Geodynamics – the opportunity

June 2010

Gerry Grove-White, CEO and Paul Frederiks, CFO

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.

The information in this report that relates to Geothermal Resources is based upon information compiled by Dr Doone Wyborn, who is a Fellow of the Australasian Institute of Mining and Metallurgy.

Dr Wyborn is employed by Geodynamics Limited. Dr Wyborn has sufficient experience which is relevant to the style of geothermal play under consideration to qualify as a Competent Person as defined in Edition 1 (2008) of the “Geothermal Reporting Code, 2008”.

Dr Wyborn consents to the inclusion in the report of the above information in the form and context in which it appears.

Presentation agenda

- Why Geothermal?
- Why Geodynamics?
- Why now?

Why Geothermal?

Key messages

- Geothermal is the lowest cost source of energy for base-load power generation
- Only emissions-free renewable energy source that is base-load – available 24/7
- Can be integrated with other technologies – e.g. solar and gas
- The smallest environmental footprint of all energy types
- Scalable for on and off-grid projects
- Market opportunity is real – ~15,000 GWh supply shortfall with current technologies for Australia to reach its 2020 energy target

Australian market overview

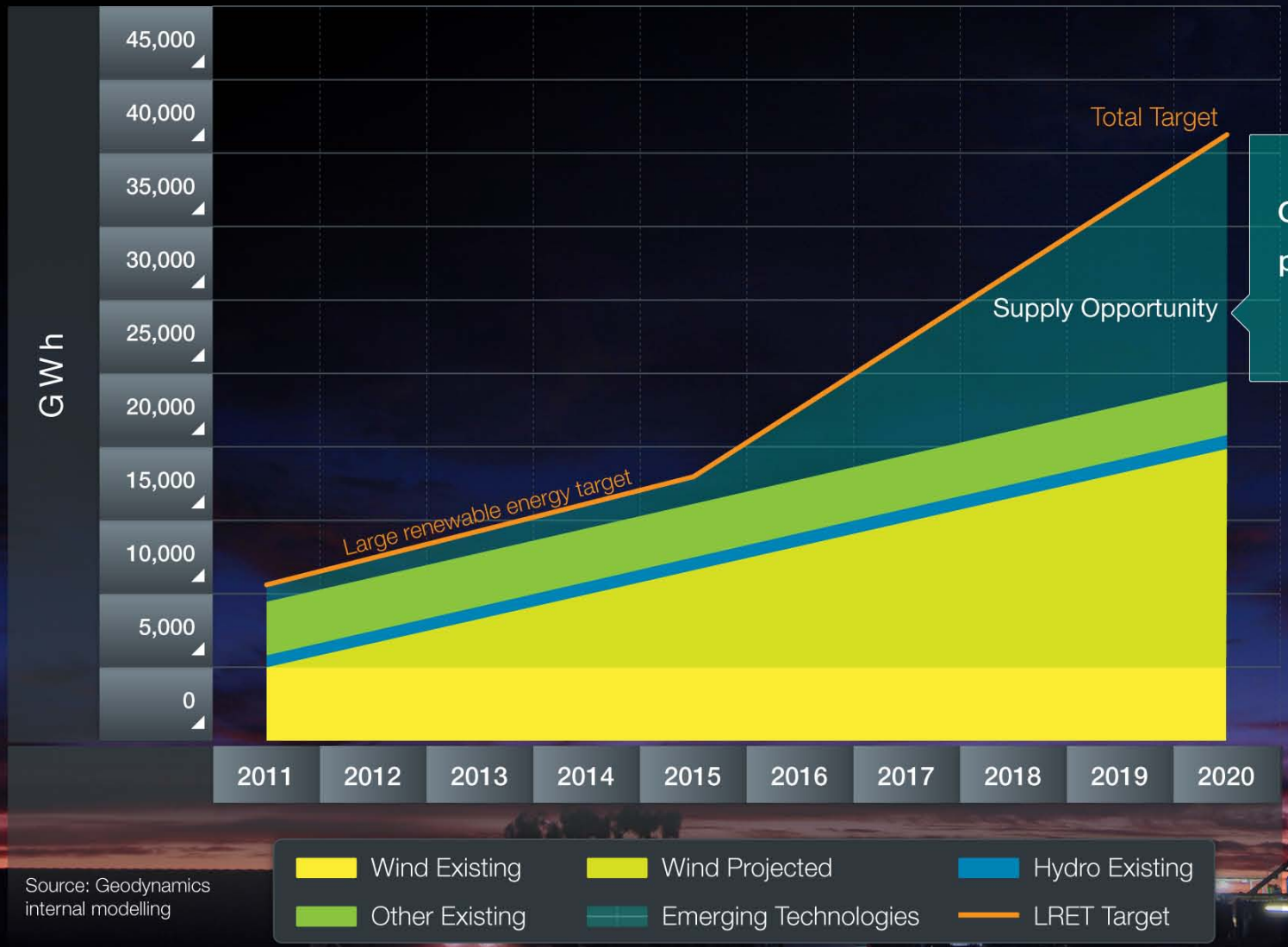
- Key facts - Australia:
  - Population: 22.4 million
  - GDP - per capita (PPP): $47,370 USD†
  - Credit rating: AAA
  - Established legal and regulatory regime
  - Stable economy
- Energy industry facts:
  - National Electricity Market (NEM) 40 GW currently – mostly non-renewable
  - Mandatory 20% renewable energy by 2020
  - Peak load growth ~25%* forecast by 2020
  - Australian market is currently 80% coal fired
  - Key geothermal energy models – Enhanced Geothermal Systems (EGS) and Hot Sedimentary Aquifer (HSA)
  - Carbon policy framework inevitable in 2-5 yrs

† Source: World Bank | * Source: AEMO

Positive policy environment

- Federal initiatives
  - Renewable Energy Target - 20% renewable energy by 2020
  - Renewable Energy Demonstration Program (GDY awarded $90 million)
  - Geothermal Drilling Program (GDY awarded $7 million for Hunter Valley project)
- Electricity Market Review
  - Development of Scale Efficient Network Extensions (SENE) transmission concept
  - Cooper Basin a target SENE zone
  - Market takes development risk
- Emissions Trading Scheme
  - Revisit in 2012
  - Reduction targets still in place

Meeting Australia's renewable energy target



Source: Geodynamics internal modelling

Cost competitive with future technologies

- Potential to supply 10 - 15% of Australia's future energy mix
- Long range marginal costs for EGS and HSA energy are among Australia's most attractive options

