

REQUEST FOR PROPOSAL MR 305/2025

COMPREHENSIVE DAM SAFETY REVIEW

ENERGY FIJI LIMITED

© Copyright 2025

REVISION HISTORY & DOCUMENT CONTROL

Quality Assurance Statement		
	Project Manager:	
Energy Fiji Limited	Mohammed Anees Khan	
Private Bag	Prepared by:	
Suva	Mohammed Anees Khan	
Fiji	Reviewed by:	
Tel: 679-3311133	Epeli Malo	
Fax: 679-3311882	Approved for issue by:	
	Epeli Malo	

Rev No.	Notes	Prepared By	Reviewed & Approved By	Date of Issue
0.1	Initial draft for internal review and comment	M.A. Khan		01/09/25
	Second Draft – Suekuni-san Review			19/09/25
	Final Draft	M.A. Khan		17/10/25

TABLE OF CONTENTS

RI	EVISI	ON HISTORY & DOCUMENT CONTROL	2
1	В	ACKGROUND	5
2	IN	ISTRUCTIONS FOR PARTIES REGISTERING INTEREST	6
2	2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 2.10 2.11 2.12 2.13 2.14 2.15 2.16 2.17 2.18 2.19 2.20	Eligible Tenderers. Eligible Materials, Equipment and Services One Bid Per Tenderer Cost of Bidding. Site Visits. Contents of Bidding Documents. Clarification of Bidding Documents. Amendment of Bidding Document. Language of Bid Bid Prices. Bid Currencies. Bid Currencies. Bid Validity. Format and Signing of Bids Deadline for Submission of Bids. Late Bids Modification and Withdrawal of Bids Rejection of One or All Bids Process to be Confidential. Clarification of Bids. Compliance with Specifications	
	2.21	Signature of Tenderer	9
	2.22 2.23	Mandatory Compliances	
3	GI	ENERAL CONDITIONS OF CONTRACT	10
4	ΑI	DDITIONAL CLAUSES TO GENERAL CONDITIONS OF CONTRACT	10
5	DI	ESCRIPTION OF HYDROPOWER INFRASTRUCTURES IN FIJI	11
	5.1 5.2 5.3 5.4	Monasavu Dam Wainisavulevu Weir Wainikasou Power Station Korolevu Weir and Nadarivatu Powerhouse	11 15
6	S	COPE OF WORK	19
	6.1 6.2 6.3 6.4 6.5 6.6 6.7 6.8 6.9 6.10 6.11	General Scope Dam Safety Issues and Safe Operations Passage of Floods Seismic Loading and Dynamic Response Resistance to Internal Erosion Potential Failure Modes Dam Safety Status and Identified Dam Safety Issues Dam Safety Surveillance Systems Operations and Maintenance Review Emergency Preparedness Plan Previous CDSR Reports and Recommendations	
7		ELIVERABLES	
8	PF	ROGRAM	22
9	SI	UPERVISION AND REPORTING	22
10) E)	XPERTISE AND QUALIFICATION	23

11	PAYMENT S	CHEDULES AND TERMS	23
12	INPUTS AND	FACILITIES PROVIDED BY EFL	23
SCH	IEDULE 1:	PROPOSED TEAM MATRIX & RESOURCING PLAN	24
SCH	IFDIII F 2·	SCHEDULE OF RATES	25

1 BACKGROUND

Energy Fiji Limited ("EFL") is a public company limited by shares that was established under the Companies Act (2015), Laws of Fiji. It is supervised by a Board of Directors comprising a Chairman and representatives of its shareholders. Its major shareholders include the Fijian Government and Sevens Pacific Pte. Limited.

The Executive Management team of EFL consists of the Chief Executive Officer, Deputy Chief Executive Officer, Chief Operating Officer, Chief Finance Officer, General Manager Human Resources, General Manager Generation, General Manager Network, General Manager Customer Services, General Manager System Planning and Control, General Manager Special Projects and Chief Information Officer.

EFL is primarily responsible for generation, transmission and distribution of electricity in Viti Levu, Vanua Levu, Ovalau and Taveuni in Fiji. It owns over twenty (20) power stations and twenty (20) substations and switching stations on the islands of Viti Levu, Vanua Levu, Taveuni and Ovalau. EFL owns, operates and maintains a network of 147km of 132kV transmission lines, 576km of 33kV lines and over 10,700km of 11kV and 415V distribution lines, as at 31st December 2024. It also has over 220,000 customer accounts as at 31st December 2024, made up of domestic, institutional, commercial and industrial customers.

EFL has embarked upon an ambitious program of development in order to fulfil its strategic objectives. These include development of new generating and power system projects as well as improving reliability and capacity-building for future load growth. EFL plans to increase the generation capacity of Fiji in order to meet continuing demand growth and intends that this additional capacity will be provided by renewable or at least non-polluting resources.

In order to ensure the existing hydropower infrastructure continue to deliver as designed, a thorough and comprehensive infrastructure review and audit needs to be carried out.

EFL is therefore seeking proposals from reputable firms to conduct a Comprehensive Dam Safety Review for all dams and weirs owned and operated by EFL. During evaluation of proposals, EFL may invite a tenderer or tenderers for discussions, presentations and any necessary clarification before proceeding further.

The deadline to submit tender bids is 1600hrs on 7 November 2025, Fiji Time.

