

Terms of Reference

Anguilla National Planning Activities

Integrated Resource and Resilience Plan, Cost of Service, and National Energy Policy (IRRP, CoS, NEP)

1. Background and Justification

Small-island-developing countries such as Anguilla have been exposed to a higher level of threats from the climate crisis due largely to the emissions from larger developed nations. Nonetheless, there are many potential benefits to be achieved from low-carbon energy transition. For example, the potential adoption of solar PV not only reduces energy costs by 30% - 50% but lessens the exposure of vulnerable countries like Anguilla to the negative and costly implications of geopolitical events such as the current Russia-Ukraine crisis. It is therefore critical that small-island nations such as Anguilla, be supported in their energy transition towards increased resiliency to climate change and other external threats.

Anguilla's vision for energy independence is described in The Anguilla National Energy Policy (NEP). The NEP prioritizes the ability of the island to meet its vital energy needs with reliable, affordable, and renewable energy resources. However, economic growth in Anguilla has stagnated over the last two decades due to several external and environmental shocks. In 2015, just as Anguilla's economy began to emerge out of the shadows of the devastating 2008 global financial crisis that led to the closure of two prominent local banks, the island was devastated by Hurricane Irma. Irma was rated as the most catastrophic storm to hit the region, and the impact on Anguilla was no exception. With widening fiscal challenges and increasing debt, the prospects of an economic recovery were once again interrupted by the onset of the Covid-19 global pandemic that caused the closure of Anguilla's borders for most of 2020. Compounding the economic fallout from the border closures, the ongoing supply chain challenges (inflation) and recent geopolitical crises have created constraints in oil supply. This has led to a significant spike in energy costs through an increased fuel surcharge (from US\$0.01/kWh to US\$0.17/kWh). Given that fossil fuels supply almost 100% (US\$31 million) of the island's electricity generation and transportation sectors, this has created a stranglehold on the local economy.

Irma wreaked havoc on the country's energy sector, wiping out over 60% of its transmission and distribution infrastructure, along with the complete shutdown of



the island's economy. The damage from Hurricane Irma wiped out 100% of Anguilla's gross domestic product (GDP) and resulted in over US\$12 million in lost sales and property damage to the electricity company. Further complicating these realities, Anguilla faces a real threat of more frequent and devastating storms like Hurricane Irma. With more frequent and intense storms predicted, the need for Anguilla to build a more resilient economy that reduces the impact of external geopolitical, climate, and other shocks is more urgent than ever before. Anguilla must build a self-sufficient and sustainable infrastructure.

The broad goals established in the NEP did not establish energy targets or establish a detailed pathway for energy transformation. As a result, other than the development of ANGLEC's now destroyed 1.1-megawatt solar farm, limited action has been taken over the past 10 years. Since the destruction of its solar farm by Hurricane Irma in 2017, the company has planned to rebuild the project using more suitable technologies and construction standards. The Integrated Resource and Resilience Plan (IRRP) intends not only to build upon the work of the National Energy Policy and other former studies but will provide a guide for Anguilla and ANGLEC to pursue more resilient renewable energy projects.

The first part of the IRRP is typically an Expansion Planning Model; a comprehensive utility planning exercise that integrates supply-side and demand-side options to develop a long-term preferred resource plan for the utility. The resulting resource plan would act as a road map to guide the utility's strategy for meeting its long-term resource needs such as future customer demand, peak demand, and a reserve margin while minimizing future costs of meeting its energy requirements and considering the impact on the utility, government, and society. Accordingly, the resulting resource plan and strategy should increase the system's ability to withstand and/or recover from uncertain, *but significant*, disruptions while keeping resource costs at a minimum. Integrated Resource and Resilience Planning (IRRP) enhances the Expansion Plan process by considering and embedding climate and climate-related disaster risks into the conventional Expansion Plan risk model, which is typically limited to economic, socio-economic, and political risks.

Apart from addressing the vulnerability of the energy system to climate and disaster risks, the IRRP can (and is expected to) simultaneously help to improve the resilience of entire societies. The IRRP is therefore informative, multidirectional, and actionable, and will provide the utility, independent power producers, and other key sector operatives with sufficient intelligence and flexibility to effectively accommodate a range of future uncertainties. During the development of the Plan, all relevant Stakeholders, especially the electric utility, electricity sector regulator, responsible Ministries for energy and related sectors, civil society groups, universities, and other nonstate actors will be involved.

