TERMS OF REFERENCE
OWNER’S ENGINEER FOR MINI GRIDS UNDER VANUATU RURAL ELECTRIFICATION PROJECT STAGE II (VREP II)

1. Context

The republic of Vanuatu is an archipelago of 83 volcanic islands (65 of them inhabited) covering a total area of about 12,200 square kilometres, of which approximately a third is land. Vanuatu’s population of approximately 258,000 people is almost evenly distributed among the six administrative provinces: Malampa, Penama, Sanma, Shefa, Tafea and Torba.

An estimated 30 percent of the Vanuatu households and public institutions have access to electricity via connections to a grid network. Only four islands benefit from a reliable grid network but not entirely across the whole islands. Another two islands have biofuel mini grids installed in the provincial centres but are not yet operating. The share of those without access to electricity remains high: Efate (24 percent), Malekula (84 percent), Santo (65 percent), and Tanna (86 percent). There is also a severe imbalance in access between urban and rural areas.

The Government of Vanuatu (GoV) has made the development of the electricity sector a priority through implementation of its Vanuatu National Energy Roadmap (NERM). The NERM sets a range of targets for achievement by 2030, which include: (i) provide modern electricity access to 100 percent of households in off-grid areas, (ii) electrify 100 percent of public institutions in off-grid areas, (iii) increase electricity generated from renewable sources to 100 percent, and (iv) increase the level of electricity generated from biofuels to 14 percent.

The GoV through its Department of Energy (DoE) is implementing a number of projects designed to substantially contribute to these goals with funding and support from the World Bank and other development partners. The Vanuatu Rural Electrification Project (VREP) is a key initiative to increase energy access in the rural communities through the deployment of renewable energy systems. The VREP is being undertaken in two stages. The first stage (VREP I) involves subsidizing ‘plug and play’ solar home systems (SHS) for remote dispersed rural households. The second stage (VREP II) involves extending the subsidies to larger technician-installed SHS and micro grids together with the development of up to five (5) mini grids in rural communities of Vanuatu. The focus of this assignment is the development of the mini grids.

The GoV is seeking the services of an Owner’s Engineer (OE) for the end-to-end delivery of the mini grids under Component 2 of the Vanuatu Rural Electrification Project – Stage II as set out the Project Appraisal Document. The OE will be a consulting firm hired through a competitive selection process and will report to the Director, DoE.

2. Objective

The objective of the assignment is to deliver up to five mini grids in rural communities in Vanuatu. The locations for the mini grids may have access to some solar home systems and standalone diesel generators but no formal grids. These locations will be on islands and are unlikely to be connected to a main grid. The OE will facilitate site selection, prepare conceptual design, facilitate detailed design

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1 A mini grid can be defined as a power system architecture that includes electricity generators, energy storage systems interconnected with a distribution system that supplies the entire electricity demand of a localized group of customers (and is not connected to a centralised grid). A micro grid, on the other hand, provides similar architecture at a much smaller scale services only a few contiguous customers (e.g. school, staff quarters, local shop or health centre) on a single property.
and supply of the mini grids at sites selected and implement the licensing/concession agreements to facilitate the operations and maintenance (O&M) of those mini grids after construction. This assignment will support:

- Overall project management from concept to delivery;
- Planning, budgeting, monitoring and reporting;
- Identification and selection of the mini grid locations/sites;
- Community engagement and agreement with the communities;
- Conceptual design and functional specifications;
- Environmental and social safeguards arrangements;
- Define the regulatory, licensing/concession agreements for the operation and maintenance of the mini grids to be included in the bidding documents;
- Preparation of bidding documents including bid evaluation criteria with consideration of investment costs, operation/maintenance, etc;
- Assistance to DoE with bidding process to select contractor(s) for supply and installation of mini grids and operations and maintenance of mini grids; and
- Supervision of construction works and commissioning.

