United Nations Development Programme / Government of Mauritius

Terms of Reference for Appointment of a Chief Technical Advisor for the UNDP/ GCF 'Accelerating the Transformational Shift to a Low Carbon Economy in the Republic of Mauritius – Component 1' project

TITLE:	International Consultant – Chief Technical Advisor
SECTOR:	Renewable Energy
LOCATION:	Republic of Mauritius
DUTY STATION:	Mauritius Renewable Energy Agency (MARENA)
DURATION:	145 working days (6 field missions - 90 days and home-based – 55 days)
STARTING DATE:	January 2019
END DATE:	June 2020

A. Project title:

GCF-funded UNDP-supported NIM-executed 'Accelerating the Transformational Shift to a Low Carbon Economy in the Republic of Mauritius – Component 1' project.

B. Project Description:

The Green Climate Fund (GCF), through the United Nations Development Programme (UNDP), is providing financial support and expertise to assist the Government of Mauritius in achieving their targets set in the Long-Term Energy Strategy and to empower the two entities, namely the Mauritius Renewable Energy Agency (MARENA) and the Utility Regulatory Authority (URA) for the development and regulation of RE respectively in Mauritius. In this context, the project – Accelerating the transformational shift to a low-carbon economy in the Republic of Mauritius - is being implemented at national level and is financed under the Green Climate Fund (GCF). The project is being implemented in 3 components whereby Component 1 is focused on the institutional strengthening of MARENA and URA in order to equip them accordingly for their respective mandates. Component 2 is the improvement of grid absorption capacity by PV deployment and finally Component 3 is the installation of PV mini-grids on the Outer Island of Agalega.

The MARENA has been set up in 2015 as per the Mauritius Renewable Energy Agency Act 2015 and has for main objective the promotion of the adoption and use of renewable energy in Mauritius. It will also serve as a one-stop shop for independent power producers (IPPs) to implement RE projects like solar and wind farms in Mauritius.

The Utility Regulatory Authority (URA) has been set up in 2016 in accordance with the Utility Regulatory Authority Act 2004 to regulate utility services, namely electricity, water and wastewater in Mauritius. The objectives of the URA are to:

- ensure the sustainability and viability of utility services;
- protect the interests of both existing and future customers;
- promote efficiency in both operations and capital investments in respect of utility services;
- promote competition to prevent unfair and anti-competitive practices in the utility services industry.

The Project is being implemented under the Ministry of Energy and Public Utilities (MEPU) with the objective of providing the necessary assistance to develop a fit-for-purpose legal and regulatory framework to allow the ambitious scale-up of RE in Mauritius.

The Chief Technical Advisor will be providing technical guidance and support to the MARENA team and the joint consultancy services (see section *current status* in Scope of works) in accomplishing their tasks successfully in the timeframe provided.

C. Scope of Work

The Chief Technical Adviser (CTA) will be responsible for technical quality control of project deliverables/outputs as well as provide support through advisory and capacity building services.

For the "Accelerating the transformational shift to a low-carbon economy in the Republic of Mauritius" project, the CTA will have the following objectives:

1. Assist MARENA in the completion of the activities under the 5-year Renewable Energy Strategic Plan (RESP)already developed by MARENA;
2. Provide technical inputs and develop effective strategies, including capacity building, for the operationalisation of MARENA and URA;
3. Assist the consultants of the joint consultancy services in the successful completion of the activities within their scope of works (see section C.1);
4. Prepare/review Terms of Reference for the studies/activities earmarked by MARENA and URA;
5. Build capacities and provide technical support to stakeholders like the MEPU, URA and CEB for the development and promotion of RETs in Mauritius;
6. Develop knowledge and information management strategies, communication and marketing strategies and monitor the impacts of the strategies put in place.

MARENA has already developed a Renewable Energy Strategic Plan (RESP) with an accompanying Implementation Plan, which details the strategic goals that Mauritius wants to achieve in the coming 5 years in terms of RE development.

The 8 strategic goals that have been developed within the RESP are:

1. Increasing On-Grid RE Technologies;
2. Boosting Off-Grid RE Technologies (Electricity, Transport, Heating/Cooling)
3. Smartening the Grid;
4. Accelerating the Development of Sustainable Transportation;
5. Research, Demonstration, Deployment and Capacity Building;
6. Fostering a dynamic RE Economy;
7. Strengthening International and Regional Linkages;
8. Developing Coherent and Effective Communication Pathways.

These goals are broken down into sub-goals, activities and sub-activities with expected outcomes and KPIs, which need to be completed over a 5-year period.

