

**REQUEST FOR PROPOSAL FOR-"LOW CARBON TECHNOLOGY APPLICATIONS SPECIALIST" NIUE  
GEF-6 AREAN PROJECT**
**A. Project Title:**

Accelerating renewable energy and energy efficiency applications in Niue (AREAN) Project

**B. Project Description or Context and Background:**

The proposed project will facilitate the application of appropriate policy, institutional, financial, technological and information-oriented options that would enable the removal of the current gaps in the widespread application of EE and RE technologies in the energy sector in Niue that will ultimately also realize the timely achievement of the country's energy roadmap (NiSERM) target. Achieving the %RE electricity target is currently hampered by the grid instability problems when more RE-based power generation units are integrated into the country's utility grid. While actions to address this typical problem in island grids with connected RE-based power generation units are currently being studied and planned, other feasible options such as solar home systems (SHS) for individual houses or decentralized solar PV systems in each village will be explored and implemented. Moreover, addressing the barriers that are hindering the achievement of increased efficiency of utilizing energy in specific end use sectors such as the buildings (government, residential and commercial) and water and waste sectors will result in lower energy (especially electricity) demand. The reduction of energy demand will also contribute to the achievement of the %RE electricity target.

The project focus is on the enhanced application of low carbon technologies, techniques and practices to support Niue's sustainable development, in general, and particularly achieve the country's energy road map target. The project will comprise of components that will specifically address each major type of barrier to the improved efficiency of energy utilization and renewable energy applications to support climate resilient and low carbon development of Niuean communities. Specifically, these components will comprise of interventions to enable energy efficiency applications to reduce energy demand in the major end use sectors, and the facilitation of increased installation of feasible RE-based power generation systems in the country for supporting low carbon development. Each outcome will in general be realized through the implementation of the following major strategies:

1. Formulation, approval and enforcement of appropriate policy and regulatory frameworks in the application of energy efficiency and renewable energy technologies in the major energy end-use sectors
2. Development and implementation of a suitable institutional framework for the effective enforcement of plans, policies, regulations, and implementation of programs/projects, on the application of climate resilient and low carbon technologies in the energy end-use sectors.
3. Facilitation of enabling actions that will lead to increased availability of, and access to, financing for sustainable energy, energy access and low carbon development initiatives in the energy end-

use sectors

4. Development and implementation of cost-effective demonstrations of the application of climate resilient and low carbon technologies, techniques and practices that can be adopted and implemented in the energy end use sectors.
5. Organization and conduct of promotional campaigns and public information, communication and education activities to improve levels of awareness and attitude of the end use sectors towards climate resilient and low carbon development.

### **C. Scope of Work:**

#### **1. OBJECTIVES**

The Low Carbon Technology Applications will be responsible for the design and development of the project activities related to the capacity building, evaluation of technical viability, and showcasing of the identified feasible low carbon technologies.

To realize this objective, the following are the required tasks/responsibilities:

- Conduct of research and provision of technical advice and the relevant data/information needed for the assessment of: (a) baseline %RE electricity; (b) most realistic level of contribution of RE electricity in the national power generation by 2025;
  - Assessment of the comparative features of installed and planned RE-based energy systems (power and non-power applications) in Niue;
  - Evaluation of potential innovation approaches for enhancing the share of RE-based electricity in the national power generation;
  - Estimation of the potential fossil fuel savings and GHG emission reductions from the increased utilization of RE resources in energy generation (power and non-power applications).
- Identification and analysis of barriers to the implementation of RE-based energy systems (power and non-power applications), as well as barriers to current/future opportunities for investments in RE technology applications for productive and social uses;
- Recommendation of potential solutions and how to implement such solutions to the identified barriers, including budget needed;
- Assessment of potential improvements in the current applications of RE and EE technologies in Niue;
- Assessment of the feasibility and implementation of the RE technology applications for energy generation, particularly power generation
- Design of a national program for the promotion of RE and EE technology applications as feasible investment options in the electricity and energy end-use sectors in Niue; including recommendations for feasible information dissemination systems on RE and EE technologies to be promoted under the project;
- Design project activities leading to the introduction of business models for sustainable RE resource production, processing and supply and pricing for RE-based power generation systems;
- Conduct of research and provision of other available data and information that are pertinent in the design of appropriate interventions to reduce if not eliminate the barriers to the cost-effective and reliable applications of RE in the energy generation and RE/EE in the energy end-use sectors.