The OE will work closely with officials of the DoE, consultants assisting with the Vanuatu Rural Electrification Projects, the Energy Projects Steering Committee, the Vanuatu Utilities Regulatory Authority (URA), the Department of Environmental Protection and Conservation (DEPC), the Provincial Governments, the State Law Office and other local agencies as required to define and establish arrangements for the successful delivery and subsequent operations and maintenance of the mini grids.

The diagram below shows the overall functional and reporting arrangements for this assignment.

3. Design considerations

The Project Appraisal Document provides a preliminary assessment of the economic and financial viability of typical mini grid configurations. The small communities and loads of the mini grids are
unlikely to be financially viable as a standalone operation. Therefore, the GoV intends to implement a private public partnership with a selected Service Provider to support the development of the mini grids. One Service Provider will be selected for supply and installation of the mini grids (to be funded under the project) as well as operation and maintenance of the mini grids (to be funded through operations by the Service Provider). The selection of the Service Provider will include an assessment of the supply, installation, operation and maintenance as a package. Further, as the demand for electricity is likely to evolve over time, from and initial estimate of around 25kW to 50kW (not limiting), the mini grids need to be adaptable to growing demand and service needs.

The Government expects that the mini grids will be engineered to the following parameters:

- Tariffs will be established based on the consumers capacity and willingness to pay. This will be established prior to the tender process;
- The prospective Service Providers will offer mini grid solutions that maximises service levels within the tariff limits;
- The Government will provide subsidies (as equity in the mini grids) to allow the Service Providers to optimise the service levels within the tariff threshold thus cover any viability gaps;
- The mini grid technology will be based on solar photovoltaic with battery storage with a minimum of one day’s redundancy, supported by biofuel capable back-up generators. The mini grids should allow for street/community lighting, not exceeding 5% of the total mini grid load as a community service. The Service Providers have the flexibility on other technological aspects, such as metering, inverters, etc., provided the equipment meets international standards;
- The mini grids will be scalable, both in terms of generation and distribution/transmission capacity to cater for increase in demand in future and will be capable of accommodating additional sources of renewable energy generation;
- The mini grids selected for this project may be “clustered” geographically to reduce the operations and maintenance costs;
- The mini grids solutions will need to meet the conceptual design and functional specifications that reflect access and land constraints and community preferences for siting;
- The Service Providers will be selected based on pre-determined and transparent evaluation criteria that meet the above requirements and minimize Government contribution and maximize service levels within the established tariff limit.
- It is anticipated that to achieve economies of scale, one Service Provider will be selected for all mini grids, however the Government has the right to select more than one Service Provider.

The communities electing to receive mini grids will self-select following an offer by the Government to electrify those communities:

- The Government has a long list of 55 sites. Based on preliminary analysis communities that have more than 75 households and at least 50% of the load from public institutions are likely to be the most suitable.
- The communities with highest demand or potential for demand growth will be offered to opportunity for electrification first. Up to five sites will be selected (dependent of the availability of funds) for mini grids under assignment.
- The communities will donate land for siting generation equipment and provide access for distribution lines in return for receiving electricity services;
• Siting of generation and related equipment on public facilities will be preferred.
• Should a community decline the offer, the next community in line will be offered the opportunity for electrification.

4. Scope of work and specific tasks

The OE shall ensure that the works are undertaken in accordance with the financing agreements with the World Bank, the Project Operations Manual (POM) and the environmental and social safeguards documents and policies applicable to the delivery of the mini grids. The execution of the project shall comply with the laws and regulations applicable in Vanuatu and with the World Bank’s policies. The OE shall ensure that the mini grids meet the ‘Design Considerations’, while undertaking and supervising the following tasks.

