भारतसरकार
GOVERNMENT OF INDIA

भारीउद्योग एवं लोक उद्यम मंत्रालय
MINISTRY OF HEAVY INDUSTRY & PUBLIC ENTERPRISES
भारी उद्योग वभिाग
DEPARTMENT OF HEAVY INDUSTRY
(NAB Cell)

F.No-21(37)/NAB/DIDM/2014 Date: 26-03-2015

OFFICE MEMORANDUM

Subject: Regarding launch of FAME India Scheme and the support required from all the Testing Centres thereof

1. FAME – India (Faster Adoption and Manufacturing of (Hybrid & Electric Vehicles in India) as part of National Mission for Electric Mobility (NMEM) is being launched from 1st April 2015. In the Union Budget 2015-16, Government of India has approved an initial outlay of Rs 75 Crore from Plan Fund for this Scheme in 2015-16. To this effect, work related to release of a **Gazette Notification** by this Ministry is underway and it will be hosted on the DHI website also.

2. As part of the scheme, to create an initial demand for market uptake, Govt. has decided to offer demand incentive to the buyers of xEVs (acronym for various hybrid and electric technologies vehicles) at the time of purchase of such xEVs. The amount under demand incentive is pre calculated under the scheme for various vehicle-technology-battery segments. This amount is a flat amount for a particular vehicle-technology-battery segment irrespective of the different vehicles which fall or will fall under this category. Details of the same are contained in the Scheme Guidelines enclosed as Annexure 1.

3. As part of the suggested disbursement mechanism for the demand incentive, DHI is in the process of setting-up shortly an **electronic disbursement portal** envisaged to implement fully automatic approval and disbursement mechanism for efficient and effective incentive disbursements. In this scheme following types of vehicles are being covered.

- Two Wheelers (Category L1 and L2 as per CMVR)
- Two Wheelers (With maximum power not exceeding 250 Watts)
- Three Wheelers (Category L5 as per CMVR)
- Passenger Cars (Category M1 as per CMVR)
- LCVs (Category N1 as per CMVR)
- Buses (Category M3 as per CMVR)
- Hybrid Retrofitment (Category M1, M2 & N1 of CMVR)

4. For each type of these vehicles to qualify for the demand incentive, vehicles are required to qualify certain **technical criteria**, details of which have already been elaborated in the scheme guidelines. To qualify for these criteria, **assessment procedures** to be adopted by the authorized testing centers are also prescribed in the scheme guidelines.

5. Each **authorized testing center** is expected to certify the vehicle provided by Original Equipment Manufacturer (OEM) to **be qualified** for demand incentive under the proposed scheme. All the authorized centres will issue **eligibility certificate for each vehicle model separately** to OEMs, with a copy to this Department, as per prescribed proforma enclosed at **Annexure 2**.

6. Test Center duly authorized for vehicle testing and homologation for type approval and conformity of production by MoRTH vide Section 126 of Motor Vehicle Act 1989 would be eligible for this purpose

7. All such authorized centres are accordingly directed to start testing of the Hybrid and Electric vehicles for their eligibility certificate as per Scheme Guidelines as and when approached by OEM for the same and issue eligibility certificate, as per enclosed proforma, expeditiously as per procedure.

This issues with the approval of Additional Secretary, DHI, New Delhi

Pravin Agrawal
Director (NAB)

To,

1. The Automotive Research Association of India
   Survey No. 102, Vetal Hill, Off Paud Road,
   Kothrud, Pune - 411 038
   P.B. No. 832, Pune - 411 004
2. International Centre for Automotive Technology
   Plot - 26, Sector - 3,
   IMT Manesar, Gurgaon - 122050.
3. Central Institute of Road Transport
   Post Box No. 1897,
   Pune- Nasik Road, Pune – 411 026.

Copy for information to:

1. PPS to Secretary (DHI), for kind information of Secretary (DHI) please
2. PS to Additional Secretary for kind information of Additional Secretary
3. Member (R&D), NAB
4. Website of DHI for information of all concerned

3424/2403

Scheme for Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India – FAME India

Scheme Guidelines

1. Government of India approved the National Mission on Electric Mobility in 2011 and subsequently National Electric Mobility Mission Plan 2020 was unveiled (in 2013) by the then Hon'ble Prime Minister. As part of the mission, DHI has formulated a scheme namely **FAME – India** (**F**aster **A**doption and **M**anufacturing of (Hybrid &) **E**lectric Vehicles in India).

2. The overall scheme is proposed to be implemented over a period of 6 years, till 2020, wherein it is intended to support the hybrid/electric vehicles market development and its manufacturing eco-system to achieve self-sustenance at the end of the stipulated period.

3. Government is committed to instill confidence in the industry and allow them to plan requisite investments and create needed capacities. This shall also enable the scheme to align with "Make in India" initiative.

4. The Phase-1 of the scheme shall be implemented over a 2 year period i.e. FY 2015-16 and FY 2016-17 commencing from 1st April 2015.

5. The scheme shall have 4 focus areas i.e. Technology Development, Demand Creation, Pilot Projects and Charging Infrastructure. The break-up of fund allocation is given hereunder:

Component of the scheme	2015-16	2016-17
Technology Platform (Including testing infrastructure)	Rs. 70 Crore	Rs. 120 Crore
Demand Incentives	Rs. 155 Crore	Rs. 340 Crore
Charging Infrastructure	Rs. 10 Crore	Rs. 20 Crore
Pilot Projects	Rs. 20 Crore	Rs. 50 Crore
IEC/Operations	Rs. 05 Crore	Rs. 05 Crore
Total	**Rs. 260 Crore**	**Rs. 535 Crore**
Grand Total	**Rs. 795 Crore**	

6. In order to align with the actual demand profile in the market, and to ensure optimal utilization of funds to sustain production and other activities under the scheme, there shall be flexibility of distribution of fund amongst the 4 focus areas i.e. Technology Development, Demand Creation, Pilot Projects and Charging Infrastructure, thus having fungibility in both inter and intra segment. The flexibility will be approved by a Project Implementation and Sanctioning

Committee (PISC) which will be headed by Secretary, Department of Heavy Industry and will have members with requisite seniority and expertise. Composition of Committee is provided in **Annexure 12.**

7. Taking into account high level of environmental pollution and fossil fuel usage in road transport in high density urban centres, this phase of the scheme will be restricted to the following select areas:
   a. Cities under "Smart Cities" initiatives
   b. Major metro agglomerations – Delhi NCR, Greater Mumbai, Kolkata, Chennai, Bengaluru, Hyderabad, Ahmedabad.
   c. All State Capitals and other Urban Agglomerations/Cities with 1 Million+ population (as per 2011 census)
   d. Cities of the North Eastern States

8. The demand incentive shall be available for buyers (end users/consumers) in the form of an upfront reduced purchase price to enable wider adoption.

9. Market creation through demand incentives is aimed at incentivizing all vehicle segments i.e. 2-Wheelers, 3-Wheeler Auto, Passenger 4-Wheeler Vehicles, Light Commercial Vehicles and Buses (Refer Para 24). Greater emphasis shall be on providing affordable and environmentally friendly public and private transportation/vehicular mobility options for the masses.