- Assessment on the feasibility of the establishment and operation of a local RET supply and service provision business in Niue;
- Design of project activities leading to the establishment of businesses (productive and social services) that make use of electricity supplied from RE-based power systems;
- Assist in the design of feasible RE and EE technology application demonstrations to be implemented under the project;
- Estimation of potential energy savings and CO<sub>2</sub> emission reductions (using the GEF prescribed estimation procedures) from the RE and EE technology demonstrations;
- Assist in the design and implementation plans for the replication of demonstrated RE and EE technology application projects, including those mentioned in the NDC of the country; and,
- Provision of assistance in adequately and satisfactorily addressing and responding to the relevant comments raised by GEFSec, GEF Council and STAP on issues pertaining to the applications of feasible RE and EE technology interventions that will be incorporated in the proposed project.
- And any other tasks requested by the Team Leader and GoN.

## 2. OUTPUTS

- Assessment report on the most realistic level of contribution of RE electricity in the national power generation by 2025; including comparative features of installed and planned RE-based energy systems; potential innovation approaches for enhancing the share of RE-based electricity in the national power generation; and potential fossil fuel savings and GHG emission reductions from the increased utilization of RE resources in energy generation.
- Report on the potential solutions and how to implement such solutions to the identified barriers to the achievement of the %RE electricity target of the country, including budget needed.
- Report on the assessment of potential improvements in the current applications of RE and EE technologies in Niue; and design of a national program for the promotion of RE and EE technology applications as feasible investment options in the electricity and energy end-use sectors in Niue; including recommendations for feasible information dissemination systems on RE and EE technologies to be promoted under the project; including design of project activities leading to the introduction of business models for sustainable RE resource production, processing and supply and pricing for RE-based power generation systems, and activities leading to the establishment of businesses (productive and social services) that make use of electricity supplied from RE-based power systems.
- Design of feasible RE and EE technology application demonstrations to be implemented under the project; including the design and implementation plans for the replication of demonstrated RE and EE technology application projects, including those in the NDC of the country.
- Report on the completed consultancy assignment, with recommendations on how future similar consultancy assignments should be carried out.

### **D. Expected Deliverables:**

The key products to be delivered and the estimated duration to completed each of these are as follows;

|  | Deliverable   | Duration (estimated no. of days) |  |
|--|---|----------------------------------|--|
|  | <ul style="list-style-type: none"> <li>Assessment report on the most realistic level of contribution of RE electricity in the national power generation by 2025; including comparative features of installed and planned RE-based energy systems; potential innovation approaches for enhancing the share of RE-based electricity in the national power generation; and potential fossil fuel savings and GHG emission reductions from the increased utilization of RE resources in energy generation.</li> </ul>   | 6                                |  |
|  | <ul style="list-style-type: none"> <li>Report on the potential solutions and how to implement such solutions to the identified barriers to the achievement of the %RE electricity target of the country, including budget needed.</li> </ul>  | 5                                |  |
|  | <ul style="list-style-type: none"> <li>Report on the assessment of potential improvements in the current applications of RE and EE technologies in Niue; and design of a national program for the promotion of RE and EE technology applications as feasible investment options in the electricity and energy end-use sectors in Niue; including recommendations for feasible information dissemination systems on RE and EE technologies to be promoted under the project; including design of project activities leading to the introduction of business models for sustainable RE resource production, processing and supply and pricing for RE-based power generation systems, and activities leading to the</li> </ul> | 8                                |  |

|  |   |         |
|--|---|---------|
|  | establishment of businesses (productive and social services) that make use of electricity supplied from RE-based power systems.   |         |
|  | <ul style="list-style-type: none"> <li>Design of feasible RE and EE technology application demonstrations to be implemented under the project; including the design and implementation plans for the replication of demonstrated RE and EE technology application projects, including those in the NDC of the country.</li> </ul> | 10      |
|  | <ul style="list-style-type: none"> <li>Report on the completed consultancy assignment, with recommendations on how future similar consultancy assignments should be carried out.</li> </ul>   | 1       |
|  | Total   | 30 Days |

The draft versions of the reports shall be submitted as per the bidder's proposed schedule for comments to UNDP. All these shall be with UNDP no later than end **May** 2018. UNDP and the stakeholders will submit comments and suggestions within 15 working days after receiving the draft. The final reports from this consultancy assignment shall be with the PPG Team Leader by **1st week June 2018**. This is to be able to submit the draft project document submitted to UNDP-GEF on or before end June 2018.

