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Expression of Interest

Inviting

**Proposals for availing incentives under Fame India Scheme Phase II
For Deployment of Electric Buses on Operational Cost Model basis**

Department of Heavy Industry
Ministry of Heavy Industries & Public Enterprises
Government of India
Udyog Bhawan
New Delhi

This Expression of Interest
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Proposals for availing incentives under Fame India Scheme Phase II
For Deployment of Electric Buses on Operational Cost Model basis

1. Background:

Government of India has recently approved Phase-II of FAME India Scheme [Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles in India], for a period of 3 years commencing from 1st April 2019 with total budgetary support of Rs. 10,000 Crore. The main focus of this phase of the scheme is the electrification of public & shared transportation.

Under Phase-II of FAME India Scheme, the government intends to support about 7000 e-buses, with a total outlay of about Rs. 3500 Crores, by extending demand incentives for deployment of electric buses using operational cost model to be adopted by State / City Transport Corporation (STUs). The detail notification for FAME India scheme phase II is available at www.dhi.gov.in.

This EOI is being issued for inviting proposals from State/UT Government departments, State/city Transport Undertakings, Municipal Corporations or any other similar public entity interested in the deployment of electric buses for public transport in different cities on an operational cost model. For simplicity, such organisation who are interested to submit the proposal is mentioned as 'STUs' in subsequent paragraphs.

2. Coverage

Since one of the primary objectives of this scheme is to reduce vehicular pollution from major cities, initially proposals are invited from the cities that fulfill any one of the following criteria:

1. Million plus cities as per 2011 census.
2. Smart cities as notified by MoHUA.

3. Satellite towns connected to 7 major metros (Delhi, Mumbai, Kolkata, Chennai, Hyderabad, Bangalore and Ahmedabad)
4. Major Cities of Special Categories State/UTs
5. The capital city of all states/UTs not covered in the above categories.
6. Intercity bus operations connecting these cities.

3. Quantity of Buses:

Deployment of 5000 electric buses is planned to be supported in cities as per the coverage criteria stated in this EOI. These 5000 buses will be sanctioned to different states/cities after evaluation of the proposals received under this EOI, based on available resources and priorities set by DHI.

4. The basic requirement for City/STU before submitting a proposal under this EOI.

- a. To have economies of scale for operators, each STU has to apply for a certain minimum number of buses as stated below.

| Category of City | Minimum number of buses | Total No of target Cities | Number of cities to be selected | No of Buses planned to be sanctioned |
|----------------------------|-------------------------|---------------------------|---------------------------------|--------------------------------------|
| 4 Million plus cities | 300 | 8 | 5 | 1500 |
| million plus cities | 100 | 45 | 20 | 2000 |
| Special Category of states | 50 | 20 | 10 | 500 |
| Other cities | 50 | 50 | 20 | 1000 |
| Total | | | 40 | 5000 |

- b. At the time of application, cities need to guarantee that each bus slot will run for at least five lakhs km during its contract period.
- c. Cities need to inform the number of buses they intend to deploy at the time of submitting a proposal.
- d. STU/City may mix the bidding for the specified number of intracity operation and a certain number of intercity operation for better price on gross cost contract basis.
- e. Maximum demand incentive available from DHI under FAME India Scheme Phase II will be as given below.

| | |
|--|-----------------|
| <i>a. Standard Bus (length > 10 m to 12 m):</i> | <i>55 Lakhs</i> |
| <i>b. Midi Bus (length > 8 m to 10 m):</i> | <i>45 Lakhs</i> |
| <i>c. Mini Bus (length > 6 m to 8 m):</i> | <i>35 Lakhs</i> |

5. Selection Parameters:

Deployment of electric buses requires the development of the entire ecosystem that supports electric vehicles which includes favourable policies for electrification of vehicles, availability of power at affordable price, availability of space/locations for installation of charging infrastructures, dedicated depot for parking of buses and installation of chargers, concession in registration fees of such vehicles and so on. For this purpose, detailed information will be required to be submitted by STUs along with proposal as stated in subsequent paragraphs.

