

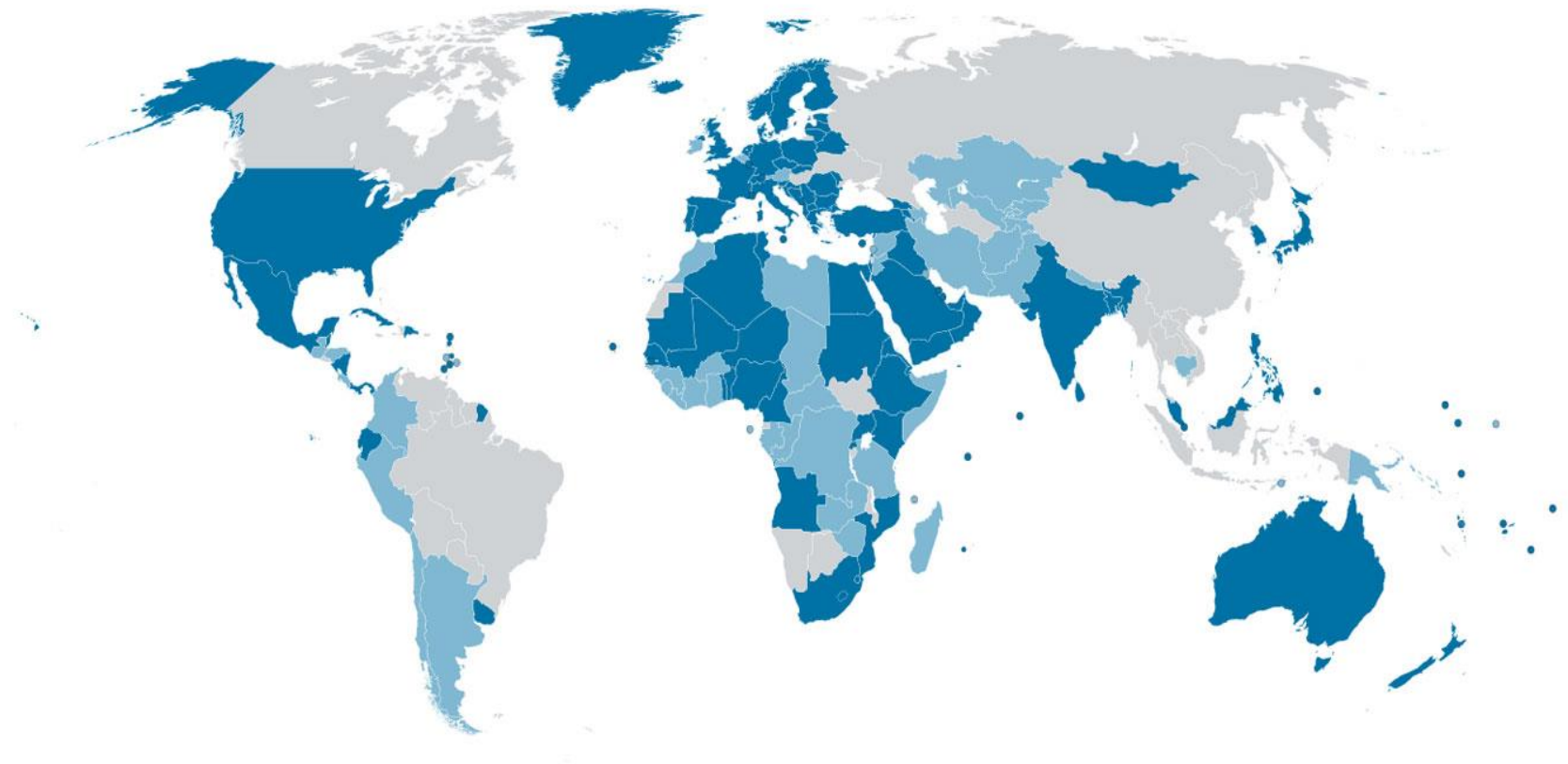
Global Renewable Energy Islands Network (GREIN)

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International Renewable Energy Agency (IRENA)

IRENA Membership

Members: 160 affiliates - 109 ratified



- Members of the Agency
- Signatories/applicants for membership

Malta Communique on Accelerating Renewable Energy Uptake for Islands

- Ministers and others called on IRENA to establish a Global Renewable Islands Network (GREIN) as a platform for **pooling knowledge**, **sharing best practices** and seeking **innovative solutions** for accelerated **uptake of clean and cost-effective renewable energy** technologies on islands.
- Information developed could be of **value** not only to island states, but also to other countries with islands or **virtual islands** far from transmission grids – which share the burden of high costs of energy from distant sources which renewable energy may displace.

Vanuatu Wind Farm



GREIN Membership

- Open to all interested countries
 - Countries that attended Malta Conference (48)
 - IRENA members (29 countries)
 - IRENA signatories (14 countries)
 - Others (4 countries)
 - Other selected countries with numerous islands

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Island-Led Interest Clusters to Accelerate RE

- Renewable Energy [Resource Assessment](#) for Islands
- Renewable Energy [Readiness Assessment](#) for Islands
- Renewable Energy [Technology Deployment Roadmaps](#) for Islands (12)
- Renewable Energy [Project Development Navigator](#) for Islands
- Renewable Energy [Power Grid Integration](#) on Islands (20)
- Renewable Energy [Water Desalination Systems](#) on Islands
- Renewable Energy [Waste-to-Energy Systems](#) on Islands
- Renewable Energy [Tourist Industry Applications](#) on Islands

Sources of Advice and Support for GREIN

- Island-focused organisations (AOSIS, CARICOM, SIDS, many others)
- Multilateral financial institutions (World Bank, ADB, IADB)
- Experts on RE systems (desalination, waste-to-energy, buildings)
- Renewable equipment manufacturers and traders
- Countries that are island states (AOSIS and SIDS countries)
- Countries with numerous islands (Indonesia, Japan, Philippines)
- Countries with islands in their neighborhoods (New Zealand)

RE Technology Deployment Roadmaps for Islands

- Power sector (mini-grids and micro-grids)
 - hybrid systems of PV, wind, geothermal, marine with diesel)
 - waste-to energy systems (two problems solved at once)
- Transport sector (cars and trucks)
 - indigenous biofuels from crops or cooking oil
- Building sector (housing and tourist hotels)
 - solar heating and cooling
 - solar water heating

RE Power Grid Integration on Islands

- Islands typically rely on expensive diesel for electricity
 - Often 40 cents per kilowatt-hour or more to ship in
- Displacement of diesel gives renewables easy market entry
- Some islands have baseload resources to apply
 - Geothermal
 - Marine
- All islands have variable resources, requiring careful integration
 - Wind
 - Solar

Tonga Solar Farm



RE Resource Assessment for Islands

- Geothermal
- Marine
- Wind
- Solar
- Hydro
- Bioenergy

RE Readiness Assessment for Islands

- Actions to accelerate renewable energy technology deployment
 - Identify service-resource pairs
 - Services such as desalination and cooling hotel rooms
 - Resources as identified in study of resource potential
- Develop body of recommendations applicable to a range of islands.
- Follow-up deployment activities (extension modules):
 - Renewable energy supply chains for islands
 - Financing renewable energy on islands

Kiribati PV Drives PC



Muchas Gracias
Thank you

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