

GOVERNMENT OF INDIA
MINISTRY OF HEAVY INDUSTRIES AND PUBLIC ENTERPRISES
DEPARTMENT OF HEAVY INDUSTRY

RAJYA SABHA
STARRED QUESTION NO. 69
TO BE ANSWERED ON 21.12.2017

Implementation of FAME

*69. DR. VINAY P. SAHASRABUDDHE:

Will the Minister of HEAVY INDUSTRIES AND PUBLIC ENTERPRISES be pleased to state:

- (a) the current status of progress of implementation of Faster Adoption and Manufacturing of Hybrid and Electric Vehicles in India (FAME);
- (b) the details of allocations made under this scheme during the last three years and the current year, year-wise; and
- (c) the details of efforts being made to ensure that more people take advantage of this scheme, and the details of internal assessment made by the Ministry about the success of these efforts?

ANSWER

MINISTER OF HEAVY INDUSTRIES AND PUBLIC ENTERPRISES
(SHRI ANANT G. GEETE)

(a) to (c): A Statement is laid on the table of the House.

STATEMENT

Statement referred to in reply to parts (a) to (c) of RAJYA SABHA Starred Question Number 69 for answer on 21.12.2017 asked by Dr. Vinay P. Sahasrabuddhe regarding 'Implementation of FAME'.

(a): To promote hybrid/electric vehicles in the country, the Government notified FAME India Scheme [Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India], as a part of the National Electric Mobility Mission Plan 2020, initially for a period of 2 years commencing from 1st April 2015 & till 31st March 2017, with an outlay of Rs. 795 crore. The scheme is one of the green initiatives of the Government, which is aimed at reducing dependency on fossil fuels. The scheme is being implemented through four focus areas namely Technology Development (R&D); Pilot Projects; Charging Infrastructure and Demand Creation. The scheme has been extended for a further period upto 31st March 2018.

Under demand creation focus area, the purchaser of electric/hybrid vehicles (xEVs) is given an upfront reduction in purchase price by the dealer at the time of purchase of xEVs. Since inception of the scheme & till 30th November 2017, the Government has given support to 1,63,997 xEVs.

As per the scheme, specific projects/proposals received under the different focus areas namely Technology Development (R&D); Pilot Projects; Charging Infrastructure are funded by the Government. A statement of such projects approved/sanctioned under the scheme by the Government is given in ANNEXURE-I.

(b): The details of the budget allocation and utilization since commencement of the scheme till 30th November 2017 is tabulated below :-

S.No.	Financial Year	Fund Allocated	Fund Utilization
1	2015-16	Rs. 75.00 Crore	Rs. 75.00 Crore
2	2016-17	Rs. 144.00 Crore	Rs. 144.00 Crore
3	2017-18	Rs. 175.00 Crore	Rs. 105.49 Crore (Till 30 th November 2017)
TOTAL		Rs. 394.00 Crore	Rs. 324.49 Crore

contd.2 /-

(c): Taking into account high level of environmental pollution and fossil fuel usage in road transport in high density urban centres, the Phase-1 of the scheme was originally made applicable to certain areas / cities. However, vide Government of India gazette notification S.O. 2696(E) dated 30th September 2015, the scheme for Electric and Hybrid 2 Wheelers and 3 Wheelers of all types was made applicable for their sale anywhere in India.

Subsequently following category of vehicles were also included under the scheme for availing demand incentive, as per details given below :-

- (i) Electric 3W (with maximum speed not exceeding 25 km/hr) has also been included for availing incentive under the scheme Vide Notification S.O. 2199(E) dated 04/07/2017.
- (ii) Fully Electric Bus has also been included for demand incentive under the Scheme Vide Notification S.O. 3012(E) dated 12/09/2017.

Over a period of time, it has been observed that there has been continuous increase of registration of OEMs and their models. At present, 65 models of 22 OEMs are registered under FAME India Scheme for availing demand incentive.

Also, to continue the Government of India's sustained push to electric mobility in India, the Department of Heavy Industry announced the launch of Multi-modal Public Transport based on electric powertrain, through a system of Expression of Interest (EoI) issued on 31st October 2017. Under the EoI, a grant of up to Rs. 105 crore per city, for a minimum of 5 cities with million plus population and Special category states, has been proposed to be extended by the Government of India through demand incentives in combination of electric buses, electric 4-wheeler passenger cars and electric 3-wheelers. Further, to augment charging infrastructure for public transport, the funding for setting up of the charging infrastructure with a ceiling of Rs. 15 crore per city has also been proposed for the selected cities. The last date for receipt of proposals under this EoI was 30th November 2017. There has been a tremendous response to this EoI as 47 proposals from 21 States have been received in the Department.