The indicative list of parameters for evaluation of the proposal submitted by STUs for intracity bus operations are as mentioned below:

5.1 Qualifying parameters:

5.1.1 State Level Information:

1. Separate EV Policy for State
2. Registration charges/Road Tax applicable for EVs
3. Information on Parking Fee/ Toll Tax for EVs

4. State level policy for preferential permit regime for commercial EVs if any
5. Any other measures taken by the state to promote EVs if any

5.1.2 City Level Information:

1. Population of City
2. Road density (Road length per 100 sq. km.)
3. Vehicular density (Number of buses per 10,000 persons)
4. The average level of PM 2.5 pollutant for the city during 2018
5. The number of Electric 3W and 4W expected to be registered by offering different fiscal/non-fiscal measures in 2019-2020 for last mile connectivity. (More the number, more the weight)
6. Experience of running of Diesel/CNG buses on a wet lease model.
7. Number of Electric Buses rolled out by the city from its resources
8. The number of charging stations installed in the city from its resources.
9. Availability of exclusive Depot for parking of Electric buses and installation of charging points.
10. Availability of high Voltage electricity connection at the depot.

5.2 Ranking Parameter

Once cities qualify to be considered for funding under the scheme based on above-mentioned qualifying parameters, the final selection of cities will be based on ranking of city/ state to be prepared based on the weighted average of total assured run in kilometer per bus during the entire contract period.

(e.g. if a city otherwise qualified based on above parameters, applied for average 6 lakh km per bus, while other city asked for average of 5 lakh km during the contract period, the city with higher run, i.e. (6 lakh in instant case) will be given higher ranking for final selection for funding under this scheme).

6. Selection Procedure:

- a) DHI will form a screening committee for evaluation of the proposal submitted by STU to procure electric buses under phase II of FAME India scheme.
- b) Screening of proposal submitted by STUs in response to EoI shall be carried out as per eligibility conditions mentioned in this document and on verification of testimonials provided along with EoI.
- c) Selection Committee shall have the liberty to decide the criteria for selection of the proposals using above-said selection parameters.
- d) The committee will rank the STUs based on scores against the prescribed parameters and finalize the list of qualified cities/STUs based on qualifying parameters stated in Para 5.1.
- e) For the qualified cities, the ranking will be made using the average minimum assured kilometer per bus stated by concerned STU in the proposal. Based on this ranking committee will finalise the name of final selected STUs along with the number of buses to be sanctioned to different cities/STUs.
- f) The recommendation of the screening committee will be presented before the Project Implementation and Sanctioning Committee (PISC) for approval.
- g) With the approval of PISC, the proposal will be processed in the Department of Heavy Industry for approval of competent authority in consultation with Internal Finance Wing.
- h) After the approval of competent authority, STUs will be informed about the total number of sanctioned buses for the selected cities with a request to initiate the procurement process.

7. Methodology to be followed by selected STUs

STU which is selected for deployment of electric buses will have to follow the following methodology for the deployment of electric buses:

- a. Each selected city will need to deploy the approved number of electric buses on Operational model (Wet Lease Model) after undertaking a transparent procurement procedure.
- b. All selected cities of a particular state may consider bidding for all sanctioned buses together to get a better price.
- c. Model Concession Agreement as prepared by NITI Aayog to be adopted by the selected city, and the same may be incorporated in the bid documents.
- d. The procurement of electric buses will be done by inviting bids from operators for deployment of electric buses, where bidding parameters will be Gross Cost Contract (GCC) based bidding. Details of this bidding models is explained in subsequent paragraphs.
- e. Eligible demand incentive will be calculated, as stated in paragraph 9. However, the maximum demand incentive per bus will be limited to the amount, as stated above in para 4 (f).
- f. STUs should ensure to complete the procurement process and issue supply order to selected bidder/operator within a period of 3 months from the issue of sanction order. Failure to stick to this timeline may result in cancellation of sanction order without any further notice.
- g. STUs are also responsible to ensure that all procured buses to be supplied and put to operation within a maximum period of 12 months from the date of issue of supply order. STUs may have necessary Liquidation Damage clause in the bidding documents to ensure the supply of buses within the prescribed timeline.

8. Incentive disbursement mechanism

The main intention of extending demand incentive for electric buses is to reduce the upfront capital cost of such Electric Buses. As such, the entire applicable incentive amount will be released to STU for further payment to the selected bidder on the strength of Bank Guarantee of equivalent amount for at least five year period. This amount will be exclusively used for

reimbursement to selected operators/bidder/OEMs as the upfront capital cost for bus slots.

The entire subsidy amount will be released to STU for further payment to the selected bidder as per following installments.

| Installment No | The activity being completed | Percentage of demand incentive to be released by DHI |
|----------------|--|--|
| 1 | After the issue of supply order and signing of the agreement by STU with selected bidders; as mobilization advance | 20% |
| 2 | Delivery of Buses | 40% |
| 3 | After 6 months of the successful commercial operation of Buses | 40% |

9. Bidding Mechanism:

Since electric buses under FAME India Scheme need to be deployed only on Operational cost basis i.e., Rate per kilometer basis, the bidding mechanism should be as detailed given below.