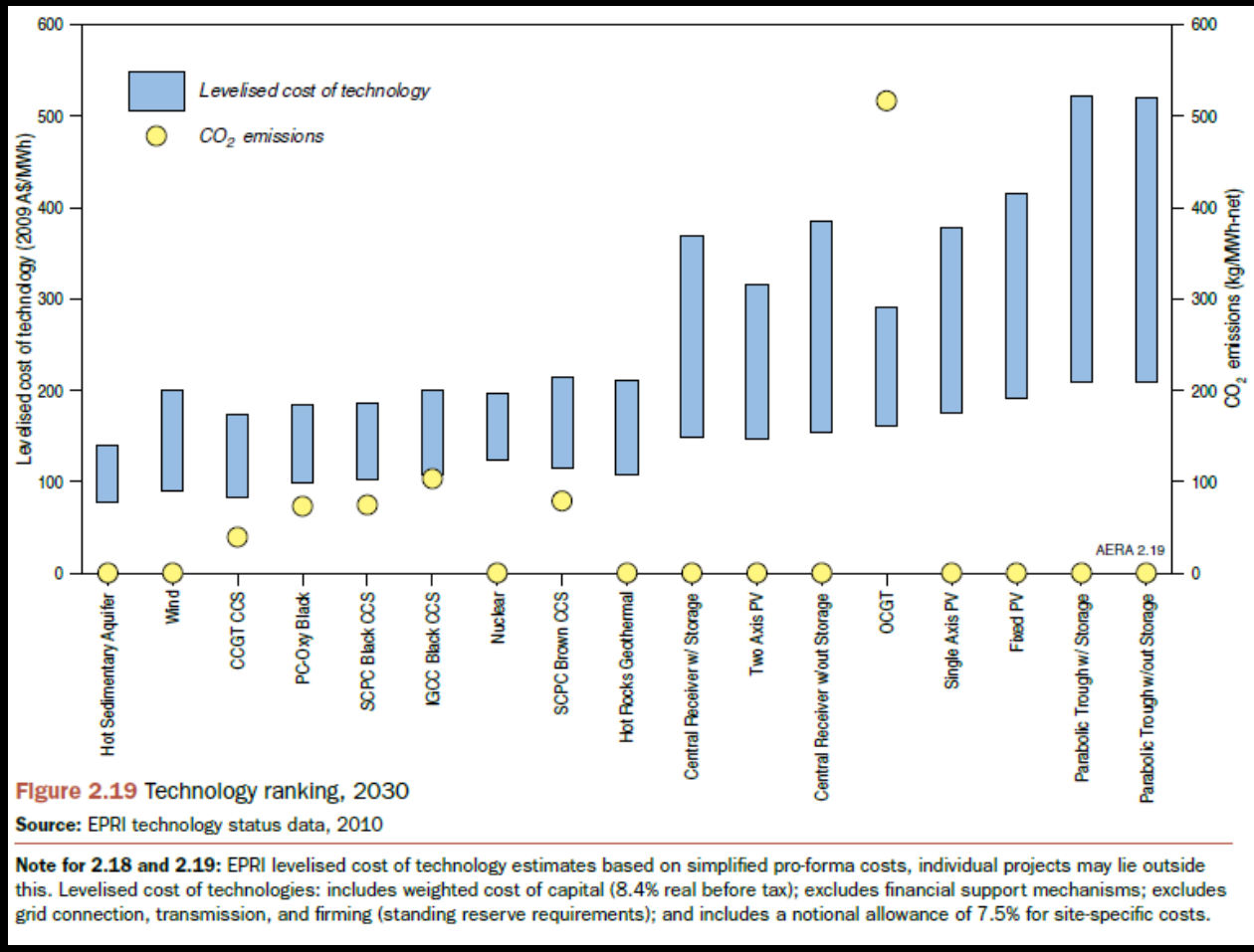


Figure 2.19 Technology ranking, 2030

Source: EPRI technology status data, 2010

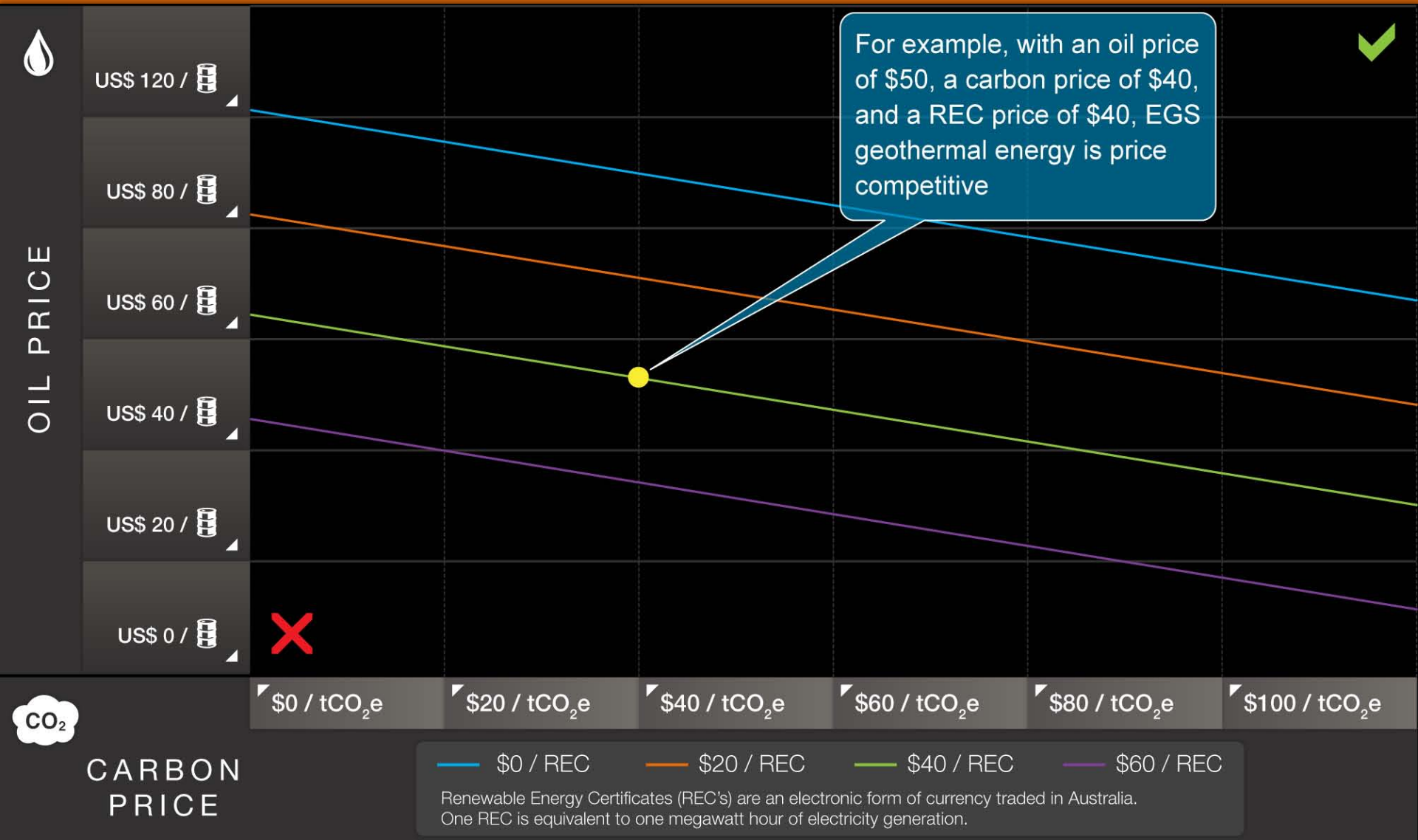
Note for 2.18 and 2.19: EPRI levelised cost of technology estimates based on simplified pro-forma costs, individual projects may lie outside this. Levelised cost of technologies: includes weighted cost of capital (8.4% real before tax); excludes financial support mechanisms; excludes grid connection, transmission, and firming (standing reserve requirements); and includes a notional allowance of 7.5% for site-specific costs.

** Chart sourced from: ABARE's Australian Energy Resource Assessment, 2010*

Figure 2.19 Technology ranking, 2030
List of acronyms:

Acronym	Term
CCS	Carbon capture & storage
CCGT	Combined Cycle Gas Turbine
PC	Pulverised Coal
SCPC	Super Critical Pulverised Coal
IGCC	Integrated Gasification Combined Cycle
PV	Photo Voltaic
OCGT	Open Cycle Gas Turbine

Geothermal competitiveness



*This model assumes an EGS cost delivery of $100 / MWh

Source: Geodynamics internal modelling

Why Geodynamics?

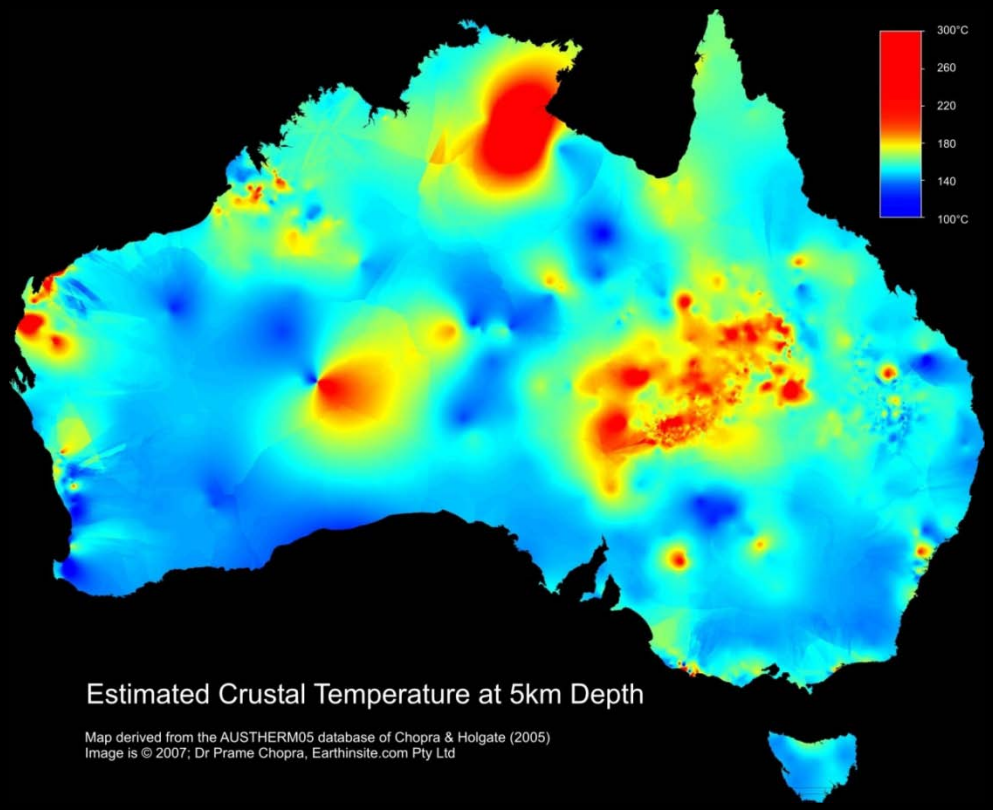
Key messages

- Best positioned to deliver – largest geothermal company in Australia.
- Access to a world-class resource in the Cooper Basin, South Australia - Both HSA and EGS plays.
- The only Australian company to have proven the EGS concept.
- Diversified portfolio:
  - JV opportunities with Tata Power in India.
  - Exploration targets in New South Wales and Queensland (Australia).
- Strong management team with extensive geothermal field experience.
- Cornerstone investors in Origin Energy, Tata Power, Sunsuper and The Sentient Group*.
- Significant Government support and funding in place.

