



THE GEOTHERMAL ASSOCIATION OF IRELAND

SECRETARIAT: ENERGY AGENCY OFFICE, SPA HOUSE, MALLOW, CO CORK

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♦ Inaugural Meeting

A group of people from various disciplines came together on January 16th last, to form an Association that would act as a network of interested parties in Geothermal Technology. The benefits of having an Association formed would lead to a more combined effort, experience exchange, planning ahead etc. The purpose of the meeting was to take these thoughts further and to establish such an Association, elect officers and decide on the activities needed.

♦ Functions & Objectives

The main function of the Association is to act as a link between the various interested groups in Geothermal Technology.

Objectives include:

- The promotion of awareness of geothermal energy.
To act as a focus for the collation and compilation of data on all aspects of geothermal energy.
- To be a conduit for the dissemination of that and other related information to the general public.

♦ Activities

The Associations activities will include:

- Holding 3-4 meetings a year.
- Site visits.
- Issue of Newsletters.
- Creation of a database.
- International aspects.
- Holding lectures.
- Experience exchange.

♦ Election of Officers

Most of the officers have been elected with some vacancies. Other positions will be made, where relevant, in the future.

Nomination and Election went as follows:

- Chairperson: -Mr. Michael O' Brien, Cork Corporation. ✓
- Vice-Chairman: -Mr. Bob Aldwell, Dept. of Public Enterprise. ✓
- Secretariat: -Gerard Barry, Cork County Energy Agency. ✓
- Public Relations Officer -Mr. Shane O' Neill, Consultant Hydrogeologist ✓



Mr. Michael O' Brien, who was elected Chairman of the Geothermal Association of Ireland, at the inaugural meeting, held at Spa House, Mallow, Co. Cork, on the 16th of January, 1998.

Attending the meeting were:

- ✓ Mr. Michael O' Brien, Senior Engineer, Cork Corporation.
- ✓ Mr. Bob Aldwell, Principal Geologist, Geological Survey of Ireland.
- ✓ Mr. Pat Walsh, Executive Engineer, Cork County Energy Agency.
- ✓ Mr. Brian P. Connor, Director, Brian P. Connor & Associates Ltd.
- ✓ Mr. Brian O'Gallachoir, Technician Manager, REIO, Irish Energy Centre.
- ✓ Professor Peter M. Brück, Dept. of Geology, U.C.C.
- ✓ Dr. Alistair Allen, Dept. of Geology, U.C.C.
- ✓ Dr. Bettie Higgs, Dept. of Geology, U.C.C.
- ✓ Mr. Shane O'Neill, Consultant Hydrogeologist, O'Neill Groundwater Engineering.
- ✓ Dr. Stephen Cassidy, Lecturer, Dept. of Mech. & Manuf. Engineering, C.I.T.
- Mr. John Dunne, Dunnes Well Drilling Ltd.
- ✓ Mr. Padraig Barrett, Assistant Engineer, Cork County Energy Agency.
- ✓ Mr. Gerard Barry, Graduate Engineer, Cork County Energy Agency.

By Brian P. Connor, European Projects Officer

The present energy supply, conversion and demand system in the EU contributes significantly to a number of environmental problems including urban air pollution, acidifying emissions and the emission of greenhouse gases. The utilisation of geothermal energy can replace some of the fossil fuels currently in use and reduce the environmental problem.

Ireland has no known high temperature geothermal resources – there are some tepid groundwater sources where the temperature of the water is at 20 °C (e.g. Mallow) but in general the groundwater temperature in Ireland is 10°C.

Energy can be extracted from normal temperature groundwater but the economics are marginal, due to the high cost of drilling wells, disposing of the water after the heat is extracted and also the risk factor where there may not be sufficient water to match the heating requirements.

In Ireland at least 25% of the water supply is from groundwater sources and these sources are capable of producing heat energy. As these are existing wells the risk factor is eliminated as is the problem of disposing of the water after the heat is extracted – it is used for public or other supply. The heat can be considered to be borrowed from the water supply source. In addition all the capital costs of well drilling, testing, disposal of water are already expended in the water supply project. This will improve the economics of the geothermal system.

The above concept was presented to the Energy Directorate of EU (DG XVII) and they have funded the study under the Thermie Programme on utilisation of energy from existing groundwater systems in Ireland, Austria and Portugal. This project is being co-ordinated by Brian P. Connor & Associates Ltd of Tramore, Co. Waterford. The partner's in the project are:

Project Co-ordinator:	Brian P. Connor & Associates Ltd	Ireland
Partner's:	C.E.E.T.A.	Portugal
	Geotherma SA.	France
	Geoteam GmbH.	Austria
	Dunstar Ltd.	Ireland
	Geological Survey of Ireland	Ireland
	Cork County Council	Ireland

Aims of Project

The aim of the project is to identify high yielding >50m³/hour wells from which geothermal energy can be extracted and used to heat adjacent buildings without interfering with the existing water usage, be it for public supply or for public supply or industrial purposes. A Feasibility Study will be carried out on a selected site in each country involved in the project ie Ireland, Austria and Portugal.

Project Actions

The actions involved in the project are as follows:-

- Identification of existing high yielding (50m³/hour) wells in Ireland, Austria and Portugal.
- Evaluation of the heat energy that can be economically extracted from these sources without interfering with the existing water usage.
- Sourcing of existing and potential heat users in the vicinity of each source.
- Selection of a demonstration site in each country, Ireland, Austria and Portugal.
- Carry out a Feasibility Study for the Demonstration Site.

Progress to-date

In each country the project has progressed to the stage where the Feasibility Studies are being carried out on the Selected Demonstration Sites.

If the results of the study are positive it may be possible for the well owners to gain additional value from their water resources. The utilisation of this heat energy can contribute to employment in the manufacture, installation and maintenance of heat pumps and, as mentioned above, improve the environment.



A view of The Spa House, Mallow, Cork County Council Energy Agency and communications centre for the Geothermal Association of Ireland.

Editors Notes

This is the first Newsletter to be produced by the Association. Future issues will be longer. It is envisaged that there will be 4-5 Newsletters published annually. If anyone wishes to contribute an Article, we would be delighted to include it in future issues. We intend to compile a stock of articles from which to work for future Newsletters. We hope to cover international aspects of geothermal development as-well as creating a national forum for interested parties.

Please send your views and articles to:

The Secretary, Geothermal Association of Ireland, c/o Spa House, Mallow, Co.Cork.

E-mail: mallow@indigo.ie or Fax: 022-43678.