1. STU may invite the bid by asking the bidder to quote the Gross Cost Contract rate for running of electric bus in Rs/km for the **minimum assured run** per year and for a specified contract period.
2. While bidding the operator will take into account all expenses like purchase cost of vehicles, cost of operation, electricity, drivers, management of fleet, charging infrastructure, replacement of battery, maintenance of vehicle etc. required to run the buses for contract period and quote certain amount as Rs/km as GCC rate. The operator who quotes minimum rate will be the selected bidder.
3. The subsidy amount will be calculated using the following formula:-

- a. It is observed that 50% of the GCC rate quoted by the bidder is because of the capital cost of the bus and remaining 50% is towards meeting the operational expenditure for running this bus including the cost of electricity.
- b. Based on this 50% of GCC cost, Net Present Value (NPV) of all future payments, using total minimum assured run in kilometers per month and total contract period, cost of the bus will be calculated using 10.5 % discount rate, to be compounded on monthly basis. This will be calculated using the following formula.

$$\text{Cost of Bus} = \frac{a}{r} \left(1 - \frac{1}{(1+r)^n} \right)$$

Where

- a- Monthly equal payment for Capital Cost
= 0.5 * L1 GCC Rate * Assured monthly Kilometre run
- r- Monthly discount rate in decimals
- n- Contract Period in months

- c. Once the cost of the bus is calculated, **demand incentive available will be 40% of this estimated cost of the bus.** However, this demand incentive will be further limited to maximum incentive applicable for the bus, as stated in Para 4 (e).

(Eligible demand incentives in different scenarios has been explained with examples in Annexure 1.)

4. To avail incentives under this scheme, ownership of assets is not required to be in the name of STU. However, what is required is an arrangement between STU and bidder to ensure the guaranteed running of the bus during the contract period.

10. Demand Aggregation

Cities and States are encouraged to aggregate the demand of different cities within the state and opt for single bidding for all sanctioned buses for

the state. Even cities across states or different states may join together for achieving demand aggregation in the procurement of Buses.

However, it will be up to the cities and states to workout suitability of demand aggregation and work out the modalities thereof.

11. Eligibility Criteria from OEM

- a. OEM shall be an Indian manufacturer of the electric bus having a manufacturing facility in India.
- b. OEM should have completed testing and certification requirement under Central Motor Vehicle Rules 1989 (CMVR) of at least one (1) Mini/Midi/Standard electric bus (100% battery operated) from the designated testing center in India. i.e., CMVR type-approval of at least one model of electric bus.
- c. However, OEM should ensure that at the time of supply of buses, all the buses should satisfy minimum technical eligibility criteria notified under FAME India Scheme Phase II and also should satisfy Phased Manufacturing Programme (Localisation) as notified by DHI from time to time. For this purpose operator/OEM need to submit required type approval certificate from the recognized testing agency before releasing of payment from DHI to STU.

12. Charging Infrastructure:

Since bidding is on the basis of Gross Cost Contract and rate quoted by bidder will be per km basis, in order to have level playing field for all operators who wish to have different technology of charging of vehicles, entire cost of charging infrastructure including cost of charging equipments, required necessary transformer and other civil cost for installation of required charging infrastructure for charging of buses have to be incurred by operator/OEM. However, cost for setting up of

upstream infrastructure i.e. electricity connection of requisite power load will be borne by STUs.

13.Procedure for submitting the proposal under this EOI.

All eligible cities as per coverage clause stated above may submit the proposal for deployment of electric buses in response to this EOI as per detailed procedure mentioned below:

1. Each Municipal city corporation directly or through concerned transport undertakings is required to submit a detailed proposal in response to this EOI for procurement of e-buses under phase II of FAME India scheme.
2. The proposal submitted by the STU should have a cover letter, as mentioned in *Annexure-A*, along with other necessary information as indicated in *Annexure-B*.
3. The complete proposals along with relevant documents shall be submitted to the Under Secretary (AEI), D/o Heavy Industry at the following address **by 18th July 2019**

The Under Secretary (AEI)
Department of Heavy Industry
Room No. 387, Udyog Bhawan, New Delhi - 110011
Tel. No. 011-23061340;

14. Performance Monitoring mechanism

- Every STU has to develop an online platform for monitoring the performance of electric buses deployed under this scheme.
- The online platform developed by STU will monitor relevant parameters, including but not limited to, daily running Kilometre, equivalent fuel saved in Litres/day, equivalent CO₂ reduction per day.
- The online platform developed by STUs for monitoring performance of electric buses will be connected by central server developed by DHI so that all the data is available to DHI for monitoring purpose.