Overall Project Management (of Component 2 of the Vanuatu Rural Electrification Project – Stage II)

• Work closely with officials of the DoE and the Vanuatu Utility Regulatory Authority (URA), the Department of Environment, the Provincial Governments, the State Law Office, Government Tenders Board and other local agencies as required to define and establish arrangements for the successful delivery and subsequent operations and maintenance of the mini grids.
• Manage the project implementation process from inception to practical completion to achieve the key results indicators as specified in the Project Appraisal Document and within budget on time and in compliance with the applicable policies, frameworks, plans, standards and specifications.
• Undertake capacity building and knowledge sharing, training, skills transfer to local staff, engineers and maintenance personnel relevant to the execution of the project and to the long-term O&M.
• Undertake capacity building and knowledge sharing, training, skills transfer to local staff relevant to the execution of the project and to the long-term O&M.
• Undertake activities directly related to the Project as directed by the Director of the DoE.

Planning, budgeting, monitoring and reporting

• Prepare a project plan, showing sequential and concurrent activities, and their interdependencies, to achieve the project milestones. The project plan should be prepared in consultation with all key stakeholders and cover the entire project life-cycle for the mini grids from project inception to delivery. The OE will, following the contract award, update the project plan in consultation with the Service Provider and submit a final project plan to the Director, DoE. The project plan shall incorporate the requirements of the Project Operations Manual (POM) and the social and environmental safeguards instruments and policies and the local legal and regulatory requirements, as necessary;
• Provide advice and support to the Director of the DoE, the Energy Projects Steering Committee and related government agencies on implementation of the project in accordance with the financing agreements with the World Bank and related supporting documents; and
• Prepare budget for the delivery of the mini grids in consultation with the Finance Officer of DoE and the World Bank financial management and procurement specialists. Monitor the flow of funds to ensure the project is undertaken within the project budget to practical completion. Support the DoE on matters relating to the procurement and financial management of the project.
• Monitor progress against project schedule to ensure that the progress is on track and take corrective actions where necessary. Liaise with the key stakeholders, particularly with the DoE, other GoV authorities and the Service Provider, identify issues that may have the potential to adversely affect project progress and, and take steps to proactively resolve them.
• Prepare monthly progress reports against the project plan and submit to the Director, DoE and World Bank for information, review and, where necessary, decision making. The reports will summarise overall progress against the project schedule and milestones as agreed in the contract. Any delays and under-performance will be identified together with the causes of the delays and proposed corrective action.
  o Monthly reports will include:
    ▪ The projected action plan for the next three months including any anticipated issues that may result in delay or otherwise affect outcomes.
    ▪ A financial statement of expenditure for the last quarter against budgeted expenditure.
    ▪ Projected expenditure in the next quarter.
    ▪ Project total expenditure to date against budgeted expenditure.
    ▪ Forecast cost to complete against project budget.
    ▪ Compliance reporting in respect of all contractual, social and environmental, safety and resettlement requirement and obligations.
• Provide DoE with information related to this assignment to assist the DoE in compiling the following reports for submission to the World Bank:
  o Six monthly project reports in accordance with the reporting requirements set out in the Project Operations Manual.
  o Interim Financial Reports on a six-monthly basis.
  o Audited project financial statements annually.
  o A Completion Report not later than three (3) months after the Closing Date of the Grant Agreement.

Identification and selection of the mini grid locations/sites

• The Government has a long list of 55 sites, which are mainly on the islands that currently do not have access to grid electricity. Based on preliminary analysis communities that have more than 75 households and at least 50% of the load from public institutions are likely to be the most suitable.
• The communities with highest demand or potential for demand growth will be offered to opportunity for electrification first. Up to five sites will be selected (dependent of the availability of funds) for mini grids under assignment.
• The sites for mini grids communities will also be selected in accordance with the design considerations.
• Communities will elect to be electrified (self-select) and donate land for generation equipment and access for distribution lines.
• Should a community decline the offer, the next community next in line will be offered the opportunity for electrification.
• Siting of equipment on public facilities and land would be preferred.
• Some of the sites may be accessible by air while others would require travel by sea and road. All equipment would need to be transported by sea.
Community engagement and agreement with the communities

- Prepare a community engagement strategy and plan in accordance with the ESMF, RPF and with the support the Director, DoE implement that strategy and plan. The plan should include identification and an engagement strategy and actions with community leaders/members and local institutions who will be critical to facilitating the consultations and agreements for selection of sites and access for the mini grid equipment and distribution systems.

