

ASX Release

20 March 2012

ASX Code: PTR

ABN 17 106 806 884

Level 1, 129 Greenhill Road
Unley SA 5061

T: +61 8 8274 5000

F: +61 8 8272 8141

W: www.petratherm.com.au/

E: admin@petratherm.com.au



PETRATHERM LIMITED
ABN 17 106 806 884

MD presentation to the SA Resources & Infrastructure Conference

Petratherm's Managing Director, Mr Terry Kallis, will later today present an update on the Company's activities to the SA Resources & Infrastructure Conference being held from 20 to 21 March 2012 in the Adelaide Convention Centre (refer attached presentation).

The conference features key speakers from government and industry including the Hon Jay Weatherill MP, Premier of South Australia and Hon Tom Koutsantonis, SA Minister for Resources & Energy.

The attached presentation covers Petratherm's flagship Paralana Geothermal Energy Project and features the Company's new Clean Energy Precinct which was announced in December 2011.

The presentation outlines progress to date on the Paralana Geothermal Energy Project and the recent Independent Resources Statement that confirms the large potential geothermal resource available at Paralana for conversion to electrical power (estimated at 1,300 MW over 30 years – equivalent to about one third of SA's power demand needs).

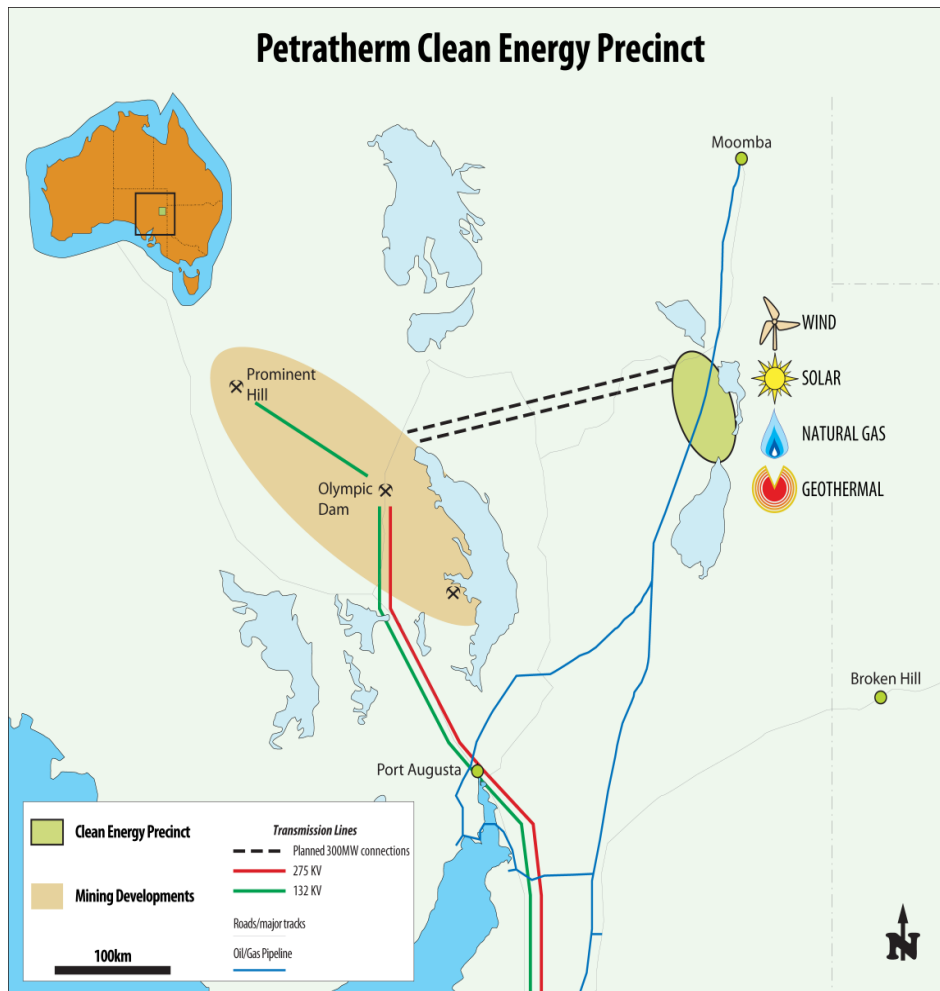
The presentation highlights the inextricable link between the Company's Paralana project and the Clean Energy Precinct – that is to use the Precinct project as a key enabler to develop and monetize the large Paralana resource.

The Clean Energy Precinct aims to combine gas, wind, solar and geothermal energy to supply base load, low cost, renewable power to meet the growing demands of mining developments in South Australia.

The Precinct project is currently in the pre-feasibility stage with the focus on resource assessment, generation mix, capital cost estimates, licenses/permitting and access to grid/pipeline connection.

Preliminary resource assessments for wind and solar, undertaken by Garrad Hassan Pacific Pty Ltd, indicate that:

- there is an excellent wind resource ranging between 7 and 8 m/sec at 100 m hub height in the north western part of the Precinct project;
- based on Bureau of Meteorology data, there is a world-class solar resource estimated at 20 MJ/m²/day or (5kWh/m²/day).



Petratherm expects to be able to secure sufficient pipeline capacity and competitive supply of gas to enable the first 300 MW stage of the project based initially on gas and wind power generation. The second stage of the project is expected to see the introduction of large scale geothermal energy power generation.

This provides a long term commercialization path to market for the Paralana geothermal energy resource after the local nearby demands of the Beverley Uranium Mine have been satisfied over the next 3 to 5 years.

The Clean Energy Precinct represents an exciting new development for the Company and central to the project is the use of state-of-the-art high voltage direct current (HVDC) transmission technology coupled with a mix of clean and renewable resources (gas, wind, solar and geothermal) which aims to enable the development of Paralana resource to its fullest potential.

Managing Director, Terry Kallis, in his former roles as a consultant to the SA power industry and senior executive of ETSA Corporation and ElectraNet possesses a wealth of experience directly relevant to the Precinct project, notably the development of the 220MW, 180km underground HVDC Murraylink Interconnector for TransEnergy Pty Ltd and developing other renewable energy projects.

Competent Persons Statement

The information in this report that relates to Exploration Results, Geothermal Resources or Geothermal Reserves is based on information compiled by Peter Reid, who appears on the Register of Practicing Geothermal Professionals maintained by the Australian Geothermal Energy Group Incorporated at the time of the publication of this report. Peter Reid is a full time employee of the Company. Peter Reid has sufficient experience which is relevant to the style and type of geothermal play under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the Second Edition (2010) of the Australian Code for Reporting Exploration Results, Geothermal Resources and Geothermal Reserves. Peter Reid has consented in writing to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Yours faithfully



Terry Kallis
Managing Director

MEDIA CONTACTS:

Terry Kallis
Kieran Hall / Tim Hughes

Petratherm Ltd
Hughes Public Relations

08 8274 5000
08 8412 4100

SA Resources and Infrastructure Conference

Petratherm Limited

Company & Projects Overview

Managing Director Terry Kallis

20 March 2012

**CLEAN
ENERGY
FOR
FUTURE
GENERATIONS**

Disclaimer and competent persons statement

Disclaimer

This presentation has been prepared by Petratherm Limited (Petratherm). The information contained in this presentation is a professional opinion only and is given in good faith.

Certain information in this document has been derived from third parties and though Petratherm has no reason to believe that it is not accurate, reliable or complete, it may not have been independently audited or verified by Petratherm.

Any forward-looking statements included in this document involve subjective judgment and analysis and are subject to uncertainties, risks and contingencies, many of which are outside the control of, and maybe unknown to, Petratherm.

In particular, they speak only as of the date of this document, they assume the success of Petratherm's strategies and they are subject to significant regulatory, business, competitive and economic uncertainties and risks. Actual future events may vary materially from the forward looking statements and the assumptions on which the forward looking statements are based. Recipients of this document ("Recipients") are cautioned not to place undue reliance on such forward-looking statements.

Petratherm makes no representation or warranty as to the accuracy, reliability or completeness of information in this document and does not take responsibility for updating any information or correcting any error or omission which may become apparent after this document has been issued.

To the extent permitted by law, Petratherm and its officers, employees, related bodies corporate and agents ("Agents") disclaim all liability, direct, indirect or consequential (and whether or not arising out of the negligence, default or lack of care of Petratherm and/or any of its Agents) for any loss or damage suffered by a Recipient or other persons arising out of, or in connection with, any use or reliance on this presentation or information.

