



भारत सरकार  
GOVERNMENT OF INDIA  
भारी उद्योग एवं लोक उद्यम मंत्रालय  
MINISTRY OF HEAVY INDUSTRY & PUBLIC  
ENTERPRISES  
भारी उद्योग विभाग  
DEPARTMENT OF HEAVY INDUSTRY  
(AEI Section)

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Udyog Bhavan  
नई दिल्ली New  
Delhi-110011

Ref. No. 12(27)/2015- AEI (6710)

Dated: 16<sup>th</sup> September, 2015

To

As per list attached.

Sub: Minutes of the 2<sup>nd</sup> Meeting of the Project Implementation and Sanctioning Committee (PISC) under FAME-India Scheme held on 20.8.2015 at 11.30 A.M. in Udyog Bhavan, New Delhi under the Chairmanship of Secretary, Department of Heavy Industry.

Sir,

I am directed to forward herewith a copy of the minutes of the 2<sup>nd</sup> Meeting of the Project Implementation and Sanctioning Committee (PISC), under FAME-India Scheme, held on 20.8.2015 at 11.30 A.M. in Udyog Bhavan, New Delhi, under the Chairmanship of Secretary, Department of Heavy Industry for information and taking necessary action.

Yours faithfully,

(Dinesh Pal Singh)

Under Secretary to the Government of India  
Telefax: 011-23061045

Copy to:-

- (i) PSO to SHI.
- (ii) Member (R&D), NAB
- (iii) PPS to AS,DHI
- (iv) PS to Director(Auto),DHI

## List

1. Shri S.K. Bahri, AS&FA, DHI
2. Shri Arvind Kumar, Director, DHI
3. Shri Anand Deshpande, Dy. Director, ARAI
4. Shri Vishnu Mathur, DG, SIAM
5. Shri K.K. Gandhi, ED, SIAM
6. Ms. Pooja Sharma, ACMA
7. Shri Sohinder Gill, SMEV
8. Shri Manu Sharma, AD, SMEV
9. Shri Deepak Jindal, TSO to MD, REIL
10. Shri M. D. Shukla, ASRTU
11. Shri Ullas Babu, ASRTU
12. Dr. K. Balasubramanam, NFTDC
13. Shri B. S. Vishnanatha, ED, BHEL
14. Shri Tej Prakash, BHEL
15. Shri Arun V. Rao, BHEL
16. Shri S. Eswara Rao, BHEL
17. Shri H. D. Sahu, Director(MV), Post
18. Shri M. A. Mujeet, AAO, Post
19. Shri Sharan Singh, Mahindra Reva
20. Shri Vikas Joshi, M.S.R.T. Corporation, Mumbai
21. Shri Rohit Natilin, KPIT
22. Shri Yogesh Sharma, KPIT
23. Kishor Patil, KPIT

**Minutes of the Second Meeting of the Project Implementation and Sanctioning Committee under FAME India Scheme held on 20.08.2015.**

1. The second meeting of the Project Implementation Committee (PISC), under FAME India Scheme was held on 20.08.2015 under the Chairmanship of Secretary, DHI. The list of participants is attached as annexure I.
2. Initiating the discussion, AS DHI informed that action has been taken to obtain viable pilot projects from different agencies/states for implementation under FAME India Scheme to give a push to the new generation hybrid and electric vehicles in a big way. Further, a range of technology/R&D projects have also been processed by the Technology Advisory Group (TAG-EM) set up under FAME India Scheme, under the joint chairmanship of AS & Shri A Jhunjunwala of IIT Madras. Prior to this PISC meeting, the listed projects proposed to be taken up were examined in detail in the Technical Screening Committee and Internal Scrutiny Group for pilot projects, on 7.08.2015 where a total of 8 agenda items were considered. The recommendations of this meeting on each of the 8 pilot projects taken up for consideration were appraised to the PISC.
3. Based on the recommendations of the TSC and ISG and discussions held in the PISC meeting, the following decisions were taken with regard to the specific agenda items taken up in this PISC meeting:-

No	Nature of Proposal	Name of Agency	Project proposals in brief	Category & Amount Proposed for release	Decision of PISC
1.	Relaxation of geographical limitation criteria for the electric/hybrid vehicles in FAME-India Scheme.	Society for Manu-facturers of Electric Vehicles(SM EV)	As per details furnished by SMEV, > 60% sale of hybrid & E2Ws and E 3Ws is in small towns/rural areas which are not included in eligible areas under FAME India	(Category: Demand Incentive)	The PISC took note of the grounds of SMEVs representations with reference to the potential for sale of Hybrid and E2W & E3W vehicles in different areas, past track

