



**ElectraNet SA**  
**SA Transmission Revenue Cap**  
**Public Forum**

4 October 2002

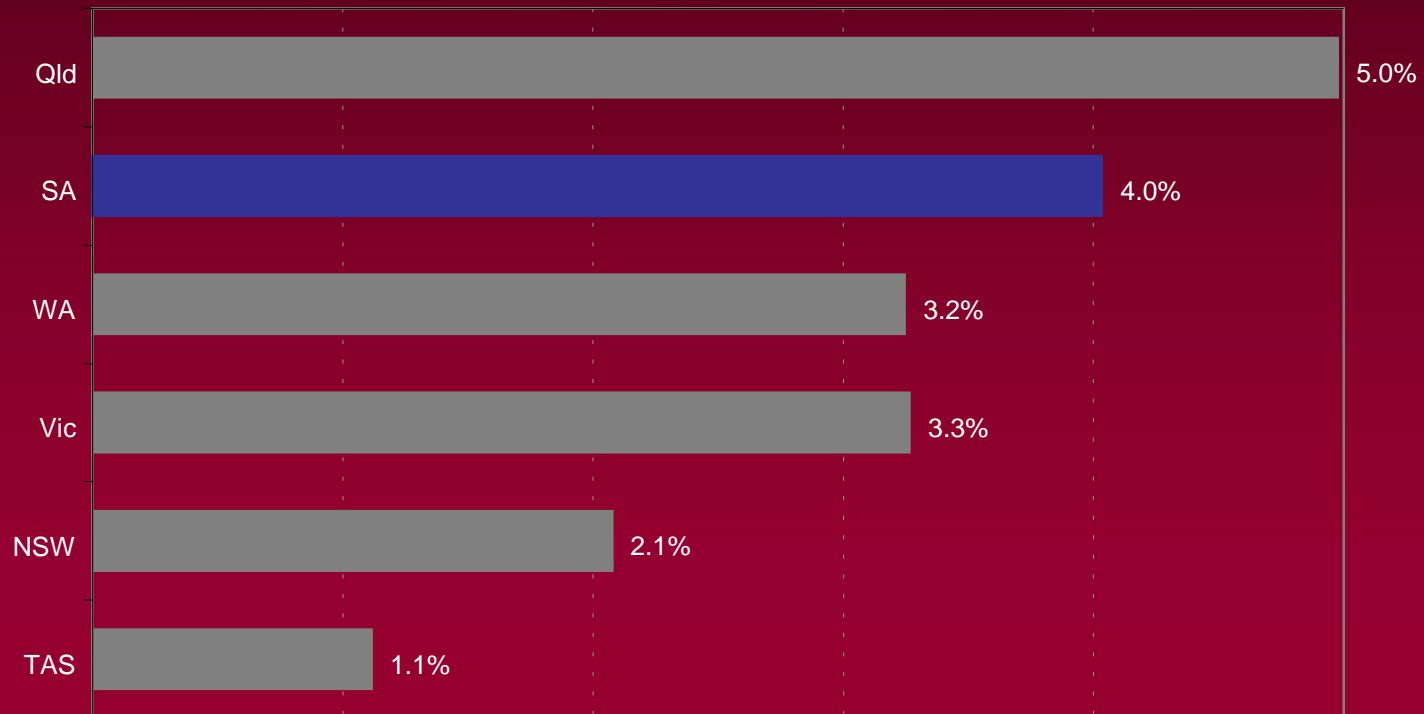
# Changing Regulatory Environment

- Price regulation has reached a watershed
- Recent decisions have underlined lack of incentives (EPIC decision in WA, Productivity Commission recommendations, and Commonwealth Government's response)
- SA transmission pricing decision presents opportunity to get incentives right for investment
- Challenge is to understand the nature of South Australia's electricity system, and its implications for cost outcomes for *all market participants*

# ElectraNet's Objective

To provide high quality, cost efficient transmission services that meet SA's rapidly growing energy needs

AVERAGE ANNUAL GROWTH IN PEAK DEMAND - 1991-2001



# ElectraNet's Proposal

- ElectraNet has proposed investment to:
  - Meet forecast economic growth in the State
  - Replace and upgrade vital infrastructure
  - Increase interconnector capacity and allow connection of new competitive power sources
  - Ensure network contributes to, not constrains, economic growth
- Proposed investment addresses shortfall in spending on transmission assets over past 10 years
- ESIPC has confirmed that investment of the order proposed by ElectraNet is needed

