



MINISTERIE VAN FINANCIËN & PLANNING

Directoraat Planning en Ontwikkelingsfinanciering

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La OF 2241039

Paramaribo, April 24, 2024

Mrs. Adriana La Valley
Representative
Inter-American Development Bank
Country Office Suriname
Peter Bruneslaan 2- 4
Paramaribo

Subject : Request for Technical Cooperation: "Digital Transformation in the Energy Sector and Grid of the Future"

Enclosure : One (1)

Dear Mrs. La Valley,

Herewith the Ministry of Finance and Planning, as the representative of the Government of Suriname, wishes to request a technical cooperation to support and contribute to the modernization and decarbonization efforts in Latin America and Caribbean's energy sector. The specific objectives of this technical cooperation are:

(i) to help accelerate the digital transformation of the energy sectors in LAC countries; and (ii) to study the potential of renewable energy technologies to contribute the decarbonization of the power sector in the context of the 2050 net-zero emission scenario under the Paris Agreement.

In specific, this technical cooperation will finance (i) digitalization strategies for Ministries of Energy, with a focus on enabling private sector participation, (ii) cybersecurity courses, particularly for women, and audits, (iii) the implementation of an Artificial Intelligence tool for detecting electricity fraud; and (iv) an update of the findings of the 2017 innovative study "Grid of the Future" on the potential of renewable energy technologies in the region.

We request that the Bank execute this technical cooperation.

Yours sincerely,

Drs. I. Sandel, MPA
Permanent Secretary
Directorate of Planning and Development Finance

cc. Directeur Energie, Mw. V. Lalji

Digital Transformation in the Energy Sector and Grid of the Future (D2446)

Description:

The general objective of the TC is to contribute to the modernization and decarbonization efforts in LAC's energy sector. The specific objectives are (i) to help accelerate the digital transformation of the energy sectors in LAC countries; and (ii) to study the potential of renewable energy technologies to contribute the decarbonization of the power sector in the context of the 2050 net-zero emission scenario under the Paris Agreement.

The TC will finance (i) digitalization strategies for Ministries of Energy, with a focus on enabling private sector participation, (ii) cybersecurity courses, particularly for women, and audits, (iii) the implementation of an AI tool for detecting electricity fraud (Energizados); and (iv) an update of the findings of the 2017 innovative study "Grid of the Future" on the potential of renewable energy technologies in the region.

ENE recently published a Roadmap for digital transformation of the energy sector in LAC:

<https://publications.iadb.org/en/roadmap-digital-transformation-energy-sector-latin-america-and-caribbean>. Some of the main results are that digitalization can have a huge benefit in the energy sector, in demand management, incorporating renewable energy to the grid, and managing resilience; that this connectivity comes hand-in-hand with increased risks of cyberattacks since energy is critical infrastructure; and that all LAC countries need to develop sector-specific strategies, work on digital culture and invest in capacity building and training.

Particularly on cybersecurity, the Bank (through ENE and ICS) has been holding training courses since 2020. These courses have 2 modalities, both management and technical level, and are for personnel from Ministries, Regulators and public utilities. To-date we have trained nearly 300 people from 18 countries, including a course specifically for women at the management level. Participation from CCB countries has been low, so we want to ensure that as part of this TC we reach more Caribbean beneficiaries.

The Bank's 2017 study "Grid of the Future" analyzed, for the first time under a state-of-the-art methodology, the vast potential for solar and wind energy in the region and laid out a long-term vision for a more sustainable energy supply. The study identified, measured, and demonstrated the net benefits of a low-carbon interconnected electricity grid, by analytically determining cost-effective and technically feasible investment paths in generation and transmission by 2030. Five years later, the situation in many LAC countries has radically changed in terms of post-pandemic demand behavior, price evolution for fuels and technology CAPEX, and grid build-up. This makes it necessary to adapt the model to a new context and to update the analysis to introduce a new net-zero scenario by 2050, which will help the countries to assess how the power sector can contribute to decarbonization of several sectors and therefore help countries fulfill their commitments under the Paris Agreement.