Further information relating to this RFP may be acquired from:

Jitendra Reddy Manager Procurement, Inventory & Supply Chain 2 Marlow Street, Suva, FIJI.

Phone: +679 3224320 / +679 9992400

Email: tenders@efl.com.fj

2 INSTRUCTIONS FOR PARTIES REGISTERING INTEREST

2.1 Eligible Tenderers

This invitation is open to Tenderers who have sound Financial Background, and have previous experience in carrying out such work.

Tenderers shall provide such evidence of their continued eligibility satisfactory to EFL as EFL shall reasonably request, using the forms provided in the Schedules.

Tenderers shall not be under a declaration of ineligibility for corrupt or fraudulent practice.

2.2 Eligible Materials, Equipment and Services

The materials, equipment, and services to be supplied under the Contract shall have their origin from reputable companies and countries and all expenditures made under the Contract will be limited to such materials, equipment, and services. Tenderers shall be required to provide evidence of the origin of materials, equipment, and services in their bids.

For purposes of this Contract, "services" means the works and all project-related services including design services.

For purposes of this Contract, "origin" means the place where the materials and equipment are mined, grown, produced or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing or substantial or major assembling of components, a commercial recognized product results that is substantially different in basic characteristics or in purpose or utility from its components.

The services to be provided under the Contract shall not infringe or violate any industrial property or intellectual property rights or claim of any third party.

2.3 One Bid Per Tenderer

Each Tenderer shall submit only one bid. A Tenderer who submits or participates in more than one bid will cause all those bids to be rejected.

2.4 Cost of Bidding

The Tenderer shall bear all costs associated with the preparation and submission of its bid and EFL will in no case be responsible or liable for those costs.

2.5 Site Visits

Site visits can be arranged upon request, but not mandatory.

Bidders are to meet at the junction of Kings Road and Nadarivatu Road at 8.30am (Fiji Time) on the agreed date of site visit. Bidders are required to arrange their own transportation for the site visits.

2.6 Contents of Bidding Documents

The Tenderer is expected to examine carefully the contents of this Bidding document. Failure to comply with the requirements of bid submission will be at the Tenderer's own risk. Bids which are not substantially responsive to the requirements of the bidding documents will be rejected.

2.7 Clarification of Bidding Documents

A prospective Tenderer requiring any clarification of the bidding documents may notify EFL in writing by email addressed to:

Jitendra Reddy Manager Procurement, Inventory & Supply Chain 2 Marlow Street, Suva, FIJI.

Phone: +679 3224320 / +679 9992400

Email: tenders@efl.com.fj

EFL will respond to any request for clarification which it receives earlier than five (5) days prior to the deadline for submission of bids.

2.8 Amendment of Bidding Document

At any time prior to the deadline for submission of bids, EFL may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Tenderer, modify the bidding documents by issuing addenda.

2.9 Language of Bid

The bid, and all correspondence and documents related to the bid, exchanged between the Tenderer and the EFL shall be written in the English language.

2.10 Bid Prices

Unless specified otherwise, Tenderers shall quote for the entire facilities on a "single responsibility" basis such that the total bid price covers all the Tenderer's obligations mentioned in or to be reasonably inferred from the bidding documents in respect of the design, manufacture, including procurement and subcontracting (if any), testing and delivery.

Tenderers shall give a breakdown of the prices in the manner and detail called for in the Schedules of this bidding document, or any issued addenda.

2.11 Bid Currencies

Prices shall be quoted in a single currency only.

2.12 Bid Validity

Bids shall remain valid for a period of **150 days** from the date of Deadline for Submission of Bids specified in Sub-Clause 2.15.

2.13 Format and Signing of Bids

The Tenderer shall submit its Technical and Financial proposals (complete bid) on EFL's electronic tender hosting website, https://www.tenderlink.com/efl.

The bid shall contain no alterations, omissions or additions, except those to comply with instructions issued by EFL, or as necessary to correct errors made by the Tenderer, in which case such corrections shall be initialed by the person or persons signing the bid.

EFL will not be accepting hard copy tender bid submissions.

2.14 Deadline for Submission of Bids

Bids must be received by EFL at the address specified above no later than **1600 hours (Fiji Time) 7**th **November 2025.**

EFL may, at its discretion, extend the deadline for submission of bids by issuing an addendum, in which case all rights and obligations of EFL and the Tenderers previously subject to the original deadline will thereafter be subject to the deadlines extended.

2.15 Late Bids

Any bid received by EFL after the deadline for submission of bids prescribed above will be rejected.

2.16 Modification and Withdrawal of Bids

The Tenderer may modify or withdraw its bid after bid submission, provided that written notice of the modification or withdrawal is received by EFL prior to the deadline for submission of bids.

The Tenderer's modification or withdrawal notice shall be prepared as appropriate and uploaded on Tender Link website. A withdrawal notice may also be sent by email but must be followed by a signed confirmation copy.

No bid may be modified by the Tenderer after the deadline for submission of bids.

2.17 Rejection of One or All Bids

EFL reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids, at any time prior to award of Contract, without thereby incurring any liability to the affected Tenderer or Tenderers or any obligation to inform the affected Tenderer or Tenderers of the grounds for the rejection.

