

APIA Seminar

An Owners Perspective of the Pipeline Industry in WA – Implications of Gas Storage

Perth

24 June 2005

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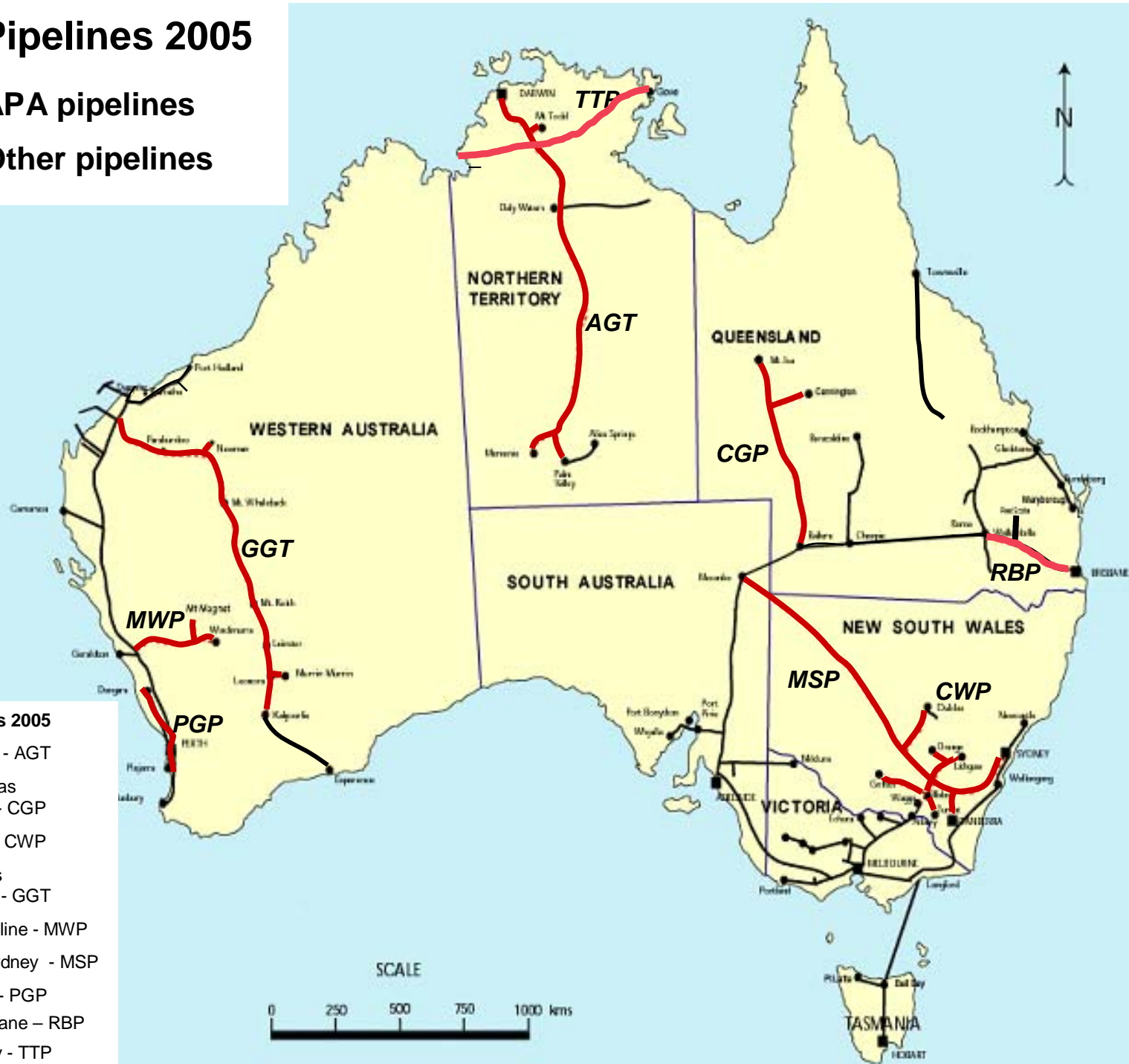
Presentation Summary

- Australian Pipeline Trust in WA
- Goldfields Gas Pipeline
- Parmelia Pipeline
- Mondarra Gas Storage
- APA Strategy and Conclusions



