

THE GEOTHERMAL ASSOCIATION OF IRELAND

SECRETARIAT: Groundwater Div., Geological Survey of Ireland, Beggars
Bush, Dublin 4, Ireland

Tel: +353-1-678-2784/2780; Fax: +353-1-678-2569; Email: info@geothermalassociation.ie

GAI NEWSLETTER No.1

April, 1998

Inaugural meeting
Functions and objectives
Activities
Election of officers
National survey on Low Temperature Geothermal
Energy

Brian Connor

GAI NEWSLETTER No.2

June, 1999

Geothermal Energy Sources in Dublin
'Seen and Heard':
Draft of a Web page for the Association
Groundwater study in Ireland:
 Geothermal Project No. DIS-1038-96-IR
Table contents, Final Report Geothermal Heat Pumps
Meeting of the officers of the Association
Industrial Section: Small Scale Heat Pumps
Hydrogeological Co-operation between Russia
and Ireland

Shane O'Neill
GSI Newsletter
Carol le Moigne

Brian Connor
Cork County Energy Agency

Paul Sikora

GAI NEWSLETTER No.3

Spring, 2000

Summary of AGM 1999
Tribute of the late John Dunne
Presentation to Bob Aldwell
Heat Pump Installation - examples in South West
Ireland Energy Update Magazine reprint
Geothermal Energy Utilisation in Cork City
Report from Euro Project Officer
Geothermal Resources of Serbia
Forthcoming events
Warm springs in Ireland

Pat Walsh

R.E.I.O., Bandon
Michael O'Brien & Mary Walsh
Brian Connor

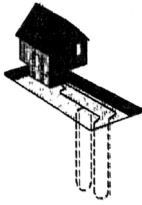
GAI NEWSLETTER No.4

Autumn 2000

Summary of GAI Officers meeting, September 2000
A Geothermal Europe - the Ferrara Declaration
Geothermal Heat pumps - How they work
Submission to the Irish Energy Centre
Enercret - Concrete Absorber Technology
Development of Deep Geothermal Water
Cork Geological Association
Time to look Again at Geothermal Energy
 Development in Ireland
Warm Springs model for Munster

Pat Walsh
EGEC
Orla Freyne
Shane O'Neill
Brian Connor
Brian Connor

Bob Aldwell
Peter Brück



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GAI NEWSLETTER No.5

December 2001

House of tomorrow	
Site visits	
Meeting of the Commission on Mineral and Thermal water at St Petersburg, Russia	
Enercret Thermo-active foundations	Robert Ferrari
Geothermal Energy Development, Eastern Macedonia	G. Kanavakis
The Hot Dry Rock System (HDR)	
World and European Overview	
Cork Geological Association	Bettie Higgs
Proceedings of 'International Course on Geothermal Energy', 2001	
John Dunne, Remembered	Bettie Higgs

GAI NEWSLETTER No.6

August, 2002

Geothermal Application: Cork County Council	Alex Grassick
Study tour for GAI Members	
Cases Studies from around Europe	Eduardo Plaza
Overview of Irish Solar Energy Conference and Study Tour	Xavier Dubuisson
Case Study - Castletownroche	Eduardo Plaza
Interesting facts	
News Snippets	

GAI NEWSLETTER no. 7

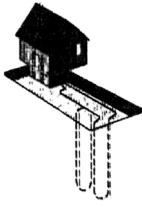
May 2004

AGM Update	Róisín Goodman
UCC Arts Museum	Paul Sikora & Alistair Allen
National Geothermal Status	Gareth Ll. Jones
The Geothermal Springs at Bath	Darragh Musgrave
Ideal Homes report	Bill Griffin
Some geothermal views	
A self sustainable heat pump market	Raphaella Boesworth
Ground Source Heat Pumps	Sarah O'Connell

GAI NEWSLETTER no. 8

November 2004

Cork's Sustainable City Campus	Paul Houston
Geothermal Heating	Paul Sikora
Heating a Building with a Geothermal Heat Pump	Francis Martin
Opening of Lewis Glucksman Gallery, UCC	Alistair Allen
Launch of CSA / SEI Geothermal Resource Map	Gareth Ll. Jones, Róisín Goodman
Using a Stream or River for Thermal Energy	Clive Symmons
GAI Members 2004	
GAI Waterford / Wexford field trip report	Róisín Goodman
Thermal Contact Resistance in GSHP Collectors	Sarah O'Connell, Stephen Cassidy



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GAI NEWSLETTER no. 9

Current Utilisation of Geothermal Resources Ire.
Geothermal Resource Study Update
Renewable Energy Academy – training initiative
Camlough Clanaboden, Omagh
EU Projects Officer's Report
Field trip November 18, 2004
Why Geothermy? Vision 20:20 Submission
AGM 2005
Pre-AGM field trips
World Geothermal Congress