* See supplementary slides for more information

Geodynamics' resource potential is vast

- Significant Global resource in the Cooper Basin
- Underlying Granite - 280ºC at 5 km
- Inferred resource of 230,000 PJ in place
- Potential for >6,500 MW of base-load emission free electricity generation for 40 years
- Size and quality of resource outweighs any distance concerns



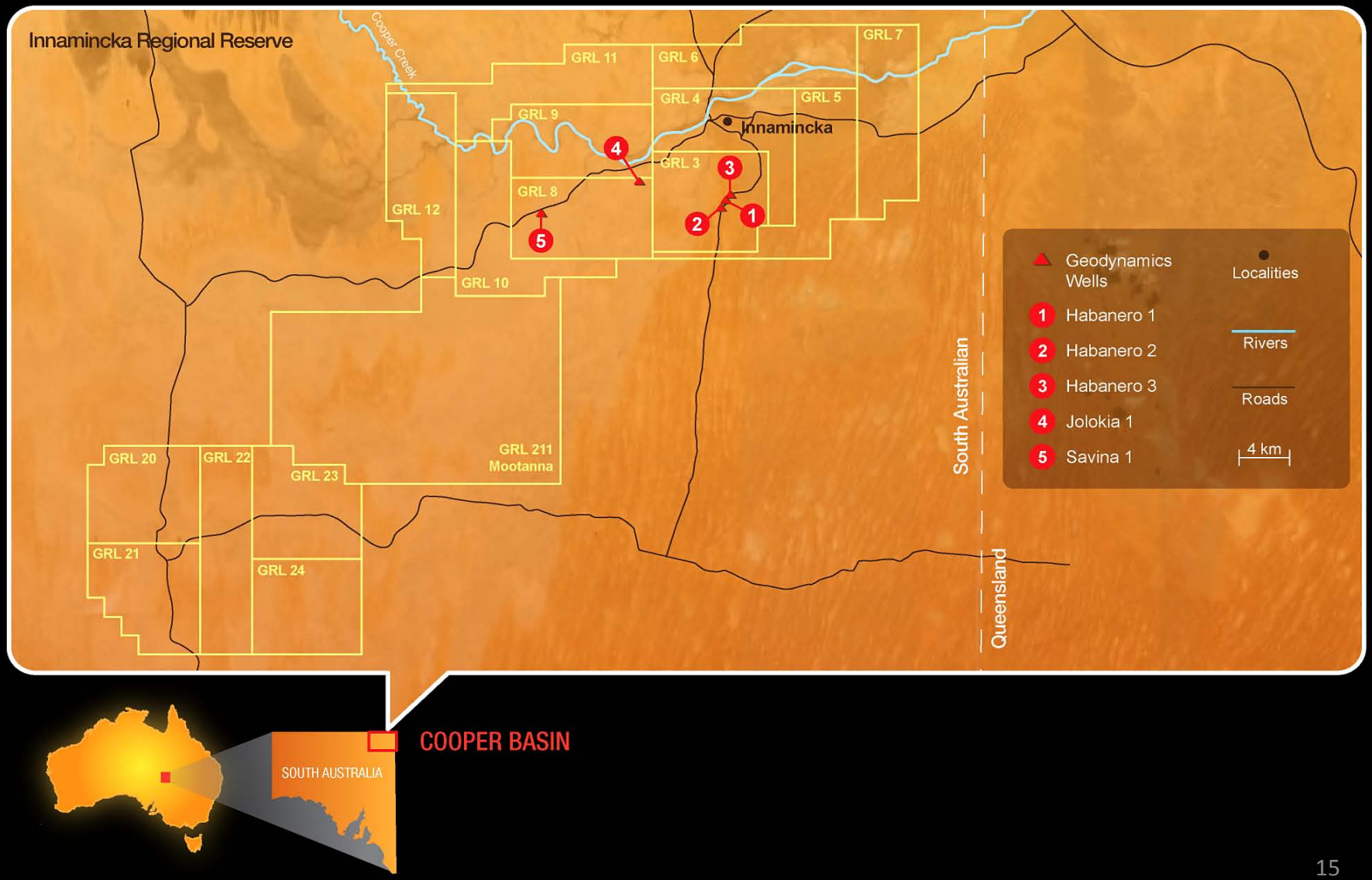
"The field demonstration work that Geodynamics is carrying out in Australia's Cooper Basin is an important undertaking for advanced geothermal technology that continues to both inform and motivate a renaissance of American effort to develop the potential of EGS as a major energy source in the United States."

Jefferson Tester
Croll Professor of Sustainable Energy Systems
School of Chemical and Biomolecular Engineering and Cornell Center for a Sustainable Future

Cooper Basin Project

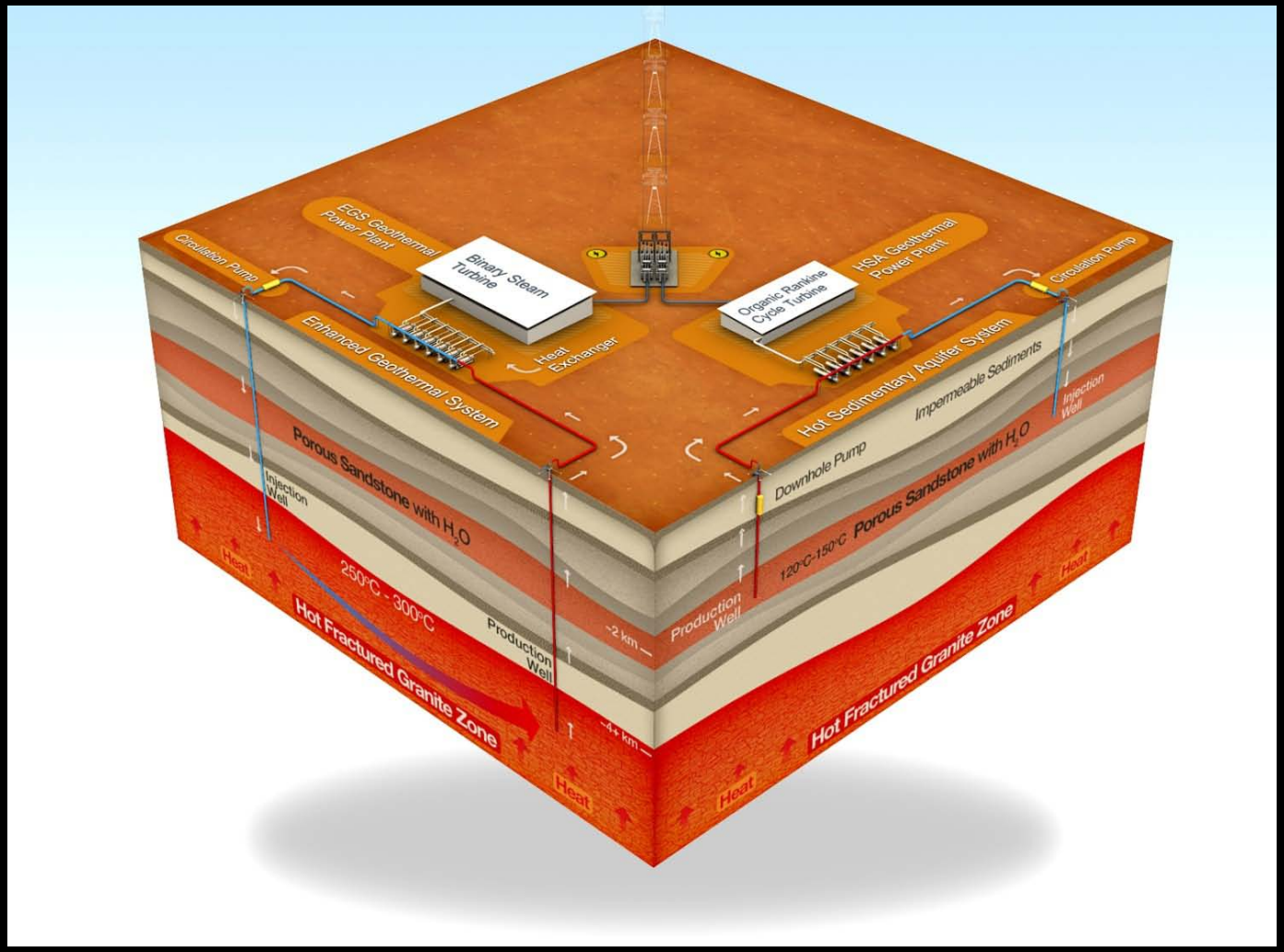
- Joint venture with Origin Energy
- Concept proven
- Multiple wells drilled into the resource
- Ownership of two deep drilling rigs
- Focused on commercialisation of Cooper Basin resource with long term goal of >6,500 MW of generation capacity
- Strong technology development and acquisition team
- 70% EGS interest and 50% HSA interest on these tenements

