

Australian Institute for Commercialisation

Greenearth Energy: Geelong Geothermal Power Project

October 2010

Important Notice

This presentation contains certain statements which may constitute “forward-looking statements”. Such statements are only predictions and are subject to inherent risks and uncertainties which could cause actual values, results, performance or achievements to differ materially from those expressed, implied or projected in any forward-looking statements.

No representation or warranty, expressed or implied, is made by Greenearth Energy Limited (“Greenearth Energy” or the “Company”) ABN 60 120 710 625 that the material contained in this presentation will be achieved or prove to be correct. Except for statutory liability which cannot be excluded, the Company disclaims responsibility for the accuracy or completeness of the material contained in this presentation and excludes all liability whatsoever (including in negligence) for any loss or damage which may be suffered by any person as a consequence of any information in this presentation or any error or omission.

The Company accepts no responsibility to update any inaccuracy, omission or change in information in this presentation.

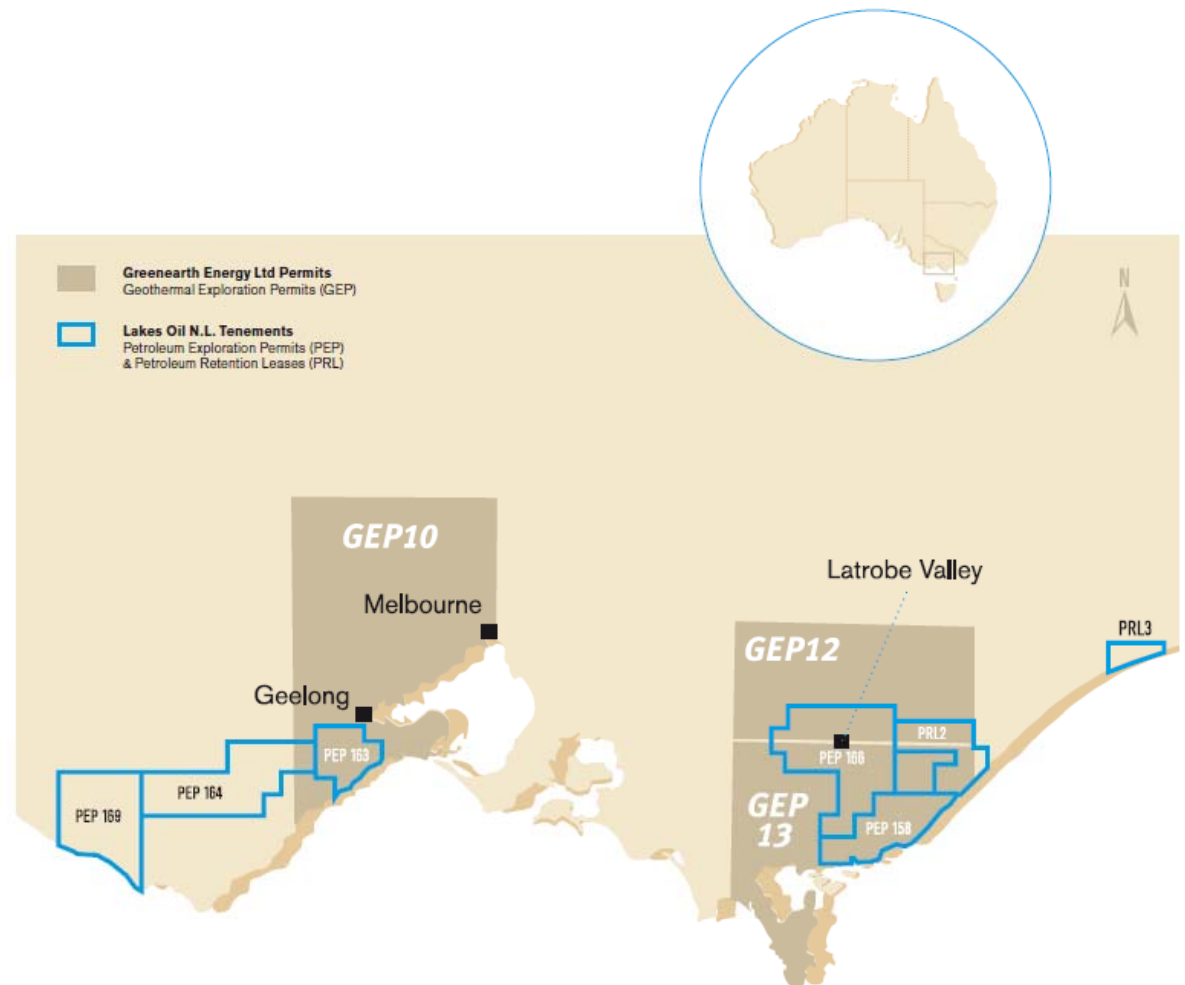
Greenearth Energy Ltd.

