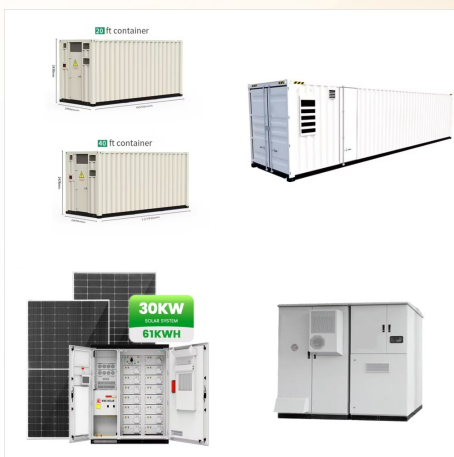




Although nearly all households in the Cook Islands are connected to grid electricity, only 5.5% of households have additional solar photovoltaic systems installed, and 1% use small diesel generators. Several actions have taken place throughout the islands to increase the uptake of renewable energy.



Renewable energy in the Cook Islands is primarily provided by solar energy and biomass. Since 2011 the Cook Islands has embarked on a programme of renewable energy development to improve its energy security and reduce greenhouse gas emissions, with an initial goal of reaching 50% renewable electricity by 2015, and 100% by 2020. The programme has been assisted by ???



The project is assisting the government to develop an energy efficiency policy implementation plan and training will be provided to government staff working with solar battery energy storage systems. ADB is supporting the Cook Islands to achieve its ambitious target to use 100% renewable energy. With cofinancing from the Global Environment



Infratec Chief Executive Greg Visser said the four solar plants were now providing clean, reliable and affordable energy to almost 1500 people - or about 9 percent of the Cook Islands" population. The solar panels, which are backed by battery storage, will meet about 95 percent of the islands" energy needs, he said.



Cook Island solar panel installers ??? showing companies in Cook Islands that undertake solar panel installation, including rooftop and standalone solar systems. 1 installers based in Cook Islands are listed below.



Wind 0 0 Bioenergy 0 0 Geothermal 0 0 Total 24
100 Capacity change (%) 2018-23 2022-23
Non-renewable 0 0.0 Renewable + 15 0.0
Hydro/marine 0 0.0 Solar + 15 0.0 Wind 0 0.0
Bioenergy 0 0.0 Geothermal 0 0.0 Total + 3 0.0
Solar 0 Bioenergy 0 Wind 0 0 Renewable capacity
in 2023 Non-renewable Installed capacity trend



And in 2014-15, installation of 95-100% renewable solar hybrid systems on the Northern Group Islands further altered the mix. The focus is now on the Southern Group Islands, with characteristics shown in Table 1. backup generation and connection/control system. (right) as installed on Cook Islands (Rakahanga) Small systems are usually based



Renewable energy in the Cook Islands is primarily provided by solar energy and biomass. Since 2011 the Cook Islands has embarked on a programme of renewable energy development to improve its energy security and reduce greenhouse gas emissions, [1] with an initial goal of reaching 50% renewable electricity by 2015, and 100% by 2020. [2]



In its approach to delivering a 100% renewable energy target across 12 islands by 2020, the Cook Islands presents a rare insight into how planning requirements of high penetration renewable island systems vary with scale.



Aitutaki is facing water shortages due to broken and improperly sized pumps but a new solar-powered pump system is being installed to improve water management efficiency and supply. (MOU) was signed between Elizabeth Wright-Koteka, secretary of Infrastructure Cook Islands, Aitutaki Island Government mayor Nicholas "Nick" Henry, and MP



3. Cook Islands electricity sector overview. All inhabited islands of the Cook Islands currently have centralised power supplies, providing single phase (230 V) or three phase (415 V) through a distribution grid to most residential and commercial and industrial customers 4.



Figure 8: Daily solar generation from the Rarotonga Airport 961.5 W solar system, November 2016. Image from Sunny Portal. But assuming these are local aberrations, do the Cook Islands have any realistic chance of replacing ???



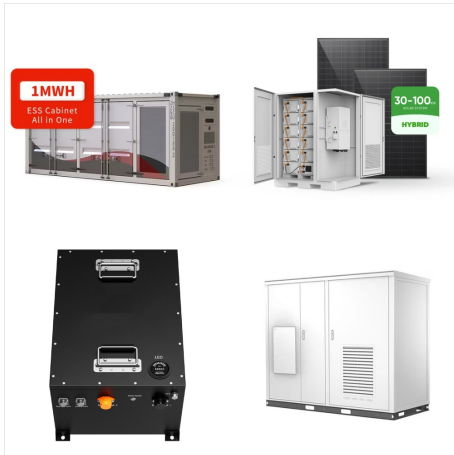
This study presents the method for reaching 100% sustainable energy systems in Cook Islands. It covers the possibility of fulfilling this objective from technical, commercial and environmental aspects.



COOK ISLANDS RENEWABLE ENERGY SECTOR PROJECT - Rarotonga Battery Energy Storage System Revision No: 0 E304965-TR-4 8 April 2016
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Target: Eliminate carbon emissions by 2020. Status: In progress RES: Solar photovoltaic arrays
 Implementation: The Cook Islands depend heavily on imported fuels and the cost of electricity based on these fuels is very high. Although nearly all households in the Cook Islands are connected to grid electricity, only 5.5% of households have additional solar ???



achieving the Cook Islands targets of 50% of islands powered by renewable energy by 2015 and 100% coverage by 2020. The Chart and Plan were updated in 2016 considering the increase solar PV generation on Rarotonga and the installation of solar-hybrid systems on the northern Cook Islands. Projects completed in the north include over 850kW of



Pukapuka photovoltaic array. Renewable energy in the Cook Islands is primarily provided by solar energy and biomass. Since 2011 the Cook Islands has embarked on a programme of renewable energy development to improve its energy security and reduce greenhouse gas emissions, [1] with an initial goal of reaching 50% renewable electricity by 2015, and 100% by 2020. [2]