Terms of Reference

Consultancy for a National Expert to support strengthening policy framework on the application of hydro technologies in Papua New Guinea- IC/PNG/032-2020

Project Title:	Facilitating Renewable Energy and Energy Efficiency Applications for Greenhouse Emission Reduction Project or FREAGER
Type of Contract:	Individual Contract
Duration:	Up to 90 days from October 2020 to April 2021
Location:	Port Moresby

Please note that UNDP is not in the position to accept incomplete applications - please make sure that your application contains all details as specified below in this notice.

1. PROJECT DESCRIPTION

Approximately only 15 per cent of Papua New Guinea's (PNG) population has access to electricity. This presents a developmental challenge in the country but also an opportunity to move towards a future of renewable energy and energy efficiency technologies. Aside from the potential to reduce current and future greenhouse gas emissions, these technologies may hold viable solutions to address PNG's limited access to electricity.

Renewable energy is a naturally occurring non-depletable source of energy such as hydro, solar, wind, geothermal, tidal wave, ocean current, biofuel and biomass to produce electricity, gases and liquid fuels, heat or a combination of these energy types. The development of renewable energy sector requires investment to reshape the future energy mix, reduce the current volume of oil imports and address energy security.

PNG has significant potential in hydro-based power generation, given its high rainfall and many large fast flowing river systems. The country has an estimated hydropower potential of about 15,000 MW comprising large and small hydropower stations.

The Government of PNG set bold targets towards the reduction of Greenhouse Gases (GHGs) and achieve carbon neutrality by 2050, that means PNG will be 100% powered by renewable energy sources. This is achievable if harmonised policies and legislative frameworks on renewable energy sources are developed and effectively implemented.

One of these policies is the National Energy Policy which was recently endorsed by the Government of PNG. The National Energy Policy aims to provide sufficient, accessible, reliable and affordable energy in a manner that is competitive, sustainable and environmentally friendly. The policy has identified several challenges, as follow:

- Hydropower is vulnerable to variations in geology, hydrology, climate and water turbidity (PNG rivers have one of the highest sediments load in the world contributing to turbine silting and high operations and maintenance costs). This is a big challenge as no rain results in power and energy shortfalls, reducing the contribution of hydro power in the energy mix;

- The economic risk in hydropower projects is relatively higher than other modes of electricity generation because they are capital intensive (very high fixed costs, but low operating and maintenance costs) and wholly dependent on hydrology;
- A major challenge for hydropower projects requiring dams is relocation and resettlement of affected people given PNG's customary land tenure arrangement;
- Weak policies and regulations on hydro energy;

In order to respond to this challenge, UNDP in partnership with the Global Environment Facility is delivering the Facilitating Renewable Energy and Energy Efficiency Applications for Greenhouse Emission Reduction Project or FREAGER (the 'Project'). The project aims to demonstrate the potential of renewable energy and energy-efficient technologies in PNG. It is delivered under four components. These components are:

- Analysis, assessment and improvements in energy policy and regulations.
- The demonstration of the benefits of renewable energy and energy efficiency technologies through pilot projects.
- The development of models to better finance renewable energy and energy efficiency solutions among communities.
- Efforts to increase normative change in the use of renewable energy and greater energy efficiency among decisions makers. Together they will aim to demonstrate a range of renewable energy and energy-efficient technologies to encourage their broader replication and up-take.

Thus, UNDP in partnership with the Climate Change and Development Authority (CCDA) and the Department of Petroleum and Energy (DPE) is looking for an experienced national expert to undertake a policy review to strengthen policy framework and regulations on the application of hydro technologies in the country.

2. OBJECTIVE

The National Expert will assist the International Consultant to work closely with government counterparts especially the Department of Petroleum and Energy (DPE) to undertake the review of existing policies and develop appropriate policy recommendations that cover, financial incentives and other regulatory mechanisms for community-scale hydro mini-grids in PNG such as grants, preferential tax regimes, low-interest loans, power purchase prices that ensure profitability, etc. The consultant will work under the overall guidance of the DPE Acting Director for Energy Policy and the direct supervision of the UNDP's head of portfolio on energy, environment, climate change and disaster risk reductions with the assistance of the FREAGER Project Manager.

