

Government of the Independent State of Samoa through the Electric Power Corporation (EPC)

Call for Expressions of Interest (EOI)

Independent Power Producer (IPP) for 2x Solar & BESS REGF's for Samoa



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1. Project Overview

1.1. Background

The Electric Power Corporation (EPC) was established in December 1972 and is an autonomous Government owned corporation. EPC is responsible for the generation, transmission and distribution, and selling of electricity in Samoa. EPC services the majority of Samoan residents. EPC has an immediate goal of "providing clean energy sources for affordable and sustainable electricity supply for Samoa." EPC has committed to continued integration of innovative distributed energy solutions across its service territory.

Currently, Samoa's energy portion of the tariff sees its highest cost kWhs coming from energy supplied through its diesel resources.

The Samoan Government has an established goal of 70% renewable energy generation by 2031. Renewable development must bring the maximum value at the least economic cost. The greatest possible value will be achieved through an optimized mix of energy generation, innovative distributed technologies, and controls software, optimized for a closed electric system.

In an effort to achieve the renewable energy targets for Samoa, EPC seeks to implement two additional Solar & BESS Renewable Energy Generation Facilities (REGF's).

To this end, EPC is now soliciting EOI's from suitably qualified Independent Power Producers (Respondents) to design, finance, procure, fabricate, lease land, deliver, construct, test, commission, own, monitor, operate, maintain and decommission two REGF's (REGF1 and REGF2) under a 20-year Power Purchase Agreement (PPA) with EPC. Each REGF comprises of a solar PV plant and an energy storage system to maintain a stable and good quality electricity supply.

Respondents are invited to provide an EOI response for either REGF1 or REGF2 or both.

This project is intended to:

- provide an environmentally responsible alternative to the predominantly fossil fuel-based electricity generation in Samoa
- provide a renewable energy source that supplies reliable electricity to the grids on the islands of Upolu and Savai'i at a competitive rate
- enhance reliability and cost-efficiency of the electrical network by including storage and a degree of dispatchability

The intent of this EOI is to:

- identify interested Respondents who wish to participate in the subsequent Request for Tender (RFT) process
- facilitate early market engagement with potential Respondents for their involvement in future renewable energy and storage projects in Samoa
- incorporate Respondent feedback from this EOI response into the RFT package where applicable

1.2. Capacity of New REGF's

The required additional solar and battery sizing is:

	Upolu	Savai'i
Generator	REGF1	REGF2
Solar	25MWp (up to a maximum of 30MWp)	4MWp (up to a maximum of 8MWp)
BESS	25MW / 25MWh	10MW / 10MWh

2. Current Information

2.1. Electrical Demand (Load) Data

The following table outlines the recent and forecast maximum demand in Samoa:

	Peak Demand Historic Data (kW)				Peak Demand Forecast (kW)							
Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Upolu	23,089	23,296	22,476	22,455	23,771	24,480	25,785	26,692	27,865	28,860	29,974	31,009
Savaii	6,597	5,898	5,690	6,046	6,792	6,994	7,367	7,626	7,961	8,246	8,564	8,860
Other	300	295	285	288	309	318	335	347	362	375	389	402
Peak Demand	29,986	29,489	28,451	28,789	30,872	31,792	33,487	34,665	36,188	37,481	38,927	40,271

The following table outlines the recent annual electrical demand in Samoa:

FY 22/23	Annual Demand (kWh)
Upolu	146,492,815
Savai'i	41,746,657
Other	1,518,060
Total	189,757,532

The growth rate is projected to increase at approximately 5% per annum.

2.2. Existing Generation Infrastructure

The following table lists the existing generation infrastructure across both islands:

