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PETRATHERM LIMITED
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Managing Director presents to the Australian Institute of Energy

Petratherm's Managing Director, Mr Terry Kallis, will later today present an update on the Company's activities to the Australian Institute of Energy luncheon being held at Ayers House in Adelaide (refer attached presentation).

As guest speaker, Mr Kallis will provide an overview of the geothermal sector in Australia and the challenges that the industry currently faces. He will also outline the status of Petratherm's flagship Paralana project (located 600 km north of Adelaide) and the Company's new Clean Energy Precinct project, which aims to meet the growing electricity demands of major mining developments in the northwest of South Australia.

Yours faithfully

Terry Kallis
Managing Director

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AIE Presentation

Geothermal Energy

"Challenges and Opportunities"

Terry Kallis

Managing Director, Petratherm Limited

April 2012

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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 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.

Presentation Outline

- Geothermal Energy – Challenges and Opportunities
- Video – "The Paralana Geothermal project story so far"
- Petratherm's new Clean Energy Precinct project

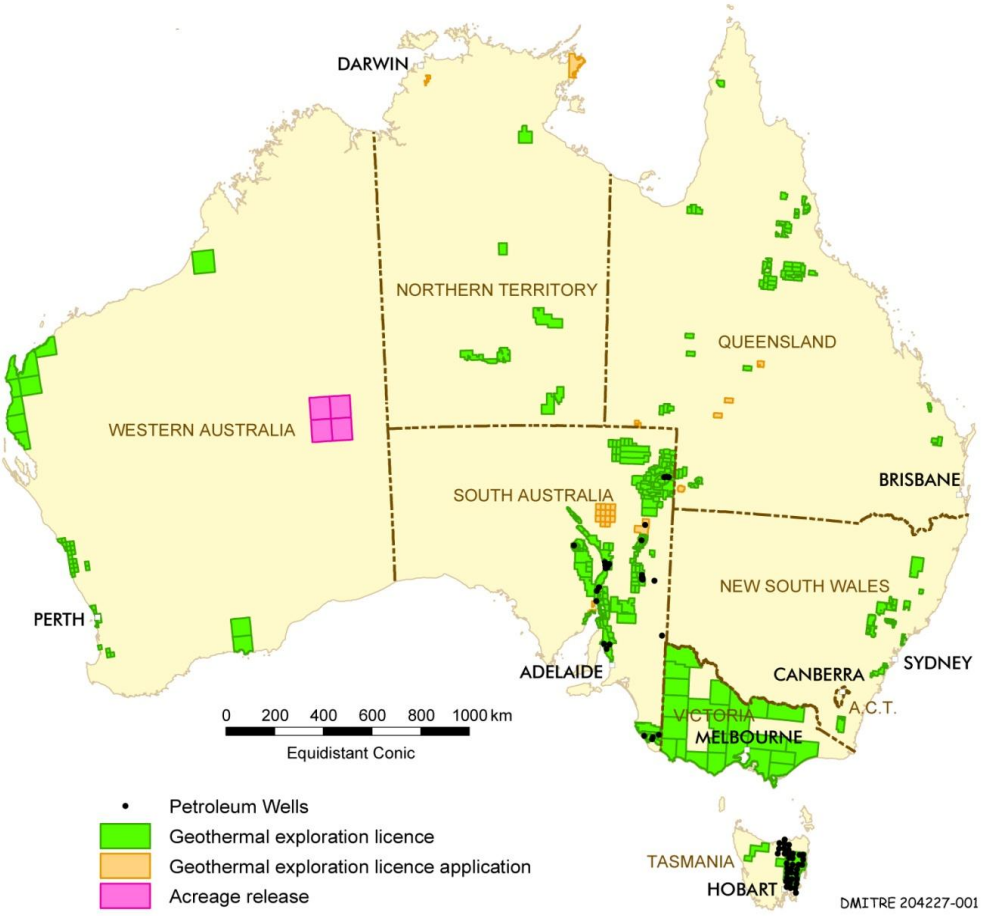
Geothermal Exploration and Potential

Potential to supply 26,000 times Australia's annual power demands

Many players – 10 ASX listed and more than 30 private companies

Most activity and spend in SA – seven deep wells drilled to date

Petratherm's Paralana 2 well successfully – drilled, cased and fracture stimulated



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Energy technologies - Australian Resource Assessment

