

#### Mapping of electricity system vulnerabilities ("resiliency hotspots")

Regional P001 RG-T4623 [Web link to approved document] Resiliency of power infrastructure and response preparedness for energy service restoration

# 1. <u>Background and Justification</u>

- 1.1. The Sustainable Infrastructure Programme (UKSIP) is an up to £175 million programme designed to provide a combination of concessional capital funding and technical assistance to focus on sustainable low carbon infrastructure, adaptation and resilience-focused activities, and nature positive activities, in Brazil, Colombia, Mexico, Peru, Haiti, Belize, Dominican Republic, Jamaica, Suriname, Guyana, The Bahamas, Barbados, Trinidad and Tobago, Honduras, El Salvador, Guatemala, Costa Rica, Nicaragua, and Panama. UKSIP is funded by the British Government and is administered by the Inter-American Development Bank (IDB). The purpose of the programme is to accelerate and enable the implementation of Nationally Determined Contributions (NDCs) in Latin America by supporting and catalysing strategic private sector investments in sustainable, low-carbon infrastructure through its operations in Beneficiary Countries.
- 1.2. The Caribbean hosts some of the most vulnerable nations in the world in terms of climate related disasters. In 2023, the Atlantic basin saw 20 named storms. This type of events can affect the ability of countries to invest in infrastructure and social programs. Moreover, it is estimated that they would need to replace their infrastructure capital stock in full, on average, every 50 years due to climate related events. The Caribbean energy sector is no exception to the potential crippling effects of natural disasters such as hurricanes/storms, which puts a severe burden to the already constrained fiscal spaces in most countries.

# 2. <u>Objective</u>

**21.** The objective is to develop a pipeline of investments to upgrade energy sector infrastructure and increase sector resilience, thereby reducing the likelihood of service outages in case of natural disaster.

# 3. Scope of Services

- **3.1.** The Firm will conduct vulnerability assessments of critical electricity system assets ("hot spots") in the participating countries.
- 3.2. The Firm will carry out/implement technical studies to specify priority investments.

- **4.1.** Work plan. The Firm will prepare a detailed work plan in close engagement with the IDB team and national stakeholders covering communication protocols, information sources, meeting schedule, detailed activity planning.
- **4.2. Status of asset evaluation.** The Firm will assess the status of assets in terms of age, specifications, and maintenance record. As well as potential degradation due to external factors such as soil instability, increased flooding risk, ambient conditions (temperature, humidity), encroachment of the area, rodents, safety issues, etc.



- **4.3. Identification of areas and assets to be evaluated.** The Firm will review grid system data and technical drawings and carry out interviews with utility staff and other stakeholders to identify areas and assets to be evaluated.
- **4.4. Status verification**. In collaboration with the grid operator/utility, the Firm will carry out field mission to verify the status of grid assets and collect additional information, as appropriate.
- **4.5. Vulnerability assessment of identified assets.** The Firm will carry out a vulnerability assessment of the identified assets describing categories of risks threatening its integrity and functioning. The assessment should quantify vulnerabilities and risks.
- **4.6.** Asset failure evaluation. The Firm will carry out grid simulations as required to evaluate asset failure. The evaluation should quantify impact.
- **4.7. Technical solutions assessment**. The Firm will assess the alternatives to address critical vulnerabilities in national grid systems.
- **4.8. Most appropriate alternative technical study.** The Firm will elaborate a technical study for the most appropriate alternative considering opportunities to improve overall grid system resilience ("building forward better"), national energy security and sector decarbonization efforts. The study should also provide an estimate for the capital investment (CAPEX).
- **4.9. "Hot spots" ranking.** The Firm will develop an indicator-based impact ranking of "hot spots" and proposed technical solutions for each country considering the following categories: sector resilience, social and economic resilience, and cost.
- **4.10. Final report.** The Firm will prepare a final report that will summarise the findings of the previous work. The report will include an outline and recommendations. The Firm will also prepare a presentation to go with the final report.

# 5. <u>Deliverables</u>

- 5.1. Work plan with schedule and details of activities (activity 4.1)
- 5.2. Country specific baseline one per each country (activities 4.2, 4.3 and 4.4)
- 5.3. Country specific vulnerability reports one per each country (activities 4.5 and 4.6)
- 5.4. Country specific technical study summaries one per each country (activities 4.7, 4.8 and 4.9)
- **5.5.** Final report and presentation (activity 4.10)

#### 6. **Project Schedule and Milestones**

Deliverables		Months													
Deliverables	1	2	3	4	5	6	7	8	9	10	11	12			
Deliverable 1: Work plan															
Deliverable 2: Country Baseline															
Deliverable 3: Country Vulnerability report															
Deliverable 4: Technical study summaries															
Deliverable 5: Final report and presentation															

#### 7. <u>Reporting Requirements</u>

- **7.1.** All documents must be submitted in Microsoft Word, in an editable file, including Executive Summary, annexes, spreadsheets in Microsoft Excel, and other relevant material, in English.
- **7.2.** Presentations must be submitted in Microsoft PowerPoint.