Submitted by:

Jose Luis Irigoyen

Submitted on:

11/30/2023

Status:

Submitted

Category:

Client Support

Tags:

#gridofthefuture adaptation cybersecurity digital transformation digitalization electricity interconnection electricity sector planning energy energy transition flexibility innovation integration mitigation net-zero power sector renewable energy resilience smart grids technology

Linked Ideas:

Whiteboard:

Team Leader Name

Jose Irigoyen

Alternate Team Leader Name

Juan Paredes

Has the proposal been discussed and authorized by the responsible sector or country department/division, as applicable?

Yes

Team Leader Responsible Department

INE

Are there specific countries that will directly benefit from your proposal?

Yes

Mark the specific countries that will be directly benefited from your proposal?

Bahamas

Barbados

Colombia

Guyana

Jamaica

Suriname

Trinidad y Tobago

Uruguay

Where applicable, describe how the proposal aligns with the respective country strategy (for each country selected)

The proposal is aligned with:

The country strategy with Barbados (GN-2953-1), particularly with Strategic Area "C. Promoting Greater Productivity and Competitiveness", in that the TC helps promote digital innovation and greater use of technologies and supports the government's target of being carbon neutral by 2030 by promoting technological innovation.

The country strategy with Bahamas (GN- 2920-1), particularly with Strategic Area "B. Supporting Resilient Infrastructure for Growth", in that the TC helps strengthen the institutional capacity and the modernization of the country's energy sector.

The country strategy with Colombia (GN-2972), particularly with Strategic Area "A. Economic productivity", in that the TC helps accelerate the digital transformation of the energy sector in the country and supports the planning and developing resilient infrastructure to reduce the impact and costs of climate change.

The country strategy with Guyana (GN-3187), particularly with Strategic Area "A. Resilient infrastructure development", in that the TC's cybersecurity and planning for electricity interconnection activities support the resilience of the energy infrastructure.

The country strategy with Jamaica (GN-3138), particularly with Strategic Area "A. Reactivate the Productive Sector for Sustainable Growth", in that the TC supports the digital transformation of the Government, through sector-specific digitization and cybersecurity in energy services.

The country strategy with Suriname (GN-3065), particularly with Strategic Area "C. Improving Basic Services and Social Protection", in that the TC helps strengthen the infrastructure and institutional planning to improve the reliability and supply and quality of electricity, with emphasis on sustainable solutions and energy efficiency improvements.

The country strategy with Trinidad and Tobago (GN-3071), particularly with Strategic Area "A. Promoting digitalization to support economic transformation", in that the TC helps enhance the digital delivery of energy services, renewable energy sources and related technologies.

The country strategy with Uruguay (GN-3056), particularly with Priority Area "B. Sustainable productive development", in that the TC supports the planning for energy decarbonization, with an emphasis on developing new technologies.

Does the proposal align to one or more sector frameworks?

Yes, the proposal aligns with at least one sector framework

Identify and describe how the proposal aligns to the sector framework(s)

The proposal aligns with the Energy Sector Framework, in the areas of decarbonization, resilience, energy planning and digital transformation.

Select the regional challenges and cross-cutting issues to which the proposal aligns to
Productivity and Innovation

Economic Integration

Climate Change and Environmental Sustainability

Institutional Capacity and Rule of Law

Gender Equality

Justify the alignment to each selection above

The TC is aligned with Productivity and Innovation because it fosters digital innovation and productivity improvement in the energy sector.

The TC is aligned with Economic Integration because the Grid of the Future study contributes to the planning of integration of the region's electricity grids.

The TC is aligned with Climate Change and Environmental Sustainability because the Grid of the Future study contributes to the planning needed to increase the penetration of renewable energy in the region's power sector in the context of Paris Agreement commitments.