2.18 Process to be Confidential

Information relating to the examination, clarification, evaluation and comparison of bids and recommendations for the award of a contract shall not be disclosed to Tenderers or any other persons not officially concerned with such process.

Any effort by a Tenderer to influence EFL's processing of bids or award decisions may result in the rejection of the Tenderer's bid.

Lowest bid will not necessarily be accepted as successful bid.

2.19 Clarification of Bids

To assist in the examination, evaluation and comparison of bids, EFL may, at its discretion, ask any Tenderer for clarification of its bid. The request for clarification and the response shall be in writing by email, but no change in the price or substance of the bid shall be sought, offered or permitted except as required to confirm the correction of arithmetic errors discovered by EFL in the evaluation of the bids.

2.20 Compliance with Specifications

The tender shall be based on the equipment and work specified and shall be in accordance with the Technical Specification. It should be noted that unless departures from specifications are detailed in Schedules of the Technical Specification, the tender would be taken as conforming to the Specification in its entirety. The Tenderer shall tender for the whole of the Works included in the Specification.

2.21 Signature of Tenderer

A tender submitted by a Partnership shall be signed by one of the members of the Partnership and shall be accompanied by a certified authorization of all the partners authorizing the individual partner to sign on behalf of the Partnership. A tender submitted by a Corporation to the Contract and shall be accompanied by a certified resolution of the Board of Directors authorizing the individual to sign on behalf of the Corporation.

2.22 Mandatory Compliances

Tenderers are required to ensure that their bid submission includes the following local (Fijian) mandatory compliance:

- 1. Fiji Revenue and Customs Service compliance
- 2. Fiji National Provident Fund compliance
- 3. Fiji National University compliance
- 4. Other compliances required under Fijian laws and legislation

Failure to submit or meet mandatory compliance requirements could result in automatic disqualification of bids.

2.23 Insurance

The Tenderer is to confirm that they have in effect the relevant insurance policies in place, including at least the ones enlisted below with a copy in the bid:

- 1. Professional indemnity
- 2. Public and Products Liability Insurance

3. Workmen's Compensation

3 GENERAL CONDITIONS OF CONTRACT

The General Conditions of Contract shall be FIDIC Client/Consultant Model Services Agreement – Fifth Edition 2017 (White Book).

4 ADDITIONAL CLAUSES TO GENERAL CONDITIONS OF CONTRACT

Bidders and Appointed Consultants are to acquire their own licensed copy of the applicable FIDIC Book.

5 DESCRIPTION OF HYDROPOWER INFRASTRUCTURES IN FIJI

EFL is preparing plans for rehabilitation and green field construction of sources of renewable energy generation, as well as the transmission network in Viti Levu, its related catchment area and hydropower schemes.

Feasibility studies have been carried out for two most promising plants, Qaliwana & Upper Wailoa hydropower scheme and Lower Ba (Vatutokotoko) hydropower scheme. The key components of the projects include dam, weirs, power waterways, power house, transmission lines and access roads. This project is financed and technically assisted for strategic investments, particularly in infrastructure, energy efficiency and private sector development under EU's Investment Facility for the Pacific. Basic studies have been performed on hydrology, topography, geology, dam safety with energy production, cost estimates and economic analysis.

EFL has two main hydropower generating schemes, namely Monasavu and Nadarivatu Schemes. In addition, there are several other smaller hydropower generation facilities that EFL owns and manages.

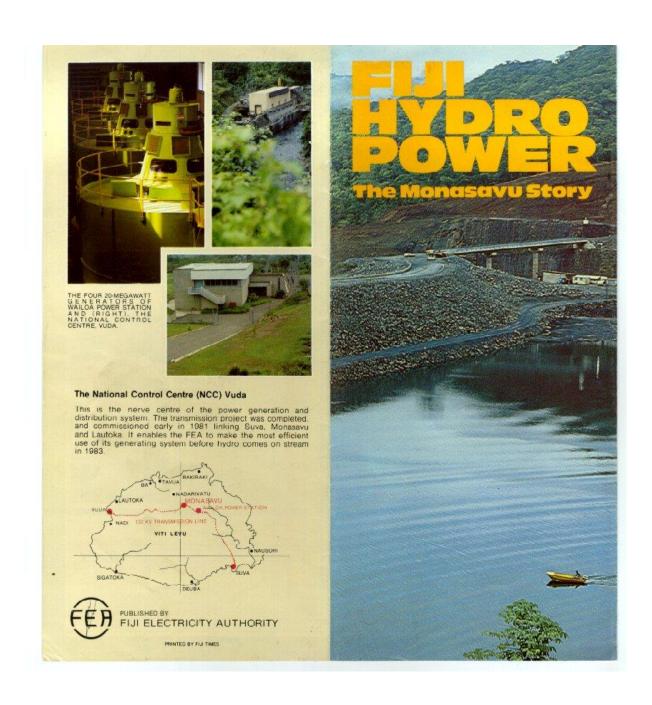
The salient features of these hydropower schemes are itemised below:

5.1 Monasavu Dam

Summary of Monasavu Dam:

Component	Specifications	
Period of construction	1978 - 1983	
Maximum Output	42MW (41.8MW)	
Mean Annual Output	101GWh	
Dam	Monasavu Dam is an 85m high zoned embankment dam with a crest length of 465m. It has a core of moderate width, inclined so the centreline of the core below the crest is downstream of its centreline at foundation level. The core material is a sensitive residual clay derived from completely weathered siltstone which had to be placed with its moisture content about 20% above optimum. This "wet" core placement was a very unusual practice but necessary due to the nature of the clay minerals and weather conditions at the site. Filters were constructed on both upstream and downstream faces of the core. Multiple filter zones were constructed in order of, a fine filter of medium sand, a medium gravel coarse filter and a coarse gravel drainage/transition zone. The latter was next to the rockfill shoulder material. Rip rap was placed over the full exposure of the upstream face. In the valley floor the dam is founded on Monzonite, an igneous intrusion. In the abutments, the dam is founded on bedded moderately strong sandstone and siltstone and minor conglomerate between the Monzonite and the sandstone/siltstone. There is a bench on the upstream face of the dam at about RL736m. Height: 85m. Crest level: 750m nominal (750.875m lowest point). Design flood level (D.F.L): RL 748.25m. Full supply level: RL 745m. Minimum supply level: RL 710m.	
Storage	142million m3.	
Operating Range	35m	
Tunnel intake	Intake and power tunnel outlet to Wailoa power station.	

	intake sill at RL701m.	
Tunnel and penstock	2km tunnel from weir to penstock near Buyabuya. 3 m diameter and D shaped (flat bottomed). Drill and blast construction method. Concrete floor and lined with concrete or steel. Expected excavated loose volume is 20,000 to 25,000 m ₃ . 1.4km steel penstock from tunnel to power station at the Ba River. 2.25m outer diameter.	
	· · · · · · · · · · · · · · · · · · ·	
Wailoa Power Station	42 MW power station west of Buyabuya village, on the true left hand side of the Ba River. 2 x 22MW vertical Pelton wheel turbine generators. The power house will include a 'substructure' which will house the turbines. The 'superstructure' above the turbines will include the gantry crane (used for maintenance), control room, workshop, switch room and staff facilities (including living quarters). The power house will be built of reinforced steel and have galvanised steel cladding. Transformers will be located adjacent to the power house.	
Maximum discharge from power station	15m ₃ /s	
Approximate mean annual diesel replacement	22,000T, based on mean output of 101GWh	



Monasavu Story

When engineers made their final selection of a site for the creation of a hydro electric scheme, few people would have doubted their wisdom. Even fewer would have known where Monasavu was . . . an unpopulated, cloud-covered area of dense virgin rain forest where a little-known creek, the Nanuku, plummeted towards the Wainimala River Valley below. High and wet, it had what the engineers were looking

for. They chose the spot to build an 82-metre high to build an 82-metre high clay and rock dam, creating a 17-kilometrelong lake covering 470 hectares. The lake is cradled in the Nadrau Plateau about 1000 metres above sea level incentral Viti Levu, Fijis largest and most mountainous island. The plateau's rainfall averages about 360 cm a year. The hydro scheme is designed to reduce the country's reliance on imported diesel fuel used for generating electricity, and to spearhead further

and to spearhead further development plans. The

development plans. The Fiji Electricity Authority approved the Monasavu scheme in 1977 and construction began in May, 1978. It was financed by overseas and local funds and Government grants, a multi-million dollar project which remains the most ambitious development scheme undertaken in Fiji. Armed with a fleet of earth-moving machines, tunnelling devices and international expertise, a work force of about 1500 men set about carving out the scheme from virgin bush. For many of those men, it would mean working in conditions far cooler — and wetter — than anything they had encountered before than anything they had encountered before.

The theory behind hydro-electricity is quite simple: water under high-pressure turns the turbines, rather than diesel-fueled generators. But if the theory is simple, the mechanics of building a dam and a series of tunnels is not

The Wailoa River turbines, 625 metres lower than the lake, are capable of producing double the power needs of Viti Levu in the 1980's.

Facilities for the transmission of power from Wailoa to Vuda and Suva also had to be set up a trans-Viti Levu link across the very centre of the island.

The Project involved the construction of:

- The 82-metre high Monasavu Dam across Nanuku Creek.
- Wailoa Power House with four 20-megawatt generators.
- A 5.4 kilometre tunnel from the lake to Wailoa Power House.
- The National Control Centre at Vuda near Lautoka, sub stations at Vuda, Wailoa and Cunningham Road near Suva.



