

Case Study 4 – GTZ Projects in Northern Chile

Site development on national property for renewable energies. Wind measurement campaigns at twenty locations in northern Chile.

Due to geographical conditions, Chile has enormous potential for renewable energies. However, except for hydropower, none are currently employed. At present, half of Chile's generated electricity comes from thermal energy plants, while 40% is produced by hydropower stations. Following an earlier gas supply crisis, which resulted in high energy prices, Chile aims to reduce its dependency on fossil fuels and plans to diversify the energy supply of the country. Planning to improve energy supply safety and sustainability, the government issued a decree in 2008 dictating a specified amount of renewable energy in the electricity sector starting from 2010.

To enable an efficient assembly of non-conventional renewable energies and to meet the growing demand for appropriate sites, the Chilean government is disposing of national property to private investors. Vast areas in the north of the country appear to be especially well suited for the use of wind energy and solar power stations. The German government is assisting Chile in its enterprise to develop these sites as part of the international climate initiative of the BMU (Federal Ministry for the Environment, Nature Conservation & Nuclear Safety). Since November 2008, the GTZ (Deutsche Gesellschaft für Technische Zusammenarbeit GmbH) has been implementing the project in co-operation with the Chilean National Energy Commission CNE (Comisión Nacional de Energía), identifying, assessing and marketing the national property for renewable energy use. A measurement campaign on twenty locations is currently in action in northern Chile.

With topographic and climatic conditions requiring very robust, reliable and self-contained measuring systems, the measuring campaigns use Ammonit's measuring equipment. A photovoltaic power supply is provided with each station. Once the measuring campaigns are completed the technical and economical conditions for the site development will be analysed in feasibility studies. Finally, the sites will be transferred to private investors.

The development of national properties will be a strategically important contribution to the development of renewable energies in Chile. The GTZ project is giving a boost to regional development and the structural change needed to replace fossil fuelled thermal energy with renewable energy in northern Chile.

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