

Submission on the Draft ODV Handbook

15 April 2004

Submission Overview

- Specific issues
- Role of ODV in regulatory regime
- Depreciated historical cost
- Concluding comments

Submission Overview

- **Specific issues**
- Role of ODV in regulatory regime
- Depreciated historical cost
- Concluding comments

Specific Issues

- Economic value tests
- Brownfields vs greenfields
- Updating replacement costs
- Valuing easements
- Non-standard building blocks
- Future load growth planning period

Economic Value Tests

Current treatment	Draft treatment	Submitted treatment
EV tests required for all asset types	<ul style="list-style-type: none">• CC may require an EV test• EV tests are not required on rural spur lines• EV tests needed for high value assets	<ul style="list-style-type: none">• EV tests should be retained for rural spur lines• EV tests should be abolished for high economic value interconnectors

Rationale: EV tests ensure correct investment signals for remote spurs, but have no benefit for interconnectors.

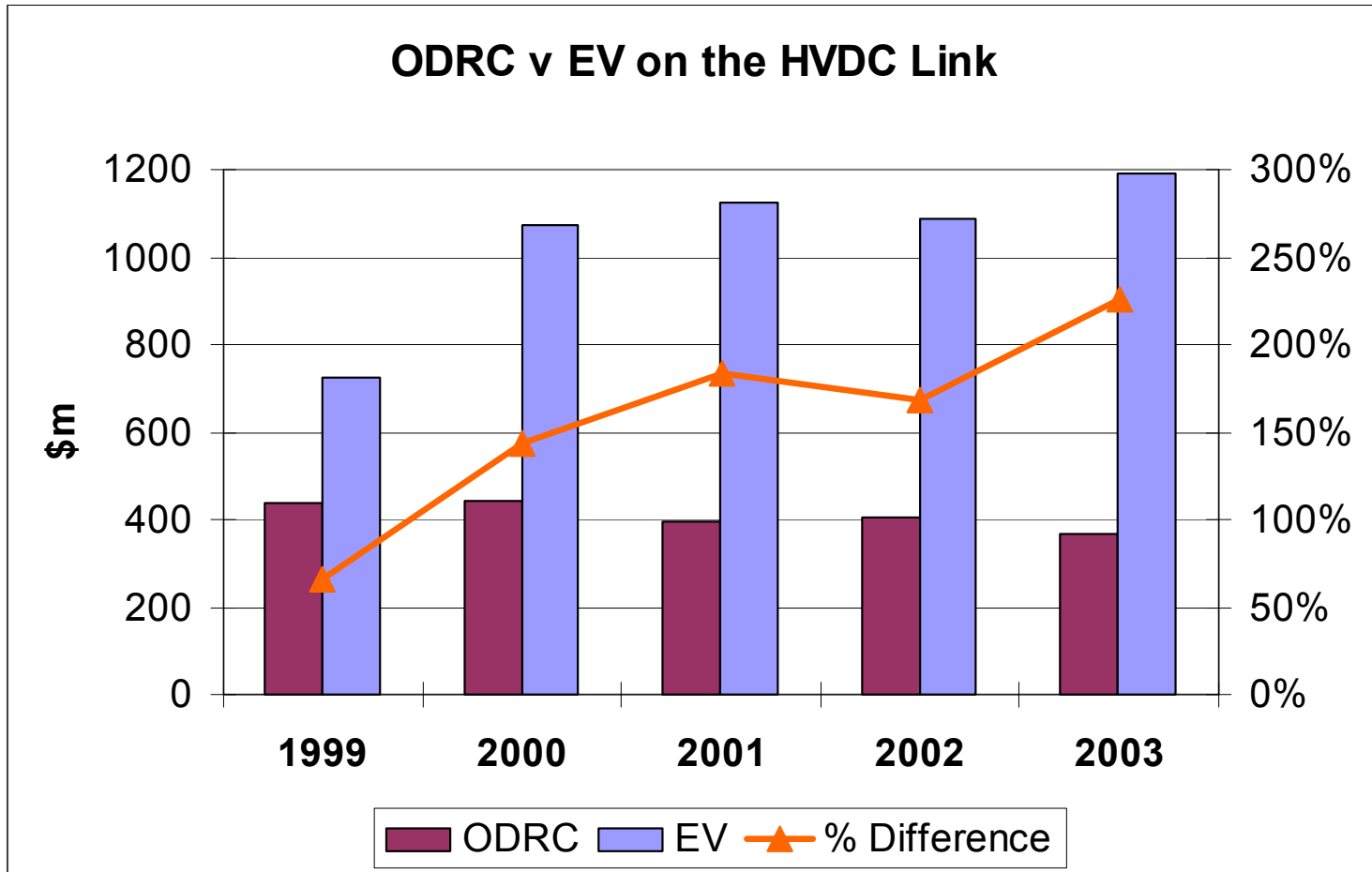
Economic Value Tests

- Retaining the EV test ensures the correct investment signal for remote spur lines
- High cost locations are the ones where competitive pressure will reduce the value of lines and where there may be other more economic alternatives
- Therefore there are benefits in retaining the EV test for rural spur lines

Economic Value Tests

- An EV test on large scale interconnectors is not effective
- Experience shows that large scale interconnectors have a high economic value, because there is no other plausible alternative
 - e.g HVDC link
- The benefits of retaining EV tests for interconnectors is minimal

Economic Value Tests



Economic Value Tests

- Allowing the Commerce Commission the ability to require an EV test creates uncertainty
- Lines companies will always be required to confirm with the Commerce Commission that no further EV Tests are required before being able to confirm the regulatory value
- Either a process needs to be put in place, or preferably the Commerce Commission should not have the ability to require an EV test