- Long term benefits far outweigh the relatively small cost of the proposed investment:
  - Increased competition in the energy market leading to lower electricity prices
  - Sustainable cost efficiencies
  - Reliability of supply

*ACCC's failure to provide incentives for investment will mean higher electricity prices in the longer term and declining reliability of supply*

- Revenue cap decision must ensure “an environment, which fosters an efficient level of investment within the transmission sector” (National Electricity Code)

*“The potential ‘chilling’ effect of access regulation on investment in essential infrastructure services is the main concern”  
(Productivity Commission)*

# Consumer Benefits

*A minimalist approach to investment repeats yesterday's mistakes – lower prices today will mean higher prices tomorrow*

# ACCC Draft Decision

- A revenue stream that is virtually unchanged from the EPO (6% real c/kWh price reduction) despite a significantly larger capex program (~\$150m more) and higher operating costs
- Revenue stream will not support the scope of work implied in the ACCC's draft decision (let alone ElectraNet's application)

*Something has to give*

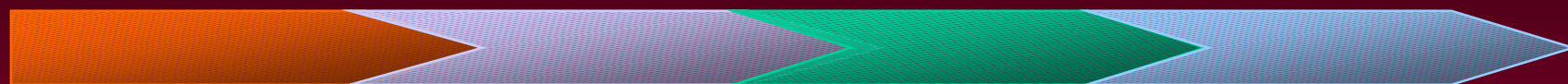


# Consequences of Draft Decision

*Draft decision*



***Investment outcomes***



***Minimum investment***

- Code obligations
- Financial viability
- Risk mitigation
- Essential maintenance

- Line upgrades
- Replace aged assets

- New technology
- Asset Monitoring
- Sustainable real cost reductions

***ElectraNet application***

- Market benefit projects
- Infrastructure for renewables

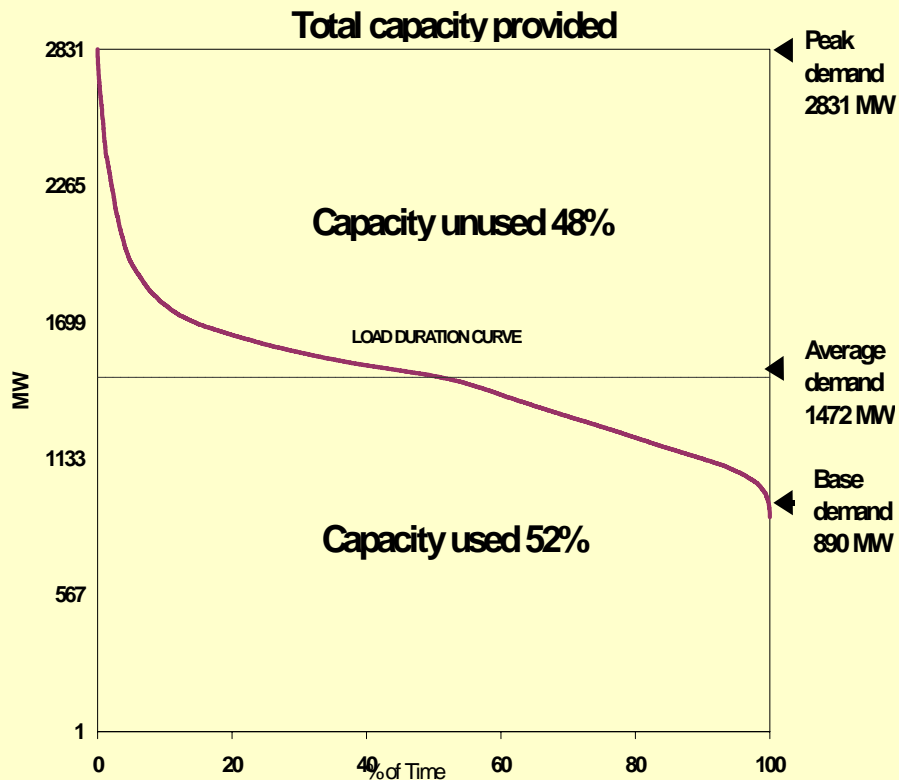
***You get what you pay for – ElectraNet will respond to the incentives provided***

# ElectraNet's Costs Are Efficient

- Draft Decision appears heavily influenced by a perception that ElectraNet's costs are inefficient;
- However, this perception fails to recognise two factors that shape comparative price outcomes:
  - Nature of the electricity market in South Australia; and
  - Difference between cost and price

# THE CHALLENGE – Understanding SA's electricity market

## Low load factor raises prices



ElectraNet must provide capacity of 2833MW to meet consumer's peak demand

But, during a normal year only 52% of this capacity is used.

