

**SUPPORT TO ELECTROMOBILITY INITIATIVES IN LATIN AMERICA AND THE CARIBBEAN**

**RG-T3349**

**CERTIFICATION**

I hereby certify that this operation was approved for financing under the **Ordinary Capital Strategic Development Program for Infrastructure (INF)**, through a communication dated February 15, 2019 and signed by Felipe Caicedo (ORP/GCM). Also, I certify that resources from said fund are available for up to **US\$200,000** in order to finance the activities described and budgeted in this document. This certification reserves resource for the referenced project for a period of four (4) calendar months counted from the date of eligibility from the funding source. If the project is not approved by the IDB within that period, the reserve of resources will be cancelled, except in the case a new certification is granted. The commitment and disbursement of these resources shall be made only by the Bank in US dollars. The same currency shall be used to stipulate the remuneration and payments to consultants, except in the case of local consultants working in their own borrowing member country who shall have their remuneration defined and paid in the currency of such country. No resources of the Fund shall be made available to cover amounts greater than the amount certified herein above for the implementation of this operation. Amounts greater than the certified amount may arise from commitments on contracts denominated in a currency other than the Fund currency, resulting in currency exchange rate differences, representing a risk that will not be absorbed by the Fund.

(original signed)

June 7, 2019

Certified by:

\_\_\_\_\_  
Sonia M. Rivera  
Chief  
Grants and Co-Financing Management Unit  
ORP/GCM

\_\_\_\_\_  
Date

(original signed)

June 10, 2019

Approved by:

\_\_\_\_\_  
Rigoberto Ariel Yepez-Garcia  
Chief  
Energy Division  
INE/ENE

\_\_\_\_\_  
Date

## TC DOCUMENT

### I. BASIC INFORMATION FOR TC

▪ Country/Region:	Regional
▪ TC Name:	Support to Electromobility Initiatives in Latin America and the Caribbean
▪ TC Number:	RG-T3349
▪ Team Leader/Members:	Juan Paredes (INE/ENE), Team Leader; Agustina Calatayud (INE/TSP), Alternate Team Leader; Marcelino Madrigal, Michelle Carvalho, Virginia Snyder, Malaika Masson, Roberto Aiello, Veronica Prado, Stephanie Suber, and Cecilia Seminario (INE/ENE); Alex Riobo, María Clara Gutierrez, Elias Rubinstein Da Silva, Manuel Rodríguez, Daniel Pérez (INE/TSP); José Luis Irigoyen, Estefania Marchan, María Eugenia Sanin, and María Eugenia Rivas (INE/INE), Gilberto Chona (CSD/HUD), Eduardo Sierra (IFD/CMF) Rodrigo Suescun (IFD/FMM), Fermin Vivanco (IDB Lab), Felipe Ezquerro (IDB Invest), Cesar Negret (LEG/SGO)
▪ Indicate if: Operational Support, Client Support, or Research & Dissemination	Client Support
▪ If Operational Support TC, give number and name of Operation Supported by the TC:	N/A
▪ Date of TC Abstract authorization:	September 20 <sup>th</sup> , 2018
▪ Beneficiary (countries or entities which are the recipient of the technical assistance):	Jamaica, Paraguay, Panamá, Ecuador, Mesoamerica project countries (Belize, Guatemala, México, Honduras, Nicaragua, Dominican Republic, Costa Rica, Colombia and Panamá)
▪ Executing Agency and contact name (Organization or entity responsible for executing the TC Program) {If Bank: Contracting entity} {If the same as Beneficiary, please indicate}	Inter-American Development Bank (IDB) through the ENE and TSP Divisions
▪ Donors providing funding (amount and Fund's name):	Ordinary Capital Strategic Development Program for Infrastructure (INF)
▪ IDB Funding Requested:	US\$200,000.00
▪ Disbursement period (which includes Execution period):	36 months (30 months)
▪ Required start date:	June 15 <sup>th</sup> , 2019
▪ Types of consultants (firm or individual consultants):	Firms and Individual Consultants. Non-consultant services will also be hired for events.
▪ Prepared by Unit:	Energy and Transport Divisions (INE/ENE) (INE/TSP)
▪ Unit of Disbursement Responsibility:	Energy Division (INE/ENE)
▪ TC Included in Country Strategy (y/n):	No
▪ TC included in CPD (y/n):	No
▪ Alignment to the Update to the Institutional Strategy 2010-2020:	Productivity and Innovation