3. SCOPE OF WORK

The National Consultant will support International Lead Consultant to undertake this assignment, particularly in:

a) Conduct a rapid policy and legislative assessment, document lessons of good and bad practices of hydro energy application including details of targeted sectoral deployments, usages, cost-effectiveness and efficiency and disaggregated impacts identified including, gender and captured as compendium document;

b) Develop policy recommendations including a framework for operationalising the hydro policy drafted;

c) Conduct workshops with stakeholders to share the lessons and policy recommendations;

d) Finalize a draft policy for hydro following stakeholder consultations and prepare policy briefs for the adoption of the agreed policy.

Details of this engagement is provided below.

Policy Gap analysis and data compilation

The National consultant will work in consultation with the International consultant to:

- Compile upon the advise of the international consultant the types of secondary and first-hand data to be collected.
- Assist the International consultant to review and analyse the data collected.
- Assist the International consultant to describe the current regulatory environment, listing relevant policies and agencies responsible for hydro energy development and use. Including socio-economic and environmental issues that affect or encourage hydro energy development.
- Assist the International consultant to identify gaps in policy and regulation in light of the aspirations of the National Energy Policy 2017-2027.
- Assist identify opportunities or policy interventions for the uptake of hydro technologies in PNG with reference to international best practices and lessons. Some critical thematic and sectoral areas include;
    - hydro energy applications to strengthen rural energy resilience,
    - hydro energy use to enhance the social sectors of health, education, and water;
    - decentralised hydro energy services,
    - hydro energy for rural community energy resilience in communities and households including for water pumping, agriculture and micro-business development.
    - Lessons will capture the evidence, location, inclusiveness, cost-effectiveness including operation and maintenance cost,
    - disaggregated impacts including gender and sustainability in the context of PNG.

Guidance on policy, regulation and implementation

The national consultant will assist the international consultant;

a. Provide a policy framework for hydro energy policy in line with the aspirations of the National Energy Policy 2017-2027.
    - This will include but not be limited to programming, planning, and implementing hydro energy projects considering energy needs, bottlenecks/challenges and constraints for service providers and end-users, external environment, security situation and the creation of incentives.
    - The framework will be informed by the strengths, weaknesses, threats and opportunities, in relation to local capacities, demand and supply requirements, quality of the available resources to scale up the hydro intervention in rural and urban areas.
    - The framework should also capture the human resource effectiveness, and capacity building needs assessment, awareness-raising, and challenges to implementing a hydro project.
    - The framework should also include the gender dimension in hydro energy access, system and ways on how to maximise social-economic impacts.

b. Provide written guidance and concept notes appropriate for supporting the development of a hydro energy policy for PNG.

c. Provide a framework to inform the drafting of associated regulations to operationalise the hydro energy policy.

d. Provide an operational guideline for DPE to implement the hydro energy policy.
    - The operational guideline will be an internal document to assist the Department of Petroleum and Energy on how to implement the policy and any related regulation.

Stakeholder consultation

The National Consultant will organise and assist with facilitation of the stakeholder consultation meetings. The international consultant will be required to participate in and lead, together with the national consultant, meetings and workshops remotely online. Tasks include:

a. Identification of stakeholders – This will be done in collaboration with the international consultant for hydro, DPE, CCDA and the consultants working on the solar policy. The key stakeholders should include government agencies, civil society and the private sector.

b. Develop a consultation schedule with respective stakeholders identified above.

c. Conduct one-on-one consultation following the schedule developed above.

d. Circulate the drafts of Policy Recommendations (including regulatory framework where required, e.g. licensing) and Operational Guidelines to stakeholders for necessary input and feedback.

e. Facilitate a validation workshop at the national level for a Hydro Policy and Regulatory Framework including the DPE Operational Guidelines;

- Prepare workshop agenda, participants list, venue and other logistic arrangement;
- Present an updated assessment report with Policy Recommendations to the key stakeholders from government agencies, civil society and the private sector.
- Complete a consultation report.