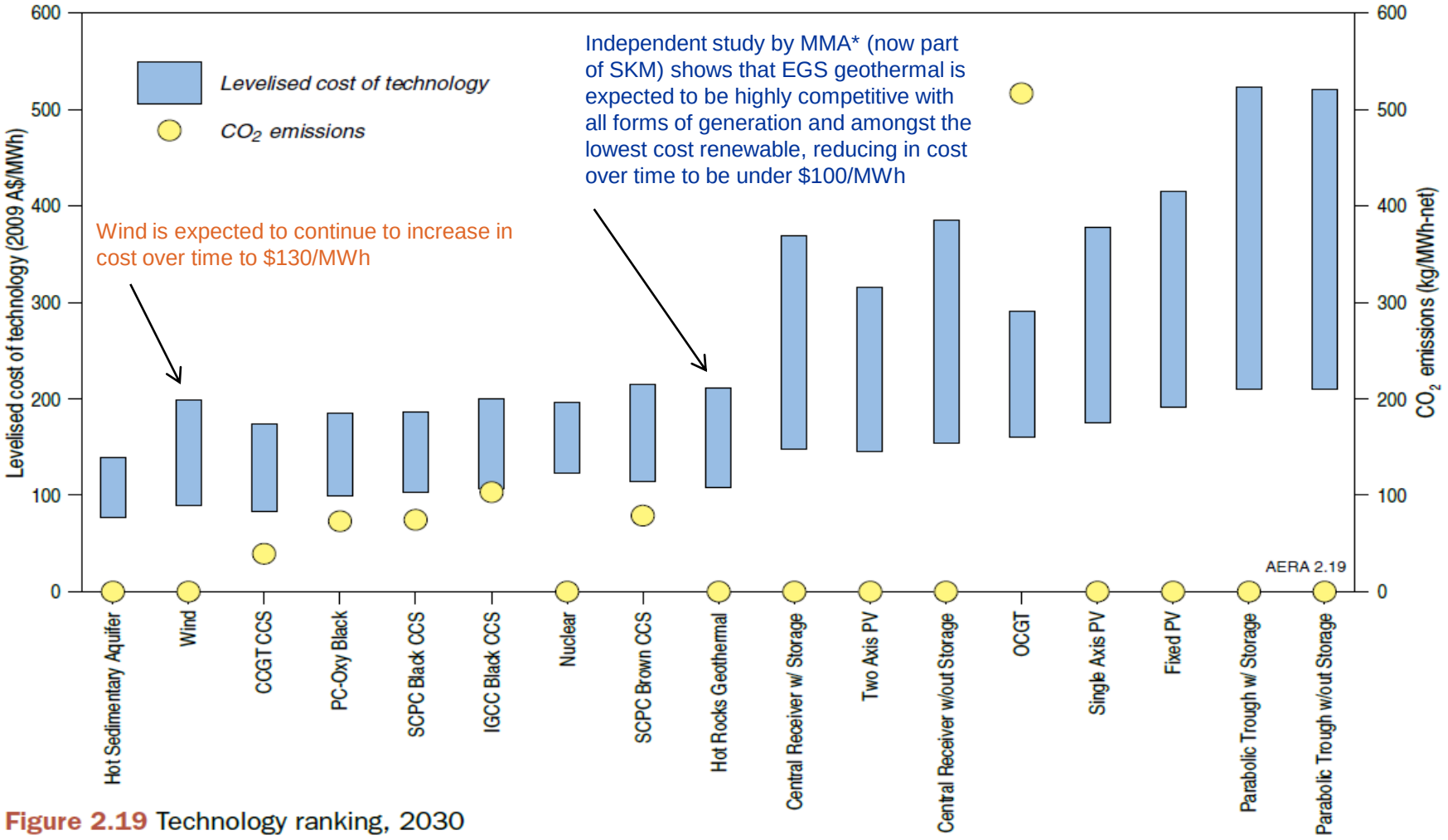
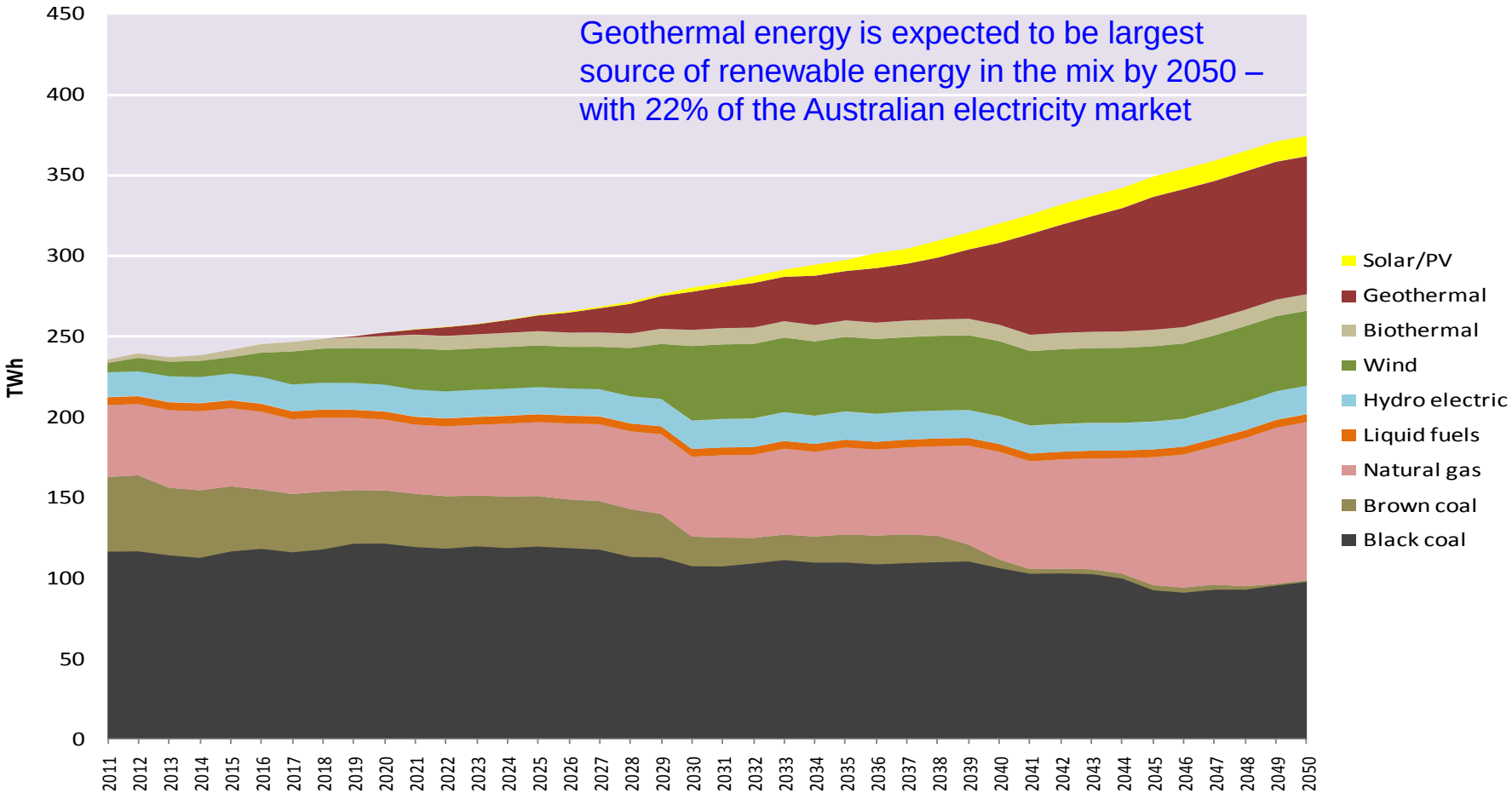


Figure 2.19 Technology ranking, 2030

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 power generation mix (source SKM/MMA)