May 2005

Sarah O'Connell & Alistair Allen
Xavier Dubuisson & Stephen Butler
Mark McGuigan & Gareth Ll. Jones
Bill Griffin
Róisín Goodman
GAI members
Róisín Goodman
Gareth Ll. Jones
Róisín Goodman

GAI NEWSLETTER no. 10

THERMAL EARTH, Belfast 2005, Action Renewables, N.I.
Tapping the Heat Within
The Strategic Potential
The Resource
Geothermal Review N. Ireland
Shallow Geothermal Resource
Unterhaching Electricity
The Local Authority Perspective
Geothermal Heating / Cooling
Treasurer's contact details
Heat Pumps Britain & Ireland
Natural Energy Solutions
Swedish Heat Pumps
Submission on Geothermal Regulation
UCC Glucksman Arts Museum awards
GAI project proposals to the EU
Papers from WGC 2005
Thermal Earth Leaflet

November 2005

Andy McCrea
Jenny Pyper
Garth Earls
John Kelly
Róisín Goodman
Christian Schönwiesner
Mike Smith
Paul Sikora

Rob Misselbrook
Francis Martin
Michael Barmer
GAI
web notes
Bill Griffin,
Róisín Goodman
Action Renewables

GAI NEWSLETTER no. 11

It's high time we were on the list
Installed Capacity, GSHPs, N. Ireland May 2005
GeoDrilling 2006, Donington Park, UK 21-22 June
RTE 31 May 2006, Geothermal features
GAI AGM Feb 7th 2006
Dr. Burkhard Sanner, Cork lecture, Life Time Lab
Sweden Plans for oil-free economy
The Lifetime Lab
The Renewable Energy House, Brussels
Draft European Standard for Micro-generation
Advice to homeowners re "Greener Homes Scheme"
A renaissance for geothermal energy in Britain?
Welcome to our new Members
The Geothermal Skills Accel Project
New Welsh Assembly Building, Cardiff
GTR-H Altener Grant
Recent GSHP Installation

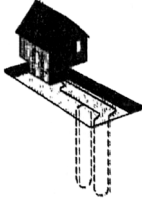
May 2006

Paul Sikora, Chairman GAI
Action Renewables

Gareth Ll. Jones
Roisin Goodman, Gareth Ll. Jones

Irish Times 8th February 2006
Michael O'Brien
EREC & Gareth Ll. Jones
Róisín Goodman
Bill Griffin
Paul L Younger
Sarah O'Connell
Gareth Ll. Jones

Róisín Goodman



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GAI NEWSLETTER no. 12

Renewable Energy
- Bustling market or mudslinging match?
Vale Dr. Valgardur Stefansson
GAI Field trip Galway / Offaly 30th June 2006
Australian Highlights
The Cut of the Spade - Start of building of the SuperC
Legislative framework for geothermal energy in Europe
-Kistelek-Declaration, GTR-H project
GTR-H Altener Project Commences
Fermoy Swimming Pool
GAI Field Trips
Low enthalpy hydrothermal resources, north Co. Cork
GT Skills Training Programme Launch
Larderello Birthplace Geothermal Energy Production
GAI Poster for GT Skills launch, October 2006

November 2006

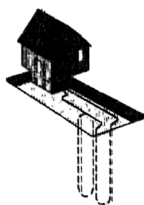
Paul Sikora, Chairman GAI
Ingvar Fridleifsson
Gareth Ll. Jones
Róisín Goodman
Super-C website
Dr. Burkhard Sanner *et al.*
Róisín Goodman
Bill Griffin
Niall Burke
Brecan Mooney
Gareth Ll. Jones
Nick O'Neill
Gareth Ll. Jones

GAI NEWSLETTER no. 13

Selling Geothermal Energy
Geothermal resources, developments, economics,
politics Australia
GAI AGM 2007
Newcastle Geothermal Project
Hot Dutch Tomatoes
Cork Docklands, Geothermal Feasibility and EIA
CHP and ReHeat Deployment Programmes
GT Skills Update
Johnstown Well R & D – Update
Ground temp gradients around HP collectors
European Geothermal Congress 2007,
Unterhaching, Germany
GTR-H Abstract
GTR-H, *GeoTHERM*, EGEC
GeoTHERM Expo & Congress, Offenberg, Germany
GT Info poster, GT Energy Uses
EGC Poster: Ireland Geothermal Resources
EGC Poster GTR-H

