

REQUEST FOR EXPRESSIONS OF INTEREST **CONSULTING SERVICES**

Selection # as assigned by e-Tool: GY-T1164-001

Selection Method: Full Competitive

Country: Guyana

Sector: Energy

Funding – TC #: GY-T1164

Project #: ATN/NG-19116-GY

TC name: Renewable Energy Actions in the Energy Matrix in Guyana: CONSULTANCY FOR A TECHNICAL CONSULTING FIRM TO PROVIDE CAPACITY BUILDING SERVICES FOR THE RENEWABLE ENERGY SECTOR WITHIN GUYANA AND GPL

Link to TC document: <https://www.iadb.org/en/project/GY-T1164>

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: *April 21, 2023 at 5:00 P.M.* (Washington D.C. Time).

The consulting services (“the Services”) include *the hiring of a consulting firm to provide capacity building services for the renewable energy sector within GUYANA and GPL. This consultancy is estimated for a period of 24 months to be completed by the third quarter of 2025.*

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: [Malaika Masson, malaikac@iadb.org](mailto:malaikac@iadb.org)

Inter-American Development Bank

Division: [ENE/GY](#)

Attn: [Malaika Masson, Program Team Leader](#)

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Annex A: Terms of Reference

TERMS OF REFERENCE

CONSULTANCY FOR A TECHNICAL CONSULTING FIRM TO PROVIDE CAPACITY BUILDING SERVICES FOR THE
RENEWABLE ENERGY SECTOR WITHIN GUYANA AND GPL

GUYANA

GY-T1164

1. Location/Duration

- 1.1. International development and support
- 1.2. Local implementation, Georgetown, Guyana
- 1.3. Approximately 24 months

2. Background and Justification

- 2.1. The Government of the Cooperative Republic of Guyana has earned financing under the Guyana – Norway Partnership and intends to apply part of the proceeds of this financing to payments under the Contracts for Engineering, Procurement, and Construction of Eight (8) Utility Scale Ground-Mounted Solar PV Plants (total 33MWp) with Battery Energy Storage Systems (total 34MWh) - Three (3) Lots. The financing earned will be administered in accordance with the Policies of the Inter-American Development Bank (IDB).
- 2.2. The Executing Agency, Guyana Power and Light Inc. is inviting bids from eligible and qualified bidders for Engineering, Procurement, and Construction of Eight (8) Utility Scale Ground-Mounted Solar PV Plants (total 33MWp) with Battery Energy Storage Systems (total 34MWh) in three (3) Lots (Lot 1- Berbice, Lot 2- Linden, and Lot 3- Essequibo).
- 2.3. These eight projects will contribute to avoiding CO2 emissions, lowering electricity cost generation, and supporting a substantial transition to generation based on renewable energy sources.
- 2.4. By 2025 more than 265,000 customers within the Demerara-Berbice Interconnected System and Linden and Essequibo systems will benefit from reinforced reliability of electricity supply.
- 2.5. The program will support a step-change with respect to digitalization of Essequibo and Linden electrical systems, moving them from manual systems towards real-time, automated monitoring and control, improving efficiency, reliability, and stability.
- 2.6. This operation is in line with the IDB Vision 2025 – Reinvesting in the Americas: A Decade of Opportunities, which was created to achieve recovery and inclusive growth in Latin America and the Caribbean, in the areas of digital economy, gender and inclusion, and climate change.
- 2.7. The program is also in line with Guyana's Low Carbon Development Strategy (LCDS) will also ensure the Guyana Power and Light Inc. (GPL) and the Linden Electricity Company Inc. (LECI) benefit from the use of solar photovoltaic technology that will displace significant amounts of fossil fuels and reduce generation costs.
- 2.8. By 2025 more than 265,000 customers within the Demerara-Berbice, Linden and Essequibo distribution networks will directly benefit from the enhanced reliability and quality of the electricity supply and modernization of the monitoring and control systems.