Once the IRRP is developed, the National Energy Policy will require updating with actionable recommendations derived from the IRRP process, accounting for

changes in Anguillan Government's goals, energy policies, and strategy. Similar to the IRRP, all relevant Stakeholders will be involved.

In 2019, a draft Cost-of-Service study was carried out to analyze the allocation of costs across ANGLEC's different customer classes to ensure appropriate rate design and fair cost recovery. Given the new IRRP and NEP updates, the Cost-of-Service study also requires updating to account for changes.

2. Objectives

The overarching objective of this consultancy is to increase the integration of, and investment in, renewable energy and energy-efficient technologies in the electricity sector in Anguilla.

The specific objectives are:

1. The development of long-term (25-year) Preferred Expansion Plans that consider a full range of techno-economically feasible supply-side and demand-side options. In general, the scenarios considered should be linked to the national energy and development strategies and enable the country to improve energy security, meet future resource requirements, and increase system and network resilience while enhancing environmental and other sustainability issues in a cost-effective and reliable manner across a reasonable range of foreseeable futures (see Output 1).
2. The development of Action Plans detailing the major tasks that are required of ANGLEC to implement "least-regrets" strategies, aligned with the preferred resource, including energy efficiency, options during the first five years of the planning horizon (see Output 1).
3. Strengthen the engagement of decision-makers included in the expansion planning process (national electric utilities, regulatory agencies with responsibility for the electricity sector, government ministries, and agencies with the mandate for energy policy and legislation), to develop, identify, and map national strategies for generation expansion/modernization, as well as long-term linkages between the electricity sub-sector and sustainable energy development/national development in general (see Outputs 1 and 2).
4. The development of an updated Cost-of-Service study that informs the financial stability of ANGLEC whilst accounting for the goals and targets set within the Action Plan and IRRP (See Output 3)
5. The development of an updated National Energy Policy that clearly articulates the energy transition pathway for Anguilla, with attention to public awareness of its plans and actions. It should further act as a mechanism to encourage and incentivize the use of renewable energy, the importance of energy efficiency, as well as IRRP goals, opportunities, and outcomes (see Outputs 2 and 4)

The awarded Consultancy Team will perform the activities below in line with the four components highlighted in order to achieve the overall objective:

Outputs	Activities
<p>Output 1: Expansion Plan and Technical Assessments</p> <p>The development of an Integrated Resilience and Resource Plan (IRRP) with an Expansion Plan and Action Plan for the near, medium, and long term (through 2050) and presented to the Executive Council.</p>	<ul style="list-style-type: none"> • Energy Demand Forecasting • Demand Resource Assessments • Supply Resource Assessments • Scenario Development and Analysis • Climate Vulnerability Assessments • Risk Assessments and Disaster Resiliency Plan
<p>Output 2: Action Plan, Knowledge Transfer, and Final IRRP</p> <p>Support towards knowledge transfer and awareness building, in regard to the goals, objectives, and actions within the IRRP, including the contribution of the plans to the national energy and development strategies of Anguilla.</p>	<ul style="list-style-type: none"> • Presentation of results • Stakeholder Engagement • Knowledge transfer and capacity building
<p>Output 3: Cost-of-Service Study Update</p> <p>The provision of a Cost-of-Service study utilizing outcomes of the IRRP, building on the 2019 draft Cost-of-Service Study.</p>	<ul style="list-style-type: none"> • Asset and cost classification • Revenue requirements • Creation and presentation of the updated study
<p>Output 4: National Energy Policy (NEP) update</p> <p>The provision of an updated National Energy Policy (NEP) prepared using the outcomes of the IRRP, to influence policy and strategy for the power sector and presented to the Executive Council.</p>	<ul style="list-style-type: none"> • 15-year energy transition plan • Revision of NEP

Coordination and Task Structure

The overall coordination of the activities across all outputs will be done by the Project Manager, who will ensure the alignment of the outputs with the scope of work to be carried out under this assignment.

3. Scope of Work

Key Activities

3.1 The development of an Integrated Resilience and Resource Plan (IRRP) with an Expansion Plan and Action Plan

The first part of the IRRP process will involve an Expansion Plan, considering a Planning Horizon (**2023-2050**). The primary steps of the IRRP process are:

1. The establishment of evaluation criteria for supply-side and demand-side options
2. The development of assumptions for the inputs used within various scenarios under consideration
3. The evaluation of multiple scenarios, utilizing the criteria established above
4. The development of a Climate Vulnerability Assessment to inform 'least regrets' scenario
5. The selection of the preferred resource and Action Plan.
6. The preparation of final Plans and IRRP

The consulting team should seek to provide alternate options to each Preferred Resource and Action Plan. From time to time, iterations may be required in-between steps, on the basis of preliminary feedback provided by the Project Manager.