- Select the most suitable communities/sites to implement the mini grids projects in accordance with the design considerations set out above. The land allocation for each mini grid needs to consider installation of PV modules, batteries, diesel/biofuel generator and LV network (poles and wires). The availability of suitable land and community agreement to make the land available will be a key consideration.

- Convene and participate in public forums to secure community support and agreement to the developments. Provide the community with information on project, land and access needs and on the ongoing operation of the mini grids - energy issues, cost/benefit to the community and possible risks and their mitigation measures, preliminary or concept design and land for generation and distribution systems etc. as necessary.

- Following agreement with the communities, work with the DoE and the State Law Office to formalize the agreement for the development on mini grids in each community and formalize the land and access arrangements.

- Provide ongoing feedback and facilitate interactions between and community and the Service Provider during the construction phase of the project and help resolve any issues that may arise during construction and commissioning. Facilitate any design or implementation changes required for the mini grids.

Conceptual design and functional specifications

- Prepare non-binding demand estimates from households, public institutions and businesses for the selected sites to facilitate bidding by prospective tenderers. Provide a perspective on potential for demand growth over the medium to long-term based on local and international experience.

- Prepare a conceptual design of the mini grid for each community based on estimates of electricity demand from households, public institutions and businesses and site availability and access for discussions with the communities and as basis for the bid documents.

- Prepare functions specifications and set out the technical standards for various components providing the maximum flexibility to prospective Service Providers to engineer the solutions. Prospective bidders may undertake further investigations on the basis of the conceptual design and functional specifications to prepare their cost estimates and project proposals.

The key components of the offered mini grids systems will include:

- Solar PV Modules
- Batteries
- Inverters
- Metering
- Basic household wiring
- Diesel/Biofuel Generator
- Diesel/Biofuel storage and load-in facilities
- Low Voltage Distribution Network (poles & wires)
- Associated civil, mechanical and electrical facilities
- Site works and remediation
Environmental and social safeguards arrangements

- Prepare Environmental and Social Impact Assessments (ESIA), incorporating Environmental and Social Management Plans (ESMP) for each mini grid site. The Environmental and Social Management Framework (ESMF) and Environmental Code of Practice for Used Battery Disposal (ECOP) prepared for VREP II Project together with local laws and the World Bank’s safeguard policies provide the necessary guidance.
- Ensure that access to land to site the equipment for the mini grids and the distribution network is undertaken in accordance with the Resettlement Policy Framework (RPF). All land related issues are to be addressed via negotiated arrangement (willing buyer-willing seller or voluntary land donation etc.).
- Ensure that the Service Provider has mechanisms for responding to grievances in accordance with the ESMF.
- Ensure that the mini grids are designed, constructed and operated and maintained in accordance with the ESIA/ESMP and the RPF and in accordance with the local laws and World Bank policies.

Regulatory, licensing/concession agreements for the operation and maintenance of the mini grids:

- Lead the negotiations on maximum tariffs and price path for the mini grids with the Utilities Regulatory Authority (URA) and the Government in accordance with the design criteria. Finalise a Memorandum of Understanding between the Government and the URA setting out the maximum tariff and the price path and the regulatory oversight arrangements for the mini grids for incorporation in the bid documents.
- Establish the licensing or concession arrangements and working with the State Law Office, and the Government’s Central Tenders Board (CTB) prepare proforma contracts for (i) supply, installation and commissioning of the mini grids, and (ii) the operation and maintenance of the mini grid over an agreed period (subject to negotiation this may be 10 to 15 years). The contract should include provisions for re-tendering of the operations and maintenance functions and provisions for dealing with assets during and at the end of the licence/concession period.
- Facilitate the necessary permits and other Government approvals as required under local laws (such as the Environmental Protection and Conservation Act etc.) for the construction and operations and maintenance of the mini grids by the selected Service Provider.