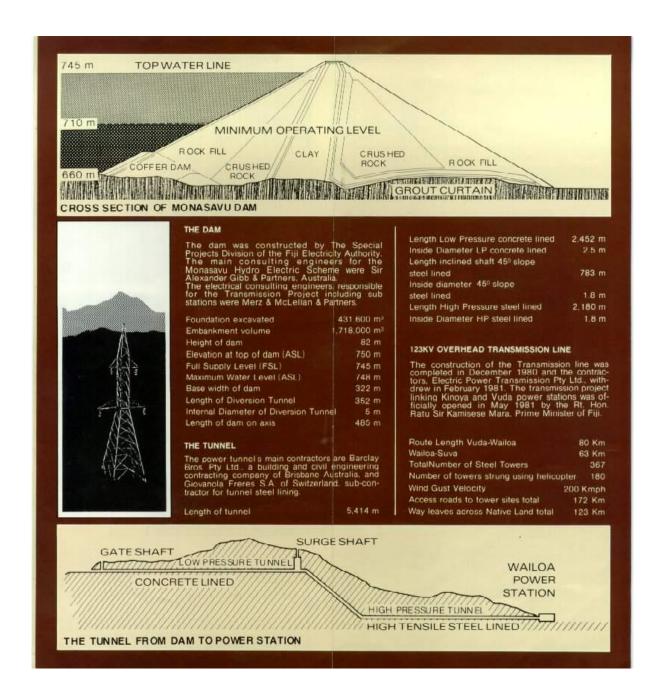






MONASAVU DAM AND THE LAKE IT CREATED: KORO-NI-O CAMP SITE, AND WELDERS IN THE STEEL-LINED HIGH PRESSURE TUNNEL

- 132KV transmission lines on 367 towers across Viti levu and installation of electronic computers and radio telephone for communications and systems control.
- 73.5 kilometres of access roads within the Monasavu
- Weirs, shafts, a 3.9 Km tunnel for the diversion of the Wainaka and Wainabua Creeks and a 7.02 Km tunnel for the diversion of the Nabilabila, Wainikasou and Wainasavulevu Creeks to Monasavu Reservoir.



5.2 Wainisavulevu Weir

Wainisavulevu Weir is owned and operated by EFL. The Weir is operated as a diversion structure supplying water for hydro-electric generation initially through Wainikasou Power Station and then through Wailoa Power Station after impoundment behind Monasavu Dam.

The capture of additional water during rainfall events has long been recognised as a desirable development for Wainisavulevu Weir. This would be achieved through raising of the current Weir wall and allowing additional generation from the existing power stations without the need for any new generation or distribution systems.

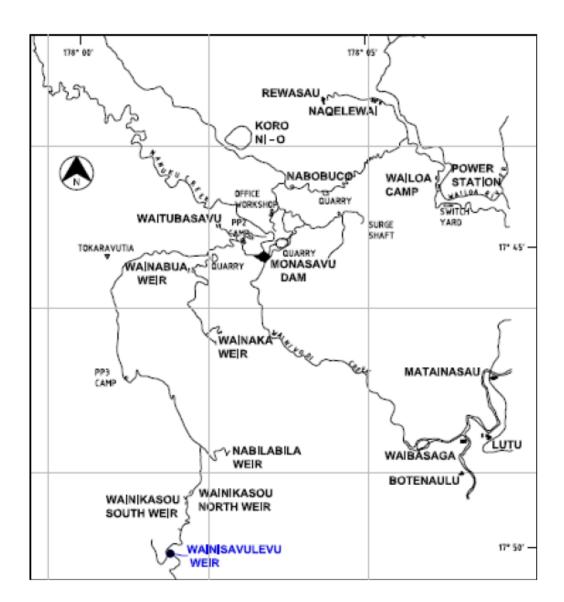
A capital works project has been completed in 2014 to raise the Weir to a new level of RL 921m.

Features and issues of relevance to the adoption of the project as determined through the investigations were:

- Existing Diversion Scheme The Weir has functioned for over twenty years as part of the water diversion scheme. The scheme has proved valuable and is suited for both continuation and augmentation in energy yield.
- Weir Engineering The Weir is soundly constructed with conservative safety factors. The structure would be suitable for use as the foundation for construction of a new and enlarged Weir at the site.
- Geotechnical Conditions The performance of the Weir over the long period since construction and all of the available geotechnical records indicate that the Weir site has good foundation material. The sandstone rock foundation stratum is capable of sustaining further loading that would result from a raised structure.
- Hydrology and Hydraulics An examination of catchment characteristics demonstrates some more water could be diverted from Wainisavulevu Creek to advantage for generation of electricity. The spillway characteristics as currently constructed are suitable for inclusion in a raised Weir structure.
- Fusegate Options for raising of the top water level using both simple concrete walls and structures with the existing fusegate re-installed were examined. All cases demonstrate the financial advantages for the fusegate options.

This would be achieved by removal of the existing fusegate, construction of new concrete elements with an additional height of 6 m and re-installation of the fusegate. Two earthen embankments would be needed on the southern abutment ridge. A new access road would be required across the northern ridge to replace the existing road which would be inundated by the higher water levels.

Energy yield from the increased diversion averages 7.63 GWh/year.



Locality Plan - Monasavu Scheme

5.3 Wainikasou Power Station

The Wainikasou Power Station is owned and operated by EFL. The Power Station was constructed and Weir is operated as a diversion structure supplying water for hydro-electric generation initially through Wainikasou Power Station and then through Wailoa Power Station after impoundment behind Monasavu Dam.

The annual long-term average output from Wainikasou Hydro Station is 22 million units of electricity. Actual average, after the (Wainisavulevu) weir-raising project in 2014, stands at 20.389 million units of electricity per annum.

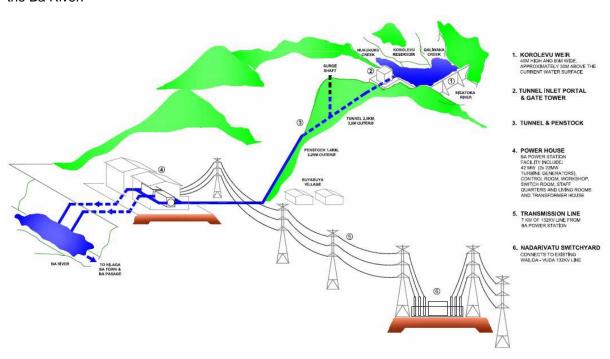
In 2023, the station production was the highest of 25.601 million units of electricity compared to 18.98 million units in 2022 and 19.25 million units in 2021.