Greenearth Energy is an ASX listed geothermal resource Explorer and Developer

Greenearth Energy was awarded three geothermal exploration permits (GEPs) in May 2007 by the Victorian Government:

- Geelong (GEP10) – Victoria's 2nd Largest City
- Latrobe Valley (GEP12/13) – Gen Hub of SEA
- Over 18,000 Sq km of prime permit area
- Crucial grid infrastructure and proximate heavy industry the most advantageous routes for commercialisation

Overlapping permit areas with Lakes Oil N.L. afford Greenearth Energy a raft of benefits that reduce costs and fast track project outcomes where possible.



 *Harnessing the heat
beneath our feet*

Our Geothermal Exploration & Development Focus

Hot Sedimentary Aquifers (HSA's)

Hot Sedimentary Aquifer (HSA) geothermal resources (along with other hydrothermal systems) have been successfully developed for power generation since the 1980's.

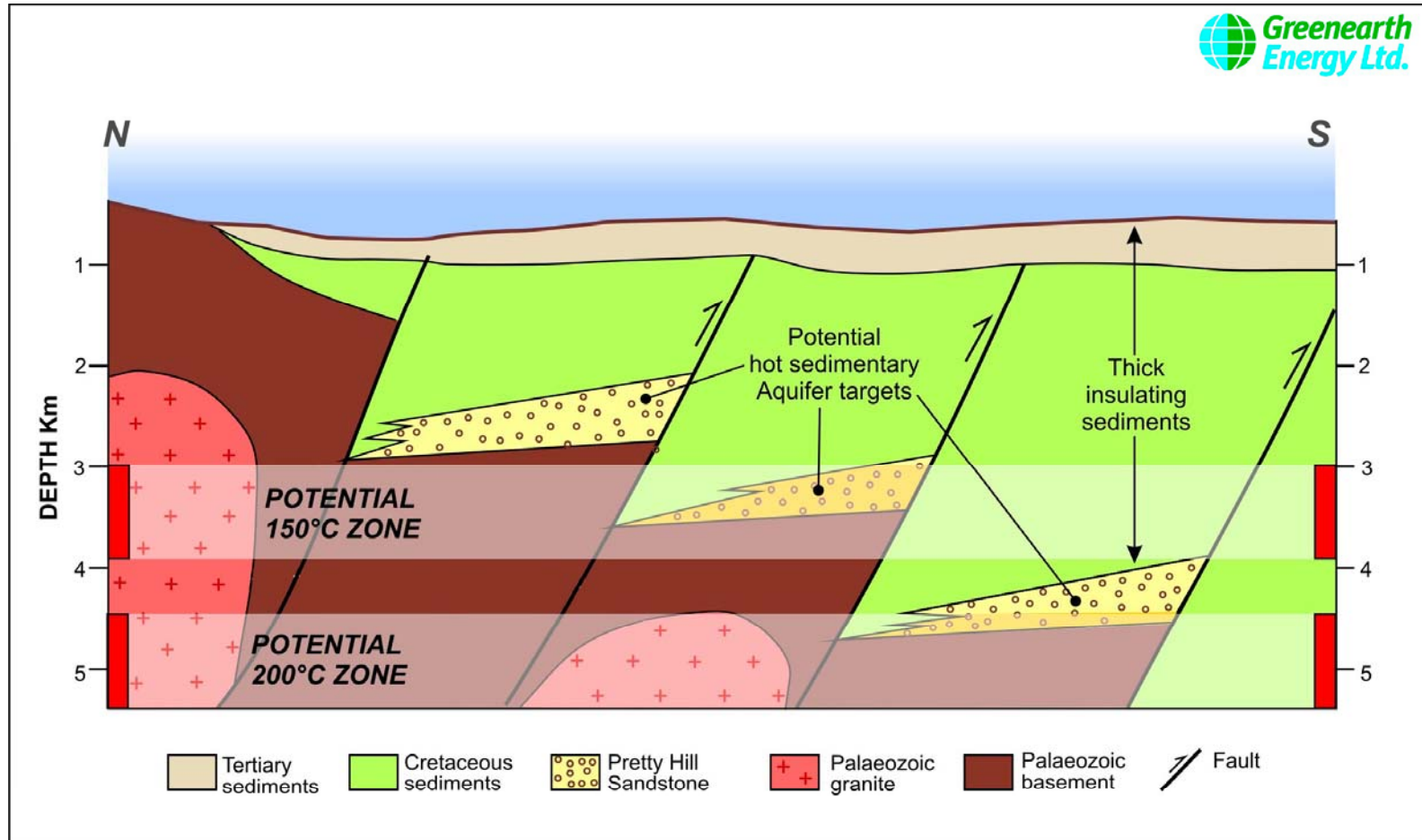
HSA geothermal power plants are successfully operating in the USA, Europe and Australia. To date the only commercial geothermal power plant operating in Australia is a HSA plant at Birdsville, QLD (Ergon Energy)

