



GOVERNMENT OF KIRIBATI

MINISTRY OF INFRASTRUCTURE & SUSTAINABLE ENERGY

BOTAKI NI MAKURI IBUKIN MAKURIAN KARIKIRAKE AO KATEIMATOAN KORAKORA

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TERMS OF REFERENCE

Engagement of a Certified Structural Engineer for Independent Structural Assessment, Engineering Advice, and Supervision of Roof Strengthening Works

1. Background

The Ministry is implementing renewable energy infrastructure projects that include the installation of rooftop solar photovoltaic (PV) systems on its existing Headquarter building and facilities.

As part of the project preparation process, structural assessments of the proposed installation site have identified deficiencies within the existing roof structure that require further engineering review and consideration prior to the installation of solar PV equipment. Several technical assessments have been undertaken, and recommendations have been provided regarding the condition of the structure and potential remedial measures.

Given the importance of ensuring structural safety, compliance with engineering standards, and the long-term integrity of the facility, MISE requires an independent review of the available technical assessments and professional guidance on the most appropriate remedial actions.

Accordingly, MISE intends to engage a qualified and certified Structural Engineer through a competitive Expression of Interest (EOI) process to provide independent technical advice, review structural recommendations, and oversee the implementation of any required strengthening or remedial works.

2. Purpose of the Assignment

The purpose of this assignment is to provide independent professional engineering services to assess the structural adequacy of the roof structure, determine the suitability of recommended remedial measures, and provide technical oversight during the implementation of any required strengthening works prior to the installation of rooftop solar PV systems.

3. Objectives

The specific objectives of the assignment are to:

1. Independently review all available structural assessment reports and supporting documentation.
2. Verify the structural condition and load-bearing capacity of the roof structure.
3. Assess the suitability of proposed remedial measures and identify any additional requirements.
4. Provide professional engineering recommendations to ensure structural safety and compliance with applicable engineering standards.
5. Supervise and verify the implementation of approved strengthening or remedial works.
6. Certify whether the completed structure is suitable for the intended solar PV installation.

4. Scope of Services

The Consultant shall undertake, but not be limited to, the following tasks:

	Task	Descriptions
1	Review of Existing Documentation	• Review all available structural assessment reports, drawings, calculations, photographs, and related technical documentation. • Evaluate the findings, assumptions, methodologies, and recommendations contained within the existing reports. • Identify any information gaps requiring further

		investigation.
2	Site Inspection and Structural Verification	• Conduct a detailed site inspection of the facility. • Assess the condition of the roof structure and associated structural elements. • Verify structural dimensions, member conditions, connections, support systems, and any visible signs of deterioration or distress. • Confirm the structural capacity of the roof to accommodate the proposed solar PV installation. •
3	Engineering Assessment and Recommendations	• Assess the adequacy of proposed remedial measures. • Identify and recommend the most appropriate strengthening, repair, rehabilitation, or replacement options where necessary. • Ensure all recommendations comply with applicable engineering standards, building codes, and industry best practices. • Provide practical and cost-effective engineering solutions. •
4	Technical Oversight and Supervision	• Review contractor methodologies and work procedures related to the remedial works. • Undertake inspections during implementation of strengthening or repair activities. • Verify compliance with approved engineering recommendations and specifications. • Provide technical advice to MISE on any issues arising during implementation. • Recommend corrective actions where deficiencies are identified.
5	Final Inspection and Certification	Upon completion of remedial works, the Consultant shall: • Conduct a final structural inspection. • Verify that all approved works have been completed satisfactorily. • Confirm that the structure complies with the recommended engineering requirements. • Issue a professional certification stating whether the roof structure is suitable and safe for the installation and operation of the proposed solar PV system. •

5. Deliverables

The Consultant shall provide the following deliverables:

	Deliverable	Descriptions
1	Inception Report	1. Understanding of the assignment 2. Proposed methodology 3. Work plan and schedule.
2	Structural Review and Assessment Report	1. Findings from document review and site inspection 2. Assessment of structural condition 3. Evaluation of existing recommendations 4. Identification of risks and deficiencies 5. All drawings and technical outputs shall be prepared to a professional engineering standard suitable for implementation and construction
3	Engineering Recommendations Report	1. Recommended remedial works. 2. Technical specifications and design requirements where necessary. 3. Prioritized implementation actions. 4. Detailed structural drawings for proposed remediation works 5. Prioritised implementation actions

4	Supervision and Inspection Reports	1. Site inspection findings. 2. Progress observations. 3. Compliance verification. 4. Recommendations for corrective actions.
5	Final Structural Certification Report	1. Final inspection findings. 2. Confirmation of compliance. 3. Certification of structural suitability for solar PV installation.

6. Duration of Assignment

The assignment is expected to be completed within 4 weeks from the date of contract signing. The duration may be adjusted subject to the implementation schedule of the remedial works.

7. Qualifications and Experience

The Consultant shall possess:

- A recognized degree in Structural Engineering, Civil Engineering, or a related discipline.
- Professional registration as a practicing engineer with a recognized engineering body. Preferably a Chartered Professional Engineer (CPeng) or equivalent
- Demonstrated experience in structural assessment, building inspections, structural design, and construction supervision.
- A minimum of five (5) years of relevant professional experience.
- Proven experience in preparing structural certification reports.
- Experience with rooftop solar PV installations and associated structural requirements will be considered an advantage.
- Proof of valid professional indemnity insurance (and any other relevant insurance) to cover professional practice and potential liabilities.

8. Reporting Arrangements

The Consultant shall report directly to the MISE and coordinate closely with the Acting Director of Energy Planning Department, relevant stakeholders throughout the assignment.

9. Submission Requirements

Interested applicants shall submit:

- Expression of Interest.
- Technical Proposal.
- Curriculum Vitae of key personnel.
- Evidence of professional registration and qualifications.
- List of relevant assignments undertaken.
- Financial Proposal indicating professional fees and associated costs.
- References from similar assignments completed within the last five years.

10. Selection Method

The Consultant will be selected based on:

- Relevant qualifications and professional registration.
- Demonstrated experience in similar assignments with good references.
- Technical approach and methodology.
- Capacity to undertake the assignment within the required timeframe.
- Financial proposal and overall value for money.

11. Budget

The total budget for this assignment shall not exceed AUD 10,000.00. Payment will be made based on the satisfactory completion and acceptance of the mentioned deliverables:

Deliverable	Percentage
Deliverable 1: Inception Report – Upon submission and approval of the inception report, including methodology and work plan	10%
Deliverable 2: Structural Review and Assessment report – Upon submission and acceptance of findings from documents review and site inspections	25%
Deliverable 4: Supervision and Inspection	15%

reports – Paid progressively or upon completion of agreed supervision milestones	
Deliverable 5: Final structural certification Report – Upon final inspection, certification and acceptance of the completed works	20%

All payments are subject to satisfactory review and approval by MISE.