The TC is aligned with Institutional Capacity and Rule of Law because the digitalization strategies and cybersecurity activities strengthen the country's energy sector institutional capacity.

The TC is aligned with Gender Equality because for the cybersecurity training efforts will be made to ensure a high participation of women from the energy sector.

What is the estimated funding that you need in order to implement this proposal?

500000

Select the expected outputs of this proposal

Institutional Strengthening Deliverables (Training products, Management Information Systems, etc.)

Upstream strategies, action plans, etc.)

Knowledge Products

Pilot Interventions

Are outputs strictly Knowledge Products?

Describe the motivation and main question(s) this TC intends to answer.

Describe the methodological approach to be used and the type of data (when applicable) which will be used

Please specify the type(s) of Knowledge Product (s) this TC encompasses:

Monographs

Please provide a brief description of the output(s) selected above (The number of units planned, and the estimated cost). If you selected others, please specify.

Digitalization Strategies: Carried out by an expert digital transformation firm, it is the assessment of an institution's as-is processes, equipment and technology skills, the identification of digitalization opportunities and the development of a roadmap for digital transformation. Unit Cost = U\$40K / Quantity = 2

Cybersecurity courses: Training for energy sector personnel (both management and technical level, from Ministries, Regulators, public utilities) provided by an expert cybersecurity firm. Unit Cost = U\$10K / Quantity = 3

Cyber risks Self-assessment and audit. The self-assessment is a tool developed by the Bank that helps an energy sector institution identify their current readiness against cyberthreats and areas of improvement. The cybersecurity audit is carried out by an expert cybersecurity firm and assesses an organization's cybersecurity situation and measures the existing gaps against industry best practices. Unit Cost = U\$30K / Quantity = 4

Energizados: It is an open-source AI tool developed in-house by the Bank for detecting electricity fraud. Unit Cost = U\$20K / Quantity = 1

Grid of the Future Study: (i) Regional and disaggregated per country net-zero scenarios with specific insights in terms of future type of plants, fuels, investments, and emission reduction potentials by 2050. (ii) Recommendations on main regional interconnectors to promote and optimize carbon emission reductions. Unit Cost = U\$250K / Quantity = 1

Outcomes: If the outputs are delivered successfully, what is the change expected (in capacity, knowledge, behavior, etc.)

Energy institution with a digital transformation strategy in place.

Cybersecurity of energy sector strengthened.

Women in the energy sector trained on managing cybersecurity threats.

Electricity lost to fraud reduced in 1 beneficiary country.

Better understanding of benefits from regional interconnection initiatives in terms of environment, resilience, and energy security factors.

Regional and national investment pathways for decarbonization aligned to the Paris agreement.

(1) Attachments

Screenshot 2023-11-30 122...

0 Comments



Ministerio
**de Economía
y Finanzas**

Dirección General de Secretaría

Montevideo, 24 de abril de 2024

Sr. Luiz Ros
Representante en Uruguay del
Banco Interamericano de Desarrollo
Presente

**REF.: Cooperación Técnica No Reembolsable Regional RG-
T4513 "Transformación Digital en el sector de Energético y
Red del Futuro".**

De mi mayor consideración:

Tengo el agrado de dirigirme a Ud. para expresar nuestra No Objeción a la participación de Uruguay en la Cooperación Técnica Regional titulada "Transformación Digital en el sector de Energético y Red del Futuro" que tiene por objetivo contribuir a los esfuerzos de modernización y descarbonización del sector energético de América Latina y el Caribe.

Los objetivos planteados en esta Cooperación Técnica Regional son fundamentales para la transformación digital del sector Energético en la región en el contexto del escenario de emisiones netas cero para 2050 bajo el Acuerdo de París. En particular, esta cooperación es importante para Uruguay teniendo en cuenta el apoyo para la descarbonización del sector que contribuirá a las tres entidades beneficiarias: Salto Grande, el Ministerio de Industria, Energía y Minería (MIEM) y la Administración Nacional de Usinas y Transmisiones Eléctricas (UTE). Brindaremos la colaboración necesaria para que este proyecto pueda ser llevado a cabo de manera efectiva.