HSA geothermal resources have substantial potential for development in Australia due to a number of key factors:

- Naturally occurring systems, generally located closer to the surface than enhanced geothermal systems (EGS)
- Contain water in situ (naturally permeable systems)
- Commercially developable utilising proven drilling techniques and 'off the shelf' power plant technology resulting in lower development costs and more rapid project deployment
- Many are close to crucial transmission infrastructure and major industry



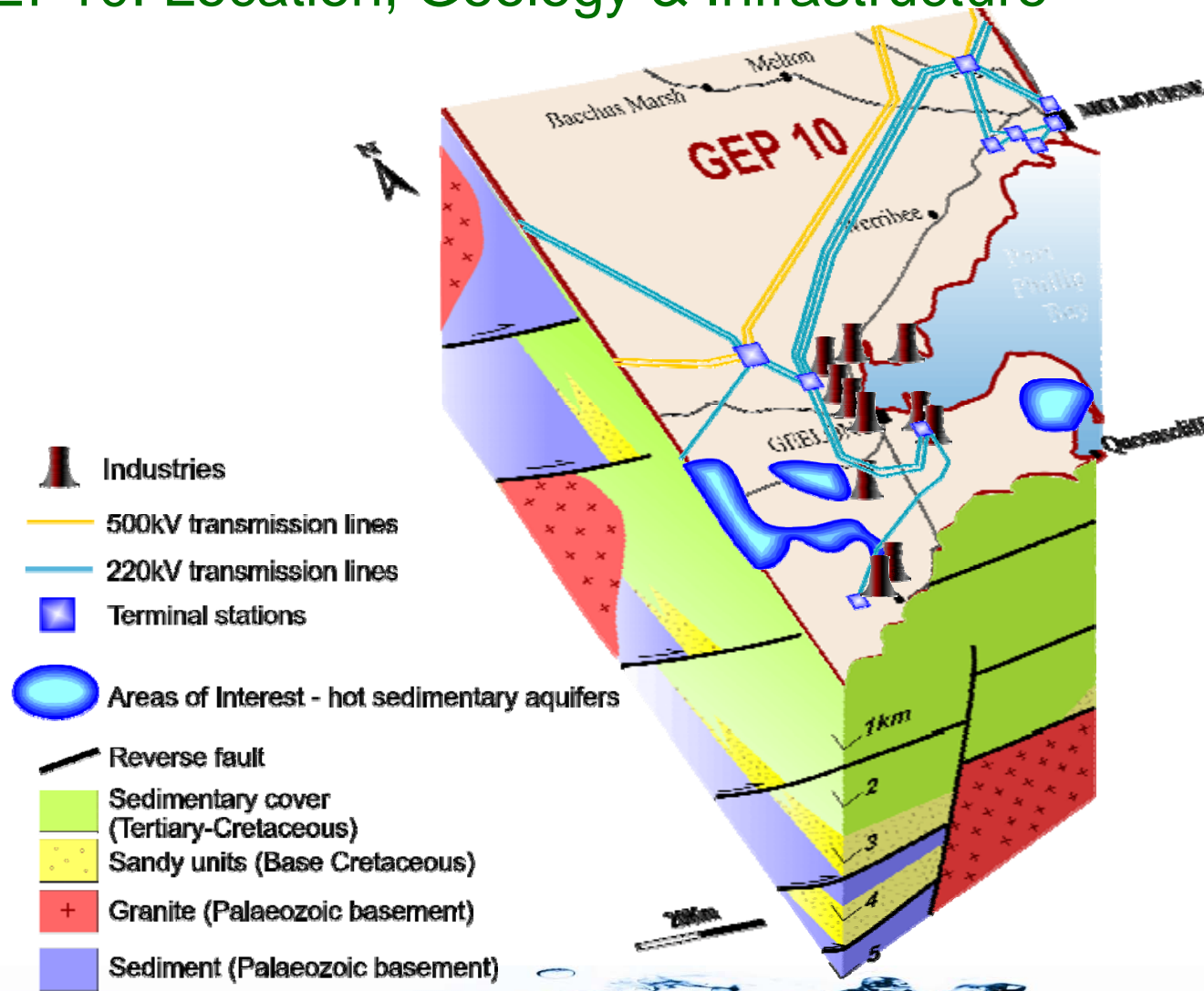
Hot Sedimentary Aquifer (HSA)




