

Renewable Energies for Remote Areas and Islands (REMOTE)

IEA-RETD

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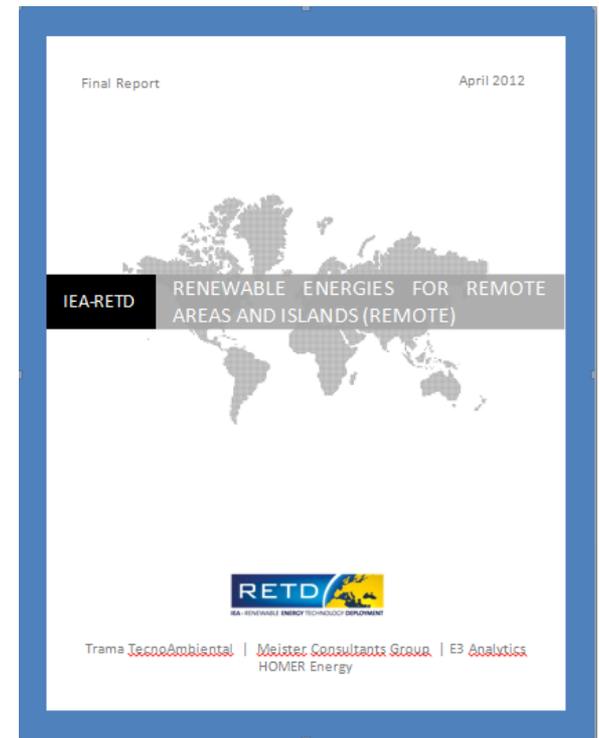
French representative at the RETD Executive Committee



RETD stands for
“Renewable Energy Technology Deployment”.
IEA-RETD is a **policy-focused, technology cross-cutting platform**
 (“Implementing Agreement”) under the legal framework of the
International Energy Agency

The REMOTE report

- Policy perspectives for making remote areas and islands largely independent from fossil fuel imports or costly transmission infrastructures
- Ideas and inspiration on how to promote the use of local renewable energy
- Published in 2012 and freely available at www.iea-retd.org



Report describes specific conditions and lessons learned for six categories of remote areas

	Load demand, other considerations	Case studies
1. Areas with long winters	<ul style="list-style-type: none"> • High heating loads • Limited industrial activity, potentially subsistence activities and natural resources exploitation 	<ul style="list-style-type: none"> • Kodiak Island, Alaska • Ramea, NFLD
2. Areas with temperate climates	<ul style="list-style-type: none"> • Not prone to environmental extremes • Relatively high heat loads • Often connected to central electricity infrastructure 	<ul style="list-style-type: none"> • Isle of Eigg, Scotland • Faroe Islands, DK
3. Small areas with warm climates	<ul style="list-style-type: none"> • High seasonal cooling needs for tourism • Limited industrial activities 	<ul style="list-style-type: none"> • Floreana, Galapagos • Coral Bay, Australia
4. Large areas with warm climates	<ul style="list-style-type: none"> • Primarily residential and commercial (tourism) needs • May have bulk access to fuels 	<ul style="list-style-type: none"> • Bonaire, Caribbean • El Hierro, Canaries • Miyakojima, Japan • La Reunion, France
5. Research stations	<ul style="list-style-type: none"> • Intermittent fuel deliveries • Intermittent human occupation 	<ul style="list-style-type: none"> • Ross Base, Antarctica
6. Other areas, largely in developing countries	<ul style="list-style-type: none"> • Primarily residential with large growth potential • Dependency on batteries, kerosene, wood and candles for primary energy needs 	<ul style="list-style-type: none"> • Akkan, Morocco

For each category, representative case studies were developed, providing global coverage



Remote areas can demonstrate that a fully operational RE future is not only possible, but within reach ...

- Remote areas can be ideal testing grounds for integration strategies and emerging technologies
 - Usually at the forefront of innovative storage and load management techniques - Examples of islands with RE exceeding 30% of generation
 - RE deployment for those areas also benefits mainlands
- RE / non-RE generation technologies can complement each other
 - existing diesel generators can transition to a system stabilizing role
 - RET can undercut “true” diesel costs
- Careful planning is necessary to optimize power systems with integrated hybrid solutions for each “setting”
- A more aggressive focus on energy efficiency is essential
- Cooperation between all stakeholders is vital

... however, financing RET continues to be challenging

- Constraints on private financing: Capital availability, access and cost
- Public sector involvement is still necessary, despite increasing RET competitiveness
- Governmental support may be given
 - By non-monetary de-risking rather than direct cash investments
 - By scaling down fossil fuel subsidies (level playing field)

REMOTE proposes Nine Key Areas for Policy Action

1. Level playing field - Scale back fossil fuel subsidies
2. Provide support with training and the lack of technical expertise
3. Support project planning and implementation
4. Design appropriate incentives
5. Overcome the issue of scale
6. Increase R&D funding
7. Prioritize energy efficiency
8. Determine the appropriate level of RE penetration
9. Mitigate risks to attract capital



THANK YOU!

For additional information on IEA-RETD

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