Establishment of evaluation criteria for supply-side and demand-side options, and the development of assumptions for inputs used within various scenarios

- Establishment of goals and strategic objectives, through consultation with, and agreement among the major parties (applicable Governmental entities, ANGLEC, stakeholders).
- Identification of the major assumptions that will serve as inputs for the evaluation and selection of the preferred Expansion Plan.
- Development of projections of the most probable values for each major input assumption (baseline projections) over the planning horizon, as well as projections of high and low values of the assumptions over the same planning horizon. The major input assumptions should include but are not limited to the following:
 - Electricity demand forecast scenarios for a range of future supply requirements for meeting the evaluation criteria established. An econometric model (or other relevant model) will be developed to forecast electricity demand for the different customer classes and for the system. This will include predictions for future electricity customer numbers and peak demand. The use of historical electricity sector data, socioeconomic data, economic data, weather data and other information can be considered to develop demand forecast projections under multiple scenarios (baseline, low, and high) for the 25-year planning period. Weather analysis is important

for the production of RE. Through this, consumption profiles should be created over several days in terms of the efficient use of the renewable resources. The required data could be provided by the Caribbean Institute for Meteorology & Hydrology (CIMH).

- Operating, capital, and financial assumptions over the range of the planning horizon, in collaboration with and verified with Stakeholders.
- Supply Side Analysis - The Consultancy firm will provide a summary of cost and performance parameters for existing and potential supply-side resources and options. This should include, among other measures for comparison and analysis, the Levelized Cost of Energy (LCOE) range, capital costs, and operating and fuel expenses (where applicable) for each resource. The analysis should include climate resilience aspects. This would provide preliminary information on individual resources and would help inform the selection of scenarios for further modeling. Potential supply-side technologies will be evaluated based on:
 - i. commercial/technical viability
 - ii. system stability and reliability
 - iii. cost, with a focus on predictability
 - iv. changeability (degree of hardening of generation where resources are firmly established and reinforced or degree of modularity where resources are flexible, adjustable, and versatile)

Supply-side assessment will include:

- i. Optimization of existing generation
 - ii. Conventional liquid fuel generation
 - iii. Natural gas-fired generation
 - iv. Renewables
 - v. Energy Storage
 - vi. Storage enhancements to existing hydro facilities
 - vii. Distributed Generation
- Demand Side Analysis - Demand-Side Management (DSM) potential assessment should be undertaken to forecast the potential for energy savings over the planning horizon. The role and approach of DSM initiatives in the future, particularly those DSM initiatives reported in policy and/or regulatory/legislative framework will be examined during this process to develop assumptions for the estimated reduction in energy demand, the opportunities for DSM to contribute to load shaping and the optimal levels of DSM for different system conditions.

The avoided costs of DSM and the methodology for calculating the avoided costs should be done by the Consultancy Firm in their analysis with the involvement of the major parties. Consideration should be given to the potential impact of, and role for, electrification within the transport sector, as well as non-electrical energy services, such as solar thermal heating and cooling.
 - Scenario Development and Analysis – Using the results of the supply- and demand-side analyses, a set of scenarios will be developed to test various

energy mixes and implications on the electricity system. This will include expansion planning for the size and timing of new resource additions in each scenario, dispatch analysis to ensure that each scenario meets load requirements per the demand forecast and analysis of the performance of each scenario against the agreed-upon priorities.

- Transmission and Distribution System Analysis - The Distribution system should be analyzed to determine the potential distribution system impacts under each scenario to uphold and increase system reliability from the technical side. The Consultancy firm should:
 - i. Assess the capability of the existing distribution system – Perform distribution load flow and capacity expansion analysis; Determine system improvements to meet load growth and reliability.
 - ii. Perform long-term (5-year) system capability assessment – Include expected resource and infrastructure; evaluate capacity expansion impacts per each scenario; system improvements to meet load growth and reliability.
 - iii. Employ scenario analysis to assess the resiliency of Distribution system – Determine incremental system improvements for a resilient system
- Local environmental regulations and global climate commitments, as applicable.
- Renewable Portfolio Standards, as applicable.
- Sensitivity Analysis will be conducted to address the uncertainty related to assumptions used in the Expansion Plan process.
- Examination of the proposed timing of plant retirements and the potential impacts of “stranded assets”, as far as possible.

