REQUEST FOR EXPRESSIONS OF INTEREST
CONSULTING SERVICES

Selection # as assigned by e-Tool: RG-T4133-P005
Selection Method: Simplified Competitive Selection
Country: Suriname
Sector: Energy
Funding – TC #: ATN/OC-19699-RG
Project #: RG-T4133
TC name: Regional Platform to Scale Up Rural Electrification Investment
Description of Services: The main objective of this consultancy is to support the Government of Suriname in the definition of a regulatory and institutional framework for the successful, efficient and sustainable implementation and operation of rural electrification projects in the Hinterland, including the synergies of energy with water, telecommunication and productive uses projects.

Link to TC document: https://www.iadb.org/en/project/RG-T4133

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: *February 7 th, 2023*, 5:00 P.M. (Washington D.C. Time).

To access the IDB Portal, the firms must generate a registration account, including ***all*** the data requested by the Portal. In the event that any of the information requested is not included, the firm will not be able to participate in this or any other Bank-executed selection process for operational work. If the firm has been previously registered, please validate that you have ***all*** the firm's information updated and complete before submitting an expression of interest.

The consulting services ("the Services") include:

- Establish the roles and responsibilities of the main stakeholders in the energy projects (planning, execution, and operation) in the Hinterland.
- Support drafting regulations regarding rural electrification in the hinterland.
- Support to formulate, within the framework of the electricity law, a set of regulations needed for the purposes of achieving universal access to electricity in the Hinterland
- Support to define the business models for the installation and operation of mini-grids and grid extensions, including the tariff structure and payment mechanisms.
- Prepare a financial analysis for the execution of the energy access projects.
- Develop a methodology and tools for tracking the progress of energy access projects.
- Prepare a Strategic Environmental Social Impact Assessment (SESIA) for energy projects in the hinterland.
- Analyze the nexus and potential synergies of energy access projects, with water, telecommunications and productive uses of electricity, and provide guidance for the institutional and regulatory framework of these sectors in the Hinterland.

The estimated time to perform the services is six (6) months and the value of the consultancy will be approximately US$ 100,000.

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.). Consulting firms must provide specific evidence of experience in:

- Preparation of electricity access projects, especially in remote and isolated areas, considering different electrification modes and integrating renewable energy. Evidence of participation in similar processes in the region is highly desirable.
- Experience in the design, formulation and/or analysis of regulatory and institutional frameworks related to rural electrification, including public and private sector functions, and renewable energy development.
- Experience in the design, formulation and/or analysis of sustainable business models, investment and financial strategy for rural electrification projects, electricity tariff management, and energy sector subsidy policies.
- Knowledge of the legal framework of Suriname's electricity sector is essential.

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.

Note: Please consider that this stage of the process is to receive expressions of interest, so it is requested to send information that demonstrates that the Firm is suitable for this service. Do not send complete technical proposals. Do not send only experts' CVs. Do not send price proposals. Please submit only relevant information for this consulting process.

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: sballon@iadb.org and copy to: *javiercu@iadb.org*, and *laurahi@iadb.org*.

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Simplified Competitive Selection Selection process #: RG-T4133-P005

TERMS OF REFERENCE

Technical Assistance to define a regulatory and institutional framework for energy and water projects in the Hinterland

SURINAME
RG-T4133
https://www.iadb.org/es/project/RG-T4133
Regional Platform to Scale Up Rural Electrification Investment

1. Background and Justification

1.1. With an area of 163,820 km^2 and a population of approximately 541,638 people, Suriname is the youngest sovereign country in South America. It is estimated that 10% of Suriname's population lives in the Hinterland (54,000 Maroons and 8,000 Amerindians), distributed in about 130 isolated villages, lacking access to affordable and reliable services, such as water and electricity. Most of these villages are being intermittently served with small diesel generators for an average time of six hours per day, but this is seldom the case due to irregular provision of diesel or, very often, because the units are out of commission. Additionally, electricity for these remote communities, when available, averages an estimated generation cost of US$0.63/Kilowatt hour (kWh) but can reach US$1.00/kWh, which is high compared to the main grid [1]. This hampers the social and economic development of the people in the Hinterland.