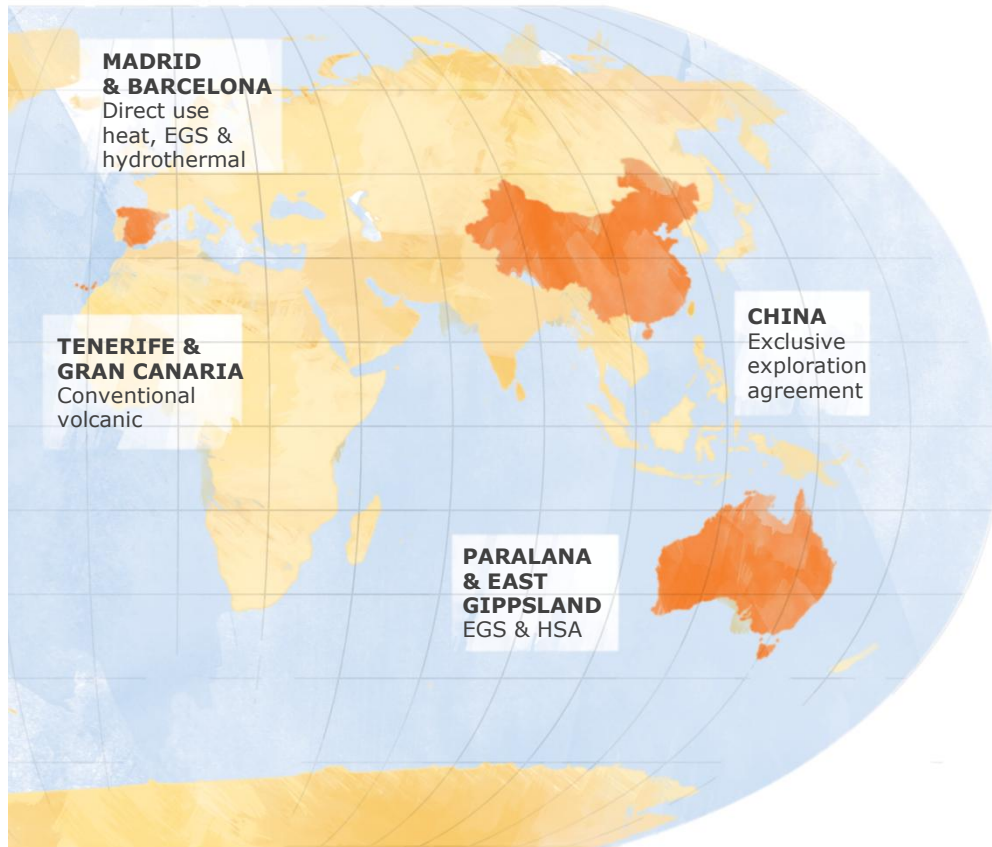
All amounts in Australian dollars (AUD) unless stated otherwise.

The information in this report that relates to Exploration Results, is based on information compiled by Peter Reid, who appears on the Register of Practising Geothermal Professionals maintained by the Australian Geothermal Energy Group Incorporated at the time of the publication of this report. Peter Reid is a full time employee of the Company. Peter Reid has sufficient experience which is relevant to the style and type of geothermal play under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the Second Edition (2010) of the Australian Code for Reporting Exploration Results, Geothermal Resources and Geothermal Reserves. Peter Reid has consented in writing to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Presentation Outline

- > Corporate and financial overview
- > Video – “The Paralana Geothermal project story so far”
- > Paralana progress to date, resource estimation and next steps
- > Petratherm’s new Clean Energy Precinct project
- > Market/regulatory framework
- > Questions and Answers
- > Supporting slides – Precinct, Energy Technology costs, Carbon policy and modeled impacts, Paralana short/long term economic goals and optimization model

Petratherm overview – leading explorer/developer



Listed ASX : PTR

- > Shares on Issue: 148.8 million
- > Share Price: \$0.090 (14 March)
- > Market Cap: \$13.39 million
- > Cash Position: \$2.402 million (31 Dec)
- > Shareholders: 3,864 shareholders
 - > Minotaur Exploration 13.78%
 - > Australian Ethical Investments 7.13%

Paralana JV Funding and Grants

- > JV Funding: up to \$31.7 million plus equity share of project costs
- > Government grants of \$69.8 million toward drilling and commercial demonstration

Our business model – consistent and robust

“To explore for and develop emission free geothermal energy projects that are commercially sustainable”

- To develop a portfolio of quality geothermal energy projects
- Explore both conventional and engineered geothermal systems – for power and heat
- Find a favorable combination of geology and market conditions - *“shallow hot rocks close to market”*
- Introduce joint venture partners with common interests, the right skills/knowledge, risk appetite & funding ability

“Right projects, right partners, right people”



Our board – track record of success



Derek Carter
Chairman



Simon O'Loughlin
Director



Richard Hillis
Director



Richard Bonython
Director



Lewis Owens
Director

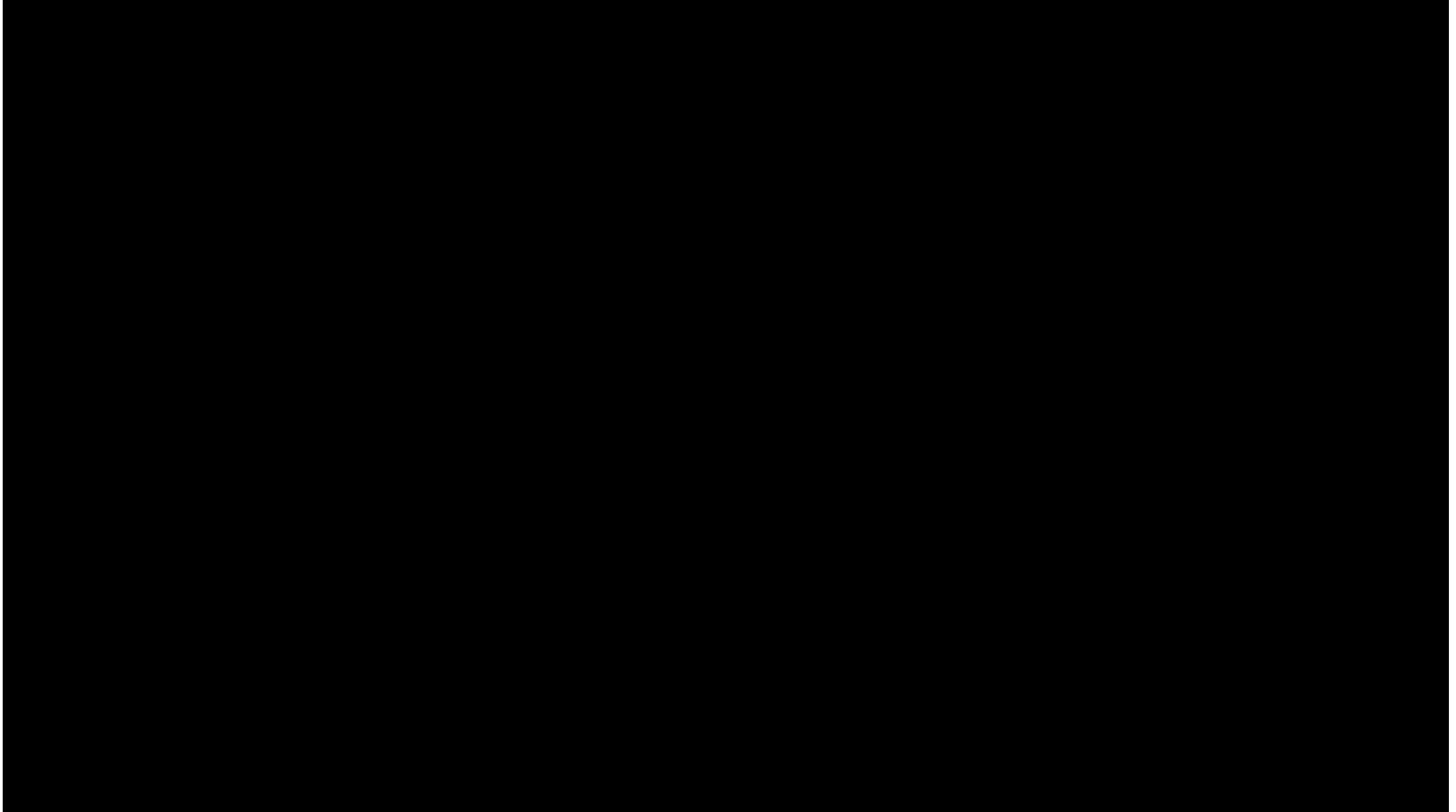


Terry Kallis
Managing Director

Skills and capabilities to achieve our objectives

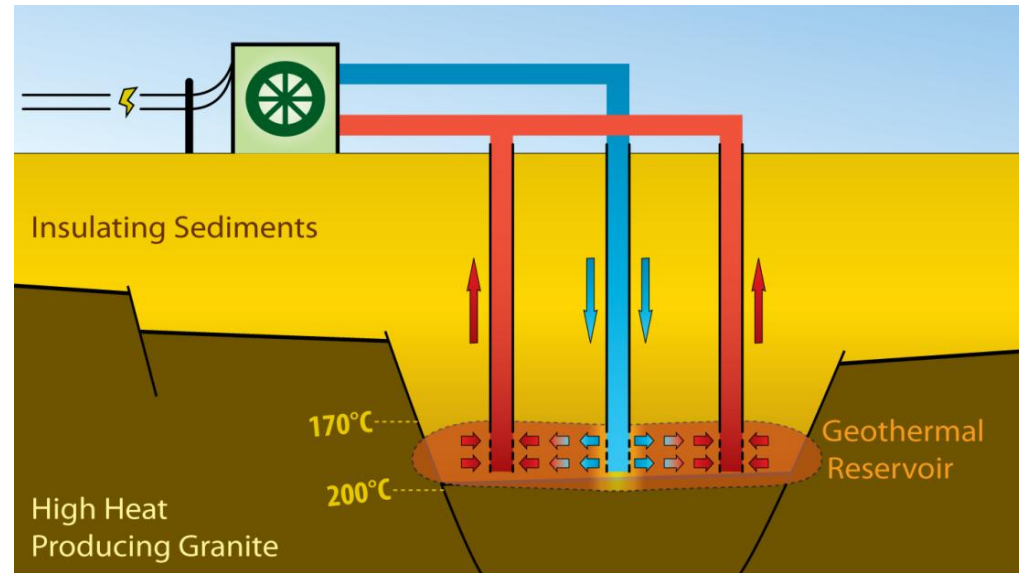
- > Financial Management
- > Legal
- > Marketing
- > Project Management
- > Corporate Governance
- > Exploration and Development
- > Geology and Geophysics
- > Resources and Energy
- > Government and Stakeholder relations