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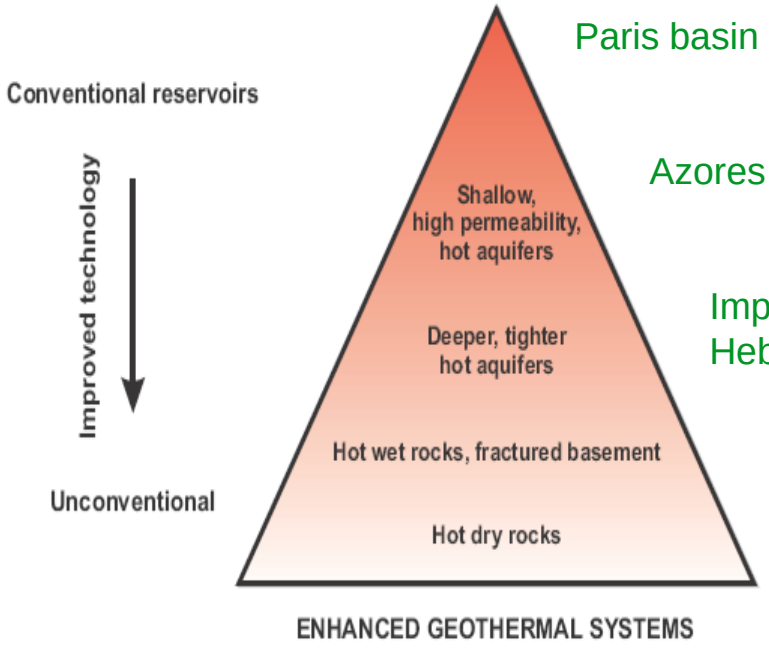
Geothermal energy project parameters

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)

Operating Project Examples



Paris basin district heating

Azores volcanic

Imperial Valley HSA
Heber plant

Soultz, EGS project

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

Key challenges

- Funding
  - Equities market
  - JV partners
  - Government
- Achieving economic flow rates
- Economic delivery to market
  - Power – grid/off grid
  - Heat - proximity to market
- Market and Stakeholder Knowledge
- Industry Structure and Maturity

Key opportunities

- Funding
  - ARENA new government funding - $1.8 billion unallocated grant funds
  - AGEA to seek $500m drilling/subsurface works grant fund
  - Refer AGEA website – www.agea.org.au
- Technology developments
  - Geothermal
  - Oil and Gas
- Economic delivery to market
  - Target off grid markets
  - Combination and integration with other technologies
- Promotion and education – “delivery of results”
- Consolidation, collaboration and differentiation

The Paralana Geothermal Energy Project story to date - video

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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: Petratherm 79%, Beach Energy 21%.

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

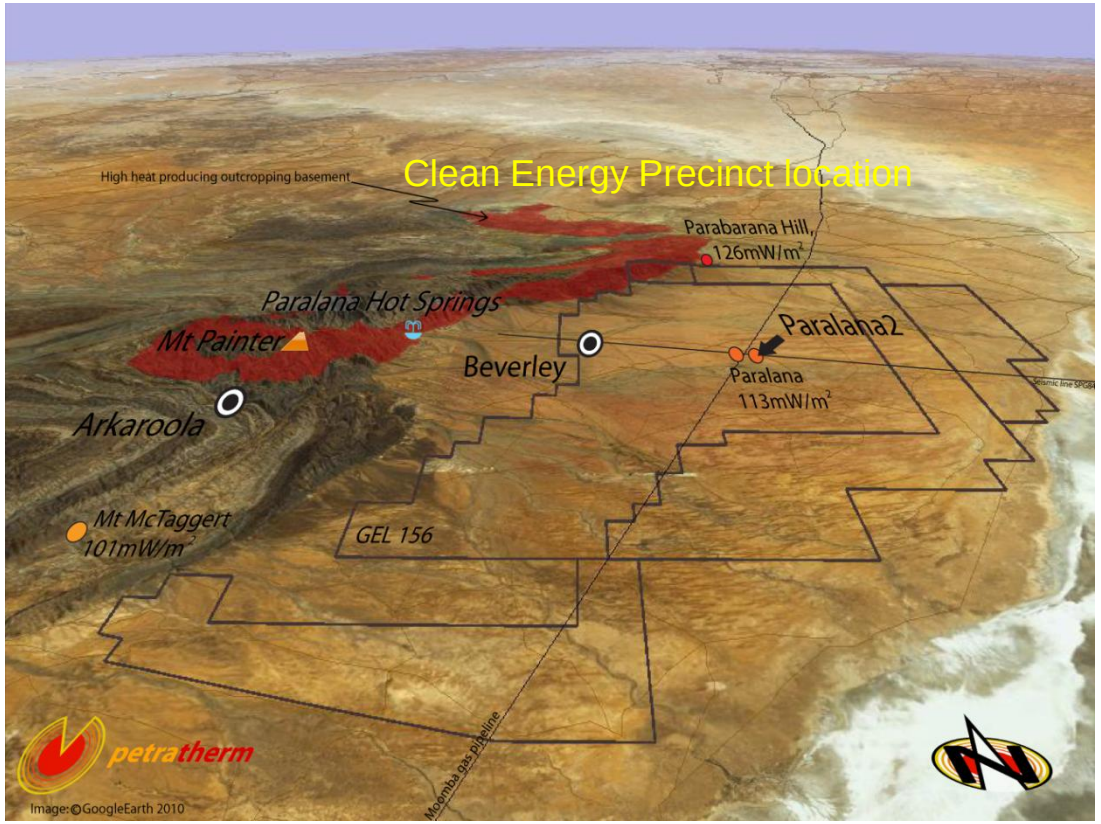
Paralana Resource at the 3500–4000 metre depth interval is estimated a 9,300 PJ_{th} which is sufficient to generate 1,300 MW of electrical power for 30 years

"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 Petratherm 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.