Cooper Basin tenements



EGS and HSA geothermal models

Geodynamics has access to the hottest known granites on Earth with favourable geology for both EGS and HSA projects:



Competitive landscape - Australia

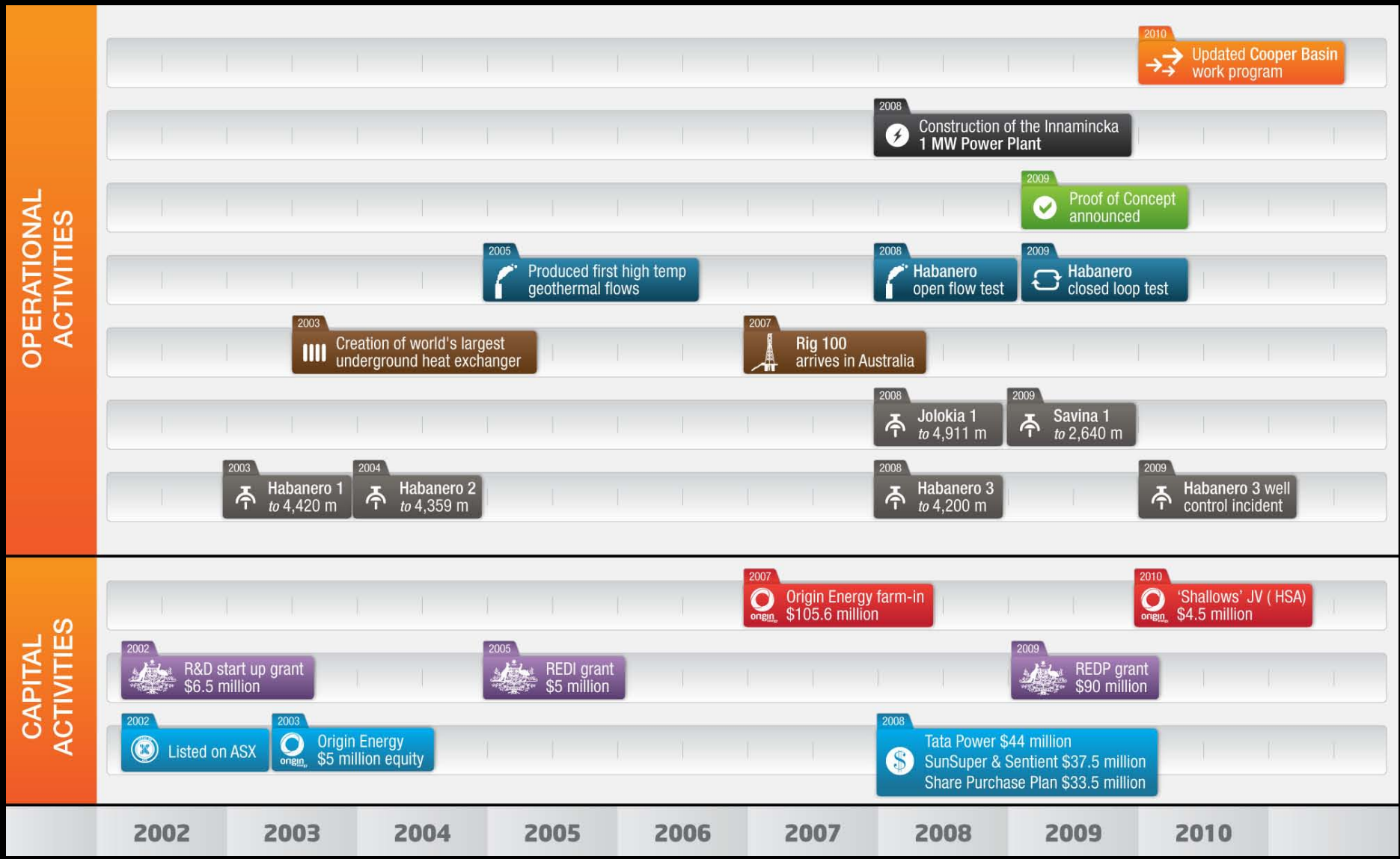
	Geodynamics	Petratherm	Panax
EGS resource	✓	✓	✗
HSA resource	✓	✓	✓
Temperature	EGS 280°C at 5 km HSA 130°C at 2 km	EGS 190°C at 4 km	HSA 171.4°C at 4 km
Measured resources	1,800 PJ	0 PJ	11,000 PJ
Indicated resources	7,600 PJ	0 PJ	32,000 PJ
Inferred resources	235,000 PJ	230,000 PJ	289,000 PJ
Wells drilled in to target reservoir	5	1	1
Deepest well	4,911 m	3,725 m	4,025 m
Project partner	Origin Energy	Beach Petroleum / TRUenergy	N/A
Market capitalisation (May 10)	$175m	$25m	$40m
Cash in bank (31 Mar 10)	$83m	$5.4m	$15m
Government funding grants won	$119m	$70m	$7m
Government funding grants collected	$11.5m	$8m	$4.3m

Why now?

Key messages

- Geodynamics is in transition: Explorer → Developer → Producer
- Significant milestones achieved and key risks addressed
- Work program set with clear milestones and path to delivery
- Commercial power production:
  - 25 MW by 2015
  - 500 MW by 2020
- Value will be created as development milestones are met
- Resource undervalued.

Significant milestones achieved to date



Risks resolved to date

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

Challenges going forward

Technical risk:

- Repeating Habanero heat exchanger creation elsewhere
- Increasing flow rates (multi-fracture stimulation and drilling and reducing near wellbore impedance)

Resource risk:

- Proving size of resource
- Proving consistent geological model

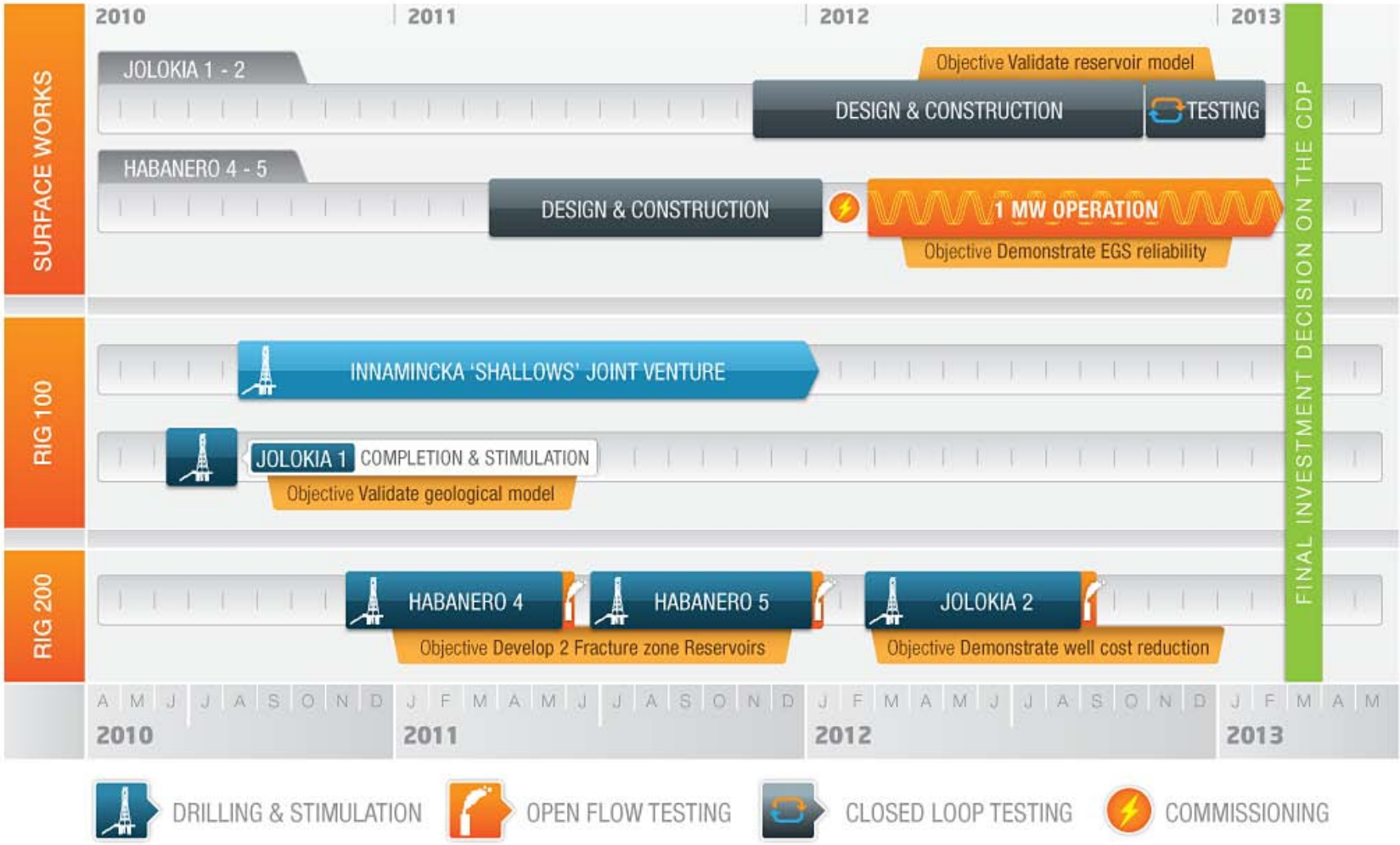
Market risk:

- Access to off-take
- Policy settings on carbon
- Transmission infrastructure

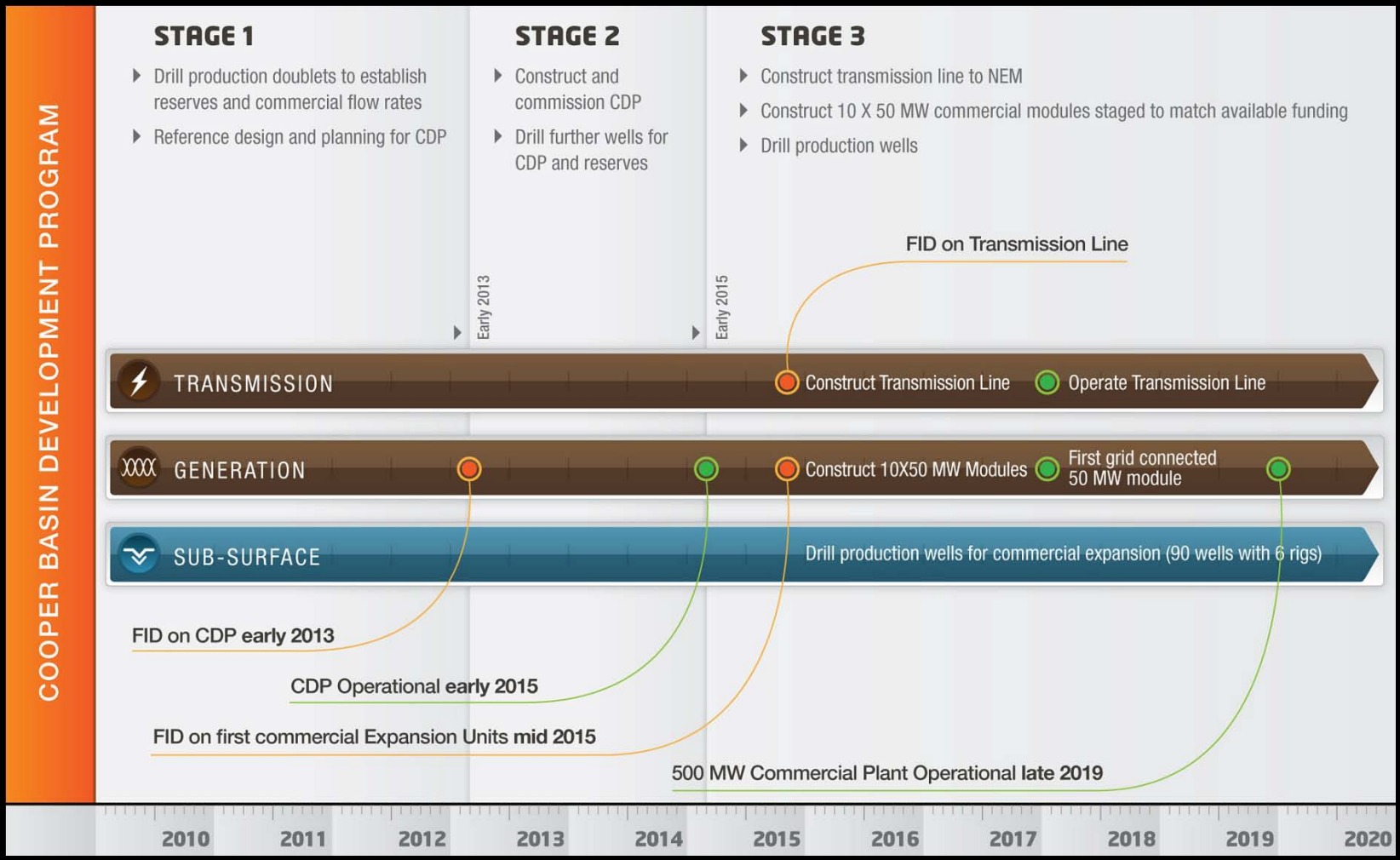
Financial risk:

- Producing power at a competitive cost
- Access to sufficient capital (debt and equity)

Forward work program de-risks project



Long term commercialisation plan



Key Points:

- CDP required to secure financing
- Importance of getting to FID on CDP
- Realistic expectations on rig availability and construction timeframes
- Co-incidence of transmission line construction and commercial expansion

Capital requirements

- Next round of fund raising expected in September 2010
- Private placement and SPP
- Will deliver Geodynamics to FID on the Commercial Demonstration Plant
- Capital raising in late 2010 will fund development plan through to the next phase when the project is de-risked in 2013