August 2007

Paul T. Sikora
Graeme Beardsmore
Bill Griffin
Padraig Hanly
G. Ll. Jones, Victor van Heekeren
Xiang Chang
E. Mooney, R. Linger
Gareth Ll. Jones, John Colthurst
Brecan Mooney
M. Greene *et al.*
Ric Pasquali
Róisín Goodman
Detlev Doherr, G. Ll. Jones
GT Education Office, CA, USA
G. Ll. Jones *et al.*
R. Goodman, R. Pasquali



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GAI NEWSLETTER no. 14

A Word from the Chairman
GAI AGM 2007
Southampton Geothermal Borehole, District Heating
NEWS: Newcastle Update, Action Renewables Guide
Geothermal energy used for major Derry Office block
GTR-H Update
Cliffs Of Moher Visitors' Centre
EUSEW poster, GT Energy Uses
Geothermal Energy Ltd.
Renewable Energy Training Centre
GT Skills Report
Submission on Planning Exemptions
GSHP Analysis in Galway Niall Burke, Greene,
Board of Directors election results
Board of Directors election results
Press Release on EC Proposed Directive on the
Promotion of the Use of Renewable Energies

MARCH 2008

Brian Connor
Gareth Ll. Jones
Mike D. Smith

Based on a News Letter article
Róisín Goodman
Paul T. Sikora
EGEC / EFG
Irish Times
Menno Roos
Gareth Ll. Jones
GAI
Lohan, Clarke
European Geothermal Energy Council
International Geothermal Association

EFG / EGENC / EuroGeoSurveys

GAI NEWSLETTER no. 15

SPECIAL EDITION. GAI 10th ANNIVERSARY CONFERENCE

'Geothermal Resources in Ireland - Commercial Opportunities' PAPERS

Guest Speaker

KEYNOTE: Geothermal Global & Europe Perspectives

Geothermal in Ireland

GTRH Draft Framework Summary
Group

The Newcastle Deep Borehole Project

Role of Geoscientists in Geothermal Industry

Spas and Closed loop systems-latest developments in Europe

Geotechnical and Structural Aspects of Open Loop Geothermal
UCD

Geothermal Heating/Cooling Systems - Case Studies
Engineers

Legal issues of geothermal development

Report from the Geothermal Working Group

Contractual Arrangements for District Heating Schemes

GAI the next 10 years

MARCH 2009

Minister Eamon Ryan,
DCENR

Ladsi Rybach, Geowatt AG,
Switzerland; President IGA

Gareth Ll. Jones, Conodate
Ric Pasquali, Roisin Goodman, SLR

Padraig Hanly, Geothermal Energy Ltd.

Kevin Cullen, President IGI

Hans Goldbrunner, Geoteam, Austria

Mike Long, Dept. Civil Engineering,
UCD

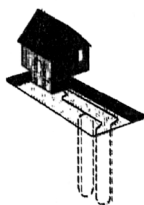
John Burgess, Arup Consulting

Diane Balding, Philip Lee Solicitors

Ben Dhonau, John King, DCENR

Liam Ó Cléirigh, Byrne Ó Cléirigh

Brian Connor, Chairman GAI



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GAI NEWSLETTER no. 16

Chairman's Comments
Geothermal Diary
Brecan Mooney Obituary
Brecan Mooney Memorial Meeting Clare
GAI

AGM 2010
Commercial Geothermal Systems.
GAI visit to Tramore

IRELAND

New Geothermal Energy Development Bill
National Renewable Energy Action Plan (NREAP)
Sustainable Energy Communities
UCD Deep Geothermal Request for Proposals
The 2011 ISOVER Energy Efficiency Awards
GT Energy & ESBI to build geothermal plant
GT Energy test geothermal opportunities
Swedish Ambassador's Residence
Louisa Spring reports

EUROPE

Research agenda, geothermal technologies to 2030
Geothermal Technology Platforms
Measurement technology, heat pump systems
Call for Entries
Deep Geothermal Projects and Micro-seismicity

EU PROJECTS

GTR-H
GEOTRAINET

GLOBAL

Google to finance geothermal research
McDonald's Restaurant Geothermal

WGC Bali

Seven Irish Papers
Declaration

ARTICLES

Face to Face with Brian Connor
Future Developments in Ireland
Replacing the Irreplaceable, The Geysers: North America.