Brownfields v Greenfields Replacement Costs

Current treatment	Draft treatment	Submitted treatment
Greenfields replacement costs and optimisation criteria	Brownfields replacement costs and optimisation criteria	Redefine brownfields and update RCs in light of new definition

Rationale: This reflects the reality of operations and promotes efficient investment.

Brownfields vs Greenfields Replacement Costs

- Transpower agrees with adoption of brownfields for ODV Handbook
- Brownfields as currently defined is effectively the same as greenfields
- Greenfield replacement costs do not reflect the costs of incremental replacement in a mature transmission system
- Use of greenfield costs will result in inefficient investment

Brownfields vs Greenfields Replacement Costs

- Adoption of a true brownfields approach requires replacement costs to be updated on this basis
- Updating all replacement costs on a brownfields basis is not practical in the short space of available time
- Recommend updating replacement costs in time for 2005 ODV valuations

Updating Replacement Costs

Current treatment	Draft treatment	Submitted treatment
No process for updating replacement costs	No process for updating replacement costs	Include in Handbook a process for updating RCs

Rationale: Avoid underinvestment and ensure ODV values are relevant.

Updating Replacement Costs

- Transmission asset replacement costs need updating now
- It is inconsistent to update distribution asset RCs but not transmission RCs
- If RCs are too low, this will promote inefficient investment
- For practical reasons, transmission RCs should be updated in time for the 2005 ODV (as opposed to 2004)

Updating Replacement Costs

- ODV Handbook should also specify
 - a process for updating RCs regularly
 - a timeframe for when RCs will be updated
- This will ensure consistency and timely investment in the future

Valuing Easements

Current treatment	Draft treatment	Submitted treatment
Valued at historic cost	Valued at historic cost	Valued at replacement cost

Rationale: There should be consistency with other parts of the line business asset base.

