

## **REQUEST FOR EXPRESSIONS OF INTEREST** **CONSULTING SERVICES**

Selection # as assigned by e-Tool: RG-T4133-P003

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 formulation of a Georeferenced National Rural Electrification Plan that leads the country to achieve universal energy access by 2030.*

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 3<sup>rd</sup>, 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:

- Formulation of a georeferenced rural electrification plan, optimized at the lowest cost, based on Geographic Information System (GIS), that identifies both the energy solutions to be implemented throughout the country, and the associated investments that will allow achieving universal access to energy by 2030.
- Development of a georeferenced database in GIS format with relevant information for the development and monitoring of the plan.
- Proposal of the investment plan necessary to reach the goal of universal access by 2030, based on a sustainable financial framework during the implementation of the plan.
- Proposal of minimum technical specifications for projects resulting from the national electrification plan.
- Identification of short-term operational and technical capacity-building initiatives for key sector institutions and actors involved in the implementation of the plan.
- Identification and presentation of identified risks and mitigation measures for the implementation of the national rural electrification plan.

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:

- The use of a georeferenced planning software to carry out geospatial analysis of rural electrification planning at the level of each consumer, showing the results in GIS format.
- Preparation of electricity access projects, especially in remote and isolated areas, considering different electrification modes and integrating renewable energy.
- Knowledge of the legal framework of Suriname's electricity sector is essential.
- Evidence of participation in similar processes in the region is highly desirable.

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](mailto:sballon@iadb.org) and copy to: [javiercu@iadb.org](mailto:javiercu@iadb.org), and [laurahi@iadb.org](mailto:laurahi@iadb.org).

Inter-American Development Bank

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## *Simplified Competitive Selection Selection process #: RG-T4133-P003*

### **TERMS OF REFERENCE**

Formulation of the Rural Electrification Plan for Suriname to support the country's efforts to achieve universal energy access by 2030

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. Electricity Sector Plan (ESP).** Legally, it is the task of the Energy Authority of Suriname (EAS) to prepare an ESP at least once every five years in consultation with the energy sector, so that this plan can be adopted by the government by state decree.
- 1.2.** Preparing the first ESP is a challenge for the EAS as it does not have sufficient expertise, information, and reference material in its start-up phase. In order to avoid a delayed process in the start-up phase of the EAS, the Minister of Natural Resources, who is in charge of the implementation of the Electricity Act 2016, decided in 2017 to hire a consultancy company to provide the necessary to develop building blocks for the ESP.
- 1.3.** Sustainable Technical Solutions N.V. (SUTESO) was engaged to coordinate this preliminary work and Castalia was selected to carry out the necessary technical studies. The technical studies are contained in the reports. The reports are an elaboration of the Electricity Act 2016 and contain important information about our electricity supply sector.
- 1.4.** The executed studies and compiled reports should enable the EAS to prepare the ESP in a relatively short time with the support of relevant expertise. Also, it is important to note that the Government, within the framework of the law, explicitly has stated its policy about capacity expansion, tariffs, subsidies, and the development of our electricity supply sector. The reports are also intended as a sort of manual for the employees of the EAS
- 1.5. Country Profile.** Suriname is a relatively small country on the northeastern Atlantic coast of South America. It is bordered by French Guyana to the east, Guyana to the west, and Brazil to the south. Suriname has a population of about 587,000 people (as of 2020<sup>1</sup>), concentrated in coastal areas and a sparsely populated hinterland.
- 1.6. Suriname's energy sector profile.** Suriname is endowed with several local energy sources available to satisfy the country's primary energy requirements. Essentially, the country is largely energy-independent and imports only a relatively small portion of its primary energy requirements. This high energy independence is due mainly to a combination of its hydrocarbon resources and significant hydropower capacity. The hydrocarbon and hydro resources that

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<sup>1</sup> Source: United Nations Development Programme (<https://www.undp.org/suriname>)

dominate the primary energy supply matrix are expected to maintain their contribution to the optimal power generation mix in the foreseeable future.

- 1.7. Electricity sector structure.** The electricity sector is comprised of a number of individual and independent power systems and grids (large and small), with an aggregate installed capacity of approximately 510MW at the end of 2020 (See Fig. 1). The two major power systems are the “Paramaribo Electricity System” (EPAR) and the “Nickerie Electricity System” (ENIC), which both include utility-scale centralized generation facilities.

