

# Chile

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Unelectrified Population = 861,000, primarily in the southern regions

## Chile's Renewable Energy Program

- Chile's Comisión Nacional de Energía (CNE) is evaluating the applicability of renewable energy for rural power development
- Installation of pilot power systems is occurring in Region IX and X to demonstrate the use of renewable energy technologies
- Training of integrators, engineers, and utility representatives in the design, operation, and maintenance of hybrid power systems
- Wind resource mapping in regions with large rural populations.



Village of Villa Las Araucarias and the installed power system

## Villa Las Araucarias Pilot Project

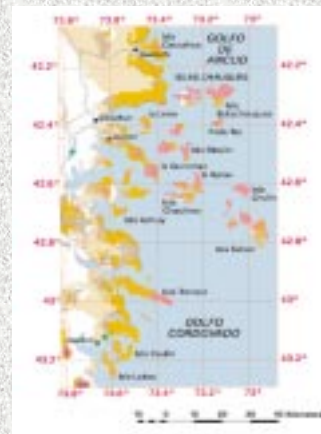
- Inland community supported by forest industry
- Health post, school, and 17 homes electrified
- 9.8-kWh daily load with significant load increase expected
- System supplies 24-hr power
- System includes 7 kW Bergey turbine, 3-kW TRACE inverter, 33.6-kWh battery bank of Trojan L-16s, 5.4-kW autostart Honda generator, and 220 volt, and 50 hz AC distribution grid
- Contributing organizations: CNE, NREL, NRECA, and Frontel/SAESA.



Island of TAC, Region de los Lagos, Chile

## Isla Tac Pilot Region X

- Wind-hybrid power system to provide 85 kWh per day of electrical power for the Chiloe island community of Tac
- Installation planned for December of 1998
- Pilot system to demonstrate wind renewable power systems for the electrification of island communities
- US\$210,000 for the power and distribution systems funded jointly between U.S. DOE, the regional government, and a local utility
- Contributing organizations: CNE, Intendencia de los Lagos (Region X), NREL, NRECA, and SAESA
- System to introduce technology to be used in Chiloe Islands Project.



Isla de Chiloe Area of Region X; Preliminary map of favorable wind resource areas

## Chiloe Islands Project

- Electrification of 36 islands in the Chiloe Sound using a mix of wind hybrid and individual home wind systems
- Planned installations for 1999 and 2000
- Islands located throughout the Chiloe Sound in Region X
- Public request for proposal to provide electrical service issued by the regional government with technical assistance provided by CNE, NREL, and NRECA
- Over US\$12 Million in power system equipment planned
- Contributing organizations: CNE, Intendencia de los Lagos (Region X), NREL, and NRECA.