_

5.4 Korolevu Weir and Nadarivatu Powerhouse

The Nadarivatu Hydro Power Project is located in the Nadrau Plateau, in the highlands of Viti Levu, the main island in Fiji. The 42MW scheme, in an average year, would generate approximately 15% of the Viti Levu electricity requirements and displace 22,000 tonnes of diesel. At a growth rate of 6-7% a year, the electricity demand in Fiji is currently being serviced by a growing number of diesel power plants.

The Nadarivatu scheme involves taking water from the Sigatoka River, which flows to the south coast of Viti Levu, to the Ba River, which flows to the north coast. A 31 metre (m) weir in the head waters of the Sigatoka River diverts water through a tunnel and penstock to the Ba Power Station on the bank of the Ba River.



Component	Specifications	
Maximum Output	42MW (41.8MW)	
Mean Annual Output	101GWh	
Korolevu Weir	40m high (from its foundations) and 80m wide (at the top).	
	Approximately 31 m above the current stream bed.	
	Located immediately downstream of the confluence of the Nukunuku Creek and Qaliwana Creek, on the Sigatoka River.	
	Concrete construction.	
	Three spillways at the top of the weir, each with a gate that can hold and control weir water at high flows and open up to pass flood flows over the spillway during extreme flood events. Capable of passing a 1 in 1,000 year flood without the water level in the reservoir rising.	
	Two 4.2m x 4.2m sluice gates through the base of the weir for regular flushing of trapped sediments and other debris.	
Korolevu Weir Storage	1,009,000m ₃ of 'live' storage (water that is available for power generation, above the intake structure).	
	9ha maximum holding pond area, extending up the Qaliwana and Nukunuku creeks.	
	Maximum of 18.7 hours storage.	
Operating Range	22m	

Tunnel intake	A submerged intake is located approximately 25m upstream of the weir on the true right bank.
Tunnel and penstock	2km tunnel from weir to penstock near Buyabuya. 3 m diameter and D shaped (flat bottomed). Drill and blast construction method. Concrete floor and lined with concrete or steel.
	Expected excavated loose volume is 20,000 to 25,000 m ₃ .
	1.4km steel penstock from tunnel to power station at the Ba River. 2.25m outer diameter.
Ba Power Station	42 MW power station west of Buyabuya village, on the true left hand side of the Ba River. 2 x 22MW vertical Pelton wheel turbine generators. The power house will include a 'substructure' which will house the turbines. The 'superstructure' above the turbines will include the gantry crane (used for maintenance), control room, workshop, switch room and staff facilities (including living quarters). The power house will be built of reinforced steel and have galvanised steel cladding. Transformers will be located adjacent to the power house.
Maximum discharge from power station	15m ₃ /s
Approximate mean annual diesel replacement	22,000T, based on mean output of 101GWh

6 SCOPE OF WORK

The purpose of this Comprehensive Dam Safety Review (CDSR) is to determine the adequacy of the safety management of EFL owned and operated Dams and Weirs, and to identify whether there are any dam safety deficiencies. This review is being undertaken to meet Energy Fiji Limited's dam safety assurance programme, which aligns with common and best practices in New Zealand and Australia.

6.1 General Scope

The Consultant shall conduct the CDSR in accordance with the latest and relevant New Zealand Society of Large Dams (NZSOLD) and/or Australian National Committee on Large Dams (ANCOLD) Dam Safety Guidelines using existing and historical information. Australian, Canadian and US guidelines may be referred to where relevant.

The Consultancy shall be carried out in two (2) phases:

- Phase 1 establishment of Failure Modes and Effects Analysis (FMEA), Probable Maximum Flood (PMF) and Potential Impact Classification (PIC) for Korolevu Weir and Wainisavulevu Weir, in accordance with NZSOLD Dam Safety Guidelines - 2024.
- Phase 2 carry out CDSR for all as described and detailed below.

The Scope of Consultancy Services shall be, but not necessarily be limited to:

- a) Review of related documentation
- b) On-site examinations
- c) Audit of relevant operation and maintenance instructions and emergency procedures.
- d) Review of consequence rating based on information provided.
- e) Evaluation of the monitoring and performance data.
- f) Qualitative assessment of safety related design features against current design standards.
- g) Review previous CDSR reports and progress of previous recommendations.
- h) Seismic load review.

- The structures to be included in this study are:
 - i. Concrete dam, and/or Zoned rockfill dam, with central clay cores.
 - ii. Spillways
 - iii. Diversion, inlet and outlet tunnels, surge shafts, etc.
 - iv. Associated Power Station structures including inlet structures,
 - v. Water diversion structures into the reservoirs.
 - vi. Any other structures not specifically listed above.
- i) CDSR report preparation and presentation to EFL.
- k)

6.2 Dam Safety Issues and Safe Operations

The Consultant shall utilise the new NZSOLD/ANCOLD Dam Safety Guidelines recently published in 2025.

A specific statement of Dam Safety Issues is expected, which would allow for clarity in understanding what the issue is and its significance better understood.