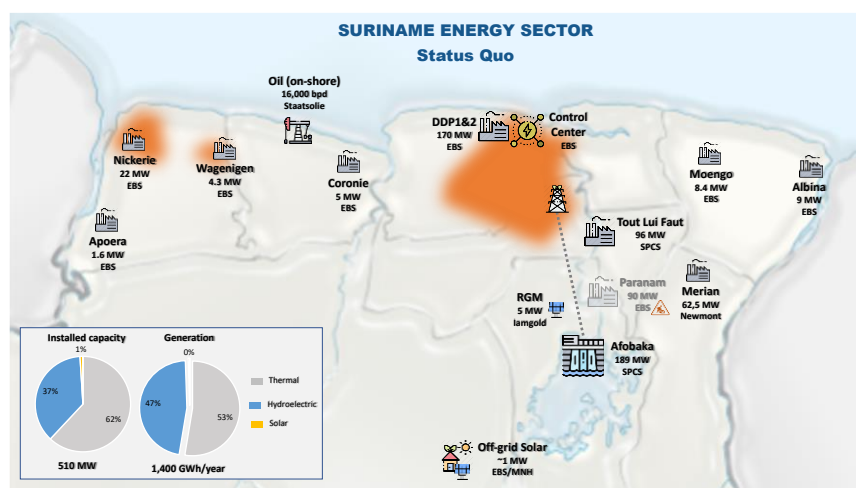


Figure 1. Simplified overview of the different power plants and systems in Suriname

- 1.8.** N.V. Energie Bedrijven Suriname (EBS), a state-owned electricity company (established in 1968), currently has sole control over electricity distribution and supply to the general public. The National Power System (NPS) consists of seven isolated power networks served by EBS based on hydro and thermal generation. Energievoorziening Paramaribo (EPAR) is the largest network which serves around 143,485 customers in the urban Paramaribo area, the semi-urban district of Wanica, and the surrounding rural districts of Saramacca, Commewijne, and Para, with a peak demand of around 203 Megawatts (MW). EPAR has mainly depended on power supply from the 189 MW Afobaka hydropower plant. Due to increased electricity demand in recent decades, the EBS entered into purchase agreements with Staatsolie, the state oil company, in March 2013 and also needed to generate electricity from Heavy Fuel Oil (HFO) and diesel in two power plants totaling 169.6 MW of installed capacity.
- 1.9.** Outside EPAR, EBS operates six additional power systems that use HFO and diesel. The largest is in Nickerie (also referred to as ENIC), which serves around 10,489 customers with electricity supplied by a 20.6 MW thermal power plant at Clarapolder running on HFO and premium diesel. The remaining five rural power networks served by EBS are Albina, Apoera, Coronie, Moengo, and Wageningen, with an approximate installed capacity of 23 MW of diesel power plants, serving roughly 5,857 customers in the coastal zone. All EBS systems provide service 24 hours a day.
- 1.10. Service coverage of rural districts in the hinterland.** Due to diverse geographical conditions and

cost-prohibitive grid expansion, among other things, about 130 villages in districts Sipaliwini and Marowijne do not have access to electricity service from the large power systems. These villages are being intermittently served with small diesel generators by Dienst Electrificatie Voorziening (DEV, Department of Rural Electrification of the Ministry of Natural Resources, MNH), the agency responsible for rural electrification in the sparsely inhabited interior. The electricity service provision is designed for an average time of six hours per day from 5:00 pm to 11:00 pm, but that is seldom the case due to irregular provision of diesel. Each discrete system has a peak demand in the range of 2MW, which is supplied mainly by HFO/premium diesel power plants and solar photovoltaic (PV) generation facilities.