#### 8. <u>Acceptance Criteria</u>



- **8.1.** The deliverables will be accepted for payment once they have the written approval of the IDB team.
- 8.2. Partial deliverables, or deliverables that are not accepted, will not be paid.

# 9. Consulting Firm and Team Requirements

- 9.1. Work team. The Firm shall provide a work team with minimum the following key criteria:
  - Project Manager. Degree in engineering, economics, or related areas. At least 10 years of general experience, five (5) years of experience in project management for the energy sector. Experience in Latin America and the Caribbean is desirable.
  - Specialist in the energy sector. Degree in engineering or related areas, with a master's or doctorate in energy planning, energy economics, or related subjects. With the specific experience of at least ten (10) years in structuring and evaluating projects in the energy sector with an emphasis on new technologies.
- 9.2. Language requirements:
  - English and Spanish speaking personnel.

# 10. Other Requirements

**10.1.** All information shared with the consultancy will be considered confidential. The consultancy may not disclose to third parties any product of this consultancy, without the express consent of the IDB, in writing.

# 11. Supervision and Reporting

**11.1.** The Energy Division (INE/ENE) will have the technical responsibility for the execution of this contract as well as approval of products prepared by the Firm. In representation of the IDBG, the technical coordination for this consultancy rests with Roberto Gabriel Aiello (INE/ENE) who will act as Team Leader, supervising the products presented, and sharing comments to improve their quality.

- **12.1.** Payment terms will be based on project milestones or deliverables. 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.
- **12.2.** The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule							
Deliverable	%						
1. Deliverable 1: Work plan	10%						
2. Deliverable 2: Country Baseline	30%						
3. Deliverable 3: Country Vulnerability report	30%						
4. Deliverable 4: Technical studies	20%						
5. Deliverable 5: Final report	10%						
TOTAL	100%						



Design upgrades of electric grid system and components, and training on resilient energy technology

Regional P002 RG-T4623 [Web link to approved document]

Resiliency of power infrastructure and response preparedness for energy service restoration

# 1. **Background and Justification**

- 1.1. The Sustainable Infrastructure Programme (UKSIP) is an up to £175 million programme designed to provide a combination of concessional capital funding and technical assistance to focus on sustainable low carbon infrastructure, adaptation and resilience-focused activities, and nature positive activities, in Brazil, Colombia, Mexico, Peru, Haiti, Belize, Dominican Republic, Jamaica, Suriname, Guyana, The Bahamas, Barbados, Trinidad and Tobago, Honduras, El Salvador, Guatemala, Costa Rica, Nicaragua, and Panama. UKSIP is funded by the British Government and is administered by the Inter-American Development Bank (IDB). The purpose of the programme is to accelerate and enable the implementation of Nationally Determined Contributions (NDCs) in Latin America by supporting and catalysing strategic private sector investments in sustainable, low-carbon infrastructure through its operations in Beneficiary Countries.
- 1.2. The Caribbean hosts some of the most vulnerable nations in the world in terms of climate related disasters. In 2023, the Atlantic basin saw 20 named storms. This type of events can affect the ability of countries to invest in infrastructure and social programs. Moreover, it is estimated that they would need to replace their infrastructure capital stock in full, on average, every 50 years due to climate related events. The Caribbean energy sector is no exception to the potential crippling effects of natural disasters such as hurricanes/storms, which puts a severe burden to the already constrained fiscal spaces in most countries.

#### 2. Objective

**2.1.** The objective is to increase awareness of, and proficiency with, resilient electricity sector technologies among utility staff and other stakeholders in Caribbean countries.

# 3. <u>Scope of Services</u>

- **3.1.** The Firm, in collaboration with the incumbent utilities, will propose design upgrades to current grid systems and equipment to increase resilience under changing climate conditions.
- **3.2.** The Firm will provide training on resilient technology and design approaches to utility staff and other stakeholders in the participating countries.

- **4.1. Work plan.** The Firm will prepare a detailed work plan in close engagement with the IDB team and national stakeholders covering communication protocols, information sources, meeting schedule, detailed activity planning.
- **4.2. Technology gap assessment.** The Firm will identify, through dialogue with utilities in the participating countries and regional stakeholders, such as Caribbean Electric Utility Services Corporation (CARILEC), current technology gaps in the electricity sector in terms of awareness and knowledge; market availability; and technical and supply chain constraints for integration



into current grid systems.

