

REQUEST FOR EXPRESSIONS OF INTEREST CONSULTING SERVICES

Selection # as assigned by e-Tool: JA-T1172-P003

Selection Method: Simplified Competitive

Country: Jamaica

Sector: Energy

Funding – TC #: ATN/JF-17641-JA

Project #: JA-T1172

TC name: Sustainable Transport and Renewable Energy-Powered Electromobility Support to Jamaica

Description of Services: Battery Electric Vehicle Fleet Assessments and Training Consultancy

Link to TC document: [Approved TC Document -JA-T1172](#)

The Inter-American Development Bank (IDB) is executing the above-mentioned operation. For this operation, the IDB intends to contract consulting services described in this Request for Expressions of Interest. Expressions of interest must be delivered using the IDB Portal for Bank Executed Operations (<http://beo-procurement.iadb.org/home>) by **05 June 2020**, 5:00 P.M. (Washington D.C. Time).

The consulting services (“the Services”) include: i) conducting battery electric vehicle fleet assessments and feasibility studies; ii) execute two (2) technical workshops to support the ecosystem of electric mobility; and iii) design and execute a communication campaign and Electric Mobility Technology Workshop. The services are expected to be completed by May 31, 2022.

Eligible consulting firms will be selected in accordance with the procedures set out in the Inter-American Development Bank: [Policy for the Selection and Contracting of Consulting firms for Bank-executed Operational Work](#) - GN-2765-1. All eligible consulting firms, as defined in the Policy may express an interest. If the Consulting firm is presented in a Consortium, it will designate one of them as a representative, and the latter will be responsible for the communications, the registration in the portal and for submitting the corresponding documents.

The IDB now invites eligible consulting firms to indicate their interest in providing the services described below in the draft Terms of Reference. Interested consulting firms must provide information establishing that they are qualified to perform the Services (brochures, description of similar assignments, experience in similar conditions, availability of appropriate skills among staff, etc.). Eligible consulting firms may associate in a form of a Joint Venture or a sub-consultancy agreement to enhance their qualifications. Such association or Joint Venture shall appoint one of the firms as the representative.

Interested eligible consulting firms may obtain further information during office hours, 09:00 AM to 05:00 PM, (Washington D.C. Time) by sending an email to: Malaika Masson at malaikac@iadb.org

Inter-American Development Bank

Country Office Jamaica

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Draft Terms of Reference

Battery Electric Vehicle Fleet Assessments and Training Consultancy

1. Background and Justification

- 1.1. Transport is one of the main contributors to anthropogenic climate change globally, and the leading contributor to greenhouse gas (GHG) emissions in the Caribbean region. Growing fossil fuel consumption in Jamaica's expanding vehicular fleet is undermining the positive impact of energy efficiency measures, fuel diversification and renewable energy development in the electricity sector on oil imports and GHG emissions.
- 1.2. The growing number of commercially available battery electric vehicle (BEV) models from the world's major automakers presents an opportunity to encourage a deliberate transition away from internal combustion engine vehicles (ICEVs) to reduce the consumption of petroleum derivatives and curtail GHG emissions in the transport sector. The greater energy efficiency of BEVs compared to ICEVs results in lower fueling costs, even when electricity is supplied by a grid heavily dependent on fossil fuel generation. Lower maintenance and service costs of BEVs relative to ICEVs, attributable to fewer moving parts and regenerative braking, also contribute to a lower total cost of ownership (TCO). These cost benefits are especially relevant for fleet operators, whose vehicles typically perform specific prescribed functions and travel known distances.
- 1.3. As a matter of fiscal responsibility and to demonstrate its leadership, the Government of Jamaica (GoJ) is pursuing several avenues to reduce energy costs and curtail GHG in the public sector, including the implementation of energy efficiency and renewable energy measures in public buildings, integrated resource planning and the implementation of an urban traffic management system under the Energy Management and Efficiency Programme (EMEP). The GoJ owns, operates, fuels and maintains hundreds of fleet vehicles in the service of its ministries and agencies, representing a prime target for intervention. TCO benefits of BEVs relative to ICEVs could help the GoJ significantly reduce costs by replacing ICEVs with BEVs, based on empirical evidence gathered in international markets¹.
- 1.4. The GoJ requested support from the IDB to develop a Strategic Framework for Electric Mobility and generate data to inform policy and assist with the development of a fiscal regime and regulations that enable a seamless transition to electric mobility and early adoption of BEVs in Jamaica. BEV fleet assessments and feasibility studies conducted following the development of the Government of Jamaica's Strategic Framework for Electric Mobility will serve to assess the business case and ancillary benefits of integrating BEVs into the fleets of public sector institutions and develop the business and financing models for the procurement of BEVs during the course of normal fleet renewal

2. Objectives

- 2.1. The general objective is to support the Government of Jamaica's Strategic Framework for Electric Mobility by conducting BEV fleet assessments and feasibility studies, relevant training to support the ecosystem of electromobility and promote the electromobility benefits and framework through a communication campaign and event.
- 2.2. **Specific Objective 1:** Conduct BEV fleet assessments and feasibility studies which will serve to assess the business case and ancillary benefits of integrating BEVs into the fleets of public sector institutions and develop the business and financing models for the procurement of BEVs during the course of normal fleet renewal.