Gas Pipelines 2005

- APA pipelines
- Other pipelines

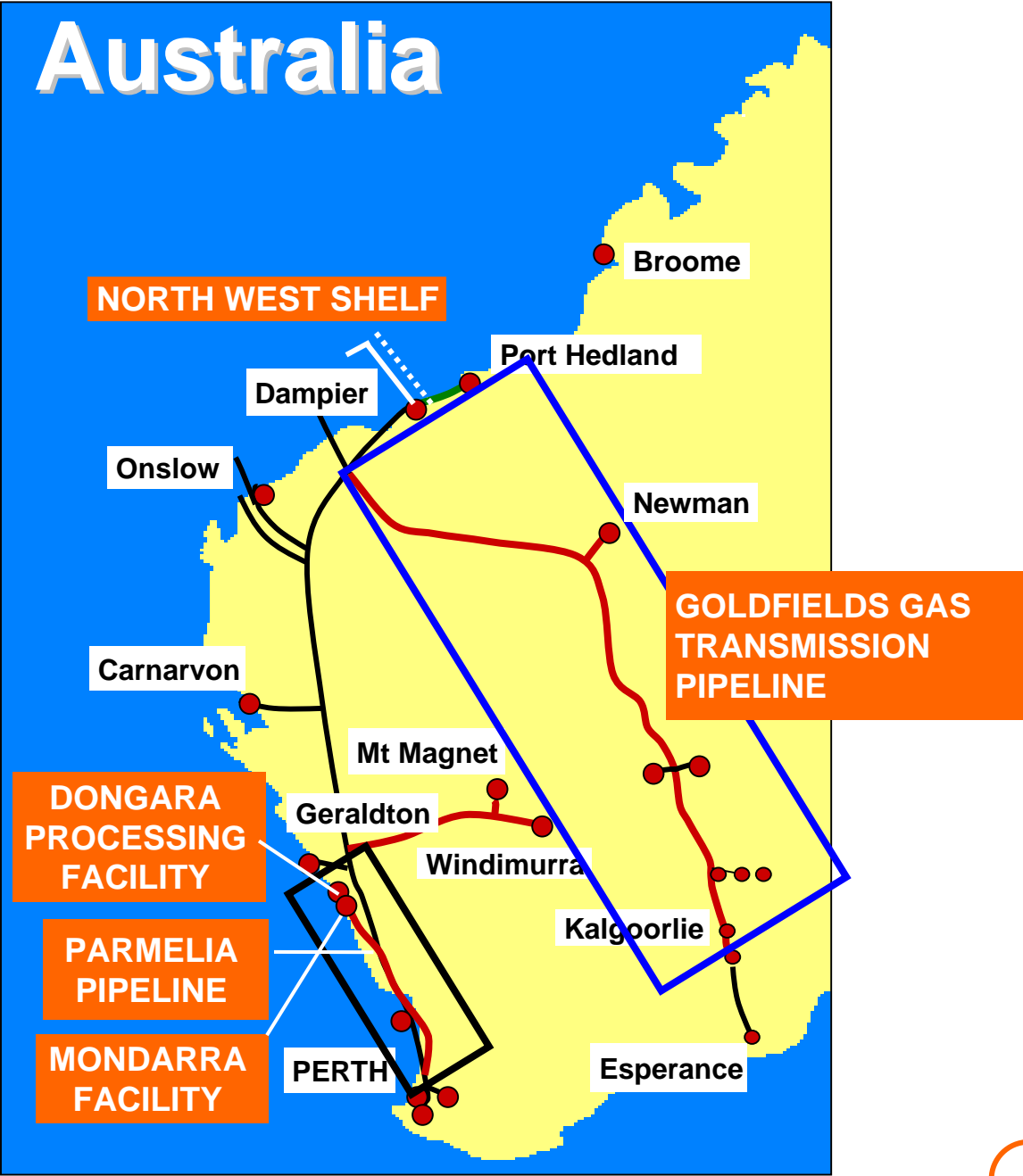


APA Pipelines 2005

- Amadeus Gas - AGT
- Carpentaria Gas Transmission - CGP
- Central West - CWP
- Goldfields Gas Transmission - GGT
- Mid West Pipeline - MWP
- Moomba to Sydney - MSP
- Parmelia Gas - PGP
- Roma to Brisbane – RBP
- Trans Territory - TTP