Valuing Easements

- Obtaining easements getting more expensive
- Is a significant portion of the capital cost of new transmission lines
 - up to 50% for major transmission upgrades
- Valuing purchased easements at historical cost will significantly understate the replacement cost of the line
- Agree that statutory easements should still have no value

Valuing Easements

	2004 HC \$m	Assumed growth pa %	2014 Actual RC \$m	2014 ODV RC \$m	Difference \$m %	
Transmission lines	1,000	2%	1,219	1,219	-	0%
Easements	300	2%	366	300	66	22%
TOTAL	1,300		1,585	1,519	66	4%

Easement replacement costs will quickly become understated

Has a bigger (5%) impact on ODV value because easements are not depreciable

Non-Standard Building Blocks

Current treatment	Draft treatment	Submitted treatment
Non-standard building blocks are allowed	Increased disclosure requirements for non-standard building blocks	Transpower's current "non-standard" building blocks should be included in the Handbook as standard building blocks

Rationale: The compliance costs are greater than the benefits of additional disclosure.

Non-Standard Building Blocks

- Transpower uses many building blocks that are not in the current MED ODV Handbook
- The non-standard building block costs are calculated on the same basis as the 1998 building block costs in the current MED ODV Handbook
- The non-standard building blocks were audited by CC representatives in 2001

Future Load Growth Planning Period

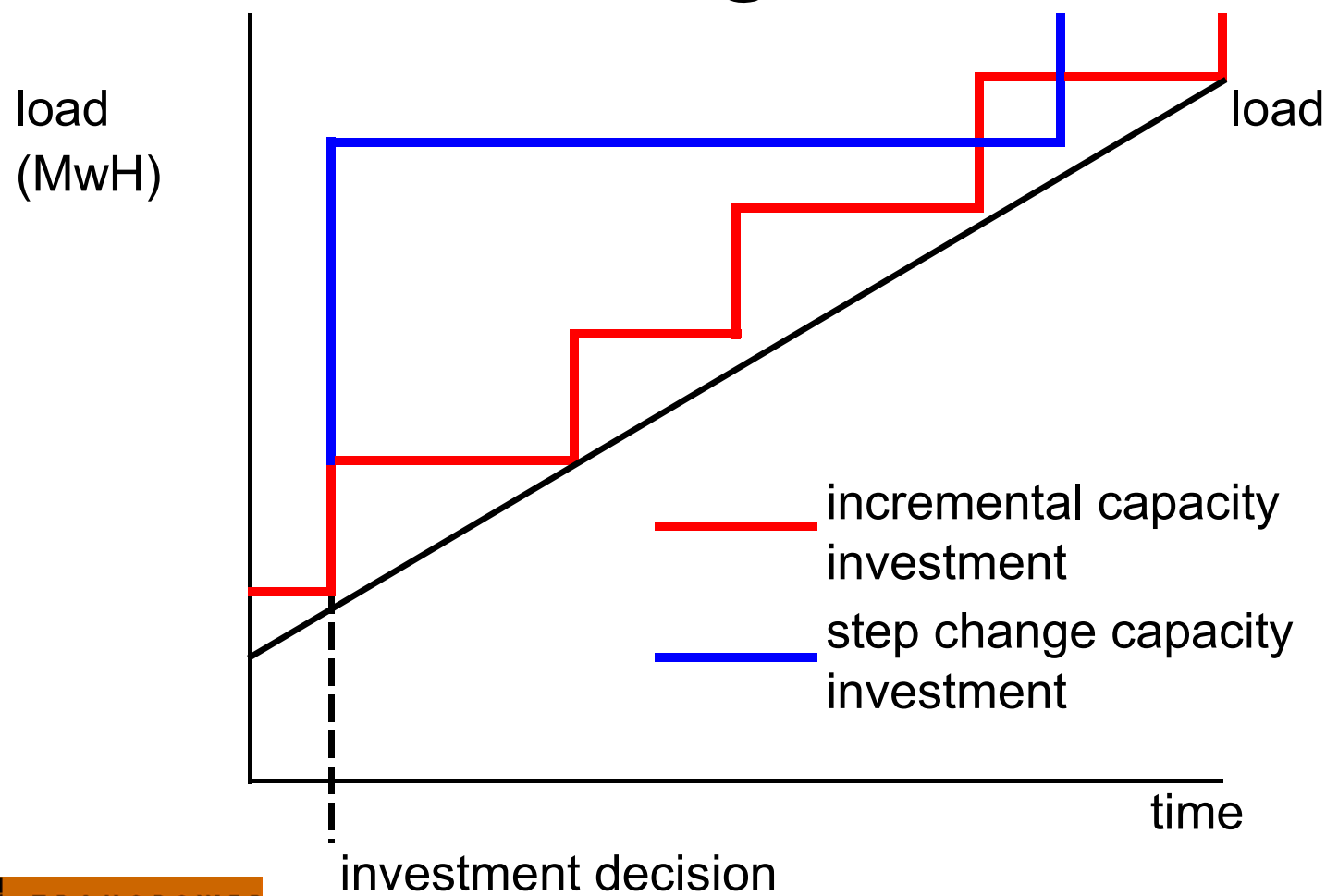
Current treatment	Draft treatment	Submitted treatment
10 years planning period allowed for transmission assets	Planning period increased to 15 years	Planning period should be extended to 35 years for transmission assets