The background of the slide is a high-speed photograph of water splashing, creating a dynamic, blue-toned scene with numerous bubbles and droplets. The water is captured in mid-air, with a central peak and a long, horizontal splash extending across the frame. The lighting is bright, highlighting the clarity and texture of the water.

*Geelong Geothermal
Power Project (GGPP)*

GEP10: Location, Geology & Infrastructure



 *Harnessing the heat beneath our feet*

Project Description

Project Title: Geelong Geothermal Power Project (GGPP)

Project Summary: Design, implementation and demonstration of an initial 12MW_e geothermal base load (continuous) renewable energy project in the greater Geelong region utilising 180°C fluid (brine) drawn from a known hot sedimentary aquifer (HSA) having a determined inferred geothermal resource of 17,000PJ assessed as capable of supporting greater than 140 MW_e of base load (continuous) generation.

The 12MW_e demonstration stage has the potential to power up to 8,000 homes.

Methodology: The demonstration commercial scale plant will uniquely draw together known techniques for drilling geothermal wells to 4,000m to extract fluids from hot sedimentary aquifers and proven Organic Rankine Cycle (ORC) power plant for converting heat energy into emissions free electricity.

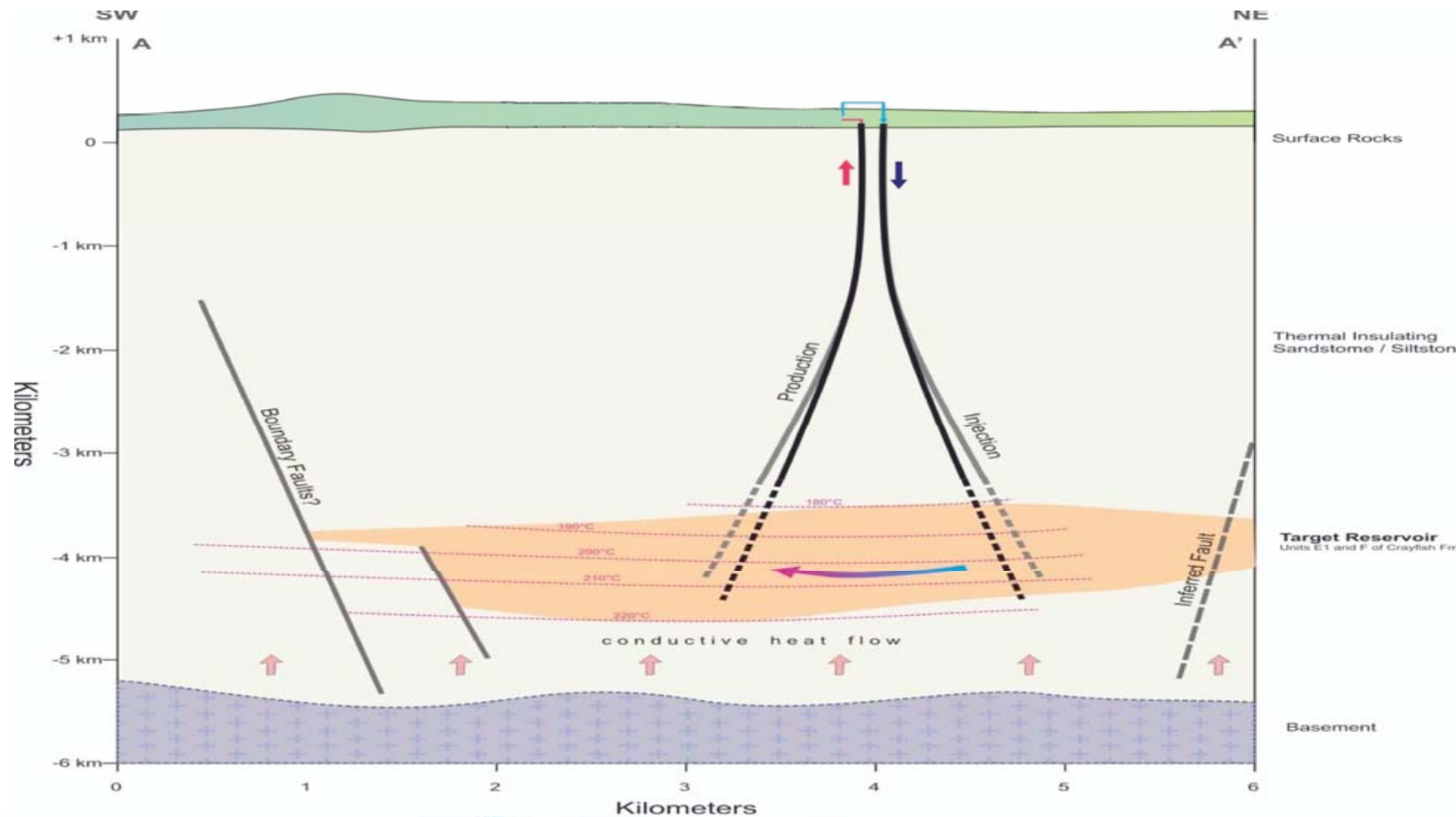
Project Duration (12MW_e)


