

# Melbourne Declaration

## **“Geothermal in Perspective – Views from Down Under”**

*We are more than 1500 members of the global geothermal community, representing more than 80 countries, who have gathered together in Melbourne, Australia, for the World Geothermal Congress 2015. The Congress has been convened by the International Geothermal Association together with the national geothermal associations of New Zealand and Australia. We share a common interest in geothermal resources, stimulated by the promises and challenges they present. We acknowledge a debt to all those who have gone before us in building a solid base of knowledge and experience, as we apply new insights and connections to those proven foundations to create better outcomes for energy efficiency and delivery around the world.*

*Geothermal resources soothe bodies, warm homes and hotels, and supply heat for commerce, industry and agriculture. They provide the clean raw fuel for an expanding base of electricity generation. New opportunities are opening for the harvesting of valuable minerals carried with the fluids, and for understanding the extreme life forms that survive in these fluids. Participants have shared in short courses and field trips in New Zealand and Australia, where a wide variety of geothermal development and preservation initiatives provide examples from which the rest of the world can learn.*

*With this Perspective we declare:*

### ***Energy constitutes a continuing human need***

- a. Human-kind has progressed from simple fire to advanced economies fuelled by the efficient and reliable availability of energy.*
  - b. The energy development options we have can be considered gifts from our ancestors, and we are responsible for their sustainable management so that our endowment of natural resources can continue to meet the needs of future generations.*
  - c. Geothermal energy sits within a suite of clean sustainable energy options, providing benefits beyond simple energy delivery in terms of sustaining the health of the environment in which we live.*
  - d. Human curiosity in relation to geothermal energy extends beyond a desire to simply produce and consume; there is a need to understand our environment and learn how conservation and development can coexist.*
  - e. Different forms of geothermal developments can meet energy needs in any country in the world, subject to local costs, energy demands and resource characteristics.*
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*It is established that...*

- a. *Geothermal energy is indigenous; it is sustainable; its use is environmentally responsible; it has very high availability largely independent of weather and climate; it displaces carbon-intensive energy.*
- b. *Geothermal energy can be used to generate electricity, heat and cool buildings, provide heat for industrial processes and agricultural production, or for other purposes.*
- c. *In some places, geothermal energy already provides the most cost effective option for power and heat generation, representing a sound financial investment choice.*
- d. *Applications for geothermal resources extend beyond power generation and the direct use of the heat. They include the harvesting of valuable minerals carried with the fluids, the investigation of extreme life forms that survive in the fluids, and the enjoyment of hot pools and tourism ventures.*
- e. *Geothermal resources are widespread and can be considered a global resource.*
- f. *Many people are unaware of the geothermal options available to them or the costs and benefits associated with these.*
- g. *Only a small fraction of the global geothermal potential has so far been realized. Financing, legal, institutional and regulatory hurdles are common factors hampering the global uptake of geothermal energy.*

*We urge that...*

- a. *Governments implement policies which ensure that the environmental costs of all energy developments are internalized and reflected in their pricing through, for example, a cost on greenhouse gas emissions.*
- b. *Governments implement policies to minimize legislative and administrative barriers to geothermal development.*
- c. *Governments and finance agencies work with national and international geothermal associations to disseminate accurate information about the technology, costs and performance of geothermal developments.*
- d. *All parties respect the close association of indigenous peoples with geothermal features upon and beneath their traditional lands, where such traditional relationship exists, and negotiate with these people in a fair manner.*
- e. *Substantial funding be committed to research and development to improve the cost competitiveness of geothermal energy production, particularly to extend geothermal production to lower resource temperatures and across a greater range of geological settings.*
- f. *Substantial efforts be directed to overcoming the cost and risk hurdles that commonly lie between the geoscientific exploration of a resource and a commitment to a commercial project.*
- g. *Knowledge transfer from geothermally experienced to less experienced countries be facilitated and supported through effective international cooperation among governments, private and academic institutions, especially through joint training and education, capacity building, and technical assistance.*

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*Through these actions, our common goals are to...*

- a. *Secure the supply of indigenous, environmentally responsible energy for generations to come.*
- b. *Counter 'energy poverty' by controlling domestic energy costs.*
- c. *Improve the living standards of citizens of the world by creating employment and business opportunities that stimulate local economies.*
- d. *Preserve a portion of geothermal resources in an undisturbed state for the enjoyment and research of mankind for all time.*

*Signed in Melbourne, Victoria, Australia, this 24<sup>th</sup> day of April 2015, on behalf of the participants of the World Geothermal Congress 2015 Australia – New Zealand, by:*

  
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**Dr Juliet Newson**  
(President, International Geothermal Association)

  
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**Dr Miklós Antics**  
(Chairman, Steering Committee of WGC2015)

  
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**Dr Graeme Beardsmore**  
(Deputy Chairman, Australian Geothermal Energy Association)


  
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**Mr Barry Goldstein**  
(Chairman, Organizing Committee WGC2015;  
Chairman, Australian Geothermal Energy Group)


  
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**Mr Brian Carey**  
(President, New Zealand Geothermal Association)


  
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**Dr Meseret Teksemariam Zemedkun**  
(Chairwoman, East African Regional Branch of IGA)

  
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**Dr Horst Kreuter**  
(Chairman, European Regional Branch of IGA)

  
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**Dr Kasumi Yasukawa**  
(Chairwoman, Asia-Western Pacific Regional Branch of IGA)


  
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**Dr Eduardo Iglesias**  
(IGA Board of Directors; representing Mexico and Central America)

  
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**Mr Paul Brophy**  
(President, Geothermal Resources Council; representing North America)

  
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**Mr. Diego Gaytan**  
(for Mr Fernando Allendes, President of Chilean Geothermal Association; representing South America)

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Witnessed by:



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*Ms Ragnheidur Elin Arnadottir*  
*Minister of Industry and Commerce, Iceland*

and



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*Mr Stephen Blair*  
*New Zealand Trade Commissioner/Consul General - Melbourne*