The Paralana Geothermal Energy Project story to date - video



Paralana project progress to date and unique HEWI model

- > Drilled a deep exploration well to 1.8 kilometres and confirmed economic temperature and gradient – 109°C and 45°/km ✓
- > Drilled 4 km deep injector well – successfully completed and cased and confirmed economic temperatures – 190°C (4kms) and 176°C (3.7kms) ✓
- > Main Fracture injection test- exceeded 500 m propagation target, 3.1 million litres injected and over 7,000 micro-seismic events detected ✓
- > Flow Test completed successfully – 1.3 million litres flowed to surface and temperatures re-confirmed ✓
- > Project has followed clear plans and milestones with spend tightly managed by JV to ensure value for Partners, Government and PTR shareholders
- > Next step is to drill Paralana 3 deep 3.8 kms producer well, fracture stimulate, circulate and to demonstrate flows



HEWI Model at Paralana

The required heat exchanger is created within the insulating layers above the granite heat source.

Aims to reduce risk, cost and time.

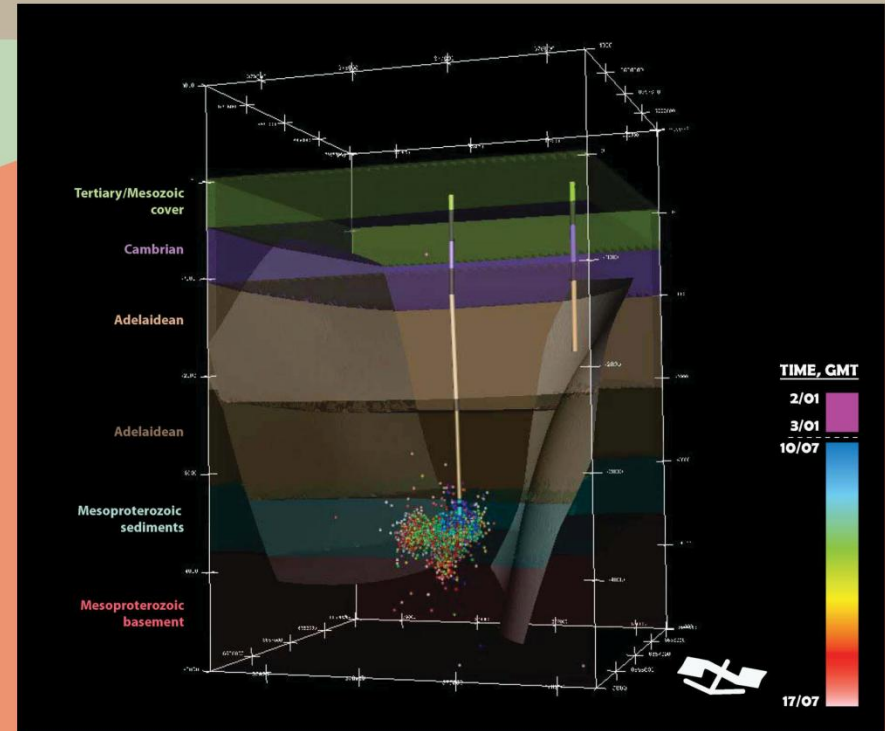


W

E

Main Fracture Stimulation greatly exceeded Target

- Over 7000 micro-seismic events triggered
- Fractured reservoir target exceeded, with micro-seismic events located 900m away from the well
- Connection to deep fractures/faults below the injection point



Paralana Independent Resources Statement – Nov 2011

Depth Interval (metres)	Inferred (PJ _{th})	Indicated (PJ _{th})	Measured (PJ _{th})	Total (PJ _{th})
<3,500	2,400	1,100		3,500
3,500 - 4,000	4,900	4,400	41	9,300
4,000 - 4,500	5,900	5,700		12,000
4,500 - 5,000	6,900	6,700		14,000
Total (PJ_{th})	20,000	18,000	41	38,000

Paralana Joint Venture: Petrathern 79%, Beach Energy 21%.

Initial stimulated rock volume = **5.4 MW electrical power potential for 30 years**

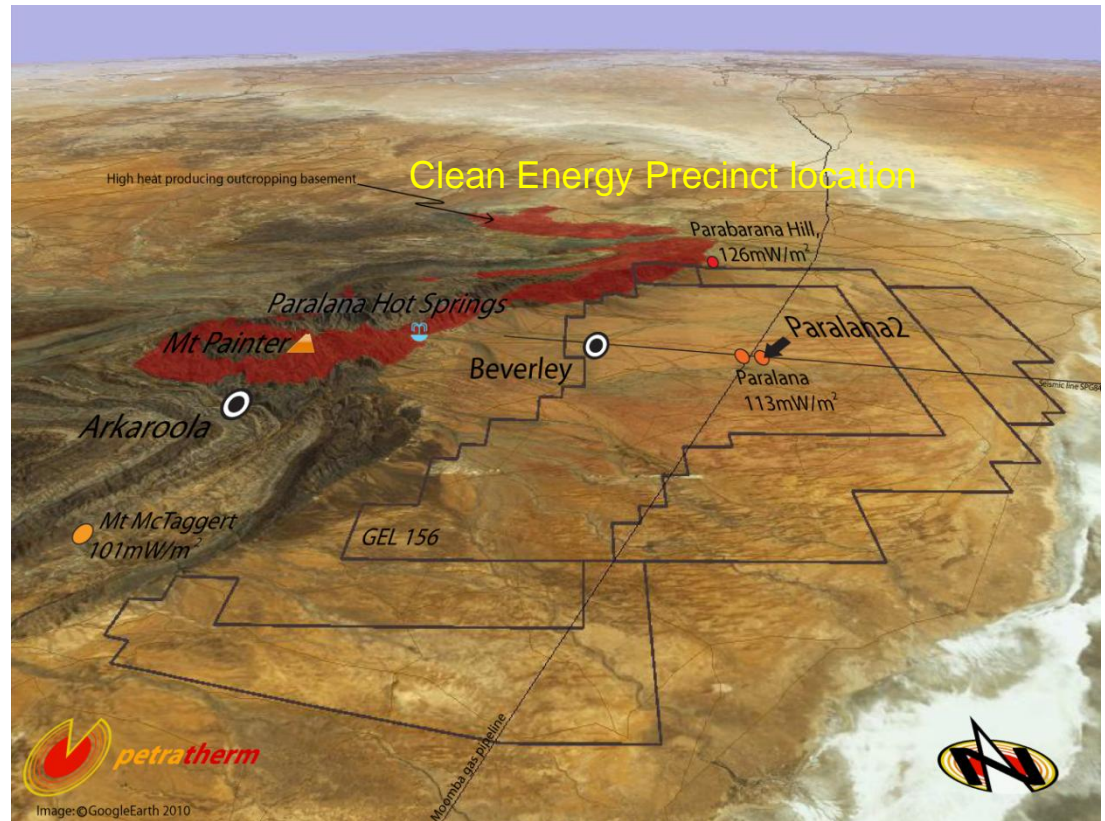
Paralana Resource at the 3500–4000 metre depth interval is estimated a 9,300 PJ_{th} which is sufficient to generate **1,300 MW of electrical power for 30 years**

“Clean Energy Precinct aims to monetize the large Paralana geothermal resource”

The information on this slide that relates to Geothermal Resources is an extract from a report compiled by Dr Graeme Beardsmore, who appears on the Register of Practicing Geothermal Professionals maintained by the Australian Geothermal Energy Group Incorporated at the time of the publication of this Slide. Dr Beardsmore is employed by Hot Dry Rocks Pty Ltd, an independent consulting group that provides professional services to Petrathern Ltd. Dr Beardsmore has sufficient experience which is relevant to the style and type of geothermal play under consideration and to the activity which he/she is undertaking to qualify as a Competent Person as defined in the Second Edition (2010) of the ‘Australian Code for Reporting Exploration Results, Geothermal Resources and Geothermal Reserves’. Dr Beardsmore has consented in writing to the inclusion on the slide of the matters based on his information in the form and context in which they appear.