Commencement Date (Est.): H2 2011 (subject to funding availability)
Completion Date (Est.): H2 2014 (subject to funding availability)

Project Expenditure (AUD)

Total Project Expenditure (Est.): \$104.1M
Proof of Concept: \$ 31.8M (\$12M awarded - Australian Government + Victorian Government)
Demonstration (12MW_e): \$ 72.3M (\$20M awarded - Victorian Government)

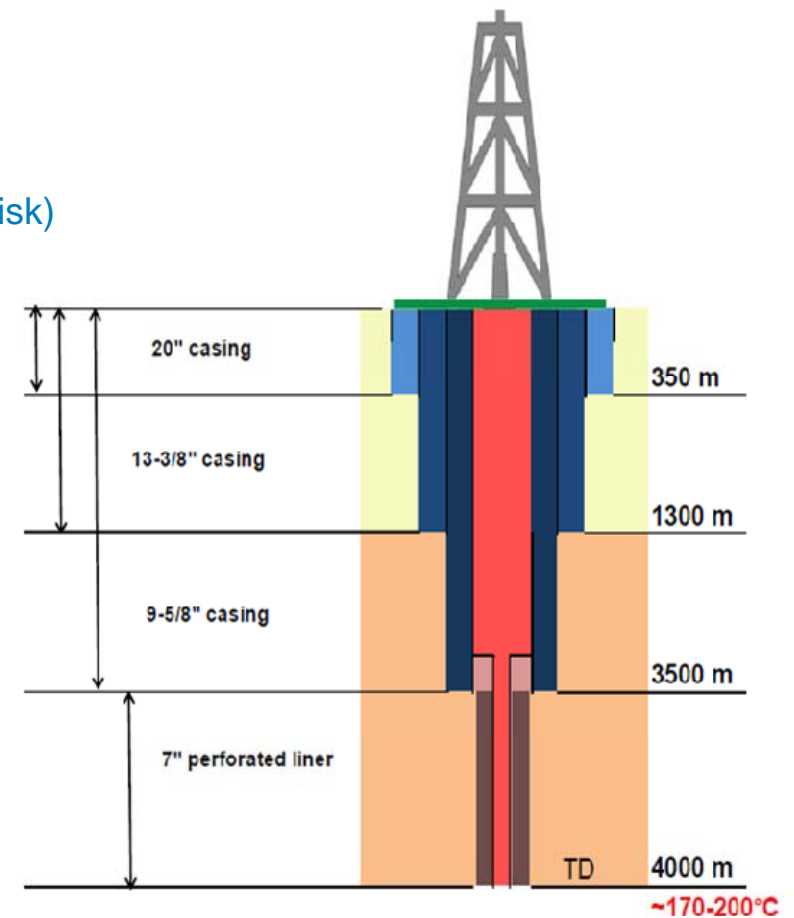
Proof of Concept Project Conceptual Model 2D