The evaluation of multiple scenarios, utilizing the criteria established above

- Perform a screening analysis to determine the alternatives to be evaluated further in the Expansion Plan Process, and those to be removed from further consideration. The effects of resource options on overall system costs may work in synergy or there may be benefits difficult to discern or quantify at the stage of screening analysis, therefore, this step should aim for inclusivity and technology neutrality to avoid the untimely rejection of options.
- Evaluate resource plans against established criteria to determine the preferred Expansion Plan. Several resource plans should be developed based on the screening analysis done of supply-side and demand-side options. Potential energy scenarios will be evaluated against metrics established in the first phase of the process and in relation to the shared priorities (goals) established by the major parties (utility, technical experts within government, and the regulatory agency). Lead by the Consultancy Firm, the parties will jointly test several alternative approaches to achieving the shared goals and objectives, including the energy and financial impact. The scenarios should be differentiated and should examine a range of uncertainties and test options that are evaluated against top level goals using the agreed metrics.

- Identify key uncertainties, including but not limited to sales and fuel price projections and demand-side risks, and perform sensitivity analysis to determine the effect of realistic variations in input assumptions and to test plan robustness. Sensitivities will be identified against which the resource plans will be assessed. Lead by the Consultancy Firm, the major parties will review the assumptions and the capacity of the recommended plans to withstand changes to assumptions/a single varying input across a reasonable range will be tested, effectively testing the robustness of the plans. The Stakeholders will agree on and provide the Consultancy firm with critical parameters for the sensitivity analysis at the kick-off workshop.
- The results of the sensitivity analysis may lead to more detailed analysis of some assumption values, developed previously in the second step.

The development of a Climate Vulnerability Assessment to inform 'least regrets' scenario

The Climate and Vulnerability Assessment is aimed at, amongst other things, the identification and quantification of hydro-meteorological risks to the systems scenarios, including the grid configurations, provided by the Consultancy Firm. The tasks for this include, and are not limited to:

- Determination of the historical trends for the occurrence and impact of hydro-meteorological events within the participating countries. The trend analysis will be done for a minimum of 25 years [1996-2021].
- Determination of the projected impact of weather and climate variability on energy service demand, demand response scenarios and supply resources. Specifically, the assessment will utilize a self-consistency approach to determine, amongst other things, for the normative scenarios developed within the Expansion Plans: (a) uncertainties in the availability of resources, to include the increased seasonal variability and long-term trends in (especially renewable) resource available; (b) uncertainties in the demand forecast; (c) threats posed by the projected catastrophes from short-duration weather extremities; and (d) long-term risks from climate change (or slow onset events, such as temperature rise).
- Determination of the constraints and priority metrics, through which the scenarios will be measured. The expectation is that attention will be paid to the reliability, affordability, security (in supply and pricing), resilience to the possible impacts of climate-change (including climate-related disasters), and climate abatement potential.
- Based on the assessments conducted during the Expansion Planning, establishing the baseline situation, through a comprehensive, fact-based knowledge exchange process that allows the key stakeholders to reach agreement on the state of the existing system – conventional and renewable supply options, including their current costs, cost trajectories, and risks. This

“baseline determination” will also summarize high potential energy efficiency opportunities, as well as provide insights on technical issues of integration, upgrades required, and potential operational challenges that need to be addressed. Key stakeholders and knowledge brokers will be convened as part of the initial steps of the planning processes, which is expected to identify key knowledge needs and gaps, as well as identify and determine any new studies that may be required; in particular, attention is expected to be paid to transmission and distribution system expansion.

- Manage and lead stakeholder considerations for a ‘spectrum’ of energy supply, demand reduction, transmission, and distribution options derived from earlier steps within the Expansion Plan, that will lead to the “least-regrets” pathway for Anguilla. The expectation is that the mapping of major risks associated with the normative scenarios will be utilized to help stakeholders to understand the capacity of the system to withstand or rapidly recover from the possible impacts of climate-change, including climate-related disasters, and to reach agreement on what each group is prepared to do to meet the future energy needs of the country.
- Consolidate the least-regrets options explored into a “least-regrets” scenario, consistent with any issues that were raised and resolved during the stakeholder engagements, as well as manage the validation of the strategy developed by key stakeholders, thereby ensuring that their respective requirements are met, as far as possible.
- On the basis of the “least-regrets” scenario, develop and validate the Integrated Resource and Resilience Plan, through the appropriate Consultancy framework. The IRRP will contemplate the Strategy for implementation and the utility business model that is necessary to support same.