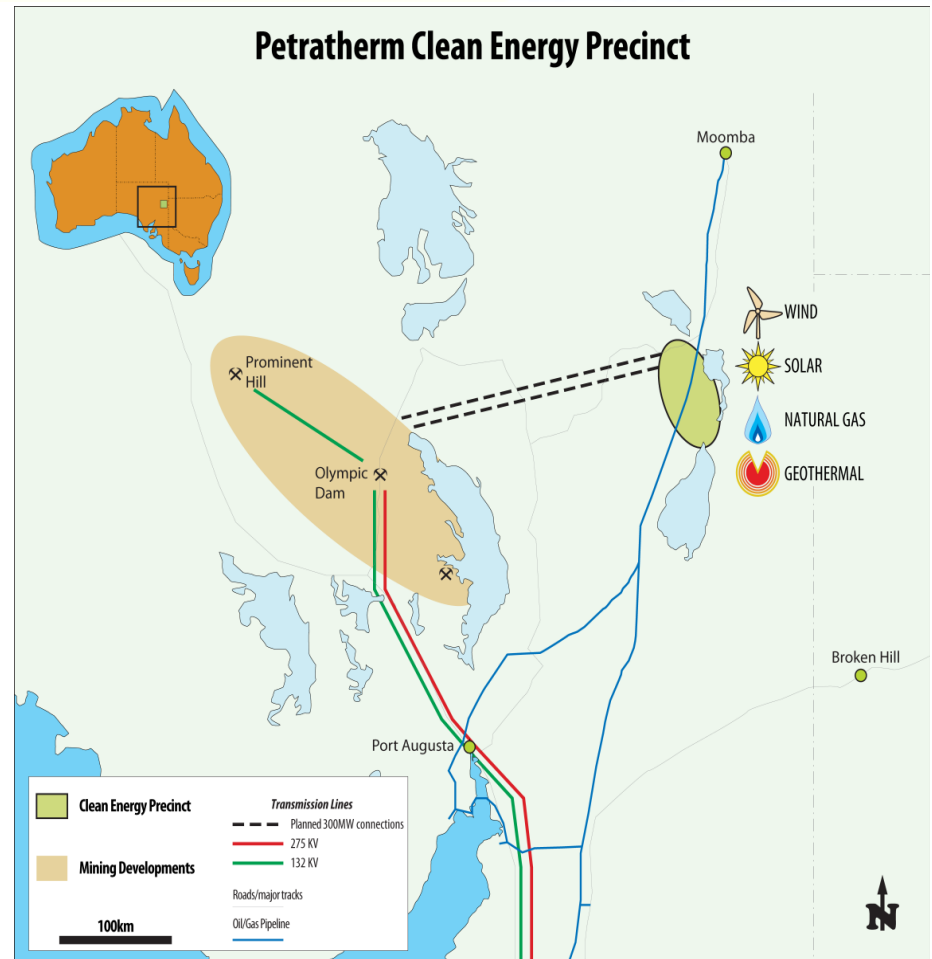
What/where is Petratherm's Clean Energy Precinct ?

- > Project is separate to, but complementary of and inextricably linked to, the Paralana Geothermal Energy JV project
- > Project is situated just north of the Paralana geothermal project with access to 2000 square kms of land
- > Project aims to combine gas, wind, solar and geothermal resources
- > Aim to supply a competitive source of base-load and renewable/low emission power to the growing market in the northwest SA



What/where is Petratherm's Clean Energy Precinct ?

- > Moomba to Adelaide gas pipeline traverses land in an ideal location that has abundant solar resource and wind resources
- > Staged development of power project – initially gas and most likely wind – to provide first stage 300 MW connection to a point near Olympic Dam
- > Second stage 300 MW connection comprised of gas, wind and solar and introducing large scale geothermal energy



What/where is Petratherm's Clean Energy Precinct ?

- > Project is in response to large demand growth expected from very large mining developments 270 kms east of the Clean Energy Precinct
- > Mines include Olympic Dam, Prominent Hill, Carapateena with a combined new potential demand in excess of 700 MW - providing alternative options for power supply
- > Clean energy to be delivered by two, 300 MW HVDC underground cable connections to minimize environmental, indigenous heritage impacts and ensure speed to market



What are the key/unique features of the Precinct ?

- > Project is located in the area closest to the power demand where there is a "convergence" of;
 - > **available Gas resources - pipeline**
 - > **abundant Solar resources**
 - > **abundant Wind resources**
 - > **large Geothermal resources**
- > Avoids the need for a 400 km gas pipeline – that may have little demand growth beyond Olympic Dam – eastern and southern state market growth
- > Utilizes state of the art HVDC underground cable technology adding stability to the power system – acts like a firewall ensuring power quality and system security with low losses compared to AC (although AC and DC overhead can remain an option if desired)



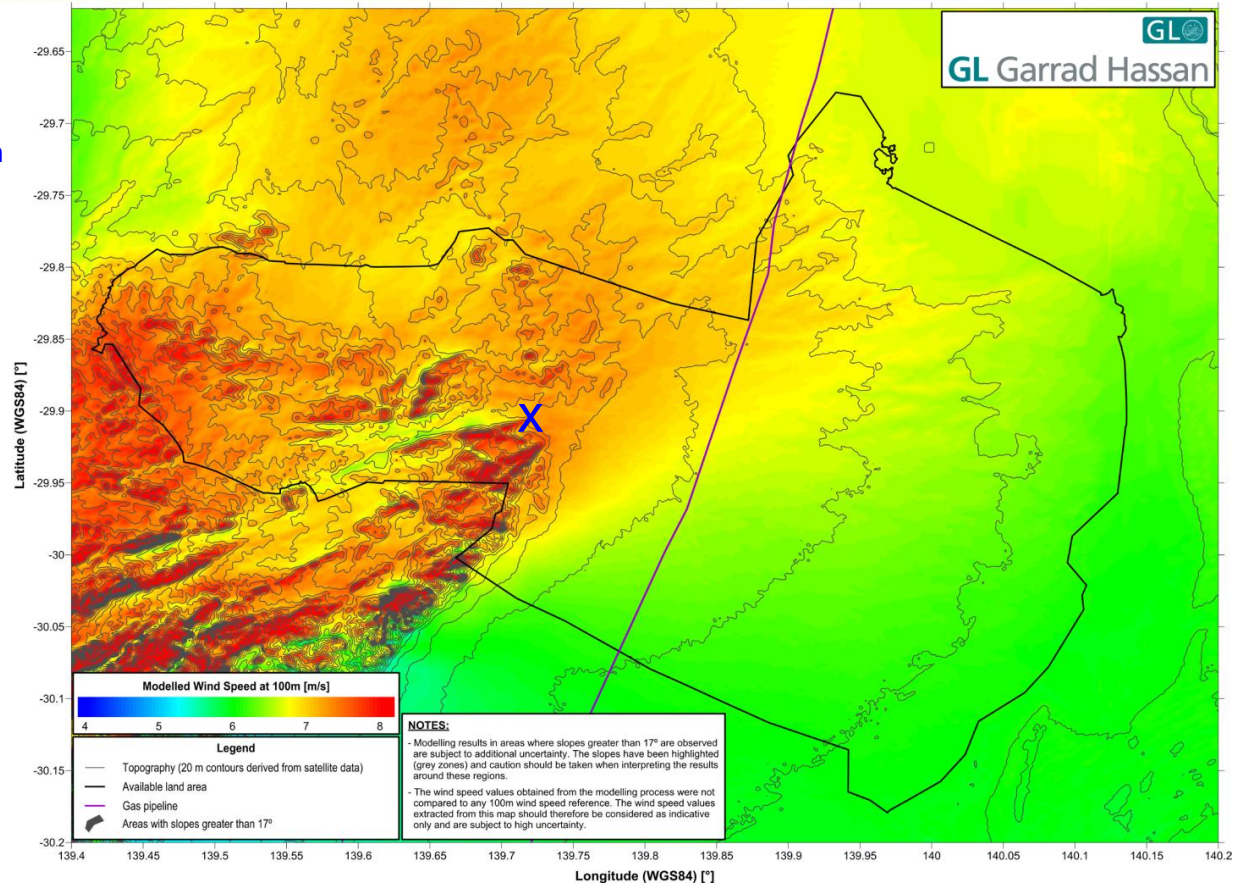
Preliminary Wind Assessment at 100 m hub height

Preliminary wind assessment
Garrad Hassan (GH) – world's
leading wind consultants –
(refer adjacent Mesoscale Model Map – with
X signifying the Moolawatana Homestead)

Wind speeds in northwest part
of lease is assessed as being
around 7 to 8 metres/sec at
100 metre height

Expected to be well suited to a
Class 2 turbine, large blade
and 100 metre hub height

