



# Geothermal Caribbean Energy

## Phase II

INITIATION OF A CARIBBEAN POLICY REGARDING GEOTHERMAL ENERGY

# The Geothermal Caribbean energy project

The initiation of a regional policy for the development of geothermal energy in the Antilles was engaged recently via the « Caribbean Geothermal Energy » project.

Launched early 2008, the « Caribbean Geothermal Energy » project was completed in June 2009, for a cost of 1.15 M€. and was financed within the INTERREG IIIb Caribbean region program. Phase II of the project started in may 2012 and will last for two years.

Supported by the Guadeloupe Region – acting as leader – first phase comprised the following partners: the Guadeloupe region, the Martinique region, ADEME (French Agency for Environment and Energy Management), BRGM (Bureau de Recherches Géologiques et Minières), and the Dominican Commonwealth.

The first phase of the project aimed at completing the knowledge acquired in Dominica on the geothermal energy prospect of Wotten Waven located in the Roseau valley, and prepare an exploratory drilling program, the first step in the development of geothermal energy in Dominica ; the mid term objectives set being the production of electricity by geothermal energy to cover the needs of the island in favourable economic conditions and exporting the excess electricity produced by underwater cables to Guadeloupe to the North and Martinique to the South.

First phase of the project created a dynamic and settled the bases for cooperation. The objective of the second phase is now to define a methodology to create proper conditions for the development of geothermal projects in the Caribbean area. All aspects of the projects should be adressed, like environmental issues, guarantee fund covering geological risk, communication, electricity distribution, capacity building... Work will be based on practical cases, with the objective to put conclusions into general use and share them between all partners.

Fig 1 : Upper Roseau valley - Dominica



### INTERREG : WHAT IS IT ?

Interreg IV “Caribbean” is a cooperation program financed by the regional European development fund (75%), balance being co financed by the French regions of Guadeloupe, Guiana, Martinique, Saint-Bartholomew and Saint Martin.

Objectives of the Interreg program are to contribute to a harmonious development, concerted and durable of the Caribbean area, to favor the synergies and the possible complementarities between the countries of the area, to increase social and economical development and to have advantageous relationships to one another. Interreg IV is supporting coordination tools and political action that would allow regions to overcome their isolation, which is essential to the well being of their economic, social and environmental development.

Third partners (non-euro regions) are welcome to join projects financed under the Interreg program : almost all countries facing the Caribbean ocean are concerned.

### FAST FACTS

8

The number of partners, institutionals and industrials who already joined the project

8,5 M€

The budget already allocated to the project specific tasks

# Tasks included in the GC Energy phase II

## Item 1 – Environmental excellence

This covers the writing of a guide of recommendations to ensure the successful environmental integration of geothermal energy projects in an insular and/or tropical context.

This guide will cover all aspects of the environmental evaluation of a project (from physical impacts on the environments to discussions with neighbouring populations). It will be written based on three concrete cases: Bouillante in Guadeloupe, Wotten Waven in Dominica and Martinique where two geothermal prospects, one in the north and the other in the south of the island, could be subject to exploration drillings in a near future. Discussions should be held with Costa Rica, which has been developing an

environmental excellence process over these last few years within its geothermal energy projects, and which has now become a reference.

## Item 2 – Power Production – Distribution :

- Definition of an MDE-PDE program (Electricity Demand Control – Decentralised Electricity Production) on the scale of the territories concerned by the proposition, using methodologies developed by ADEME,
- Legal and technical evaluation of the interconnection and purchasing conditions. The study should be based on the concrete example of the Guadeloupe-Dominica-Martinique electrical interconnection by underwater cables for the transport of geothermal electricity produced in Dominica.

## Item 3 – Caribbean geothermal energy development program :

- Production of an inventory of work performed in geothermal energy over the last thirty years in the Caribbean zone, and definition of a detailed program of action to be led within the next fifteen years.
- Study of a financial system for the initial phases of projects and coverage of the geological risk based on existing initiatives, such as the GeoFund and Argéo managed by the World Bank.

## Item 4 – Communication :

Design of generic information tools on geothermal energy (information leaflet and booklet) for the different publics, and creation of a Web site dedicated to the proposition,

- Definition of a specifications sheet to build a Geothermal Energy House, one in Bouillante and another in Roseau Valley, to support the relation between geothermal energy and eco-tourism.
- Organization of an event on the technical aspects of geothermal energy in 2014 for the political, technical and administrative leaders in the Caribbean and Central America areas, as well as industrialists.

## Item 5 – Training

Within the prospect of development of geothermal energy on the Caribbean scale, training required in geothermal energy and the associated professions must be analyzed to meet these needs, and define the means required.

Fig 2: Bouillante power plant in Guadeloupe



## Joining the project

**Who ?** Institutionals as well as well as NGO, associations, industrials... can submit, as soon as they are based in a country facing the Caribbean ocean.

**Why ?** GC Energy II project is a great opportunity to share technical, financial, institutional information regarding geothermal energy development in Caribbean area.

Participants will have access to all results of the studies included in the project. By providing data or being included as case studies, final results of the project will be improved and be made even more replicable.

Members of the project will also be given the possibility to participate to the networking and communication events of the project.

**How ?** Financial participation is not needed to enter the project: it can be limited to material support, data supply, human ressource allocation... Participation should be formalized through a specific agreement (letter of commitment).

**When ?** The project started in may 2012 and will last for 2 years. Partners can enter anytime. However, the earlier they will enter, the more benefits they will get from the project. For

instance an early participation might enable to be selected for specific case studies.

### MORE INFORMATION

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