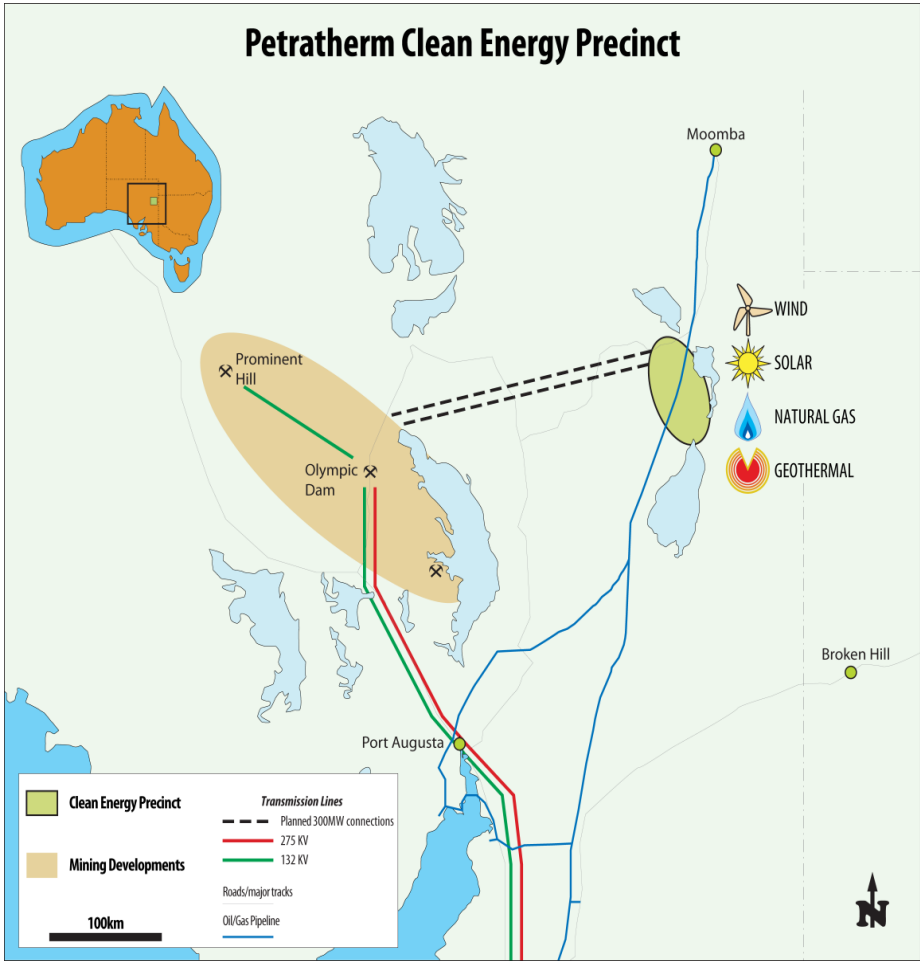
What/where is Petratherm's Clean Energy Precinct ?

- 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



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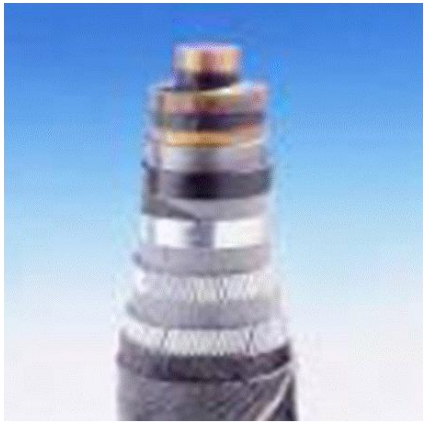
What/where is Petratherm's Clean Energy Precinct ?

- 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



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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)

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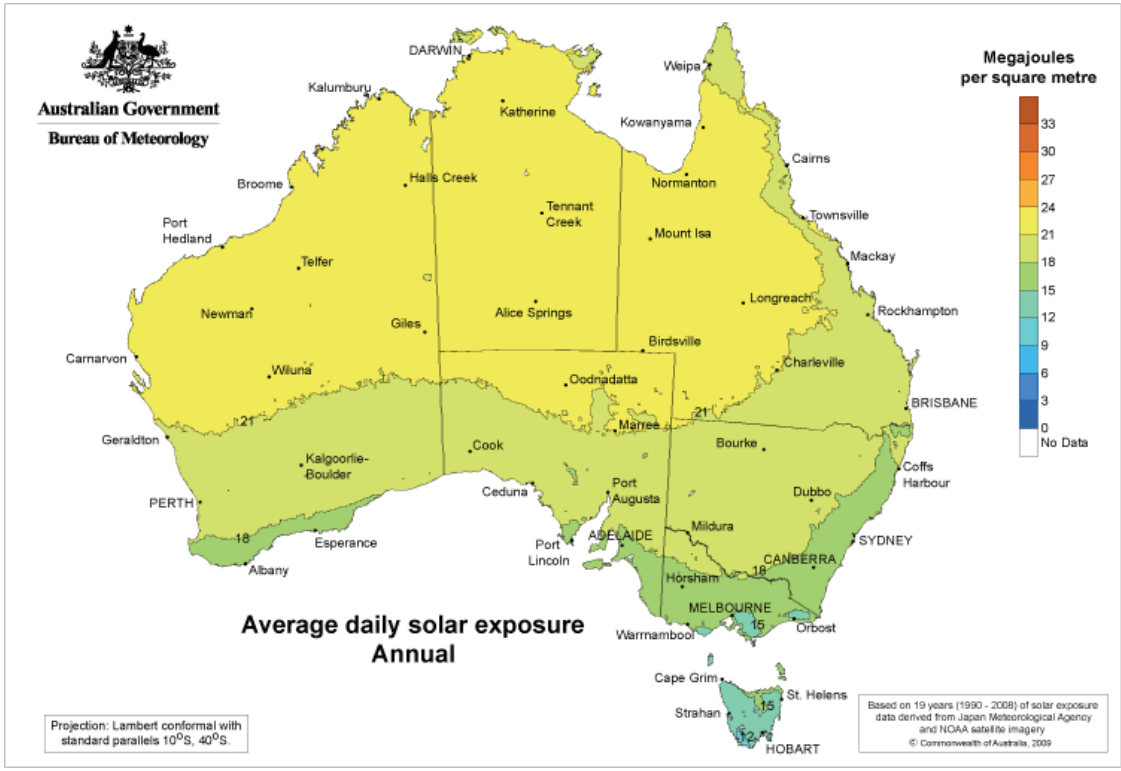
Preliminary resource assessment summary for Precinct

- BOM data suggests solar resource 20 MJ/m²/day or (5kWh/m²/day). GH confirms it as an excellent solar resource[1] ✓
- Expect competitive gas supply contract availability from Moomba producers[2] ✓
- Expect sufficient gas pipeline capacity from MAP[2] ✓
- Wind regime expected to confirm good quality wind resource[1] ✓

(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

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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)