- 2.9. GPL and LECI will further benefit from the reduction in dependence on fossil fuels and the subsequent reduction in cost of generation.
- 2.10. According to the Guyana Energy Agency (GEA) the energy sector is poised for significant transformation with a strong commitment to the development of its indigenous renewable energy resources and the pursuit of 100% clean and renewable energy as stated in its Low Carbon Development Strategy (LCDS).
- 2.11. Despite having a quite strong solar resource estimated at 1,800 kWh/m², as of 2020 only 2.26% of the total installed capacity of 337MW was solar PV, approximately 8MW.
- 2.12. However, with the GUY SOL project slated to increase installed capacity by over 300% the need for more highly trained, skilled workers will grow substantially.
- 2.13. The GUY SOL team is currently comprised of several project engineers, both Civil and Electrical, with substantial experience in civil works and power systems engineering, however their exposure to the specific requirements and technical details of renewable energy projects with battery energy storage systems is quite limited.
- 2.14. The Energy Department (ED) in Guyana is developing a Terms of Reference (ToR) to improve the capacity of the Guyana Power and Light Inc. (GPL) and public utility operators' teams to design, supervise the construction, operate, maintain, and monitor utility scale solar PV projects interconnected to the national grid to provide an efficient, reliable, and sustainable service.
- 2.15. The capacity building program shall: (i) be based on international trends, standards, and best practice; (ii) include an approach that combines theory and practical application.

Abbreviations and Key Terms

Capacity	The ability of people, organizations, and systems to consistently achieve results that resemble what was originally aspired. Capacity development, consequently, is then defined as the process whereby people, organizations and systems unleash, strengthen, create, adapt, and maintain capacity over time.
Capacity Building	A process that supports only the initial stages of building or creating capacities and alludes to an assumption that there are no existing capacities to start from. It is therefore less comprehensive than capacity development.
Capacity Development	The process whereby people, organizations and systems unleash, strengthen, create, adapt, and maintain capacity over time. This process is driven from the inside and starts from national capacity assets.
CNA	Capacity Needs Assessment
CB	Capacity Building
CD	Capacity Development
DAC	Development Assistance Committee (OECD)
DC	Direct Current
ED	Energy Department
GPL	Guyana Power & Light Inc.

GUY SOL	Guyana Utility Scale Solar Photovoltaic Program
HEC	Hinterland Electrification Company Inc.
IDB	Inter-American Development Bank
Individual Capacity	Ability of individuals to effectively and efficiently carry out assigned functions leveraging their competencies that lead to successful performance.
Institution	A set of formal and informal rules and regulations, processes and systems, coordination mechanisms applicable to a network of organizations and people.
LECI	Linden Electricity Company Inc.
M&E	Monitoring and Evaluation
MW	Megawatt, a measurement of power
MWh	Megawatt Hour, a measurement of energy
MWp	Megawatt Peak, a measurement of DC capacity
OECD	Organization for Economic Cooperation and Development
Organization	A collection of people, processes, and systems working together in a coordinated and structured fashion, and guided by a set of rules and regulations, and policies, with the objective of achieving one or more shared goals.
Organizational Capacity	Ability of government organizations to strategize, plan, resource, implement, monitor, review and reshape institutional actions that are in line with the current mandate and future requirements.
PV	Photovoltaic
QAQC	Quality Assurance Quality Control
RFP	Request for Proposal
SWOT	Strengths, weaknesses, opportunities, threats
TC	Technical Consultant
ToR	Terms of Reference

3. Objectives

- 3.1. Capacity, according to OECD/DAC is understood as the ability of people, organizations, and society to manage their affairs successfully.
- 3.2. The Agenda 21 of the United Nations Conference on Environment and Development (UNCED), Capacity Building was defined in the following way:
 - 3.2.1. "Capacity Building encompasses the country's human, scientific, technological, organizational, institutional and resource capabilities. A fundamental goal of capacity building is to enhance the ability to evaluate and address the crucial questions related to policy choices and modes of implementation among development options, based on an understanding of environment potentials and limits and of needs perceived by the people of the country concerned" (UNCED, 1992).
- 3.3. Capacity Building is a long-term, continuing, and complex process, which depends on the participation and constant interaction between all the involved stakeholders (national and local governments, non-governmental organizations, academic institutions, etc.). Capacity Building Strategies and Approaches demand a high degree of flexibility: the demand for CB can vary enormously between countries, regions and sectors and the demand for capacity building is constantly changing, so there is no —one- fits-all solution for CB and regular evaluations and

corrective actions/adaptations to changing needs in capacities are necessary and need to be considered in a CB Strategy.