C.1 Current status

MARENA and URA are also benefitting from the GCF-funded, the consultancy services for Design, Testing and Commissioning of a Management Information System (MIS) at their respective offices to assist the staff in accomplishing their mandate. At present, there are currently 4 staff at MARENA. The IT system at both MARENA and URA is a basic system with laptops, internet connection, and email and there is no specialist and adapted MIS software nor any appropriate server(s) for centrally managing the information requirements of these institutions. In line with the operationalization and institutional strengthening strategies of both institutions, a robust, up-to-date, fully-fledged and integrated MIS is required. The consultancy services are due to start in December 2018.

As at date, MARENA has developed in-house, under a Google Environment/MS Office 365, various tools that are used on a daily basis for its operationalisation and has been adopting Green practices. These include preliminary official website, MARENA Intranets, MARENA Extranet and a National RE portal (under progress) for the Republic of Mauritius.

SADC/GCF consultancy

MARENA is also benefitting from a financial grant from SADC for the implementation of *Establishment of a National Grid Code and Development of Standards, Funding and Incentive Strategy for RE Projects in Mauritius*. This activity is partly funded by the GCF project under a co-financing agreement which aims at accelerating RE penetration in Mauritius to meet the target of 35% self-sufficiency by 2025 in terms of electricity supply through a progressive increase in the use of RE.

A consultancy firm will be appointed by December 2018 and the scope of works are as follows:-

1. Component 1 – Developing guidelines and tools for assessment and approval of RE technologies in compliance with proposed grid codes and standards;

2. Component 2 - Assessment and development of incentive schemes for deployment of RE with activities such as conducting a gap analysis on the conduciveness of RE policy and regulatory environment and development of incentive strategies and schemes;
3. Component 3 - Development of funding strategies and schemes for accelerating RE transition with activities such as development of new funding strategies and schemes and associated institutional arrangements;
4. Component 4 – Development of a framework for Green Jobs in RE sector with activities such as assessment of skills needs and gaps and proposal of institutional arrangement for promotion of green jobs.

The Chief Technical Advisor is required to provide assistance for the completion of activities within components 1, 2 and 4 only.

C.2 Duties and Responsibilities

1. Support the Project Manager in reviewing / assessing the work and deliverables of the consultancy services which will be provided to MARENA, ensuring the technical quality assurance of the deliverables as well as the timely delivery of expected outputs till completion;
2. Costing of the activities and sub-activities of the 5-year RE Strategic Plan;
3. Assist MARENA in the completion of the activities of the 5-year Renewable Energy Strategic Plan;
4. Undertake a capacity/skill need assessment for MARENA and URA and review the existing HR Roadmap of MARENA and URA;
5. Develop Terms of Reference for selected studies identified in MARENA's RESP and for URA;
6. Appraise the feasibility and competitiveness of (solicited and unsolicited) technical proposals received by MARENA on RETs and their implementation (up to 10 proposals) and make recommendations accordingly;
7. Assist MARENA in the development of a communication programme on RE transition in Mauritius by reviewing the communication component of the RESP and knowledge products developed by third parties for MARENA. The CTA will be leading the formulation of surveys to determine baseline awareness on RETs and provide guidance on the production of knowledge products to increase baseline awareness.

Under the SADC/GCF consultancy:

Component 1

8. Review the deliverable on the development of standards for the accreditation of installers and maintenance technicians and professionals of the RE technologies;
9. Based on the recommendations of the SADC/GCF consultancy, the CTA shall assist in harmonizing the national standards with the proposed standards through a collaborative approach with the Mauritius Standard Bureau (MSB);

10. Review and provide quality assurance in the development of an online project evaluation tool for

the assessment of on-grid and off-grid RETs. The tool should allow MARENA to undertake a fair qualitative and quantitative assessment of individual projects and should include the following, but not limited to:-

a. Environmental, social, technical and economic aspects; and

b. Financial aspects, which include the development of a tariff evaluation tool for RETs, taking into consideration the applicable Grid Code and other factors to determine reasonable tariffs. Information such as detailed CAPEX, OPEX and other associated costs/subsidies/rebates will be used as inputs for the tool to generate parameters such as Internal Rate of Return (IRR).

11. Assess the SADC/GCF report on the development of an Electricity Tariff Guidelines and Methodology, which takes into consideration the following:

    a. Tariff Principles;
    b. Revenue Requirements Determination;
    c. Generation Tariff Methodology;
    d. Transmission System Tariff Methodology;
    e. Distribution System Tariff Methodology;
    f. Tariff Design and Subsidies;
    g. Automatic Tariff Adjustment Mechanism;
    h. Tariff Review Process;

12. Review the report on the development of institutional processes and policy recommendations for implementing and ensuring compliance with the guidelines and various standards set for different RETs;

Component 2

13. Review the consolidated report on the assessment and development of incentive scheme for deployment of RE in Mauritius.