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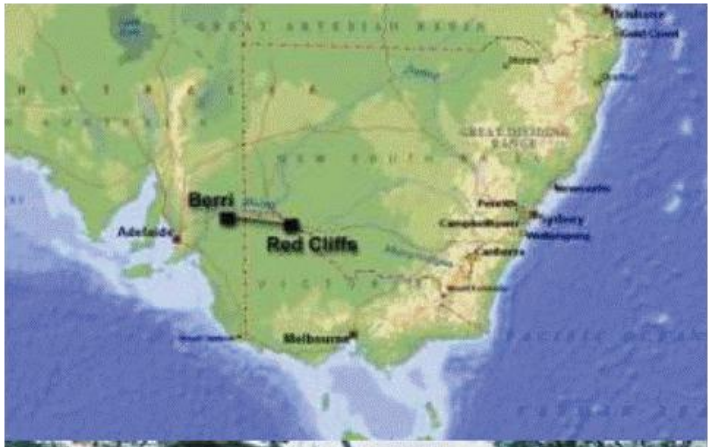
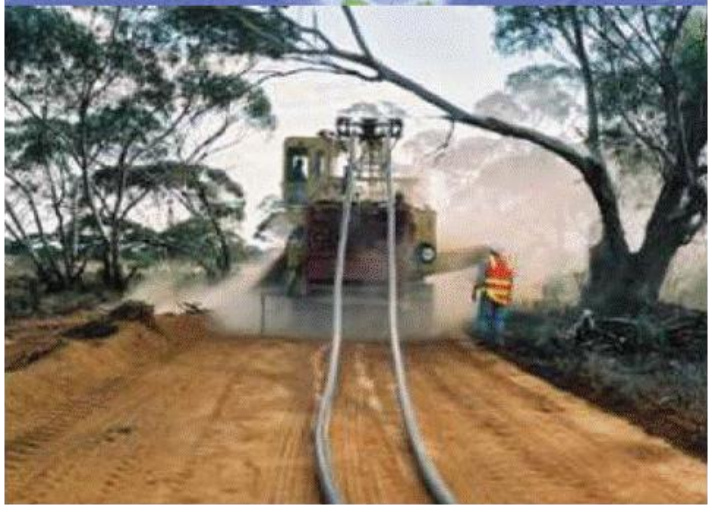
HVDC transmission connection – already connects SA & Vic – *Murraylink 220 MW, 180 kms underground cable*





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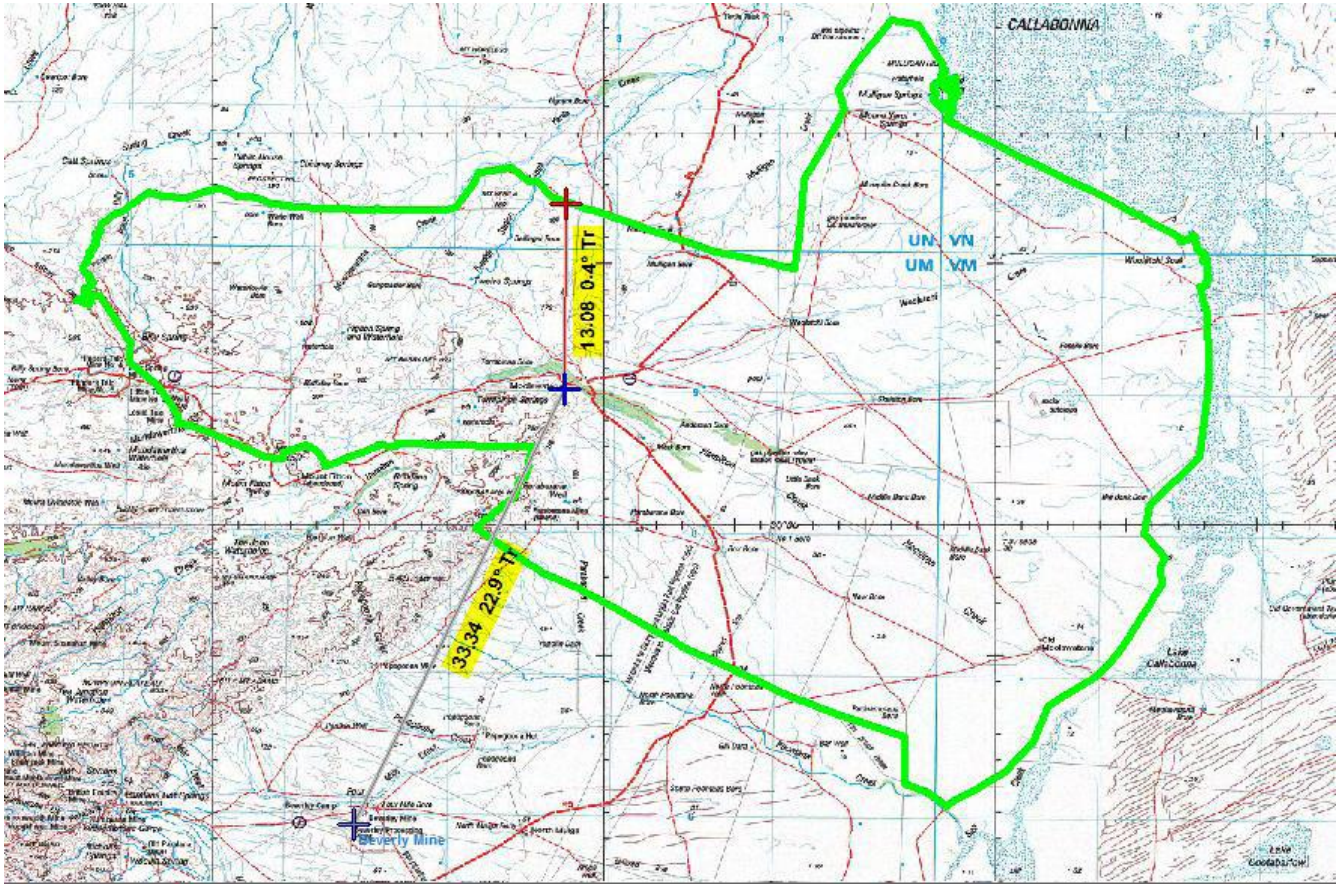
Moolawatana Pastoral Lease – Homestead to Beverley