- **4.3. Preparation of case studies.** The Firm will select relevant, high-potential upgrades for improving system resilience and prepare case studies of technologies and grid designs used in the region and analyse the technical, performance, and cost benefits of proposed upgrades.
- **4.4. Case study presentations.** The Firm shall present the case studies through fact sheets and prefeasibility assessments.
- **4.5. Training preparation.** The Firm will prepare a training program for utility staff and other target groups. Trainings shall have clear learning objectives, to be differentiated according to the background and working sphere of the participants and be at least gender responsive. Trainings should include aspects such as frameworks to assess system vulnerability and post-disaster impacts, as well as industry performance indicators.
- **4.6. Training delivery.** In collaboration with regional project partners, the Firm shall conduct a series of training sessions (presential or hybrid). The case studies can be integrated in the trainings.
- **4.7. Final report.** The Firm will prepare a final report that will summarise the findings of the previous work. The report will include an outline, activities and list of participants in the trainings.

## 5. <u>Deliverables</u>

- 5.1. Work plan with schedule and details of activities (activity 4.1)
- 5.2. Technology gap assessment report (activity 4.2)
- **5.3.** Upgrade case studies (activities 4.3 and 4.4)
- **5.4.** Training program manual (activities 4.5 and 4.6)
- **5.5.** Final report (activity 4.7)

# 6. <u>Project Schedule and Milestones</u>

Pathwashing		Months													
Deliverables	1	2	3	4	5	6	7	8	ŋ	10	11	12			
Deliverable 1: Work plan															
Deliverable 2: Technology gap assessment report															
Deliverable 3: Upgrade case studies															
Deliverable 4: Training program manual															
Deliverable 5: Final report															

#### 7. <u>Reporting Requirements</u>

- **7.3.** All documents must be submitted in Microsoft Word, in an editable file, including Executive Summary, annexes, spreadsheets in Microsoft Excel, and other relevant material, in English.
- 7.4. Presentations must be submitted in Microsoft PowerPoint.

#### 8. Acceptance Criteria

- **8.3.** The deliverables will be accepted for payment once they have the written approval of the IDB team.
- **8.4.** Partial deliverables, or deliverables that are not accepted, will not be paid.

#### 9. Consulting Firm and Team Requirements

- 9.1. Work team. The Firm shall provide a work team with minimum the following key criteria:
  - Project Manager. Degree in engineering, economics, or related areas. At least 10 years of



general experience, five (5) years of experience in project management for the energy sector. Experience in Latin America and the Caribbean is desirable.

- Specialist in the energy sector. Degree in engineering or related areas, with a master's or doctorate in energy planning, energy economics, or related subjects. With the specific experience of at least ten (10) years in structuring and evaluating projects in the energy sector with an emphasis on new technologies.
- 9.2. Language requirements:
  - English and Spanish speaking personnel.

## 10. Other Requirements

**10.1.** All information shared with the consultancy will be considered confidential. The consultancy may not disclose to third parties any product of this consultancy, without the express consent of the IDB, in writing.

## 11. Supervision and Reporting

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- **12.2.** The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule							
Deliverable	%						
1. Deliverable 1: Work plan	10%						
2. Deliverable 2: Technology gap assessment report	20%						
3. Deliverable 3: Upgrade case studies	30%						
4. Deliverable 4: Training program manual	30%						
5. Deliverable 5: Final report	10%						
TOTAL	100%						



Strengthening of preparedness of electric utilities in the Caribbean to respond to natural disaster

Regional P003 RG-T4623 [Web link to approved document]

Resiliency of power infrastructure and response preparedness for energy service restoration

# 1. **Background and Justification**

- 1.1. The Sustainable Infrastructure Programme (UKSIP) is an up to £175 million programme designed to provide a combination of concessional capital funding and technical assistance to focus on sustainable low carbon infrastructure, adaptation and resilience-focused activities, and nature positive activities, in Brazil, Colombia, Mexico, Peru, Haiti, Belize, Dominican Republic, Jamaica, Suriname, Guyana, The Bahamas, Barbados, Trinidad and Tobago, Honduras, El Salvador, Guatemala, Costa Rica, Nicaragua, and Panama. UKSIP is funded by the British Government and is administered by the Inter-American Development Bank (IDB). The purpose of the programme is to accelerate and enable the implementation of Nationally Determined Contributions (NDCs) in Latin America by supporting and catalysing strategic private sector investments in sustainable, low-carbon infrastructure through its operations in Beneficiary Countries.
- 1.2. The Caribbean hosts some of the most vulnerable nations in the world in terms of climate related disasters. In 2023, the Atlantic basin saw 20 named storms. This type of events can affect the ability of countries to invest in infrastructure and social programs. Moreover, it is estimated that they would need to replace their infrastructure capital stock in full, on average, every 50 years due to climate related events. The Caribbean energy sector is no exception to the potential crippling effects of natural disasters such as hurricanes/storms, which puts a severe burden to the already constrained fiscal spaces in most countries.