- 1.11. Renewable energy development.** As a member of the Caribbean Community (CARICOM), Suriname has established targets of 20% and 28% renewable electricity generation to be achieved in the years, 2017 and 2022, respectively. Based on the NDC 2020 of Suriname, the target for 2030 is 35%<sup>2</sup>. From these indicators, it can be deduced that RE will form an important part of Suriname's energy policy going forward. Moreover, it is recognized as a feasible solution, particularly, for the electrification of the interior, where a percentage of the population virtually has no access to electricity.
- 1.12. Targeting the expansion of RE and EE in the sector.** Further, the Act also includes a provision regarding net metering to enable decentralized production and marketization of RE, to stimulate interest in RE development. The country is taking major steps to develop and integrate other feasible sources of RE in its energy mix, especially within the context of power sector resilience and climate change mitigation. For solar energy in particular, there are significant opportunities and scope for expansion. In that regard, the GOS aims to increase investment in RE and expects that going forward, solar energy and other feasible RE sources will form a significant part of the electricity generation matrix, especially, in the rural districts and villages, which are poorly interconnected.
- 1.13. Energy sector regulation.** While the relevant legislations include provisions that broadly address the institutional requirements necessary to ensure the independence of the EAS, there will be the need for additional support to develop the Electricity Sector Plan (ESP), and to identify and acquire the resources necessary to enable the authority to effectively perform its mandated regulatory functions.
- 1.14. Legal and regulatory framework.** Currently, the regulation of the energy sector in Suriname is largely governed by the Electricity Act, 2016, and the Energy Authority of Suriname Act, 2016. These laws were designed to update the electricity sector regulations for improving both the technical and financial performance of the sector, encourage private participation, and enhance the regulatory framework through the creation of the EAS.
- 1.15. Tariff regulation.** The government plans to adopt a new tariff methodology and subsidy mechanism in May 2021 in order to implement a fully functional and rational-based tariff structure.

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<sup>2</sup> Source:  
<https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Suriname%20Second/Suriname%20Second%20NDC.pdf>

- 1.16. Reorganization of the electricity value chain.** The reorganization of the electricity sector has two main aspects. The first involves the unbundling of EBS into separate entities to improve transparency and efficiency in the sector. The allocation of costs to activities shall take place following the cost allocation method which needs to be part of the ESP.
- 1.17.** The second aspect of the electricity sector reorganization strategy relates to the procurement and contracting of generation capacity and energy. The restructuring process will result in a new operating framework with new sector participants (with specific roles), designed to improve transparency, efficiency, service quality, and financial performance in the sector.
- 1.18. Justification. Energy Sector Reform.** Regarding the institutional framework, the main challenge is the implementation of the electricity law, especially about the EAS, which, although created by law, does not have the capabilities to fulfill established mandates, which include the formulation of the ESP as well as the development of secondary regulations to determine transparent dispatch rules, procedures to tender new generation plants, tariff and subsidy methodology-setting, supporting private participation, introducing competition where feasible and service quality requirements or sector planning.
- 1.19.** For the restructuring of the electricity utility, clear roles, responsibilities, and rules for electricity generation, transmission and distribution need to be established in accordance with the electricity law.
- 1.20. The Rural Electrification Plan (REP).** As established in the National Development Plan 2017-2022, one of the main priorities of the GOS is to provide 24/7 hours of electricity using renewable energy sources (solar and mini hydraulic plants). 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.
- 1.21.** A study completed in November 2020, revealed that in the Hinterland of Suriname, there is a close relationship between electrification and an increase in ownership of electric durables, reduced expenditure in non-grid energy, reduced migration, and increased household income and subjective welfare. However, the extent of the effects varies depending on the social, economic, environmental, and political circumstances as well as the geographical location<sup>3</sup>. In addition, the role and impact of the government on the local governance structure is the key to creating or enabling the support of sustainable development (goals).

## 2. Objectives

- 2.1.** The main objective of the REP consultancy is to support the Government of Suriname (GoS) in establishing a proper regulatory, institutional, and planning framework to achieve universal energy access in Suriname in 2030.

The specific objectives of REP consultancy are to:

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<sup>3</sup> Source:

[https://www.researchgate.net/publication/277815804\\_Rural\\_Electrification\\_and\\_Sustainable\\_Development\\_in\\_South\\_America\\_Afro\\_Descend](https://www.researchgate.net/publication/277815804_Rural_Electrification_and_Sustainable_Development_in_South_America_Afro_Descend)

- Prepare a georeferenced least-cost rural electrification plan to achieve universal energy access in Suriname.
- Support to establish the roles and responsibilities of the main stakeholders in the rural electrification sector (planning, execution, and operation).
- To analyze the institutional and regulatory framework that governs the provision of electricity nationwide.
- Support to define the partnership model 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.
- Support the establishment of regulations for the rural electrification sector in Suriname.
- Strengthen the capacity of the main stakeholders related to the rural electrification sector.