If any discrepancies emerge between impressions and findings of the consultant and the concerned parties, these should be explained in an annex attached to the final report.

**E. Institutional Arrangement:**

UNDP Country Office Samoa will lead the project development process and manage the GEF PPG budget in full consultation with the UNDP-GEF Senior Technical Adviser (STA) and the Government of Niue.

As appropriate, a Working Group will guide the GEF PPG team, and review and endorse the GEF PPG deliverables. The Working Group is responsible for ensuring that the deliverables outlined in this specific PPG consultancy assignment are completed on time and in line with UNDP and GEF requirements. The *UNDP MCO Samoa and Niue GEF OFP* will chair the Working Group.

Working Group members will include:

- Director General, Ministry of Natural Resources;
- Director General, Ministry of Infrastructure, Communications, Utilities and Transport;
- Niue GEF OFF;
- Director General, Social Services
- Donor Development Project Manager, Project Management Coordination Unit
- Financial Secretary, Treasury Department and Planning
- Niue Power Corporation
- UNDP (MCO Samoa CCM Focal Point, UNDP-GEF EITT STA)

The Low Carbon Technology Application Specialist is among the members of the GEF PPG team. The other members of the team include the following:

- 1) International Specialist for Project Development (Team Leader)
- 2) International Specialist in Energy Policy and Regulation Development;
- 3) International Specialist in RE and EE Project Financing;
- 4) International Specialist in Electricity Grid Systems Design and Operation;
- 5) International/National Specialist for Gender Analysis.

The Low Carbon Technology Application Specialist shall work under the guidance of the Project Development Specialist in regards the technical work to be done.

#### **F. Duration of the Work:**

The PPG exercise shall be conducted during the period February– December 2018. Particularly for this consultancy assignment, all tasks and deliverables are expected to be completed by 30<sup>th</sup> JUNE 2018.

#### **G. Duty Station:**

Home-based with 1 travel to Alofi, Niue.

#### **H. Competencies:**

##### Technical Work

- Proven experience in low carbon (RE and EE) technologies applications;
- Familiarity with the Global Environment Facility (GEF) and United Nations Framework Convention on Climate Change (UNFCCC) and other similar related international conventions.

Ability to be strategic, creative and proactive in project design and in guiding/advising pertinent GoN entities on the requirements for the cost-effective applications of low carbon technologies in support of the efforts to achieve the NiSERM targets. Familiarity with UNDP and GEF programming policies, templates and requirements for project design especially climate change mitigation.

##### Partnerships

- Maturity and confidence in dealing with senior members of national institutions.
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability.
- Excellent technical writing and written communication skills, with analytic capacity and ability to synthesize relevant collected data and findings for the preparation of quality analysis for the project proposal.
- Excellent coordination skills and result oriented collaboration with colleagues – especially for in this case, the national/state level energy personnel.

### Results

- Promotes the vision, mission, and strategic goals of UNDP.
- Builds strong relationships with clients, focuses on impact and result for the client and responds positively to feedback.
- Good team player with the ability to maintain good relationships.

### • Qualifications and Experience of the Successful Contractor:

The following are the qualifications or attributes for individuals, group of individuals, or entities that may bid for the consultancy assignment:

- Master's degree or higher in a relevant field, such as Engineering, Applied Sciences, Energy technologies, and related subjects
- At least 10 years' experience designing and/or implementing low carbon energy projects in developing countries
- Proven and extensive experience in the conduct of technical studies on energy technologies development and application, assessment of Low Carbon Technologies and design of low carbon technology application projects particularly in small island settings;
- Fluency in written and spoken English
- Proven and extensive international experience in designing and implementing renewable energy and energy efficiency projects.
- Experience in UNDP/GEF CCM project formulation/design
- Knowledge of other donors' including EU, JICA and WB projects and implementation approaches would be an advantage
- Ability to conduct research and analysis
- Highly developed inter-personal, negotiation and teamwork skills, networking aptitude.
- Regional and national knowledge is highly desirable