150 MW and 300 MW wind
farm sizes being assessed by
GH based on 3.2 MW REpower
turbine 57 m blade

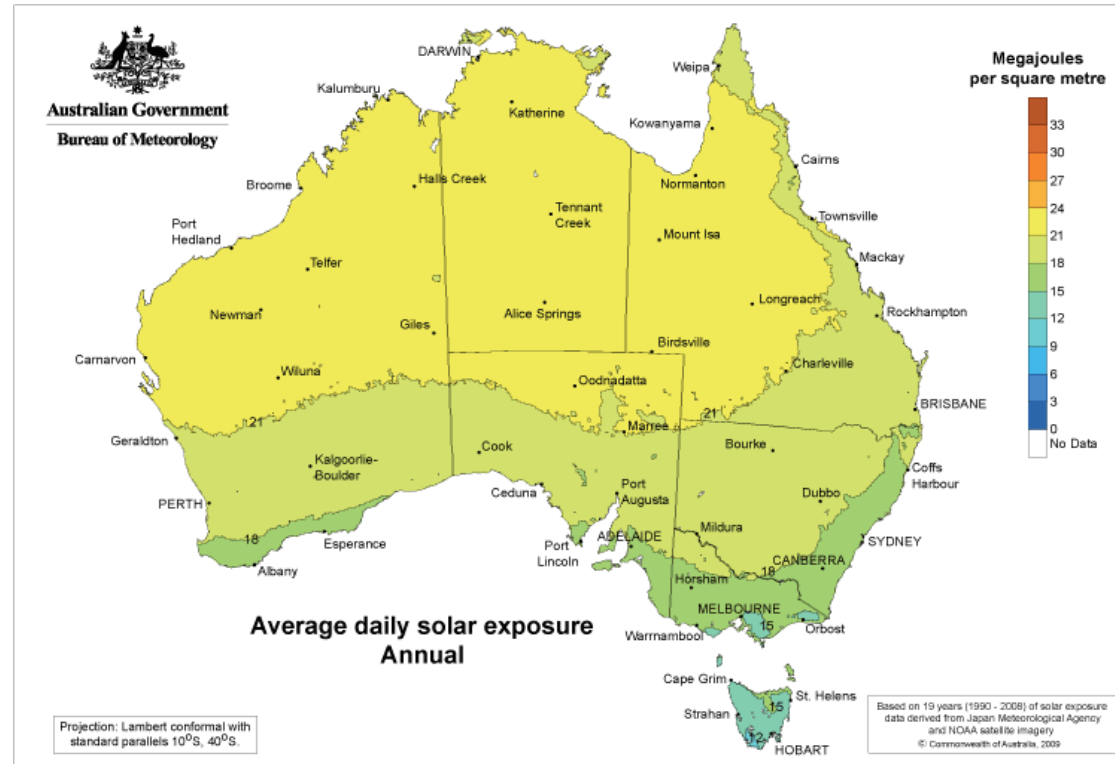


Mesoscale Model Map of Pastoral Lease boundary showing prospective wind regime in north western area on low lying hills beyond the Flinders ranges

Preliminary resource assessment summary for Precinct

- > BOM data suggests solar resource 20 MJ/m²/day or (5kWh/m²/day). GH confirms it as an excellent solar resource¹ ✓
- > Expect competitive gas supply contract availability from Moomba producers² ✓
- > Expect sufficient gas pipeline capacity from MAP² ✓
- > Wind regime expected to confirm good quality wind resource¹ ✓

(1- Subject to further detailed resource assessment by GH)
(2 - Subject to negotiations with gas suppliers and EPIC Energy)

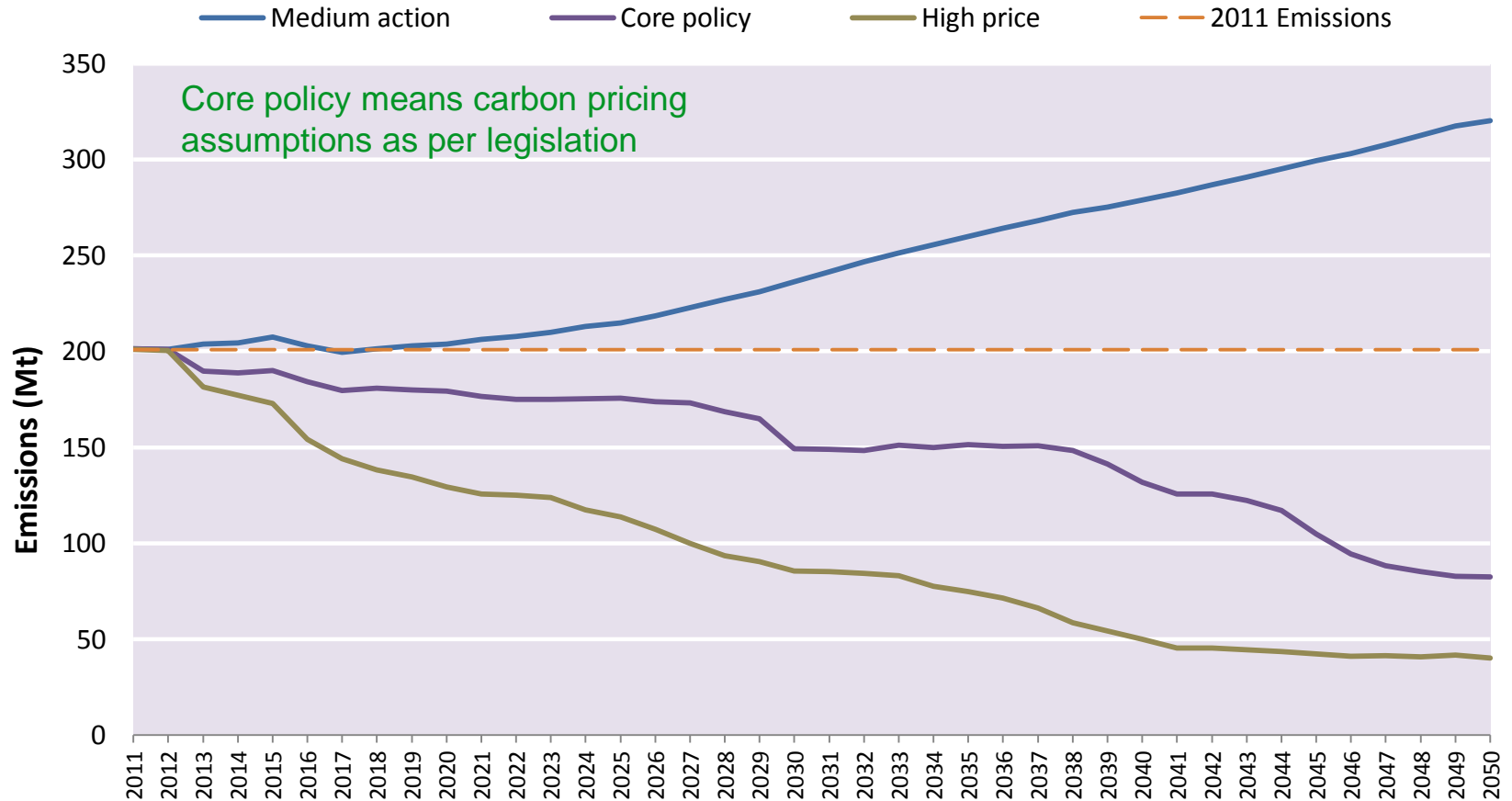


Resources – gas, wind, solar and geothermal expected to be available in large quantities of 150 MW+ each – actual mix of generation is yet to be determined

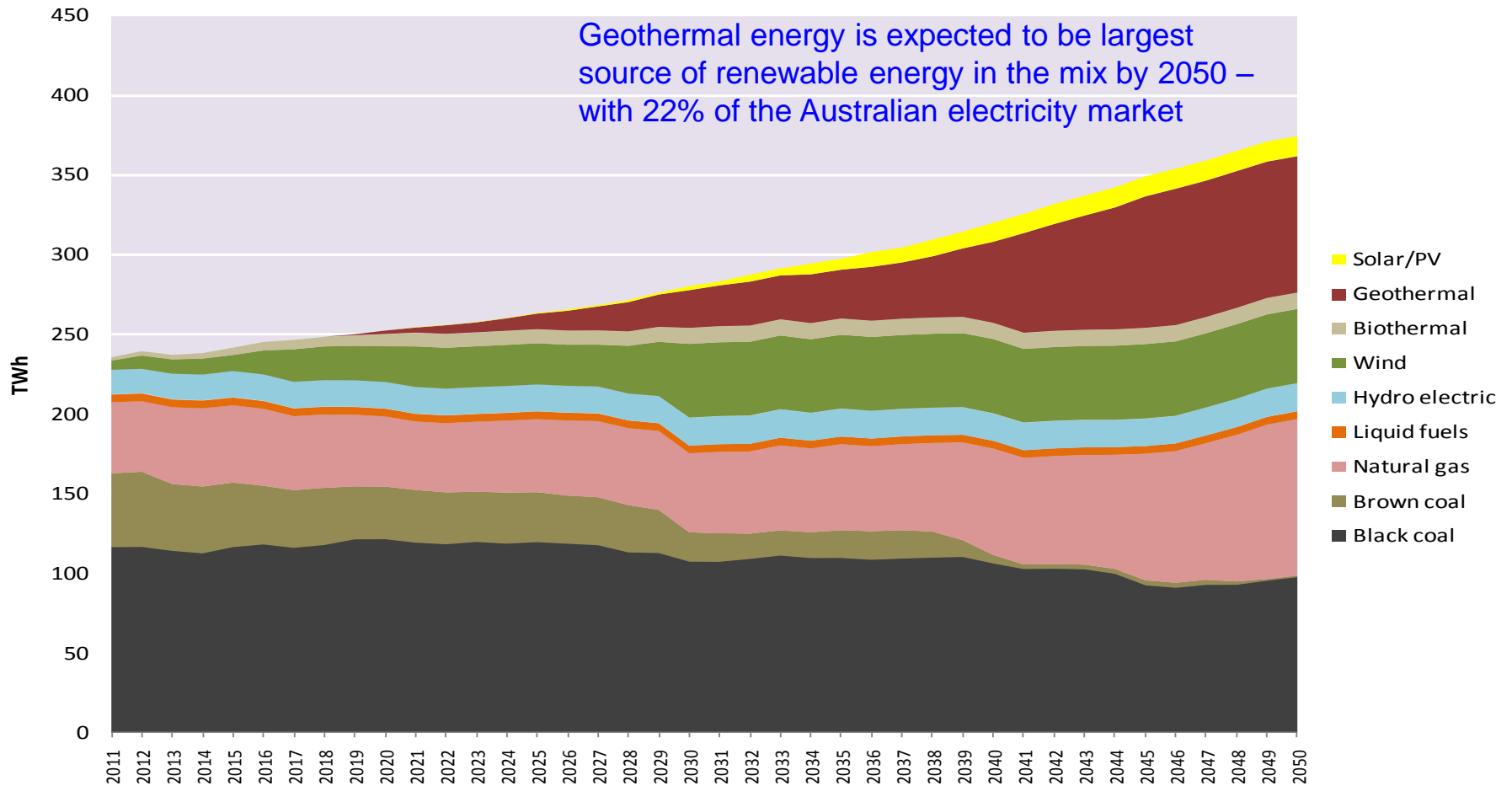
Work to date, indicative costs and timing