Projects approved by DHI under FAME India Scheme (Pilot Projects, Charging infrastructure and Technology Development)

S.No.	Name of the Project	Name of the Operating Agency	Grant Sanctioned	Grant Released
1	Public Fast Charging Infrastructure Network for Electric Vehicles at Bangalore	M/s Mahindra Reva Electric Vehicles Pvt. Ltd. in collaboration with Lithium Urban Technologies Pvt. Ltd.	Rs. 68,74,300/-	Rs. 68,74,300/-
2	Establishment of Testing Infrastructure for Certification of Testing of Electric & Hybrid Vehicles at ARAI Pune	Automotive Research association of India (ARAI), Pune	Rs. 30,00,00,000/-	Rs. 30,00,00,000/-
3	Proposal for specifications and Finalizing Draft Standards of xEV Charging Stations, ARAI, Pune	Automotive Research association of India (ARAI), Pune	Rs. 15,00,000/-	Rs.15,00,000/-
4	Proposal for Charging Infrastructure Management System, IIT Madras	Indian Institute of Technology, Madras	Rs. 1,00,00,000/-	Rs. 1,00,00,000/-
5	Proposal for 25 Hybrid Buses for Bandra Kurla Complex, MMRDA Mumbai	Mumbai Metropolitan Regional Development Authority (MMRDA)	Rs. 15,25,00,000/-	Rs. 15,25,00,000/-
6	Proposal for 25 Electric Buses by HP Government	Himachal Road Transport Corporation (HRTC)	Rs. 35,81,24,984/-	Rs. 35,81,24,984/-
7	Proposal for 50 Nos. Maxi Cabs for local transport by HP Government	Himachal Pradesh City Transport and Bus Stand Management & Development Authority (HPCT&BSM&DA)	Rs. 4,91,20,200/-	Rs. 4,91,20,200/-
8	Proposal for putting up of Solar Based Charging Infrastructure for EVs in NCR by REIL, Jaipur	REIL, Jaipur Rajasthan Electronics & Instrumentation Limited (REIL), Jaipur	Rs. 50,00,000/-	Rs. 50,00,000/-
9	Proposal for putting up of Solar Based Charging Infrastructure for EVs in the premises of Udyog Bhawan by BHEL	Bharat Heavy Electrical Limited (BHEL)	Rs. 50,00,000/-	Rs. 50,00,000/-

10	Technical Development Project for advanced Gen-IV Lead Acid Battery & Gen-Nickel-Zinc Battery for EVs <i>{Development of Ni-Zn Battery (Advanced Battery) for Electric Vehicles}</i>	Non-Ferrous Materials Technology Development Centre (NFTDC), Hyderabad	Rs. 4,00,00,000/-	Rs. 2,44,00,000/-
11	Proposal for 2 Electric Vehicles (5-7 Seater) for Land Port Authority of India at Agartala	Land Port Authority of India (LPAI)	Rs. 18,31,584/-	Rs. 18,31,584/-
12	Proposal for Centre of Advanced Research in Electrified Transportation (CARET) at AMU <i>[Development of Indigenous Chargers (AC/DC/Solar)]</i>	Aligarh Muslim University (AMU)	Rs. 5,98,00,000/-	Rs. 2,99,00,000/-
13	Project for Centre for Battery Engineering	Indian Institute of Technology, Madras	Rs. 17,20,00,000/- (For 5 Years)	Release of 1 st Installment (Rs. 4.62 crore) is under process.
14	Proposal received under IMPRINT initiative of MoHRD for Hierarchical Nanostructure Carbon Materials Derived from Candle Soot and Graphine for High Rate & High Performance Electrodes for Automotive Batteries and Supercapacitors [Development of Rechargeable Lithium Ion Battery]	Indian Institute of Technology, Kanpur	Rs. 1,30,34,000/-	Rs. 61,46,000/-
15	Financial Support for UAY Project concerning Automobile Sector-Development of Light Weight REEV with Renewable Energy Based Fuel Cell Range Extender <i>[Development of Light Weight Aluminium intensive electric vehicle]</i>	Indian Institute of Technology, Madras	Rs. 30,00,000/-	Release under process