JULY 2010

Brian Connor

Alistair Allen
Gareth Ll. Jones

Monica Lee, Taly Hunter Williams
David Roome GAI Talk
Brian Connor

Exploration and Mining Division
GAI Submission
South Dublin County Council
UCD

ISOVER

Irish Times & Business & Finance
Sunday Business Post
Gareth Ll. Jones
Kildare CoCo & Ecological Consultancy

EGEC

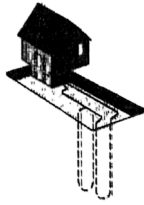
Riccardo Pasquali
Karin Schneider, Fraunhofer Institute
Rushlight Awards, UK & Ireland
GtV, Germany

Róisín Goodman
Gareth Ll. Jones

bs news

Brian Connor, Inside Government

Tony Killian, IMQS



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GAI NEWSLETTER no. 17

AUGUST 2010

SPECIAL EDITION. The World Geothermal Congress 2010. Bali, Indonesia

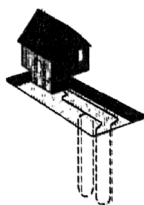
WGC 2010. World Geothermal Congress, Nusa dua Bali, 25th – 30th April, 2010,
Róisín Goodman

Seven Irish papers presented at WGC2010

- 157. Developments in Geothermal Utilisation in the Irish Republic
Alistair Allen, John Burgess
- 315. GTR-H - Geothermal Legislation in Europe
Goodman, R., Pasquali, R. Dumas, P., Hámor T., Jaudin F., Kepinska, B., Reay, D.,
Rueter, H., Sanner, B., Van Heekeren, V., Bussmann, W., Jones, G.Ll.
- 630. Glucksman Art Gallery, University College Cork, Ireland: Innovative Space Heating
Development
Kondwani T. Gondwe, Alistair Allen, John Burgess, Donal Browne and Paul Sikora
- 1156. Investigation of Source and Conduit for Warm Geothermal Waters, North Cork, Republic of
Ireland.
Brecan Mooney, Alistair Allen, Paul Kóniger
- 1159. Low Enthalpy Geothermal Resources of Ireland Maps Encourage Geothermal Projects
Gareth Ll. Jones, Róisín M. Goodman, John G. Kelly
- 1614. Methodology in Assessment and Presentation of Low Enthalpy Geothermal Resources in Ireland
Róisín Goodman, Gareth Ll. Jones, John G. Kelly
- 1625. The Geothermal Potential of Northern Ireland
R. Pasquali, N. O'Neill, D. Reay, T. Waugh

Other papers

- 905. Geotrained – A New European Initiative for Training and Education of Planners,
Drillers and Installers of Geothermal Heat Pumps
Burkhard Sanner, Philippe Dumas, Isabel Fernandez Fuentes, Manuel Regueiro
 - 166. Country Update for the United Kingdom
Tony Batchelor, Robin Curtis, Peter Ledingham
 - 1638. Geothermal Prospects in the United Kingdom. Abstract page
Jon Busby
 - 3145. Revisiting Deep Geothermal Power in the United Kingdom. Abstract page
Ryan Law, Tony Batchelor and Pete Ledingham
-



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GAI NEWSLETTER no. 18

JULY 2011

SPECIAL EDITION. Proceedings GAI Conference Kilkenny, May 2011

Welcome

Brian Connor, GAI President

Opening Keynote Address:

Pat O'Connor, Geological Survey of Ireland

Session 1 New geothermal legislation & current practices

Ireland's Geothermal Energy Bill and future regulations.

John King

Geothermal development in context of EU regulations.

Heather Murphy

Good practice guide for ground source heating and cooling in England and Wales.

Anna Hall

Session 2 International and Irish deep geothermal projects

Keynote speaker: Geothermal systems of the Paris Basin.

Christian Boissavy, EGEC

Progress on Ireland deep geothermal projects.

Simon O'Neill.

Revisiting Deep Geothermal in the United Kingdom, Cornwall.

Ryan Law

Play Fairway Analysis of Ireland's Geothermal Resource.

Róisín Goodman

Session 3 Recent large scale shallow geothermal projects in Ireland

Case study – large scale borehole field, IKEA, Ballymun, Dublin.

Mark Finnegan

Thermal Response Testing and large borehole field design.

David Roome

Case study – The GMIT Geothermal Monitoring System.

Niall Burke, *et al.*

Session 4 Geothermal training and research

Developing Geothermal Energy Research at UCD. Phil Hemmingway & Mike Long

IRETHERM: To Develop a Strategic and Holistic Understanding of Ireland's Geothermal Energy Potential.

Mark Muller *et al.*

GEOTRAINET project outcomes and future plans.

Gareth Ll. Jones

Geothermal Heating application for private dwellings in Ireland – The Cost Comfort / Carbon balance

John Burgess

GAI NEWSLETTER no. 19

DECEMBER 2011

SPECIAL EDITION. The Inaugural Breacan Mooney Award for Geothermal Installation of the Year 2011 Domestic Heating Installation

Author : John Burgess GAI Chairman, Editor Gareth Ll. Jones

Introduction

Assessment Methodology

Kilsharvan, Co. Louth

Castlequin, Co. Kerry

Brooklodge, Co. Cork

Derryquin, Co. Kerry

Conclusions and Results