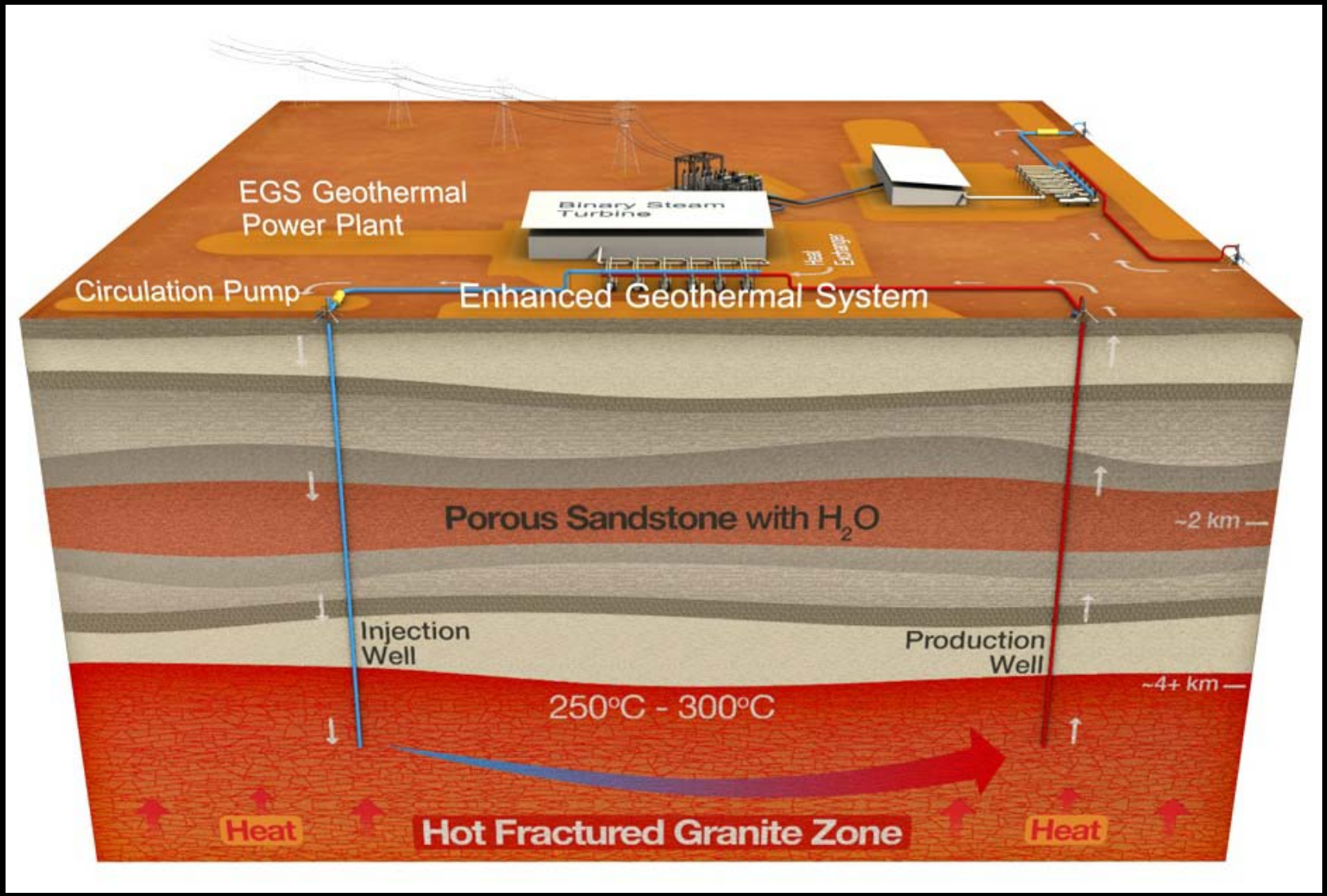
Thank you

"Geodynamics will become a world-leading Australian geothermal energy company, supplying competitive zero carbon energy and base-load power"

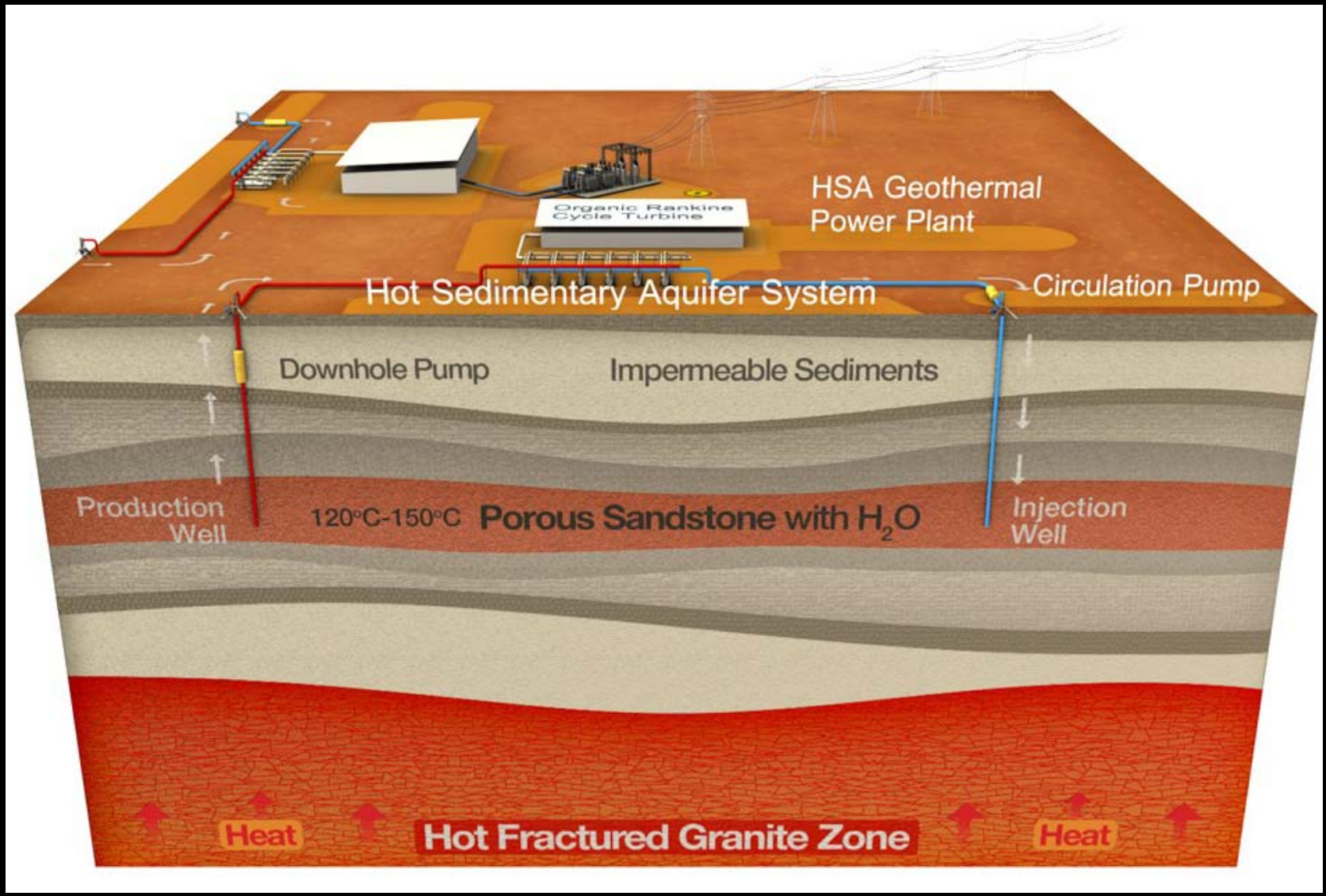
For more info, visit: www.geodynamics.com.au

Supplementary slides

An Enhanced Geothermal System

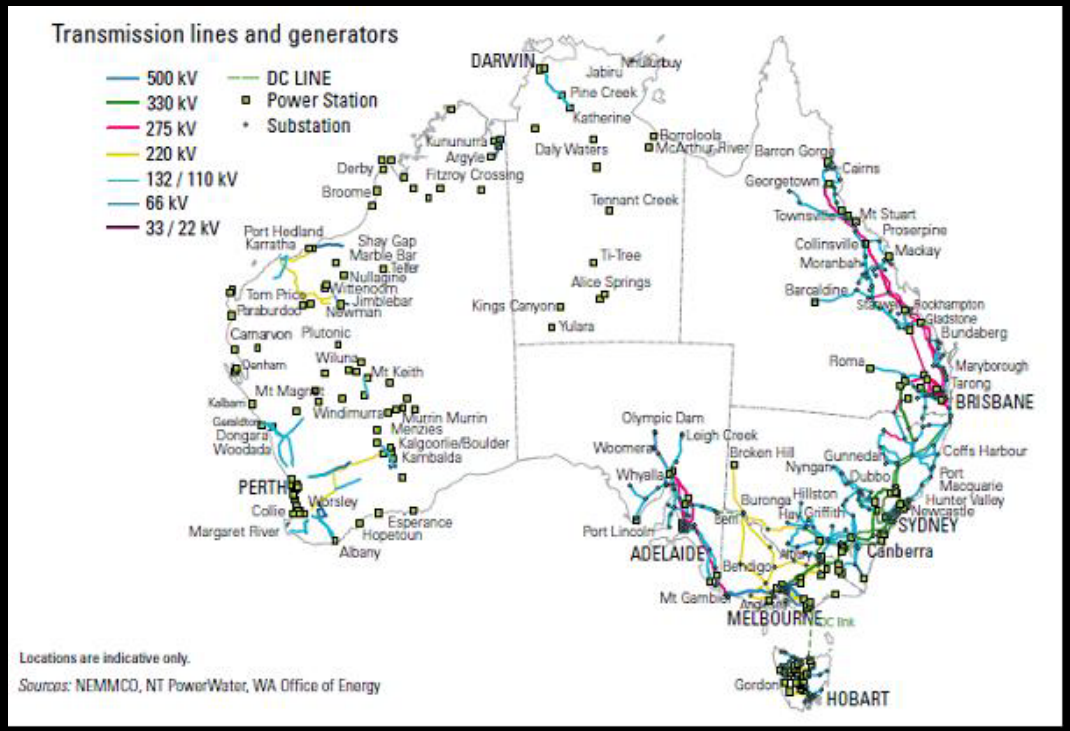


A Hot Sedimentary Aquifer model



Getting transmission to the Cooper Basin, South Australia

Existing network



- Network Cairns → Brisbane → Sydney → Canberra → Melbourne → Adelaide → Olympic Dam ~5,000km
- Meshed network ~48,000km of high voltage transmission lines
- Innamincka → Olympic Dam ~500km