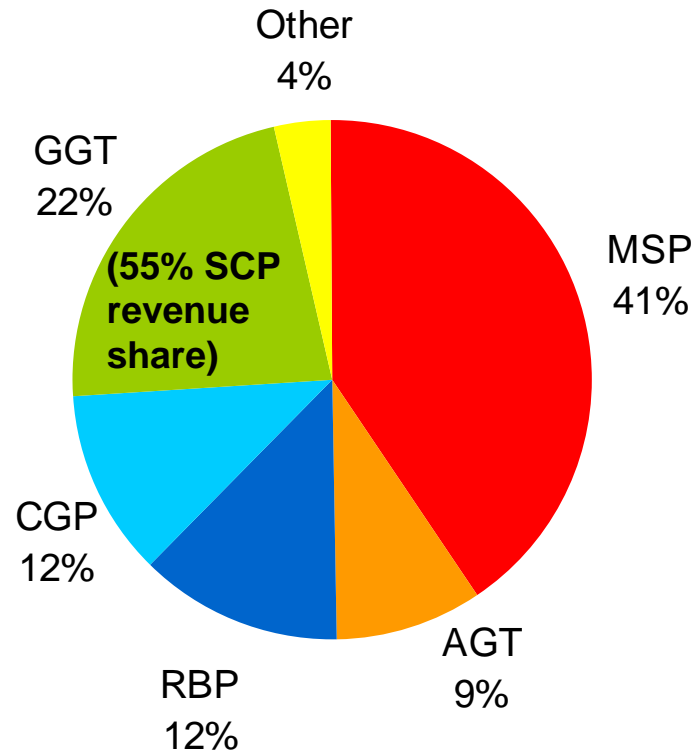
Western

Australia

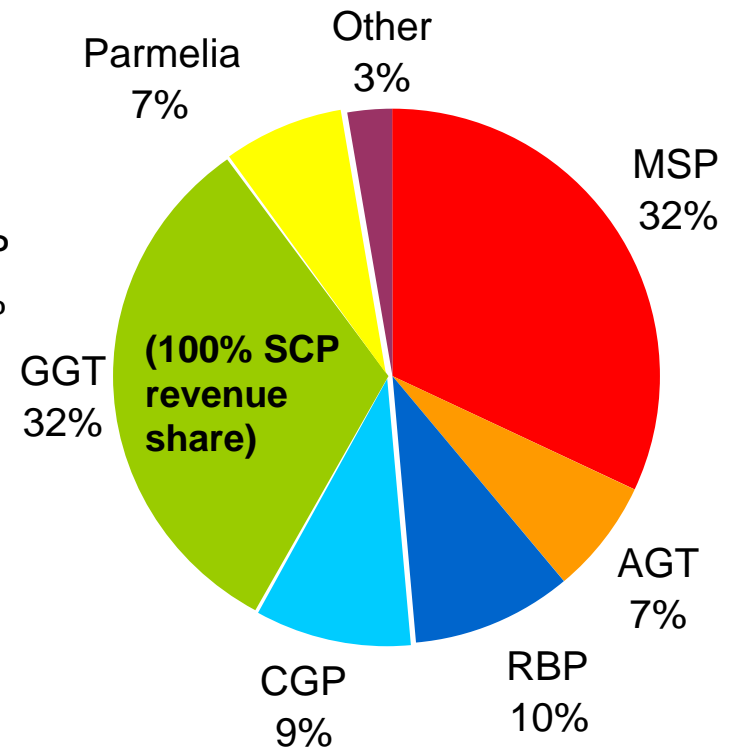


Portfolio Diversification – WA 39%

**APA 2004 Revenues
Pro forma pre-acquisition**



**APA 2004 Revenues
Pro forma post-acquisition**

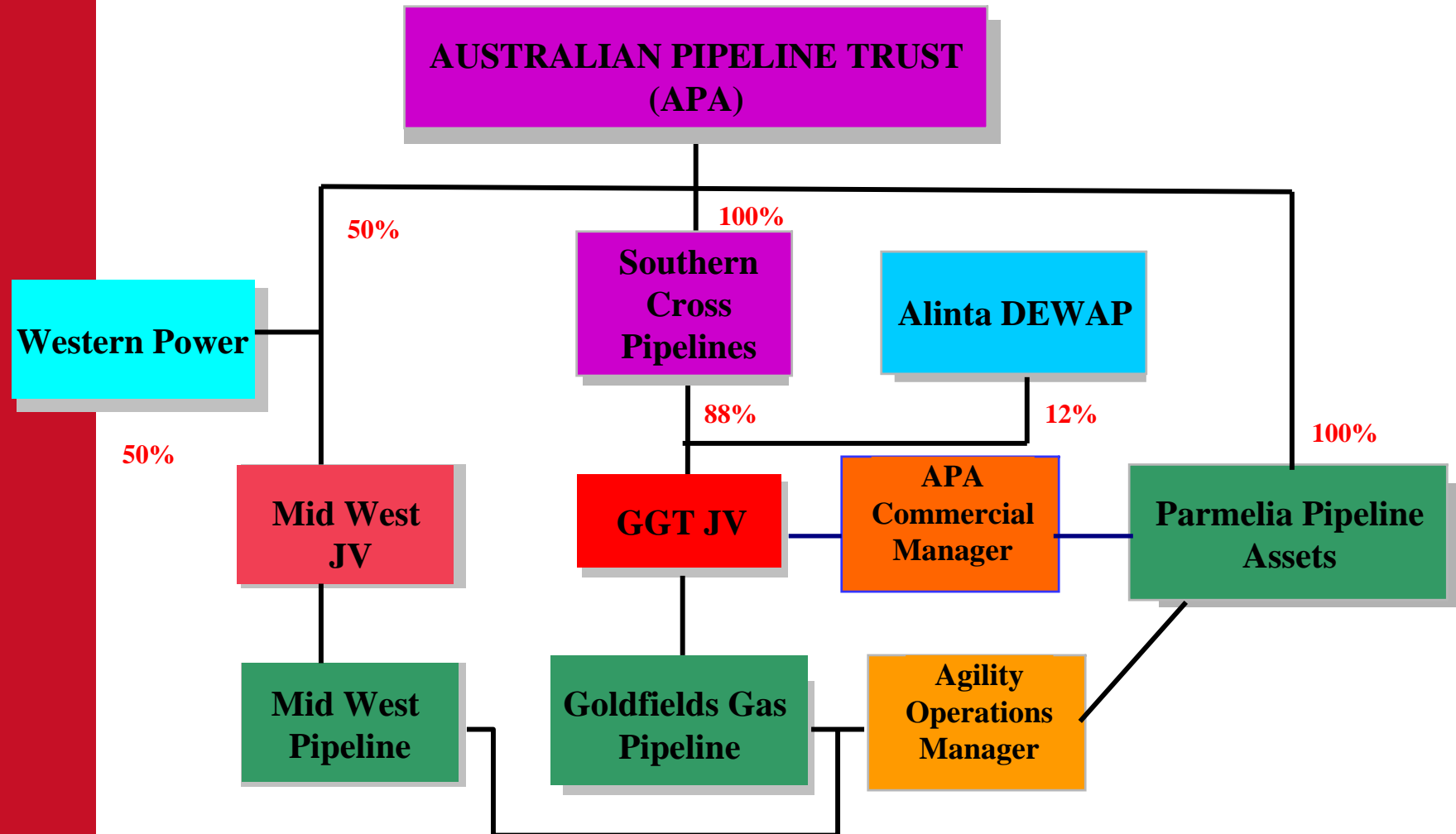


Note: GGT revenues shown on an equity share consolidated basis pre & post acquisition for accurate comparison