Upolu			Savaii			
Generator	Capacity (kW)	Technology	Generator	Capacity (kW)	Technology	
Fiaga #1	5,770	Diesel	Salelologa	5,500	Diesel	
Fiaga #2	5,770	Diesel				
Fiaga #3	5,770	Diesel				
Fiaga #4	5,770	Diesel				
Tanu #7	2,500	Diesel				
Tanu #12	1,000	Diesel				
Total Diesel	26,580			5,500		
Alaoa	1,000	Hydro	Vailoa Palauli	200	Hydro	
FOF	1,600	Hydro				
Fuluasou	680	Hydro				
Lalomauga #1	1,760	Hydro				
Lalomauga #2	1,760	Hydro				
Samasoni #1	900	Hydro				
Samasoni #2	900	Hydro				
Taelefaga #1	2,000	Hydro				
Taelefaga #2	2,000	Hydro				
Taelefaga #3	2,000	Hydro				
Tafitoala	460	Hydro				
Gym 3	250	PV	NZMFAT Solar	140	PV	
Green Power Samoa Airport (IPP)	,	PV	JICA Solar	180	PV	
Green Power Samoa Tuanaimato (IPP)	2,400	PV				
Race Course	2,200	PV				
Solar for Samoa Airport (IPP)	,	PV				
Solar for Samoa Tuanaimato (IPP)	2,000	PV				
Sun Pacific Harelec Airport (IPP)	2,000	PV				
Tanugamanono	150	PV				
Vaitele	250	PV				
Aleipata #1	275	Wind				
Aleipata #2	275	Wind				
Total Renewable	29,260			520		
Total Generation	55,840			6,020		

2.3. National Control and Dispatch Centre (NCDC)

The EPC National Control and Dispatching Centre at Fuluasou houses the nationwide SCADA System (Supervisory Control and Data Acquisition), that provides around the clock monitoring and control for all our generation and key distribution sites on Upolu and Savaii. The NCDC also monitors the communication network system and providing set points for Independent Power Producers to provide sufficient capacity at all times.

Therefore, it is critical that the SCADA and communications protocol for these new REGF's is developed closely with EPC so that they seamlessly integrate into the NCDC.

3. Project Information

3.1. Land & Permitting

There is one site on each island for each REGF. The approximate locations are indicated on the map below:



The details of each site are as follows:

	Upolu	Savai'i			
Site name	Fiaga	Salelologa			
Description	land available surrounding the	land available for EPC RE			
	existing Fiaga thermal power plant	development			
Land area	Total land area EPC lease from	Total land area EPC lease from			
	Samoa Land Corporation is 97	Samoa Land Corporation is 15.5			
	acres, however approximately 20	acers land was designated for			
	acres is being used for the thermal	Solar Energy.			
	station and a buffer zone space				
	between the station and the				
	available space.				
	Approximately 70 acres available for renewable Energy Project in form of a				
	solar power, spaces in front near and				
	the rear end of the thermal station is				
	available for RE				
Lease	Property is legally leased to EPC	Property is legally leased to EPC			
	from Samoa Land Corporation	from Samoa Land Corporation			
	(State Own Enterprise), EPC can	(State Own Enterprise), EPC can			
	sub-lease to the IPP under lease	sub-lease to the IPP under lease			
	agreement.	agreement.			
Land Use	EPC can use the land for any land	EPC can use the land for any land			
	use desired, with the need to	use desired, with the need to obtain			
	obtain consent from local authority	consent from local authority			
	overseeing land use planning as	overseeing land use planning as			
	stipulated by law (Planning and	stipulated by law (Planning and			
	Urban Management Act 2008).	Urban Management Act 2008).			
Terrain	Land terrain at this part of Upolu	Land terrain at this part of Savaii			
	Island is naturally hilly with the	Island is generally at Tafua			
	rear boundary is higher than the	peninsular.			
	front side	The land has never been cleared			
		before			
Site Access	Existing road	A new access road to the site will be			
		required as part of the IPP's			
D	responsibility				
Permitting	EPC will secure all the development	permits and approvals from governing			
	agencies necessary for the installation	on of each REGF by the successful			
	Respondent. The Respondent will be responsible for securing the necessary construction permits for the project.				
	construction permits for the project.				

3.2. Site Boundaries



Fiaga Site (13° 53' 05.32" S , 171° 53' 03.51 W)



Salelologa Site (13° 45' 25.56" S , 172° 13' 23.52 W)

3.3. Connection Points

The following table outlines the connection points for each site:

	Upolu	Savai'i	
Site name	Fiaga	Salelologa	
Details and Location	For the purposes of the EOI, please assume that the connection points will be poles provided by the IPP and located adjacent to the site boundaries closest to EPC's connection assets at each site		
Connection Voltage	33kV	22kV	
Max Export Power	20MW	2.5MW (noting network to be upgraded by EPC)	

3.4. Grid Impact Studies

Initial Grid Impact Studies have already been undertaken.

EPC may conduct further technical Grid Impact Studies with inputs provided by the successful Respondent.