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<p align="center">2. ✓</p>	<p>Technology development project for advanced Gen IV lead acid battery and Gen. Nickel-zinc battery for EVs</p>	<p>NFTDC, Hyderabad</p>	<p>Scheme. Small towns and even villages near urban centres are ideal for EVs owing to shorter distances travelled, absence of good public transport facility and ease of home charging in these areas. Relaxation of the geographical limitation criteria under FAME Scheme is essential to enable the survival of E2W and E3W market and Industry</p> <p>India subsequent EV Battery Technology solutions (Gen IV Lead Acid and Gen II Ni-Zn) for 100-1000 KG class 2W/3W/Small 4W cargo vehicle platforms.</p>	<p>(Category: Technology/R&amp;D component.) 1<sup>st</sup> Year ₹2.44crore 2<sup>nd</sup> Year ₹1.56crore Total ₹ 4 crore</p>	<p>record, availability of funds, future potential for successful implementation etc. and decided that the guideline of geographical limitation for eligibility to claim demand incentive for sale anywhere in India under FAME India Scheme. A corrigendum to this effect will be issued to the scheme guidelines by DHI. This provision shall be monitored closely and reviewed by PISC/DHI after 6 months.</p> <p>PISC stressed the urgent need to develop economically and technically viable advanced batteries for EVs in India which will go a long way in accelerating the implementation of hybrid/electric vehicles under the scheme. The Committee noted the proposed targets under this project including the expected higher number</p>
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					<p>of cycles of output battery for Gen IV lead-acid and for Gen II nickel zinc battery), fast charging compatibility, power expected cost of battery per KW hour etc. PISC approved the project with an outlay of ₹4 crore (₹ 2.44 crore in 2015-16 and ₹1.56 crore in 2016-17), with the direction to complete it within two years and to ensure appropriate tie up with leading EV manufacturers to ensure subsequent commercial use of these new battery technologies.</p>
3.	<p>Proposal to provide 10 numbers light commercial vehicles for the use of Department of Post</p>	<p>Department of Post (Govt. of India)</p>	<p>To provide 10 light commercial vehicles for the use of Dept. Of Post, free of charge, under the pilot project scheme of FAME India Scheme</p>	<p>Category: Pilot project. Amount proposed: ₹50 lakh approx.</p>	<p>PISC discussed the proposal and decided that such Pilot Projects on 100% funding under FAME India Scheme may be taken up in select Govt. departments and agencies (e.g. Dept. Of Posts, Railways, Airports, Police and Defence etc. by giving select number of electric/hybrid vehicles</p>

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4	Proposals submitted to REIL & BHEL for putting up solar based charging infrastructure for EVs	REIL & BHEL	Based on interaction with DHI, REIL & BHEL have submitted detailed proposals each for putting up the pilot module for 3 different options of solar based charging infrastructure for EVs with requisite back up battery	Category: Charging infrastructure amount proposed approx. ₹50 lakh for each agency i.e. ₹1 crore.	for the use of these agencies so as to seed such new technology vehicles at the field level. Based on the study and the experience gained in the pilot project, these Ministries/agencies may consider adopting XEVs in large number later on. Based on the discussion, it was decided that DHI will liaise with various user agencies/ Ministries and centrally create a pool of 30-50 such vehicles under full FAME Scheme funding which could be put to use in the field level under such pilot projects across different Ministries/ Departments.  PJSC discussed and approved, in principle, the allocation of ₹1 crore for development of solar based charging infrastructure. Prototype modules for putting up in Delhi NCR at various field locations and the
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			<p>storage facility. The 3 different options include small size ( for 3-4 E2Ws only); Mid-size (for 2E2Ws and one E 4Ws) and bigger size (for 2-3 E2Ws and 2 E 4Ws)</p>		<p>incorporation of the best features of designed materials, space occupied, cost, safety and durability etc. PISC directed AS, DHI to finalise the specific and detailed technical and cost parameters etc. and obtain approval on file.</p>
5	<p>Proposal for part financing EV Rally from Delhi to Leh via Srinagar and Kargil</p>	<p>Global Himalaya Expedition</p>	<p>Go Green BOV, based in Bengaluru, Karnataka in association with GHE and DHI has given a proposal for creating consumer awareness and accessibility of EV through a joint initiative of India's first zero emission journey to the Himalayas in the form of a EV rally from Delhi to Leh-Ladakh via Srinagar and Kargil. The journey would cover a distance of 120 km per day over a period of 15days with mostly solar based charging of EVs along the way. There would be interaction with a wide range of stakeholders. It</p>	<p>Category:- IEC (Consumer Awareness Generation). Amount proposed: Total budget of the proposal is approx. ₹72 lakh.</p>	<p>PISC appreciated the content and structure of the proposed rally, which would go a long way in creating awareness amongst one and all towards green mobility and in particular EVs. PISC directed that the whole rally needs to be planned meticulously with due care and details including the stake holders participation, maximum coverage by media, interaction with all citizens, particularly youth/ students etc. so as to derive and generate interest amongst consumers. Various other</p>