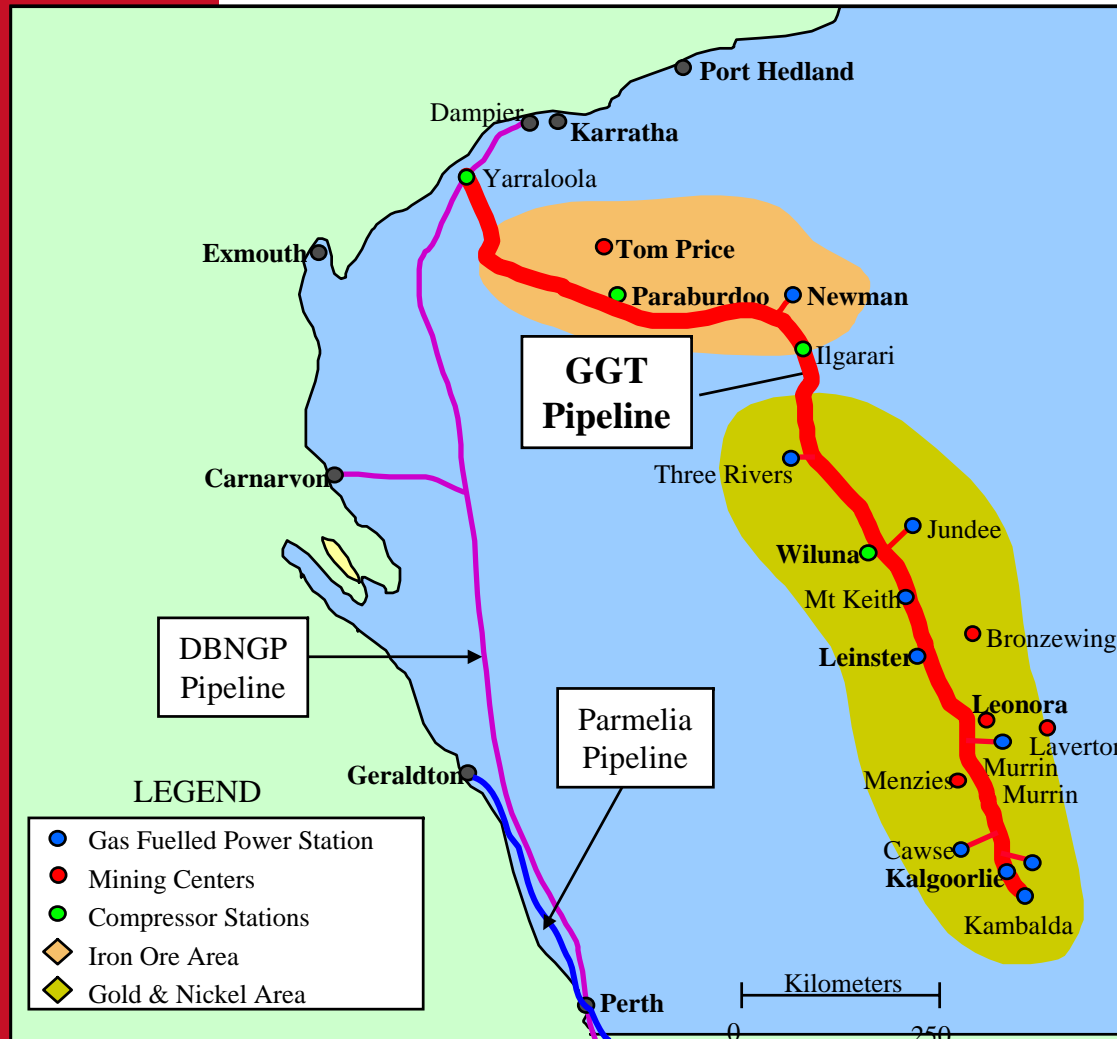
Revenues exclude pass-through revenue

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APA WA Pipeline Ownership



Goldfields Gas Pipeline (GGT)



Key Statistics:

- 1,380 km pipeline (16"-14" dia.)
- Inlet near CS1 on DBNGP
- Capacity
 - Fully compressed: 167 TJ/d
 - Reserved capacity: 100 TJ/d
- Mining customer base
 - Only 10 customers
 - Electricity >90% of gas use
 - WMC (BHP Western Nickel)
 - Newmont
 - BHP
 - Minara

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Goldfields Gas Pipeline

Growth Prospects

■ *Projects under active consideration:*

- Magellan Lead
- Esperance Lateral
- Hamersley Iron Ore at Paraburdoo
- Murrin Murrin Expansion

■ *Spot market development:*

- Arising from potential shortage of gas transportation on DBNGP
- Power generated in Kalgoorlie area to be provided to Perth region



Goldfields Gas Pipeline

Code Process

- 1999: Access Arrangement submitted by GGT
- ERA published Amended Draft Decision in July 2004
- Revised Access Arrangement lodged by GGT in November 2004
- Final decision published 17 May 2005 requiring further revisions
- GGT submitted revised Access Arrangement on 17 June 2005
- ERA required to accept or write own Access Arrangement for GGT
- APA seeks fair regulation and recognition of State Agreement principles established to underwrite pipeline development



Parmelia Pipeline

Experienced Suppliers to SW Market

- 30 years experience, covering whole gas chain: production, transportation, distribution, and supply
- **Highlights:**
 - Commercialisation of Mondarra gas storage facilities
 - New lateral connections to industrial customers and distribution network
 - Generated access to Alinta distribution network, aiding competition