The selection of the Preferred Resource Plan and Action Plan

- Select preferred Expansion Plan and develop an Action and Investment Plan detailing short-term actions (3 to 5 years), as well as major tasks required to meet demand projections, regulatory requirements and implementation of a least-cost strategy that aligns with the preferred Expansion Plan during the first five years of the planning horizon.
- Identify avoided-cost benchmarks for firm and non-firm power.
- Prepare draft Expansion Plan Report with recommendations and Action Plan and submit consideration and review by the primary stakeholders.
- Prepare final Expansion Plan Report, with recommendations, and the proposed Action Plan for completing the IRRP, through collaboration with the appropriate national authority for energy planning, pursuant to the respective national regulations.
- As far as possible, provide further iterations of the scenarios that are necessary for development of the “least-regrets” pathway and the IRRP.

The preparation of final Plans and IRRP

The final expansion plan with action plan should include the following sections:

- Background/Process Overview
- Stakeholder engagement process
- Goals, Strategic Objectives and Criteria for evaluation of various plans
- Load forecast of future supply requirements
- Individual Resource Assessments
- Supply-side and Demand-side Resource Analysis to meet requirements
- Transmission Network Analyses and Distribution System Analyses
- Screening analysis for determination of alternatives
- Sensitivity analysis on plans for testing robustness
- Climate Vulnerability Assessment
- Recommended or Preferred Resource Plan
- Avoided cost of DSM methodology used and results
- Short-term Action Plan and Strategy

Once the IRRP is completed, it will be presented to the Executive Council, and once approved it will be utilized to update the National Energy Policy.

3.2 Support towards knowledge transfer and awareness building, in regard to the goals, objectives, and actions within the IRRP, including the contribution of the plans to the national energy and development strategies of Anguilla.

- The consultant is expected to integrate and support knowledge transfer and awareness building at each stage of this assignment

3.3 Cost-of-Service Study

The Cost-of-Service (CoS) Study needs to be completed through extensive consultation with ANGLEC. The primary cost categories to be covered are the revenue requirements, broken down by capital costs, operation and maintenance costs, and specified return on investment. The cost allocation rules will be broken down as embedded or marginal costs, and the tariff analysis and recommended design will account for rate stability and cost causation. There will be elements of the above contained within the draft 2019 study, and it is recommended to use that as a guide for the development of the updated CoS Study. ANGLEC's participation is instrumental to this work, and the activities required are:

- Utilizing ANGLEC data, identify and define functions of assets within the categories of generation, transmission, distribution, and customer. It might be necessary to consider subcategories, such as assets for reliability and resilience.
- Through consultation with ANGLEC and relevant Government entities, define the customer classes (residential, commercial, industrial, etc.) by the type of end-user, size, voltage, time, and rate of usage.
- Using ANGLEC data and accounts, undergo a cost classification exercise within the categories of demand, energy, and customer classes.
- Assess the level of cross-class subsidization within present rate schedules.
- Determine the return requirements from operating costs and required return, as determined by relevant Government entities and ANGLEC
- Utilizing outputs of the IRRP, define the allocation of revenue requirements to cost centers where the cost is directly attributable, with allocation factors used when the cost is not directly attributable. For cost allocation, assets used individually should be charged individually, and assets used jointly will be covered by contributions from all users. The allocation shall account for, amongst other things:
 - Actual and forecasted load data
 - Energy demand and usage
 - Generation and production accounts
 - Transmission system costs (towers, transmission cabling, etc.)
 - Distribution system costs (substations, poles, transformers, etc.)
 - System capacity requirements for generation, transmission, distribution, and customers
- Perform analysis of the feasibility of three options for the supply rate across the various customer categories. The three options to be considered are a flat rate, time-of-use rate, and dynamic rate.
- Determine recommended rate changes required in line with outcomes of the IRRP.
- Develop and create a report and presentation which will be made to the Executive Council.

3.4 Updating the National Energy Policy

- A full review of the previous NEP shall be undertaken, with an audit and comparison exercise to understand and identify any actions that have been carried out to date. This process will include a review of Anguilla's short- and long-term targets and strategic aims, especially with regard to aspirational goals for both renewable energy usage and greenhouse gas emissions.