- > In discussions with several parties;
 - > International Infrastructure and Renewable Energy companies
 - > Domestic Resources and Energy companies
 - > International EPC and Product Supplier companies
 - > ElectraNet - grid connection/access
 - > EPIC – pipeline connection/access
 - > Commenced discussions with potential mining customers – “tailor to needs”
 - > Indigenous Land Use Agreements underway
 - > Resource assessments underway
- Costing of generation mix and transmission connection underway
 - Commenced discussions with Federal and State governments
 - Capital cost estimate* \$1,500 m
 - Development costs (full feasibility) \$7 m
 - Commercial close end of 2013/early 2014
 - Supply of power commencing mid /late 2016
 - Supply increasing 100 MW /year for 6-7 years
- (* subject to generation plant mix)

Impact of Carbon pricing – Australian emissions (source SKM/MMA)



Impact of Carbon pricing – Australian power generation mix (source SKM/MMA)



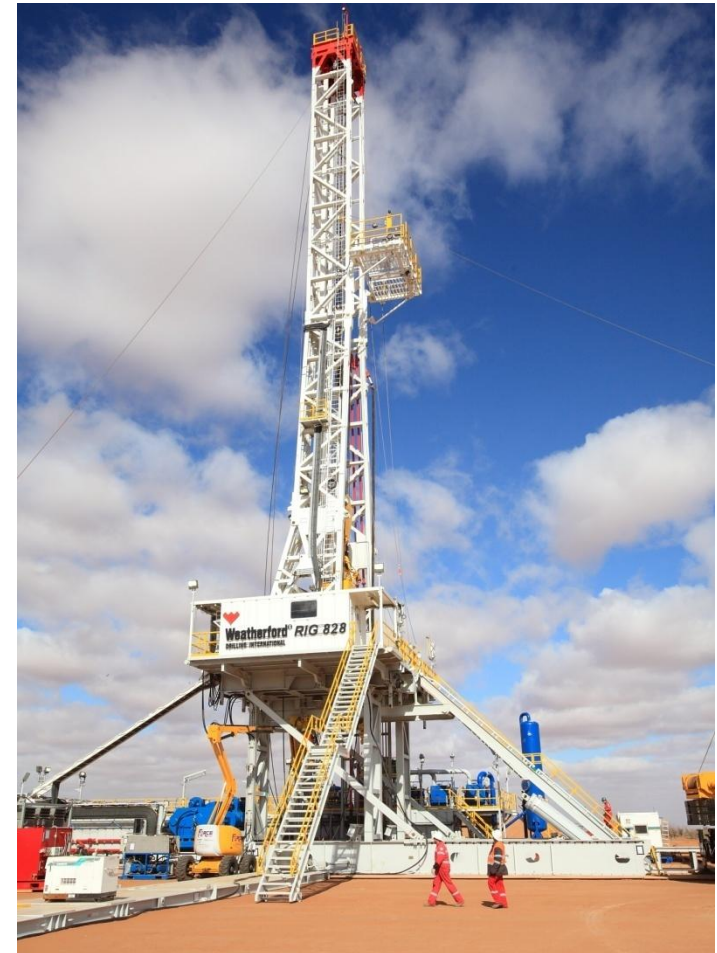
Market and Regulatory framework looking forward

In the long term Australia needs clear and stable policy and regulatory framework for renewable & geothermal energy

- Price on carbon
- Capital funding of projects
- Investment in network connection

Federal Government's new "Securing a Clean Energy Future" – Climate Change Plan is expected to drive investment in geothermal companies and projects

SKM/MMA carbon policy modeling shows geothermal with a major role in Australia's future energy mix, in particular in SA



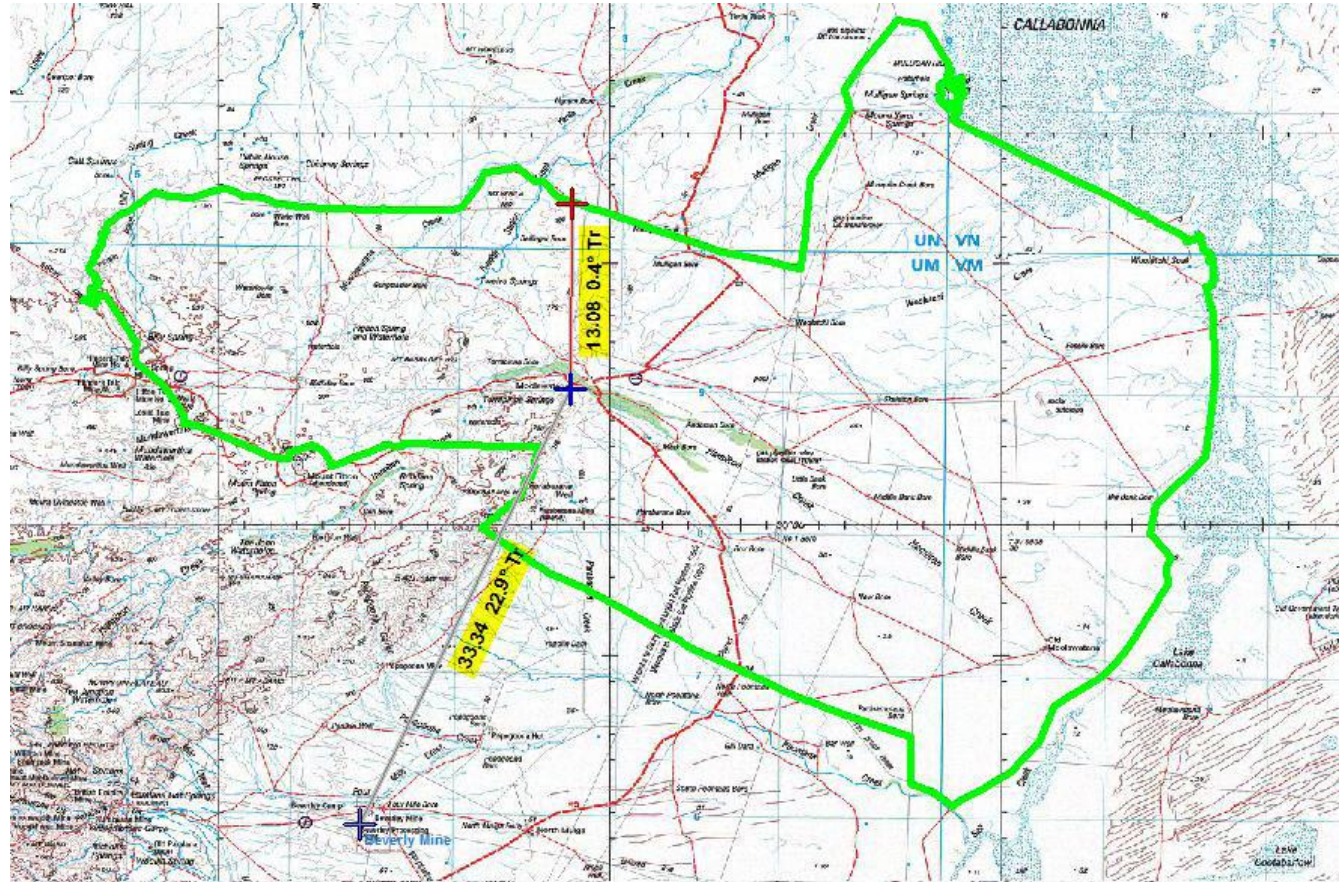
BE PART OF
PETRATHERM'S
BLUE SKY
FUTURE

www.petratherm.com.au

HVDC transmission connection – already connects SA & Vic – *Murraylink 220 MW, 180 kms underground cable*