Parmelia Pipeline

Operation Overview

- Capacity of pipeline 70 TJ/d, expandable up to 120 TJ/d
- Pipeline traverses industrial corridors of Perth and Kwinana through to Pinjarra
- Currently connected to major WA gas users
 - Alcoa and Western Power
 - Western Mining
 - BP, TiWest and Hismelt
- Connected to both Perth Basin gas suppliers (who are actively exploring) and the NW Shelf via interconnect with DBNGP
- Competitive service complemented by Mondarra Storage



Parmelia Pipeline

Unprecedented Activity in Perth Basin

- ARC currently involved in an active exploration and drilling program – Dongara # 32, 33, and 34
- Origin / ARC joint venture expected to drill several new wells in the near future e.g. Zyris, Hakia and Corybas gas discovery
- Origin to complete drilling of Tarantula field
- Development of the Roc Oil operated Cliff Heads offshore platform and onshore oil facility
- Empire Oil drilling in the area around Gingin
- Coal Seam Methane (Eneabba Gas and others)?



Parmelia Pipeline

Access into Perth Distribution System

- Parmelia first gas pipeline in WA and sole supplier 1972-1985, discontinued due to commissioning of DBGNP
- First re-connection completed July 2000 into northern distribution network
- Permanent interconnection agreement into southern Perth expected now that the ERA has addressed the contentious issue of who pays for the management of gas of variable heating values
- Enhances security of supply



Parmelia Pipeline

Strong Growth Prospects

■ *Alinta Network Interconnection*

- Alinta Network distributes approximately 30 PJ a year to 400,000 customers
- Parmelia has capability to deliver gas to customers via
 - Interconnection to Perth northern network
 - Proposed interconnection to Perth southern network
- Parmelia brings pipeline on pipeline competition and access to all WA gas producers (including Perth Basin)
- Parmelia also brings the added security of Gas Storage to cater for emergency situations that could effect the supply of gas to domestic customers



Mondarra Gas Storage Facility

Operation Overview

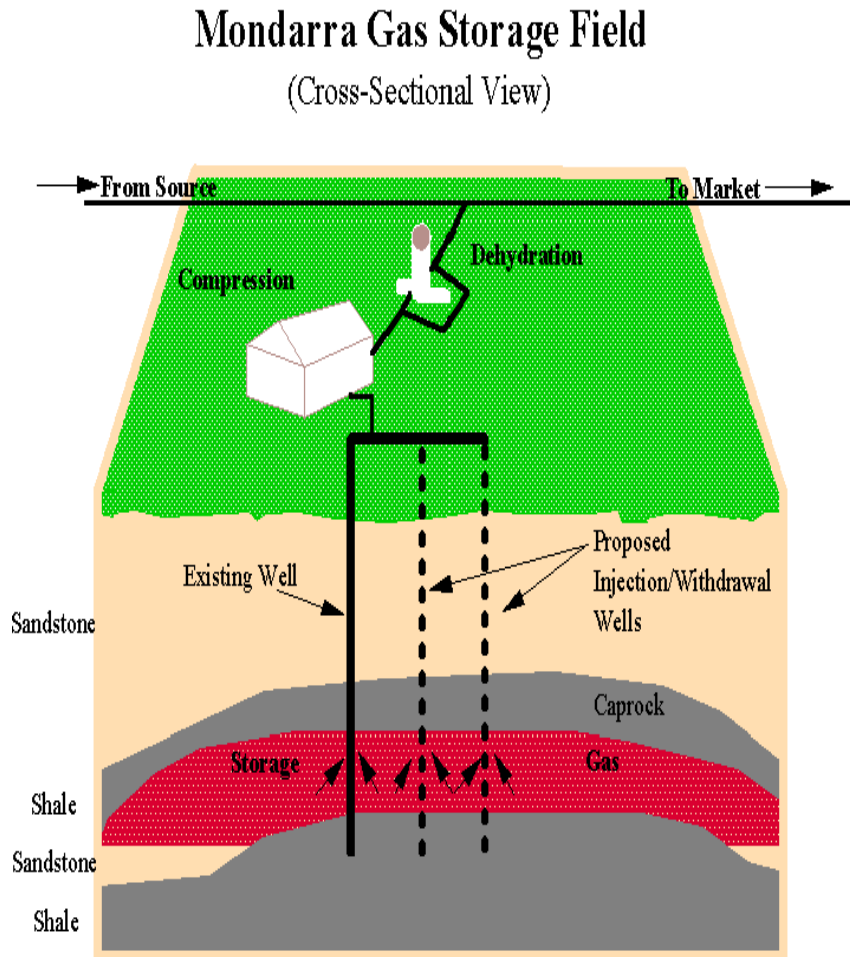
- Since 1996, WA's only natural gas storage facility
- Original reservoir 20 PJ of gas at 2,800m depth and 20 MPa
- Connected to both Parmelia and DBNGP
- Load management and peaking services
- Expected working capacity of between 6-9 PJ
- Emergency gas supply
- Investment (\$20 M) decision on expansion imminent