6.3 Passage of Floods

The purpose will be to study existing flood behavior and to evaluate the dam's impact on downstream flood risks and flood protection, considering factors like flood characteristics, dam design, reservoir capacity, and operational rules. This scope shall also establishes a dam's Acceptable Flood Capacity (AFC) and inform EFL on dam management to control water releases, reduce flood damage, and prevent dam failure.

The dam has to be assessed using loadings based on "World's greatest observed point rainfall" event and/or a site-specific PMP study. A a site-specific PMP and flood routing study should be conducted to ensure that flood loadings meet conditions for Fiji without overtopping.

Additional Issues should be addressed along with the development of a new PMF and flood routing, including:

- a) Confirm freeboard requirement
- b) Assess potential for flows along dam embankment during PMF.

6.4 Seismic Loading and Dynamic Response

Perform a review of the seismic hazard for EFL's dams and weirs. This study shall also summarise the findings from previous studies that have been performed and seismic loadings used for assessment.

6.5 Resistance to Internal Erosion

Study the dams and weirs resistance to internal erosion. This may involve analyzing the soil's particle size distribution and mechanical properties, and not limited to conducting specialized laboratory tests like the Hole Erosion Test (HET) and Flow-Limiting Erosion Test (FLET), and using the results to advise EFL on preventative measures.

6.6 Potential Failure Modes

This CDSR shall provide a simplified assessment of likely Potential Failure Modes (PFM).

6.7 Dam Safety Status and Identified Dam Safety Issues

There are four types of Dam Safety Issues (DSI) and these are discussed in more detail in Section 12 of this report. The two most significant of these are the Confirmed and Potential Dam Safety Deficiencies. There are no Confirmed Deficiencies (CD) discussed in this report.

This means that the dam can be operated without restriction. However, there are several Potential Deficiencies (PD) and recommendations are provided to address these. These should be addressed by the next CDSR.

The two other types of Dam Safety Issues are Physical Infrastructure and Non-Conformances. Physical Infrastructure (PI) issues are where equipment, access, instrumentation, communications or maintenance is insufficient to verify satisfactory dam performance. Nonconformances (NC) should be addressed to ensure that the appropriate processes are used to reduce dam safety risks.

6.8 Dam Safety Surveillance Systems

Scope of work shall include review, vetting and recommending for improvements to the dams and weirs Surveillance System, including but not limited to:

- Instrumentation
- · Deformation survey markers
- · seismic recorders
- Adequacy of Monitoring Practices
- Monitoring Data Management
- Safe Storage of Monitoring Data catalogue and archives.
- Monitoring Data Analysis for:
 - Dam Deformation Movements
 - Seepage Monitoring
 - > Earth Dam and Foundation Piezometric Monitoring
 - Piezometric Conditions
 - Abutment Groundwater Monitoring
 - Downstream Toe Groundwater Monitoring
 - Alarm Management.

6.9 Operations and Maintenance Review

Undertake a thorough review of the dams and weirs operations and maintenance procedures against New Zealand and Australian standards recommended best practices.

6.10 Emergency Preparedness Plan

Scope of work shall include review, vetting of the Emergency Preparedness of the respective dams/weirs.

The study shall also review and make recommendations on:

- Emergency Exercises
- Dam Safety Emergency Plan Document.

Should any dam and weir be found not have an adequate Emergency Response Plan, the CDSR report shall provide a template to establish the same.

6.11 Previous CDSR Reports and Recommendations

The selected Consultant will be provided with the past CDSR reports for review and analysis of status of recommendations therein.

In accordance to NZSOLD Guidelines, Comprehensive Dam Safety Reviews' General requirements (4.5.2) "A reviewer should not complete two consecutive CDSRs for the same dam."

7 DELIVERABLES

- a) Within one week of commencement, the Consultantshall submit to EFL a detailed work program outlining time inputs, field visits and the methodology, in MS Project format.
- b) An inception report shall be submitted with the detailed work program.
- c) The Consultantwill provide, presentation of activities, findings and recommendations to the EFL executive management group during progress meetings, also subject to the arising matter.
- d) The Consultantwill be responsible for submission of monthly progress reports capturing all engineering and project management resources and updates during the concerned month; shall be submitted to EFL before the end of first week in the following month.
- e) All other project related documents as specified under the scope or works.

8 PROGRAM

The anticipated program for the work is shown below.

Milestone	Target Deadline
Close of Tender	7 th November 2025
Award of Tender	Within 2 Months from close of tender
Execute Contract	Within 6 weeks from award of tender
Issue of Purchase Order	Within 1 month from Contract execution
Consultant Mobilization	Within 1 Month from issue of purchase order

The key milestone dates relating to the Contract will be determined once the tenders are called and awarded. Bidders however are required to submit their nominated program for the delivery of the project and its completion by Quarter 2 of 2026.

9 SUPERVISION AND REPORTING

The Project Owner is the Chief Executive Officer. The Consultant will report to the Chief Executive Officer of EFL for overall project delivery. The Consultant will coordinate with General Manager Generation and Manager Hydro-Civil Engineering of EFL for various project related components.

10 EXPERTISE AND QUALIFICATION

The Bidders themselves or with their Joint Venture partners should have previous experience and expertise in CDSR, Review and Vetting and /or Detailed Design & Engineering of at least three Hydro Electric Power Projects in last 20 years, and at least one of them should be in the last five years.