4. EOI Response Request

The IPP will design, finance, procure, fabricate, lease land, deliver, construct, test, commission, own, monitor, operate, maintain and decommission and in general be responsible for all other aspects of the operation of the two REGF's (REGF1 and REGF2) under a 20-year Power Purchase Agreement (PPA) with EPC. The REGF's will deliver electricity to the EPC owned electricity grids.

EPC with approval of the Government of Samoa will contract to purchase the electrical energy for a period of 20 years subject to terms and condition defined in the PPA agreement. EPC and the Government of Samoa does not intend to purchase the renewable energy assets.

The contractor will deliver electricity to a point of interconnection allocated by EPC and both parties need to signed an Interconnection Agreement before commissioning of renewable energy plant

The delivered electrical energy will meet the quality standards and requirements as per EPC Grid Code for Solar PV plant with Battery Storage system.

The contractor will provide real time energy production, forecasts and related data to EPC National SCADA system. These data and information will enable EPC National Control Center to dispatch, monitor and control power output from solar plant.

Respondents are requested to provide the following information:

- Cover letter
- Annex 1: Respondent Information
 - Details of lead organization
 - Contact name and company information / brochures
 - Details of joint-venture members (if applicable, including a statement from each joint-venture member that the lead developer is authorized to act on their behalf)
 - Respondent track record for at least 3 similar projects including:
 - project details
 - customer/off taker details and contact information for references
 - financing details including experience in raising sufficient debt participation and substantial equity participation
 - Parent company financials
 - Demonstrate the ability to obtain sufficient funds to deliver the REGF(s)
 - o Project team leadership and member details and curriculum vitae
- Annex 2: Technical (to be provided for each REGF as applicable)
 - Exact capacities of technologies (some minor changes to the specified capacity is allowed to allow for specific equipment specifications)
 - List of major equipment
 - Annual quantum of energy to be generated
 - Energy generation profile
 - Indicative site layout drawing
 - Indicative electrical single line diagram
 - Warranties (equipment and performance)

- Annex 3: Commercial (to be provided for each REGF as applicable)
 - Indicative PPA pricing (in USD/MWh or SAT/MWh)
 - o Project structure and development, including delivery models
 - o Potential commercial and financing solutions, structures and approach
 - Project timeline
 - Key risks & mitigations

• Annex 4: Other

 Respondents are also encouraged to provide any other relevant information to help contribute to the RFT process to achieve a balanced outcome between the Respondent and EPC and to identify areas where the PPA price can be minimized

5. EOI Process

5.1. Provisional Timetable

EPC is working towards the following schedule for this EOI, subsequent RFT, tender completion and project implementation:

Item	Timing
EOI Release Date	12 July 2024
EOI Response Date & Time	09 August 2024 at
LOT Nesponse Bate & Time	12:00pm Samoan time
Completion of EOI Evaluation and shortlisting of Respondents	28 August 2024
Release of Tender	30 September 2024
Tender Submission	20 December 2024
Tender Evaluation, Award, and PPA signing	21 February 2025
Financial close	25 July 2025
REGF1 in operation	30 March 2026
REGF2 in operation	30 March 2026

5.2. How to Prepare your EOI

- Carefully read all parts of this EOI package and ensure you understand the requirements
- Complete the following annexes in detail:
 - Annex A1: Organizational Information
 - o Annex(s) A2: Technical Response
 - o Annex(s) A3: Commercial Response
 - o Annex A4: Other
- Attach additional information in labelled folders for easy identification

5.3. Submitting your EOI

Complete EOIs must be submitted in written / printed format to the address below (in person or by courier mail) and electronic copy format by email to all three EPC contacts below, no later than the EOI Response Date & Time. EOI responses received after this time will not be considered.

The General Manager
Electric Power Corporation
Level 5, TATTE Building
Sogi, Apia
Samoa

Any questions and/or requests for clarifications must be addressed by email to EPC up to 5 working prior to the EOI Response Date & Time. EPC will endeavour to respond to all questions as soon as possible. EPC may make all questions and answers that it provides available to all Respondents.

