

Sustainability

The Environmental Benefits of Geothermal and Recovered Energy

[Geothermal energy](#) [1] is heat energy that comes from the earth's molten interior deep in the earth's crust. This valuable heat is brought near to the surface due to movements in the earth's crustal plates by intrusion of molten magma and by deep circulation of groundwater. Reservoirs of hot water under pressure are formed. By drilling wells into these reservoirs, steam and high-pressure hot water can be captured and directed to drive turbines in power plants, completing the conversion of this earth-bound energy from heat to electrical energy.

Cooled geothermal fluid is injected back to the reservoir where it is reheated and preserves the resource mass balance and sustainability. The advantages of geothermal energy are enormous; it harnesses a natural locally available energy source, it offers base load electricity 24/7 year-round supply with high reliability and provides an environmentally friendly energy alternative which produces no NO_x emissions and negligible CO₂ emissions.

Ormat Power Projects Eligible for Greenhouse Gas Emissions Trading

In December 2008, the Executive Board of the United Nations Framework Convention on Climate Change (UNFCCC) officially registered Ormat's Amatitlan Geothermal Project in Guatemala as a Clean Development Mechanism (CDM). The project is expected to offset emissions of approximately 83,000 tons of CO₂ per year. With Amatitlan registered under the CDM, the project will be eligible to receive certified emission reduction credits, each equivalent to one ton of carbon dioxide, which can be traded or sold. The project has a long-term contract to sell all of its emission reduction credits to a European buyer.

Improving Environmental Performance

Ormat's generating portfolio as of the end of 2008 includes a total of 14 geothermal and recovered energy power plants in the United States, Guatemala, Kenya, Nicaragua and New Zealand. While each power plant in our portfolio provides a positive alternative to carbon-intensive electricity generation, our company remains committed to ongoing action to minimize the environmental impact of our operations through reducing, reusing, recycling and applying leading edge technology. In fact, this approach is encapsulated in the Ormat Quality, Environmental, Health and Safety Policy, which guides these initiatives.

Connecting with the Community

As a responsible and responsive corporate citizen, Ormat believes it is important to cultivate positive relationships with a wide variety of stakeholders who have an interest in our geothermal and recovered energy power plants. To do so, we employ a variety of activities and communications tools which include websites about our power plants and ongoing projects that affect the local community; a community relations program that encourages employee volunteerism and purchasing from local vendors; participation in local boards such as the Mammoth Lakes Alternative Energy Task Force; the maintenance of an extensive list of stakeholders with whom we stay in touch with via email, phone calls, meetings, and tours of the power plant; and by providing local support to community organizations. These combined efforts

ensure that stakeholders are provided with timely and accurate information about our operations and development plans and that they are able to learn more about geothermal energy and how it contributes to the local economy and a cleaner environment.

[ORMAT Sustainability Report 2009](#) [2]

[ORMAT Sustainability Report 2008](#) [3]

[Environmental Impact Assessment Olkaria III Geothermal Power Plant](#) [4]

[Environmental Audit Report Olkaria III Geothermal Power Plant](#) [5]

[Supplementary Report to the Environmental Impact Assessment](#) [6]

[Company Profile](#) [7]

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Links:

[1] <http://www.ormat.com>

[2] http://www.ormat.com/sites/default/files/Ormat_Sustainability_Report_2009_0.pdf

[3] http://www.ormat.com/sites/default/files/Ormat_Sustainability_Report_2008.pdf

[4] http://www.ormat.com/sites/default/files/Attachement_C-EIA_2000_Report.pdf

[5] [http://www.ormat.com/sites/default/files/Olkaria_III_Audit_2010-January_2011_\(final\).pdf](http://www.ormat.com/sites/default/files/Olkaria_III_Audit_2010-January_2011_(final).pdf)

[6] http://www.ormat.com/sites/default/files/Supplimentary_Report_to_the_Environmental_Impact_Assessment_Study.pdf

[7] <http://www.ormat.com/company-profile>