- 3.4. "Capacity development is an endogenous process of improving individual skills and abilities, ensuring organizations that are productive, and creating institutions that optimize utilization of human, financial and physical resources for attaining individual, organizational, institutional and societal goals." (GTZ, 2009)
- 3.5. The Capacity Building Programme in Guyana is aimed at the following two areas in particular:
 - 3.5.1. **Organizational development (GPL):** the elaboration of management structures, processes, and procedures, not only within GPL but also the management of relationships between GPL and external organizations and sectors (public, private and community).
 - 3.5.2. **Human resource development:** the process of equipping individuals with the understanding, skills and access to information, knowledge and training that enables them to perform effectively at (Urban Capacity Building Network, 2004).
- 3.6. **Organizational Development (GPL/GUYSOL):**
 - 3.6.1. Training of individuals, including technical, leadership and management skills
 - 3.6.2. Methods can include coaching, mentoring, "twinning", alongside more traditional classroom instruction for groups.
 - 3.6.3. Other methods include SWOT analysis, process optimizations, and functional analysis which can be used to assess, adapt, and improve the way an organization functions.
 - 3.6.4. Build out GPL capacity to manage the implementation of renewable energy projects with battery energy storage systems, including at a minimum the following types of activities:
 - 3.6.4.1. Planning and assessment
 - 3.6.4.2. Engineering Design, and Design review and approval
 - 3.6.4.3. Tender/Procurement
 - 3.6.4.4. Execution/Implementation
 - 3.6.4.5. Supervision/QAQC
 - 3.6.4.6. Record keeping
 - 3.6.4.7. Commissioning
 - 3.6.4.8. Project Closeout
 - 3.6.4.9. Operations and Maintenance
 - 3.6.5. Included in this programme should be an initiative to 'train the trainers' with a goal of ensuring a constant supply of trained capacities within the organization, guaranteeing that the growing demand for acquiring new knowledge and skills continues to be covered.
- 3.7. **Human Resource Development:**
 - 3.7.1. Training and education are the two primary methods utilized with a goal to enhance the individual's knowledge and technical skills.
 - 3.7.2. Methods employed can include classroom instruction, site visits, workshops, and eLearning (remote).
- 3.8. Primary goals of the Capacity Building program include the following:
 - 3.8.1. Develop internal knowledge and expertise within GPL to further the integration of renewable energy within Guyana.
 - 3.8.2. Coach and mentor current and future GPL/LECI staff, approximately 15-20 estimated at this time.

- 3.8.3. Enable GPL staff to implement future renewable energy projects with or without battery energy storage systems with limited need for external resources to support.
- 3.8.4. Train GPL/LECI engineers and operators in automated monitoring and control of the Essequibo and Linden electrical systems. In the case of Linden, LECI is now introducing the role of a system operator in their operations.
- 3.8.5. Develop a training and educational program for the community that will develop internal capacity to design, construct and maintain renewable energy systems, including those with battery energy storage systems.
- 3.8.6. Develop a structure for oversight of the GUYSQL program that will ensure successful implementation of the projects.

4. Scope of Services

- 4.1. Complete a Capacity Building needs assessment.
 - 4.1.1. Organizational level at GPL.
 - 4.1.2. Human resource level nationally, with a focus on gender diversity.
- 4.2. Develop a Capacity Building response plan.
- 4.3. Finalize and implement Capacity Building programme.
- 4.4. Organizational Development:
 - 4.4.1. Develop training method and agenda.
 - 4.4.2. Perform SWOT analysis.
 - 4.4.3. Develop 'best practice' processes, document.
 - 4.4.4. Implement programme to meet programme objectives.
- 4.5. Human Resource Development:
 - 4.5.1. Develop training agenda.
 - 4.5.2. Develop course materials for students.
 - 4.5.3. Develop online training platform.
 - 4.5.4. Execute training program/curriculum.
 - 4.5.5. Execute post-training evaluation.
 - 4.5.6. Provide training report.
- 4.6. Coaching/Mentoring/Training
 - 4.6.1. To include both conceptual/theoretical training and hands-on/execution training (inclusive of site visits to other power systems with such systems) and support during the execution of the GUYSQL program.
 - 4.6.2. Technical engineering design, and design reviews and approval including but not limited to utility scale solar PV projects with and without battery energy storage systems; and smaller diesel/solar hybrid systems with or without battery energy storage systems.
 - 4.6.3. Construction Supervision
 - 4.6.4. Commissioning and QAQC
 - 4.6.5. Operations and Maintenance (facility operators and maintenance)
 - 4.6.6. Grid operations with intermittent renewable energy systems (system controllers training)
 - 4.6.7. Power System Protection and Coordination with variable renewable energy penetration.
 - 4.6.8. Report writing
 - 4.6.9. File management
 - 4.6.10. Project documentation
 - 4.6.11. Schedule management

4.6.12. Project communications, including meeting management and minutes

4.7. Strategic Planning

4.7.1. Ownership vs. IPP model

4.7.2. Future expansion and integration

4.7.3. Modelling and simulation of renewable energy systems in PSS Sincal and PLEXOS to allow for electrical interconnection assessments and optimizations.