Formulation of Hydro Energy Policy, Regulation and Operational Guideline

Following the desktop reviews and stakeholder consultations, the national consultant will assist the international consultant:

a. Present the Final Assessment Report

   - Including Policy Recommendations to the Department of Petroleum and Energy.

b. Provide a final draft of the Hydro Energy Policy for PNG.

c. Provide a final draft of any associated regulation to assist with the implementation of the Hydro Energy Policy.

d. Provide a final draft of an Operational Guideline to assist the Department of Petroleum and Energy implement the policy.

4. DELIVERABLES

The National Expert will be responsible for delivering the following outputs:

Deliverables/ Outputs	Estimated Duration to Complete the assignment	Target Due Dates	Payment Percentage	Certifying/ Authorizing officer
Payment on acceptance of the inception report detailing proposed work plan,	5 days	14 October 2020	20%	UNDP EEP Head of

timelines and means of engaging effectively with country stakeholders.				Portfolio
Payment on acceptance of progress report # 1 detailing the database on existing renewable energy policies relating to hydro energy. The database should be developed in MS Excel and supported by a separate folder containing the policies.	30 days	16 November 2020	30%	UNDP EEP Head of Portfolio
Payment on acceptance of the progress report #2 detailing; a. guidance notes for the development of a hydro energy policy, associated regulations and an operational guideline for the implementation of the hydro energy policy; annexed to this report will be a draft Hydro Energy Policy, draft regulations and draft operational guideline. b. outcomes of stakeholder consultations held and updated versions of the guidance notes for development of a hydro energy policy, associated regulations and an operational guideline for the implementation of the hydro energy policy; annexed to this report will be an updated Draft Hydro Energy Policy, draft regulations and draft operational guideline for PNG.	40 days	26 February 2021	30%	UNDP EEP Head of Portfolio
Payment on acceptance of the final progress report detailing the Formulation of Hydro Energy Policy, Regulation and Operational Guideline.	15 days	26 April 2021	20%	UNDP EEP Head of Portfolio

5. INSTITUTIONAL ARRANGEMENTS

This assignment will be conducted in partnership with relevant government agencies and development partners in PNG.

The UNDP FREAGER project will provide financial support in organising consultation workshop related to this assignment, and National Expert will take care of their own travel and mission arrangements if required.

6. RESOURCES PROVIDED

UNDP PNG Country Office and Climate Change and Development Authority will provide space for the National Expert during the missions to Port Moresby if required.

In the case of travel beyond initial deployment and final repatriation, payment of travel costs including tickets, lodging, and terminal expenses should be agreed upon between the respective business unit and Individual Consultant before travel and will be reimbursed.

7. DURATION OF THE ASSIGNMENT

The work will be undertaken up to 90 days from October 2020 through April 2021.

Following expected outputs and deliverables, the National Expert submits reports to UNDP's head of portfolio on energy, environment, climate change and disaster risk reduction for review of deliverables, comments, and certifying approval/acceptance of works afterwards.

In case of any delays to achieve the expected outputs, the National Expert should notify the UNDP in advance to take necessary steps.

8. DUTY STATION

The duty station for this assignment is Home-based, with a mission to Port Moresby, PNG.

9. EDUCATION AND EXPERIENCE

Education

- University Degree in natural resources management, renewable energy, economics, development economics, finance, or closely related field.

Work experience

- At least 5 years' experience in providing policy support on energy (particular in energy access and renewable energy) and climate change.
- At least 2 years' experience in the development of policy and operational guidelines on renewable energy sources;
- Familiar with energy issues in Papua New Guinea.
- Good writing and drafting skills.

Competencies

- Strong analytical skills and exceptional ability in communication and networking, negotiations and writing.
- Flexibility and ability to operate in different cultural settings and with a variety of stakeholders; culturally and gender sensitive.
- High level planning, organisational and time management skills, including flexibility, attention to detail and the ability to work under pressure to meet challenging deadlines;
- Ability to quickly adapt to change, and to remain calm under pressure;
- Fluency in written and spoken English.