1.2. The Ministerie van Natuurlijke Hulpbronnen (Ministry of Natural Resources, MNH) has responsibility for energy policy and supervision of the energy sector. N.V. Energie Bedrijven Suriname (EBS) is a state-owned utility company supervised by the MNH and in charge of the operation of the power system. EBS shares its responsibility for rural electrification with the Dienst Electrificatie Voorziening (DEV), the MNH's department of rural energy, which operates the small power systems located in isolated and remote communities where EBS networks do not reach customers. The recently created Energy Authority of Suriname (EAS) is in charge of establishing the regulations in the energy sector.

1.3. Lack of access to energy has been identified as one of the main obstacles to overcoming regional discrepancies between the coastal and Hinterland areas, both of a social nature and in terms of production capacity with impacts on income, employment, school enrolment, and firm productivity. Access to energy has the potential to improve well-being in the household, enhance social and community services, and enable economic activities. Furthermore, renewable energy is an opportunity to achieve this goal while also meeting climate change goals in more remote areas where grid expansion will face unsurmountable challenges.

[1] Average electricity cost in the National Power Systems (main grid) in 2017 was US$0.11/kWh. Source: Castalia Consulting. Electricity Sector Plan 2019-2023. (2018). It is also high compared to other regions in LAC, for example, the average price in Central America is US$0.18/kWh. Source: CEPAL. Estadísticas del Subsector Eléctrico de los Países del Sistema de la Integración Centroamericana (Ciudad de México, 2017)

1.4. Access to water in the Hinterland is also restricted to intake from the river which poses a health risk, is time-consuming to communities, and is challenging during some periods of the year. Many villages in the Hinterland also lack access to reliable telecommunications services. Taking advantage of the foreseen intervention to improve access to energy, it is ideal to develop in parallel and attend to the water and telecommunication needs, which both require an energy supply, and require for an operational model to ensure the services are properly attending and long-lasting in time.

1.5. The 2017-2021 Policy Development Plan (the 2022-2026 Plan update is under formulation) emphasizes the importance of energy supply for the livelihoods of communities in the interior. The country is increasing energy access through grid extension projects (for example in the area of Powaka or Koina Kondre) or using isolated solar mini-grids. In 2018, the EBS completed the first solar mini-grid in the country, a 500 kW solar plant, including energy storage and a diesel generator as a backup, to provide 24/7 to the villages of Pokigron and Atjoni. The EBS and the MNH are executing several mini-grids in other isolated villages in the Hinterland (Godo Holo, Upper Suriname region…).

1.6. It is estimated that there is still an investment gap of ~MUS$ 93 to reach universal energy access in Suriname by 2030[2]. The IDB is financing the preparation of a Least Cost Electrification Plan to achieve universal access in the country, which will determine the most cost-efficient technology to provide 24/7 electricity for each village, a preliminary sizing of the infrastructure, and an estimation of the required investments and operational costs.

1.7. The implementation and sustainability of energy access projects in Suriname face many barriers and challenges which will be addressed with the TC, including:

- Renewable energies and solar mini-grids are in an early stage of development in Suriname. There is a lack of proper local skills and knowledge for the design, implementation, and operation of the solar mini-grids in the Hinterland.
- Suriname does not have a regulatory framework in place for the rural electrification sector. The roles and responsibilities of public institutions and private sectors are not formally established, which brings uncertainty to the sector and hampers the attraction of financial resources.
- There are no financial incentives or mechanisms to promote private investment in rural areas. Technical and institutional support is needed to introduce new modalities, which include public-private (investment) partnerships (PPPs), for rural electrification and rural development projects to facilitate investment.
- There is not a unique electricity tariff structure in place for the rural areas, which brings uncertainty to the sector and puts the financial sustainability of the solar mini-grids at risk.
- Currently, most villagers in the Hinterland do not pay for electricity and there is no energy efficiency (EE) culture. The implementation of solar mini-grids with a tariff scheme in the Hinterland will require that electricity is consumed more efficiently to

