IDB Inter-American Development Bank

REQUEST FOR EXPRESSIONS OF INTEREST
CONSULTING SERVICES

Selection #: RG-T3995-P002
Selection Method: Full Competitive Selection
Country: Regional
Sector: Energy (ENE)
Funding – TC #: ATN/OC-19040-RG
Project #: RG-T3995
TC name: Regional Integration of the Green Hydrogen Value Chain
Description of Services: Development of Policies and Feasibility Studies of Green Hydrogen in Latin America and the Caribbean

Link to TC document: https://www.iadb.org/en/project/RG-T3995

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: **March 06, 2023, 5:00 P.M**. (Washington D.C. Time).

Green Hydrogen (GH2) has the potential to contribute to the overcoming of the two main barriers to achieving such an ambition: (1) the need for power systems flexibility, and (2) the decarbonization of the hard-to-abate sectors, such as the oil and gas industry, the heavy industry and transportation.
The LAC region has immense potential for renewable generation, of which 59% is already powered by renewable energy named hydropower, geothermal, and biomass as base load energies as well as solar and wind energy as intermittent renewable energy. The massive introduction of intermittent renewables, such as solar and wind, has generated an imperative need to provide greater flexibility to electrical systems to meet demand fluctuations and preserve energy security. Hydrogen could fulfill that role as a form of storage energy and can be used as an energy carrier, and it is produced from multiple processes and energy sources. The most established technology option for producing GH2 is water electrolysis fueled by renewable electricity. GH2 can be stored for extended periods of time, making GH2 very competitive for long storing times (weeks, months) and with fuel cells technology GH2 can revert the process to produce power and water as subproduct, hence having the ability to inject power in remote areas and to the electricity grid. It means renewables can be used to produce hydrogen, as way to use the excess potential of renewable energies, generate power when needed or transform GH2 into its energy carriers green ammonia and green methanol, so that it can be exported. LAC's low renewable energy prices allow for lower GH2 production costs, improving GH2's and its derivates (ammonia and methanol) economic viability.
Decarbonizing heavy industries, such as cement, steel, and aluminum is the next great challenge together with the transportation sector. GH2 is increasingly recognized as a clean fuel that will greatly contribute to massively helping in the decarbonization of these sectors. Hydrogen can be transformed into electricity or brunt to produce massive amounts of heat which can replace coal, pet coke, natural gas, and diesel. Moreover, with some adjustments, GH2 can use many of the natural gas infrastructure assets such as storage tanks, and transmission pipes, and it can be blended with natural gas which is an important contribution to help decarbonize the energy sector. Additionally, the excess potential of renewable energies can be harnessed and transformed into energy carriers (ammonia and methanol) for export purposes hence the enabling infrastructure (pipes, storage, and ports) will play an essential role in the viability of GH2 production for the international market. Consequently, GH2 may become a key element for decarbonization and new export

commodity.

As of now, the IDB has received requests to support GH2-related initiatives from several countries, from strategies and roadmaps of GH2, as well as strategies to decarbonized hard to abate sectors, to the preparation and execution of financing instruments of GH2 production and decarbonization of the hard-to-abate sectors. The objective of this framework agreement is to support LAC countries in accelerating public and private investments for the development of the GH2 projects, its entire value chain, and its enabling infrastructure for both internal use and export. Each country in LAC is in a different phase in exploring its own potential of using GH2 for the energy transition and its path towards a net zero carbon approach and its alignment with the Paris Accord.

The consultant firm will be tasked to carry out the development of policies and feasibility studies of green hydrogen and its derivates in LAC of the entire hydrogen value chain, from the development of renewable source to the final consumption, either local or for export internationally, of ammonia, methanol, e-fuel and/or other green fuels.
These services will be contracted under a Framework Agreement (duration of 2 years, which can be extended for another year).
Different products/deliverables will be requested and processed through work orders including but not limited to what is described below:

a) Elaboration of roadmaps and national/regional strategies for the implementation and use of low-carbon hydrogen
b) Regulatory and framework advisory services
c) Feasibility and Pre-feasibility studies from the development of renewable source to the final local consumption or export of its derivates
d) Design of business models, cost benefit analysis, monitoring and evaluation analysis
e) Advisory for stakeholders
f) Analysis of the enabling infrastructure for production, consumption, and export
g) Support for knowledge and dissemination activities

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-2765-4. 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 above 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: christiaang@iadb.org and eboeckdaza@iadb.org

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