### 3. **Key Activities**

The consultant is expected to carry out several tasks, which are required for the completion of the REP. The formulation of the REP requires a series of assessments that would lead to reports and documents to be used as the basis for drafting the REP. Throughout the assignment, the Consultant shall keep the nature of the comprehensive work required for the formulation of the REP with deliverables associated with a subgroup of the task. The following tasks will have to be carried out:

#### **3.1. Task 0: Inception phase.** Prepare an inception report including at least:

- a. Information received as to date and main conclusions.
- b. Information necessary to execute the consultancy
- c. Methodology used to prepare the least-cost rural electrification plan
- d. Analysis process to examine institutional and regulatory framework.
- e. Methodology used to define the business models and the other tasks
- f. Stakeholders strategy engagement
- g. Identification of risks and challenges for achieving the objective of the consultancy.
- h. Chronogram of execution of the consultancy, including deliveries, missions, and training.
- i. Team composition

Deliverable: Inception report

#### **3.2. Task 1: Review the existing literature and information provided by MNH and necessary to execute the consultancy.** This includes at least information about the:

- a. Rural electrification sector in Suriname.
- b. Renewable energy resources in Suriname.
- c. Existing initiatives and executed projects for rural electrification in Suriname, including solar mini grids, mini hydro plants, biomass, and grid extension projects.



- d. Basic data from the villages in the Hinterland
- e. Transmission and distribution network from EBS, including pipeline projects and expansion plans.
- f. Geography and topography information, including natural protected areas.
- g. Identification of information gaps that can affect the study.

**3.3. Task 2: Prepare a georeferenced least-cost rural electrification plan and a georeferenced platform.** The plan should include or consider at least: \_

- a. Data available from the villages in the Hinterland, including at least information about the location, population, households, business and services, main economic activities, communication infrastructure, and diesel generators.
  - b. Complement available information using satellite data (household location
  - c. Estimation of future demand and demand growth for each village.
  - d. Review of executed and ongoing projects and studies related to energy access.
  - e. Comparison of different alternatives (grid extension, solar mini-grids or Solar Home Systems (SHS)), considering technical, economic, social, and environmental aspects. Other energy sources as mini hydro or biomass will be also considered.
  - f. Preliminary sizing of the least cost alternative to electrify each village (installed capacity of solar panels, energy storage capacity, the voltage level for the transmission and distribution infrastructure).
  - g. CAPEX and OPEX calculations to electrify each village, including the distribution network in each village.
  - h. Proposed calendar of implementation for the electrification of each village.
  - i. Sensibility analysis of the results based on variations in demand or CAPEX/OPEX for each technology.
  - j. Provide a georeferenced platform to visualize the main information and results per village, with the possibility to be updated regularly by the GoS based on the progress of execution of the energy access projects.
- \* The Government (MNH, EBS, etc.) will facilitate information to the consultant about current infrastructure, energy plans, data from the census, etc.

**Deliverable:**

- Least cost rural electrification plan report (the report should include maps to visualize main results).
- Georeferenced platform

**3.4. Task 3: Analysis of the rural electrification regulatory framework and stakeholders' analysis:**

- a. Review current institutional and regulatory framework.
- b. Identification of gaps, risks, and opportunities in the institutional and regulatory framework
- c. Meeting individually and collectively the main stakeholders, including the private sector and local NGOs.
- d. Stakeholder analysis, considering current roles and responsibilities, main interests, strengths, weaknesses, and areas with required strengthening.
- e. Considering the free prior informed and consent (FPIC) approach for stakeholders engagement



Deliverable: Rural electrification regulatory framework and stakeholder analysis report

**3.5. Task 4: Support for the definition of suitable partnership models for the execution and operation of grids and grid extensions.** The Partnership model should include or consider at least:

- a. Review the framework for current grid extension projects.
- b. The different options and best international practices for business models of mini-grids and SHS.
- c. Current regulatory and institutional framework in Suriname.
- d. Analysis of the business model implemented in the existing mini-grids and SHS in Suriname.
- e. Characterize village typologies according to the social, cultural, economic, and geographic characteristics of each village.
- f. Proposed tariff structure and subsidies per village typology, considering the ability and willingness to pay from villages.
- g. Proposed payment mechanisms per village typology.
- h. Proposed roles and responsibilities of main stakeholders in the financing, execution, and operation of the mini-grids and SHS per village typology, as well as in other transversal topics such as social and environmental aspects or productive activities.
- i. Possible involvement of the private sector, local NGO's and villagers in the sector.
- j. Gender gaps in the Hinterland and how a specific partnership model can reduce those gaps.
- k. The implementation of productive activities related to electricity use in the villages.
- l. The implementation of an energy efficiency campaign in the village.

