

# Samoa's Energy Transition Opportunities in Island Power Systems, Storage and E-Mobility

*Electric Power Corporation, Samoa*

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# OUTLINE

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# Samoa Overview

## *Country and Economic Snapshot*

**Location:** Polynesia, South Pacific – strategic hub between New Zealand, Australia, and the wider Pacific.

**Population:** ~200,000

**GDP:** ~USD 900 million

### **Key Economic Sectors:**

- Tourism
- Agriculture & Fisheries,
- Remittances from overseas Samoans
- Public sector and infrastructure investment



# Energy Situation in Samoa

*Review of Present*



## Primary Energy

Peak demand of 35MW.

~221 GWh annual energy production.

31% annual renewable energy contribution.

Annual demand growth of 4-6%.

Average diesel generation cost is USD \$0.29/kWh.

## Installed Capacity

Diesel	48 MW
Hydropower	15 MW
Solar	18 MW
BESS	10 MW
Wind	0.5 MW

Available capacity differs by operational status of assets.

## Electricity Tariffs

**USD \$0.23/kWh**  
Domestic.

**USD \$0.38/kWh**  
Non-Domestic.

**~55,000 customers**

Fixed rates for Top 100 consumers.

## Fuel Unit Price

Diesel = USD \$1.20/L

Expected to rise by May 2026 due to war in Iran.

*Governed and administered by the Electricity Act 2010, EPC Act 1980, Energy Management Act 2020, with developments guided by the Pathway for Development of Samoa (PDS) 2026-2030, Samoa Energy Sector Plan 2024-2028 and EPC Master Plan 2024-2034.*

# 2025 Power Crisis

In 2025 Samoa experienced significant power system pressures due to a combination of factors:

- ✗ Aging diesel generation fleet
- ✗ Major generator outages requiring overhaul
- ✗ Rapid growth in electricity demand
- ✗ Increasing renewable intermittency

These conditions placed stress on the generation reserve margin and system stability. EPC implemented several emergency measures to maintain reliable supply:

- ✓ Deployment of temporary rental generators
- ✓ Accelerated generator overhaul programme
- ✓ Operational adjustments



# EPC ENERGY TRANSITION MASTER PLAN 2024-2034

## Strategic Objective

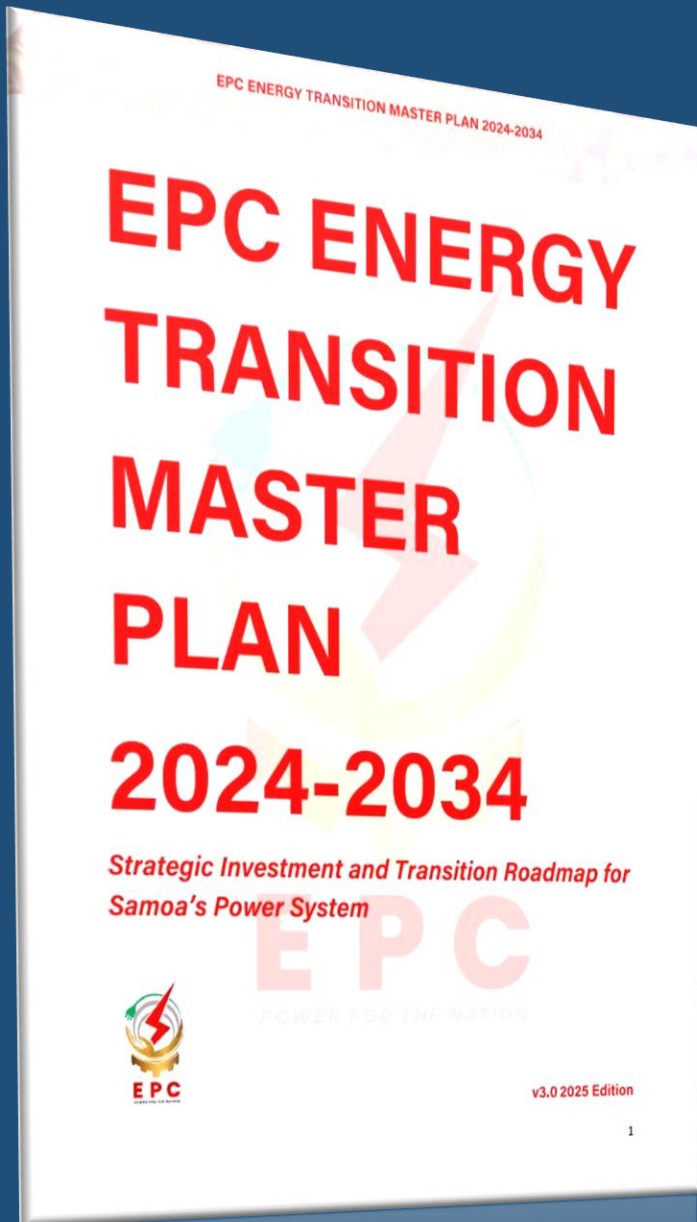
EPC has developed a 10-year plan to guide Samoa's transition toward a **secure, affordable and renewable electricity system**. The plan balances renewable energy growth with system stability and reliability.