Component 4

14. Review the consolidated report on the creation of a framework for Green Jobs in RE sector in Mauritius.

D. Expected Outputs and Deliverables

The Technical Advisor shall be remunerated in accordance with **Table 1** for the payment schedule and deliverables:

Table 1: Payment Schedule and Deliverables

	Activity	Tentative date	Fee (%)	Means of verification
A	Produce an approved assignment work plan.	January 2019	10%	Approved assignment work plan.
B	Undertake a capacity need assessment for MARENA and URA and review the existing HR Roadmap of MARENA and URA	February 2019	10%	Approved training need assessment report and HR Roadmap for MARENA and URA.
C	Develop Budget/Costing plan for activities and sub-activities of the RE 5-year strategic plan.	March 2019	10%	Approved Budget/Costing Plan.
D	Develop Terms of Reference for the following studies identified in MARENA's RESP: 1. Consultancy services to undertake feasibility study for the development of mini-hydro plant at Ferret. 2. Consultancy services to undertake feasibility study for the development of Tidal Stream technology in Mauritius; 3. Consultancy services to determine potential of energy storage systems in the Republic of Mauritius including Pumped Hydro Storage, Compressed Air Energy Storage, Thermal Storage, Solid State/Flow Batteries, Flywheels, Hydrogen and Marine Storage Technologies.	January 2019 February 2019 March 2019	12%	Approved Terms of Reference for the following studies: 1. Consultancy services to undertake feasibility study for the development of mini-hydro plant at Ferret. 2. Consultancy services to undertake feasibility study for the development of Tidal Stream Technology in Mauritius; 3. Consultancy services to determine potential of energy storage systems in the Republic of Mauritius including Pumped Hydro Storage, Compressed Air Energy Storage, Thermal Storage, Solid State/Flow Batteries, Flywheels, Hydrogen and Marine Storage Technologies.

	Activity	Tentative date	Fee (%)	Means of verification
	4. Consultancy service to assist MARENA in the strategic Planning for RE Development including development of Optimal Energy Mix scenarios for the Republic of Mauritius. 5. Consultancy Services to perform Integrated Life-Cycle Assessments of the following RETs: i. Solar PV; ii. Onshore Wind; iii. Offshore Wind; iv. Wave; v. Bioenergy; vi. Municipal Waste to Energy; 6. Consultancy services to undertake an Electricity Tariff Cost of Service Study for URA.	March 2019 April 2019 April 2019		4. Consultancy services to assist MARENA in the strategic Planning for RE Development including development of Optimal Energy Mix scenarios for the Republic of Mauritius. 5. Consultancy Services to perform Integrated Life-Cycle Assessments of the following RETs: i. Solar PV; ii. Onshore Wind; iii. Offshore Wind; iv. Wave; v. Bioenergy; vi. Municipal Waste to Energy; 6. Consultancy services to undertake an Electricity Tariff Cost of Service Study for URA.
E	Appraise the feasibility and competitiveness of (solicited and unsolicited) technical proposals received by MARENA on RETs and their implementation (up to 10 proposals) and make recommendations accordingly.	As and when requests are submitted up to June 2020	5%	Approved report on review of technical proposals.
F	Assist MARENA in the development of a communication programme on RE transition in Mauritius by reviewing the communication component of the RESP and knowledge products developed by third parties for MARENA.	July 2019	5%	Approved survey forms to determine baseline awareness on RETs and finalized awareness and communications products
G1.1	**<u>Tasks under SADC/GCF funded consultancy services:</u>** ***<u>Component 1</u>*** Assist in harmonizing the national			Approved report on harmonization of the national standards with the