¹https://www.2degreesinstitute.org/reports/comparing_fuel_and_maintenance_costs_of_electric_and_gas_powered_vehicles_in_canada.pdf

- 2.3. **Specific Objective 2:** Conduct a minimum of two (2) training workshops, one for regulators, electrical inspectors and customs personnel on Standards and Safety related to electric vehicle (EV) technology, the second to train a core group of instructors at GoJ-approved institutions to train technicians to service BEVs and plug-in hybrid electric vehicles (PHEVs).
- 2.4. **Specific Objective 3:** Design and execute a brand-agnostic Communications Campaign and a brand-inclusive Electric Mobility Technology Event in coordination with key public and private sector stakeholders to sensitize target audiences, including public servants and the general public, about the GoJ's initiatives supporting the transition to electric mobility and the benefits of BEV adoption in terms of TCO and environmental stewardship.

3. **Scope of Services**

- 3.1. The scope of services is as follows: i) conduct six (6) fleet assessments and BEV feasibility studies for three (3) public sector fleets and three (3) private sector fleets; ii) conduct at least two training workshops to support the development of the EV ecosystem in Jamaica; and iii) design and execute a communications campaign and host an Electric Mobility Technology Event that maximizes participation from the local BEV, Electric Vehicle Supply Equipment (EVSE) to educate key public and private stakeholders and the general public on the benefits of EVs and renewable energy-powered EV charging.
- 3.2. The fleet assessments and feasibility studies will assess at least three (3) GoJ fleets and three (3) private sector fleets, introducing a minimum total of six (6) BEVs into those fleets for a 12-month period as a lease, waiving lease fees for the three (3) public fleets and collecting data from the six (6) BEVs and at least three (3) different ICEV vehicles in each of the targeted fleets, submitting detailed reports that demonstrate operations and maintenance costs for the BEV models compared to the ICEV models used for the same purpose within each fleet.
- 3.3. The training workshop for the GoJ-approved institutions should equip instructors with the technical capacity to provide ongoing training to local mechanics to service BEVs and PHEVs.

4. **Key Activities**

- 4.1. The key activities to support the outputs are:
- 4.2. For the Battery Electric Vehicle Fleet Assessments and Feasibility Studies:
 - (a) Carry out three (3) assessments of public sector fleets and three (3) assessments of private sector fleets;
 - (b) Introduce a total of three (3) BEVs into three (3) selected public sector fleets, one BEV to each fleet, and a total of three (3) BEVs into three (3) selected private sector fleets, one to each fleet, under 12-month lease agreement(s), waiving lease fees for the public sector entities. The consultant will be encouraged to supply three different class/battery size BEVs (one compact passenger vehicle, one commercial vehicle and one SUV or crossover) for the 12-month lease period and agree parameters for their use with three (3) GoJ ministries, agencies or departments and the three (3) private sector beneficiaries².
 - (c) Provide data summarizing the driving cycles (including distance, fuel consumption, efficiency of the BEVs and comparable ICEV models for each fleet and aggregated for all the fleets studied);
 - (d) Provide comparable data summarizing the potential for electrification, including the most appropriate applicable BEV models to replace ICEVs, BEV procurement and

² GoJ and private fleets will be selected by the IDB ENE and IDB Lab units based on potential for electrification supported by six (6) initial fleet assessments performed by the Consultant.

- operating cost estimates under lease, rental, financed purchase and outright purchase (and including cost of charging infrastructure and projected kWh consumed) compared to comparable ICEVs and projected TCO savings for each vehicle class;
- (e) Recommend the most appropriate BEV models for procurement based on the use cases and ICEV classes in existing fleet operations;
 - (f) Provide specifications and recommended placement of charging infrastructure, supply and install the requisite EVSE;
 - (g) Estimate the electricity demand associated with the BEV charging needs for a range of BEV penetration scenarios for each fleet and provide an estimate of the renewable energy generation capacity required to meet the needs of each vehicle introduced;
 - (h) Provide a fleet assessment report and feasibility study for each assessed fleet summarizing the data, key findings and recommendations;
 - (i) Provide a Final Report on the Consultancy compiling the six fleet assessments and feasibility studies and recommending a variety of business models and financing options to facilitate the replacement of ICEVs with BEVs in public and private sector fleets. The Final Report should also include procurement, operations and maintenance guidelines for BEVs and PHEVs.