All identified Key Staff and their Curriculum Vitae (CV) should be included in the bid submission.

In its submission, the bidder is required to provide:

- a) Overall organization chart proposed for the project
- b) Proposed Specialist team members including the list of experts' details including CVs
- c) Proposed Project Director and Project Manager CVs
- d) CVs of any support personnel to be used during any phase of the project
- e) Overall resourcing structure and expected man-days plan.

11 PAYMENT SCHEDULES AND TERMS

EFL requires a lump sum price proposal for the two Phases of services.

Phase	Price
Phase 1	
Phase 2	
Total	

The payment will be based on defined milestones. EFL will not be making any advance payment for this work. The prices quoted shall be inclusive of With-holding Tax in Fiji (for off-shore service providers), or provisional tax, for local service providers.

12 INPUTS AND FACILITIES PROVIDED BY EFL

EFL will provide the following:

- Past CDSR study reports and necessary supporting documents, upon engagement of services.
- Any other relevant data required by the Consultant for the study, in its tender submission and as agreed by EFL.

SCHEDULE 1: PROPOSED TEAM MATRIX & RESOURCING PLAN

Bidder is required to provide a complete team matrix and resourcing plan associated with its offer. Bidder is also required to provide details of its key personnel with their relevant details and accompanying CVs.

Designation	Nominated Person	Nationality	Age	Years of Experience	Copy of CV
Project Director					
Project Manager					
Engineering					
Experts (bidder					
to outline)					
Other Support					
Staff (bidder to					
outline)					
	_				

SCHEDULE 2: SCHEDULE OF RATES

The Tenderer is required to provide hourly rates for all its personnel proposed in its Consultant team over the course of the project:

Position	Hourly Rate incl. VAT and other Taxes
Project Director	
Project Manager	
Project Management Support Personnel	
Engineering Expert (Electrical)	
Engineering Expert (Mechanical)	
Engineering Expert (Civil)	
Support Personnel	
Tenderer to include others	

Important Instructions for Bid Submission Description: Dear Valued Suppliers,

This is a reminder to all suppliers to ensure that your bid submissions are made under the registered name of your business, as per your official business registration. This is important to avoid any confusion related to business identity. If there have been any changes to your business name or registration details, kindly update the information accordingly in your TenderLink user profile.

For local suppliers, please double-check your pricing calculations, including both the detailed breakdown and the total bid amount. Also, clearly indicate whether your prices are inclusive or exclusive of VAT. The prices should be received on your company letter heads, or put a company stamp.

For overseas suppliers, kindly state the currency in which you intend to submit your bid, along with the applicable Incoterm. This will assist us in accurately analyzing your submission.

Before submitting your bid, please ensure that all required documents have been uploaded to avoid incomplete submissions. Please upload valid Tax compliance, Valid FNPF Compliance and Valid FNU Levy Compliance for local bidders.

Lastly, please ensure that the Tender Submission Checklist is completed in full, including:

Company name:
Names of directors:
Contact phone number:
Email address:

These details are essential for us to reach out for any required clarifications.

Kindly ensure that you upload your tenders at least one hour before the closing time to avoid any last-minute internet or technical issues.

Thank you for your cooperation.

Kind regards, EFL Supply Chain

TENDER CHECKLIST

The Bidders must ensure that the details and documentation mention below must be submitted as part of their tender Bid

Ter	nder Number	
Ter	nder Name	
1.	Full Company / Business Name:	
	(Attach copy of Registration Certificate)	
2.	Director/Owner(s):	
3.	Postal Address:	
4.	Phone Contact:	-
5.	Fax Number:	
6.	Email address:	
7.	Office Location:	
8.	TIN Number:(Attach copy of the VAT/TIN Registration Certificate - Local Bidders Only (Man	datory)
9.	FNPF Employer Registration Number: (For Local Bidders only) (Ma	ındatory)
10.	Provide a copy of Valid FNPF Compliance Certificate (Mandatory- Local B	idders only)
11.	Provide a copy of Valid FRCS (Tax) Compliance Certificate (Mandatory Lo	ocal Bidders only)
12.	Provide a copy of Valid FNU Compliance Certificate (Mandatory Local Bide	ders only)
13.	Contact Person:	
	I declare that all the above information is correct. Name: Position: Sign: Date:	

Tender submission

Bidders are requested to upload electronic copies via Tender Link by registering their interest at: https://www.tenderlink.com/efl

EFL will not accept any hard copy submission to be dropped in the tender box at EFL Head Office in Suva.

This tender closes at FJT 4.00pm (1600hrs) on Friday 7th November 2025.

For further information or clarification please contact our Supply Chain Office on phone (+679) 3224320 or (+679) 9992400 or email us on tenders@efl.com.fj

The bidders must ensure that their bid is inclusive of all Taxes payable under Fiji Income Tax Act. Bidders are to clearly state the percentage of VAT that is applicable to the bid prices.

The lowest bid will not necessarily be accepted as the successful bid.

The Tender Bids particularly the "Price" must be typed and not hand written.

Any request for the extension of the closing date must be addressed to EFL in writing three (3) working days prior to the tender closing date.

Tender Submission via email or fax will not be accepted.