Moolawatana Pastoral Lease – Homestead to Beverley



Potential wind farm location areas – north of Homestead



Energy technologies - Australian Resource Assessment

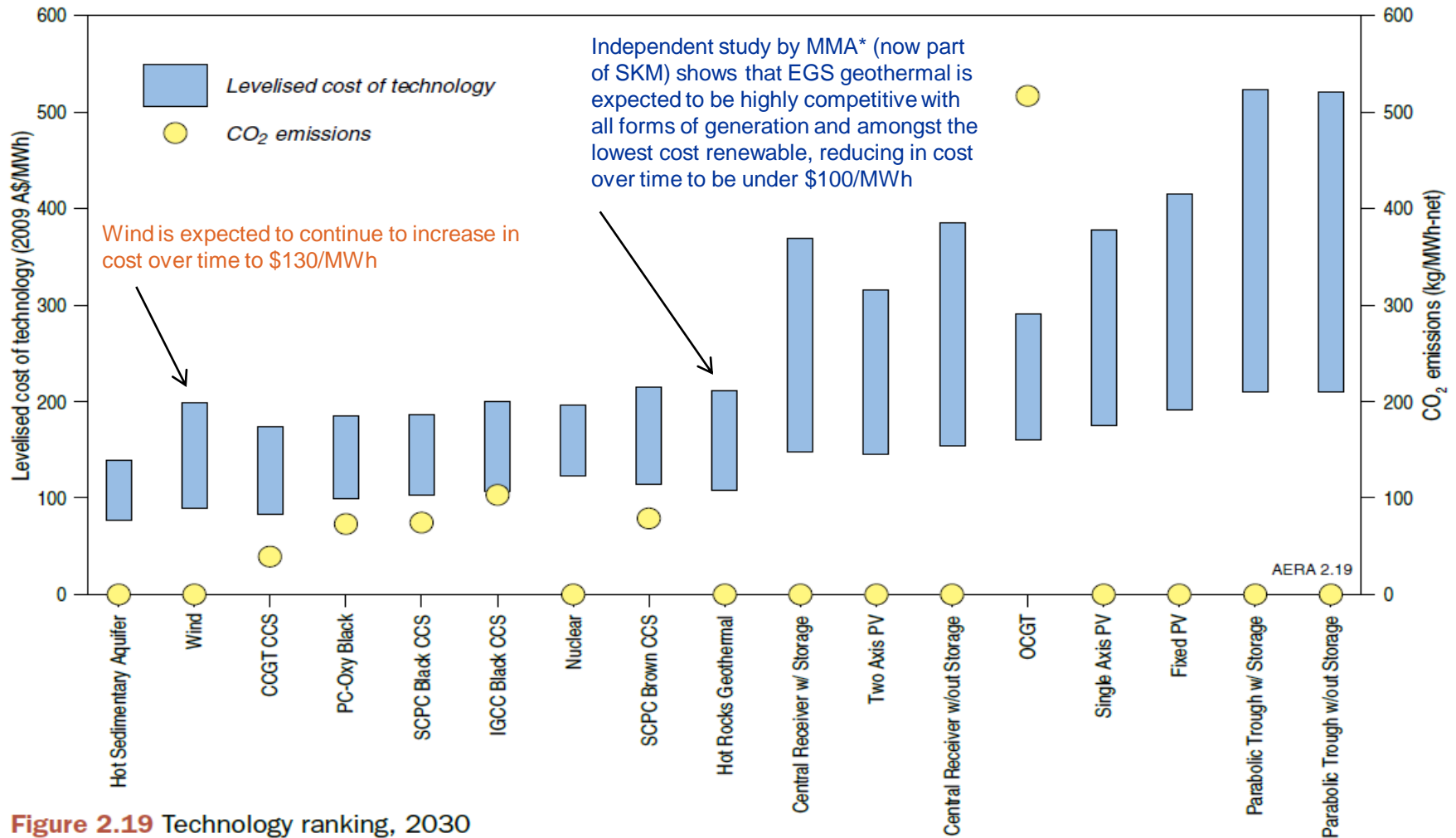
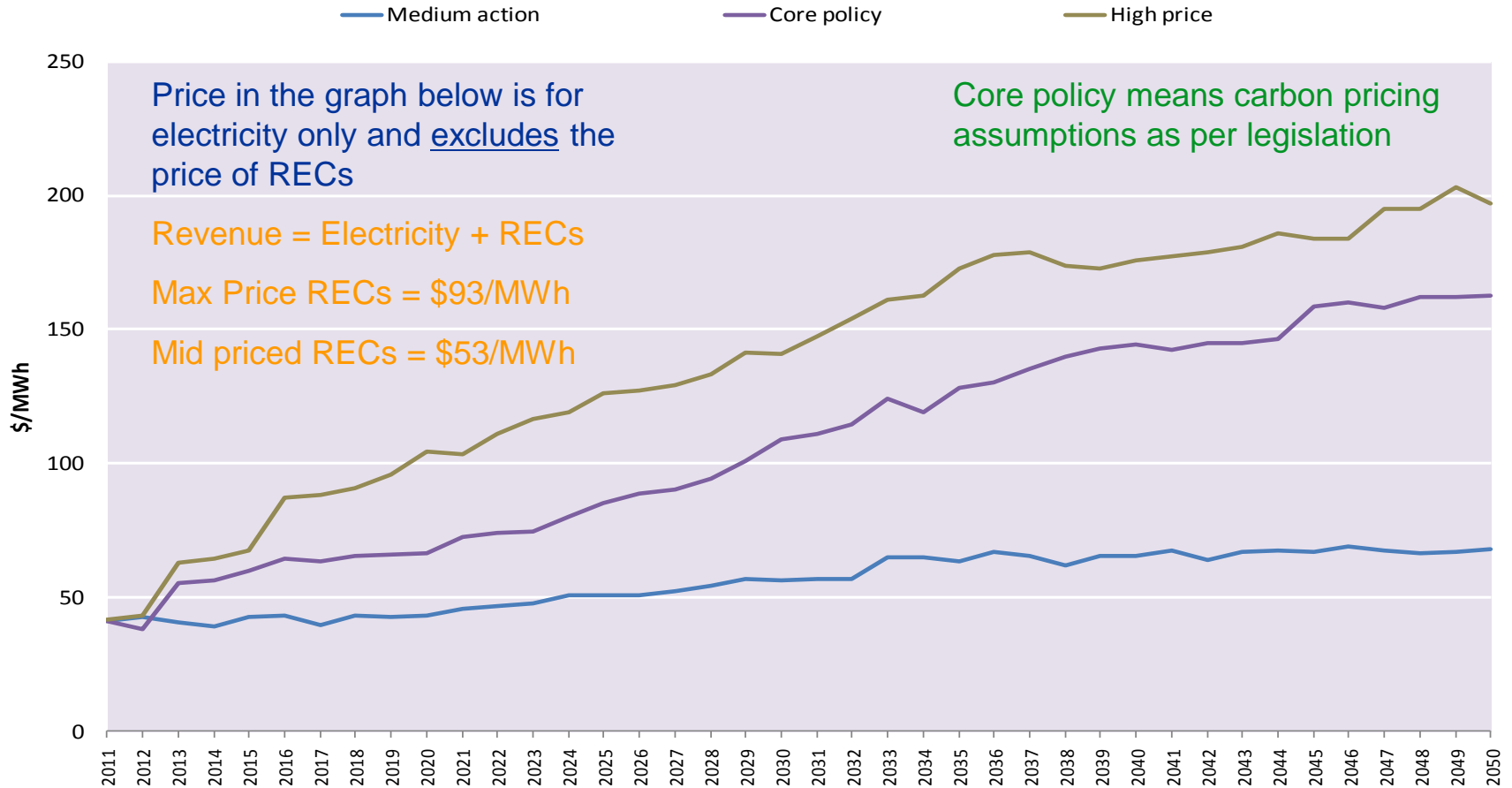


Figure 2.19 Technology ranking, 2030

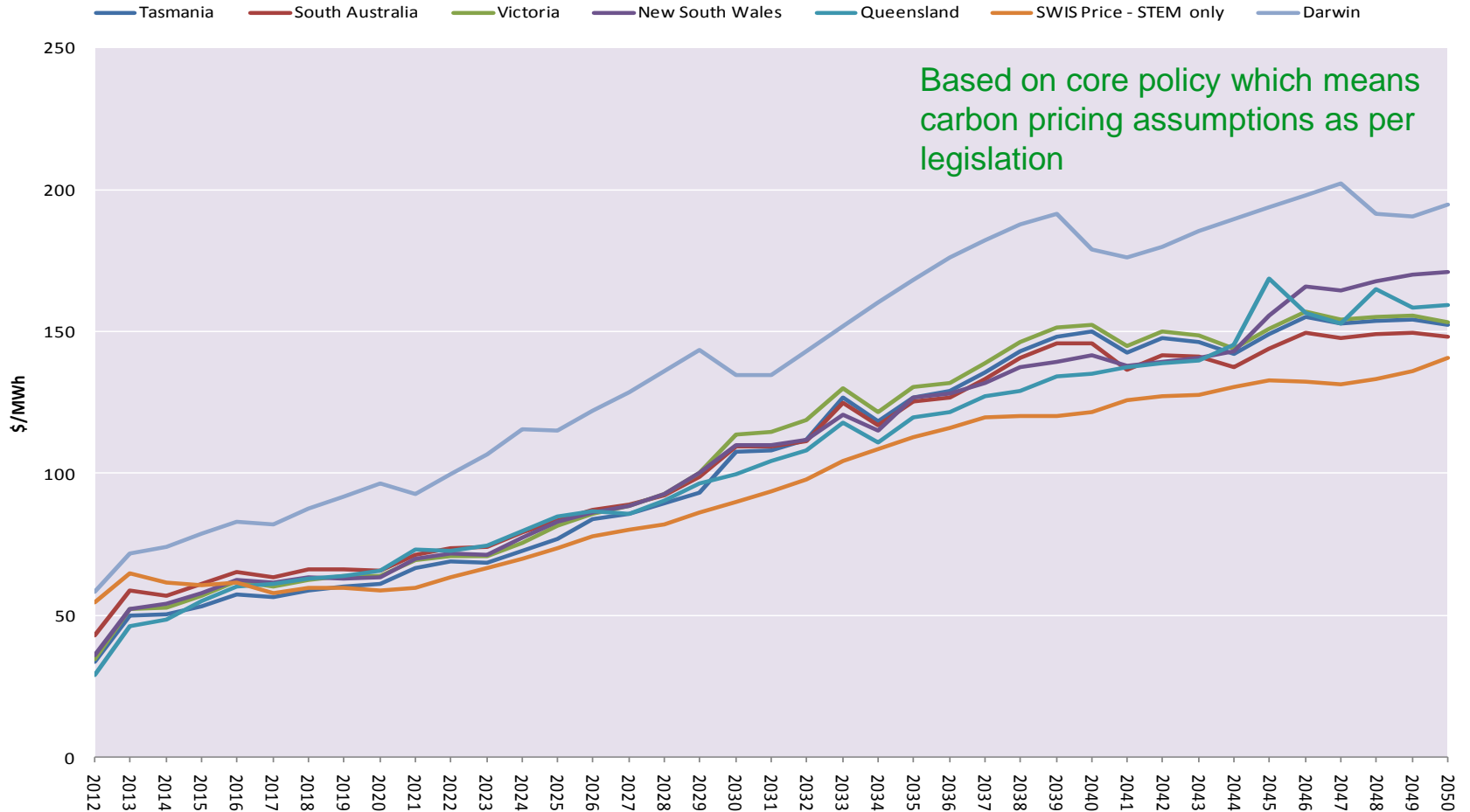
Source: EPRI technology status data, 2010

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.