NEM transmission Investment

Transmission Investment	Location	Distance	AC/DC	Voltage	Capacity	Year	Cost
Basslink (submarine)	TAS-VIC	290 km	DC	400kV	500 MW	2006	$800m
Murraylink	SA-VIC	180 km	DC	150kV	220 MW	2002	$180m
Directlink	QLD-NSW	65 km	DC	84kV	180 MW	2000	$130m

Cooper Basin transmission cost estimate

WorleyParsons study:

- Commissioned by Geodynamics
  - To investigate transmission connection options and feasibility

- Destinations considered
  - Olympic Dam
  - Adelaide
  - Sydney / Brisbane
- Route selection
- AC or DC
- Single circuit or double circuit
- Voltage
  - 275kV / 330kV / 500kV
- Steady state stability analysis
- Transient stability analysis

- ~$360m Innamincka to Olympic Dam for 500MW capacity
- ~$360m out of ~$3-4bn investment

Cooper Basin transmission cost estimate

AEMO case study:

- Independent study
- Considered alternatives to the Olympic Dam connection
- Costings similar to WorleyParsons study

Table E1. Transmission Development Options and Indicative Cumulative Capital Costs

Innamincka Generation	Option 1 AC INN-ADL-MEL-SYD	Option 2 AC INN-MEL-SYD	Option 3 AC INN-WSD-SYD	Option 4 HVDC INN-ADL-MEL-SYD	Option 5 HVDC INN-MEL-SYD	Option 6 HVDC INN-WSD-SYD
Stage 1 500MW	950km 500kV double circuit line to Adelaide via Broken Hill switching station	1250km 500kV double circuit line (strung one circuit) to Melbourne	1000km 500kV double circuit line (strung one circuit) to Western Downs	850km 500MW, +/- 500kV bipole to Adelaide	1250km 600MW, - 500 kV monopole to Melbourne	1000km 600MW, - 500 kV monopole to Western Downs
	A$0.9 – 1.4 Billion	A$1.0 – 1.5 Billion	A$0.8 – 1.2 Billion	A$0.3 – 0.5 Billion	A$0.7 – 1.0 Billion	A$0.6 – 0.9 Billion
Stage 2 2000MW	Extend 500kV double circuit line 750km from Broken Hill switching station to Melbourne plus series compensation	Upgrade by stringing 2nd 500kV circuit plus series compensation	Upgrade by stringing 2nd 500kV circuit plus series compensation	1250km 2400MW +/- 500kV bipole to Melbourne	Upgrade by adding 600MW -500kV half pole in parallel and 1200MW +500kV pole (making a 2400MW bipole)	Upgrade by adding 600MW -500kV half pole in parallel and 1200MW +500kV pole (making a 2400MW bipole)
	A$2.1 – 3.2 Billion	A$1.7 – 2.7 Billion	A$1.4 – 2.2 Billion	A$1.5 – 2.2 Billion	A$1.2 – 1.7 Billion	A$1.0 – 1.5 Billion
Stage 3 5000MW	1100km 765kV double circuit line to Sydney with series compensation.	1100km 765kV double circuit line to Sydney with series compensation.	1100km 765kV double circuit line to Sydney with series compensation.	1100km 4000MW, +/- 800kV bipole to Sydney	1100km 4000 MW, +/- 800 kV bipole to Sydney	1100km 4000 MW, +/- 800 kV bipole to Sydney
	A$3.9 – 6.1 Billion	A$3.6 – 5.6 Billion	A$3.3 – 5.1 Billion	A$2.8 – 4.0 Billion	A$2.5 – 3.5 Billion	A$2.3 – 3.3 Billion

Transmission losses

- High voltage transmission results in losses due to electrical resistance
  - Electricity at end of line < Electricity put into line
- Higher voltage → Less loss
- 500kV line Innamincka to Olympic Dam
  - Loss < 10MW out of 500MW
  - < 2%

Marginal Loss Factor (MLF)

- NEM has 5 regions
  - Each region has its own price
- Within a region the MLF
  - Accounts for distance from the consumer
  - ~1 is normal
  - Revenue = Generation MWh * Region Price $/MWh * MLF
- Olympic Dam → Large and growing customer
  - Innamincka to Olympic Dam ⇨ “Delivering” to the consumer
  - Likely “normal” MLF
  - WorleyParsons estimate ~0.98

How to get a transmission line built

Pay for it yourself:

- High upfront cost
- High funding cost

Built by Transmission Network Service Providers

- Low upfront cost
- Regulated asset ⇨ Regulated revenue ⇨ Low funding cost
  - WACC < 9% nominal
  - 9% nominal ⇨ ~$5-10/MWh transmission cost
  - 12.5% nominal ⇨ ~$10-15/MWh transmission cost
- Low usage charge
  - Costs get “smeared” across customer base
- Regulatory Investment Test for Transmission
  - The reliability limb
  - The market benefits limb

How to get a transmission line built

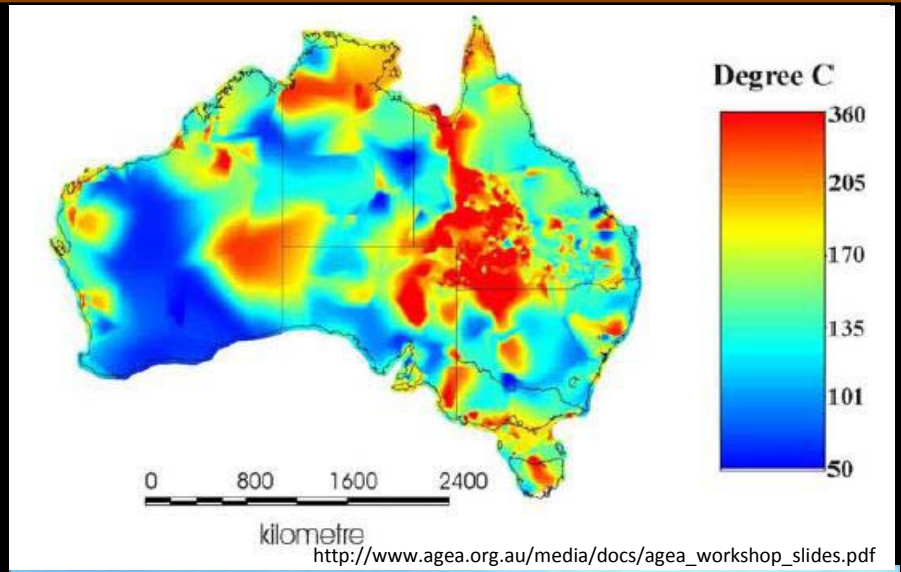
- Reliability limb → Based on service obligations

- Market benefits limb
  - Maximises net economic benefit
  - To all who produce, consume and transport electricity
  - Compared to likely alternative options
  - In a majority of reasonable scenarios
  - Net economic benefit = PV of market benefit less PV of costs

- <u>Difficult to pass market benefits test</u>
  - Renewables in good position though due to zero fuel cost
  - PV of market benefits calculated based on SRMC