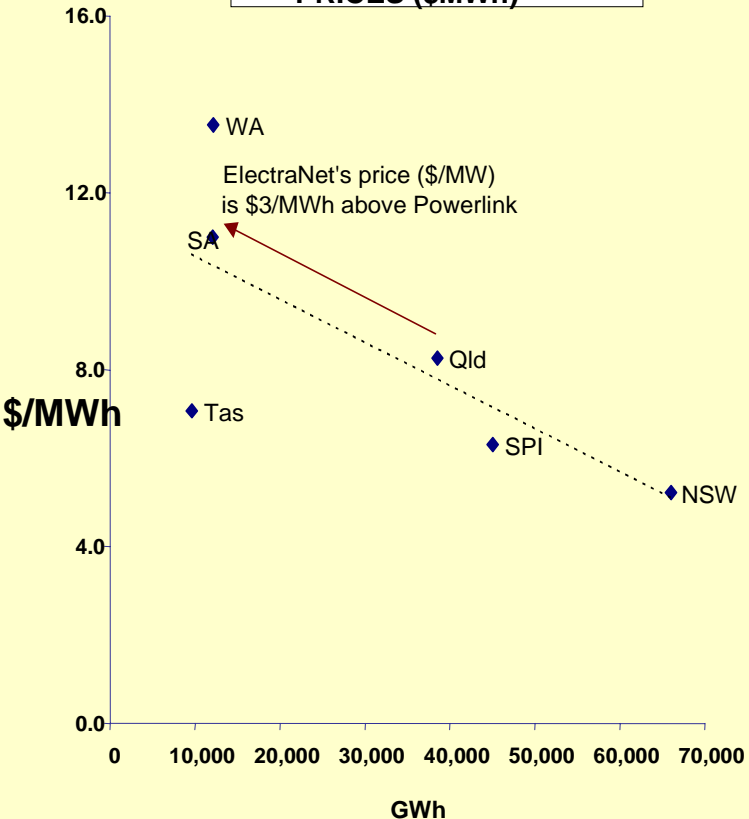
The cost of meeting 100% of peak demand has to be spread across the 52% of energy consumed.

By comparison, Queensland consumes 73% of the capacity provided – this lowers the revenue required for each unit of energy – and hence lower *prices*