	Activity	Tentative date	Fee (%)	Means of verification
	standards with the proposed standards from the SADC/GCF consultancy through a collaborative approach with the Mauritius Standard Bureau (MSB).	Mid February 2019	5%	proposed standards from the SADC/GCF consultancy by collaborating with the MSB.
G1.2	Review the consultant report on the development of institutional processes and policy recommendations for implementing and ensuring compliance with the guidelines and various standards set for different RETs.	Mid-February 2019	3%	Approved report on the institutional processes and policy recommendations for implementing and ensuring compliance with the guidelines and various standards set for different RETs.
G1.3	Review the consultant report on the development of standards for the accreditation of installers and maintenance technicians and professionals of the RE technologies.	Mid May 2019	3%	Approved report on standards for accrediting installers and maintenance technicians and professionals of the RE technologies.
G1.4	Review and provide quality assurance in the development of an online project evaluation tool for the assessment of on-grid and off-grid RETs.	Mid May 2019	3%	Approved online Project Evaluation Tool.
G1.5	Assess the SADC/GCF report on the development of an Electricity Tariff Guidelines and Methodology.	End May 2019	3%	Approved report on Electricity Tariff Guidelines and Methodology
	Component 2			
G2	Review the consolidated report on the assessment and development of incentive scheme for deployment of RE in Mauritius.	End September 2019	3%	Approved consolidated report on the assessment and development of incentive scheme for deployment of RE in Mauritius.
	Component 4			
G4	Review the consolidated report on the creation of a framework for			Approved consolidated report on the creation of a framework for

	Activity	Tentative date	Fee (%)	Means of verification
	Green Jobs in RE sector in Mauritius.	End November 2019	3%	Green Jobs in RE sector in Mauritius.
	Assist MARENA in the completion of the activities as per the RESP through the following interventions:			Approved Consolidated Technical Report containing the following sections as per the RESP:
H1.1	i. Assess the effectiveness of existing On-grid and Off-grid policies and formulate recommendations to improve same;	End November 2019	5%	i. Assessment of the effectiveness of existing On-grid and Off-grid policies and formulate recommendations to improve same;
H1.2	ii. Aligning reporting of RE development goals with international targets and objectives;	December 2019	5%	ii. Assessment of mechanisms for reporting of global energy indicators and provision of recommendations on how to improve the reporting;
H1.3	iii. Recommend best practices in terms of policies with respect to use of RE resources for: 1. Smart cities; 2. Hotels; 3. Floating Solar PV; 4. Charging points for Electric vehicles;	January 2020	5%	iii. Recommend best policies with respect to RE resources for: 1. Smart cities; 2. Hotels; 3. Floating PV; 4. Charging points for Electric and Hydrogen vehicles.
H1.4	iv. Based on established Hydrogen technologies, advise on the potential avenues for the adoption of Hydrogen in the local context;	February 2020	5%	iv. Recommendations on the use of appropriate Hydrogen Technologies with estimated implementation timeline.
H1.5	v. Recommend guidelines on spatial planning of onshore and offshore energy resources;	March 2020	5%	v. Recommendations on spatial planning of onshore and offshore energy resources;
Total %			**100%**	

D.1 Reporting

All deliverables shall be submitted in **English** and in appropriate format, in editable MS Word and in PDF as per requirement of the Client to the following address:

Mr Shakil Beedassy, Project Coordinator
Accelerating the Transformational Shift to a Low-Carbon Economy in the Republic of Mauritius
6th Floor, Anglo Mauritius Building
Intendance Street,
Port Louis
Email: shakil.beedassy@undp.org
Tel: +230 212 3726
Fax: +230 208 4871

Copied to:
Prof S. Rughooputh
CEO, Mauritius Renewable Energy Agency
4th Floor, Celicourt Building,
Sir Celicourt Antelme Street,
Port Louis
Email : ceo@marena.org
Tel: +230 212 8325
Fax: +230 212 8326

Manusen RAGGOO, Project Manager
MARENA, 4th Floor, Celicourt Building
Sir Celicourt Antelme Street,
Port Louis
Email: manusen.raggoo@undp.org
Tel: +230 5941 2955

The project manager will be responsible for further distribution. The deliverables should be of high quality in form and substance and with appropriate professional presentation. The CTA should fully comply with the requirements of UNDP in terms of content and presentation and respect UNDP GCF visibility guidelines, since unsatisfactory performance may result in termination of contract.

E. Competencies

Corporate Competencies:

- Demonstrates commitment to UNDP's mission, vision and values;
- Displays cultural, gender, religion, race, nationality and age sensitivity and adaptability;
- Highest standards of integrity, discretion and loyalty;
- A good personality with strong leadership skills.

Functional Competencies:

- Knowledge Management and Learning
- Shares knowledge and experience;
- Actively works towards continuing personal learning, acts on learning plan and applies newly acquired skills;
- Ability to train and work effectively with counterpart staff at all levels and with all groups involved in the project;
- Ability to effectively coordinate a large, multi-stakeholder project;
- Be an effective negotiator with excellent oral and presentation skills;
- Ability to administer budgets.

