentives etc. However, in order to increase the awareness about the campaign, the Committee is of the view that advertisements should be given in print as well as electronic media in co-ordination with all State Governments. Further, efforts should be made to conduct seminars, workshops etc. to increase the awareness about the campaign so that consumers can be encouraged to go for EVs, removing apprehensions in their minds about range anxiety, charging infrastructure etc.

(Para 33)

Action Taken Replies

Noted. Further, MHI Organized a conference on e-mobility on 4th Dec, 2021 in Goa under Chairmanship of Hon'ble Minister of Ministry of Heavy industries which was attended by Chief Minister/Goa, Hon'ble MoS/MHI, CEO/NITI

Aayog, Secretary Heavy Industries, Transport Ministers of States, senior officials from States/UTs, senior officials from Central Govt. and CEO/Senior officials from Auto Industry.

Recommendation/ Observation

27. The Committee, therefore, recommends that Government and all other stakeholders (especially manufacturers) should make use of every feasible promotional and advertising platform to highlight the benefits of Electric Vehicles and EV technology. Informational campaigns across print and electronic media can make a huge impact. In addition to the obvious benefits such as anti-pollution and cost-efficiency, busting myths such as battery longevity that surround EV usage may also be highlighted. Return on Investment (RoI) and cost of ownership benefits of EVs vis a vis conventional Internal Combustion Engines (ICE) can be demonstrated. Customers may also be educated about the various benefits, incentives and subsidies offered by the Government such as exemptions of EVs from road tax during vehicle registration, discounts offered on purchase of EVs etc.

(Para 87)

Action Taken Replies

Noted. MHI Organized a conference on e-mobility on 4th Dec, 2021 in Goa under Chairmanship of Hon'ble Minister of Ministry of Heavy industries which was joined by Chief Minister/Goa, Hon'ble MoS/MHI, CEO/NITI Aayog, Secretary Heavy Industries, Transport Ministers of States, senior officials from States/UTs, senior officials from Central Govt. and CEO/Senior officials from Auto Industry.

Ministry of Power had launched a nationwide campaign "Go Electric" on 19.02.2021 to educate the general public on the benefits of e-mobility and Govt. incentives etc.

<u>Further Recommendation/Observation (for Para 33 and Para 87)</u>

The Committee appreciates the efforts made by the Ministry of Heavy Industries and Ministry of Power to promote e-mobility in the country. However, in order to fast track the transition to e-mobility, the Committee is of the opinion that more initiatives should be taken to spread awareness, especially amongst the owners of those vehicles with less than 1 year life, about the incentives, subsidies, benefits of Electric Vehicles *vis-a-vis* ICE vehicles and remove the apprehensions regarding charging, durability and safety of the EVs through SMS/ emails, advertising platforms such as audio, visual, print and social media. The Committee may be apprised of the awareness campaigns organised to educate the consumers about the benefits of e-mobility.

Recommendation/ Observation

28. The Committee notes that the tariff applicable for domestic consumption shall be made applicable for domestic charging, whereas for Public Charging Station (PCS) provision a separate metering arrangement shall be made for subsidized tariff. The tariff on domestic consumption is charged on slab basis and the consumption of units over and above the fixed quota used for EV charging, are charged at a high rate resulting in high electricity bill which is likely to discourage consumers for opting EVs. The Committee, therefore, recommends that as in the case of Public Charging Station, a sub-meter or separate meter arrangements may be installed for billing the charging point used exclusively for EV charging by domestic consumers to keep the electricity bill affordable to encourage potential buyers to go for EVs.

(Para 37)

Action Taken Replies

Ministry of Power (MoP) has issued "Charging Infrastructure for Electric Vehicles (EV) — the Revised Guidelines and Standards" on 14.01.2022.

As per clause 7.2 of the guidelines "The tariff applicable for domestic consumption shall be applicable for domestic charging."

As per clause 7.3 of the revised guidelines:
"The separate metering arrangement shall be made for PCS so that consumption may be recorded and billed as per applicable tariff for EV charging stations."