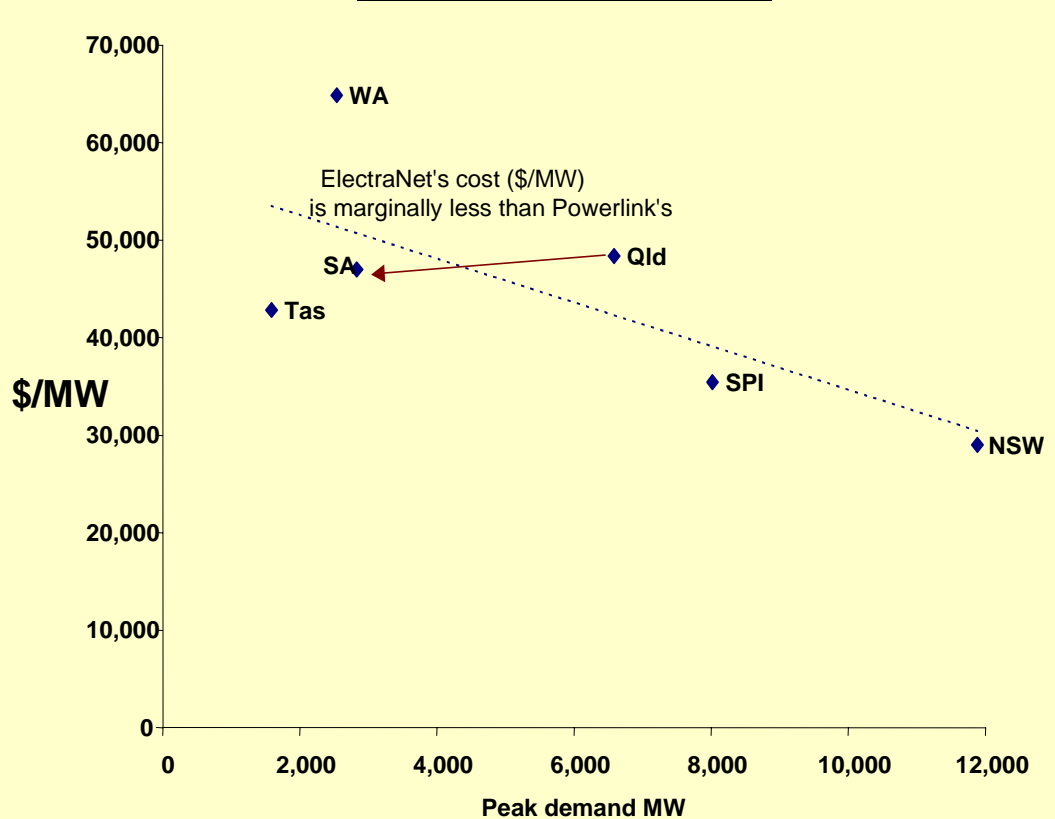
# Cost Drivers

**When comparing performance, it is essential to distinguish between *costs and prices*.**  
*Costs* relate to capacity provided, but *prices* to energy consumed

**PRICES (\$/MWh)**

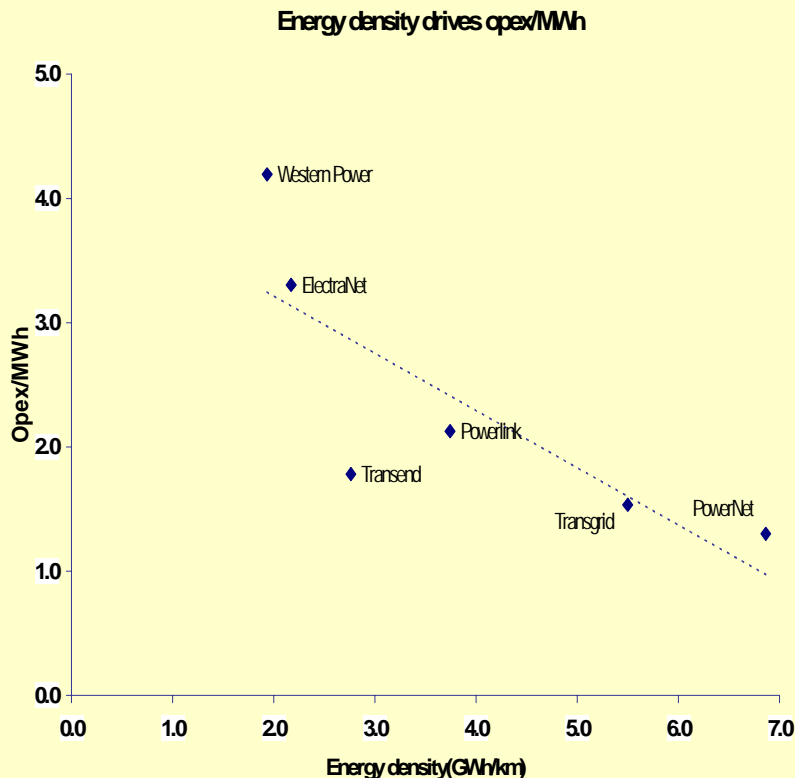


**COSTS (\$/MW)**



# Cost Drivers

- Low energy density means SA requires more assets to provide the same level of transmission service as other states. In turn, the higher asset base drives higher opex



## Network required to deliver 1 MWh energy

Western Power	0.52km
ElectraNet	0.46 km
Transend	0.36 km
Powerlink	0.27 km
Transgrid	0.18 km
PowerNet	0.15 km

Opex relates directly to assets maintained. ElectraNet would be expected to have costs 70% higher than Powerlink because it has more line to maintain per MWh. In fact, opex/MWh for ElectraNet is only 55% above Powerlink.