10. Mild Hybrid, Strong Hybrid, Plug-in Hybrid and Pure Electric technologies (collectively termed as xEV) are covered under the scheme. The definitions of the same are provided in the ***Annexure-1 (Technology Definitions)***.

11. Based on the outcome and experience gained in this Phase 1 (2 years), the scheme shall be reviewed appropriately with inputs from stakeholders and shall be considered for implementation post 31st March 2017, with appropriate allocation of funds in the future.

12. Department of Heavy Industry shall be the nodal Department for the scheme. The Department shall be responsible for planning, implementation and review of the scheme. It shall also be responsible for allocation of funds for the various components of the scheme, based on approval and allocation of funds by the Finance Ministry. The progress under the scheme shall also be overseen by the National Board for Electric Mobility (NBEM) and the Development Council for Auto & Allied Industries (DCAAI). Department of Heavy Industry shall be the nodal agency for addressing issues relating to the guidelines and for removal of difficulties in the implementation of the scheme. Department of Heavy Industry shall issue guidelines as and when necessary in order to meet the objectives of the scheme.

13. Under the overall supervision and direction of Department of Heavy Industry, National Automotive Board shall be the operating agency for the implementation of the scheme including disbursement of funds for the various components.

14. Specific projects under Pilot Projects, R&D/Technology Development and Public Charging Infrastructure components shall be approved by the Project Implementation and Sanctioning Committee (PISC).

15. An extensive IEC program shall be undertaken for creating consumer awareness and promotion of the scheme, on a need basis, through education and training, publicity, organization of business meets/seminars/conferences/symposia etc. jointly by Department of Heavy Industry, Voluntary Organizations, etc.

16. The Department of Heavy Industry shall carry out a scientific analysis of data for verification of performance parameters, fossil fuel savings etc. as a result of this scheme.

17. The scheme will implement "*demand driven R&D to achieve desirable target specs*" for which the efforts would be to synergize Government – Industry – Academia cooperation to maximize objectives of increasing domestic capacities of product and technology development and commercialization aimed at making the xEV market self-sustaining.

18. Technology development under the scheme shall be taken up through a collaborative approach with the industry and academia, including both Govt. funded as well as PPP projects. Department of Science and Technology will also play a pivotal role.

19. Under this scheme, projects of applied nature with an aim to introduce viable technologies at the field level will be given priority. Acquisition of technology of critical nature in exceptional cases is also envisaged. At the same time, work on basic research projects with long term gestation period shall also be considered.

20. A nodal body, called "Technology Advisory Group (TAG) on Electric Mobility" – (composition given in **Annexure 10**) under joint supervision of Department of Heavy Industry and Department of Science and Technology, will focus on technology foresight and road mapping, benchmarking, project nucleation and proposal evaluation. Specific projects formulated by TAG would be finally approved for release of funds by the committee headed by Secretary, Department of Heavy Industry as mentioned in Para 14.

21. TAG is already constituted several working groups focusing on initiatives to be taken in specific technologies and vehicle segments. The TAG is also working on a detailed Technology Platform for hybrid/electric technology ecosystem in India structured around Centres of Excellence (CoEs) for Battery, Battery Management System, Power Electronics and Vehicle System Integration. CoE on Motors at Non Ferrous Technology Development Centre (NFTDC), Hyderabad has already commenced its work. CoEs are envisaged to act as a bridge between academia and industry with an aim to support development of prototype components/sub-systems for validation and commercial applicability. The R&D/Technology projects implemented under the scheme envisage extensive involvement and contribution of the industry partners in the joint development of viable, high performance electric/hybrid vehicles suitable for the Indian market.

22. The automotive testing infrastructure for R&D, testing and homologation will be upgraded for meeting the requirements of new regulations and standards (ex. motor test beds, battery test beds etc.). Department of Heavy Industry (DHI) through National Automotive Board (NAB) shall be the nodal agency for the creation of such infrastructure.

23. The scheme shall provide demand (financial) incentive to the buyers of eligible xEVs (including retrofitment kits).

24. Following categories of vehicles shall be eligible to avail demand incentives under the scheme:
    a) Two Wheelers (Category L1 & L2 as per Central Motor Vehicles Rules (CMVR))
    b) Two Wheelers (Max power not exceeding 250 Watts)
    c) Three Wheelers (Category L5 as per CMVR)
    d) Passenger Cars (Category M1 as per CMVR)
    e) LCVs (Category N1 as per CMVR)
    f) Buses (Category M3 as per CMVR)
    g) Retrofitment (Category M1, M2 & N1 as per CMVR)

25. Taking into account the principles of Total Cost of Ownership (TCO), Pay-back Period on account of fuel savings, cost of maintenance etc., the demand incentive amount has been determined for each category (vehicle – technology – battery type), details of which are given in the subsequent sections.

26. Vehicles under the scheme have been broadly categorized based on two types of battery technologies –***'Conventional Battery'*** and ***'Advance Battery'***. The use of both the terms is purely a representation of two lines of battery technologies widely prevalent today and also envisaged in the near future.
    a) 'Conventional Battery' represents the batteries with Lead as the principal chemical Element.
    b) 'Advance Battery' represents the new generation batteries without Lead such as Lithium polymer, Lithium Iron phosphate, Nickel Metal Hydride, Zinc Air, Sodium Air, Nickel Zinc, Lithium Air etc.

27. The demand incentive is proposed into 2 slabs – Level 1 and Level 2. In principle, the 'Level 2' incentive shall be around 120% (rounded off) of the 'Level 1' incentive.

28. The principle of having two incentive slabs is proposed to promote development of technologies and vehicles with higher fuel savings potential. In general, in order to qualify for 'Level 2' incentive slabs, the vehicle shall have to meet 50% higher qualifying targets vis-à-vis 'Level 1' incentive as per the provisions contained in ***Annexure 2 to Annexure 7.***

29. The demand incentive available for the various vehicle categories is given in **Annexure 13.**

30. To meet the qualifying criteria for the demand incentives, the hybrid/electric vehicle (xEVs) including its variants and versions, shall
    a) be manufactured in the country.
    b) be meet provisions contained in Central Motor Vehicles Rules (CMVR) in terms of its classification, categorization, definition, roadworthiness, type approval, registration etc.
    c) be duly type approved as per the provisions contained in CMVR as under:
        i. Hybrid Electric Vehicles of M and N categories with GVW up to 3.5 tonnes: AIS 102 (Part 1)
        ii. Hybrid Electric Vehicles of M category with GVW above 3.5 tonnes: AIS 102 (Part 2)
        iii. Hybrid Electric Vehicles of L category: AIS 102 (Part 1)
        iv. Battery Operated Vehicles: AIS 049
    d) obtain certificate of demonstration of technology functions from any of the authorized testing agencies (as per CMVR), as per its technology type, as per the technology definitions contained in ***Annexure -1 (Technology Definitions)***.
    e) obtain certificate of achieving fuel savings in case of hybrids (plus electric range for PHEV as an additional criterion) and electric range for pure EV (plus electrical energy consumption as an additional criterion) as per the qualifying targets for various vehicle segments as per the provisions contained in ***Annexure -2 to Annexure-7.***
    f) Be tested for the qualifying targets by any of the authorized testing agencies in the country as per assessment procedure provided in **Annexure 8**.
    g) be certified as per AIS 123 (in case of hybrid retrofitment kit) and the retrofit kit manufacturer/supplier shall adhere to the guidelines contained in AIS 123. The qualifying criteria for hybrid retrofitment kit are contained in ***Annexure - 9.***
    h) all the time display a sticker with an appropriate depiction of the scheme along with a suitably worded slogan or a caption. Details of the sticker will be provided by the Department of Heavy Industry, and
    i) be accompanied by at least one year comprehensive warranty from the manufacturer including for batteries and to have adequate facilities for after sales service.