- Undergo a benchmarking assessment versus a minimum of two similar countries throughout the globe, with at least one of them within the Caribbean region. One country should be at a similar stage to Anguilla on its decarbonization journey, and the other should be ahead to exhibit aspirational and tangible examples of what can be done through the NEP.
- Consultation with stakeholders on the format, themes, and content of the new NEP, and ascertain if updates are required, or the whole document needs to be recreated.
- Preparation of a draft NEP following stakeholder consultation, incorporating feedback.
- Create or update NEP as determined through previous steps, and present to the Executive Council.
- Creation of an NEP action plan to ensure tangible steps for implementation of the new NEP. This should include, but is not limited to, key Governmental entities and their roles and responsibilities, a breakdown of activities to advance the strategies within the NEP, supporting activities, quick wins (easily implementable steps) and an implementation timeline.
- Development of a monitoring and evaluation plan to track progress of the action plan. This shall include the development of key performance indicators for the various aspects of the NEP, and the identification of milestones with accompanying timeline expectations.

4. Timeframe and Milestones

The implementation of this work is expected to take place over a period of five (5) months. The below is an indicative schedule, with a full project schedule to be provided by the awarded firm upon commencement of the contract.

Task	Deliverable	Deadline
1) Kick-off		
	Indicative schedule	2 weeks prior to kick-off
Kick-off meeting between Consultancy Firm, Project Manager, relevant Government entities	Summary of stakeholder goals, objectives and proposed metrics	T (Q1 2023)
2) Major Input assumptions, data, and analysis		
Characterization of Resources - Review previous resource assessments and other	Summary document outlining relevant resource inputs	T+4(weeks)

<p>related work, consolidate all input information</p> <ul style="list-style-type: none"> - Determine cost, operations, and potential of all relevant sources 		
<p>Supply-side Resource Analysis</p> <ul style="list-style-type: none"> - Techno-Economic and operational characteristics of installed Technologies 	Summary document outlining relevant collected empirical and reference data	T+6
<p>Demand forecast: prepare input assumptions and draft model</p>	Input assumptions, demand forecast model, and document.	T+8
<p>Conceptual Review Meeting</p>	As far as possible review should cover datasets obtained through desk study and collected to date on all aspects of the IRRP. Major gaps should be outlined, and outstanding data needs to be prioritized to facilitate additional collection.	T+9
<p>3) Development and evaluation of potential resource plans</p>		
<p>Define multiple operating scenarios, to be informed by stakeholder engagement, Scenario Analysis Results, and Recommended preferred Capacity</p>	<p>Scenario definition document</p> <p>PLEXOS models, simulation outputs, presentations, and summary documents</p>	T+13
<p>Avoided cost of DSM analysis</p>	avoided costs of DSM, as appropriate	T+15
<p>Transmission Network and Distribution System Analysis</p>	Data and inputs documents, models and simulation outputs, and studies	T+18
<p>Sensitivity Analysis</p> <ul style="list-style-type: none"> - Identify sensitivities and conduct sensitivity analysis based on insights from IRRP process and requests from stakeholders 	At a minimum, six sensitivities are to be determined after initial evaluation and consultation with stakeholders in Anguilla	T+20
<p>4) Preparation of Climate Vulnerability Assessment</p>		
<p>Determine historical trends from at least 25 years of historical data</p>	Output data, relevant studies, and analysis	T+10
<p>Determine the impact of weather and climate events on energy supply and demand</p>	Study on climate event impacts	T+14

Establish baseline situation, present options and risks to stakeholders	Baseline definition document, including risk identification and mitigation	T+18
Create and present “least regrets” scenario	Draft report of vulnerability criteria and climate risk assessment	T+22
Review similar assessments completed within the CARICOM region	Draft report detailing ‘best practices’ recommendations	
5) Preparation of Final Expansion Plan Report and Action Plan		
Draft expansion plan report, short-term action plan & strategy	Draft report and relevant component studies	T+24
Prepare final expansion plan report and short-term action plan & strategy	Final report and relevant component studies PowerPoint Slides, infographics, and other visualization tools, capturing methodology and approach, the main results, and the recommendations Datasets for work conducted	T+27
6) Preparation of Cost-of-Service Study		
Identify and define asset types and customer classes, followed by a cost classification exercise. Also includes an analysis on cross-subsidization	Datasets and a draft report on cross-subsidization	T+20
Determine ANGLEC revenue requirements and carry out a cost allocation exercise across the identified cost centres	A summary document of cost allocations and revenue requirements	T+25
Perform analysis of supply rate options and recommended rate changes	Report on supply rate options and recommendations	T+29
Develop a report and finalized Cost-of-Service study	Report and completed study, which will be presented to the Executive Council	T+31
7) Update of NEP		
Review previous NEP, undergo comparison exercise, and review of strategic aims	Documentation and output analysis on aims and targets	T+28
Benchmarking assessment versus two selected countries	Report on comparison factors and benchmark	T+31
Stakeholder consultation and preparation of draft NEP	Draft NEP document, with stakeholder comment	T+33