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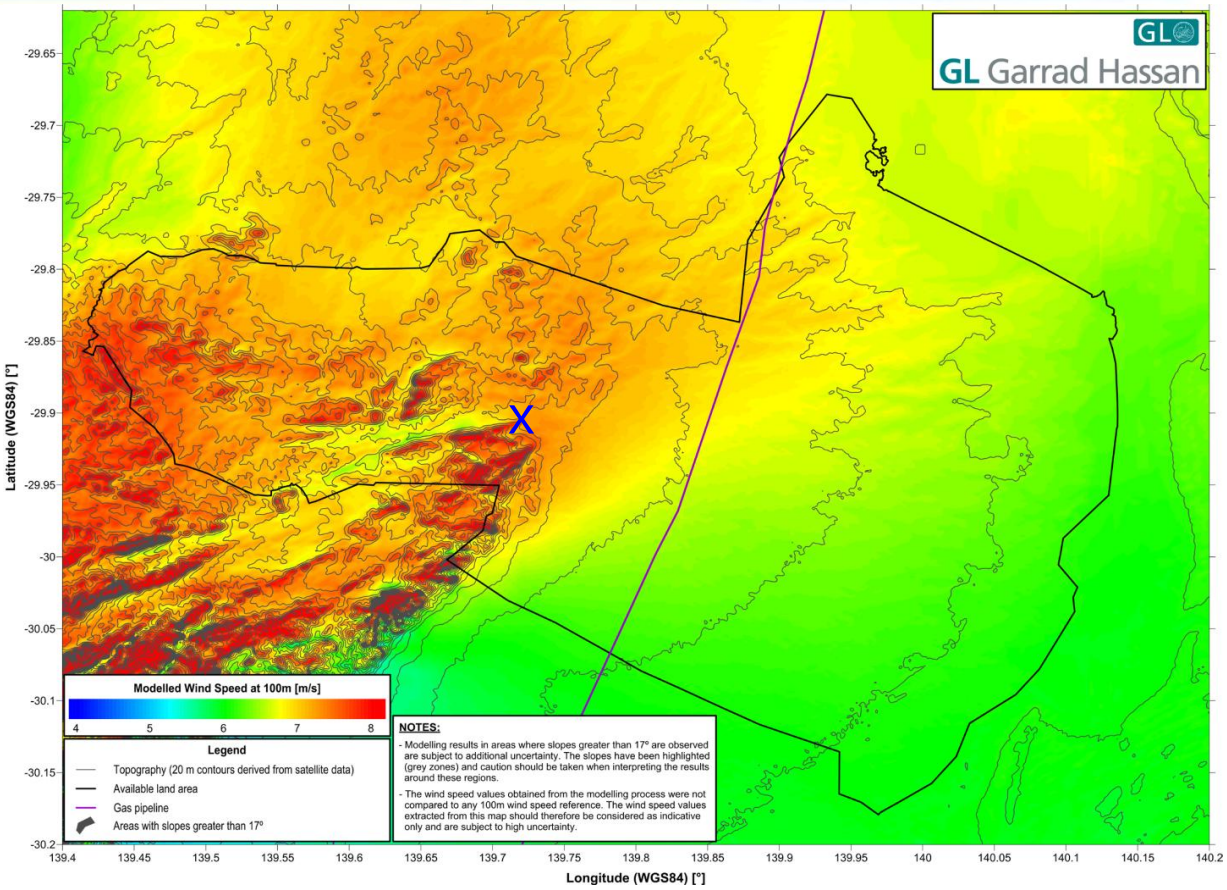
Preliminary Wind Assessment at 100 m hub height

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

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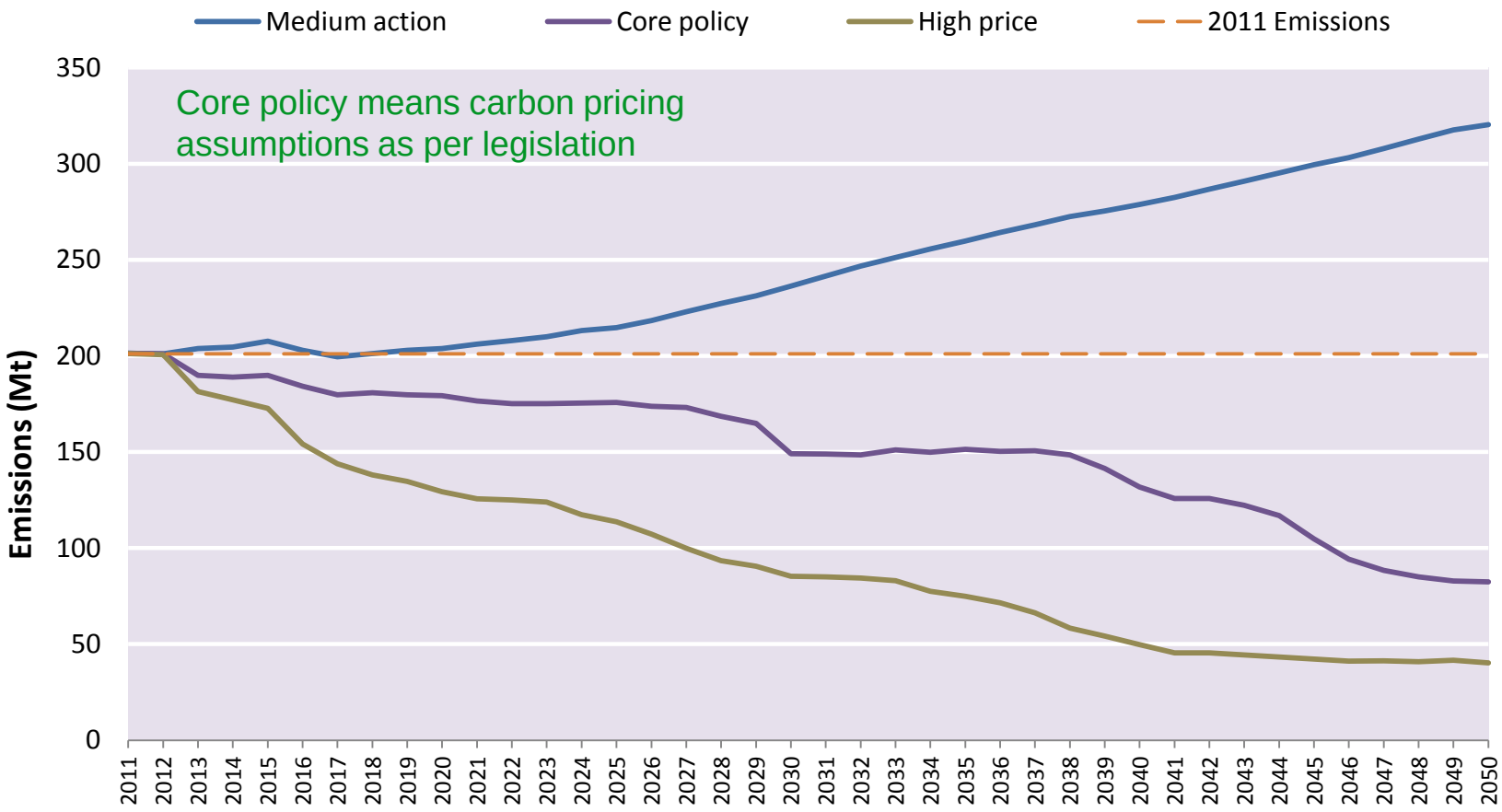
Potential wind farm location areas – north of Homestead