31. The demand incentive shall be disbursed through an e-enabled framework and mechanism set-up under DHI/NAB as per the process flow chart provided in **Annexure - 11**. The manufacturers of vehicles (OEMs or Original Equipment Manufacturers) and hybrid retrofit kit manufacturer/supplier will submit their claims for reimbursement of demand incentive on monthly basis to the Department of Heavy Industry/NAB which shall be settled in not more than a month's time.

32. DHI/NAB shall be the nodal agency on behalf of Central Government for implementation of pilot projects under the scheme. State governments may also identify a suitable nodal agency for execution of pilot programs in their respective areas.

33. The pilot projects are intended to fulfil objectives of introduction of new technologies, trial of new business models etc. with special focus on public transportation. To ensure maximum impact, project scope will be based on

city/state needs, viability and active participation of various stake holders including Govt. and Non-Govt. agencies/local bodies/state governments/public institutions/industry and other groups and shall be given financial support by the Department of Heavy Industry through viability gap funding or by other ways of funding under the scheme on a case to case basis. Proposals for pilot projects shall be approved/sanctioned by the Project Implementation and Sanctioning Committee (PISC) headed by Secretary, Department of Heavy Industry (Annexure 12).

34. The duration of the program, number and type of vehicles to be deployed, requirement of charging infrastructure and associated details etc. will be worked out by DHI/NAB in consultation with relevant stakeholders, subject to approval of the PISC as explained in para 33.

35. The scheme envisages setting-up of adequate public charging infrastructure to instill confidence amongst xEV users, through active participation and involvement of various stakeholders including Govt. & Non Govt. agencies.

36. Both normal and fast charging infrastructure will be created under the scheme. Public places such as Govt. Buildings, Railway Stations, Metro Stations, Bus Depots, Fuel Stations, Commercial Buildings, Industrial/ IT parks, Office complex and Residential Complex etc. may be mandated through amendment in by-laws and building codes etc. by the relevant agencies.

37. Interlinking of renewable energy sources with charging infrastructure, smart grid, use of ICT etc. shall be encouraged.

Review

38. During the second year of the scheme, Department of Heavy Industry or a committee constituted by the department for this purpose will carry out an in-depth review of the scheme and will suggest appropriate measures based on the outcome/observations of this exercise.

Annexure – 1: xEV Technology Definitions

xEV Technology	Technology Definition (common for all vehicle Segments like 2W, 3W, 4W, LCV, Bus and Retrofit)
Mild Hybrid Electric Vehicle **(Mild HEV)**	A 'Hybrid Electric Vehicle (HEV)'* which has a 'Stop-Start' arrangement, 'Electric Regenerative Braking System'* and a 'Motor Assist' (motor alone is not capable to propel the vehicle from a stationary condition).
Mild HEV with OVC	A 'Mild Hybrid Electric Vehicle (Mild HEV)' which has provision for 'Off Vehicle Charging'* (OVC) of 'Rechargeable Energy Storage System (ReESS)'*.
Strong Hybrid Electric Vehicle **(Strong HEV)**	A 'Hybrid Electric Vehicle (HEV)' which has a 'Stop-Start' arrangement, 'Electric Regenerative Braking System' and a 'Motor Drive' (motor alone is capable to propel the vehicle from a stationary condition).
Plug-in HEV **(PHEV)**/ Range Extended Electric Vehicle **(REEV)**	A 'Strong HEV' vehicle which has a provision for 'Off Vehicle Charging' (OVC) of 'Rechargeable Energy Storage System (ReESS)'.
Battery Electric Vehicle **(BEV)**	A vehicle which is powered exclusively by an electric motor whose traction energy is supplied exclusively by traction battery installed in the vehicle and has an 'Electric Regenerative Braking System'.

*** Additional Definitions**

- **Hybrid Electric Vehicle (HEV)**: A vehicle that for the purpose of mechanical propulsion draws energy from both of the following on-vehicle sources of energy/power:
  - ✓ A consumable fuel
  - ✓ Energy / power storage device (e.g.: battery, capacitor, etc.)
- **Electric Regenerative Braking System**: A system, which during braking, provides for the conversion of vehicle kinetic energy into electrical energy.
- **Off Vehicle Charging (OVC)**: ReESS in the vehicle has a provision for external charging.

Note: For 2W and 3W BEV with 30 minutes max speed not exceeding 25 km/h, Electrical Regenerative Braking System is optional.

Annexure -2: Two-Wheeler Targets

A2.1 Fuel Consumption Targets (L/100Km)

The improvements over IC Engine two wheelers and the equations for Target Lines for Mild HEV and PHEV are tabulated in Table A2.1 below.

Table A2.1: 2W Fuel Consumption criteria - Target line equations

Description	Mild Hybrid		PHEV	
	Level 1	Level 2	Level 1	Level 2
Target equation, FC ≤	0.0043*CC + 1.1521	0.0041*CC + 1.0881	0.0038*CC + 1.0093	0.0033*CC + 0.8613
Percentage improvement over IC Engine	10%	15%	22%	33%

A2.2 Electrical Range for PHEV and BEV

For PHEV and BEV, targets for electrical range in Km are proposed in the Table A2.2 below.

Table A2.2: 2W Electric Range criteria

Parameters	Incentive Grade	PHEV (as per WMTC test procedure)	BEV (as per IDC test procedure)
Electric Range (Km)	**Level 1**	10	55[1]
	Level 2	10	55[2]

1. Basis the data used in the TCO modeling, value is proposed for Low Power 2W BEV ("30 minutes max Power" not exceeding 250 Watts)
2. Basis the data used in the TCO modeling, value is proposed for High Power 2W BEV ("30 minutes max Power" exceeding 250 Watts)

A2.3 Energy Consumption for BEV

For BEV, electric energy consumption in kWh/100km criteria is proposed in Table A2.3:

Table A2.3: 2W BEV Electric Consumption criteria

Incentive Slab	Electric Energy consumption (kwh/100km)
Low Power 2W BEV (Max power not exceeding 250 Watts)	Less than 5[1]
High Power 2W BEV (Max power exceeding 250 Watts)	Less than 8[2]

Note: In addition to the above, the criteria as specified in Annexure 5 are to be fulfilled, wherever applicable.