Preparation of bid documents including bid evaluation criteria, tender & technical evaluation and contract award for supply of works and operations and maintenance of facilities

- Prepare bid documents for the supply and installation and operations and maintenance of mini grids at the selected sites in accordance with the World Bank’s and the Government’s procurement regulations.
- Develop and set out the bid evaluation criteria that minimizes Government contribution, maximizes service levels, is within the maximum tariff (and tariff path) and is consistent with the design considerations. Key design considerations include scalability and compliance with international standards.
- Evaluate tenders for the supply, installation and operations and maintenance of mini grids and prepare a bid evaluation report in accordance with the World Bank procurement regulations for World Bank no objection.
• Negotiate contract for (i) the supply and installation, and (ii) for the operations and maintenance of the mini grids with the successful tenderer. The O&M phase of the project, should include performance parameters such as reliability and availability of supply, response time following a reported breakdown, planned and forced outage times, availability of spares etc. as per the tender. The contract should include a performance bond and sanctions/penalties for non-performance on any aspect of the contract. There will be two contracts, (i) for the supply and installation of the mini grids, and (ii) for the operations and maintenance of mini grids. The former will be under the project and the latter may take the form of a licence or a concession agreement to be administered by the Government of Vanuatu and/or the Utilities Regulatory Authority on behalf of the Government.

• Assist the Government with contract award, ensure that all the relevant documentation (performance security, insurances etc.) is received prior to signing of the contract and administer and supply and installation contract in consultation with the Director, DoE.

**Supervision of construction works and commissioning.**

• Prepare a ‘Contract Management Plan’ for the detailed design, supply and installation of the works.
• Ensure smooth and timely mobilisation of Service Providers by coordinating the activities with the relevant Government agencies and the communities and ensure that Client inputs are delivered to facilitate the process.
• Review and approve all design documents and system specifications. Ensure that all equipment and components, such as PV modules, transformers, inverters, batteries, cables, back-up generators etc. meet all the relevant international standards and have relevant certificates of origin.
• Review and incorporate the Service Provider’s logistics and supply chain management plan, including proposed sea freight options and equipment delivery schedules in the overall project plan. Manage delivery of the project in accordance with the plan.
• Supervise the construction of civil works and installation of mini grid infrastructure and equipment to ensure this is in accordance with the specifications and the social and environmental management frameworks and delivered to the agreed project schedule.
• Identify and assist the DoE in addressing any issues that may impact on the delivery of the project.
• Review and certify the Contractor’s invoices in terms of quantity and quality of work completed before release of progress payments.
• Review and advise on any variations to the contract that are necessary.
• Monitor and keep records throughout the construction period for monthly reporting.
• Review and approve ‘as built’ drawings, including business processes and procedures covering customer service, customer billing etc for all mini grids and retain a copy of the documents on file for management and rebidding of O&M contracts.
• Review and approve the Service Provider’s processes for meeting the requirements of the ESMP and the provisions of the RPF.
• For clarification, the OE will not be involved with the supervision of the O&M contract which will be the responsibility of the GoV or a delegated agency.

5. **Team composition and qualification requirements for the key experts**
The selected OE is expected to have the professional resources, qualifications, skills and experience for the mini grids project set out below. The qualification, skills and experience may be interchangeable between consultants so long as the team meets all of requirements set out below. Their quantity and deployment schedule, both desk-top and site work, throughout the project lifecycle needs to be indicated on the project plan as part of the proposal submission by the interested firms. One of the consultants must act at the resident project coordinator and spend 80% of his/her time in Vanuatu for the entire duration of the project.

