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Valuation issues

Presentation to Commerce Commission Gas Control Inquiry

1 September 2003

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Overview

- Appropriate valuation approach for gas pipeline business assets
- Valuation date issues
- The valuation of easements
- Optimisation treatment

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Valuation of gas pipeline business assets

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Preferred Valuation Approach

- Replacement cost approaches - ODRC - most appropriate
- With the proviso that the asset base reflects:
  - network fixed assets – including easements
  - network related working capital
  - intangibles - e.g. customer base
- DRAFT Gas ODV manual does not specify asset base in this way.

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ODRC

- Proxy for cost to a new entrant of replicating service potential of the fixed assets
- Cost to a new entrant will actually be ORC - not ODRC
- Depreciation approach must be consistent with remaining life used
  - ODRC must be amortised over REMAINING economic life

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Valuation date

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Valuation Date

- Valuation date should depend on the time period of analysis.
- For both *ex post* and *ex ante* analysis:
  - should use replacement cost at the start of the period of analysis.

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Valuing easements

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Easements

- Easements are an interest in land
  - similar conceptually to leases, licenses and other “partial interests” in land.
  - not exactly an “intangible” asset
- Easement values are based on an allocation of the bundle of property rights in land between the grantor and grantee.

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Types of Easements

- Statutory easements
  - granted by statute
  - rights to inspect, operate & maintain assets
- Acquired easements
  - created by contract resulting from negotiation
  - usually more rights than statutory easements
  - registered against title(s).
- Both types of easement have value

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Easement value depends on:

- The value of land within the easement area (the “corridor”)
  - derived from market benchmarks - comparable sales of land
- The allocation of the rights to use of the land
  - derived from market benchmarks.
- Additional costs of replacement
  - include legal, RMA, valuation, negotiation

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Easement value components

- Corridor value:
  - depends on underlying land value and easement area
  - ie width of affected corridor between network nodes
- Allocation of property rights depends on:
  - Impact on use of land – restrictions
  - Access and other rights conferred
  - e.g. for an underground pipe the easement may be worth 60% of the underlying land value.

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Easement valuation example

- Gas underground pipeline in rural area
  - Say 20 m wide “corridor” - so area is 2 ha/km
- Land Value $10,000 per ha
  - Implied total corridor value $20,000 per km
- Allocation
  - Market benchmark could be to allocate 60% of corridor value to easement holder
- Easement value equals $12,000 per km.

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Easement valuation issues

- Easement replacement cost is as simple as observing the replacement cost of land
  - given an existing allocation of rights.
- Easements do not depreciate
  - are an interest in land
- Easements can be optimised
  - optimisation due to say, by-pass, is the same as for pipeline assets.

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Optimisation

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Optimisation issues

- Bypass is a subset of overall optimisation
- How should optimisation be reflected?
  - in cash flows?
  - in discount rate?
- In either case expectations of future optimisation would be reflected in higher required revenues

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Optimisation issues - 2

- If optimisation is to be reflected in cash flows it must be smoothed
  - impractical to adjust prices from year to year
- Optimisation can be reflected in the economic life of the assets.
  - a higher risk of optimisation is reflected in a shorter economic life.

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Summary

- Powerco favours replacement cost approaches - correctly specified
- Asset base should include easements as well as intangible assets
- Easements can be as easily valued and optimised as land.
- Optimisation risk must be reflected in higher required revenues.