15. Timeline to be followed by selected cities/STUs for procurement of e-bus

All cities will require to follow the following schedule for the deployment of electric buses.

| Sr No | Activity | Timeline |
|--------------|--|--------------------------|
| 1 | Issue of EOI | T0 |
| 2 | Last date of submission of interest in response to EOI by STUs | T0 +6 weeks |
| 3 | Finalization of selection process and issue of sanction letter by DHI | T0 + 9 weeks (Say, T) |
| 4 | Issue of Tender for inviting bid | T + 3 weeks |
| 5 | Last date of submission of bid by the interested operator | T + 9 weeks |
| 6 | Finalisation of Bidding Process and issue of supply order | T + 12 weeks Say M |
| 7 | Release of the first installment as mobilization advance up to 20% of the incentive amount | M + 1 month |
| 8 | Prototype delivery of vehicles | M + 3 months |
| 9 | Delivery of 50% of tendered vehicles | M + 9 months |
| 10 | Completion of delivery of all tendered vehicles | M + 12 Months |

16. Resolution of Disputes

Any dispute shall be resolved by mutual discussion and reconciliation. In case of difference of opinion, the decision of Department of Heavy Industry shall be final and binding.

Concluded

**Gross Cost Contract based Subsidy
Explanatory Note**

In this bidding method, STU will invite the bid to quote a rate per km for running of specified electric buses as per the terms of the tender.

In this case, Operator/bidder will quote the rate and the bidder quoting the least price will be eligible to get the bid.

Example:

L1 rates quoted in different scenarios have been assumed as given below.

| Sr No | Rate Quoted by L1 Bidder | Length of Bus | Minimum assured Monthly run | Total Contract period | Cost of Bus | Amount of Incentives 40% of Cost |
|-------|--------------------------|---------------|-----------------------------|-----------------------|---------------|----------------------------------|
| 1 | Rs. 42.60/- | 9 m | 6000 km | 8 years | 84,23,000/- | 33.69 lakhs |
| 2 | Rs. 63.80/- | 12 m | 5000 km | 10 years | 1,59,50,000/- | 48.28 Lakhs |
| 3 | Rs. 58/- | 9 m | 6000 km | 7 years | 1,05,00,000/- | 40 Lakhs |

For Sr No 1;

Rate Quoted - Rs. 42.60 per km

Rate towards initial capital cost: 50% of rate quoted = $0.5 \times 42.60 = \text{Rs. } 21.30$

Monthly out go @ 6000 km = $6000 \times 21.30 = \text{Rs. } 1,27,800/-$

As such, Payment towards capital cost is Rs. 1.278 Lakhs per month for 8 years.

Assuming discount rate @ 10.5%, NPV of all future payment of Rs. 1.278 Lakhs per month for 8 years will be around Rs. 82.77 Lakhs, which will be considered as the cost of the bus.

Using this as the cost of the bus, incentives will be 40% of the cost of the bus, which will be equal to Rs. 33.10 lakhs.

For Sr No 2

Rate Quoted - Rs. 63.80 per km

Rate towards initial capital cost: 50% of rate quoted = $0.5 \times 63.80 = \text{Rs. } 31.90$

Monthly out go @ 5000 km = $5000 \times 31.90 = \text{Rs. } 1,59,500/-$

As such, Payment towards capital cost is Rs. 1.595 Lakhs per month for 10 years.

Assuming discount rate @ 10.5%, NPV of all future payment of Rs. 1.278 Lakhs per month for 10 years will be around Rs. 118.20 Lakhs, which will be considered as the cost of the bus.

Using this as the cost of the bus, incentives will be 40% of the cost of the bus, which will be equal to Rs. 47.28 lakhs.

For Sr No 3

Rate Quoted - Rs. 58 per km

Rate towards initial capital cost: 50% of rate quoted = $0.5 \times 58 = \text{Rs. } 29$

Monthly out go @ 6000 km = $6000 \times 29 = \text{Rs. } 1,74,000/-$

As such, Payment towards capital cost is Rs. 1.74 Lakhs per month for 7 years.

Assuming discount rate @ 10.5%, NPV of all future payment of Rs. 1.74 Lakhs per month for 7 years will be around Rs. 103.19 Lakhs, which will be considered as the cost of the bus.