## **II. OBJECTIVES AND JUSTIFICATION OF THE TC**

- 2.1 Worldwide sales of new electric cars surpassed one million units in 2017, a record volume. This represents a 54% growth in annual sales versus 2016. The proliferation of Electromobility (EM) has also been present in buses and two-wheeled vehicles. In 2017, the number of electric buses and two-wheeled vehicles in the world increased to 370,000 and 250 million units respectively (International Energy Agency-IEA, 2018).
- 2.2 The rapid decline in battery prices, coupled with advances in cell technology, have had a substantial impact on the deployment of EM in several markets by breaking the main barrier that limits consumer acceptance of electric cars: the high total cost of ownership.
- 2.3 The adoption of EM forms the basis of the three revolutions that are shaping the transport sector, as the initiative of the Institute of Transportation Studies at the University of California at Davis states: mobility will be electric, shared and with a high degree of automation. Therefore, it is important that Latin American and Caribbean (LAC) countries have informed decision tools and align their strategies to receive the EM in a context that ensures interoperability (standards), adequate infrastructure and safety in the electrical grid. In summary, providing the countries of the region with a comprehensive vision of technological adoption, based on good practices and information tools, is essential to maximize the benefits that the technology can provide.
- 2.4 In LAC electric vehicles have already been adopted for public and corporate vehicle fleets in different countries. While some governments have taken important steps towards the deployment of EM, the adoption of electric vehicles should be largely driven by a favorable multi-sectoral policy environment. To this end, greater relevance should be given to the discussion at the regional level on the dynamics of this strong disruption in mobility, and comprehensive national road maps and strategies should be in place to address the arrival of EM from different angles. In terms of benefits, the public discussion should also be aligned with the urgency of improving air quality in cities and, in most cases, with greater efficiency in the use of energy resources and diversification of electricity matrices.
- 2.5 Objectives. The main objective of the Technical Cooperation (TC) is to contribute to the technology adoption agenda of countries in the region and promote innovation in the infrastructure sector by strengthening the readiness for EM. The specific objectives are: (i) to provide countries with analytical tools to strengthen decision-making processes; (ii) to support the development of national and regional policy roadmaps for the implementation of a successful transition to EM; and (iii) to promote the appropriation and generation of knowledge on EM and dissemination activities. The added value of the initiative is to provide a service to the Bank's client countries that are making early efforts to adopt EM and guarantee that these efforts can maximize benefits and generate cross-learning opportunities.
- 2.6 This TC is aligned with the Update to the Institutional Strategy 2010-2020 and the strategic challenge of productivity and innovation, as it will support, strengthen and boost technology adoption initiatives in the infrastructure sector. Specifically, this TC will fund the development of analytical tools that will allow for a comprehensive understanding of the benefits and costs of EM, national and regional strategies

and prioritization of EM initiatives. Additionally, the TC is aligned with the objectives and expected results of the Ordinary Capital Strategic Development program for Infrastructure (INF) and is also aligned with the cross-cutting development theme of climate change, as it will enhance the decision-making processes for countries to adopt mitigation strategies. In addition, the TC is aligned with the Strategies of the beneficiary countries (Jamaica, as the [strategy](#) highlights climate change as a cross-cutting challenge; Paraguay, as the [strategy](#) outlines the importance of building resilient infrastructure and improving sustainability in urban areas; Mesoamerican countries, as their strategies stress the need for continuous integration in different sectors including energy and transport; Ecuador, as the [strategy](#) outlines the importance of diversifying energy resources and improving performance at the distribution level; and Colombia as the strategy emphasizes that innovation is a central pillar and requirement for boosting the country's growth and development).

