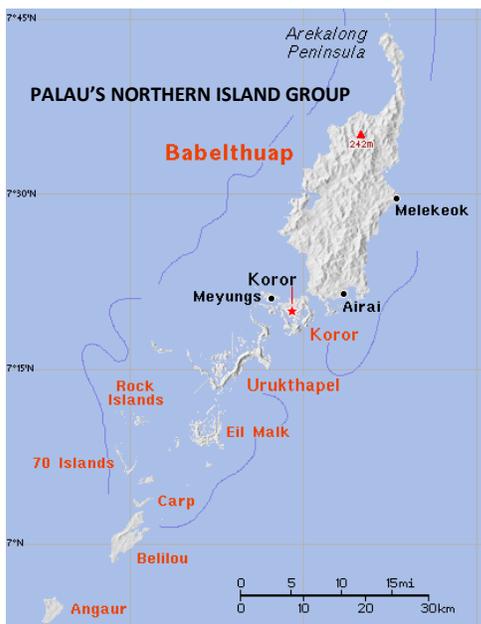




The U.S. Department of Energy's National Renewable Energy Laboratory is providing strategic guidance and technical support to Palau as the country strives to build a more sustainable and resilient future. This partnership is made possible through a grant from the U.S. Department of the Interior's Office of Insular Affairs.

# The Republic of Palau

## Pursuing a Sustainable and Resilient Energy Future



The Republic of Palau is located roughly 500 miles east of the Philippines in the Western Pacific Ocean. The country consists of 189 square miles of land spread over more than 340 islands, only nine of which are inhabited: 95% of the land area lies within a single reef structure that includes the islands of Babeldaob (Babelthiap), Peleliu and Koror.

Palau and the United States have a strong relationship as enshrined in the Compact of Free Association, U.S. Public Law 99-658. The Office of Insular Affairs (OIA) endeavors to help build the economic stability of Palau through a technical assistance program.

Palau has made a concerted effort in recent years to address the technical, policy, social and economic hurdles to deploying energy efficiency and renewable energy technologies, and has taken measures to mitigate and adapt to climate change. This work is grounded in Palau's 2010 National Energy Policy.

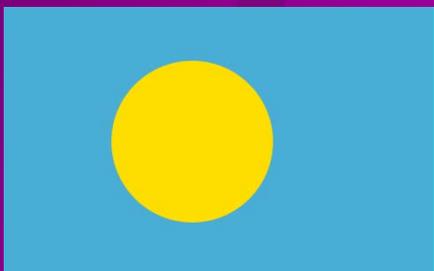
Palau has also developed an energy action plan to outline concrete steps the island nation could take to achieve the energy goals set forth in its energy policy. The country completed its National Climate Change Policy in 2015 and made a commitment to reduce national greenhouse gas emissions (GHGs) as part of the United Nations Framework Convention on Climate Change (UNFCCC).

However with a population of just over 21,000 and a gross national income per capita of only US\$11,110 in 2014, Palau will need assistance from the international community in order to fully implement its energy and climate goals.

This fact sheet provides an overview of the work Palau is doing in these areas with support from OIA and NREL, and outlines additional opportunities for involvement by other international donors.

## Energy & Climate Facts

Total capacity (2015):	40.1 MW
Diesel:	38.8 MW
Solar PV:	1.3 MW
Total generation (2014):	78,133 MWh
Demand for electricity (2015):	
Average/Peak:	8.9/13.5 MW
Emissions per capita (2011):	13.56 tCO <sub>2</sub> e
Residential electric rate:	\$0.28/kWh
(2013 average)	
Population (2015):	21,265



***“Climate Change is a real life threat to us and we ... must take action now to protect ourselves.”***

*“There is still time to tackle climate change, the greatest challenge of our times, all countries and all people have a role to play in building a more sustainable future ... We have committed to provide 20% of our energy through renewable resources by 2020 and are already three quarters of the way there. We have also committed to become carbon neutral by 2050.”*

— Tommy Remengesau, Jr., President of the Republic of Palau

## Current Energy Activities in Palau

**Renewable resource assessment** — NREL is working with Palau to understand the potential for wind and solar resources to support the country's renewable energy goals. NREL has analyzed solar and wind data collected from meteorological towers during 2013-2015. The solar data is being used to frame system size and evaluate the economic potential of solar projects at various locations on Palau to determine project viability.

**Energy efficiency** — In collaboration with the Clean Energy Solutions Center and other members of the Freely Associated States, NREL and Palau are working to develop enabling policies and provide trainings for customs officers on appliance and equipment labeling and standards.

**Energy planning** — Palau is in the process of updating its national energy policy and strategic plan. Currently undergoing its 5-year review, the updated strategic plan will include revised priorities and Palau-specific technical requirements in order to prioritize projects that achieve the optimal, most cost-effective energy savings.

## Completed Activities

NREL's technical experts worked with stakeholders in Palau to complete the following activities.

**Energy planning** — An initial technical assessment to evaluate Palau's current energy baselines and identify opportunities for expanding the role of energy efficiency and renewables.

**Energy efficiency** — An economic assessment to evaluate the costs and benefits of retrofitting Palau's high-pressure sodium street lights. The retrofits began in 2015.

**Climate change planning** — A national climate change policy developed with support from OIA. With additional support from the U.S. State Department, NREL assisted Palau in making its Intended Nationally Determined Contribution (INDC) to the UNFCCC global climate agreement in 2015.



## Areas for Further Development

**Nationwide grid integration study and supporting policies for high-penetration renewables** — Essential if Palau is to reach its 20% renewable energy target by 2020.

**Energy efficiency auditor training** — Identified by the Palau Public Utilities Commission as a high-priority need for both the public and private sectors.

**National greenhouse gas inventory** — Requires regular updates to evaluate progress toward mitigation targets.

**Emergency preparedness and disaster resiliency requirements for critical infrastructure** — Necessary to address the growing frequency and intensity of storms and climate-related events.

**Integrated roadmap for implementing Palau's energy and climate goals** — To supplement ongoing energy planning work to ensure Palau's long-range priorities are met.

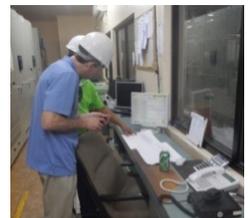
**Financial, technology and capacity building support** — Build local capacity to implement the measures identified in Palau's climate and energy plans.

**Improve donor coordination** — Develop a forum for the many international donor agencies working in Palau in the energy, water, and transportation sectors to better coordinate their activities to reflect the Government of Palau's long-term development priorities.



Tanya Harris Joshua  
Policy Division  
Office of Insular Affairs  
U.S. Dept. of the Interior  
202.208.4736  
Tanya\_Joshua@ios.doi.gov

Misty Dawn Conrad  
Senior Technical Manager  
National Renewable  
Energy Laboratory  
303.763.0436  
Misty.Conrad@nrel.gov



**National Renewable Energy Laboratory**  
15013 Denver West Parkway  
Golden, CO 80401  
303-275-3000 • [www.nrel.gov](http://www.nrel.gov)

NREL prints on paper that contains recycled content.

Prepared by the National Renewable Energy Laboratory (NREL), a national laboratory of the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy; NREL is operated by the Alliance for Sustainable Energy, LLC.

NREL/FS-7A40-65986 • April 2016