[2] https://hubenergia.org/en/indicators/investment-gap-universal-access-electricity-2030

assure that people can pay for it, avoid commercial losses and assure the financial sustainability of the projects

- To assure the financial sustainability of rural electrification projects customers must have the capacity to pay for the electricity consumed. The productive uses of electricity to generate new small businesses (farming, food processing, handcrafting, among others) is fundamental to ensure that beneficiaries have the necessary income to pay for the electricity. There is not in place a country-wide strategy and coordination body to promote productive activities in the Hinterland.

2. Objectives

2.1. The main objective of this consultancy is to support the Government of Suriname (GoS) in establishing a proper regulatory and institutional framework for the successful, efficient and sustainable implementation and operation of rural electrification projects in the Hinterland, including the synergies of energy with water, telecommunication and productive uses projects.

2.2. The specific objectives of this consultancy are to:

- Support to establish the roles and responsibilities of the main stakeholders in the energy projects (planning, execution, and operation) in the Hinterland.
- Support drafting regulations regarding rural electrification in the hinterland:
- Support to formulate, within the framework of the electricity law, a set of regulations needed for the purposes of achieving universal access to electricity in the Hinterland
- Support to define the business models for the installation and operation of mini-grids and grid extensions, including the tariff structure and payment mechanisms.
- Prepare a financial analysis for the execution of the energy access projects.
- Develop a methodology and tools for tracking the progress of energy access projects.
- Prepare a Strategic Environmental Social Impact Assessment (SESIA) for energy projects in the hinterland.
- Analyze the nexus and potential synergies of energy access projects, with water, telecommunications, and productive uses of electricity, and provide guidance for the institutional and regulatory framework of these sectors in the Hinterland.
- Strengthen the capacity of the main stakeholders related to the rural electrification sector.

3. Key Activities

3.1. Activity 1: Inception phase

- The inception mission shall be done during the first month of the contract. During the inception mission, the Consulting Firm (CF) will present the team and discuss the calendar, and methodology and review the status and availability of the data required. Previous to the mission the CF will prepare a draft agenda with the main topics to discuss during the mission and a list with the main information and data required for the assignment.

- After the mission, the CF will prepare an Inception Report including the main discussions and decisions taken during the Inception Mission, an updated calendar schedule of all the activities and deliverables, as well as all team members and methodology used. The Report will include a file with the status and availability of the data requirements.

3.2. Activity 2: Stakeholder and institutional analysis

- Meetings with officials of EBS, MNH, Ministry of Regional Development, Hinterland representatives, local NGOs, private sector and other local agencies as required to understand their roles and interests in energy, water and telecommunications projects in the Hinterland.
- Review the current institutional and regulatory framework that governs the provision of electricity, water and telecommunication services nationwide and in particular in rural areas, and identification of gaps, risks and opportunities in the institutional and regulatory framework
- Analyze the implementation and operational model used in the rural electrification, water and telecommunication projects in Suriname.
- Prepare a stakeholder analysis, considering current roles and responsibilities, main interests, strengths, weaknesses and areas with required strengthening.

3.3. Activity 3. Regulations regarding rural electrification in the hinterland, and universal access.

- Based on the Electricity Law, formulate all necessary regulations regarding rural electrification in the hinterland, setting the responsible parties, standards, quality, pricing, and all necessary inputs to formulate the rural electrification normative.
- Formulate, within the framework of the electricity law, a set of regulations needed for the purposes of achieving universal access to electricity in the Hinterland.
- Prepare a draft of regulations regarding rural electrification in the hinterland: responsible parties, standards, quality, pricing, etc.
- Propose electricity tariff structure and subsidies per village typology, considering the ability and willingness to pay from villages.