#### 2. Objectives

**2.1.** The objective is to assess disaster preparedness gaps of electric utilities in the Caribbean and define and implement actions for strengthening.

#### 3. Scope of Services

- **3.1.** The Firm will further develop and implement training activities on electric infrastructure technology and response strategies that enhance sector resilience.
- **3.2.** The Firm will provide expertise and capacity to assist the national stakeholders to update and finalize their Disaster Response Plans (DRPs).

- **4.1. Work plan.** The Firm will prepare a detailed work plan in close engagement with the IDB team and national stakeholders covering working session schedules with the national stakeholders and their partners to discuss progress, issues, and resources needed.
- **4.2. Disaster Preparedness Gap Assessment.** The Firm will work with the national stakeholders' focal point to assess their current level of disaster preparedness according to an established methodology, considering the following aspects including, but not limited to electric grid infrastructure, emergency power facilities, internal communication protocols, staff training and



awareness, coordination with sector entities (including energy ministries and regulators), local authorities, and designated disaster management entities. The Firm should submit at least one draft of the report for comments.

- **4.3. Roadmap.** The Firm will prepare a roadmap and identify actions (individualized for each utility) to address the identified weaknesses.
- **4.4. Resilience Training.** The Firm will prepare and implement training activities on energy sector resilience. The scope, modality (hybrid or presential), and number of training sessions to be agreed with the IDB team.
- **4.5. Training delivery.** In collaboration with regional project partners, the Firm shall conduct a series of training sessions (presential or hybrid). A summary of training sessions, training material, and participants list shall be prepared
- **4.6. Disaster Response Plans (DRPs) analysis.** The Firm will prepare and support to update the DRPs for each national stakeholder in coordination with IDB team. The Firm should submit at least one draft of the report for comments.

## 5. <u>Deliverables</u>

- 5.1. Work plan with schedule and details of activities (activity 4.1)
- 5.2. Roadmap Status Report (activity 4.3)
- 5.3. Disaster Preparedness Gap Assessment Report (activity 4.2)
- 5.4. Resilience Training Program Manual (activities 4.4 and 4.5)
- 5.5. Disaster Response Plan Report (activity 4.6)

# 6. Project Schedule and Milestones

<b>B</b> disardar	Months																	
Deliverables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Deliverable 1: Work plan																		
Deliverable 2: Roadmap																		
Deliverable 3: Disaster Preparedness Gap Assessment Report																		
Deliverable 4: Resilience Training Activities																		
Deliverable 5: Disaster Response Plans Final Report																		

# 7. <u>Reporting Requirements</u>

- **7.5.** All documents must be submitted in Microsoft Word, in an editable file, including Executive Summary, annexes, spreadsheets in Microsoft Excel, and other relevant material, in English.
- 7.6. Presentations must be submitted in Microsoft PowerPoint.

# 8. Acceptance Criteria

- **8.5.** The deliverables will be accepted for payment once they have the written approval of the IDB team.
- **8.6.** Partial deliverables, or deliverables that are not accepted, will not be paid.

# 9. Consulting Firm and Team Requirements

- 9.1. Work team. The Firm shall provide a work team with minimum the following key criteria:
  - Project Manager. Degree in engineering, economics, or related areas. At least 10 years of general experience, five (5) years of experience in project management for the energy sector.



Experience in Latin America and the Caribbean is desirable.

- Specialist in the energy sector. Degree in engineering or related areas, with a master's or doctorate in energy planning, energy economics, or related subjects. With the specific experience of at least ten (10) years in structuring and evaluating projects in the energy sector with an emphasis on new technologies.
- 9.2. Language requirements:
  - English and Spanish speaking personnel.

## 10. Other Requirements

**10.1.** All information shared with the consultancy will be considered confidential. The consultancy may not disclose to third parties any product of this consultancy, without the express consent of the IDB, in writing.

## 11. <u>Supervision and Reporting</u>

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# 12. Schedule of Payments

- **12.1.** Payment terms will be based on project milestones or deliverables. 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.
- **12.2.** The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule							
Deliverable	%						
1. Deliverable 1: Work plan	10%						
2. Deliverable 2: Roadmap	10%						
3. Deliverable 3: Disaster Preparedness Gap Assessment Report	30%						
4. Deliverable 4: Resilience Training Activities	20%						
5. Deliverable 5: Disaster Response Plans Final Report	30%						
TOTAL	100%						



# Development of financial and procurement instruments to expedite electric grid recovery in the aftermath of natural disaster.