**Project Manager**

- A first degree in electrical/mechanical engineering and a second degree in either finance, business, management, renewable energy systems or a related field.
- Minimum of 10 years post qualification experience.
- Experience in engineering planning; design and operation of rural electrification infrastructure; design and implementation of small hybrid engineering projects; design of solar photovoltaic (PV) mini-grid power systems for rural communities in developing countries; and project management.
- Experience in leading project teams, liaison and effective communication with stakeholders, including owners, communities, contractors and project team members.
- Experience in developing project plans and monitoring progress against the agreed schedule, monitoring of cost and quality etc. Preparation of periodic project progress reports etc. Close involvement in the day-to-day project activities and proactively addressing/resolving emerging hurdles and issues.
- Demonstrated track record in successfully executing and delivering similar mini grid projects, including community consultation and land access processes on time, within budget and in compliance with the specifications and other quality standards.

**Project Resident Coordinator.**

- A first degree in electrical engineering with experience in the electricity supply and distribution utility industry and rural electrification.
- 5 years post qualification experience which includes demonstrated experience in project planning and management in small island developing states or remote Sub-Saharan communities.
- Experience as solar PV mini grid delivery on at least three (3) similar mini-grids investment projects.

**Civil/Structural Engineer**

- Degree qualified with a minimum of 5 years of relevant experience.
- Experience in the studies, analysis, design and engineering related to footings and foundations and structures for PV modules, bio-diesel generators and buildings housing switchgear, control panels and batteries.

**Public-private partnership (PPP)/Commercial expert.**

- Degree in law with a qualification in business, economics, and finance/commerce an advantage.
- At least 5 years of legal and regulatory expert experience in drawing up license/concession contracts and in advisory assistance in recruitment of private operators of service supply infrastructure.
• Experience with economic regulation of energy utilities and the associated commercial arrangements or experience with commercial arrangements for regulated utilities
• Experience in at least 5 similar assignments in the past 10 years.

Environmental Specialist
• Degree qualified with a minimum of 5 years of relevant experience.
• Experience in environmental assessment, preparation of environment impact assessment reports, preparation, monitoring and management of environment management plans etc.
• Experience with World Bank or other development partner policies.

Social Safeguards Specialist
• Degree qualified with a minimum of 5 years of relevant experience.
• Experience in developing/implementation of stakeholders' communities’ engagement and communication programs, assessing/addressing resettlement and social safeguards issues, land issues in an environment of community ownership and social impact statements, and implementation and management of grievance redress mechanisms, etc.
• Experience with World Bank or other development partner policies.

Procurement Specialist
• Degree qualified with a minimum of 5 years of relevant experience.
• Experience in preparation of tender/bid documents, bid/tender evaluation, preparation of evaluation reports and contracting.
• Experience with the World Bank’s procurement policies and procedures.

Contracts and Financial Management Specialist
• Degree qualified with a minimum of 5 years of contract and financial management experience.
• Experience in developing and implementing a suitable contract management system for a small to medium size power project and in preparing, monitoring and reporting against budgets.
• Experience in monitoring the project progress, quality and expenditure against contract sum, processing and verifying progress payment invoices, addressing contract disputes, interpreting contract terms & conditions, preparing counter legal arguments, negotiations with the suppliers/contractors, to resolve contract disputes according to the agreed contract terms & conditions, etc.

Local team consultant/facilitator
• Degree qualified with 8 years of experience in liaising with local Government agencies and communities.
• Preferably experience as a senior government official.
• Fluent in English and Bislama. Knowledge of French will be an advantage.

6. Deliverables, timeline and payment schedule
The assignment is expected to be carried out starting from 1\textsuperscript{st} October 2018 to December 2020. The project is expected to be implemented over 2 years with likely completion date of around 31\textsuperscript{st} December 2020.