 *Hamessing the heat beneath our feet*

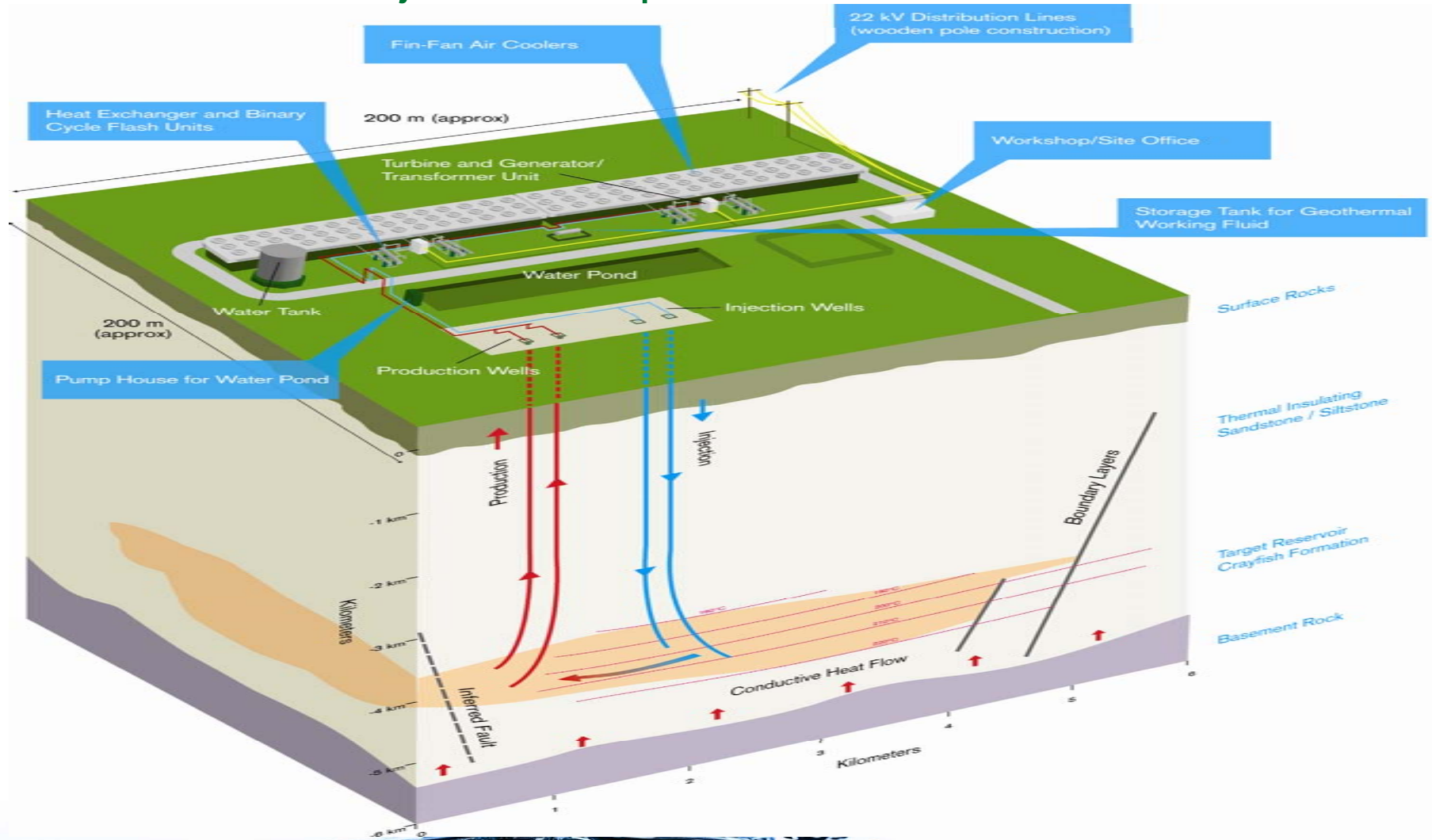
Proof of Concept Project Drilling / Flow Testing

- Pre-drilling environmental Impact surveys/studies etc (e.g.. seismic risk)
- Preparation of drill pad, mobilisation of rig/drilling equip
- Drill two wells, 1 Production, 1 Re-injection from same pad
- Wells cased / cemented to top of reservoir horizon
- Measure temperature and rock porosity & permeability
- Install Electric Submersible Pump ~ 800m (1.5MWe)
- Measure flow between wells. Target flow 132 litres/sec



Conceptual Well Design for Geelong HSA Geothermal Well 1 of the Geelong Geothermal Power Project (GGPP)