Mondarra Gas Storage Facility

Current Development

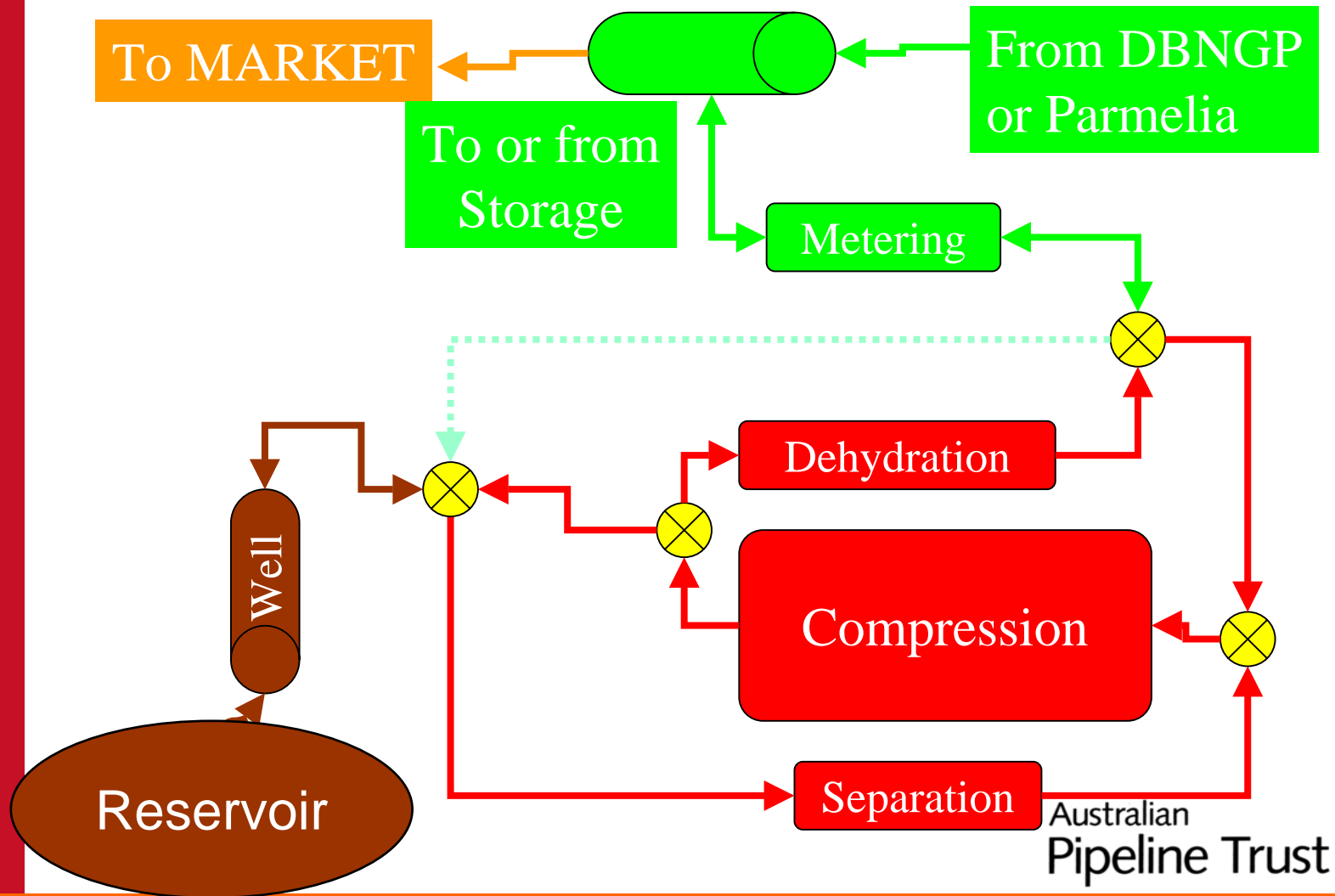
Features



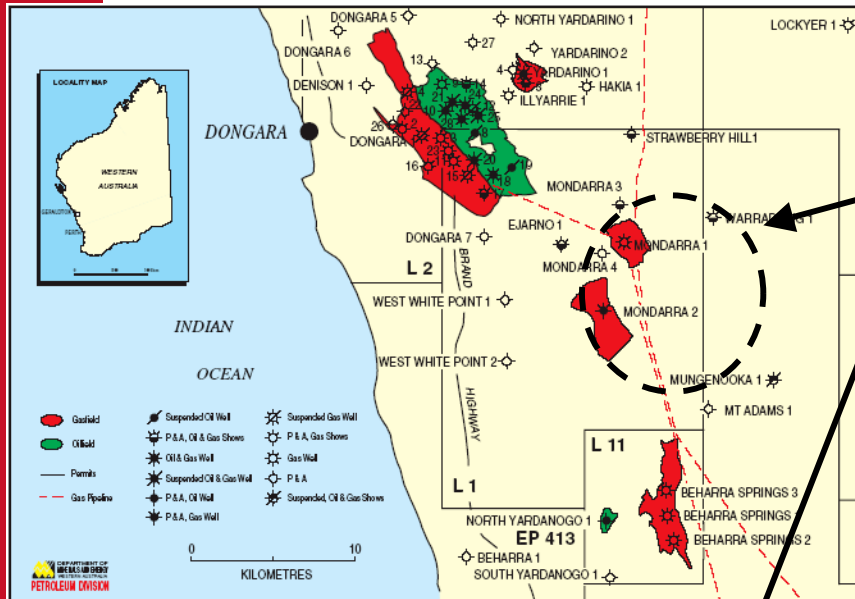
- Tailored to suit customer requirements
- Deliverability: currently up to 10 TJ/d
- Injectivity: currently up to 10 TJ/d
- Further development potential to 150 TJ/d
- Mondarra Junction: by 2005, capacity to increase to 100 TJ/d