Regional P004 *RG-T4623* <u>[Web link to approved document]</u> Resiliency of power infrastructure and response preparedness for energy service restoration

## 1. Background and Justification

- 1.1. The Sustainable Infrastructure Programme (UKSIP) is an up to £175 million programme designed to provide a combination of concessional capital funding and technical assistance to focus on sustainable low carbon infrastructure, adaptation and resilience-focused activities, and nature positive activities, in Brazil, Colombia, Mexico, Peru, Haiti, Belize, Dominican Republic, Jamaica, Suriname, Guyana, The Bahamas, Barbados, Trinidad and Tobago, Honduras, El Salvador, Guatemala, Costa Rica, Nicaragua, and Panama. UKSIP is funded by the British Government and is administered by the Inter-American Development Bank (IDB). The purpose of the programme is to accelerate and enable the implementation of Nationally Determined Contributions (NDCs) in Latin America by supporting and catalysing strategic private sector investments in sustainable, low-carbon infrastructure through its operations in Beneficiary Countries.
- 1.2. The Caribbean hosts some of the most vulnerable nations in the world in terms of climate related disasters. In 2023, the Atlantic basin saw 20 named storms. This type of events can affect the ability of countries to invest in infrastructure and social programs. Moreover, it is estimated that they would need to replace their infrastructure capital stock in full, on average, every 50 years due to climate related events. The Caribbean energy sector is no exception to the potential crippling effects of natural disasters such as hurricanes/storms, which puts a severe burden to the already constrained fiscal spaces in most countries.

# 2. Objectives

**2.1.** The objective is to enhance electricity sector mechanisms and instruments for service recovery in the aftermath of natural disaster.

# 3. Scope of Services

**3.1.** The Firm will develop financial and procurement instruments to expedite the electric grid recovery in the aftermath of natural disasters.

- **4.1.** Work plan. The Firm will prepare a detailed work plan in close engagement with the IDB team and national stakeholders covering working session schedules with the national stakeholders and their partners to discuss progress, issues, and resources needed.
- **4.2. Baseline Information Collection.** The Firm will collect baseline information and gap analysis of current electricity sector recovery mechanisms in the Caribbean in coordination with IDB team and regional stakeholders.
- **4.3. Sector Recovery Mechanisms Gap Analysis.** The Firm will develop a gap analysis of current mechanisms and identify key actions for improvement.



- **4.4.** Identification of opportunities and barriers. The Firm will assess the opportunities and barriers for electric utilities and national governments to access finance for recovery and repair of electric system components, as well as identifying gaps regional financial system and propose specific actions for closing them.
- **4.5.** Access to finance Assessment. The Firm will assess the access to finance for electric system repair and recovery and proposals to close current gaps in the regional financial system.
- **4.6. Ready-to-Bid Procurement Packages.** The Firm will further develop ready-to-bid procurement packages for equipment, works and services for all participating countries by assessing the procurement rules and processes for the electricity sector in the selected Caribbean Island states.
- **4.7. Technical Compatibility Assessment.** The Firm will assess the technical compatibility of supplies and equipment for electricity service recovery to harmonize procurement packages to the extent possible.

## 5. Deliverables

- 5.1. Work plan with schedule and details of activities (activity 4.1)
- 5.2. Gap analysis of sector recovery mechanisms report (activities 4.2 and 4.3)
- 5.3. Assessment and proposal for access to repair and recovery finance (activities 4.4 and 4.5)
- 5.4. Ready-to-bid procurement packages (activities 4.7 and 4.6)

#### 6. **Project Schedule and Milestones**

		Months													
Deliverables	1	2	3	4	5	6	7	8	9	10	11	12			
Deliverable 1: Work plan															
Deliverable 2: Gap analysis of sector recovery mechanisms report															
Deliverable 3: Assessment and proposal for access to repair and recovery finance															
Deliverable 4: Ready-to-bid procurement packages															

#### 7. <u>Reporting Requirements</u>

- 7.7. All documents must be submitted in Microsoft Word, in an editable file, including Executive Summary, annexes, spreadsheets in Microsoft Excel, and other relevant material, in English.
- 7.8. Presentations must be submitted in Microsoft PowerPoint.

#### 8. Acceptance Criteria

- **8.7.** The deliverables will be accepted for payment once they have the written approval of the IDB team.
- 8.8. Partial deliverables, or deliverables that are not accepted, will not be paid.