Further Recommendation/Observation

The Committee reiterates that subsidized tariff for consumption of electricity units for EV charging could play a significant role in incentivising the consumers to opt for EVs over ICE vehicles. The Committee recommends that necessary guidelines should be issued by MHI to Ministry of Power so as to ensure that similar to Public Charging System (PCS), a separate metering arrangement with subsidized tariff shall be made for domestic charging of EVs.

Recommendation/ Observation

29. The Committee notes that currently, Scrapping industry in India is unorganized and not environment-friendly. Further, the existing scrapping cycle has a low recovery percentage in India, which is about 70-75%, while global benchmarks for recovery from scrapped vehicle are in the range of 85-95%. This not only leads to inefficient resource management, but also non-realization of the full value of high-strength steel alloys and recovery of valuable rare-earth metals. Enabling vehicle scrapping in a scientific manner by using modern technology can enhance value recovery from scrapped vehicles. The Committee, therefore, recommends the following measures:-

- *Setting up of Registered Vehicle Scrapping Centres across the country.*

- *Incentivising consumers who opt for EVs and scrap their old ICE vehicles from such registered vehicle scrapping centres.*

(Para 40)

Action Taken Replies

The Ministry of Road Transport and Highways has formulated the Vehicle Scrapping Policy that includes a system of incentives/dis-incentives for creation of an ecosystem to phase out older, unfit polluting vehicles. GSR Notification 653 (E) dated 23.09.2021 provides the Motor Vehicles (Registration and Functions of Vehicle Scrapping Facility) Rules, 2021 for establishment of Registered Vehicles Scrapping Facility (RVSF). The notification has come into force with effect from 25th September, 2021. It is also submitted that incentives have been included in the policy for purchase of new vehicles against scrapped vehicles:

- Waiver of registration fee for a new vehicle purchased against the certificate of deposit issued by an RVSF on submission of vehicle for scrapping as per GSR 714 (E) dated 4th October 2021. The notification shall come into force with effect from 1st April, 2022.
- Concession in motor vehicle tax upto 25% for non-transport vehicles and upto 15% for transport vehicles, for first 15 and 8 years, respectively, for vehicles purchased against certificate of deposit as per GSR 720 (E) dated 5th October 2021. The notification shall come into force with effect from 1st April, 2022.
- Advisory to vehicle manufacturers for providing a discount of 5% on purchase of new vehicle against Certificate of Deposit.
- Provisions for scientific scrapping to increase recovery rate upto 95% from scrapped vehicles.

Further Recommendation/Observation

The Committee may be apprised of the details of Registered Vehicle Scrapping Facility (RVSF) centres setup/likely to be setup in the country and the procedure involved in issuing the 'Certificate of Deposit' on submission of a vehicle for scrapping. Further, safeguards adopted to prevent environmental pollution while scrapping old vehicles as well as the steps taken to recover valuable rare-earth metals from the scrapped vehicles may also be intimated to the Committee for perusal. Further, the timeline fixed for setting up of scrap yards throughout the country to carry out the gargantuan task of scrapping all old vehicles may also be intimated to the Committee.

Recommendation/ Observation

30. The Committee is of the opinion that there is a strong need to align policies across the Center and the State Governments as the difference in the structure and quantum of incentives across the Central and State policies, sales of Electric Vehicles are not picking up pace across the nation uniformly. The Committee recommends that Government should align the Central and State policies across the nation and calibrate them to create a 'One India One Policy' for early

adoption of Electric Mobility in India. Further, this would give EV manufacturers a clear direction to invest and create demand and facilitate mass adoption to EVs along the length and breadth of the country.

(Para 47)

Action Taken Replies

As on 18th Feb, 2022 Eighteen states (Andhra Pradesh, Delhi, Karnataka, Kerala, Maharashtra, Tamil Nadu, Telangana, Odisha, Uttar Pradesh, Madhya Pradesh, Meghalaya, Gujarat, Assam, Goa, Meghalaya, West Bengal and Uttarakhand) have approved/notified dedicated EV policies which is aligned with FAME-II and EV policies as issued by different Ministries of Central Govt.