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		<p>hopes to create an opportunity for interaction with over one lakh young students and citizens all along with the way besides global level publicity</p>		<p>partner agencies would also contribute towards the event. PISC approved an amount of ₹10 lakhs under IEC activities for this proposal.</p>
<p>6</p>	<p>Proposal for conversion of 10 buses of city transport corporation each (total 40 numbers in Delhi, Chennai, Hyderabad &amp; Bengaluru) to hybrid vehicles.</p>	<p>Association of State Road Transport Undertakings (ASRTU)</p> <p>ASRTU has proposed for conversion of diesel buses in select cities to hybrid vehicles by installing retrofit technology kit through KPIT, Pune at the cost of ₹36 lakhs per vehicle. Similarly, MD, Maharashtra State Road Transport Corp. (MSRTC) has also submitted a proposal for conversion of 50 buses to hybrid vehicles on the same basis as above. The benefits from hybrid retrofit kit include reduced fuel consumption by 20%, emission, improved driving experience, lower driver fatigue, reduced maintenance cost etc. Based on the successful implementation of the pilot project, these state road</p>	<p>Category:- Technology Pilot Project. Amount proposed ₹1.80 crore</p>	<p>PISC took note of the project details. While appreciating the need to develop hybrid retrofit kit for on road commercial vehicles/buses which are amongst the main sources of road pollution, PISC directed that all efforts should be made to ensure safe and secure kits with high performance levels of fuel efficiency and reduced emission. The Committee also desired that all efforts should be made to reduce the unit cost to make the scheme more viable for larger adoption of State Road Transport Corporations. In the meeting ASRTU and KPIT informed that after</p>

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transport corporations would go in for a larger number of retro-fitment and even now hybrid buses in their fleet.

the initial pilot project is successfully implemented and state road transport corporations go in for larger numbers (300 to 500 in a year), it is quiet feasible that the unit rate is likely to reduce by about ₹8 to 10 lakh. However the initial pilot project is essential for seeding the technology at the field level. Based on the discussion, PISC approved a total of 10 (Ten) hybrid retro-fitment kits for buses at the rate of 2 No. each in 5 major cities like Delhi, Chennai, Hyderabad, Bengaluru, etc. and a total of 5 hybrid retro-fitment kits for MSRTC, Mumbai as the initial technology pilot project for hybridisation of public transport. The total amount approved for the above proposal is ₹5.40 crore

Concl... 8/-

The proposal given by M/s Hero Motors and city byk for initiating a pilot project for rental outlet of E Scooters in Hyderabad city was taken up for consideration and it was decided that the proposal needs to be re-formulated taking into account the specific number of vehicles, cost- benefit analysis, operational factors involved, agency for operating, permissions required for the business module etc. and resubmitted to DHI for consideration.

The Meeting ended with thanks to the Chair.

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Annexure-I

**List of Participants who attended the PISC Meeting held  
on 20.8.2015 at 11.30 A.M.**

1. Shri S.K. Bahri, AS&FA, DHI
2. Shri Ambuj Sharma, Additional Secretary, DHI
3. Shri Arvind Kumar, Director, DHI
4. Shri Sajid Mubashir, Member(R&D), NAB
5. Shri Anand Deshpande, Dy. Director, ARAI
6. Shri Vishnu Mathur, DG, SIAM
7. Shri K.K. Gandhi, ED, SIAM
8. Ms. Pooja Sharma, ACMA
9. Shri Sohinder Gill, SMEV
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16. Shri Tej Prakash, BHEL
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