Annexure -3: Three Wheeler Targets

A3.1 Fuel Consumption Targets (L/100Km)

The gasoline equivalent target lines for xEVs (Mild HEV and PHEV) are shown in Table A3.1 and Table A3.1a

Table A3.1: 3W Fuel Consumption criteria – Target Line (TL)

Fuel Category	Mild Hybrid		PHEV	
	Level 1	Level 2	Level 1	Level 2
Gasoline / LPG	TL- 10%[1]	TL- 15%	TL- 33%	TL- 50%
Diesel / CNG	(TL- 11.5%) -10 % [1]	(TL- 11.5%) - 15%	(TL- 11.5%) -33%	(TL- 11.5%) -50%

- The % figure is the % change in the slope and intercept from the Target Line – TL.
- For example TL (gasoline equivalent fuel consumption in l/100km = 0.0031*Mass + 2.6056, then target for
  Gasoline Mild HEV will be: 0.0031*0.9*M + 2.6056*0.9 and
  Diesel Mild HEV will be: 0.0031*0.885*0.9*M + 2.6056*0.885*0.9

Table A3.1a: 3W Fuel Consumption criteria - Target line equation constants

Fuel Category	Equation / Constant	Mild Hybrid		PHEV /RE-EV	
	Gasoline equivalent FC target (in l/100km) = a * M + b	Level 1	Level 2	Level 1	Level 2
Gasoline / LPG	a	0.0028	0.0027	0.0021	0.0016
	b	2.3450	2.2148	1.7458	1.3628
Diesel / CNG	a	0.0025	0.0023	0.0018	0.0014
	b	2.0754	1.9601	1.5450	1.1530

A3.2 Electrical Range for PHEV and BEV

For PHEV and BEV, targets for electrical range in Km are proposed in the Table A3.2.

Table A3.2: 3W Electric Range Criteria

Parameter	Incentive Grade	PHEV	BEV
Electric Range (Km)	Level 1	15	50
	Level 2	15	80

A3.3 Energy Consumption for BEV

For BEV, electric energy consumption in kWh/100km criteria is proposed in the Table A3.3:

Table A3.3: 3W BEV Electric Consumption criteria

Battery Electric Vehicle (BEV)	
Vehicle Type	Electric Energy consumption (kwh/100km)
Three Wheeler (L5 Category)	Less than 15

Note: In addition to the above, the criteria as specified in Annexure 5 are to be fulfilled, wherever applicable.

Annexure -4: Four Wheeler Targets

A4.1 Fuel Consumption Targets (L/100Km)

The gasoline equivalent target lines for xEVs (Mild HEV, Strong HEV and PHEV) are shown in the Table A4.1 & Table A4.1a below.

Table A4.1: 4W Fuel Consumption criteria – Target Lines

Fuel Category	Mild Hybrid		Strong Hybrid		PHEV	
	Level 1	Level 2	Level 1	Level 2	Level 1	Level 2
Gasoline / LPG	TL- 10%[1]	TL- 15%	TL- 20%	TL- 30%	TL- 33%	TL- 50%
Diesel / CNG	(TL- 11.5%) -10 % [1]	(TL- 11.5%) - 15%	(TL- 11.5%) -20%	(TL- 11.5%) -30%	(TL- 11.5%) -33%	(TL- 11.5%) - 50%

- The % figure is the % change in the slope from the Target Line – TL.
- For example TL (gasoline equivalent fuel consumption in l/100km = 0.0024*M + 3.0034, then target for
  Gasoline Mild Hybrid will be: 0.0024*0.9*M + 3.0034 and
  Diesel mild hybrid = 0.0024*0.885*0.9*M + 3.0034.

Table A4.1a: 4W Fuel Consumption criteria - Target Line Equation Constants

Fuel Category	Eqn. / Const.	Mild Hybrid		Strong Hybrid		PHEV	
	FC^1 = a *M + b	Level 1	Level 2	Level 1	Level 2	Level 1	Level 2
Gasoline / LPG	a	0.00216	0.00204	0.00192	0.00168	0.001608	0.0012
	b	3.0034	3.0034	3.0034	3.0034	3.0034	3.0034
Diesel / CNG	a	0.00191	0.0018	0.00169	0.00148	0.00142	0.00106
	b	3.0034	3.0034	3.0034	3.0034	3.0034	3.0034

1. Gasoline equivalent fuel consumption.

Calculation of Gasoline Fuel Equivalent Fuel Consumption

The actual gasoline equivalent fuel consumption for diesel, LPG and CNG motor vehicles shall be obtained by multiplying the actual fuel consumption of a diesel, LPG or CNG motor vehicle with the conversion factors specified in the Table A4.1b below:

Table A4.1b: Conversion factor for calculating gasoline equivalent

Fuel Type	Conversion factor to gasoline equivalent
Diesel	1.1340
LPG	0.6878
CNG	0.7581

A4.2 Electrical Range for PHEV and BEV

For PHEV and BEV, targets for electrical range in Km are proposed in the Table A4.2.

Table A4.2: 4W Electric Range Criteria

Parameters	Incentive Grade	PHEV	BEV
Electric Range (Km)	Level 1	15	70
	Level 2	15	105

A4.3 Electrical Energy Consumption for BEV

For BEV, electric energy consumption in kWh/100km criteria is proposed in the Table 4.3.

Table A4.3: 4W BEV Electric Consumption criteria

Battery Electric Vehicle (BEV)	
Vehicle type	**Electric Energy consumption (kwh/100km)**
M1 category vehicle length not exceeding 4m	Less than 15
M1 category vehicle length exceeding 4m	Less than 20
M1 category vehicle length not exceeding 4m (if declared to be registered as “Stage Carriage” or “Maxi Cab”)	Less than 24
M1 category vehicle length exceeding 4m (if declared to be registered as “Stage Carriage” or “Maxi Cab”)	Less than 36

Note: In addition to the above, the criteria as specified in Annexure 5 are to be fulfilled, wherever applicable.

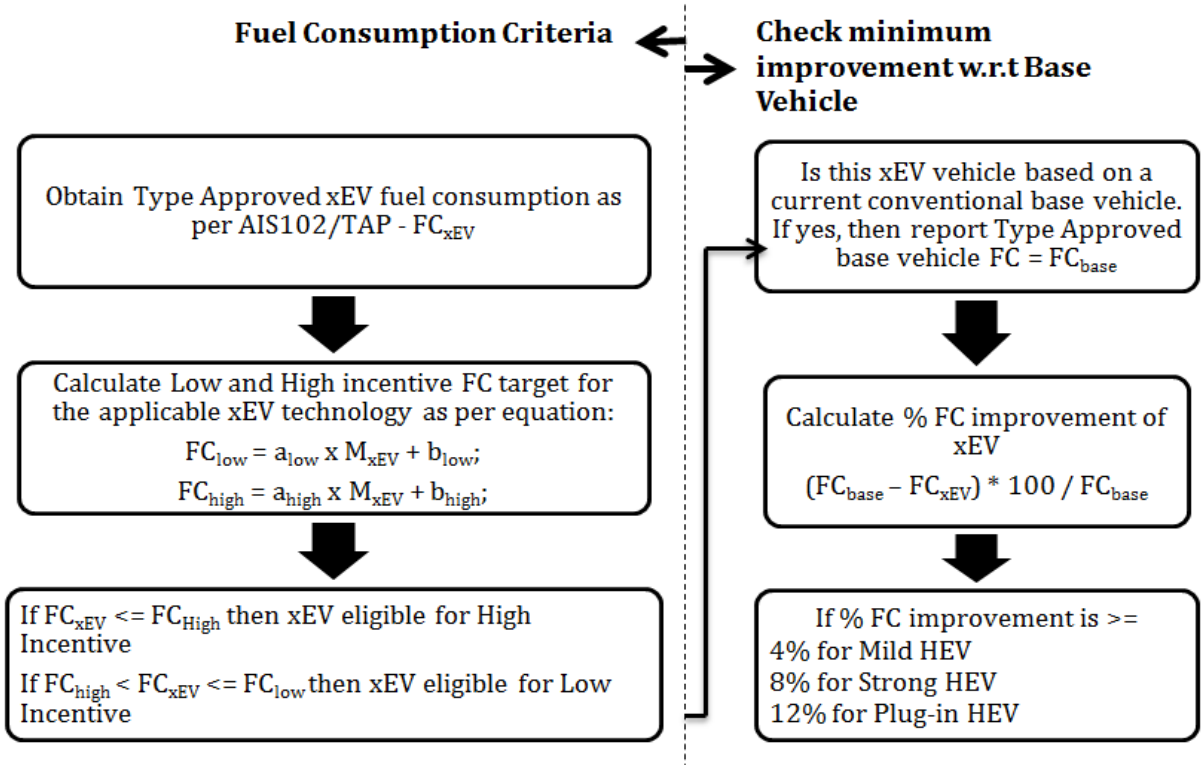
Annexure – 5 : Minimum fuel consumption improvement - for 2W/3W/4W xEV with a base vehicle