Agradecemos se nos mantenga informados sobre los avances de esta Cooperación.

Sin otro particular, saludo a Ud. atentamente,

Valerie Stahl
Organismos Multilaterales
Ministerio de Economía y Finanzas

49 Main & Urquhart Streets,
Georgetown,
Guyana.



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June 28, 2024.

Ms. Lorena Solorzano- Salazar
Country Representative
Inter-American Development Bank
47 High Street,
Georgetown.

Dear Ms. Solorzano-Salazar,

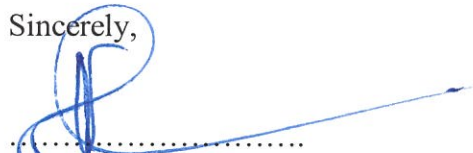
**RG-T44513 – Digital Transformation in the Energy Sector and Grid of the Future:
Request for Participation in Regional Technical Cooperation**

The Government of Guyana is hereby indicating interest in participating in the Regional Technical Cooperation (TC), "*Digital Transformation in the Energy Sector and Grid of the Future (RG-T4513).*"

It is noted that financing of up to US\$50,000.00 is available for technical assistance for the Guyana Power and Light Inc. related to one or more of the following themes: (i) the preparation of digitalization strategies; (ii) strengthening cybersecurity capabilities; (iii) implementation of digital tools; and (iv) the transmission needs of the utility.

To this end, the Government of Guyana through the Ministry of Finance requests the IDB's support to include Guyana in this regional operation and recommends the execution be done in close collaboration with the Guyana Power & Light Inc.

Sincerely,


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Hon. Dr. Ashni K. Singh
Senior Minister in the Office of the President
with Responsibility for Finance and the Public Service



**MINISTRY OF PLANNING AND DEVELOPMENT
OFFICE OF THE PERMANENT SECRETARY**

Level 14, Eric Williams Financial Building, Independence Square, Port-of-Spain, Trinidad and Tobago, WI
Tel: 612 3000 ext. 2016/1329

PD (SEPPD): 11/4/74

June 22nd, 2024

Ms. Carina Cockburn
Representative
Country Office of Trinidad and Tobago
Inter-American Development Bank
17 Alexandra Street, St. Clair
Port of Spain

Dear Ms. Cockburn,

**Expression of Interest for the Participation of Trinidad and Tobago in the
Non-Reimbursable Regional Technical Cooperation Project-
Digital Transformation in the Energy Sector and Grid of the Future**

I refer to the above subject. The Ministry of Planning and Development (MPD) notes that the objective of the Regional Technical Cooperation (RTC) project is to contribute to the modernisation and decarbonisation efforts in Latin America and the Caribbean's (LAC's) energy sector. Specifically, the RTC is intended to: (i) help accelerate the digital transformation of the energy sectors in LAC countries; and (ii) study the potential of renewable energy technologies to contribute to the decarbonisation of the power sector in the context of 2050 net-zero emission scenario under the Paris Agreement.

The RTC document is aligned to the National Development Strategy for Trinidad and Tobago, 2016-2030, Themes III and V, 'Improving Productivity through Quality Infrastructure and Transportation' and 'Placing the Environment at the Centre of Social and Economic Development', respectively. In this regard, the MPD requests the participation of Trinidad and Tobago in the IDB-funded Regional Technical Cooperation Digital Transformation in the Energy Sector and Grid of the Future. Furthermore, given the regional scope of the project, the MPD provides no objection for the IDB to serve as the Executing Agency on its behalf, given the Bank's expertise and to reduce the risk of delays in implementation.

I look forward to a positive response to this request.

Sincerely,

Permanent Secretary (Ag.)
Ministry of Planning and Development
PERMANENT SECRETARY
MINISTRY OF PLANNING
AND DEVELOPMENT