16	Proposal of Setting-up 200 Charging Stations by REIL, Jaipur	Rajasthan Electronics & Instrumentation Limited (REIL), Jaipur	Rs. 5,60,60,000/-	Release under process
17	Proposal for Providing 75 AC Smart Chargers by consortium of Mahindra Reva – Ola Asia Electric	Consortium of Mahindra Reva – Ola Asia Electric	Rs. 90,00,000/-	Request for release is yet to be received.
18	Proposal for 60 Nos. Charging Infrastructure of Lithium Urban Technologies Pvt. Ltd.	Lithium Urban Technologies Pvt. Ltd.	Rs. 2,99,00,000/-	The request for release is under examination.
19	Pilot Project for 5 Electric Buses at IGI Airport of Low Carbon Logistic Pvt. Ltd.	Low Carbon Logistic Pvt. Ltd.	Rs. 6,21,50,000/-	The request for release is under examination.
20	Design & Development of AC-DC Combined Public Charging Stations by ARAI	Automotive Research association of India (ARAI), Pune	Rs. 1,75,00,000/-	Release under process.
21	Technology Pilot for DC Charging for EV Bus <i>[To design High Power DC Chargers for Electric Vehicles]</i>	<u>Principal Investigator</u> Panva Engineering Pvt. Ltd., Nasik, Maharashtra <u>Co- Principal Investigator</u> K.K.Wagh Institute of Engineering Education and Research, Nasik, Maharashtra	<u>Contribution sought by DHI</u> Rs. 90 Lakh (Out of Total Project Cost of Rs. 150.80 Lakh)	Proposal is approved by the Committee, subject to certain observations which are being carried out by the Proposers/Operating Agency.
22	Development and Prototyping of ICT enabled Smart Charging Network Components <i>[To design a bidirectional Electric Vehicle Supply Equipment for charging station]</i>	<u>Principal Investigator</u> IIT Delhi <u>Co- Principal Investigator</u> Thapar University, Amrita Vishwa Vidyapeetham, Lithium Urban Technologies <u>Industry Partners</u> Elecsys Technologies Pvt. Ltd., Engie (GDF Suez Energy) , Linkwell Telesystems , Yexcube Technologies	<u>Contribution sought by DHI</u> Rs. 598.73 Lakh (Out of Total Project Cost of Rs. 1001.76 Lakh)	Proposal is approved by the Committee, subject to certain observations which are being carried out by the Proposers/Operating Agency.

23	<p>Development of Indian Urban Driving Cycle for xEV</p> <p><i>[To ascertain/develop Driving Cycle for electric/hybrid vehicles in Indian conditions]</i></p>	<p><u>Principal Investigator</u> IIT Madras [Department of Electrical Engineering / Computer Science & Engineering / Civil Engineering], IISc Bangalore (Department of Civil Engineering)</p> <p><u>Industry Partners</u> Mahindra Electric; Bosch Limited, Bangalore; Robert Bosch Engineering & Business Solutions Pvt. Ltd., Coimbatore</p>	<p><u>Contribution sought by DHI</u></p> <p>Rs. 456.37 Lakh</p> <p>(Out of Total Project Cost of Rs. 692.91 Lakh)</p>	<p>Proposal is approved by the Committee, subject to certain observations which are being carried out by the Proposers/Operating Agency.</p>
24	<p>HUB and SPOKE consortium for e-2W and e-3W Electric Drives</p> <p><i>[To design & develop Non-Permanent Magnet Motor Drives for e2W and e-3W based on actual Drive Cycles in Indian conditions]</i></p>	<p><u>Principal Investigator</u> TVS-Lucas Limited; NFTDC, Hyderabad</p> <p><u>Institutions</u> IIT Guwahati; IIT Jodhpur; IIT BBSR; VIT Chennai; NITTEE, Surathkal</p> <p><u>Industry Partners</u> Lucas TVS, Chennai; Ampere Vehicles, Coimbatore; Electrotherm; Lohia Auto Industries</p>	<p><u>Contribution sought by DHI</u></p> <p>Rs. 297.10 Lakh</p> <p>(Out of Total Project Cost of Rs. 369.10 Lakh)</p>	<p>Proposal is approved by the Committee, subject to certain observations which are being carried out by the Proposers/Operating Agency.</p>
25	<p>Switched Reluctance Traction motor and controller for 2W & 3W</p> <p><i>[Due to advances in power Electronics, researches are being done in the field of motor development for EVs].</i></p> <p><i>This project is for the development of Switched Reluctance Motor for EVs, which allow for sophisticated control & monitoring of the characteristic of the motors]</i></p>	<p><u>Principal Investigator</u> Aditya Auto Products & Engg. (I) Pvt. Ltd.; NITK Surathkal</p> <p><u>Industry Partners</u> Hero Eco; Ampere Vehicles Pvt. Ltd.</p>	<p><u>Contribution sought by DHI</u></p> <p>Rs. 1325.26 Lakh</p> <p>(Out of Total Project Cost of Rs. 2019.99 Lakh)</p>	<p>Proposal is approved by the Committee, subject to certain observations which are being carried out by the Proposers/Operating Agency.</p>

26	<p>Synchronous Reluctance Motor Drive for Indian Electric Vehicle applications</p> <p><i>[Due to advances in power Electronics, researches are being done in the field of motor development for EVs].</i></p> <p><i>This project is for the Development of Synchronous Motor for EVs, , which allow for sophiscated control & monitoring of the characteristic of the motors]</i></p>	<p><u>Principal Investigator</u> IIT Madras</p> <p><u>Industry Partners</u> Mahindra Reva Electric Vehicles Ltd., Bengaluru.</p>	<p><u>Contribution sought by</u> <u>DHI</u></p> <p>Rs. 169.10 Lakh</p> <p>(Out of Total Project Cost of Rs. 261.35 Lakh)</p>	<p>Proposal is approved by the Committee, subject to certain observations which are being carried out by the Proposers/Operating Agency.</p>
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