### III. DESCRIPTION OF ACTIVITIES/COMPONENTS AND BUDGET

- 3.1 **Analytical Decision Tool:** It is proposed to work on a Rapid Assessment Tool and an associated methodology that facilitates the analysis of the different costs and benefits associated with the introduction of EM considering the aspects that may be relevant in decision-making for each actor involved. According to several meetings that INE's EM group has led with transport and energy authorities in the region there is a concrete demand for this type of analysis as can be confirmed in the declaration of the Mesoamerica Group (see Annex I). This tool will be implemented in several countries in LAC depending on the availability of information. The tool will also provide a platform that could be modified according to the requirements and special needs of each type of final client (government, private company, transport operator, etc.), so it does not require expert input for its application. The application of the tool does not intend to replace a full financial feasibility study but has the objective to facilitate a rapid cost benefit analysis optimizing time and resources when assessing several interventions and projects.
- 3.2 **Institutional Roadmaps and Best Practice Guides.** In response to technology advancement and the need for governments to catch up on these innovations it is proposed to work on Institutional Roadmaps in order to strengthen the Implementation of EM programs with best practices, incentive schemes, technical studies and the necessary regulation to carry out the policies that governments have determined or are in process of implementation in this sector. This includes programs for public transportation, electric taxi programs and electric micro-mobility modes of transportation, among others. In this regard, the activities of the TC RG-T3349 will be coordinated with other existing and planned TCs (RG-T3078, RG-T3227, RG-T3420, JA-T1172, CH-T1220, BA-T1057) and RG-E1602 as well as with existing Loan operations so as not to replicate any study that is already being carried out as part of another TC or Loan.
- 3.3 **Demonstrative Pilots.** At present, there may be a dialogue between the Bank and clients in the mobility sector regarding operations that have not yet been properly sized due to lack of data, for example, commercial fleets of state-owned companies (the Bank already has experience in operations in bidding processes for the purchase of fleets of electric vehicles in electric companies). Similarly, a variety of new business models and/or financial instruments providing finance mechanisms to companies are being deployed to finance fleets. These models can

include school transport fleets, shared transport modes (bicycles, scooters), electric taxis and commercial vehicle fleets. However, due to a lack of track record and real time operational data the feasibility of such models is linked to a high degree of uncertainty.

- 3.4 **Component I: Analytical Tool to Assess Costs and Benefits and Strengthen Decision-Making (US\$80,000.00).** This component will finance a methodology and an associated rapid assessment tool to analyze costs and benefits corresponding to the implementation of EM programs and investments. The tool will offer the possibility for Bank specialists and counterparts to quantify the market opportunities and implementations risks depending on the specific user; whether a government, utility, transport operator or individual user. This will determine, among others, fiscal impacts to the economy and state utilities due to reduced tax income streams and provide basic recommendations on offsetting mechanisms for alternative taxation policies. This analysis will be coordinated with an existing assessment carried out by the INE/TSP on fiscal impacts in selected countries in order not to duplicate the impact analysis. The specific scope of the tool is described in the corresponding Terms of Reference (TOR).
- 3.5 **Component II: Support to Foundational Policy Instruments on EM and Best Practices (US\$80,000.00).** The component will support at least three countries on the definition of foundational policy instruments on EM. Such policy instrument could include policies, visions, or roadmaps. Based on the experiences already implemented by the INE's EM Group (Costa Rica, Guatemala and Paraguay) and feedback from other successful regional initiatives such as MOVE from UN Environment<sup>1</sup>, a manual on EM policy and regulation design will be prepared that could be used by other client countries in the region to support the initial policy making process regarding EM. This component will also support studies related to the design and feasibility of electric vehicle pilots in IDB member countries that have already requested this type of studies. The selection criteria for supporting specific countries include strong commitment to promote EM, ownership and good coordination of all institutional and private stakeholders involved in the field, and prioritization of products supported by this TC to become part of actual regulation.
- 3.6 **Component III: Communication and Dissemination (US\$40,000.00).** This component will finance events of the products obtained in components I and II, including the IDB's Electromobility Day, an event dedicated to the discussion of incentive policies on mobility and energy. Regarding the products and events of this cooperation, there will be a close and coordinated action with the development of the 2020 DIA.

---

<sup>1</sup> <http://moveLATAM.org/>.