## Key Pillars of the Master Plan

Grid Modernization, Private Sector Participation, Renewable Energy Expansion, Energy Storage Deployment, Sector Legislative and Policy Reform

## Expected Outcomes

Reduced diesel generation dependency, Lower electricity generation costs, Improved grid reliability, Increased renewable penetration, Improved local technical capacity, and legislative and policy alignment.



# Fiaga

25MW Solar + 50MWh BESS

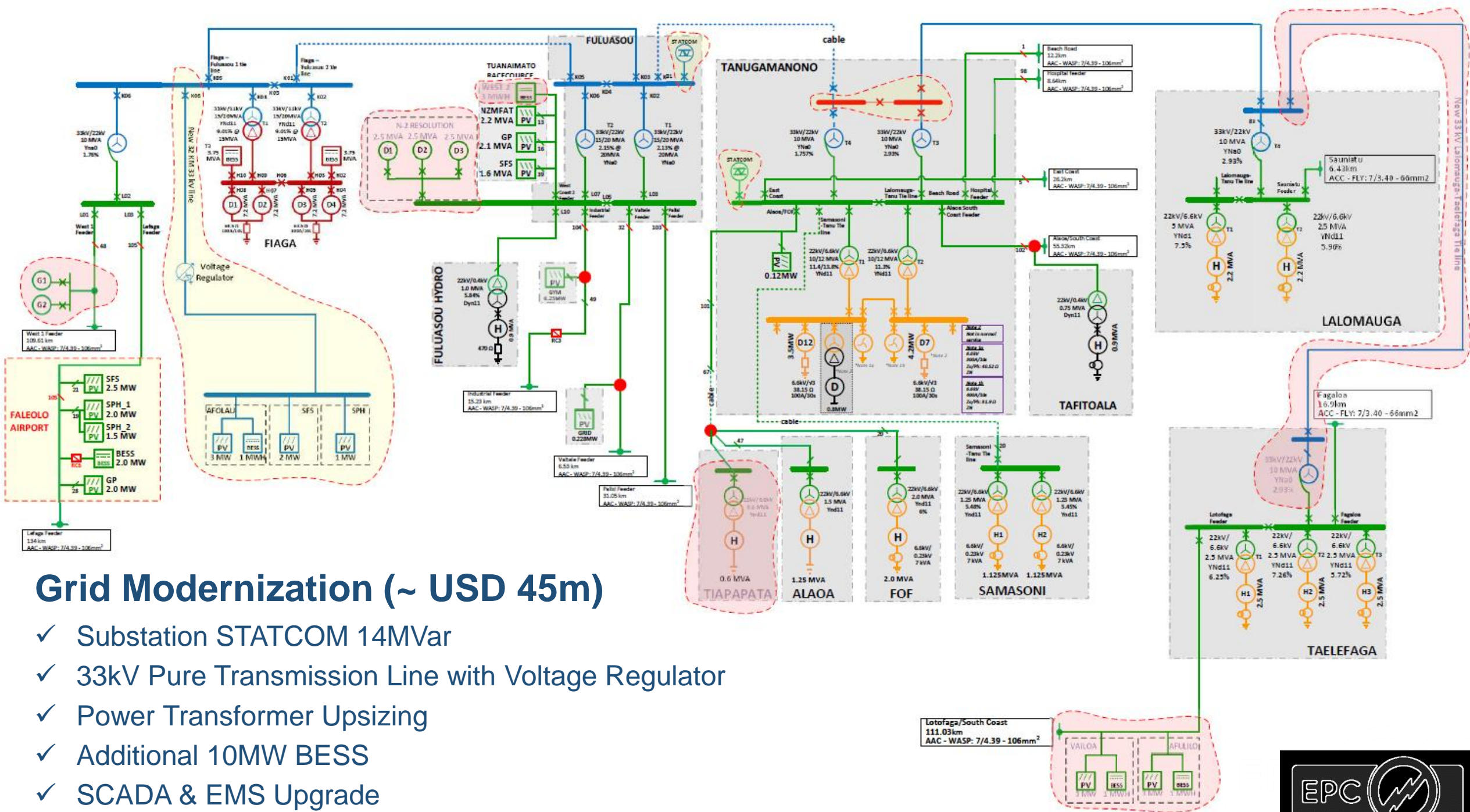
70 acres of land

41GWh annual production

IPP Investment ~ USD 40m

RFP Launch Q2 2026





## Grid Modernization (~ USD 45m)

- ✓ Substation STATCOM 14MVar
- ✓ 33kV Pure Transmission Line with Voltage Regulator
- ✓ Power Transformer Upsizing
- ✓ Additional 10MW BESS
- ✓ SCADA & EMS Upgrade



# Current Progress

- ✓ Fiaga MHIET overhaul programme is expected to complete by February 2027 – officially started in early February 2026 - with JICA supported capacity building.
- ✓ Australian Government's DFAT and AIFFP signed with GoS and EPC two grant projects – the Offgrid Solar BESS Project (AUD ~1.2m) and Apia Township Solar Hybrid Streetlights Project (AUD ~350k).
- ✓ UNDP completed its Japan-funded CAP-IT project in Samoa last December, commissioning over ten (10) EV charging stations and five (5) E-Board charging stations across Samoa (including the delivery of 75 EVs and 2 E-boats for the Government of Samoa). EPC is the CPO.
- ✓ ADB is supporting the EPC in delivering its Fiaga Solar BESS IPP project, plus the SAMGRID 5-year grid modernization project valued at USD ~55m – a mix of grant and concessional loans for capital projects and policy reforms.



# How Germany Can Engage Samoa's Energy Sector

## ➤ Engagement with the Electricity Sector

- For electricity infrastructure projects, the Electric Power Corporation (EPC) is the primary technical partner and system operator.

## ➤ German companies may engage with EPC for:

- Power system technologies and grid solutions
- Renewable generation and battery storage projects
- Engineering consultancy and technical assistance