Further Recommendation/Observation

The Committee notes that as on 18th February, 2022 only 18 states have approved/ notified dedicated EV policies which are aligned with FAME-II and EV policies issued by different Ministries of Central Government. The Committee recommends that the Ministry , in order to give further impetus to electric mobility, should take up the matter with the remaining States and UTs and make efforts so as to avoid any further delay in the approval of EV policy.The Committee desires that a status report regarding the same may also be furnished.

Recommendation/ Observation

31. The e3W segment is depressed in demand generation mainly due to challenges on affordability. The Committee, recommends that the demand incentive slab for e3W from Rs. 10,000/KWh to Rs. 15,000/KWh as done in the case of e2W, which will generate demand for e3w and help in creating self-employment and reduce pollution.

(Para 58)

Action Taken Replies

For increase in sale of e3W, following amendments have been brought in the FAME notification w.e.from 11th June, 2021:

Aggregation will be the key method for bringing the upfront cost of 3W EV at an affordable level and at par with ICE 3-Wheelers. EESL will aggregate demand for 3 lakh Electric 3 Wheelers for multiple user segments. Details will be worked out by EESL for implementation.

Further Recommendation/Observation

The Committee appreciates the aggregation strategy adopted by MHI to increase the sales of e3W. The Committee further desires that MHI should not leave any stone unturned to seize this opportune time to intervene in the e3W segment and enhance the demand incentive slab for e3W from Rs.

10,000/KWh to Rs. 15,000/ KWh along with increasing the cap on incentive on the cost of e3W vehicle.

Recommendation/ Observation

32. With the growing per capita income of the country, the purchase of Private e4W was expected to go up rapidly since this category has high scope because electric car Models available in India are predominantly low cost segment. However, lack of incentives to individuals for purchase of e4W has been a big roadblock in the consumer's mind before opting for purchase of e4W. The Committee, therefore, urges that the Government should extend incentives to purchase e4W by individuals to boost sales in this category and Fame-II Scheme should be modified to this extent, as it is already providing subsidy for commercial e4Ws.

(Para 60)

Action Taken Replies

In order to spread allocated fund to maximum beneficiaries as no of user of e4W public transport/commercial vehicle is much more than private people. Further, e4W vehicle used for commercial purpose/ public transport are having greater visibility. Further, fuel saving and reduction in emission is more in vehicles used for commercial/public transport purpose as compared to private vehicles.

<u>Further Recommendation/Observation</u>

The Committee desires that along with e4W public transport/commercial vehicles, there is an urgent need to incentivize e4W private vehicles as public transport fails to provide last mile connectivity and consumers are more inclined towards purchasing private vehicle than using public vehicles especially in the post pandemic scenerio. The Committee also recommends that the MHI should apprise the Committee about the measures taken in this regard.

Recommendation/ Observation

33. The Committee observes that there is no sufficient R&D Support by the Ministry for technological advancement. The spending in India on R&D is point less than 1 percent whereas the major economies spend around 5 to 6 percent. Because of poor funding, India is lagging behind in R&D. Without sufficient R&D, technological improvements/advancement is not possible. The Committee, therefore, recommends that R&D facilities should be improved and its funding should also be enhanced. The Ministry of Heavy Industries has centers/autonomous bodies like Automotive Research Association of India (ARAI) and National Automotive Testing and R&D Infrastructure Project (NATRIP) for R&D of Internal Combustion Engine (ICE) Vehicles. The Committee recommends that MHI should set-up R&D Centers for supporting EVs also for technological advancement. *(Para 89)*

Action Taken Replies

Noted. NATRIP is one of the most significant initiatives of the Govt. of India for the growth of Automobile sector in India and includes setting up of "State of the Art" automotive Homogenization, Testing, Certification and R&D infrastructure at three new centers at GARC, Chennai, NATRAX Indore, NIAIMT Silchar and upgradation of three existing centers at ARAI Pune, VRDE Ahmadnagar and ICAT Manesar (Gurugram).

These centers supports EV for technical advancement.