Demonstration Project Conceptual Model 3D




 *Hamessing the heat beneath our feet*

Demonstration Project – 12MW Demonstration Plant

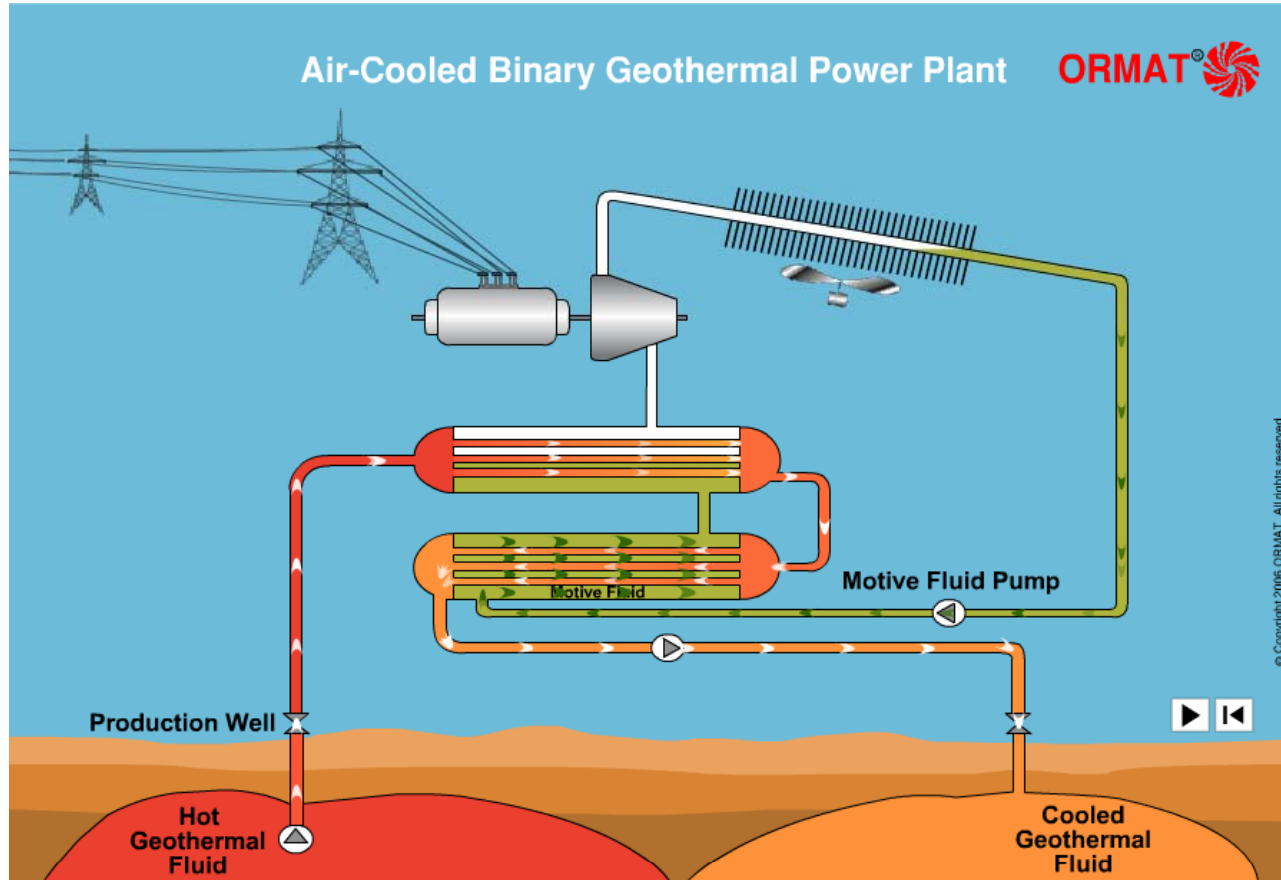
- Drill two additional wells – 1 Production, 1 Re-injection
- Install 12MW (nominal) ORC power plant
- Prove commercial generation capacity
- Grid connection

