

REQUEST FOR EXPRESSIONS OF INTEREST
CONSULTING SERVICES

Selection #: RG-T3227-P003

Selection Method: Simplified Competitive

Country: Regional

Sector: INE/INE

Funding – TC #: ATN/OC-16912-RG

Project #: RG-T3227

TC name: Oportunidades de Innovación en el Sector Energético Aplicadas

Description of Services: Gap analysis and opportunities for innovation in the energy sector in Latin America and the Caribbean

Link to TC document: <https://www.iadb.org/en/project/RG-T3227>

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: *03/03/2019 (March 2nd 2019)*, 5:00 P.M. (Washington D.C. Time).

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 summary of the intended Terms of Reference for the assignment. 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: VIRGINIAS@IADB.ORG copying Cristina Espinel CRISTINAES@IADB.ORG.

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Draft summary of Terms of Reference

The specific objective of this consultancy is to study and analyze the innovation gap in the Latin American and Caribbean electricity sector. The study needs to clearly state, and report how far Latin America and the Caribbean is from more innovative markets such as the US, Europe and parts of Asia. The report should mention what is already “old” (has been implemented and used for some years) and what is new, even in the most advanced and modern electricity sectors. This will contribute to a clear analysis of what is innovative in Latin America and the Caribbean and what is not.

The future of the electricity industry raises many uncertainties. It can follow different paths depending on the technological development (which will be defined, in most cases, internationally) and policies and regulation (which will be defined locally). The technology itself will define the cost curve associated with the equipment for generation, distribution, transmission, storage, trade, communication, and automatization. Innovations in the energy sector have thrived for the past decade, and the costs of acquiring new energy solutions is rapidly decreasing. Two societal transformations are disrupting and pushing the learning process in the energy industry: the increased awareness of environmental degradation (locally and globally) and the data-driven economy of digitalization. Historically, the electricity sector was based on a top-down business model, with large-scale generators, centralized operation and optimization, monopolized transmission and distribution, and passive end-users. That model faces a challenge as traditional roles are redesigned by new technologies. Consumers, once passive players, gain a new active role with distributed generation, storage, and smart metering. Customers are making decisions that may impact the energy sector in two ways: withdrawing or injecting energy into the grid, or even defecting from it.

The consulting firm should perform all the activities needed to achieve the objectives, including but not restricted to measure how much of the technologies and methodologies available worldwide are implemented in the Latin America and the Caribbean electricity industry considering the following dimensions (and how far they are of few benchmark countries):

- (1) Large scale generation: New technologies for electricity generation with conventional and non-conventional sources (including technologies and methodologies to improve power utility management at generation level such as asset management, predictive maintenance, etc.);
- (2) Transmission: Technologies to manage the grid at high voltage levels, such as digitalization in transmission, digitalization in big scale generation, utility scale batteries, technologies and methodologies to improve power utility management (at transmission level);
- (3) Distribution: Technologies to manage the grid at medium and low voltage, such as digitalization in distribution, demand-side management, distributed generation and storage, virtual power plants and aggregation of distributed generation; technologies and methodologies to improve power utility management at distribution level, such as, power loss reduction. Additionally, power utility management for distribution and commercialization, new and advanced technologies to manage commercial systems (billing and others) and the data analysis tools;
- (4) Consumers (including small scale generation): Technologies that facilitate users’ participation in clean generation and energy storage, such as PV solar, lithium battery, electric vehicles, vehicle-to-grid, etc.
- (5) Transactions (trade): Technologies that facilitate users’ participation trading and responding to signals – for instance technologies such as smart metering, automatization, smart appliances (smart thermostats), Internet of Things, mini-grids, blockchain, distributed generation trade platforms;
- (6) Artificial Intelligence, information technologies that work/connect with new technologies for new business models such as mini grids, distributed generation markets.

The consulting firm will need to collect qualitative and quantitative data and transform it to a comparable index, and provide a detailed analysis indicating clear gaps and opportunities at a regional level for Latin America and the Caribbean.