10. EVALUATION

Cumulative analysis

The proposals will be evaluated using the cumulative analysis method with a split 70% technical and 30% financial scoring. The proposal with the highest cumulative scoring will be awarded the contract. Applications will be evaluated technically, and points are attributed based on how well the proposal meets the requirements of the Terms of Reference using the guidelines detailed in the table below:

When using this weighted scoring method, the award of the contract may 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.

* Technical Criteria weighting; 70%

* Financial Criteria weighting; 30%

Only candidates obtaining a minimum of 49 points in the Technical Evaluation would be considered for the Financial Evaluation. Interviews may be conducted as part of technical assessment for shortlisted proposals.

Criteria	**Points**	**Percentage**
Qualification		**10%**
▪ University degree in natural resources management, renewable energy, economics, development economics, finance, or closely related field.	10	
Experience		**55%**
• At least 5 years' experience in providing policy support on energy (particular in energy access and renewable energy) and climate change.	25	
• At least 2 years' experience in the development of policy and operational guidelines on renewable energy sources;	20	
• Familiar with energy issues in Papua New Guinea.	5	
• Good writing and drafting skills.	5	
Competencies		**5%**
• Strong analytical skills and exceptional ability in communication and networking, negotiations and writing. • Flexibility and ability to operate in different cultural settings and with a variety of stakeholders; culturally and gender sensitive. • High level planning, organisational and time management skills, including flexibility, attention to detail and the ability to work under pressure to meet challenging deadlines; • Ability to quickly adapt to change, and to remain calm under pressure; • Fluency in written and spoken English.	1 1 1 1 1	
Technical Criteria		70%
**If necessary interviews shall also be conducted as part of the technical evaluation to ascertain best value for money.		
Financial Criteria – Lowest Price		30%
Total		**100%**

Documents to be included when submitting Consultancy Proposals

The following documents may be requested:

a) Duly executed **Letter of Confirmation of Interest and Availability** using the template provided by UNDP.

b) **Signed P11/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) **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. Please paste the letter into the "Resume and Motivation" section of the electronic application.

d) Financial Proposal that indicates the all-inclusive fixed total contract price, supported by a breakdown of costs, as per template provided. If an Offeror is employed by an organisation/company/institution, and he/she expects his/her employer to charge a management fee in the process of releasing him/her to UNDP under Reimbursable Loan Agreement (RLA), the Offeror must stipulate that arrangement at this point, and ensure that all such costs are duly incorporated in the financial proposal submitted to UNDP.

Lump-sum contracts

The financial proposal shall specify a total lump-sum amount, and payment terms around specific and measurable (qualitative and quantitative) deliverables (i.e. whether payments fall in instalments or upon completion of the entire contract). Payments are based upon output, i.e. upon delivery of the services specified in the TOR. In order to assist the requesting unit in the comparison of financial proposals, the financial proposal will include a breakdown of this lump-sum amount (including travel, living expenses, and number of anticipated working days).

Travel

All envisaged travel costs must be included in the financial proposal. This includes all travel to join duty station/repatriation travel. In general, UNDP should not accept travel costs exceeding those of an economy class ticket; should the IC wish to travel on a higher class, they should do so using their own resources.

In the case of unforeseeable travel, payment of travel costs including tickets, lodging, and terminal expenses should be agreed upon, between the respective business unit and Individual Consultant, prior to travel and will be reimbursed or covered by UNDP.

Submission Instructions

Proposals may be submitted on or before the deadline as indicated below. Proposals must be submitted using this generic email procurement.png@undp.org address only.

Incomplete proposals and failure to comply with proposal submission instruction may not be considered or may result in disqualification of proposal.

Completed proposals should be submitted no later **than 4th October 2020**.

For any clarification regarding this assignment please write to Tirnesh Prasad on procurement.pg@undp.org

UNDP looks forward to receiving your Proposal and thank you in advance for your interest in UNDP procurement opportunities.