3.4. Activity 4. Support for the definition of suitable business models for the execution and operation of solar mini-grids

- Analyze best international practices for business models for solar mini-grids projects, and their synergies with water, telecommunication and productive uses.
- Characterize village typologies according to the social, cultural, economic, and geographic characteristics of each village.
- Propose roles and responsibilities of main stakeholders and suitable business models in financing, execution and operation of solar mini-grids per village typology, including its synergies with water or telecommunication services, and other transversal topics as social and environmental aspects or productive activities. The CF shall consider the potential involvement of the private sector, local NGO and villagers in the sector.

- Define suitable mechanisms and the required infrastructure for paying electricity per village typology, taking into consideration the payment mechanisms used or planned for water and telecommunication services.
- Analyze gender gaps in the Hinterland and how a specific business model can reduce those gaps.
- Propose mechanisms to promote productive activities related to electricity use in the villages, and to improve energy and water efficiency in the Hinterland.

3.5. Activity 5: Prepare an investment and financial strategy and analysis for the electrification of the Hinterland.

- The CF will consider the CAPEX and OPEX per village obtained from the Least Cost Rural Electrification Plan (see paragraph 1.6).
- Propose and agree with the main stakeholders on a calendar of implementation of rural electrification projects for each village/region.
- Analyze and propose sustainable options for financing the electrification of the Hinterland (private investment, multilateral loans, grants…).
- Analyze the cost recovery and financial viability based on the estimated CAPEX/OPEX and the tariff structure/subsidies proposed in Activity 3.

3.6. Activity 6: Develop methodology and tool for tracking progress in energy access projects.

- Define and calculate the key indicators to track progress in energy access (number of households electrified, kW of solar mini-grids installed, number of Solar Home Systems installed, investments…).
- Define a methodology and a tool for tracking progress. The tool will consider the main results from the least-cost rural electrification plan (village characteristics, estimated demand, the alternative proposed and preliminary sizing, estimated CAPEX and OPEX) and the schedule of implementation.
- Training activities to ensure that there is sufficient local capacity to update regularly the tool based on the progress of execution of the energy access projects.

3.7. Activity 7: Prepare a Strategic Environmental Social Impact Assessment (SESIA) for energy projects in the Hinterland, considering or including at least**:**

- Environmental and social baseline of the villages in the Hinterland including geography, topography, socio-economic and natural protected areas.
- Summary of the views and concerns about social and environmental impacts of the stakeholders consulted in Activity 2.
- The identification and assessment of the potential environmental and social impacts of rural electrification projects, and their nexus with water, telecommunications and productive uses.
- Environmental and social management plan including mitigation measures, the roles and responsibilities of local institutions and other stakeholders to address the environmental and social challenges and opportunities identified, monitoring and evaluation.

- Conclusions and recommendations including budget estimates to address mitigation measures.

3.8. Activity 8: Strengthen the capacity of the main stakeholders involved in the energy/water sector:

- Conduct a capacity and resources gap analysis to understand local needs and limitations for the implementation and operation of rural electrification projects.
- Work closely with MNH, EBS and local key stakeholders for the creation and strengthening of a ´Solar Energy Unit´.
- Propose an operational structure and define the roles and responsibilities of the ´Solar Energy Unit´.
- Based on the capacity gap analysis, elaborate, and implement a capacity-building program for the ´Solar Energy Unit´ and other local stakeholders.

3.9. Missions to Suriname: The CF will organize at least 3 presential missions with the participation of main stakeholders

- At least each key expert needs to participate in 2 missions.
- The CF shall include in the financial offer the cost of additional missions.
- In case COVID-19 restrictions are still applicable, the mission can be done online.