Rationale: Too short a planning period reduces investment in new assets.

Future Load Growth Planning Period

- Companies will only build assets that enables an economic return to be made
- A short planning period reduces the investment opportunities and may rule out the most economically efficient investment
- A long planning period may allow too many options, increasing the risk that an economically inefficient outcome is selected (ie overbuild capacity)

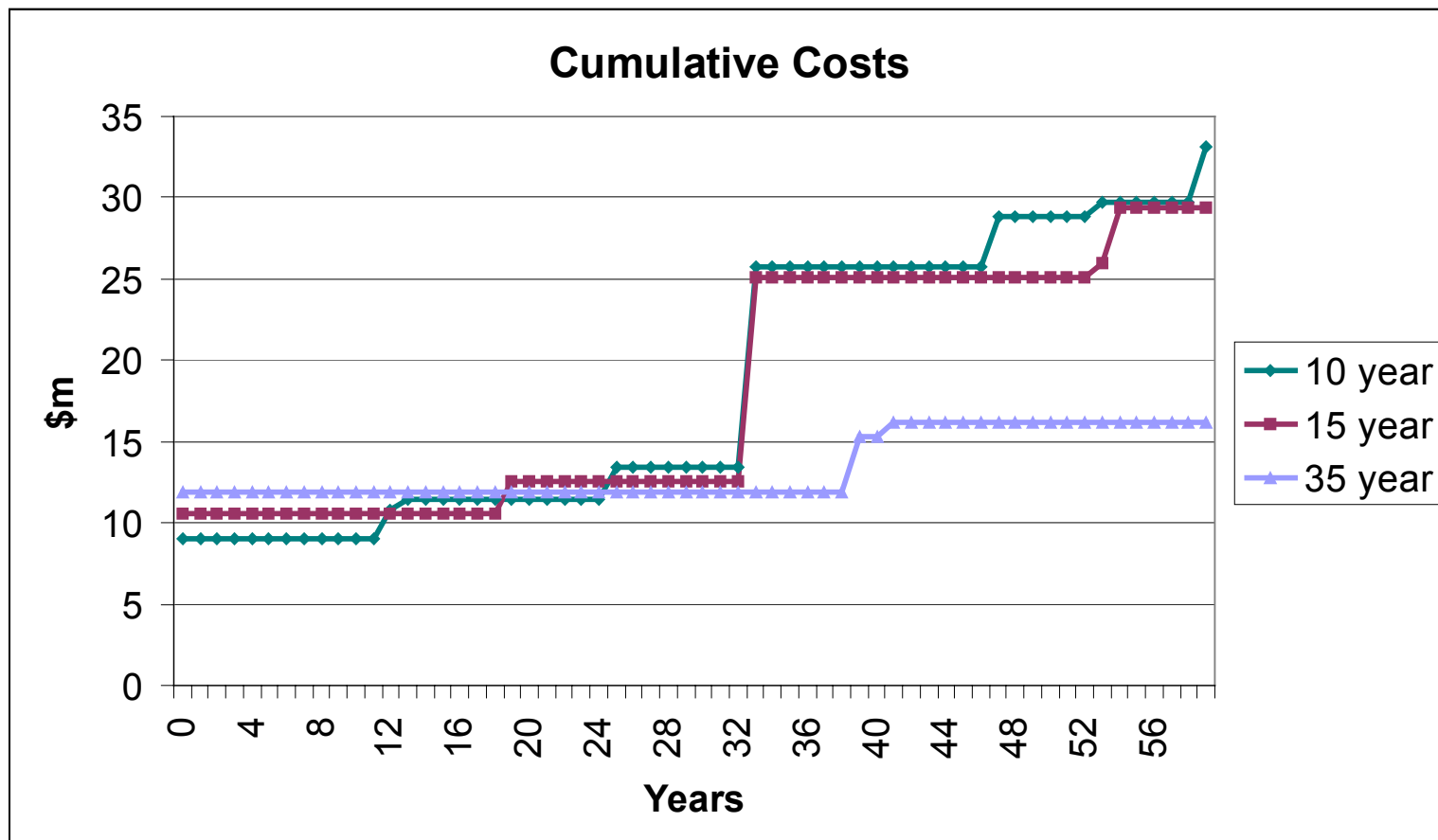
Future Load Growth Planning Period



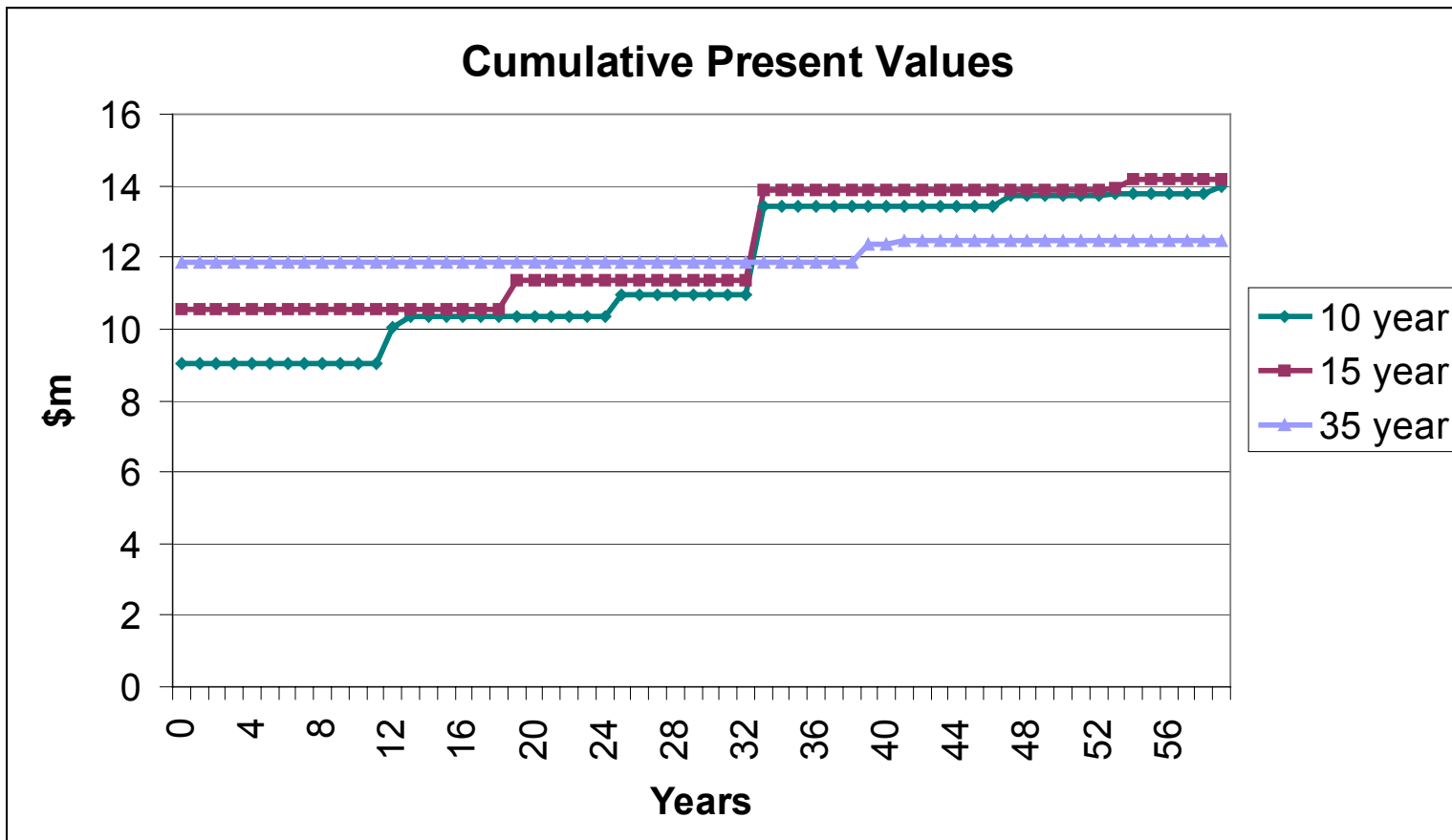
Future Load Growth Planning Period

- Hypothetical example parameters
 - Initial load 20MW
 - Initial equipment required
 - 66kV double circuit pole line @ 315A
 - 2 66/33kV transformers @ 20MVA
 - 7 circuit breakers
 - 50km line
 - Annual load growth rate 2.5%
 - 5% real WACC

Future Load Growth Planning Period



Future Load Growth Planning Period



Future Load Growth Planning Period

- The most economically efficient planning period equals the engineering planning period
- Most high value transmission assets last 50+ years
- It makes little economic sense to replace assets significantly before their physical life
- In assessing the grid enhancement options, Transpower forecast demand out to 2040