Deliverable: Partnership model report

**3.6. Task 5: Prepare an investment and financial strategy and analysis for the electrification of the Hinterland,** considering or including at least:

- a. The CAPEX and OPEX per each village calculated in Task 2
- b. Proposed calendar of implementation to electrify each village proposed in Task 2
- c. Sustainable options for financing the electrification of the Hinterland (private investment, multilateral loans, grants...)
- d. The tariff structure proposed in Task 4

Deliverable: Investment and financial strategy and analysis for rural electrification report

**3.7. Task 6: Develop methodology and tool for tracking the progress in energy access grid extension and off-grid projects.** The tracking tool with include at least:

- a. The main results from the least-cost rural electrification plan (villages characteristics, estimated demand, the alternative proposed and preliminary sizing, estimated CAPEX and OPEX, schedule of implementation...).
- b. The main results of the business model (village characterization, tariff structure, payment mechanism...).
- c. The main results of the financial strategy and financial analysis
- d. Possibility to be updated regularly by the GoS based on the progress of execution of the energy access projects.

- e. Key indicators to track progress (number of households electrified, kW of solar mini-grids installed, number of SHS installed, among others).

Deliverable: Energy access tracking tool (including a user guide)

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

- a. Description of the existing initiatives and executed projects by MNH, which should be brief and focus on their major differences
- b. Environmental and social baseline of the villages in the Hinterland including geography, topography, socio-economic and natural protected areas
- c. Scoping: summary of the views and concerns of the stakeholders which were consulted
- d. The identification and assessment of the potential environmental and social impacts
- e. Environmental and social management plan including mitigation measures, the institutional capacities to address the environmental and social challenges and opportunities identified, monitoring and evaluation.
- f. Conclusions and recommendations including budget estimates to address mitigation measures

Deliverable: a SESIA report for energy projects in the hinterland

**3.9. Task 8: Preparation of the first draft regulations for Rural Electrification.** The draft regulations should include or consider at least:

- a. The least cost rural electrification plan and calendar of implementation (Task 2)
- b. The roles and responsibilities of main stakeholders (Task 4)
- c. The applicable partnership model (depending on village typology), including the tariff and payment mechanism (Task 4)
- d. Investment and financial strategy (Task 5)
- e. The SESIA (Task 7)

Deliverable: Draft for Rural Electrification Law

**3.10. Task 9: Strengthen the capacity of the main stakeholders related to the rural electrification sector**

- a. Capacity building should be provided during the execution of each activity of the contract.
- b. Specific training session:
  - Training #1: Rural electrification planning modeling
  - Training #2: Partnership models for mini-grids and SHS
  - Training #3: Energy access tracking tool
- c. Specific training to an entity related to the rural electrification sector and other stakeholders about the design, installation, and operation & maintenance of solar mini-grids and SHS.
- d. Prepare a plan and provide direct support to strengthen the institutional capacity of an entity related to the rural electrification sector and other stakeholders, considering or including at least:
  - Training needs assessment of the entity related to the rural electrification in the hinterland

- Collaboration with the University of Suriname and other relevant stakeholders for executing the training program.
- Strategy for capacity building of the entity and scholarships funding program
- Prepare an institutional assessment of the entity, including a plan for restructuring

Deliverable: Training material & Institutional capacity building plan for an entity related to the rural electrification sector

#### 4. Expected Outcome and Deliverables

4.1. The consultant will be required to submit the following outputs/ deliverables:

- *Delivery #1:* Inception report (to be submitted **15 days** after contract signature)
- *Delivery #2a:* Least cost rural electrification plan report (to be submitted **3 months** after contract signature)
- *Delivery #2b:* Georeferenced platform (to be submitted **3 months** after contract signature)
- *Delivery #3:* Rural electrification regulatory framework and stakeholder analysis (to be submitted **2 months** after contract signature)
- *Delivery #4:* Partnership model report (to be submitted **5 months** after contract signature)
- *Delivery #5:* Investment plan and financial strategy and analysis for rural electrification report (to be submitted **5 months** after contract signature)
- *Delivery #6:* Energy access tracking tool, including user guide (to be submitted **5 months** after contract signature)
- *Deliverable #7:* A SESIA report for energy projects in the hinterland (to be submitted **6 months** after contract signature)
- *Delivery #8:* Draft for Rural Electrification Law (to be submitted **6 months** after contract signature)
- *Delivery #9:* Training material and Institutional capacity building plan for an entity related to the rural electrification sector (to be submitted **6 months** after contract signature)

#### 5. Project Schedule and Milestones

5.1. This assignment is expected to start at the signature of the contract and extend for about 6 months. The following table presents the schedule of deliverables.