#### 9. Consulting Firm and Team Requirements

- 9.1. Work team. The Firm shall provide a work team with minimum the following key criteria:
  - Project Manager. Degree in engineering, economics, or related areas. At least 10 years of general experience, five (5) years of experience in project management for the energy sector. Experience in Latin America and the Caribbean is desirable.
  - Specialist in the energy sector. Degree in engineering or related areas, with a master's or doctorate in energy planning, energy economics, or related subjects. With the specific experience of at least ten (10) years in structuring and evaluating projects in the energy



sector with an emphasis on new technologies.

- 9.2. Language requirements:
  - English and Spanish speaking personnel.

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- **12.2.** The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule							
Deliverable	%						
1. Deliverable 1: Work plan	10%						
2. Deliverable 2: Gap Analysis Report	25%						
3. Deliverable 3: Assessment and proposal for	30%						
access to repair and recovery finance							
4. Deliverable 4: Ready-to-bid procurement	35%						
packages							
TOTAL	100%						



Upgrading of pooled procurement and parametric insurance mechanisms for electric utilities in the Caribbean

Regional P005 RG-T4623 [Web link to approved document] Resiliency of power infrastructure and response preparedness for energy service restoration

## 1. Background and Justification

- 1.1. The Sustainable Infrastructure Programme (UKSIP) is an up to £175 million programme designed to provide a combination of concessional capital funding and technical assistance to focus on sustainable low carbon infrastructure, adaptation and resilience-focused activities, and nature positive activities, in Brazil, Colombia, Mexico, Peru, Haiti, Belize, Dominican Republic, Jamaica, Suriname, Guyana, The Bahamas, Barbados, Trinidad and Tobago, Honduras, El Salvador, Guatemala, Costa Rica, Nicaragua, and Panama. UKSIP is funded by the British Government and is administered by the Inter-American Development Bank (IDB). The purpose of the programme is to accelerate and enable the implementation of Nationally Determined Contributions (NDCs) in Latin America by supporting and catalysing strategic private sector investments in sustainable, low-carbon infrastructure through its operations in Beneficiary Countries.
- 1.2. The Caribbean hosts some of the most vulnerable nations in the world in terms of climate related disasters. In 2023, the Atlantic basin saw 20 named storms. This type of events can affect the ability of countries to invest in infrastructure and social programs. Moreover, it is estimated that they would need to replace their infrastructure capital stock in full, on average, every 50 years due to climate related events. The Caribbean energy sector is no exception to the potential crippling effects of natural disasters such as hurricanes/storms, which puts a severe burden to the already constrained fiscal spaces in most countries.
- **1.3.** The Caribbean Electric Utility Services Corporation (CARILEC) Disaster Assistance Program (CDAP) provides joint manpower assistance (e.g. lineworkers) to electric utilities that suffer damage due to disaster. Member Utilities make an annual contribution to the CDAP fund and the CARILEC Secretariat manages the fund. The Secretariat collaborates with member utilities requesting assistance and those aiding. An initiative for pooled procurement of equipment was recommended at CARILEC's Engineering and Procurement Conference 2023. This entails the development of a detailed business model, including legal, logistical, technical, financial, warranty, and supply chain aspects. To be effective, pooled procurement shall benefit from technical compatibility of supplies and equipment across member utilities, which is a strong argument for regional standardisation.
- 1.4. The Caribbean Catastrophe Risk Insurance Facility Segregated Portfolio Company (CCRIF SPC) was formed in 2007 as the first multi-country risk pool in the world. CCRIF SPC limits the financial impact of natural hazard events to Caribbean and Central American governments by offering parametric insurance policies for tropical cyclones, earthquakes, excess rainfall, the fisheries sector and the electric and water utilities sectors. Currently, only three electric utilities have joined CCRIF.

# 2. Objectives



**2.1.** The objective is to develop and enhance pooled procurement and parametric insurance mechanisms for electric utilities in the Caribbean.

#### 3. Scope of Services

**3.1.** The Firm will provide support and closely coordinate with CCRIF, CARILEC, and national utilities on pooled procurement and parametric insurance.

# 4. Key Activities

- **4.1. Work plan**. The Firm will prepare a detailed work plan in close engagement with the IDB team and national stakeholders covering communication protocols, information sources, meeting schedule, detailed activity planning.
- **4.2. Insurance and mutual assistance systems gap analysis.** The Firm will assess the status of existing insurance and mutual assistance systems (e.g. CCRIF and CDAP).
- **4.3. Identification of areas of improvement.** The Firm will identify specific actions for improvement of the systems.
- **4.4.** Assessment of technical standards. The Firm will assess the technical standards for prioritized equipment and supplies for pooled procurement.
- **4.5. Identification of harmonization.** The Firm will identify opportunities for harmonization of the technical standards.
- **4.6. Market analysis.** The Firm will carry out an analysis of relevant electricity sector equipment in the Caribbean.
- **4.7. Value chain assessment.** The Firm will prepare an assessment of current supply chains and market shares of suppliers in the Caribbean.