4.3. For the Technical Training Workshops:

- (a) Submit an agenda and participant invitation list for each workshop for approval;
- (b) Lead a Standards and Safety Training and Certification Workshop for regulators, electrical inspectors, and customs personnel on EV technology;
- (c) Lead a Technical Service Training and Certification Workshop for instructors at GoJ-approved automotive training institutions on servicing BEVs and PHEVs

4.4. For the Communications Campaign and Event:

- (d) Prepare a Communications Plan designed to maximize visibility of Electric Mobility;
- (e) Design and execute a Communications Campaign to bring maximum visibility to GoJ and IDB initiatives supporting the transition to Electric Mobility in Jamaica;
- (f) Prepare the Electric Mobility Technology Event speaker list and delegate list;
- (g) Design and execute the Jamaica Electric Mobility Event to raise awareness and stimulate the demand for BEVs, EVSE and related technologies;
- (h) Evaluate the impact and reach of the Communications Campaign and the Jamaica Electric Mobility Event.

5. Expected Outcome and Deliverables

- 5.1. **Deliverable 1:** Prepare a Workplan in accordance with the scope of work;
- 5.2. **Deliverable 2:** Quarterly Progress Reports summarizing operations and data collected for the fleet assessments and feasibility studies;
- 5.3. **Deliverable 3:** Fleet Assessment Reports and Feasibility Studies for the six (6) selected fleets based on data collected from the BEVs and comparable ICEV models in parallel operations over the 12-month lease period and outline a roadmap for fleet renewal with BEVs;
- 5.4. **Deliverable 4:** The execution of two (2) technical training workshops: i) Standards and Safety Training and Certification Workshop for regulators, electrical inspectors and customs personnel and ii) Technical Training and Certification Workshop for instructors at GoJ-approved automotive training institutions;
- 5.5. **Deliverable 5:** Design and execute a Communications Campaign according to the approved Communications Plan;
- 5.6. **Deliverable 6:** Host the Jamaica Electric Mobility Event in partnership with public and private sector stakeholders and submit a report detailing metrics on participation of vendors, key stakeholders and the general public.
- 5.7. **Deliverable 7:** Final Report on the Consultancy. The document should: i) summarize key findings of each fleet assessed and comparing operations and maintenance costs of baseline ICEVs and the comparable leased BEVs, projecting TCO savings on a per vehicle and fleet-wide basis for the six selected fleets, along with recommended business models and financing

options to facilitate the renewal of each fleet with BEVs and outline the procurement, operations and maintenance guidelines for BEVs and PHEVs; ii) outlining the impact and reach of each training workshop and providing recommendations for ongoing training and certification programs to support the developing electromobility ecosystem; and iii) describing the impact and reach of the Communications Campaign and the Jamaica Electric Mobility Event, using qualitative and quantitative analysis and standard industry benchmarks.

6. Project Schedule and Milestones

6.1. The duration of the Consultancy will be 18 months:

Project Schedule and Milestones	
Deliverables	Estimated Duration to complete
a) Workplan	Within 1 month of contract signing
b) Quarterly Reports	Within every 3 months of contract signing
c) Fleet Assessments and Feasibility Studies	Within 18 months of contract signing
d) Two (2) Technical Training Workshops	Within 6 months of contract signing
e) Communication Campaign and Electric Mobility Technology Event	Within 12 months of contract signing
f) Final Report	Within 18 months of contract signing

7. Reporting Requirements

7.1. All reports must be completed in English. Each report should contain a contents page and an executive summary.

8. Acceptance Criteria

8.1. Deliverables will be accepted based on agreements on scope and approach reached with Consultants at inception. Additionally, deliverables will be reviewed and approved by Dr. Malaika Masson, Senior Regional Energy Specialist. As per the scope of the Consultancy, and as appropriate, Dr. Masson will also consult with key sector stakeholders regarding their level of satisfaction in relation to deliverables targeting them and for which they have provided input.

9. Other Requirements

9.1. The Consultant must have at least five (5) years' experience in the automotive and/or EVSE industry, and prior experience managing fleets and/or conducting fleet assessments, carrying out telematics using data logging devices and analytical tools, and providing consulting services and/or supplying passenger vehicles to public and private sector clients. Additionally, the Consultant must have international accreditation and experience conducting Technical Training Programs related to BEVs and PHEVs, including Standards, Safety and Service. The Consultant must also have experience designing and executing communications campaigns and managing corporate events.

10. Supervision and Reporting

10.1. The Energy Portfolio is supervised by Dr. Malaika Masson, Senior Regional Energy Specialist (INE/ENE) based in CJA. The Consultancy will be supervised by and report to Dr. Malaika Masson.

11. Schedule of Payments

11.1. Payments will be made in United States Dollar (USD) and will be paid based on the submission of the following:

Payment Schedule	
Deliverables	%
a) Workplan	10%
b) Quarterly Reports	3.75% per quarter
c) Fleet Assessments and Feasibility Studies	20%
d) Two (2) Technical Training Workshops	20%
e) Communication Campaign and Electric Mobility Technology Event	20%
f) Final Report	15%
TOTAL	100%