Deliverable	Deadline
1. Inception report	to be submitted 15 days after contract signature
2. Delivery of #2a, #2b	to be submitted 3 months after contract signature
3. Delivery of #3	to be submitted 2 months after contract signature

4. Delivery of #4, #5 and #6	to be submitted 5 months after contract signature
5. Delivery of #7, #8 and #9	to be submitted 6 months after contract signature

To carry out the Rural Electrification Plan, at least 3 trips to Suriname are required. The main objectives of each mission are:

#### Mission #1

- Present and confirm inception report (delivery #1)
- Review the status of the information
- Meetings with relevant stakeholders
- Provide training #1

#### Mission #2:

- Present deliveries #2, #3, #4, and #5
- Meeting with stakeholders related to Task 4 and Task 5
- Provide training #2

#### Mission #3:

- Present deliveries #6, #7, #8 and #9
- Provide training #3
- Final presentation to main stakeholders.

\* The firm should include in the financial offer the cost of additional missions.

## **6. Reporting Requirements**

- 6.1. Draft reports shall be submitted electronically (Microsoft Word format), in English, to the IDB team and the Energy *Authority* of Suriname for comments and revision. The deliverables will be discussed in stakeholder consultation sessions. The Consultant will provide a summarized record of these consultations and will revise the documents considering the outcome of these consultations prior to submission of the final document. The Consultant shall also submit in an editable format the raw data compiled for the purpose of this consultancy.

## **7. Acceptance Criteria**

- 7.1. The consultancy firm shall have demonstrated previous experience in rural electrification planning and regulations. Previous experience with Suriname and in the regions is highly desirable. Previous experience with the IDB or other International Organizations is highly desirable.

The team should be comprised of at least seven key personnel:

Position	Minimum number of persons	Academic Degree	Specific Work Experience
<b>Project Manager</b>	1	Master's degree or equivalent in Engineering, Science, or Business administration	Minimum of 7 years of relevant professional experience in the energy sector, with specific experience in rural electrification projects.
<b>Technical Engineer</b>	1	Degree or equivalent in Electrical Engineering	Minimum of 5 years of relevant professional experience in the planning and design of rural electrification projects, with specific experience in solar mini-grids and solar home systems
<b>Regulatory expert</b>	1	Degree or equivalent in Science, Economics, Law, or Business administration	Minimum of 5 years of relevant professional experience in regulatory projects, with specific experience in designing business models for energy access projects and
<b>Financial expert</b>	1	Degree or equivalent in Science, Economics, or Business administration	Minimum of 5 years of relevant professional experience in the financial sector, with specific experience in the rural electrification sector.
<b>Environmental expert</b>	1	Degree or equivalent in Environmental Science a	Minimum of 5 years of relevant professional experience in the Environmental sector

Position	Minimum number of persons	Academic Degree	Specific Work Experience
			in Suriname, with specific experience in the rural electrification sector.
<b>Social expert</b>	1	Degree or equivalent in Social Science	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.
<b>GIS expert</b>	1	Degree in engineering, science, geography or similar	Minimum of 5 years of relevant professional experience in using GIS systems. Specific experience in the energy and rural electrifications sector is highly desirable.

## 8. Supervision and Reporting

8.1. The coordination of this consultancy will be led by Sergio Ballon (ENE/CSU) [sballon@iadb.org](mailto:sballon@iadb.org), a senior energy specialist based in the Country Office of Suriname.

## 9. Schedule of Payments

9.1. Payments details for the consulting services will be specified in the Contract. The contract will be a lump sum contract where the consultant will be paid a percentage of the contract value based on the outputs delivered and approved by the MNH according to the schedule below:

<b>Payment Schedule</b>	
<b><i>Deliverable</i></b>	<b>%</b>
• Approval of inception report	20%
• Delivery of #2a, #2b, and #3	20%
• Delivery of #4, #5 and #6	30%
• Delivery of #7, #8 and #9	30%
<b>TOTAL</b>	<b>100%</b>

- 9.2. The Bank does not expect to make advance payments under consulting contracts unless a significant amount of travel is required. The Bank wishes to receive the most competitive cost proposal for the services described herein.
- 9.3. The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.