As described in Annexure 2 to Annexure 4, the targets for fuel consumption for xEVs (2W, 3W and 4W respectively) are based on a Target Line approach. There may be a possibility that the fuel consumption of a conventional vehicle (i.e. a base vehicle based on which a xEV is declared as developed) is already very near or below the xEV target line.

A manufacturer shall meet the following conditions ***simultaneously*** to declare that the base vehicle of a xEV exists:

- ✓ When both the kinds of vehicles are from the same manufacturer.
- ✓ When both the kinds of vehicles are on the same fuel (gasoline/diesel/etc.).
- ✓ When both the kinds of vehicles meet same Emission and OBD norms (as applicable)
- ✓ When both the kinds of vehicles have same dimensions (L, W, H) and belong to the same inertia weight class as per CMVR or the weight difference of the hybrid vehicle and the base vehicle lies within ±10% of base vehicle weight.
- ✓ When both the kinds of vehicles have same engine type (4 valve, VVT etc.).
- ✓ When both the kinds of vehicles have same engine displacement and engine power rating.
- ✓ When both the kinds of vehicles have same transmission type (MT, AT etc) and gear ratios.
- ✓ When the declared base vehicle do not have any of the hybrid features.
- ✓ When the declared base vehicle is in production during the xEV type approval.

For such a case, a minimum fuel consumption improvement w.r.t its base vehicle is prescribed for xEV vehicles. The following flow chart shall be used for fuel consumption targets for 2/3/4Ws.



Annexure -6: LCV Targets

A6.1 Fuel consumption targets for Mild HEV, Strong HEV and Plug-in HEV

In case of Mild HEV, Strong HEV and Plug-in HEV, the 'Fuel Consumption Improvement' shall be measured as follows:

- Fuel consumption improvement shall be w.r.t a **'Base Vehicle'**.
- Manufacturer shall declare Base Vehicle in xEV type approval document.
- Base Vehicle shall be considered to exist if all the following conditions are met ***simultaneously***:
  - ✓ When both the kinds of vehicles are from the same manufacturer.
  - ✓ When both the kinds of vehicles are of similar physical dimensions (within 15%).
  - ✓ When both the kinds of vehicles are of similar axle arrangement (e.g., 4X2, 4X4, etc.).
  - ✓ When both the kinds of vehicles are with the same fuel.
  - ✓ When both the kinds of vehicles meet same emission norms
  - ✓ When both the kinds of vehicles are of similar payload (Within 15%).
  - ✓ When the declared base vehicle is in production during the xEV type approval.
- Fuel consumption improvement shall be as per the Urban Portion of the driving cycle of the test procedure given in AIS 102 – Part 1.
- Fuel Consumption of xEV is compared with a Base Vehicle with latest type approval.
- Two levels of fuel consumption improvement targets shall be applicable for 'Level 1' Incentive and 'Level 2' Incentive respectively.

The improvement targets for LCV xEVs (Mild HEV, Strong HEV and PHEV) are shown in the Table A6.1.

Table A6.1: LCV Fuel Consumption criteria

Parameters	Incentive Grade	Mild HEV	Strong HEV	Plug-in HEV/RE-EV
Fuel Consumption (L/100Km)	Level 1	BV[1] - 10%	BV - 16%	BV - 24%
	Level 2	BV - 15%	BV - 24%	BV - 36%
1. BV: Base Vehicle				

A6.2 Electrical Range for PHEV and BEV

For PHEV and BEV, targets for electrical range in Km are proposed in the Table A6.2.

Table A6.2: LCV Electric Range criteria

Parameter	Incentive Grade	Plug-in HEV/ RE-EV	BEV
Electric Range (Km)	Level 1	10	50
	Level 2	10	80

A6.3 Energy Consumption for BEV

For BEV, electric energy consumption in kWh/100km criteria is proposed in the Table A6.3.

Table A6.3: LCV Energy Consumption criteria

Parameters	Incentive Grade	BEV
Energy Consumption (Kwh/100Km)	Level 1	Less than 24[1]
	Level 2	Less than 36[2]
1. For LCV with Gross Vehicle Weight (GVW) not exceeding 1.5 Ton. 2. *For LCV with GVW exceeding 1.5 Ton but not exceeding 2.5 Ton.*		

Annexure - 7: Bus Targets

A7.1 Fuel consumption targets for Mild HEV, Strong HEV and Plug-in HEV

In case of Mild HEV, Strong HEV and Plug-in HEV, the 'Fuel Consumption Improvement' shall be measured as follows:

- Fuel consumption improvement shall be w.r.t a **'Base Vehicle'**.
- Manufacturer shall declare Base Vehicle in xEV type approval document.
- Base Vehicle shall be considered to exist if all the following conditions are met ***simultaneously***:
  - ✓ When both the kinds of vehicles are from the same manufacturer.
  - ✓ When both the kinds of vehicles are of similar physical dimensions (within 15%).
  - ✓ When both the kinds of vehicles are of similar axle arrangement (e.g., 4X2, 6X2, etc.).
  - ✓ When both the kinds of vehicles are with the same fuel.
  - ✓ When both the kinds of vehicles meet same emission norms
  - ✓ When both the kinds of vehicles are of similar GVW (Within 10%).
- Fuel consumption measurement shall be as per the Delhi Bus Driving Cycle. It has been proposed that AIS 102 - Part I procedure shall be revised to include necessary requirements with appropriate procedural changes in TAP 115 to make it suitable for buses.
- Two levels of fuel consumption improvement targets shall be applicable for 'Level 1' Incentive and 'Level 2' Incentive respectively.

The improvement targets for Bus xEVs (Mild HEV, Strong HEV and PHEV) are shown in the Table A7.1.

Table A7.1: Bus Fuel Consumption criteria

Parameters	Incentive Grade	Mild HEV	Strong HEV	Plug-in HEV/RE-EV
Fuel Consumption (L/100Km)	Level 1	BV[1] - 9%	BV - 15%	BV - 20%
	Level 2	BV - 13%	BV - 20%	BV - 27%
1. BV: Base Vehicle				

A7.2 Electrical Range for PHEV and BEV

For PHEV and BEV, targets for electrical range in Km are proposed in the Table A7.2.