Using this as the cost of the bus, incentives will be 40% of the cost of the bus, which will be equal to Rs. 41.27 lakhs. However since this bus is 9 meter, the maximum incentive permitted is Rs. 40 Lakhs only.

Format of Cover Letter

(To be given in the letterhead of the organization)

To
The Under Secretary (AEI)
Department of Heavy Industry
Room No. 387, Udyog Bhawan, New Delhi - 110011

Subject: Proposal for the deployment of Electric Buses in response to the EOI issued by DHI dated 04/06/2019

Sir,

Reference Department of Heavy Industry's Expression of Interest issued on 04/06/2019 inviting detailed proposals from cities, for extending demand incentives under FAME India scheme Phase II for deployment of electric buses for public transport, we are hereby submitting our Expression of Interest, in the prescribed format, for consideration of the Department of Heavy Industry. We agree to abide by the conditions outlined in the said EOI.

We as a result of this declare that our proposal submitted in response to this EOI is made in good faith and the information contained is true and correct to the best of our knowledge and belief. If any of the information provided here is found to be misleading, we are liable to be disqualified from the EOI selection process.

Sincerely,

Name:

Designation:

Signature:

AUTHORISED SIGNATORY'S SIGNATURE WITH SEAL

Format for proposals to be submitted by STUs in response to EOI

A. General details along with documentary proof;

| | |
|--|--|
| • Name of City: | |
| • The population of the city | |
| • Vehicular density (Number of buses per 10,000 persons) | |
| • The average level of pollutant PM 2.5 of the city over 2018 | |
| • No. of Vehicles Registered in City | |
| • Road density (Road length per 100 sq. km.) | |
| • Do state have separate EV Policy | Yes/No If yes, attach a copy of EV Policy |
| • Category wise Registration charges of EVs | Necessary order may be attached |
| • Information about Parking Fee of EVs | Necessary order may be attached |
| • Information about Toll Tax applicable to EVs | Necessary order may be attached |
| • The number of Diesel/CNG buses running on a wet lease model. | |
| • The average cost of leasing of buses if taken on lease including fuel along with documentary proof | |

| | |
|--|--|
| <ul style="list-style-type: none"> Expected number of E3W and E4W to be registered in the city during 2019-20 | |
| <ul style="list-style-type: none"> Number of Electric Buses rolled out by the city from its resources | |
| <ul style="list-style-type: none"> Number of charging stations installed in the city from its resources | |

- Break-up of existing Diesel/CNG buses based on its total run per day in the following table:

| No of Buses | Less than 125 km | 125 to 175 km | 175 to 225 km | More than 225 km |
|---|------------------|---------------|---------------|------------------|
| Bus owned and run by Govt Entity | | | | |
| Buses hired by STUs and run for city buses. | | | | |
| Buses own and run by a private entity on route permit | | | | |
| Total Buses | | | | |

- Details of information about Parking depot

| Name of Parking Depot | Maintained by | No of buses being parked |
|-----------------------|---------------|--------------------------|
| | | |
| | | |

B. Description of Project Proposal

[In not more than 1000 words. If necessary, a detailed project proposal may be appended in a separate sheet/enclosure]

C. Number of Buses for which funding is sought under the scheme:

| Length of Bus | Guaranteed Run per year | Total Contract Period | Number of Buses |
|----------------------|--------------------------------|------------------------------|--------------------------|
| | | | |
| | | | |
| | | | |
| | | | |
| Total | | | ----- no of Buses |

For example:

| Length of Bus | Guaranteed Run per year | Total Contract Period | Number of Buses |
|----------------------|--------------------------------|------------------------------|------------------------|
| 12 Meter | 70000 | 8 years | 100 |
| 12 meter | 100000 | 8 years | 75 |
| 9 meter | 70000 | 7 years | 75 |
| 9 meter | 50000 | 10 years | 50 |
| | | | 300 Buses |

D. Funding commitment:

STU need to inform as to how they wish to arrange the remaining fund required for the project over and above the demand incentive available from DHI.

E. Details about depot available for parking of electric buses.

F. Details about the arrangement of upstream electricity supply for charging of electric buses.

G. Any other information in support of proposal submitted by STU

H. Details of Annexures

Based on the information collected, final allotment of buses to selected cities will be informed by the Department of Heavy Industry. Once City/STU receive allotment letter, they need to initiate the procurement process, which they need to be completed in a time bound manner as per the timelines mentioned and issue supply order to the selected bidder.

Name:

Designation:

Signature:

AUTHORISED SIGNATORY'S SIGNATURE WITH SEAL