Submission Overview

- Specific issues
- **Role of ODV in regulatory regime**
- Depreciated historical cost
- Concluding comments

Role of ODV in Regulatory Regime

- Transpower is subject to industry regulation from CC (threshold regime and information disclosure regime) and EC (Part F rules)
- Threshold regime increases the importance of ODV
- There is a need to ensure the various regulatory regimes are complimentary and do no conflict

Role of ODV in Regulatory Regime

- Potential exists for the regulatory regimes to conflict each other, for example
 - an asset approved by the EC may be optimised out under ODV rules
 - if Transpower charges customers based on EC approval, then Transpower may breach the price threshold regime
 - a breach investigation will reveal that the regulatory asset base does not support the revenue levels and Transpower will come under CC control

Role of ODV in Regulatory Regime

- Any investment that is economically sound, but does not meet optimisation rules will result in either
 - insufficient return on capital invested, because companies can only charge based on the regulatory asset base, or
 - underinvestment, because companies do not wish to risk losing money

Role of ODV in Regulatory Regime

- EC approved investments and assets formed under new investment contracts should not be subject to optimisation tests
- This is consistent with the CC approach to the price threshold regime

Submission Overview

- Specific issues
- Role of ODV in regulatory regime
- **Depreciated historical cost**
- Concluding comments

Depreciated Historical Cost

- The draft decision on Regulation of Lines Businesses dated 23 December 2002 stated that

the regulatory objectives of Part 4A can be met by both ODV and DHC

- There has been no official word from the CC on the development of DHC since that date
- Transpower fully endorses the draft decision made in December 2002

Depreciated Historical Cost

- Transpower urges the CC to make a final decision so that a DHC Handbook can be written in time for 2005
- ACCC are moving away from ODV and towards DHC

Submission Overview

- Specific issues
- Role of ODV in regulatory regime
- Depreciated historical cost
- **Concluding comments**

Concluding Comments

- Although some changes in the ODV Handbook are a step in the right direction, more work needs to be undertaken on the issues raised in this and previous Transpower submissions
- More thought also needs to be given to
 - the role of ODV within the regulatory regime
 - pushing ahead with DHC as an alternative to ODV