Fiji Rural Electrification Fund (FREF) Support Project

B0404 - Fiji - Suva

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Executive Summary

The Fiji Rural Electrification Fund (FREF) initiative is not only a technical deployment, but a transformative program aligned with Fiji's national energy policy and global Sustainable Development Goals (SDG 7: Affordable and Clean Energy). Between July 2024 and August 2025, FREF advanced rural renewable electrification with UNDP as the Lead Implementing Partner. Stage 1, covering three sites (Salia, Yacata, Yadrana), reached tender advertisement in November 2025, with commissioning targeted for July 2026.

Stage 2, involving 17 sites across Lomaiviti, Kadavu, and Lau, is under scoping with tender advert planned for February 2026 and commissioning by December 2026.

These efforts aim to reduce energy poverty, enhance climate resilience, and foster inclusive economic growth. FREF mobilised approximately USD 7.6 million to date, with USD 3.6 million utilised for preparatory works. Strategic partnerships, completion of detailed feasibility studies for 22 FREF sites under Stages 2 and 3, securing cofinancing from the Ministry of iTaukei Affairs, and development of a National Rural Minigrid Framework and tariff tool with FCCC to liberalize tariffs for mini-grids, underscore the project's systemic impact on policy and market readiness.

The Government of Korea has committed to funding an additional site in 2026 amount to USD 900,000 is currently being negotiated.

Background

The FREF project is designed to deliver clean, affordable, reliable, and resilient energy to unelectrified and intermittently served rural communities. It addresses structural barriers by de-risking private sector participation and enabling a competitive mini-grid market. The technical model integrates solar PV and Battery Energy Storage Systems (BESS) with smart metering and long-term O&M commitments. Beyond electrification, FREF introduces auxiliary services such as desalination, cold storage, mobile connectivity, digital payments, and telehealth, creating a holistic rural development platform. The project spans September 2024 to December 2028, with a total budget of USD 19 million and a funding gap of USD 11.4 million. It targets 6,500 people across 20 communities, ensuring gender inclusivity with approximately 50% women beneficiaries. This approach aligns with Fiji's Low Emission Development Strategy and supports climate adaptation goals.

Key Results Achieved

Key achievements reflect progress across technical, policy, and financial dimensions.

- Stage 1 tender, the largest multisite solar PV tender in Fiji, was advertised in November 2025 following rigorous technical scoping and socio-economic baselines. Works are expected to commence in January 2026 and all three stage 1 sites commissioned in July 2026.
- A National Rural Minigrid Framework and tariff tool has been developed with FCCC, laying the foundation for enabling regulations in Fiji's rural electrification sector
- The Public–Private–Community Partnership (PPCP) model was formalised with the Ministry of iTaukei Affairs, introducing co-financing mechanisms (10% community via dividends; 10% private contractor).
- Resource mobilization advanced through additional bilateral financing of USD 900,000 from Government of Korea for electrification of a new FREF site.
- Comprehensive pre-tender assessments were completed for 22 sites across Stages 1, 2 and 3, with Stage 1 capacity targeted at 274.8 kW serving 1,031 people, including 502 women.

These milestones demonstrate FREF's role in catalysing market transformation and community empowerment.

Key Challenges Encountered

- Challenges encountered include regulatory gaps requiring enabling mini-grid regulations to support PPP deployment, limited financing options for private participation, and high upfront costs for rural renewable solutions.
- Technical capacity constraints and awareness barriers persist in remote maritime contexts, compounded by logistical difficulties in multi-island scoping and community engagement.
- Intermittent connectivity and water access issues at some Stage 2 sites further complicate implementation.

These challenges have implications for timelines, cost structures, and stakeholder coordination, necessitating adaptive strategies and capacity-building interventions.

Project Risks and Issues

- Risks include dependency on multi-agency reviews and market responses, which may delay tender timelines and construction starts.
- Land tenure and community governance arrangements must be secured across all Stage 2 sites to avoid implementation delays.
- Supply chain and shipping risks for equipment to remote islands could impact schedules and costs.
- The USD 11.4 million funding gap poses a significant risk to maintaining electrification momentum.

Mitigation strategies involve proactive stakeholder engagement, early land negotiations, diversified procurement channels, and accelerated resource mobilisation through bilateral, multilateral, and private partnerships.

Lessons Learned

- Lessons learned highlight the importance of early, structured market sounding (EOIs, webinars) to improve tender design quality and bidder readiness.
- Horizontal–vertical integration of household connections with productive use cases strengthens revenue viability under user-pay models.
- Formalising PPCP cost-share mechanisms with government entities enhances sustainability and local ownership. Prior socio-economic baselining and geotechnical assessments are critical to de-risk design and procurement, ensuring resilience and cost-effectiveness.

Conclusions and Way Forward

- The way forward focuses on finalising Stage 1 tender awards by December 2025, mobilising for groundbreaking in early 2026, and commissioning by before December 2026.
- Stage 2 scoping for Kadavu, Lomaiviti and Lau were concluded by September 2025, with tender advertisement by March 2026 and commissioning targeted for late 2026 to end of 2027.
- Regulatory development with FCCC and DoE will advance to codify tariff structures and mini-grid guidelines.
- Resource mobilisation will scale across bilateral, multilateral, and private channels to address the USD 11.4 million gap and finance future stages serving part of the 399 communities need solar mini-grids, representing an investment of approximately FJD 454–564 million over 8–10 years.

These actions will accelerate Fiji's transition to sustainable energy and inclusive growth.

Other Reporting Requirements

- MEL: Expected abatement of 2.92 Gg CO2-e following completion of 20 sites; training delivered on tariff modelling; community consultations ongoing across sites.
- Gender & Inclusion: Targeting approximately 50% women beneficiaries, prioritising women-led partnerships and productive-use equipment to enhance gender equity and economic empowerment.

These indicators reflect FREF's commitment to transparency, accountability, and impact-driven implementation.

End.