### Indicative Budget (in US\$)

Activities/Components	Description	IDB Funding
Component I: Analytical tool to assess costs and benefits and strengthen decision making	Development of an online platform that will allow for a comprehensive cost benefit analysis of adopting EM (private vehicles, public transport, among others). The main outcome is to enhance decision-making processes	80,000.00
Component II: Support to foundational policy instruments on EM and best practices	Finance of studies, regional and national roadmaps and the required analytical products for three EM initiatives in the region. The main outcome is to strengthen the implementation of EM policies and projects	80,000.00
Component III: Communication and dissemination	Finance of a regional workshop on EM and dissemination activities to incentivize the appropriation of knowledge	40,000.00
<b>Total</b>		<b>200,000.00</b>

## IV. EXECUTING AGENCY AND EXECUTION STRUCTURE

- 4.1 Given the strategic objectives of this TC and in accordance with the provisions for Country Support TC and with Appendix 10: Criteria Applied to Bank Contracting of the Operational Guidelines for Technical Cooperation Products, Revised Version (GN-2629-1), this TC will be executed by the Bank through INE/ENE and INE/TSP in close coordination with other divisions of the IDB Group (CCS, FMM, CMF, BID Invest and BID Lab), specifically considering the paragraph d of Appendix 10 of GN-2629-1 (technical, operational or institutional weakness of the executing agency). The execution by the Bank is justified as most of the expected products of this TC require a high degree of coordination due to the variety of stakeholders involved in EM (ministries, private sector, utilities, etc.) and many of the governments still lack the institutional structure to offer this coordination. The integrated Bank's intervention and execution will allow the introduction of interinstitutional working groups, best practices and institutional structures for future coordination by governments themselves.
- 4.2 The Bank through INE/ENE and INE/TSP, will contract individual consultants, consulting firms and non-consulting services in accordance with the Bank's current procurement policies and procedures: (i) the individual consultants will be hired in accordance with the AM-650 Administrative Manual 'Complementary Workforce'; (ii) the procurement process for consulting firms will follow the Bank's Policy for the Selection and Contracting of Consulting Firms for Bank-executed Operational Work (GN-2765-1) and the related Operational Guidelines (OP-1155-4) for hiring consulting services of intellectual nature; and (iii) the procurement of non-consultant services will follow the Bank Corporate Procurement Policy (GN-2303-20). The initial procurement plan provides information on the contracts foreseen and their applicable monitoring and contracting methods. This TC will not finance civil works, infrastructure or any pre-investment studies of specific Bank-financed operations.
- 4.3 The intellectual property rights of all products financed by this TC will be the property of the Bank. The rapid assessment tool will be an open access tool for

internal use by Bank specialists when assessing EM projects and for public and private counterparts with any special licensing requirements. Adequate disclaimers will be added to the tool clarifying user liabilities and responsibilities.

- 4.4 In compliance with the Operational Guidelines for TC Products-Revised version (GN-2629-1), this TC is classified as Client Support. The technical responsibility will oversee INE/ENE. The focal points designated and sector specialists responsible for executing this TC will be the Energy Specialist, Juan Paredes and the Transport Specialist, Carlos Mojica.

## **V. MAJOR ISSUES**

- 5.1 The main risk identified is a limited offer of consultancy services on this subject and with the capacity to carry out comprehensive and multi-sectoral analyses for the region. The risk will be mitigated by being specific in the products to be contracted through TOR elaborated by the INE/ENE and INE/TSP, and by collaborating with research centers and academia in the region in order to make the analyses to be carried out as flexible as possible.

## **VI. EXCEPTIONS TO BANK POLICY**

- 6.1 This TC does not consider any exception to the Bank's Policies.

## **VII. ENVIRONMENTAL AND SOCIAL STRATEGY**

- 7.1 According to the Environmental and Safeguards Compliance Policy (OP-703), this TC has been classified as Category "C". The latter reflects a negative minimum or inexistent environmental, social and/or cultural impact; therefore, no environmental assessment studies or consultations are required for Category "C" operations. (see [Safeguard Policy Filter Report](#) and [Safeguard Screening Form Report](#)).

### **Required Annexes:**

- Annex I. Letters from: [Jamaica](#); [Panama](#); [Paraguay](#); [Ecuador](#); [Mesoamerica Project countries](#); [Dominican Republic](#)
- Annex II. [Results Matrix](#)
- Annex III. [TOR – EV Tool PR](#) and [TOR – Plan EM](#).
- Annex IV. [Procurement Plan](#)