### **Evaluation criteria: 70% Technical, 30% financial combined weight**

- Master's degree or higher in a relevant field, such as Engineering, Applied Sciences, Energy technologies, and related subjects (15%)
- Proven and extensive international and regional experience in designing and implementing renewable energy and energy efficiency projects (20%)
- Proven and extensive experience in the conduct of technical studies on energy technologies

| development and application, assessment of Low Carbon Technologies and designs of low carbon technology application projects particularly in small island settings; (20%) <ul style="list-style-type: none"> <li>• Experience in UNDP/GEF CCM project formulation/design (10%)</li> <li>• Knowledge of other donors' including GEF, EU, JICA and WB projects and implementation approaches would be an advantage (5%)</li> <li>• Ability to conduct research and analysis on RE and EE technology applications in SIDS (10%)</li> <li>• Highly developed inter-personal, negotiation and teamwork skills, networking aptitude. (10%)</li> <li>• Regional and national knowledge is highly desirable (5%)</li> <li>• Fluency in written and spoken English (5%)</li> </ul>  |               |  |              |               |  |   |    |  |  |    |  |
|--|---------------|--|--------------|---------------|--|---|----|--|--|----|--|
| <b>I. <u>Scope of Bid Price &amp; Schedule of Payments:</u></b> <p>Payments are based upon output, i.e. upon delivery of the services specified in the TOR. The international consultant shall receive payment in seven instalments from UNDP as follows:</p> <table> <tr> <th>DELIVERABLES</th><th>WEIGHTING (%)</th><th>AMOUNT IN USD TO BE PAID AFTER CERTIFICATION BY UNDP AND VERIFICATION BY PMCU - NIUE OF SATISFACTORY PERFORMANCE OF DELIVERABLES</th></tr> <tr> <td>Upon clearance by UNDP-GEF and GoN of Inception Report- to include successful planning and implementation of the first PPG mission, with submission of the realized, actual agenda by the Specialist.</td><td>10</td><td></td></tr> <tr> <td>           Upon clearance by UNDP-GEF and GoN of the first deliverable below;           <ul style="list-style-type: none"> <li>• Assessment report on the most realistic level of contribution of RE electricity in the national power generation by 2025; including comparative features of installed and planned RE-</li> </ul> </td><td>15</td><td></td></tr> </table> |               |  | DELIVERABLES | WEIGHTING (%) | AMOUNT IN USD TO BE PAID AFTER CERTIFICATION BY UNDP AND VERIFICATION BY PMCU - NIUE OF SATISFACTORY PERFORMANCE OF DELIVERABLES | Upon clearance by UNDP-GEF and GoN of Inception Report- to include successful planning and implementation of the first PPG mission, with submission of the realized, actual agenda by the Specialist. | 10 |  | Upon clearance by UNDP-GEF and GoN of the first deliverable below; <ul style="list-style-type: none"> <li>• Assessment report on the most realistic level of contribution of RE electricity in the national power generation by 2025; including comparative features of installed and planned RE-</li> </ul> | 15 |  |
| DELIVERABLES   | WEIGHTING (%) | AMOUNT IN USD TO BE PAID AFTER CERTIFICATION BY UNDP AND VERIFICATION BY PMCU - NIUE OF SATISFACTORY PERFORMANCE OF DELIVERABLES |              |               |  |   |    |  |  |    |  |
| Upon clearance by UNDP-GEF and GoN of Inception Report- to include successful planning and implementation of the first PPG mission, with submission of the realized, actual agenda by the Specialist.  | 10            |  |              |               |  |   |    |  |  |    |  |
| Upon clearance by UNDP-GEF and GoN of the first deliverable below; <ul style="list-style-type: none"> <li>• Assessment report on the most realistic level of contribution of RE electricity in the national power generation by 2025; including comparative features of installed and planned RE-</li> </ul>   | 15            |  |              |               |  |   |    |  |  |    |  |



|  |    |     |  |
|--|----|-----|--|
| based energy systems; potential innovation approaches for enhancing the share of RE-based electricity in the national power generation; and potential fossil fuel savings and GHG emission reductions from the increased utilization of RE resources in energy generation.   |    |     |  |
| Upon clearance by UNDP-GEF and GoN of the second deliverable below; <ul style="list-style-type: none"> <li>Report on the potential solutions and how to implement such solutions to the identified barriers to the achievement of the %RE electricity target of the country, including budget needed.</li> </ul>   | 15 | 20% |  |
| Upon clearance by UNDP-GEF and GoN of the third deliverable below; <ul style="list-style-type: none"> <li>Report on the assessment of potential improvements in the current applications of RE and EE technologies in Niue; and design of a national program for the promotion of RE and EE technology applications as feasible investment options in the electricity and energy end-use sectors in Niue; including recommendations for feasible information dissemination systems on RE and EE technologies to be promoted under the project; including design of project activities leading to the introduction of business models for sustainable RE resource production, processing</li> </ul> | 20 | 20% |  |