Creation of NEP action plan with tangible steps for implementation	Completed new RFP document, and presentation to Executive Council	T+36
Development of a monitoring and evaluation plan for NEP actions	Excel template and accompanying document for tracking against KPIs	T+38

5. Objectives for the Bidder

The bidder must note that the Development of the IRRP will be a transparent and collaborative approach involving the input of multiple stakeholders. Overarching goals, strategic objectives and metrics used to evaluate scenarios for the selection of the preferred resource plan will be determined jointly by the core stakeholders (ANGLEC, technical experts within the government, and the regulatory agency), therefore ensuring stakeholder alignment from the beginning of the process as well as alignment of the preferred Expansion Plan with applicable policy and regulations. The IRRP must include a view to cost minimization of delivering electricity services to supply areas as well as considerations, with the remaining considerations to be determined by the core parties involved. Special attention must be paid to resiliency and the consideration of climate and weather risks to Anguilla. In developing the IRRP the Consultancy firm will:

1. Collaborate openly with ANGLEC and Regulatory Agency with oversight of the electricity services sector, Government Ministry/Agency with responsibility for developing energy policy, and legislative/regulatory frameworks governing the energy sector throughout the process.
2. Engage with the core stakeholders through the sharing, analysis, and evaluation of information, data and assessments (past and current) to support the planning process. The sharing of data and information deemed as confidential, sensitive and/or proprietary will necessitate the signing of non-disclosure agreements with the Consultancy firm and major parties.
3. Set an internal communication strategy during the kickoff or at the onset of the process to establish constant communication between core team members of the core stakeholders to ensure weekly review, feedback and progress for deliverables.
4. Maintain compliance with regulatory and legislative requirements and/or ensure regulatory support is to be provided.
5. Engage with additional stakeholders such as civil society groups, and non-governmental and community-based organizations as part of the stakeholder engagement and public consultation component within the IRRP. Public consultations should be done through a regional institution for information purposes and to solicit feedback, and address questions or concerns of the above groups and members of society.

The bidder is required to interpret the objectives for which it is responsible and to carefully review the terms of reference. Following this, the bidder presents and justifies the strategy with which it intends to achieve the objectives and results for which it is responsible. The relevant instructions/directives and other strategy

directives must be taken into account. Repetition of information contained in the description of the implementation approach is to be avoided.

The bidder is required to present the actors involved in that part of the cooperation system under the bidder's responsibility and to describe their interactions. The bidder must develop a concept showing how cooperation with these actors is to be set up and put into practice.

The bidder is required, possibly based on existing project documents, to describe briefly the key processes for which it is responsible. It is to describe the service delivery processes in such detail that it is possible to present and explain a plan of operations for the tasks and deliverables. In so doing, it must describe the necessary work steps, give due consideration to and, if necessary, suggest and supplement the milestones in accordance with Section 3, and draw up a work breakdown schedule providing further detail of the deconstructed work tasks, duration of time for tasks and responsible team member(s). This may include reasonable suggestions for adjustment and modifications of the proposed activities and tasks based on the professional experience of the Consultancy firm.

The bidder should also outline how the partner contributions can be integrated into the implementation process.

6. Project Management

- The Consultancy Firm is responsible for selecting, preparing, and steering the experts assigned to perform the tasks as indicated in the Scope of Works.
- The Consultancy Firm makes available equipment and supplies (consumables) and assumes the associated operating and administrative costs.
- The Consultancy Firm manages costs and expenditures, accounting processes and invoicing in line with the requirements of the Anguillan Government
- The Consultancy Firm reports regularly to the Project Manager in accordance with the expected terms
- The Consultancy Firm works in close collaboration with relevant Governmental entities, the utility, and other stakeholders

In addition to the reports required by RESEMBID and the Anguillian Government (as outlined in Section 4: Timeframe and Milestones), the Consultancy Firm submits two (2) progress reports throughout the project.

In its bid, the bidder describes its approach to and the procedure it intends to adopt with respect to coordination with and within this project.

The bidder is required to draw up a personnel assignment plan with explanatory notes that list all the experts proposed in the offer; the plan includes information on assignment dates (duration and expert months) and locations of the individual members of the team complete with the allocation of work steps.