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Mondarra Gas Storage - Phase II Development

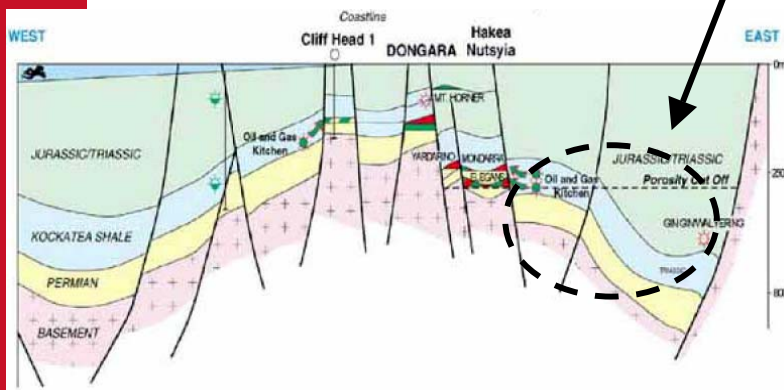


Mondarra Gas Field

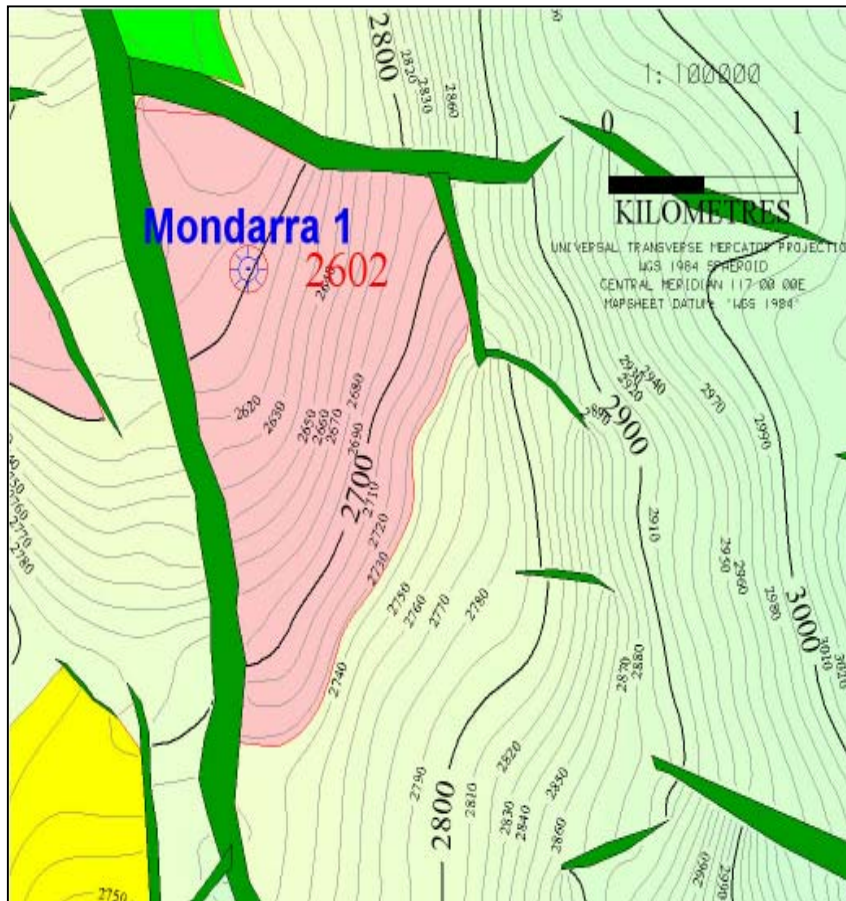


- The Mondarra-1 Gas Field is a well defined reservoir which has good closure on all sides.

- Historic production performance has given a good correlation with mapped size.



Mondarra Gas Field Structure



- The new seismic interpretation places the gas accumulation in a steeply dipping fault-block bounded to the west & north by major normal faults, with Mondarra-1 near the crest and NW limit of the field.
- Uncertainty in the location of the main bounding faults is now considered relatively low, with movement of more than +/- 200m in any direction unlikely.