Table A7.2: Bus Electric Range criteria

Parameter	Incentive Grade	Plug-in HEV/RE-EV	BEV
Electric Range (Km)	Level 1	6	100
	Level 2	6	NA

A7.3 Energy Consumption for BEV

For BEV, electric energy consumption in kWh/100km criteria is proposed in the Table A7.3.

Table A7.3: Bus Electric Energy Consumption criteria

Parameter	Incentive Grade	BEV
Energy Consumption (Kwh/100Km)	Level 1	Less than 175
	Level 2	

Annexure - 8: Incentive Eligibility Assessment Procedure

1.0	**Applicability:**
	This procedure shall be applicable for assessment of vehicle models (including their variants and versions) for eligibility and applicability of incentives announced by Government of India under National Mission for Electric Mobility (NMEM) This assessment procedure shall be applicable only to vehicle models (including their variants and versions) which fall under the purview of Central Motor Vehicle Rule 1989 (CMVR).
2.0	**Procedure:**
2.1	In the case of vehicle models (including their variants and versions) qualifying under criteria specified in Clause 1.0, the vehicle manufacturer shall apply to test agencies notified under Rule 126 of CMVR for assessment as per this procedure. This application can be made along with application for type approval of the concerned vehicle model (including its variants and versions) or as a stand-alone application for assessment as per this procedure. The concerned test agency shall conduct the assessment as detailed below :
2.1.1	**Compliance to CMVR:**
2.1.1.1	The vehicle model (including its variants and versions) shall comply with the applicable regulations as on date as per Central Motor Vehicle Rules, 1989. For this purpose, the vehicle model (including its variants and versions) shall be type approved as per following standards : 1. Hybrid Electric Vehicles of M and N categories with GVW up to 3.5 tonnes : AIS 102 (Part 1) 2. Hybrid Electric Vehicles of M with GVW above 3.5 tonnes : AIS 102 (Part 2) 3. Hybrid Electric Vehicles of L category : AIS 102 (Part 1) 4. Battery Operated Vehicles : AIS 049 5. Electric and Hybrid Electric Vehicles introduced in market for Pilot / Demonstration Projects intended for Government Scheme : AIS 131
2.1.2	**Assessment of Technology Functions (as per each xEV definition given in Annexure 1**
2.1.2.1	The following technologies provided in a xEV shall deem to qualify subject to compliance to the following requirements:
(a)	**Idle Start-Stop** – During driving cycle applicable as per Clause 2.1.3, there shall be at least one event wherein during vehicle idling, the engine stops automatically and again starts automatically when operating conditions as defined by the vehicle manufacturer are met with. The engine stop / start condition shall be determined either by using a RPM sensor feed or using a CO2 versus time plot.
(b)	**Regenerative Braking** – The vehicle fitted with a Regenerative Braking system shall meet the braking requirements laid down in : (i) **Para 8 of AIS 102 (Part 1):** for Hybrid Electric Vehicles of categories L, N & M with GVW upto 3.5 tonnes (ii) **Para 4.1.7 of AIS 102 (Part 2):** for Hybrid Electric Vehicles of categories M & N with GVW above 3.5 tonnes (iii) **Para 3.1 of AIS 049 :** for Battery Operated Vehicles
(c)	**Motor Assist** - During the acceleration phases of driving cycle applicable as per Clause 2.1.3, there must be at least one event where the following conditions are met simultaneously: a. The vehicle speed trace indicates vehicle acceleration b. The CO2 trace versus time plot or the RPM sensor feed indicates the engine is running c. The battery current versus time plot indicates the battery discharging condition

(d)	**Motor Drive (only for Strong HEV/Plug-in HEV/RE-EV)** – During the driving cycle applicable as per Clause 2.1.3, there shall be at least one event wherein the vehicle is running and following conditions are met simultaneously – **a.** The CO2 trace versus time plot or the RPM sensor feed indicates the engine shut-off condition; and **b.** The battery current versus time plot indicates the battery discharging condition.
NOTE:	(1) Wherever possible, the assessment of (a), (c) and (d) may be conducted simultaneously with Emission and / or Fuel Consumption test, based on request from vehicle manufacturer. (2) The measurement of CO2 shall be done using real time emission measurement System (Post CVS) and the battery discharge condition shall be ascertained from measurement of current drawn from battery using current transducers specified in clause F-6.2 of Annex F of AIS 102 (Part 1).
2.1.3	**Fuel Consumption:**
	The fuel consumption measurement shall be done for all types of Hybrid Electric Vehicles as per procedure specified in AIS 102 (Part 1). The driving cycle to be used for fuel consumption measurement shall be as below : 1. Hybrid Electric Vehicles of M1 category: Modified Indian Driving Cycle as defined in TAP 115/116. 2. Hybrid Electric Vehicles of N1 category: **PART 1** of Modified Indian Driving Cycle (MIDC) as defined in TAP 115/116. 3. Hybrid Electric Vehicles of M with GVW above 3.5 tonnes: Delhi Bus Driving Cycle. 4. Hybrid Electric Vehicles of L category : (a) Two Wheelers with engine an engine cylinder capacity exceeding 50 cm^3 or a maximum design speed exceeding 50 km/h: Vehicle shall be driven according to applicable parts of WMTC Cycle. (b) Two wheelers other than those specified in (a) above and L5 category: Vehicle shall be driven according to Indian Driving Cycle as defined in TAP 115/116. The test report for fuel consumption test shall specify the approved fuel consumption value in comparison with the targets specified for relevant vehicle categories given in Annexure 2 to Annexure 8. ***Note:*** *For vehicles with a special gear shifting strategy, the gear shifting points prescribed in TAP 115/116 or Delhi Bus Driving Cycle (as applicable) shall not be applied. These vehicles shall be driven according to the manufacturer's instructions, as incorporated in the drivers' handbook of production vehicles and indicated by a technical gear shift instrument (for drivers information).For these vehicles the driving cycle as applicable for Automatic transmission shall be used.*
2.1.4	**Electrical Energy Consumption:**
	The electrical energy consumption measurement shall be done for all BEVs as per AIS 039. The test report for Electrical Energy Consumption test shall specify the approved value in comparison with the targets specified for relevant vehicle categories given in Annexure 2 to Annexure 8.