Further Recommendation/Observation

The Committee is not satisfied with the response of the Ministry and reiterates its recommendation that budgetary allocation towards R&D should be significantly enhanced. The Committee desires that the Ministry should formulate policy for development of Industrial parks for manufacturing EV components and their repairs, promote setting up of state-of-the-art R&D facilities for technological advancement of Electric Vehicles and organising training of Automobile engineers in the field of EVs. The Committee should also be apprised of the steps taken to increase the funding for R&D.

Recommendation/ Observation

34. Some of the Original Equipment Manufacturers (OEMs) informed the Committee that they made a great progress in localizing major components. However, few child parts are still imported from other countries like China. The import duties have been increased from 5% to 15% to encourage local manufactures. But due to non-production of some of the child-parts/components, the cost of Production has increased due to hike in import duties. The Committee, therefore, recommends that Import duty may be raised only in a phased manner till such components are manufactured locally.

(Para 94)

Action Taken Replies

The rate changes for the various parts of EVs were made in accordance with the Phased Manufacturing Programme notified by the Ministry of Heavy Industries vide notification No. 12(31)/2017-AEI dated 06.03.2019.

Further Recommendation/Observation

The Committee notes that even though the Ministry has fixed the import rate changes for the various parts of EVs in accordance with the Phased Manufacturing Programme notified vide notification No. 12(31)/2017-AEI dated 06.03.2019, the increase in import duty on certain child-parts/components adversely affects the local production cost. The Committee recommends that appropriate measures/efforts should be made to keep the

imported child-parts/components affordable along with providing impetus to local manufacturing.

Recommendation/ Observation

35. The Committee has been informed that at present EV Cars are taxed at 5%, and big Hybrid Electric Vehicles (HEVs) are taxed at 43% (28% GST plus 15% Cess). EVs reduce energy consumption by 75% over Internal Combustion Engine (ICE) while HEVs reduce energy consumption by 30-45% over ICE without any external charger. Hence, HEVs are also entitled for discount on GST rate as in the case of EVs. GST support of HEV would help the whole eco-systems and provide impetus to EVs. The Committee, therefore, recommends that the GST rates on HEV may also be at a lower rate to create a lucrative EV ecosystem.

(Para 100)

Action Taken Replies

The GST Council, at the time of initial fixation of GST rates, had discussed the issue of Compensation cess on hybrid vehicles in detail and recommended that there may be no Compensation cess on small hybrid petrol cars (of engine capacity upto 1200 CC) and small hybrid diesel cars (of engine capacity upto 1500 CC), and to impose 15% Compensation cess on other hybrid cars (big hybrid electric vehicles). Further, it is also to mention that subsequent to roll out of GST, compensation cess has been increased on large Internal Combustion Engine(ICE) cars consequent to the recommendation of the GST Council in its meeting held on 09.09.2017. However, the Council recommended that status-quo be maintained in GST/ cess rates on Hybrid vehicles. Hybrid cars enjoy an advantage of 2% to 7% compensation cess as compared to normal ICE cars.

Further Recommendation/Observation

The Committee finds the reply of MHI to be unsatisfactory as there is no mention of any measures to reduce the GST and Cess on Hybrid Electric Vehicles (HEVs). The Committee fails to understand the rationale behind levying the highest GST rate of 28 % on HEVs which is equivalent to ICE vehicles. The Committee reiterates its recommendation that since Hybrid Electric Vehicles (HEVs) help in reducing fossil fuel consumption and carbon emissions, the GST rates on HEV should be lowered so as to incentivise their adoption.

CHAPTER – IV
RECOMMENDATIONS/OBSERVATIONS IN RESPECT OF WHICH THE FINAL REPLIES OF THE MINISTRY ARE STILL AWAITED

Recommendation/ Observation

36. The Committee recommends that the Government should ensure strict adherence of "Battery Waste Management Rules, 2020" by all stakeholders, for management of various types of waste batteries including lithium-ion batteries. The Committee hopes that with the imposition of 'Extended Producer Responsibility', producers of batteries would collect waste batteries, ensure its recycling and recovery of rare earth-metals and re-use recycled elements thereby promoting circular economy & minimizing the adverse impact on environment.