|  |      |     |  |
|--|------|-----|--|
| and supply and pricing for RE-based power generation systems, and activities leading to the establishment of businesses (productive and social services) that make use of electricity supplied from RE-based power systems.  |      |     |  |
| Upon clearance by UNDP-GEF and GoN of the forth deliverable below; <ul style="list-style-type: none"> <li>Design of feasible RE and EE technology application demonstrations to be implemented under the project; including the design and implementation plans for the replication of demonstrated RE and EE technology application projects, including those in the NDC of the country.</li> </ul>   | 20   | 30% |  |
| Upon clearance by the PDS of the incorporation of the inputs of the Specialist into the UNDP-GEF AREAN ProDoc that is submitted to the GEFSec.   | 10   |     |  |
| Upon clearance by UNDP-GEF and GoN of the following; <ul style="list-style-type: none"> <li>Report on the completed consultancy assignment, with recommendations on how future similar consultancy assignments should be carried out.</li> </ul>   | 10   |     |  |
|  | 100% |     |  |
| <ul style="list-style-type: none"> <li><b><u>Recommended Presentation of Proposal:</u></b></li> </ul> <p>Given below is the recommended format for submitting your proposal. The following headings with the required details are important. Please use the template available (Letter of Offer to complete financial proposal)</p> <p>CV must be submitted by <b>Tuesday 6<sup>th</sup> March, 2018</b> electronically via email: <a href="mailto:procurement.ws@undp.org">procurement.ws@undp.org</a>.</p> |      |     |  |

Incomplete applications will not be considered and only candidates for whom there is further interest will be contacted. Proposals must include:

- Cover letter that includes: (1) a concise explanation as to why the bidder is the most suitable candidate for the consultancy assignment; (2) a concise description of the bidder's understanding of the consultancy assignment; (3) a summary of the comments on the TOR; and, (4) a brief description of the proposed methodology and approach in carrying out the required tasks, specifying the number of days it will take complete each task.
- Filled-in Confirmation of Interest form specifying the available date to start the consultancy assignment.
- Updated and signed P-11 along with CV that includes description of qualifications/competencies and relevant past experiences in similar projects; and contact details of 3 professional referees who can certify the bidder's competencies, professionalism, quality of writing, presentation and overall suitability to this TOR
- **Financial Proposal** specifying the daily rate and other expenses
- Only United States Dollars (US\$) must be used in the Proposal;
- The Proposal must be in the English language;
- The abovementioned documents, information and requirements are mandatory and as such are required to form a complete tender. A proposal will be rejected if it is not substantially responsive to the abovementioned requirements;
- The final working plan will be determined through negotiation between the successful bidder and the UNDP Samoa Multi-country Office (MCO);
- Electronic copy of the GEF Secretariat approved AREAN Project Identification Form (PIF) is available here:  
[https://www.thegef.org/sites/default/files/project\\_documents/10-31-2017\\_PIMS\\_6037\\_NIU\\_AREAN\\_PIF\\_220317\\_0.pdf](https://www.thegef.org/sites/default/files/project_documents/10-31-2017_PIMS_6037_NIU_AREAN_PIF_220317_0.pdf)
- The UNDP/GEF Project Document template is available upon request by contacting the UNDP focal points mentioned below.  
The comments on the PIF from the GEF Scientific and Technical Advisory Panel (STAP) is available here:  
[https://www.thegef.org/sites/default/files/project\\_documents/9752-2017-11-07-165850-STAPReviewAgency.pdf](https://www.thegef.org/sites/default/files/project_documents/9752-2017-11-07-165850-STAPReviewAgency.pdf)
- Successful as well as unsuccessful bidders will be informed by e-mail as soon as possible after the submission date. Unsuccessful bidders will not be debriefed.

Queries about the consultancy can be directed to the UNDP Procurement Unit  
[procurement.ws@undp.org](mailto:procurement.ws@undp.org), [tessa.tafua@undp.org](mailto:tessa.tafua@undp.org) or [manuel.soriano@undp.org](mailto:manuel.soriano@undp.org)