#### 5. **Deliverables**

- 5.1. Work plan with schedule and details of activities (activity 4.1)
- 5.2. Gap Analysis (activities 4.2 and 4.3)
- 5.3. Assessment and Opportunities for Harmonization report (activities 4.4 and 4.5)
- 5.4. Market analysis and value chain assessment (activities 4.6 and 4.7)

#### 6. Project Schedule and Milestones

		Months													
Deliverables	1	2	3	4	5	6	7	8	9	10	11	12			
Deliverable 1: Work plan															
Deliverable 2: Gap Analysis															
Deliverable 3: Assessment and Opportunities for Harmonization report															
Deliverable 4: Market analysis and value chain assessment															

#### 7. <u>Reporting Requirements</u>

**7.9.** All documents must be submitted in Microsoft Word, in an editable file, including Executive Summary, annexes, spreadsheets in Microsoft Excel, and other relevant material, in English.

7.10. Presentations must be submitted in Microsoft PowerPoint.

#### 8. Acceptance Criteria

**8.9.** The deliverables will be accepted for payment once they have the written approval of the IDB team.



**8.10.** Partial deliverables, or deliverables that are not accepted, will not be paid.

# 9. Consulting Firm and Team Requirements

- 9.1. Work team. The Firm shall provide a work team with minimum the following key criteria:
  - Project Manager. Degree in engineering, economics, or related areas. At least 10 years of general experience, five (5) years of experience in project management for the energy sector. Experience in Latin America and the Caribbean is desirable.
  - Specialist in the energy sector. Degree in engineering or related areas, with a master's or doctorate in energy planning, energy economics, or related subjects. With the specific experience of at least ten (10) years in structuring and evaluating projects in the energy sector with an emphasis on new technologies.
- 9.2. Language requirements:
  - English and Spanish speaking personnel.

## 10. Other Requirements

**10.1.** All information shared with the consultancy will be considered confidential. The consultancy may not disclose to third parties any product of this consultancy, without the express consent of the IDB, in writing.

## 11. Supervision and Reporting

**11.1.** The Energy Division (INE/ENE) will have the technical responsibility for the execution of this contract as well as approval of products prepared by the Firm. In representation of the IDBG, the technical coordination for this consultancy rests with Roberto Gabriel Aiello (INE/ENE) who will act as Team Leader, supervising the products presented, and sharing comments to improve their quality.

- **12.1.** Payment terms will be based on project milestones or deliverables. 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.
- **12.2.** The IDB Official Exchange Rate indicated in the RFP will be applied for necessary conversions of local currency payments.

Payment Schedule							
Deliverable	%						
1. Deliverable 1: Work plan	10%						
2. Deliverable 2: Gap Analysis	30%						
3. Deliverable 3: Assessment and Opportunities for Harmonization report	30%						
4. Deliverable 4: Market analysis and value chain assessment	40%						
TOTAL	100%						

Consultant for Leading the implementation of Resiliency of Power Infrastructure and Response Preparedness for Energy Service Restoration. Component III: Project coordination and execution support.

# Post of Duty: Remote

The IDB Group is a community of diverse, versatile, and passionate people who come together on a journey to improve lives in Latin America and the Caribbean. Our people find purpose and do what they love in an inclusive, collaborative, agile, and rewarding environment.

# About this position

We are looking for a consultant with experience in the energy sector to knowledge of the Caribbean resiliency of power and response preparedness to provide outputs for Component III of the TC "Project coordination and execution support.".

The Energy Division (INE/ENE) of the Inter-American Development Bank (IDB) is a functional division of the Infrastructure and Energy Sector (INE/INE), under the Vice Presidency of Sectors and Knowledge (VPS/VPS), which supports and develops knowledge in the energy sector in Latin America and the Caribbean (LAC). INE/ENE is responsible for the development of technical analysis, identification and preparation of programs, projects, technical cooperation, studies, and sectoral notes in the energy sector.

*The Sustainable Infrastructure Programme (UKSIP) is an up to* £175 million programme designed to provide a combination of concessional capital funding and technical assistance to focus on sustainable low carbon infrastructure, adaptation and resilience-focused activities, and nature positive activities, in Brazil, Colombia, Mexico, Peru, Haiti, Belize, Dominican Republic, Jamaica, Suriname, Guyana, The Bahamas, Barbados, Trinidad and Tobago, Honduras, El Salvador, Guatemala, Costa Rica, Nicaragua, and Panama. UKSIP is funded by the British Government and is administered by the Inter-American Development Bank (IDB). The purpose of the programme is to accelerate and enable the implementation of Nationally Determined Contributions (NDCs) in Latin America by supporting and catalysing strategic private sector investments in sustainable, low-carbon infrastructure through its operations in Beneficiary Countries.