(Para 44)

Action Taken Replies

The recommendation has been forwarded to MoEFCC.

Recommendation/ Observation

37. The Committee was informed that for a universal and uniform charging provisions at charging stations, the Bureau of Indian Standards along with the Department of Science and Technology, the Principal Scientific Adviser and NITI Aayog are on the role to standardize the adapters so that transferability and inter-operability is possible. The Committee desires that it be apprised of the outcome of such strategies developed by BIS and other stakeholders.

(Para 71 (iii))

Action Taken Replies

The recommendation has been forwarded to NITI Aayog, DST and BIS.

Recommendation/ Observation

38. The Committee further recommends that expenditure incurred on setting up of charging stations may be brought under the ambit of CSR for a limited period of 2-3 years. Further, renewal energy may be used for powering the Public Charging Stations.

(Para 71 (vi))

Action Taken Replies

The recommendation has been sent to MoF for further necessary action as the subject matter i.e. expenditure incurred on setting up of charging stations may be brought under the ambit of CSR for a limited period of 2-3 years pertains to MoF. Regard to CSR for charging stations, the corporate entities may plan expenditure as per the provisions of Companies (CSR Policy) Rules, 2014. The recommendation regarding renewal energy for powering the Public Charging Stations has been forwarded to MoP

Recommendation/ Observation

39. Accordingly, the Committee recommends that the Government needs to forge international partnerships to secure access to key minerals. The Government may form consortium for joint research, investment pooling and development of battery technology and battery recycling. Since India is already a global powerhouse in information technology, communication, digital technologies, an excellent foundation may be set up for the development of cutting-edge battery management systems.

(Para 78)

Action Taken Replies

The recommendation has been forwarded to Ministry of Mines.

Recommendation/ Observation

40. Home to some of the most polluted cities on the earth, India is pivoting towards new-energy electric vehicles to clean up its toxic air. But with meager resources of lithium, the mineral essential to make batteries for electric vehicles, it is having to scout for resources overseas. India's EV production will rely heavily on imports from China of lithium chemicals used to make cathodes and battery cells as China has a thriving lithium chemical, battery cathode, battery cell and EV supply chain. The Committee, therefore, recommends that Government should explore other sources of battery raw material like Lithium etc. rather than solely relying on China for its import needs to ensure unhampered supply of raw materials.

(Para 81)

Action Taken Replies

The recommendation has been forwarded to DST.

Recommendation/ Observation

41. The Committee also recommends that Government should ensure strengthening supply chain network, easy availability and accessibility to raw material and components for batteries, to promote EV adoption.

(Para 83)

Action Taken Replies

The recommendation has been forwarded to Ministry of Mines.

Recommendation/ Observation

42. The Committee notes that currently, loans for Internal Combustion Engine (ICE) vehicles are relatively easy to get with lower interest rates as the vehicle's value is well-understood, making loans secure for the bank. However, this is not the case with EVs, as their residual value is not clear. The Committee, therefore, recommends that Government should designate EV as a priority lending sector, especially financing for commercial fleets, as they are critical to the transition towards cleaner mobility. Availability of easy loans with lower interest and longer tenures will make it easier for the consumer to go for EVs, which ultimately lead to faster adoption of electric mobility across the country. (Para 85)

Action Taken Replies

The recommendation has been forwarded to DoR. Further, the matter forwarded to MoF as DoR informed that it does not pertains to DoR.

Recommendation/ Observation

43. The aggressive push by the Government and EV manufacturers will certainly see a massive EV Industry setup in the coming years, including battery production, EV specific assembly lines as well as the charging infrastructure. This would naturally lead to a huge demand of technically skilled workforce in the area, as several auto makers have already announced their upcoming EV plans in the country. Meeting this demand will not be possible without the cooperation of the training institutes in the country. The Committee, therefore, recommends that EV-specific trainings/courses should be included into the curriculum of premier institutes like IITs, Engineering Colleges etc. to ensure that there is no scarcity of skilled manpower for Indian EV Industry.

(Para 96)

Action Taken Replies

The recommendation has been forwarded to NITI Aayog.