4.8. Measured Results

4.8.1. Testing program for students to demonstrate competency at each level of instruction.

4.8.2. Track and document training progress, regular reporting to stakeholders

4.8.3. Training materials, including video and manual

4.8.4. Certificates of completion for students

4.9. Software training

4.9.1. To include at a minimum training in the following software programs:

4.9.1.1. MS Project

4.9.1.2. MS Office

4.9.1.3. AutoCAD

4.9.1.4. Helioscope

4.9.1.5. HOMER

4.9.1.6. PLEXOS

4.9.1.7. PSS Sincal

4.10. Other training

4.10.1. Drone pilot training

5. Project Schedule and Milestones

5.1. Project Schedule will align with the GUYSQL program schedule with the following key milestone dates in mind:

RFP Review and Contract Award	April -July 2023
Engineering Design and Review	July-Nov 2023
Project Construction	Nov 2023 – Dec 2024
Project Commissioning	Dec 2024 – Feb 2025

6. Schedule of Payments

6.1. Allocated budget - \$885,000.00 USD

6.2. GPL Capacity Building Programme

	%	Amount (\$)	Duration	Time Period
Advance of Project	10%	\$88,500.00	-	June 2023
Batch 1 – Engineering Design, and Design Review	15%	\$132,750.00	3 Months	Sep-Nov 2023
Batch 2 – Civil Works, Mobilization, Safety, Schedule Review	15%	\$132,750.00	6 Months	Dec-Aug 2024
Batch 3 – Material Procurement, Logistics, Receiving and Inspection	10%	\$88,500.00	3 Months	Mar-May 2024
Batch 4 – Construction Management, Record	15%	\$132,750.00	3 Months	Sep-Nov 2024

Keeping, QAQC				
Batch 5 – Commissioning, Inspections	15%	\$132,750.00	3 Months	Dec-Feb 2025
Batch 6 – Document Handover, O&M, Job Book, As-Built Drawings, Training to GPL/LECI staff in system planning	20%	\$177,000.00	6 Months	Mar-Aug 2025
Total Proposed Price (USD)	\$885,000.00			

7. Qualifications

- 7.1. The bidder is required to provide technical personnel who are suited to filling the requisite positions necessary for completion of the Scope of Services. Each technical personnel must have at least a 5-years' experience in the relevant field for which they will be providing services.
- 7.2. Team leader shall have, at a minimum, the following specified qualifications:
 - 7.2.1. University qualification (PhD or Masters) in Business/Public Administration or Organizational Development or International Cooperation or Social Sciences or Engineering or demonstrated equivalent.
 - 7.2.2. Full professional proficiency in the English language.
 - 7.2.3. Minimum 5 years of professional experience in capacity building.
 - 7.2.4. Minimum 3 years of professional experience in renewable energy and topics related to sustainability.
 - 7.2.5. Minimum 3 years of professional experience in stakeholder engagement process.
 - 7.2.6. Minimum 5 years of management/leadership experience as a team leader.
 - 7.2.7. Minimum 2 years of experience working in the Caribbean region with small developing states.
 - 7.2.8. Minimum 2 years of experience working on gender inclusion and diversity.
 - 7.2.9. Experience developing online training platform.
 - 7.2.10. Ability to effectively communicate with stakeholders in both written and video formats.
 - 7.2.11. Effective public speaking and presentation.
- 7.3. At least one Team member(s) shall have, at a minimum, the following specified qualifications:
 - 7.3.1. University degree in a Social Sciences or Education or Organizational Development.
 - 7.3.2. Full professional proficiency in the English language.
 - 7.3.3. 5 years in education, curriculum development and didactics.
 - 7.3.4. 3 years of professional experience in research and survey methods including data analysis, qualitative methods, and focus group discussions.
 - 7.3.5. 3 years of professional experience in stakeholder engagement processes and process support.
 - 7.3.6. Minimum 2 years of experience working in the Caribbean region with small developing states.
- 7.4. Soft skills of all team members shall include, at a minimum, the following:
 - 7.4.1. Communication skills.
 - 7.4.2. Effective stakeholder engagement and management skills.
 - 7.4.3. Facilitation and presentation skills.

7.4.4. Social and intercultural skills.

7.4.5. Initiative.

7.4.6. Interdisciplinary thinking.