Dampier Bunbury Pipeline

Natural Gas and its Impact on the South West

South West Focus Conference
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Agenda

- ❖ Uses of Natural Gas in WA
- ❖ Introduction to DBP
- ❖ Development of the DBNGP
- ❖ Development of Gas Supplies
- ❖ Gas into the Future

Natural Gas Use in WA

- Fuel for industry and domestic use – heat, power, steam
- Feedstock for industry – petrochemicals and fertiliser
- Part of balanced energy portfolio with coal, oil, renewables….
- Major end uses
  - Alumina – 40%
  - Other Industrial – 25%
  - Power generation – 20%
  - Retail gas – 15%
- Geographical distribution
  - Pilbara – 12%
  - Mid West – 3%
  - Perth / Kwinana – 50%
  - South West – 35%

Dampier Bunbury Pipeline (DBP)

- Owner and operator of the DBNGP
  - Alinta Asset Management Pty Ltd appointed as asset manager
- 9 staff
- Ring fenced from any Shipper entity
- Commercial management (Shipper & other service contracts)
- Regulatory management
- Corporate governance
- Financial management

Alinta Asset Management

- Contract with DBP (Operating Services Agreement)
- Physical operation of pipeline (Control Centre)
- Field maintenance
- Engineering design and technical advice
- Construction management
- Back office

DBNGP Evolution

- 1984 – Built by SECWA – vertically & horizontally integrated gas and electricity utility
- 1995 – SECWA split – Transferred to AlintaGas – vertically integrated gas utility
- 1998 – Sold to Epic Energy – owner & operator of pipelines
- 2004 – Sold to Dampier Bunbury Pipeline, DBP (DUET 60%, Alcoa 20%, Alinta 20%) – owner of pipelines with operations contracted to Alinta Asset Management

DBNGP Access

- Standard Shipper Contract
  - Negotiated service and tariff outside of regulatory framework
  - T1 Service (>=98% available)
  - Rights to require expansion on same terms
  - Tariff ~$1.25/GJ + adjustment for expansion costs
    - escalated at CPI to 2011;
    - then CPI-2.5% to 2016;
    - from 2016, tariff is Reference Tariff for nearest equivalent firm service
- Part Haul and Back Haul on equivalent terms but tariff is distance pro-rated to 1400km
- Special services – peaking, LPG transportation, data services, blending services, park & loan services
- Reference Service determined by ERA – no capacity available

Dampier Bunbury Pipeline

DBNGP Expansion

- Early expansions (up to Stage 3A - 1999) by adding compression only

- Stage 4 Expansion 2005/6 added compression and 217km of “looping” (duplication of the pipeline to relieve pressure bottlenecks)
  - Approx 100TJ/day (~15% capacity increase)
  - $430 million
  - Completed on time and budget

- Stage 5A commenced March 2007 adding 570km looping and upgrading compressors
  - Approx 100TJ/day
  - $650 million

- Stage 5A2 scheduled for mid 2008 adding ~140km looping
  - Approx 40TJ/day

DBNGP Expansions / Extensions

- ❖ Looking for opportunities to extend geographical reach
- ❖ Laterals to specific projects / sites
- ❖ Expansion / extension only for unconditional executed contracts
- ❖ Expansion /extension must be commercially viable
- ❖ Extension to Albany?
  - – White Paper in 2000
  - – Not commercial feasible
  - – Load about half what would be required
  - – Needs state / local support to take risk on growth

Gas Supplies

- Original supplies from North Perth Basin
  - Dongarra to Pinjarra
  - Now largely depleted
- Mid 1980's North West Shelf Gas project
  - Underpinned by domestic gas – SECWA and Alcoa
  - LNG export is now dominant part of business
- Other Carnarvon Basin suppliers smaller scale
  - Varanus Is joint ventures (Apache operated)
  - Tubridgi / Griffin (BHP Billiton Petroleum operated)
- Current reserves fully contracted

New Gas Supplies

- South Perth Basin (Whicher Range) unsuccessful to date
  - Needs technological breakthrough
- Carnarvon Basin (Gorgon, Pluto, etc) focussing on large developments for LNG
- Coal seam gas in South West at early stage of development
- Initiatives / incentives needed to encourage small field development for domestic market
  - Government reservations policy
  - Tax / royalty structures
  - Review of joint marketing arrangements
  - Review of Retention Lease conditions
  - Third party access arrangements for gathering and processing facilities
  - Improved government development approvals processes

Gas into the Future

- Continuing development in South West
- Gas is necessary part of balanced energy portfolio
- New delivery technologies being developed
  - Mini-LNG
  - CNG
- Evolving field development technologies
  - Improved seismic data gathering
  - More accurate directional drilling
  - Structure fracturing techniques
- Improved processing
  - Geosequestration of waste gases, especially CO_2

Conclusion

- DBNGP is being expanded to meet demand growth
- New delivery technologies will provide opportunities to extend the reach of gas even where pipelines are uneconomic
- Gas supply options are being developed – but more focus is needed
- Natural gas is an essential part of balanced energy mix for the South West