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



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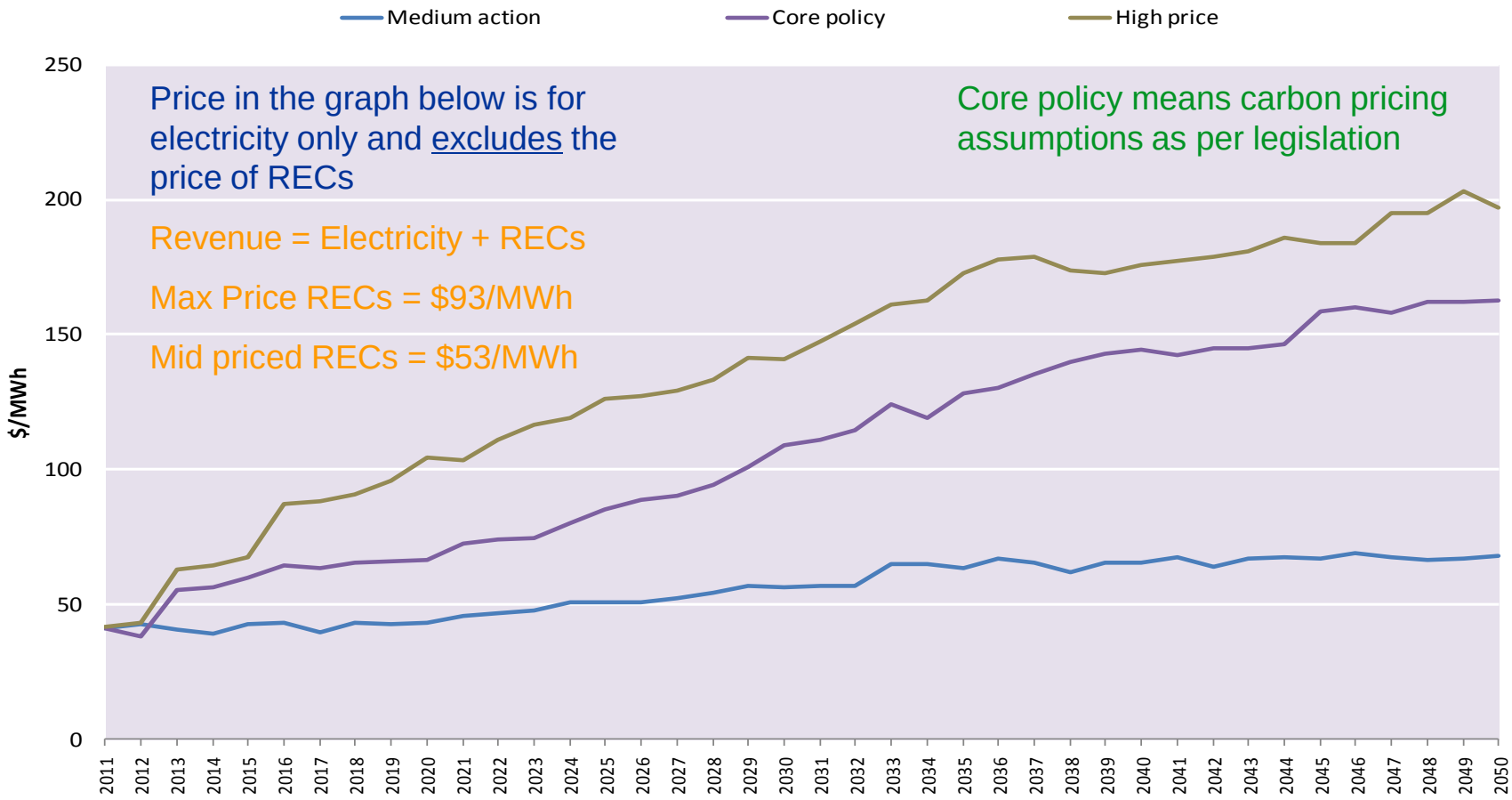
Impact of Carbon pricing – Australian wholesale electricity price (source SKM/MMA)