2.1.5	**Electric Range:**
	For Plug-in HEVs / RE-HEVs and BEVs the electric range measurement shall be done as per AIS 102 and AIS 040 respectively. The test report shall specify the approved value in comparison with the target specified for relevant vehicle categories given in Annexure 2 to Annexure 8.
3.0	**Application for Eligibility Assessment**
3.1	**For Vehicle Models Already Type Approved :**
3.1.1	In case of the vehicle model (including its variants and versions), for which eligibility assessment is required, is already type approved as per provisions of CMVR, the vehicle manufacturer shall submit to test agency an application enclosing copies of homologation certificate and homologation test reports required for assessment as per Clause 2.0.
3.1.2	The test agency shall determine the adequacy of documents submitted by vehicle manufacturer. In case, additional testing is required for assessment of certain parameters, the test agency shall conduct the required tests.
3.1.3	Once the information on all relevant parameters is obtained (as per clause 3.1.1 and / or 3.1.2), the test agency shall issue a "Eligibility Assessment Report" to vehicle manufacturer. This report shall contain information on vehicle performance with respect to all applicable parameters specified in Clause 2.0 in comparison with the targets defined in Annexure 2 to Annexure 8.
3.2	**For New Type Approval along with Eligibility Assessment :**
3.2.1	In case of vehicle model (including its variants and versions) for which new Type Approval is required, the vehicle manufacturer shall along with application for Type Approval request test agency to conduct assessment for eligibility as per Clause 2.0. The vehicle manufacturer shall submit to test agency the technical specifications as per AIS 007 and other relevant document (if any).
3.2.2	After successful completion of Type Approval and assessment as per Clause 2.0, the test agency shall issue a Type Approval Certificate and a "Incentive Eligibility Assessment Report" to vehicle manufacturer. This report shall contain information on vehicle performance with all applicable parameters specified in Clause 2.0 in comparison with the targets defined in Annexure 2 to Annexure 8.

Annexure - 9: Hybrid Retrofitment Qualifying Criteria

To be eligible for the incentive, the retrofit kit manufacturer or supplier shall have to meet the following conditions. :

a) The hybrid retrofit kit shall be type approved as per the applicable AIS standard (AIS 123) as amended from time to time from any of the CMVR authorized testing centers in the country.

b) The hybrid retrofit kit shall have two levels of fuel consumption improvement targets w.r.t its base vehicle 'Level 1' and 'Level 2'. The targets are:

Incentive Grade	Reduction in fuel consumption w.r.t base vehicle (L/100Km)
Level 1	10% < Reduction (FC) ≤ 30%
Level 2	Reduction (FC) > 30%

c) The fuel savings of the retrofitted vehicle w.r.t its base vehicle shall be certified by the same testing centers issuing the type approval of the kit.
   (i) For the purpose of measurement of the fuel consumption of the base vehicle, the test shall be conducted in accordance with the procedure defined by ARAI for the said purpose.
   (ii) The test agency shall finalize the procedure in consultation with concerned stake holders/industry representatives within 2 months of this order.

d) As the case may be in terms of the technology deployed, either of the hybrid features i.e. 'Motor Assist' or 'Motor Drive' shall be available in the retrofitted vehicle.

e) The design, testing, installation, operation, inspection and maintenance of hybrid retrofit kit for the vehicle to be retrofitted shall be as per the Code of Practice as specified in the applicable AIS standards (AIS 123).

Annexure 10:

Composition of technology advisory group (TAG) on Electric mobility

1. Prof. Ashok Jhunjhunwala, IIT Madras, Chairman
2. Shri Ambuj Sharma, Addl. Secretary, Department of Heavy Industry, Co-Chairman

Members representing the industry

3. Shri Chetan Maini, CEO, Mahindra Reva
4. Shri Mukesh Bhandari, Chairman & CTO, Yo-Bikes
5. Shri Ravi Pandit, chairman & Group CEO, KPIT
6. Shri Deepak Jain, MD, Lumax Industries
7. Shri Siddartha Lal, MD, Volvo-Eicher Commercial Vehicles
8. Shri Arvind Balaji, Jt MD, TVS Lucas
9. Shri Anant Nahata, MD, Exicom Tele-Systems
10. Shri Aravind Bhardwaj, CTO, Mahindra Research
11. Shri Timothy Leverton, Head, Advanced & Product Engg., Tata Motors
12. Shri Arun Jaura, MD, Traktion
13. Shri Tapan Sahoo, VP R&D, Maruti-Suzuki
14. Shri Tarun Mehta, Co-founder, Ather Energy
15. Shri Vinay Kanitkar, MD Thyssen-Krupp System Engg. Pvt. Ltd
16. Shri C. Niranjan, Dy. General Manager, Amar Raja Batteries Ltd., Tirupati, Andhra Pradesh

Members from the Academia

17. Prof. Prabhat Ranjan, Executive Director, TIFAC, New Delhi.
18. Dr. N Munichandraiah, Professor, Inorganic and Physical Chemistry, IISc Bangalore.
19. Dr Mukul Chandorkar, Professor, Electrical Engg., IIT Bombay, Mumbai
20. Dr Krishna Vasudevan, Professor, Electrical Engg., IIT Madras
21. Dr Z. Lakaparampil, Addl. Director, Power Electronics Group, CDAC, Thiruvananthapuram.
22. Dr Amit Kumar Jain, Assistant Professor, Electrical Engg., IIT Delhi.
23. Dr S. Venugopalan, Former Head, ISRO Battery Research, Bangalore.

Member Secretaries

24. Shri P.S. Acharya, Herad (TWF), DST, New Delhi.
25. Shri Sajid Mubashir, Member (R&D), National Automotive Board (NAB), DHI, New Delhi.

Annexure -11: Incentive Delivery Process Flow diagram

Stage	Submitting Agency	Check/ Approval	Description of activity involved
OEM Registration	OEM	DHI/NAB	OEM to submit necessary documents for registration; NAB to register the OEM
xEV Homologation & Eligibility	OEM	Test Agency (viz. ARAI, ICAT, VRDE etc.)	OEM to submit necessary documents required for homologation of a model and Test agency to certify specific model qualifying eligibility requirement
xEV Production and Dispatch	OEM	Excise Document	OEM to submit Production date and details of model and vehicle being dispatched (Chassis no, E/G no, Ex-factory cost etc.)
xEV Sales process	Dealer	--	Details of Individual vehicle as above and Dealer's Name, address etc.
xEV Registration	Dealer	Vehicle Registration	Registration of vehicle by dealer with registration authority (Mapping vehicle details to customer)
Incentive Clearance	NAB	DHI/NAB	After registration of vehicle, Clearance for Transfer of Incentive amount to OEM

Annexure 12: Composition of Project Implementation and Sanctioning Committee

1.	Secretary, Department of Heavy Industry: Chairman	Chairperson
2.	Chairman, National Automotive Board	Member
3.	Additional Secretary and Financial Advisor, Department of Heavy Industry	Member
4.	Additional Secretary/Joint Secretary in charge of Auto Division in the Department of Heavy Industry	Member
5.	Joint Secretary, Ministry of Road Transport and Highways	Member
6.	Director, Automotive Research Institute of India (ARAI)	Member
7.	Director General, Society of Indian Automobile Manufacturers (SIAM)	Member
8.	Director General, Automobile Components Manufacturers Association (ACMA)	Member
9.	Director, Society of Manufacturers of Electric Vehicles	Member
10.	Director (Auto), Department of Heavy Industry	Member Secretary

Annexure 13: ***Vehicle segment wise breakup of amount of demand incentive.***

Table 1: Two Wheeler (Category L1, L2 & ≤ 250 W)

SEGMENT	**INCENTIVE (Rs)**	
Scooter	**Level 1**	**Level 2**
Mild HEV (Conventional Battery)	1800/-	2200/-
Mild HEV (Advance Battery)	3600/-	4300/-
Plug-in HEV (Advance Battery)	13000/-	15600/-
BEV (Conventional Battery)*	7500/-	9400/-
BEV (Advance Battery)*	17000/-	22000/-
Motor Cycle	**Level 1**	**Level 2**
Mild HEV (Conventional Battery)	3500/-	4200/-
Mild HEV (Advance Battery)	5200/-	6200/-
Plug-in HEV (Advance Battery)	15000/-	18000/-
BEV (Conventional Battery)*	9600/-	12000/-
BEV (Advance Battery)*	23000/-	29000/-
Note: In case of BEV 2W, 'Level 1' incentive is applicable for 2 Wheeler with 'max power not exceeding 250 Watts' and 'Level 2' incentive is applicable for others BEV 2W.		