- Equipment supply and technology partnerships

## ➤ Government and Policy Coordination

- Ministry of Finance (MoF), Ministry of Works, Transport and Infrastructure (MWTI), National Energy Coordination Committee (NECC).



EPC welcomes collaboration with technology providers that can support its MP.

# Why Samoa?

## Stable and Open Economy

- Politically stable parliamentary democracy
- Long-standing economic partnerships with Australia, New Zealand, EU and multilateral development banks
- Transparent public sector institutions supporting infrastructure development

## Improving Economic Position

According to the World Bank, Samoa was reclassified as an Upper-Middle-Income economy in 2024, reflecting economic recovery and growth following the pandemic.

## Energy as a Strategic Economic Priority

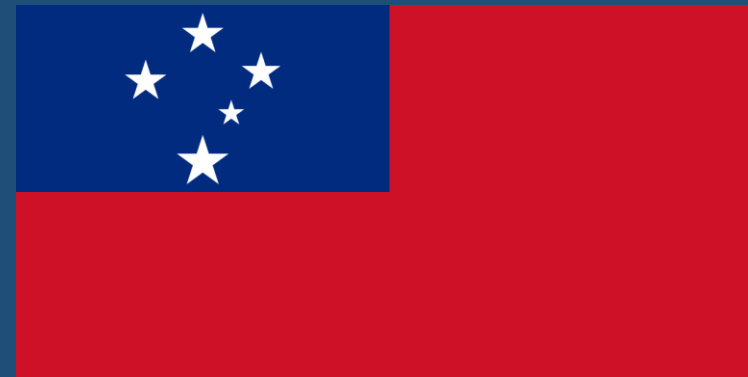
The Government of Samoa has listed and declared to development partners and foreign governments, its Energy Sector as one of the top 3 priority sectors for the next 5 years.

## Strong International Financing Partnerships

Major infrastructure investments are supported by development partners including:

- Asian Development Bank
- World Bank
- Australian Infrastructure Financing Facility for the Pacific
- Japan International Cooperation Agency
- United Nations Development Programme

These partnerships help mobilize capital, risk-sharing mechanisms and technical assistance for energy projects.



# Conclusion

*Time for Action Now!*



- Samoa's energy sector transformation is a national priority supported by government policy and international partners.
- A structured 10-year roadmap focused on renewable expansion, battery storage, and grid modernization.
- EPC priority projects include the Fiaga Solar + BESS IPP, grid modernization initiatives, and renewable electrification programmes supported by international partners.
- German companies have strong opportunities to collaborate with EPC in battery storage, grid modernization, renewable integration and EV infrastructure.