Typical 12MW ORC Geothermal Power Plant



 *Harnessing the heat
beneath our feet*

Demonstration Project - ORC Technology



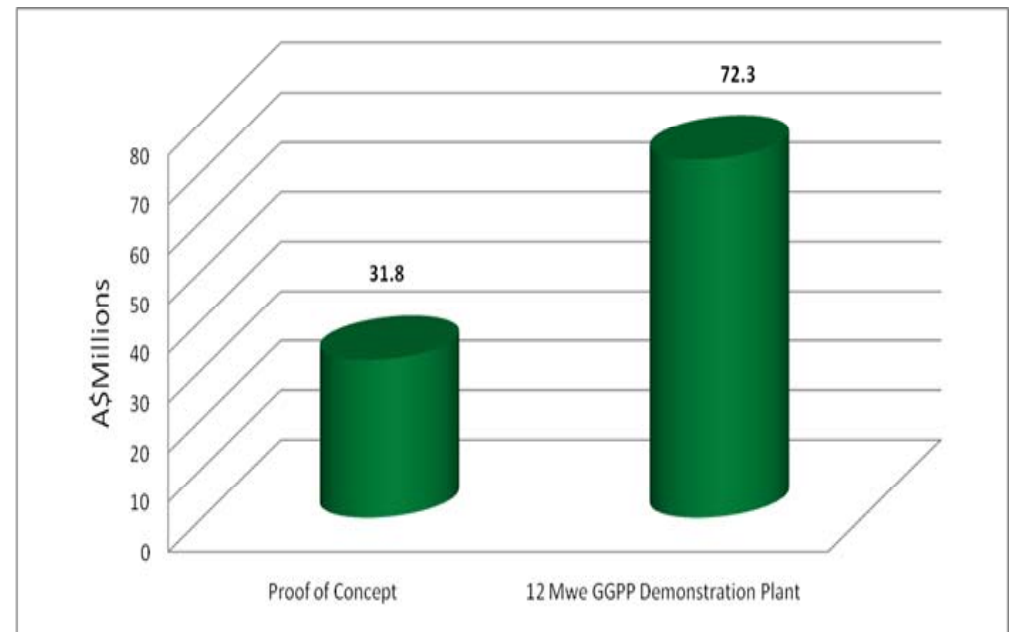
Milestones and Capital Requirements

GGPP Planning is well advanced – Greenearth Energy is now seeking a strategic partner for the project

GGPP Milestones

1. Technical personnel and advisers engaged
2. All pre-drilling technical studies completed
3. Pre-feasibility commercial studies completed
4. GGPP development plan completed
5. Site identified and negotiations underway
6. Drilling rig secured
7. **\$32 Million in Federal and State Government funding (GDP and ETIS) awarded**
8. Community consultation process underway

GGPP Capital Requirements



Technology and Capability Requirements

Proof of Concept Drilling

1. Seismic risk assessment
2. Well casing and drilling consumables
3. Site works and excavation.
4. Well head(s)
5. Electric Submersible Pump (1.5MWe)

Commercial Demonstration (12MWe)

1. Drilling consumables as per POC stage
2. Organic Rankine Cycle Plant (10-15MWe)
3. Pipe/Tubing /pumps as per design criteria
4. Site works and excavation.
5. Valves, flow control hardware (high Temp)
6. Fire suppression system
7. Project Management and Engineering
8. Grid Connection

Thank you



 *Harnessing the heat
beneath our feet*

Background: Competent Person

Geelong Geothermal Power Project (GGPP)

The information in this presentation that relates to Geothermal Resource estimation for the GGPP is based upon a report compiled by James Vincent Lawless, an employee and Principal of Sinclair Knight Merz Limited (SKM). He is a Fellow of the Australasian Institute of Mining and Metallurgy and holds Chartered Geologist status with that body. SKM has been engaged as consultants by Greenearth Energy but holds no financial interest in the project or in Greenearth Energy.

Mr Lawless qualifies as a Competent Person, as defined in the Australian Code for Reporting of Exploration Results, Geothermal Resources and Geothermal Reserves (2008 Edition). Mr Lawless consents to the public release of this presentation in the form and context in which it appears.

Geelong (Anglesea-Waurn Ponds area)

The information in this presentation that related to Geothermal Resources in the area of GEP 10 has been compiled by Dr Graeme Beardsmore, an employee of Hot Dry Rocks Pty Ltd. The resource estimate for the Geelong Geothermal Power Project, just north of Anglesea draws upon a series of reports for Greenearth Energy by Hot Dry Rocks Pty Ltd. Dr Beardsmore has over 15 years experience in the determination of crustal temperatures relevant to the style of geothermal play under consideration, is a member of the Australian Society of Exploration Geophysicists and abides by the Code of Ethics of that organisation.

Dr Beardsmore qualifies as a Competent Person, as defined in the Australian Code for Reporting of Exploration Results, Geothermal Resources and Geothermal Reserves (2008 Edition). Dr Beardsmore consents to the public release of this presentation in the form and context in which it appears.