Scale Efficient Network Extensions

- Rule change process initiated to enact SENE's
  - Efficient connection of clusters of new generation
  - Entry of renewables (in particular)
    - Clustered in certain remote geographic areas
  - Potential cost savings
    - Connection works coordinated
    - Sized efficiently for future connection activity



http://www.agea.org.au/media/docs/agea_workshop_slides.pdf

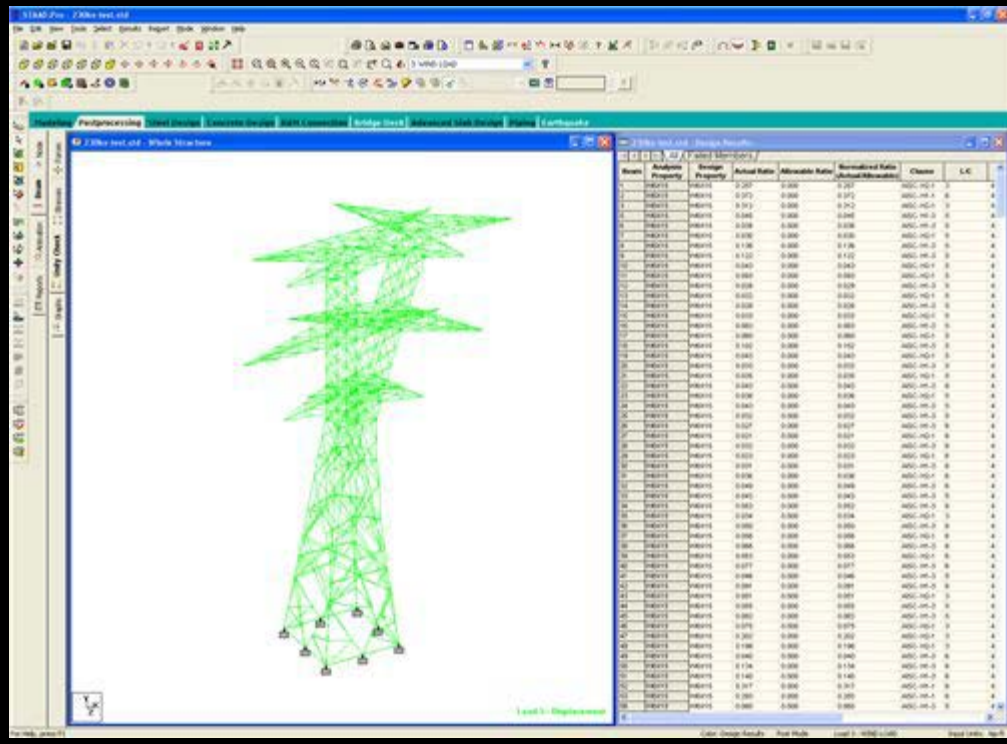
Scale Efficient Network Extensions

AEMO identifies SENE locations:

- Sized based on AEMO's view of likely new generation
  - Confidence levels?
- TNSP builds the transmission infrastructure
- New generators pay a cost reflective charge based on their contracted capacity
- No upfront cost for generators
- If new generation doesn't eventuate ⇨ Underwritten by customers
- Details to be determined

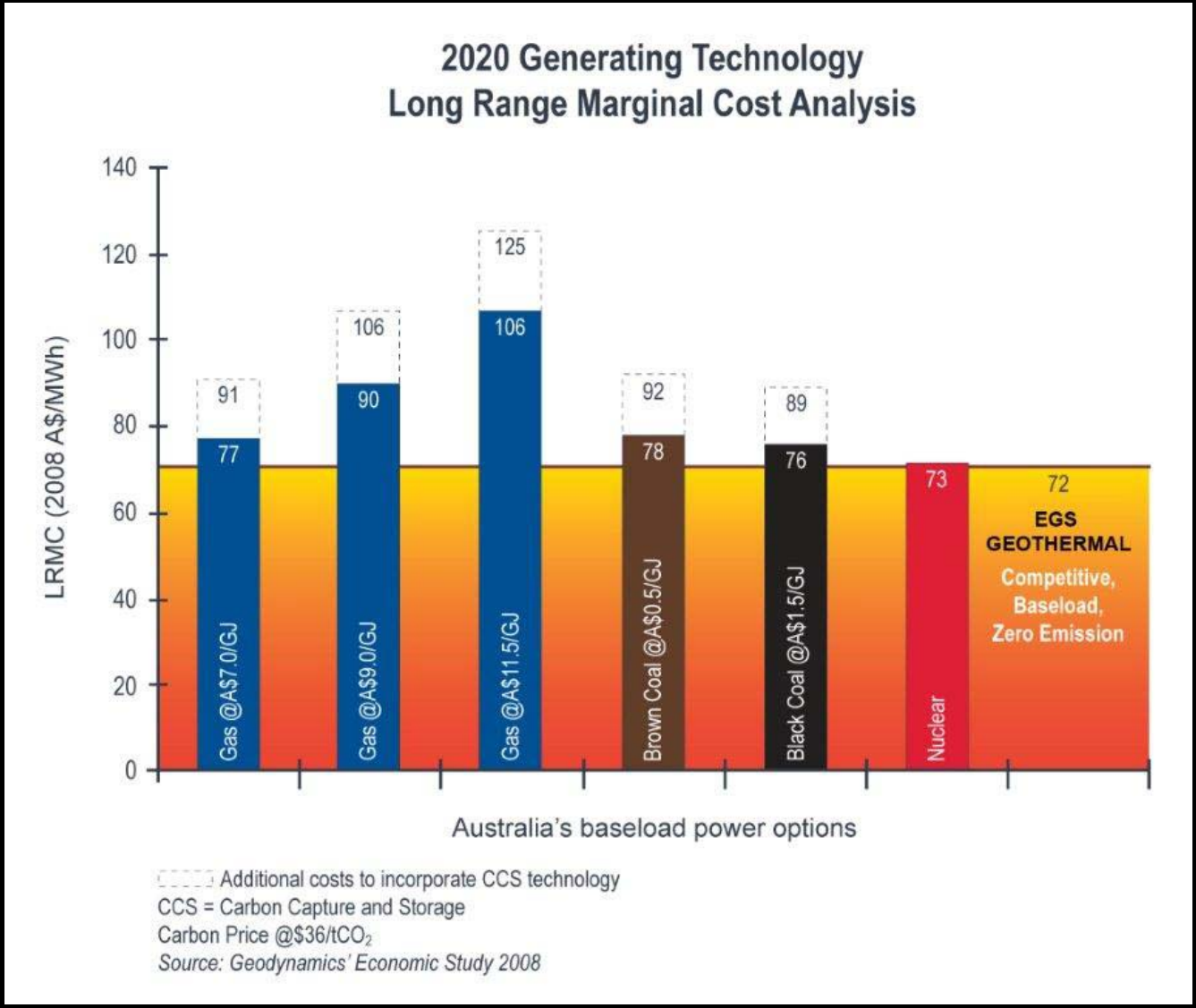
What is Geodynamics doing?

- Initial work
  - Feasibility studies
  - Line routes
  - Planning
- Can feed into SENE process
- Can be utilised if Geodynamics builds own line
- Aim to accelerate transmission development for commercial expansion



Heuris partners study

Heuris Economics study



* *Chart sourced from: Heuris partners report*

About Geodynamics' cornerstone investors and JV partner

About Origin Energy

- Origin Energy is a top 50 ASX listed company involved in gas and oil exploration and production, power generation and energy retailing.
- 140-year history
- Almost 4000 employees in Australia, New Zealand and the Pacific
- More than 3 million customer accounts in Australia and the Pacific
- More than 105,000 shareholders

For more information, visit:
http://www.originenergy.com.au/2/About-Origin

Geodynamics and Origin Energy share two joint ventures to commercialise the Cooper Basin resource:

Innamincka 'Deeps' Joint Venture, focused on EGS

Geodynamics Limited (Operator) – 70%

Origin Energy Geothermal Pty Ltd* – 30%

Innamincka 'Shallows' Joint Venture, focused on HSA

Origin Energy Geothermal Pty Ltd* (Operator) – 50%

Geodynamics Limited – 50%

**A wholly owned subsidiary of Origin Energy Limited (ASX: ORG)*

About Tata Power Group

- India's largest private sector power utility
- Operating for over ninety years
- Generation capacity in Mumbai, Delhi, Jojobera, Jharkhand and Karnataka
- Installed generation capacity of 3000 MW
- Mumbai power business has a unique mix of Thermal and Hydro Power accounting for 1797 MW

For more information on Tata Power's Associates and Joint Venture partners, visit: http://www.tatapower.com/aboutus/associates-jvs.aspx

Substantial Shareholder:

The Tata Power Company Limited – 10.1%

About The Sentient Group and Sunsuper

The Sentient Group

- Manages over US$1.3bn in the development of quality metal, mineral and energy assets across the globe through its Cayman-based, 10 year closed-end private equity Sentient Global Resources Funds.
- Experience in the natural resources and investment industries
- Possess skills covering geological exploration, commodity analysis, political risk, capital markets, financial structuring and portfolio management.

For more information go to http://www.thesentientgroup.com/AboutSentient

Sunsuper Pty Ltd

- Fund established: 1987
- Fund members: over one million
- Funds under management $14 billion
- A top ten Australian superannuation fund
- Multi-industry superannuation fund

For more information go to http://www.sunsuper.com.au///aboutUs/sunsuperstory.cfm

Substantial Shareholder:

The Sentient Group – 7.0%

Sunsuper Pty Ltd – 6.8%