



Tuvalu Electricity Corporation

Title - Achieving the RE Target

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PPA Virtual Conference 2021

Achieving the RE Target

No	Stations	RE Projects Commissioned	End 2016	1 st Quarter 2021
1	Outer Islands	End 2015	84%	36%
2	Fogafale	End 2015	14%	10%
3	Tuvalu Overall		28%	16%

Existing RE & EE Projects:

No	Projects	Capacity	Contractor	Donor	Status
1	Tuvalu Energy Sector Development Project	-700kW solar PV and 1MW/2MWh BESS	Infratec, NZ	WB	Com. 2022/2023
2	Increasing Access to Renewable Energy Project	-500kW solar PV and 1MW/3MWh BESS	CBS Pty Ltd, Fiji	ADB	Com. 2023
3	Standalone Home Solar (SHS) System for Funaota, Nukufetau	-SHS System with Cooling storage Facility	CBS Pty Ltd, Fiji	UN-India Partnership	Com. 2022
4	Demo Floating Solar PV System	-100kW grid connected	JOHS, Denmark and sub contractor Floatpac Aust and Clay Eng.	GEF via UNDP	Com. 2022
5	Upgrading Motufoua Secondary School Solar PV Project	45kW PV with 12,000AH	Funding Secure	Italy Govt.	Working on Direct recruitment
6	Low Carbon Fund		Development Bank of Tuvalu	IUCN & GEF	Public Access the Fund

(1) Tuvalu Energy Sector Development Project (TESDP)World Bank- In more detail:

No	Projects	Capacity	Updated
1.	Additional Solar PV/BESS on Funafuti Island	-700kW solar PV and 1MW/2MWh BESS	<ul style="list-style-type: none"> Contractor – Infratec Pty Ltd, NZ Containers of PV modules arrive later this month and others yet to arrive
	1. Construction Management of 700kW PV & 1MW/2MWh BESS		<ul style="list-style-type: none"> TTA of Spain
	2. Technical and Economic Evaluation of e-mobility in Tuvalu through electric e-motorcycle Pilot		<ul style="list-style-type: none"> 1 x bid received and under evaluation 12 motorcycle for the Pilot Project
	3. Feasibility Study of Floating solar PV in Fogafale		<ul style="list-style-type: none"> 3-sites in the Lagoon to conduct feasibility study
	4. Study of requirement for Feed-In Tariff (FIT) for Rooftop Solar PV <ul style="list-style-type: none"> - customer to able to put solar PV on their rooftop, use and surplus to put into the grid. - no storage and use the grid as storage. 		<ul style="list-style-type: none"> Cabinet has approved Now working on the Technical Framework and Legalising the initiative
2.	Energy Efficiency		
	0. Prepayment Meters <ul style="list-style-type: none"> - to improve the collection 		<ul style="list-style-type: none"> Contractor – EastWest/Holley – Chinese Company Items in Tuvalu
	1. Window Tinting <ul style="list-style-type: none"> - to reduce the heat gains in govt. building 		<ul style="list-style-type: none"> Contractor – Tint Fiji Ltd Items in Tuvalu
	2. HF Radio <ul style="list-style-type: none"> - to improve communication between the stations 		<ul style="list-style-type: none"> Contractor – Skytech, Fiji Items in Tuvalu

(2) ADB - Increasing Access to Renewable Energy Project (IAREP) & Activities Involved:

No	Projects	Capacity	Contractor	Status
1	Additional Solar PV/BESS on the Main Island of Funafuti	500kW solar PV rooftop and 1MW/3MWh BESS	CBS Pty Ltd, Fiji	In progress
2	Additional Solar PV Outer Islands of Nukulaelae, Nukufetau and Nui	Nlae2 – 44.8kWp, N/Fetau – 78.4kWp and Nui – 100.8kWp	CBS Pty Ltd, Fiji	
3	Construction of New Power Station at Nukulaelae		CBS Pty Ltd, Fiji	
4	Recovery Tariff Study		Entura	

(2) ADB - Increasing Access to Renewable Energy Project (IAREP) Phase II & Activities Involved:

No	Projects
2	<p data-bbox="173 347 1409 461">Increasing Access to Renewable Energy (IAREP) Phase II – Consultant Recruited.</p> <p data-bbox="173 489 1429 604">(i) TA 6680 kicked-off in July 2021; inception report due in Q3 2021</p> <p data-bbox="173 675 1409 846">(ii) Regional floating PV roadmap for PIC-11 and project preparation for TUV (KIR and TON) for ADB consideration in 2022-2023</p> <p data-bbox="173 932 1403 1046">(iii) Tuvalu – indicative scope rooftop, Feasibility Study of the Netwrok and floating PV in Funafuti, BESS as needed</p> <p data-bbox="173 1118 1345 1232">(iv) Investment Plan to expand PV capacity in Funafuti, and BESS replacement in the three outer islands</p>



Other RE & EE Project No 3, 4, 5 & 6:

No	Projects	Capacity	Contractor	Donor	Commission
3	Standalone Home Solar (SHS) System for Funaota, Nukufetau	-SHS System with Cooling storage Facility	CBS Pty Ltd, Fiji	UN-India Partnership	February 2022
4	Demo Floating Solar PV System	-100kW grid connected	JOHS, Denmark and sub contractor Floatpac Aust and Clay Eng.	GEF via UNDP	
5	Upgrading Motufoua Secondary School Solar PV Project	45kW PV with 12,000AH	Funding Secure	Italy Govt.	Working on Direct recruitment
6	Low Carbon Fund		Development Bank of Tuvalu	IUCN & GEF	Public Access the Fund

- Low Carbon Fund – for Public to loan to purchase efficient appliance;
 - Washing machine_4 Stars
 - Refrigerator and Freezer_3.5 Stars
 - T5 or T8 LED Lights_4' or 2'
 - Solar Water Pump

- Once ALL these RE development commissioned, the share of Renewable Energy >50%

Mounting of PV Structure in Tuvalu



Aerial Photograph – Outer Island System



PV Modules – Structure in the Estuary



PV Modules – Raised Structure



PV Modules – Ground Mounted



PV Modules – Ground Mounted



Battery Storage System – Outer Islands

Thank You

