

# Australia's Geothermal Developments

ENHANCING AUSTRALIA'S ECONOMIC PROSPERITY



### **Clean Energy Framework**

- Emission reduction targets
  - By 2020: 5 per cent below 2000 levels
  - Proposed: 80 per cent below 2000 levels by 2050
- Clean Energy Future Plan
  - Renewable Energy Target 20 per cent by 2020
  - Carbon Pricing Mechanism
  - \$3.2 billion in programs under the Australian Renewable Energy Agency (ARENA)
  - \$10 billion Clean Energy Finance Corporation (CEFC)



### **Support for Geothermal**

- \$153m under the Renewable Energy
   Demonstration Program for two geothermal demonstration projects.
  - Geodynamics Innaminka Project
  - MNGI Petratherm Paralana Project
- \$126 million Emerging Renewables Program
- Immediate tax reduction for the exploration of geothermal energy from 1 July 2012.
- ACRE Geothermal Reports



### **Emerging Renewables Program**

- \$126 million for flexible and integrated program
- Two funding streams:
  - Projects: to progress renewable energy and enabling technologies as they move through the innovation chain and to lower the cost of renewable energy in Australia
  - Measures: for renewable energy industry capacity building and skills development
- Program launch and call for applications -8 August 2011
- National ICT Australia \$1.9m grant 8 March 2012.



### State of the Australian Geothermal Sector

- Access to capital to undertake projects
  - High risk nature of these early-stage proof-of concept projects;
  - Sub-optimal results from some early geothermal projects;
  - Lack of investor certainty on a price on carbon; and
  - Need for high amounts of capital when compared to other technologies.



## State of the Australian Geothermal Sector

#### Investigating geothermal flow rates

- Temperature and heat are relatively well understood
- Working towards better prediction of flow rates in order to prove up commercially viable systems.



### **Projects in Australia**

- Birdsville Organic Rankine Cycle Plant
- Geodynamics Innamincka Project
- Petratherm Paralana Project
- Several Direct Use projects
  - Challenge Stadium, Perth
  - Geoscience Australia Building, Canberra
  - Pawsey Supercomputing Complex



#### **Opportunities for Collaboration**

- Australia is a member of the International Partnership for Geothermal Technology (IPGT).
- IEA-Geothermal Implementing Agreement.
- Australian Geothermal Energy Conference November 14-16, 2012, Sydney, NSW.
- World Geothermal Congress in 2015 will be hosted in Melbourne, Australia.



### **THANK YOU**

More information:

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