# ElectraNet's Costs Are Efficient

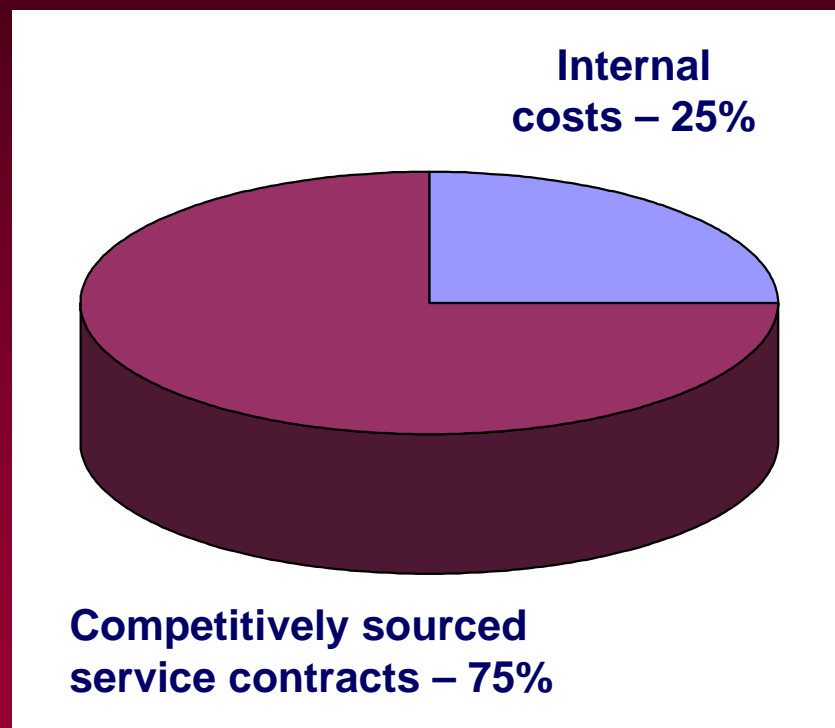
*“The usefulness of benchmarking as a guide to relative performance depends critically on an ability to compare like with like, or to make allowance for differences in operating environment that may be outside a utility’s control” (Productivity Commission 2001)*

***Benchmarking shows that ElectraNet costs are efficient when cost drivers are properly taken into account***

# ElectraNet's Costs Are Efficient

**75% of total operating and maintenance costs are based on competitive market prices**

- Transmission line and substation maintenance
- Vegetation clearance
- IT and telecoms maintenance
- Property services
- Internal audit
- Legal services

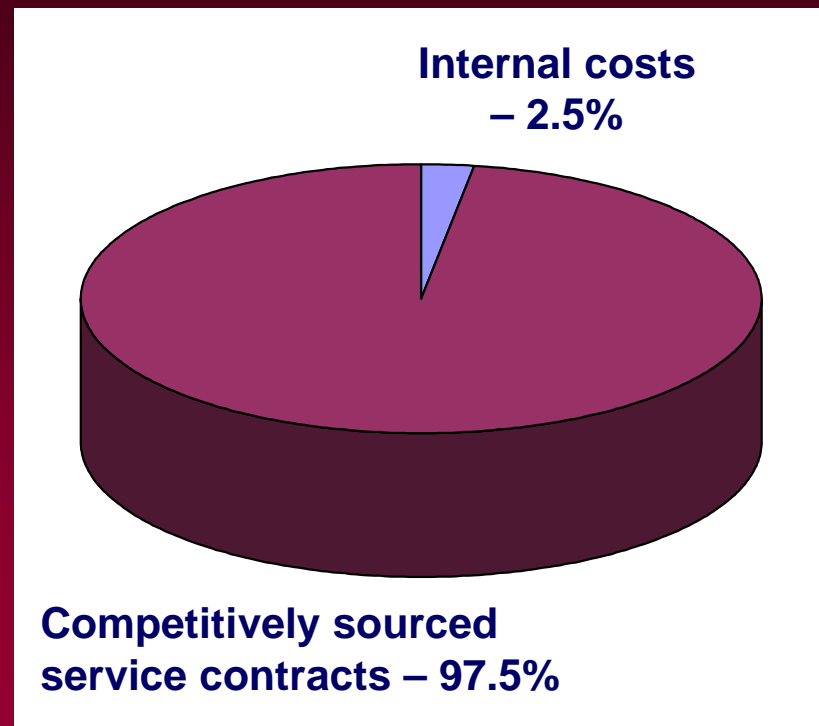


*Little scope for further efficiency improvements*

# ElectraNet's Costs Are Efficient

**Over 97% of total capital costs are based on competitive market prices**

- Turnkey approach
- Bundling of projects (economies of scale)
- Multiple service providers (e.g. ABB, Alstom, UKG, Siemens, ETSA Utilities, TransGrid, Energex)
- Performance incentives on service providers



*Little scope for further efficiency improvements*



- **Draft Decision delivers inadequate revenue stream**
  - ElectraNet will only be able to do the *bare minimum* to meet Code requirements
  - As costs incurred are substantially based on competitive market prices, cuts in opex allowance mean cuts in asset maintenance and monitoring work
  - ElectraNet will have to cut back on its Asset Management Plan program endorsed by ACCC's consultant, Meritec

*Cuts will be detrimental to long-term customer price, service and reliability*



*Transmission networks facilitate  
competitive market outcomes*