4. Expected Outcome and Deliverables

4.1. Delivery #1: Inception Report. To be delivered 2 weeks after the inception mission.

4.2. Delivery #2: Stakeholder and institutional analysis. To be delivered 2 months after contract signature.

4.3. Delivery #3: Regulations and normative regarding rural electrification in the hinterland, and universal access. To be delivered 3 months after contract signature.

4.4. Delivery #4: Business models report. To be delivered 4 months after contract signature.

4.5. Delivery #5: Investment and financial strategy. To be delivered 4 months after contract signature.

4.6. Delivery #6: Tracking tool. To be delivered 6 months after contract signature.

4.7. Delivery #7: Strategic Environmental Social Impact Assessment. To be delivered 6 months after contract signature.

4.8. Delivery #8: Solar Energy Unit report. (Including capacity building gap assessment and program). To be delivered 6 months after contract signature.

5. Supervision and Reporting

5.1. The IDB's Energy Division (INE/ENE) will be the technical unit responsible for the coordination and execution of this consultancy. The team leader will be Sergio Ballon (sballon@iadb.org), Energy Sector Specialist, based in Suriname and Javier Cuervo (INE/ENE), Energy Specialist based at IDB Headquarters in Washington, DC (javiercu@iadb.org).

6. Schedule of Payments

6.1. The terms of payment will be based on the milestones or deliverables of the project. The Bank hopes to receive the most competitive cost proposal for the services described herein.

Payment Schedule	
Deliverable	**%**
1. After approval of Delivery #1	25%
2. After approval of Delivery #2 #3 #4 and #5	40%
3. After approval of Delivery #6 #7 #8	35%
TOTAL	100%

7. Local support

7.1. The IDB, EBS and ministries will facilitate the transfer of all necessary information and documentation to perform the activities of the consultancy.

7.2. The IDB will facilitate the coordination and logistics with the stakeholders for meetings, presentations and review of deliveries.

8. Qualifications

8.1. The consultancy firm shall have demonstrated previous experience in rural electrification and specifically in the definition of institutional and regulatory frameworks. Previous experience with the IDB or other International Organizations is highly desirable.

8.2. The team should be comprised of at least five key personnel:

- A **project team leader** with extensive experience in solar photovoltaic systems, renewable energy projects, energy access and project management. The team leader will need to have the capacity of overseeing the entire project. A possible background for this position includes energy economics, finance, engineering, or related fields, with at least 15 years of relevant experience, and 10 years of specific experience. Specific experience in the Caribbean and/or Suriname is highly desirable.
- **Regulatory expert** shall have a Degree or equivalent in Science, Economics, Law or Business administration, with a minimum of 5 years of relevant professional experience in regulatory projects, with specific experience in designing business models for energy access projects and the regulatory framework for the rural electrification sector.
- **Financial expert** shall have a Degree or equivalent in Science, Economics or Business administration, with a minimum of 5 years of relevant professional experience in the financial sector, with specific experience in the rural electrification sector.
- **Environmental expert** shall have a Degree or equivalent in Environmental Science with a minimum of 5 years of relevant professional experience in the Environmental sector in Suriname, with specific experience in the rural electrification sector.
- **Social expert** shall have a Degree or equivalent in Social Science with a minimum of 5 years of relevant professional experience with the government of Suriname and communities in the hinterland of Suriname, specific experience in the rural electrification sector will be of an asset.

It must be noted that the consultant shall present all its team members for the full implementation of the activities each with their task. An organizational structure is highly recommended to be added to the proposal.

9. Characteristics

9.1. **Category and modality of consultancy:** Consulting Firm (lump sum) which will include all the costs necessary for the development of the consultancy.

9.2. **Starting date and duration:** The main activities to be carried out under these TORs are expected to be completed in 8 months from the signature of the contract.

9.3. **Place of work:** The work will mainly be done in the consulting firm's office.