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Overview of the renewable energy targets and projects in the Pacific Island Countries

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THE PACIFIC ISLANDS

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The Pacific Ocean

- The Pacific Ocean covers:
 - 32.4 % of the Earth's total area
 - 45.76 % of the total surface area of all of Earth's water
- **Earth's total landmass is only 90.13 % of the Pacific Ocean.**



Acknowledgements

- Country data in this presentation was obtained from the publication:

Pacific energy country Profiles

Prepared by NZ MFAT and European Commission for the Pacific Energy Summit held in Auckland June 2016

- The publication is available from the website:

https://www.mfat.govt.nz/assets/_securedfiles/Peace-Rights-and-Security/Pacific-Energy-Country-Profiles-2016.pdf



Population

Country	Pop.	Country	Pop.
Cook Islands	18,100	Palau	17,800
Federated states of Micronesia (FSM)	104,600	Papua New Guinea	8,151,300
Fiji	880,400	Samoa	194,000
French Polynesia	276,831	Solomon Islands	651,700
Kiribati	115,300	Tokelau	1,400
Republic of Marshall Islands(RMI)	55,000	Tonga	100,600
Nauru	10,800	Tuvalu	10,100
New Caeldonia	262,000	Vanuatu	289,700
Niue	1,600	Wallis and Futuna Islands	15,500
Total	11,156,831		

Source: www.spc.int and World Wide Web for Non-SPC countries



Population

Country	Policy
Cook Islands	100% Renewable Electricity Generation by 2020
Federated states of Micronesia (FSM)	50% decrease in fuel imports by 2010 and 30% Renewable Electricity Generation
Fiji	100% access to electricity by 2020 and 90% renewable electricity generation by 2030
Kiribati	Achieve at least 45% reduction of fossil fuel energy generation by 2025
Republic of Marshall Islands(RMI)	20% renewable electricity generation by end 2020 with at least 95% access
Nauru	GOAL: 20% increase in energy efficiency and 50% reduction in outages.
Niue	80% Renewable Electricity Generation by 2025

Policies

Country	Policy
Palau	45% renewable electricity generation and 35% energy efficiency improvement by 2025
Papua New Guinea	70% of households to have access to electricity by 2030
Samoa	100% Renewable Electricity Generation by 2017
Solomon Islands	20% of electricity generation from renewables by 2020
Tokelau	100% reduction in imported fossil fuels
Tonga	50% Renewable Electricity Generation by 2020 and 100% Access
Tuvalu	100% renewable electricity generation and 30% energy efficiency improvement by 2020
Vanuatu	100% renewable electricity generation and 100% energy access by 2030

Cook Islands

- GOAL: 100% Renewable Electricity Generation by 2020**

Population	18,100
Total Installed Generation Capacity	15 MW
Annual electricity generation (MWh)	31,750
Access to electricity	99%
Renewable Energy generation with completion of current projects	15%

Project Since 2013

- The Cook Islands Northern Group project completed eight photovoltaic (PV)-diesel hybrid systems on the six islands.
- A 961 kilowatt-peak (kWp) PV system was installed at Rarotonga Airport.
- 2,060kWp of privately owned PV capacity was connected to the Rarotonga network, accounting for 8.7% of Rarotonga's electricity demand.
- Four PV-diesel hybrid systems, providing over 95% of the islands' electricity needs from renewable resources, will be installed in the outer islands of the Southern Group by mid-2017.



Independent State of Samoa

• **GOAL: 100% Renewable Electricity Generation by 2017**

Population	190,000
Total Installed Generation Capacity	69.1 MW
Annual electricity generation (MWh)	140,000
Access to electricity	100%
Renewable Energy generation with completion of current projects	50%

Since 2013

- Renewable generation capacity more than doubled from 7.5MW to 15.4MW.
- Renewable electricity projects completed or under construction on Upolu and Savaii include:
 - Six solar photovoltaic (PV) systems built in partnership with donors (3.1 MW)
 - Two wind turbines (550 kilowatts [kW])
 - Three independent power producer (IPP) solar PV systems on Upolu (10MW)
 - One IPP solar PV system currently in design for Savaii (2.0MW).



Tonga

- **GOAL: 50% Renewable Electricity Generation by 2020 and 100% Access**

Population	106,000
Total Installed Generation Capacity	16.5 MW
Annual electricity generation(MWh)	55,400
Access to electricity	89%
Renewable Energy generation with completion of current projects	13%

Since 2013

- Renewable energy generation will more than double from 5.4% in 2013 to 13% by 2018.
- The Tonga Village Network Upgrade Programme will reduce system losses from nearly 20% to 12% over the next two to three years and provide 3,000 homes with pre-pay meters.
- The Outer Island Renewable Energy Project will increase access to electricity to nearly 100% and install grid- connected solar photovoltaic (PV) systems on the island of 'Eua, and the island groups of Ha'apai and Vava'u.
- Community-owned mini-grids on four outer islands in the Ha'apai Group will be converted to PV-diesel hybrid systems with battery storage.