The Caribbean hosts some of the most vulnerable nations in the world in terms of climate related disasters. In 2023, the Atlantic basin saw 20 named storms. This type of events can affect the ability of countries to invest in infrastructure and social programs. Moreover, it is estimated that they would need to replace their infrastructure capital stock in full, on average, every 50 years due to climate related events. The Caribbean energy sector is no exception to the potential crippling effects of natural disasters such as hurricanes/storms, which puts a severe burden to the already constrained fiscal spaces in most countries.

# What you'll do:

- a. Coordinate the TC efforts on resiliency for the power sector in the Caribbean and support the execution of its work plan:
  - Support beneficiary countries and teams to conduct the needs identification process, including scheduling process, country workshop organization and follow-up activities.

- Prepare the minutes and documents that synthesize workshops and meetings results, identifying common themes presented by the different institutions and the main conclusions.
- Take part in the workshop and meeting sessions in person or virtually, according to the event format.
- After the workshops and meetings, support countries and agencies representatives to define a collaborative workplan including description of the scope of the technical support, schedule, participant institutions and personnel; and follow up the agencies technical support progress.

# **Deliverables and Payments Timeline:**

- Deliverable 1: Work plan of the consultancy
- Deliverable 2: Progress Report. Executive report that summarizes the progress of all the activities developed under the initiative. The report must include as annexes documents, technical reports, workshop materials elaborated.
- Deliverable 3: Final Report. Executive report that summarizes the progress of all the activities developed under the initiative. The report must include as annexes documents, technical reports, workshop materials elaborated, and lessons learned analysis. All deliverables will be accompanied by an internal presentation to the Bank. Presentations and deliverables will be in Spanish or English.

Deliverable #	Percentage	Planned Date to Submit
Deliverable 1	25%	10 days after signing contract
Deliverable 2	45%	133 days after signing contract
Deliverable 3	30%	255 days after signing contract

• For this consultancy, future trips are planned.

# What you'll need

**Education:** Advanced degree in Climate Finance, Environmental Policy, Economics, International Development, or a related field.

Experience: At least 10 years of experience on related topics

**Languages:** Proficiency in Spanish and English, spoken and written, is required. Additional knowledge of French and Portuguese is preferable.

# <u>Key skills</u>:

- Learn continuously.
- Collaborate and share knowledge.
- Focus on clients.
- Communicate and influence.

• Innovate and try new things.

# **Requirements:**

- **Citizenship:** You are a citizen of one of our 48-member countries.
- **Consanguinity**: You have no family members (up to the fourth degree of consanguinity and second degree of affinity, including spouse) working at the IDB, IDB Invest, or IDB Lab.

# Type of contract and duration:

- Type of contract: Products and External Services Consultant (PEC), Lump Sum
- Length of contract: 12 months
- Work Location: Remote.

# What we offer

The IDB group provides benefits that respond to the different needs and moments of an employee's life. These benefits include:

- A competitive compensation package.
- A flexible way of working. You will be evaluated by deliverable.

# Our culture

At the IDB Group we work so everyone brings their best and authentic selves to work, willing to try new approaches without fear, and where they are accountable and rewarded for their actions.

Diversity, Equity, Inclusion and Belonging (DEIB) are at the center of our organization. We celebrate all dimensions of diversity and encourage women, LGBTQ+ people, persons with disabilities, Afro-descendants, and Indigenous people to apply.

We will ensure that individuals with disabilities are provided reasonable accommodation to participate in the job interview process. If you are a qualified candidate with a disability, please e-mail us at <u>diversity@iadb.org</u> to request reasonable accommodation to complete this application.

# Our Human Resources Team reviews carefully every application.

# About the IDB Group

The IDB Group, composed of the Inter-American Development Bank (IDB), IDB Invest, and the IDB Lab offers flexible financing solutions to its member countries to finance economic and social development through lending and grants to public and private entities in Latin America and the Caribbean.

# About IDB

We work to improve lives in Latin America and the Caribbean. Through financial and technical support for countries working to reduce poverty and inequality, we help improve health and education and advance infrastructure. Our aim is to achieve development in a sustainable, climate-friendly way. With a history dating back to 1959, today we are the leading source of development financing for Latin America and the Caribbean. We provide loans, grants, and

# ANNEX A

technical assistance; and we conduct extensive research. We maintain a strong commitment to achieving measurable results and the highest standards of integrity, transparency, and accountability.

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