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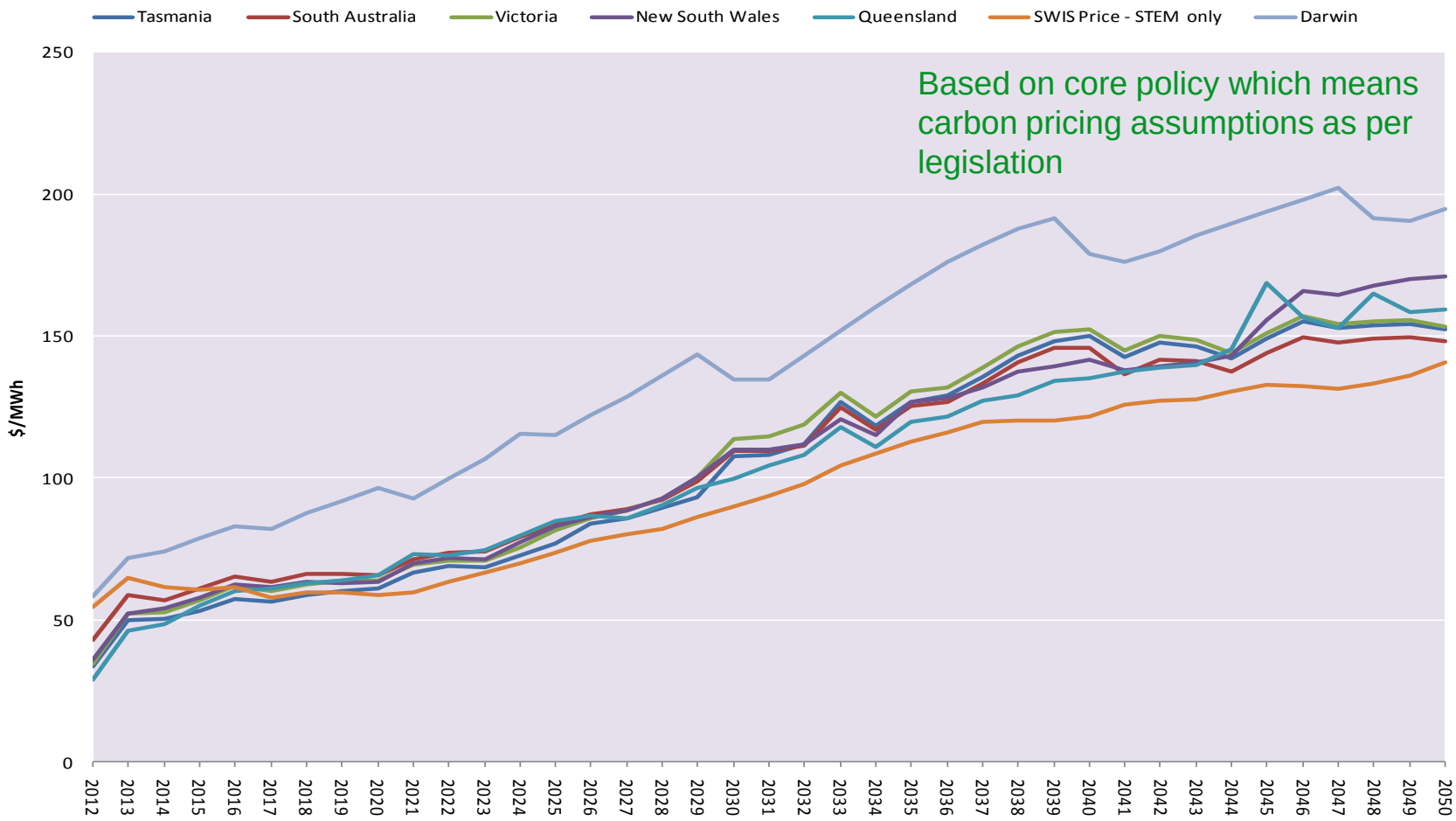
Impact of Carbon pricing – State wholesale electricity prices (source SKM/MMA)



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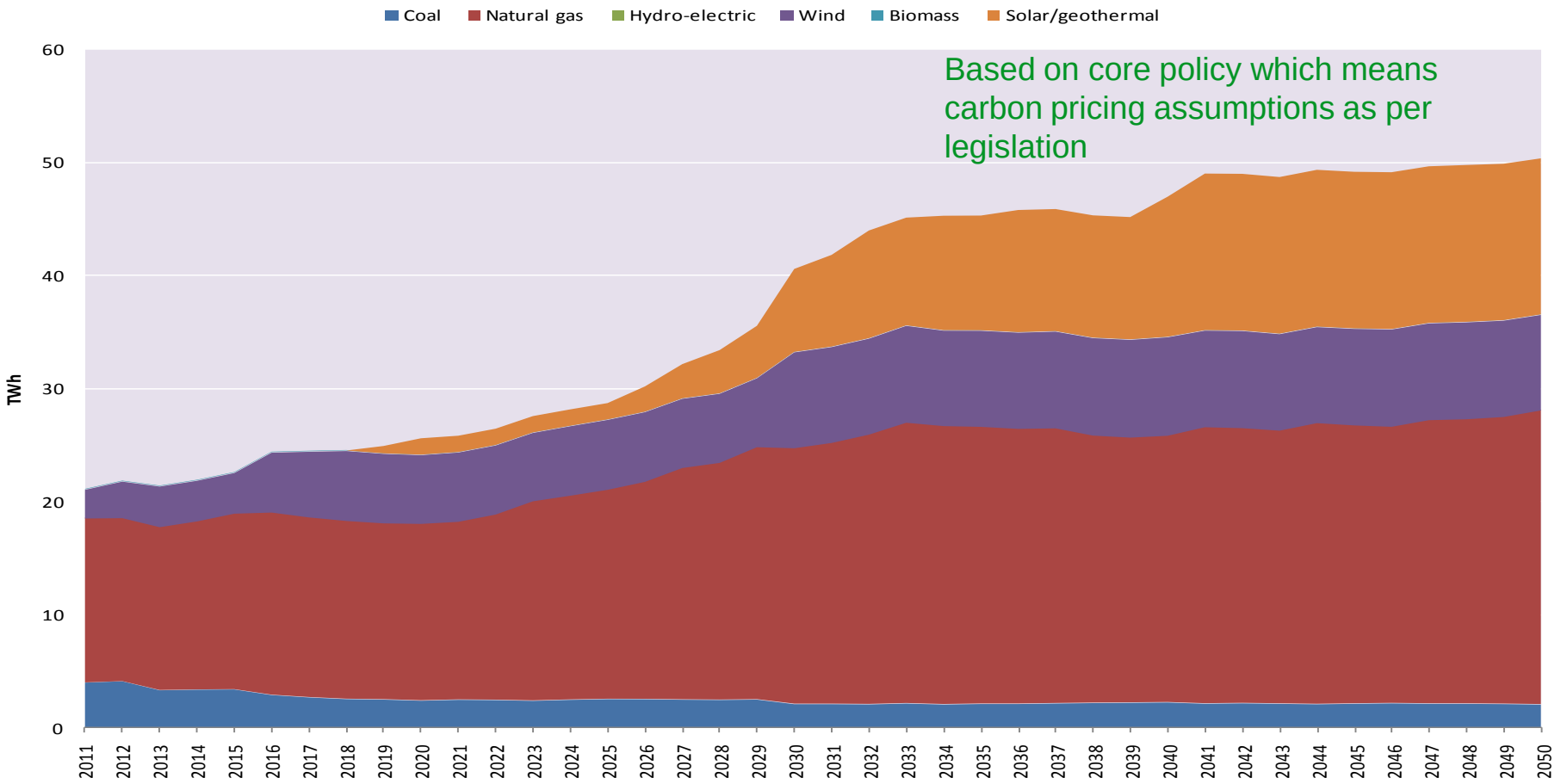
Impact of Carbon pricing – South Australian power generation mix (source SKM/MMA)



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