Pacific Islands Associations

- Pacific Power Association (PPA)

www.ppa.org.fj

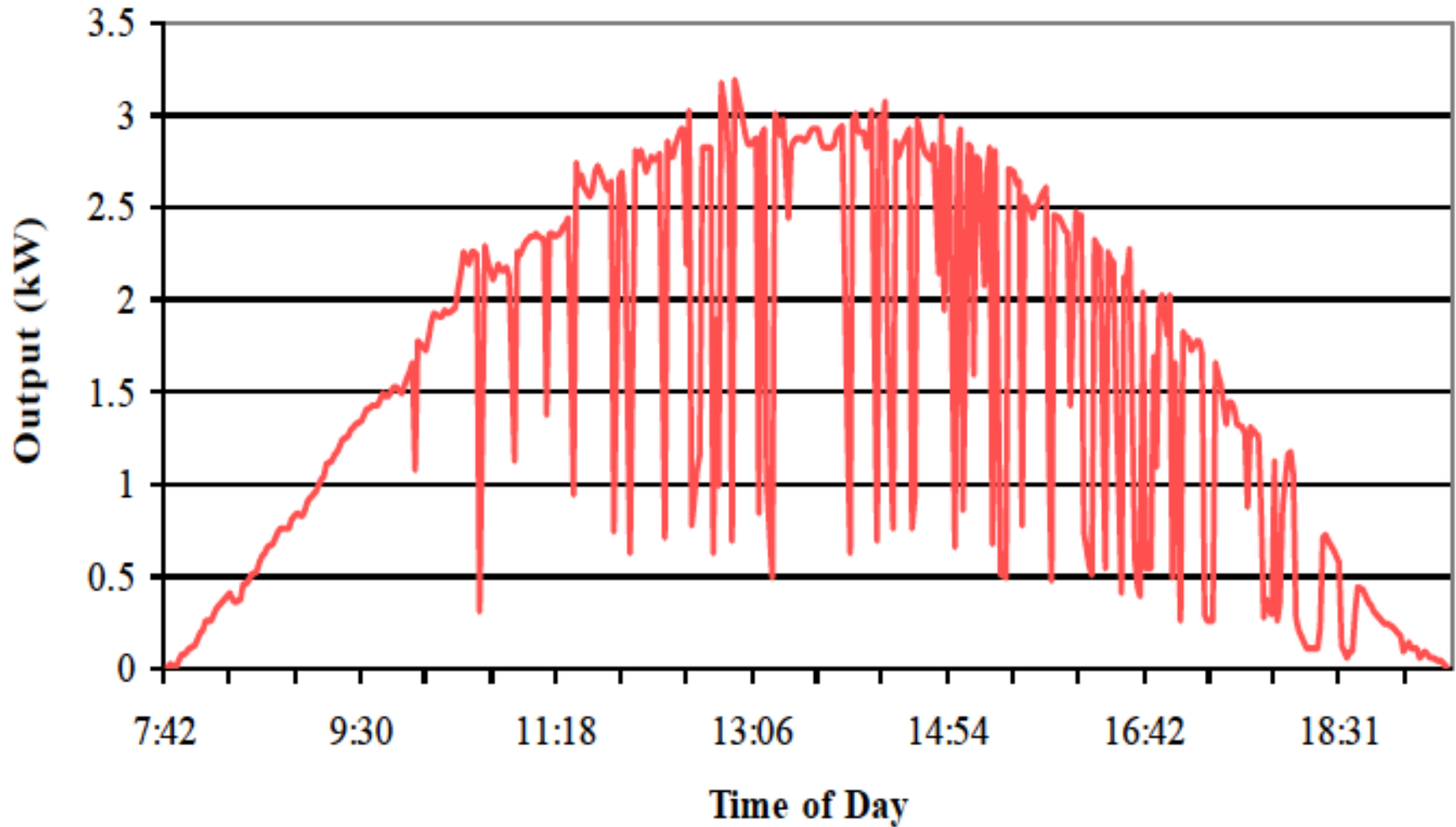
- Sustainable Energy Industries Association of Pacific Islands

www.seiapi.com

- Working together to develop guidelines, operate a technician certification program



Issues--Intermittent Solar Output







THANK YOU

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