The bidder is required to describe its backstopping concept. The positions for technical and administrative backstopping must be supported through informative, brief CVs.

7. Milestones And Payment Schedule

Task #	Payment %
Task 1 – Major Input Assumptions, Data, And Analysis	14%
Task 2 – Resource Plans	16%
Task 3 – Climate Vulnerability Assessment	16%
Task 4 – Final Expansion Plan Report and Action Plan	28%
Task 5 – Cost of Service (Draft & Final)	14%
Task 6 – National Energy Plan (Draft & Final)	12%
Total	100%

8. Qualifications And Experience

The Firm must possess at least:

- The lead at least must possess an advanced degree in environmental science, engineering, or a related field with at least 10 years of experience working in the energy sector and integrated resource and resiliency planning.
- One expert with at least eight (8) professional experiences and track record working in the energy sector and electric utilities.
- One expert with at least Five (5) years of experience with energy transition activities, specifically energy policy, infrastructure, financing, and technology aspects.

A pool of experts with:

- Experience in policy analysis considering sustainable development goal co-benefits and potential negative impacts.
- A background in energy-related matters with a sound knowledge of current regional issues, trends, and perspectives, including a range of policy options and possibilities as it relates to the Caribbean.
- Be fluent in the English Language with excellent analytical and communication skills. The firm must be computer proficient in MS Office Suite.
- The ability to collect and manage data and develop transparent evidence bases supporting and tracking the policies developed.
- Previous experience working with donor and governmental agencies within the Caribbean Region.

Other skills:

- Good communication skills.
- Extensive knowledge of renewable energy and renewable energy technologies
- Previous experience working with medium-sized utilities in the Caribbean.
- The ability to control the consultation process and create a synergy of the group/ subgroups to complete the consultation effectively and efficiently.

Other experts

CVs for experts other than the key experts should not be submitted in the tender. The Consultancy Firm shall select and hire other experts as required according to their needs. The selection procedures used by the Consultancy Firm to select these other experts shall be transparent and shall be based on pre-defined criteria, including professional qualifications, language skills and work experience.

9. Equipment

No equipment is to be purchased on behalf of the Contracting Authority / beneficiary country as part of this service contract or transferred to the Contracting Authority / beneficiary country at the end of this contract.

10. Reports

The Consultancy Firm shall submit to the Project Manager periodic reports in the format prescribed by the Project Coordinators at each milestone deliverable stage.

The Project Manager is responsible for approving the periodic reports at each milestone deliverable stage, in consultation with Project Coordinators in Anguilla.

All Final plans and reports delivered under the contract must receive approval in writing from the Project Coordinators.

Upon conclusion of the project, the Consultancy Firm shall submit to the Project Coordinators one original report of all reports/modules generated from this consultancy, including but not limited to, Inception Report, Draft, and Final report.

11. Monitoring And Evaluation

The indicators against which the Consultancy Firm will be evaluated with respect to its performance include:

- Compliance with the schedule for the submission of reports on the outputs of the project.
- Quality and comprehensiveness of the final draft policy document
- Adherence to established professional standards in clarity of thought, knowledge of the subject, vision, etc.

12. Proposal Format, Delivery, And Deadline

Any suitable format may be used but must include the following items:

1. CVs for each key expert demonstrating Relevant qualifications and experience
2. Consultancy Execution: methodology and proposed work plan

Questions regarding this procurement should be sent by 9 June 2023 to the following:

Ministry of Infrastructure, Communications, Utilities, Housing & Tourism
(MICUHT)

Attn: Melissa Harrigan

melissa.harrigan@gov.ai

Proposals are to be submitted electronically to the following and shall include the subject line "National Planning Activities- Integrated Resource and Resilience Plan, Cost of Service, and National Energy Policy":

melissa.harrigan@gov.ai

karim.hodge@gov.ai

DEADLINE FOR SUBMISSION OF PROPOSALS:

23 June 2023 at 5pm

EVALUATION CRITERIA

The evaluation criteria and weightings that will be applied to this TOR are as follows:

Category	Description	Weighting
1	Qualifications of consultancy firm/team members: i. Advanced university degree in natural science, electrical engineering, renewable energy, or another related field ii. Other relevant certifications	20
3	The overall experience of the team i. Demonstrable, competency-based track record of success working in areas outlined in ToR, supported by references within your application package including contact information ii. Previous experience working with Small Island Developing States (SIDS) in the development of policy for IRRP, NEP, and CoS	40
4	Technical Proposal i. Work plan based on the deliverables	20
5	Overall presentation	10
Total		90