Table 2: Three Wheeler (Category L5)

SEGMENT	**INCENTIVE (Rs)**	
CNG/Diesel Variant	**Level 1**	**Level 2**
Mild HEV (Conventional Battery)	3300/-	4000/-
Mild HEV (Advance Battery)	6500/-	7800/-
Plug-in HEV (Conventional Battery)	25000/-	30000/-
Plug-in HEV (Advance Battery)	38000/-	46000/-
BEV (Conventional Battery)	11000/-	13000/-
BEV (Advance Battery)	45000/-	54000/-
Petrol Variant	**Level 1**	**Level 2**
Mild HEV (Conventional Battery)	3300/-	4000/-
Mild HEV (Advance Battery)	6500/-	7800/-
Plug-in HEV (Conventional Battery)	25000/-	30000/-
Plug-in HEV (Advance Battery)	38000/-	46000/-
BEV (Conventional Battery)	21000/-	25000/-
BEV (Advance Battery)	51000/-	61000/-

Table 3: Four Wheeler (Category M1)

SEGMENT	INCENTIVE (Rs)	
Length not exceeding 4 Meters	**Level 1**	**Level 2**
Mild HEV (Conventional Battery)	13000/-	16000/-
Mild HEV (Advance Battery)	19000/-	23000/-
Strong HEV (Advance Battery)	59000/-	71000/-
Plug-in HEV (Advance Battery)	98000/-	118000/-
BEV (Advance Battery)	76000/-	124000/-
Length exceeding 4 Meters	**Level 1**	**Level 2**
Mild HEV (Conventional Battery)	11000/-	13000/-
Mild HEV (Advance Battery)	20000/-	24000/-
Strong HEV (Advance Battery)	58000/-	70000/-
Plug-in HEV (Advance Battery)	98000/-	118000/-
BEV (Advance Battery)	60000/-	138000/-

Table 4: LCV (Category N1)

SEGMENT	INCENTIVE (Rs)	
CNG/Diesel Variant	**Level 1**	**Level 2**
Mild HEV (Conventional Battery)	17000/-	20000/-
Mild HEV (Advance Battery)	19000/-	23000/-
Strong HEV (Advance Battery)	52000/-	62000/-
Plug-in HEV (Conventional Battery)	73000/-	88000/-
Plug-in HEV (Advance Battery)	104000/-	125000/-
BEV (Conventional Battery)	102000/-	122000/-
BEV (Advance Battery)	156000/-	187000/-

Table 5: Bus (Category M3)

	INCENTIVE (Rs)	
CNG Variant	**Level 1**	**Level 2**
Mild HEV (Advance Battery)	34 Lakh	41 Lakh
Strong HEV (Advance Battery)	55 Lakh	66 Lakh
Diesel Variant	**Level 1**	**Level 2**
Mild HEV (Advance Battery)	30 Lakh	36 Lakh
Strong HEV (Advance Battery)	51 Lakh	61 Lakh
Note: The above incentive available to STUs in the absence of schemes such as JnNURM. For the private operators, above incentive shall be applicable.		

Table 6: Bus (Category M3)

Top-up Incentive (For STUs) *(in case schemes such as JnNURM scheme exist)*				
CNG Variant	**Big Cities**	**Smaller Cities**	**NE, JK, Hilly Areas**	**Other Cities**
Mild HEV (Advance Battery)	6.3 Lakh	Nil	Nil	Nil
Strong HEV (Advance Battery)	17.2 Lakh	3.7 Lakh	Nil	Nil
Diesel Variant	**Big Cities**	**Smaller Cities**	**NE, JK, Hilly Areas**	**Other Cities**
Mild HEV (Advance Battery)	5.7 Lakh	Nil	Nil	Nil
Strong HEV (Advance Battery)	15.8 Lakh	3.4 Lakh	Nil	Nil

Table 7: Retrofitment (Category M1, M2 & N1)

Reduction in fuel consumption w.r.t base vehicle[1]	**Incentives Slab**[2]	
	Conventional Battery	**Advance Battery**
10% < Reduction ≤ 30%	15% of kit price[3] or Rs 30,000 whichever is lower	15% of kit price or Rs 45,000 whichever is lower
More than 30%	30% of kit price or Rs 60,000 whichever is lower	30% of kit price or Rs 90,000 whichever is lower

Note:

1. *The reduction in fuel consumption w.r.t base vehicle is as per the type approval procedure as per AIS 123. The testing agency shall certify such declaration along with the homologation certification of the retrofit kit.*
2. *The above incentives slab is applicable to retrofit kits for vehicle models under M1, M2 & N1 categories having GVW < 3.5 Tonnes.*
3. *The kit 'price' would mean the acquisition cost of a kit to a consumer including various applicable taxes.*

(Ambuj Sharma)
Additional Secretary to the
Government of India

Annexure 2

Incentive Eligibility Criteria Compliance Certificate

Particulars	Inputs	Remarks
(#1) xEV Model Name		
(#2) Variants Name		
(#3) Versions Name		
(#4) Technology Type		
(#5) Battery Type		
(#6) Type Approval Status		
(#7) Meeting xEV Technology Functions		
(#8) Meeting Qualifying Targets		
(#9) Incentive Grade		
(#10) Total Amount of Incentive entitled under FAME-India Scheme		

Note:

a) In the Field #4: Testing Centre to certify the "Technology Type": Mild Hybrid or Strong Hybrid or Plug-in Hybrid or BEV

b) In the Field #5: Testing Centre to certify the Battery Type (Conventional Type or Advanced Type) as fitted in the model.

c) In the Field #6: For 2W models with maximum power not exceeding 250 Watts, type approval exemption certificate number is to be indicated (with a copy of the certificate to be attached). For other type of models, type approval certificate number with a copy of the certificate to be attached.

d) In the Field #7: For 2/3 Wheeler BEV with maximum speed less than 25 Km/h, Electrical Regenerative Braking System is optional. For all other vehicles, this requirement is mandatory criterion.

e) In the Field #8: Testing Centre to certify if the said xEV model qualifies the targets (in yes or no). And, provide a report containing results against the qualifying parameters (fuel consumption or electric range and/or electric energy consumption).

f) In the Field #9: In case the said xEV model qualifies for the incentive as per the Field #8, the Testing Centre to certify the eligible incentive grade of the said model (i.e. Incentive Level 1 or Incentive Level 2).

We declare that the above information relating to incentive eligibility assessment of the xEV model is in accordance with the guidelines of scheme namely FAME India of Government of India. The above information is as per the test reports issued by this Testing Centre and are as per records.

(Signatures of Authorized Signatory)

For and on behalf of _____(Testing Centre)

(Affix the official SEAL)