The EPC contacts for email submissions and clarifications are as follows:

- All general or contractual questions should be directed to:
 - o Faumui Tauiliili lese Toimoana | EPC General Manager
 - o Email: toimoanai@epc.ws
- All technical questions should be directed to:
 - o Afamasaga Victor Afamasaga | EPC Chief Engineer NCDC
 - Email: afamasaga_v@epc.ws
 - Chris Fruean | EPC Acting Chief Engineer QAD
 - Email: frueanc@epc.ws

5.4. Evaluation Criteria

The following criteria (in no specific order or weighting) will be used to evaluate the EOI submissions:

- Quality of EOI response, level of engagement by Respondent and associated feedback received
- Quality of technical solution and compliance with EOI requirements
- Capability and experience with similar IPPs, preferably in the region
- Indicative PPA price range per MWh and other commercial terms

Shortlisted Respondents will be invited to respond to the RFT. Any contract award will be made in accordance with the terms of the RFT.

5.5. Important Notes

The information developed through this EOI will be used to evaluate the market interest for IPP-led development of renewable energy generation and storage for Samoa, to be procured by EPC.

It is currently intended that Respondents will need to submit a response to this EOI in order to qualify for any subsequent RFT.

However, this EOI does not constitute a commitment, implied or otherwise, that EPC will take action in this matter, including issuing an RFT. Neither EPC nor the Government of Samoa will be responsible for any costs incurred in furnishing responsive information.

All costs related to the preparation of EOI's are to be borne by the Respondents.

The Respondent acknowledges that the information provided is, to the best of its knowledge, complete and accurate.

Respondents are also encouraged to seek independent tax and legal advice in preparing their EOI's.

EPC evaluation criteria place significant weight on capabilities and experience of Respondents, and not solely on PPA price.

Respondents accept that information and analysis contained in the EOI response become the property of EPC upon submission.

A draft version of the Power Purchase Agreement (PPA) will also be specified and issued by EPC and Samoa Government at a later date.

5.6. Governance

The Asian Development Bank, through the Private Sector Development Initiative (PSDI) is providing technical assistance to EPC for the preparation and execution of this EOI. A Project Management Committee (PMC) chaired by EPC's General Manager will oversee the tender process, including the evaluation of the EOI's. Once the PMC has completed its evaluation of the EOI's and prepared a ranking, it will be submitted to the EPC Board for endorsement before shortlisted bidders are notified.

6. Annex A1: Organizational Information

Details of organization	
Contact name and information	Include company information / brochures
Details of joint-venture members (if applicable)	Include a statement from each joint-venture member that the lead developer is authorized to act on their behalf
Respondent track record for similar project #1 including:	
Respondent track record for similar project #2 including:	
Respondent track record for similar project #3 including:	
Parent company financials	Provide separate financial records (3 years' audited financial statements preferred)
Demonstrate the ability to obtain sufficient funds to deliver the REGF(s)	
Project team leader and member details and curriculum vitae	Attach CV's

7. Annex A2 REGF1: Technical Response

ltem	Details
Choice and Capacity of technologies	
List of major equipment	
Energy per annum (GWh p.a.)	
(Attach Separate Energy Profile (or similar)
Drawings	
	Attach Site Layout and SLD
Warrantees (equipment and	
performance)	
Key Technical Assumptions	
Key Technical Assumptions	

8. Annex A2 REGF2: Technical Response

Item	Details
Choice and Capacity of technologies	
List of major equipment	
List of major equipment	
Energy per annum	
(GWh p.a.)	Attach Separate Energy Profile (or similar)
Drawings	
	Attach Site Layout and SLD
Warrantees (equipment and	
performance)	
Key Technical Assumptions	

9. Annex A3 REGF1: Commercial Response

ltem	Details
Indicative price pricing range (USD/MWh or SAT/MWh) – Solar	Fixed (non-escalating), Solar component only
Indicative price pricing range (USD / Month or SAT / Month) – BESS	Fixed (non-escalating), BESS component only
Project structure and development, including delivery models	
Potential commercial and financing solutions, structures and approach	
Timing	Attach Separate Gannt chart (or similar)
Key Risks & Mitigations	
Key Commercial Assumptions	

10. Annex A3 REGF2: Commercial Response

ltem	Details
Indicative price pricing range (USD/MWh or SAT/MWh) – Solar	Fixed (non-escalating), Solar component only
Indicative price pricing range (USD / Month or SAT / Month) – BESS	Fixed (non-escalating), BESS component only
Project structure and development, including delivery models	
Potential commercial and financing solutions, structures and approach	
Timing	Attach Separate Gannt chart (or similar)
Key Risks & Mitigations	
Key Commercial Assumptions	

11. Annex A4: Other

