



INFRASTRUCTURE INTEGRATION AND ECONOMIC DEVELOPMENT IN THE HUNTER REGION

The climate change challenge: how commercial
development of new technologies will generate
opportunities for the Hunter Region

PANELLIST

Gerry Grove-White

Managing Director
Geodynamics

SPONSORED BY



The Climate Change Challenge: Geothermal Energy in the Hunter Valley



Gerry Grove-White

Important Notice

Any forward looking information in this presentation has been prepared on the basis of a number of assumptions which may prove to be incorrect and these statements speak only as of the date of this presentation. This presentation should not be relied upon as a recommendation to buy or sell shares by Geodynamics Limited.

Nothing in this presentation should be construed as either an offer to sell or a solicitation of an offer to buy or sell shares in Geodynamics Limited.

- All references to \$ are references to Australian dollars unless otherwise specifically marked.

2



Geodynamics' Vision

“Geodynamics will become a world-leading geothermal energy company, supplying competitive zero carbon energy and base load power to the Australian market”



3



Outline of Presentation

1. Achievements this year
2. Risks resolved and outstanding
3. Development plan
4. 50 MW Final Investment Decision
5. Hunter Valley development program
6. Hot fractured rock economics

4



Achievements this Year

- Habanero 3 completed to Target Depth of 4,200 m
- Habanero 3 flow testing completed 25 March
- Jolokia 1 spud 18 March
1st fracture intersected 3,805 m
Current depth 4,879 m
Target depth 5,000 m
- Closed loop testing underway
- 1 MW design completed
- 25 contracts let
- Warehouse design underway



Habanero 1-3 closed loop pipeline constructed

5



Risks Resolved

- ✓ Water losses
- ✓ Temperature
- ✓ Reservoir
- ✓ Stimulated fracture zone
- ✓ Hydraulic connection
- ✓ Extraction of geothermal heat
- ✓ Demonstrated multi (parallel) reservoir development
- ✓ Concept studies completed



6



Risks Outstanding

- Reserves delineation
- Subsurface
 - Drill and stimulate heat exchangers to greater depth
 - Manage multiple fracture drilling
 - Productivity – flow rates
- Surface and well
 - Scaling and corrosion
- Commercial
 - Offtake arrangements
 - Transmission line agreements
 - Financing further investment



7



Forward Drilling Program

- Jolokia 1
 - Complete to 5000 m
 - Stimulation and single well flow testing
- Savina 1
 - Well design
 - Manage multiple fracture drilling
 - Stimulation and single well flow testing
- Jolokia 2
 - Circulation flow testing
 - Decision on location of 50 MW plant



8



50 MW Final Investment Decision

- Everything we do is working towards FID in March 2009
 - Competency building
 - Technology acquisition plan
 - Financial capacity
 - 'Proof of Concept'
 - Reserves delineation
 - Power station design
 - Offtake agreements
 - Transmission
 - 'Known unknowns'



Geodynamics' 50 MW power station concept

9



Competency and Capacity Building

- Internal recruitment in the following disciplines:
 - Power Engineering
 - Drilling / Reservoir Management
 - Procurement / Logistics
 - Project Management
 - Finance / Accounting
 - HR / IT
- New office premises
- Tata Power – 3rd Cornerstone Partner
- Positioning for 2nd Drilling Rig

10



Proof of Concept

Closed circulation test objectives:

- Long term flow
- Fracture conditions (tracer tests)
- Chemical scaling and corrosion
- Complete 4th Quarter 2008
- Reservoir performance estimation
- Independent sign off

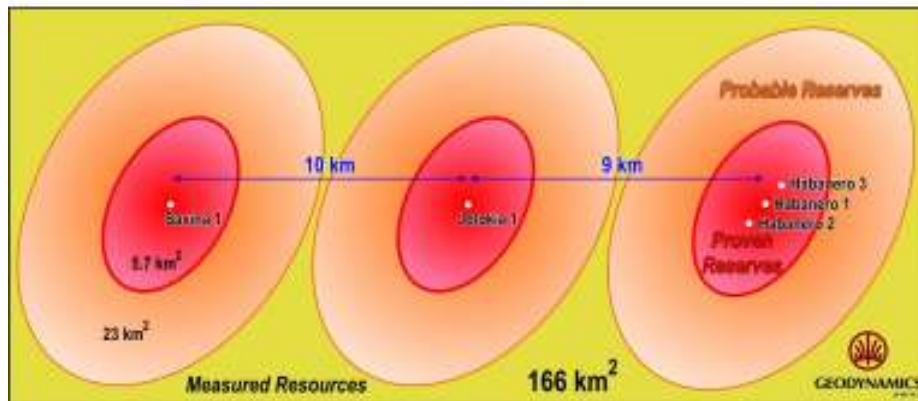


11



Reserves Delineation

The Cooper Basin - Proposed Reserves Delineation for 500MW



12

Environmental Impact

Power from Geodynamics' hot fractured rocks offers long term base load power with:

- zero emissions
- a small footprint
- no demand for water and
- no adverse legacy



13

Hunter Valley Development Program

- NSW has limited renewable options
- Proximity to local transmission infrastructure
- Promising initial temperatures
- Potential for up to 200 MW
- Deeper drilling is warranted



14



Hunter Valley Development Program

- Licences renewed until 2011
- Program includes:
 - 2 km deep exploration & seismic monitoring well
 - Decision to drill deep well to granite basement
- Investigating possibility of consortium rig for deeper drilling
- Opportunity to use local technologies and support



15



Hunter Valley Development Program

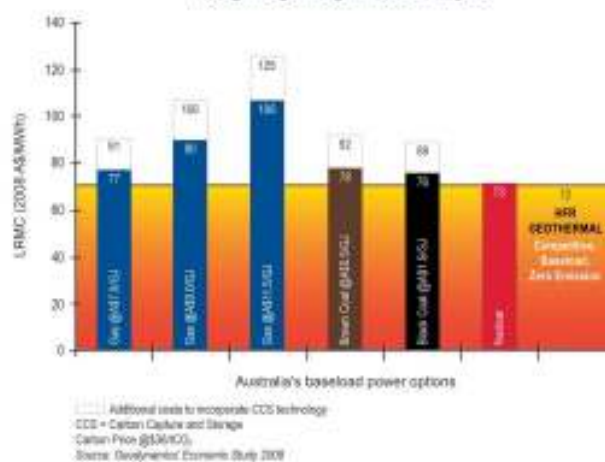
- NSW Climate Change Fund
 - Seeking \$10 million for development of a 10 MW demonstration plant in 2012
- Federal Geothermal Drilling Program (GDP)
 - Seeking \$7 million for deep drilling and proof of concept in Hunter Valley
- Effectively accelerating work program



16

Hot Fractured Rock Economics

2020 Generating Technology
Long Range Marginal Cost Analysis



17



Power from the Earth

Zero-emission base-load power



18