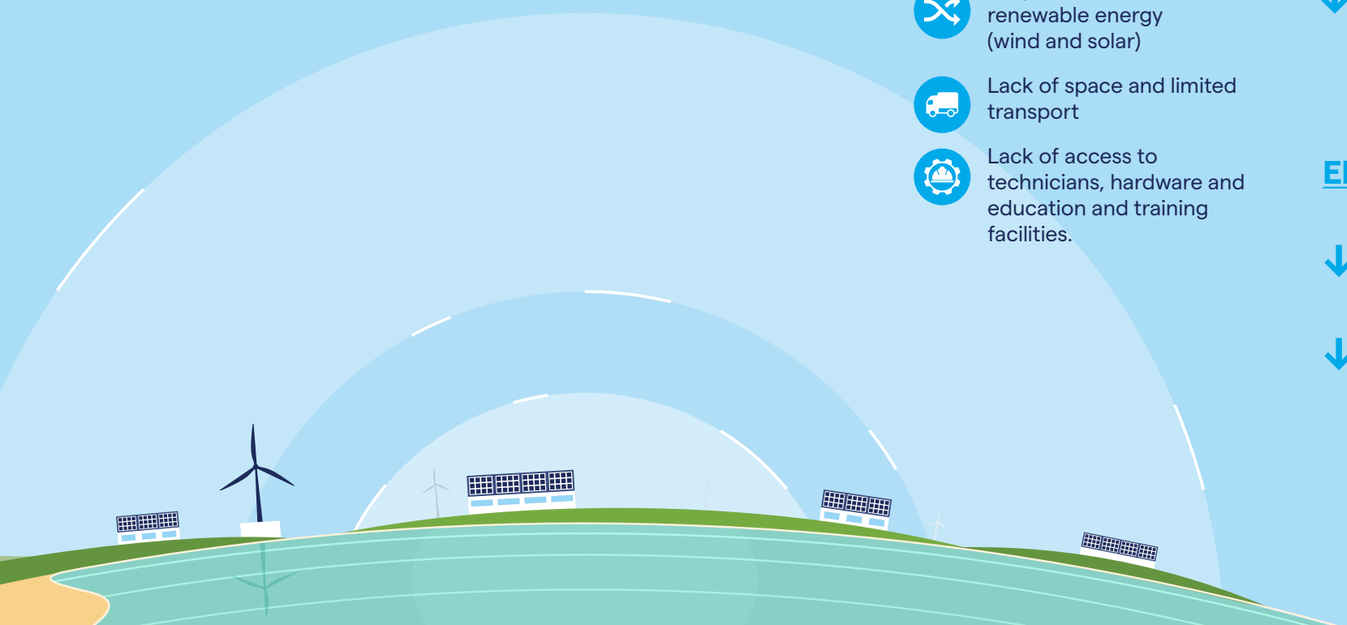
Marshall Islands Electricity Roadmap **Overview**

This Roadmap presents **our vision for a decarbonized Marshall Islands electricity sector**, and provides a framework for investment and management. We invite our friends and partners to join us and contribute to the journey ahead.

Our approach

To achieve 50% reduction of diesel use by 2025, we need to move quickly and decisively in line with our shared vision. The Roadmap adopts a design philosophy of simplicity, efficiency and scalability, to give us the best chance of meeting the technical challenge of integrating high levels of variable renewables. In practice this means deploying utility-scale, centralized generation, using proven technologies.



Where we are

60kt
CO_2-e from electricity generation in 2010

Half
of RMI's national GHG emissions from electricity generation (excluding fishing)

95%
of electricity GHG from main grids of Majuro and Ebeye

98%
electricity from imported diesel in 2018. Diesel generators and network in poor condition

Our challenges

As a remote atoll nation, specific challenges for renewable energy make our targets more ambitious.

- Not connected to a larger grid for overflow or backup
- Only intermittent renewable energy (wind and solar)
- Lack of space and limited transport
- Lack of access to technicians, hardware and education and training facilities.

Our journey

Majuro and Ebeye

- Rapid build of centrally controlled utility-scale systems (wind, solar, battery, diesel)
- Wind likely to be least-cost generation to 2025
- Reduce losses in powerplant and distribution network
- Reduce energy used for air conditioning and refrigeration
- Remove subsidies that encourage wasteful energy use

Outer Islands

- Shift existing diesel mini-grids to high-renewables (~90%) hybrid mini-grids
- Better service and maintenance of solar home systems
- Expand community electricity services for schools, dispensaries, laundromats

Financing

- Finance from development partner grants, tariffs, diesel savings and Govt subsidies

Human resources

- **Make:** recruit, train, educate and support the best Marshallese talent for the electricity sector
- **Grow:** build needed skills in the existing workforce
- **Find:** bring in required expertise from outside

Implementation

- Well resourced, whole of system thinking in collaboration with RMI stakeholders and development partners

Our targets

Economy-wide GHG

↓**32%** below 2010 levels by 2025

↓**45%** below 2010 levels by 2030

Net zero by 2050

Electricity GHG/diesel

↓**50%** below 2010 levels by 2025

↓**65%** below 2010 levels by 2030

Net zero by 2050

Energy efficiency

↓**10%** energy demand by 2025*

↓**20%** energy demand by 2030*

*compared with business as usual

Other objectives

- Affordable electricity for consumers & Govt
- Reliable electricity systems and secure energy supply
- Marshallese are skilled in operation & maintenance of high-renewable power systems

Our costs

The breakdown

$170m to achieve 2025 target

$45m to achieve 2030 target

↑**$5m** per year in 2025 than in 2018

Republic of the Marshall Islands Energy Future