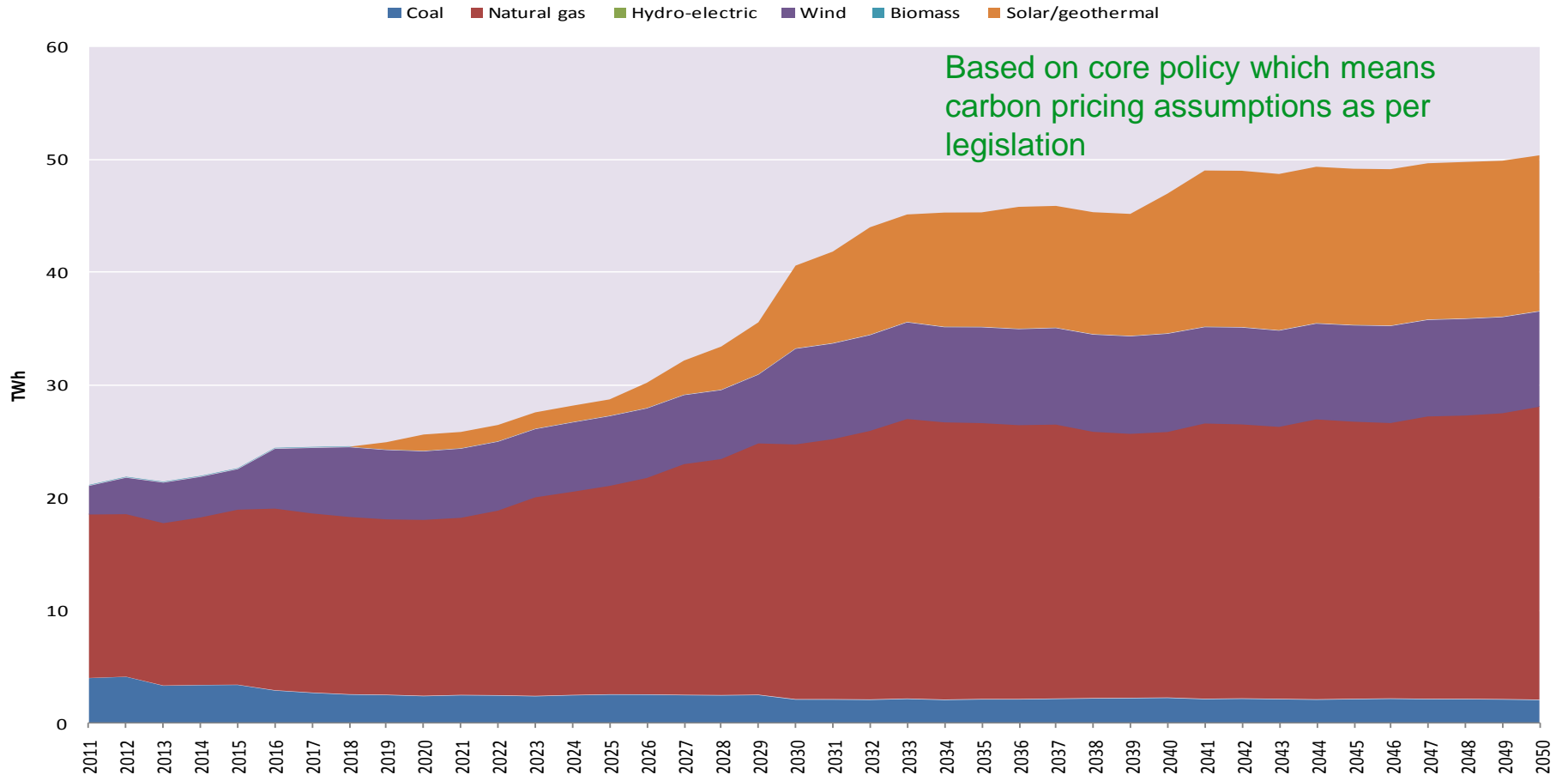
Impact of Carbon pricing – Australian wholesale electricity price (source SKM/MMA)



Impact of Carbon pricing – State wholesale electricity prices (source SKM/MMA)



Impact of Carbon pricing – South Australian power generation mix (source SKM/MMA)



Paralana project – target revenues with electricity and RECs

Off grid market – next five years

- > Aim to match current off-grid pricing in local market over the next 5 years
- > Bundled price for sale of output black and RECs expected to be > \$140/MWh due to current high off grid price at Beverley mine – assumes mid price RECs of \$53/MWh
- > JV retains the full value of black and RECs - no predetermined price - retain full upside
- > Potential for commercial viability at small scale 3.75 MW, 7.5 MW and 30 MW

NEM connected – beyond 2016

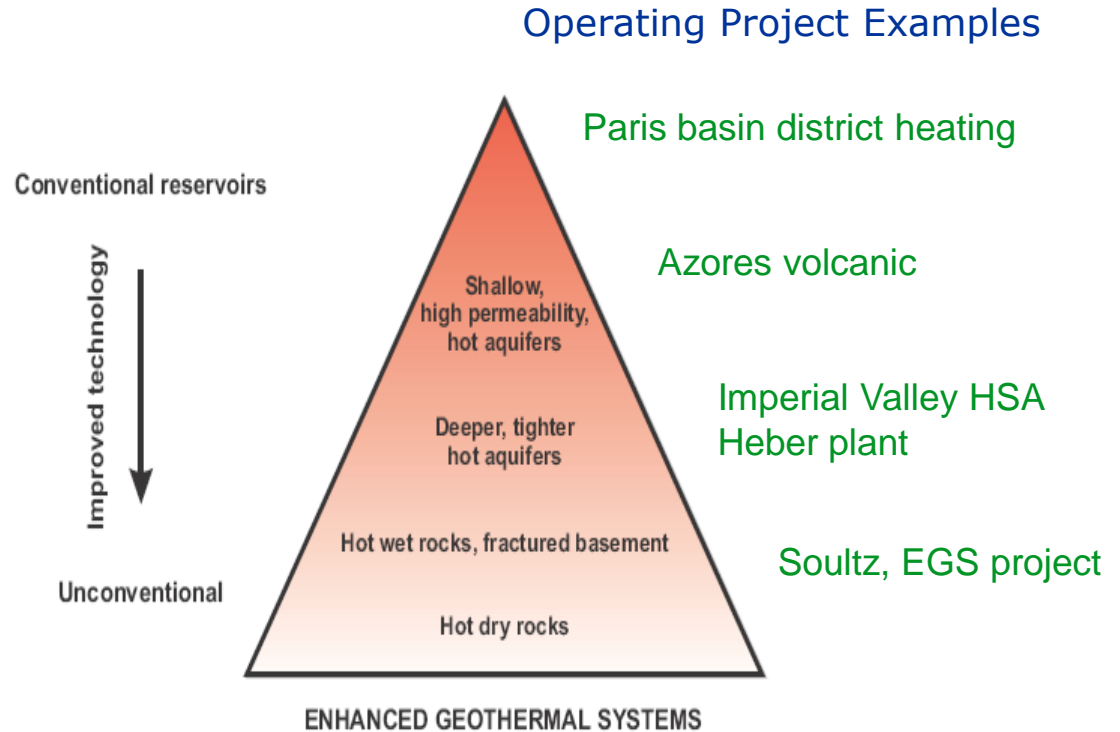
- > Aim for long term price of \$100/MWh delivered to National Electricity Market (NEM)
- > Assuming mid price RECs of \$53/MWh and current wholesale price of electricity in the NEM (refer previous slide) of around \$45/MWh – current opportunity is for \$98/MWh
- > With a carbon price of \$23/tonne of CO₂ the wholesale price of electricity is expected to increase to \$60/MWh by 2016 – making bundled price of over \$110/MWh
- > The actual pricing will be dependent on market trading in Carbon and RECs but provides a strong revenue opportunity for the Paralana geothermal project

*"Project is capable of short term & long term viability
and this is further strengthened by new carbon policy"*

Geothermal energy overview

Key Project Parameters

- > Temperature
- > Drilling depth
- > Flow rate
- > Network connection
- > Generation plant type
- > Market/Customer
- > **Optimization of parameters** to achieve commercial return against competitive alternatives in target market (heat or power)



Each project has specific project parameters that when optimized enable viable operation