Development and Operational Effectiveness

- Ability to make critical analysis of documentation and reports related to RE and associated fields;
- Ability to perform a variety of specialized tasks related to Results Management, including support to design, planning and implementation of program, managing data, reporting;
- Knowledge of Project Adaptive Management, as applied to renewable energy projects;
- Strong drafting, presentation and reporting skills, excellent written communication skills;
- A good working knowledge of international best practice in renewable energy is desirable;
- Ability to provide input to business processes re-engineering, implementation of new system, including new IT based systems;
- IT competencies in Word, Excel, Power Point and internet;
- Leadership and Self-Management;
- Focuses on result for the client and responses positively to feedback.

F. Duration of the Work

The Chief Technical Adviser shall be assigned for 145 working days (6 field missions - 90 days and home-based – 55 days) until June 2020 for the successful completion of the assignment.

G. Duty Station

During the field-based part of the assignment, the Chief Technical Adviser will be based as relevant at the Mauritius Renewable Energy Agency (MARENA).

H. Qualifications of the Successful Individual Contractor

Education:

Postgraduate degree in Electrical/Power Engineering, energy economics or other relevant fields in combination with appropriate first degree ; PhD is desirable but not a requirement.

Experience:

- At least 10 years of experience in the RE field with knowledge of economic and technical analysis of RETs;
- Minimum 5 years of relevant experience of advisory/development/ managerial role related to renewable energy policy;
- Minimum 5 years of experience of advisory services to government and/or public/international

organizations in program/project design for institutional strengthening and/or capacity building and/or needs assessment in area of renewable energy;
- Working experience with both public and private sector is desirable. Experience in donor funded projects will be an advantage;
- Experience with electricity utility organisations is an advantage;
- Knowledge on Electricity Regulation will be an additional advantage.

Language:
- Fluency in English (both written and verbal) is a must. Knowledge of French and Creole is an advantage.

I. Scope of Price Proposal and Schedule of Payments

The financial offer should be quoted as a lump sum amount, all-inclusive (professional fee, insurance, all travel costs, per diem, etc.). In general, UNDP should not accept travel costs exceeding those of an economy class ticket. Should the consultant wish to travel on a higher class he/she should do so using their own resources.

The contract price is fixed regardless of changes in the cost components. In the case of unforeseeable travel (additional mission for example), payment of travel costs including tickets, accommodation and terminal expenses should be agreed upon prior to travel between UNDP and Individual Consultant and will be reimbursed.

Payments will be made based on deliverables as per section D.
However, financial proposals indicating the all-inclusive fixed total contract price, supported by a breakdown of costs, as per template provided by UNDP, will be requested for those shortlisted candidates who pass the technical evaluation.

J. Recommended Presentation of Offer

The following documents are requested:

a) Duly completed **Letter of Confirmation of Interest and Availability** using the template provided by UNDP;
b) **Personal CV**, indicating all past experience from similar projects, as well as the contact details (email and telephone number) of the Candidate and at least three (3) professional references;
c) **Technical offer: Brief description** of why the individual considers him/herself as the most suitable for the assignment and a **methodology** on how they will approach and complete the assignment;

K. Criteria for Selection of the Best Offer

Individual consultants will be evaluated based on the following methodology:

Cumulative analysis
When using this weighted scoring method, the award of the contract should be made to the individual consultant whose offer has been evaluated and determined as:

a) Responsive/compliant/acceptable, and
b) Having received the highest score out of a pre-determined set of weighted technical and financial criteria specific to the solicitation.

Short-listing criteria:

Criteria	Max. Point
Education	15
Relevant technical experience in RE sector including in economic, financial and technical analysis of RETs	10
Relevant experience in advisory/development/ managerial role related to renewable energy policy	10
Relevant experience in advisory role to government and/or private/public/international organizations in area of renewable energy	10
Experience in undertaking training need assessment	10
Experience in development of Action Plans to implement national strategies including budgeting and assessment of Human Resources requirements	10
Experience in the development of Terms of Reference	10
Experience of working with international funding agencies	5
Experience as workshop facilitator/trainer	5
Suitability of technical approach	10
Language (English mandatory/French is a plus)	5
TOTAL max.	**100**

Candidates scoring 70 or above will be short-listed and called for a competency-based interview.

The financial offers will be evaluated giving the lowest price proposal 30 marks and marking the other more expensive proposals reverse proportionally to the cheapest offer.

The final scoring of short-listed candidates will take into account the interview score and the financial score:

Criteria	Weight	Max. Point
• Interview score	70%	70
• Financial score	30%	30

The candidate ranking highest shall be selected.

L. Approval

This TOR is approved by:

01/11/18

Signature
Name and Designation Shakil Beedassy, Project Coordinator (GCF Project)
Date of signing 01/11/18