The OE is required to complete the major project tasks according to the schedule in the table below. The progress payments will be linked to the delivery of tasks subject to review and approval by the DoE and the World Bank.

<table>
<thead>
<tr>
<th>No.</th>
<th>Deliverables (submitted and approved)</th>
<th>Progress Payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Project plan and budget estimates</td>
<td>10%</td>
</tr>
<tr>
<td>2</td>
<td>Communities consultations completed. Sites selected and formalized with legal agreements in place</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>Concept designs and functional specs completed</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>ESIA and ESMP completed RPF compliance requirements completed</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>Regulatory and licensing/concession agreement developed</td>
<td>10%</td>
</tr>
<tr>
<td>5</td>
<td>Tender/bid documents, including selection criteria, completed and tenders called</td>
<td>10%</td>
</tr>
<tr>
<td>6</td>
<td>EOI/RFP process completed. Bids evaluation report completed. Award of contracts.</td>
<td>10%</td>
</tr>
<tr>
<td>7</td>
<td>Mobilization to site. Supervision of construction and commissioning completed</td>
<td>20%</td>
</tr>
<tr>
<td>8</td>
<td>Post-installation O &amp; M system contract in place</td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Total weeks (not sequential)</td>
<td>100%</td>
</tr>
</tbody>
</table>

The level of effort from each on the consultants is expected to be as follows:

<table>
<thead>
<tr>
<th>Personnel</th>
<th>Total staff months</th>
<th>Time in Vanuatu</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project manager</td>
<td>10</td>
<td>5 months</td>
</tr>
<tr>
<td>Project coordinator</td>
<td>12</td>
<td>12 months</td>
</tr>
<tr>
<td>Civil/structural engineer</td>
<td>2</td>
<td>1 month</td>
</tr>
<tr>
<td>PPP/commercial expert</td>
<td>1</td>
<td>0.5 month</td>
</tr>
<tr>
<td>Environmental specialist</td>
<td>1</td>
<td>0.5 month</td>
</tr>
<tr>
<td>Social specialist</td>
<td>1</td>
<td>0.5 month</td>
</tr>
<tr>
<td>Procurement specialist</td>
<td>1</td>
<td>0.5 month</td>
</tr>
<tr>
<td>Contract and financial management specialist</td>
<td>3</td>
<td>2 months</td>
</tr>
<tr>
<td>Local team consultant/facilitator</td>
<td>10</td>
<td>10 months</td>
</tr>
<tr>
<td>Total</td>
<td>41 months</td>
<td>32 months</td>
</tr>
</tbody>
</table>

7. **Facilities/input to be provided by the Client**

- Visas on arrival as required for site visits.
- Office space for up to four (4) consultants at the same time
- Provision of available data, documents and information.
- Support of local staff agencies on specific matters.
8. **Language**

All documents and reports shall be written in English language and submitted in both hard copy and electronic formats (MS Word.DOC) to the Director, DoE for review and comments. After incorporating review comments, final approved copies shall be provided in hard copy and electronic formats.

9. **Type of contract**

The contract for the services specified under this TOR between the OE and GoV (through DoE) is to be a fixed price, lump sum contract.

10. **Supporting references/data**

- VREP II Project Appraisal Document
- VREP I and II Project Operations Manual
- VREP II Environmental and Social Management Framework
- VREP I Resettlement Policy Framework
- Draft Memorandum of Understanding between Utilities Regulatory Authority and the GoV
- Development of off-grid electricity supply in Vanuatu, Pre-Feasibility Studies for Hybrid Mini-grids, September 2016 – IT Power
- Vanuatu National Energy Roadmap
- Vanuatu Mini Census Post Pam Report
- Vanuatu Environmental Protection Conservation Act
- Vanuatu Utilities Regulatory Authority Act (& related amendments)
- Electricity Reliability Standards – to be released soon by URA
- Electricity Supply Act
- Project Procurement Strategy for Development
- Other relevant World Bank policies.