Mondarra Gas Storage Facility

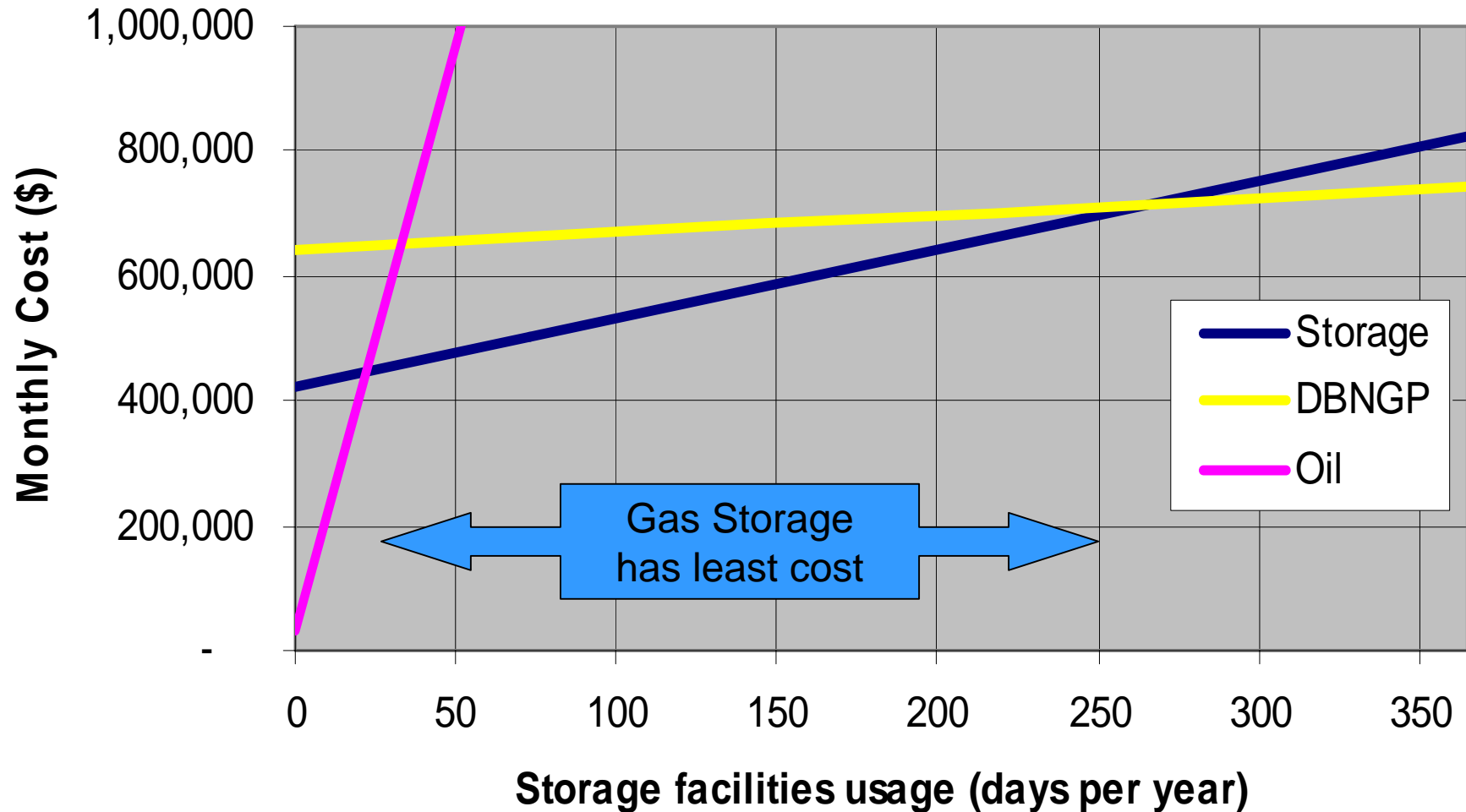
Worked Example – Load Management

- Assume annual average daily capacity of 50 TJ/d (~220 MW)
- Peak daily requirement 60 TJ/d (~260 MW)
- Assume Pipeline Transport tariff of \$1.20 / GJ
- Pipeline Reservation/Commodity split 90%/10%
- Annual Reservation cost = $60,000 \text{ GJ} \times \$1.20 \times 90\% \times 365 = \23.7 Mil
- Annual Commodity cost = $50,000 \text{ GJ} \times \$1.20 \times 10\% \times 365 = \2.2 Mil
- Total Annual cost = \$25.9 Mil
- Operating at 100% load factor = $50,000 \text{ GJ} \times \$1.20 \times 365 = \$21.9 \text{ Mil}$
- Cost benefit for a +/- 10 TJ/d injection / withdrawal storage service
~ **\$4 Million per Year.**



Mondarra Gas Storage Facility

Worked Example – Emergency/Peaking Supply



APA Strategy in WA

Major Player

■ *Gas Transport*

- Expand our business through opportunities that increase utilisation and expansion of our existing pipelines.

■ *Storage*

- Develop and implement opportunities to maximise utilisation of the Mondarra Storage facility as part of the energy equation for the South West of WA.
- APA and Western Power: Storage Optimisation Agreement, assist in meeting peak power generation requirements over summer.
- First stage of Study is complete and investment decision pending.



APA Strategy in WA

Major Player

■ *Gas Processing*

- Explore gas processing opportunities where skid mounted processing plant backed by APA's balance sheet can make projects a reality (e.g. CSM in Queensland).

■ *Power Generation ?*

- Capitalise on the ability of utilising Mondarra Storage and the Parmelia Pipeline's unique load management capabilities to enhance the economics of the development of a Independent Power Plant in the SW of WA.
- Enhance the attractiveness of gas supply from the GGT by facilitating a \$/MWh service to mine operators who are often constrained by access to capital.



Conclusion

- APA is an Australian company, investing in WA for the long term
- Goldfields Pipeline serves a world class minerals province - an important asset
- APA is expecting approval by the ERA of GGT's resubmitted Access Arrangement – keen to get on with running the business
- Parmelia Pipeline faces a difficult battle with DBGNP - fierce competition, but APA is in WA to win business
- Focus on developing Parmelia in conjunction with Mondarra storage into a peak supply pipeline
 - keeping the lights on across Perth in summer!



A large, clear, faceted diamond is the central focus, resting on a vibrant green leaf. The leaf's intricate vein structure is clearly visible, and several small, glistening water droplets are scattered across its surface. The diamond's facets catch the light, creating a shimmering effect. The overall composition is clean and natural, suggesting a connection between nature and high-quality craftsmanship.

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