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Network tariff reform: a test of political will

Annual EUAA Conference

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Grattan Institute
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Network regulation is a major area for reform

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- **Australians are paying too much for electricity because the regulation of distribution networks is broken.**
  - **Allowed profits exceed reasonable levels for low-risk businesses**
  - **Costs have been incurred to meet unjustified reliability standards**
  - **Ownership matters**
  - **The regulatory process is unresponsive to changing markets**

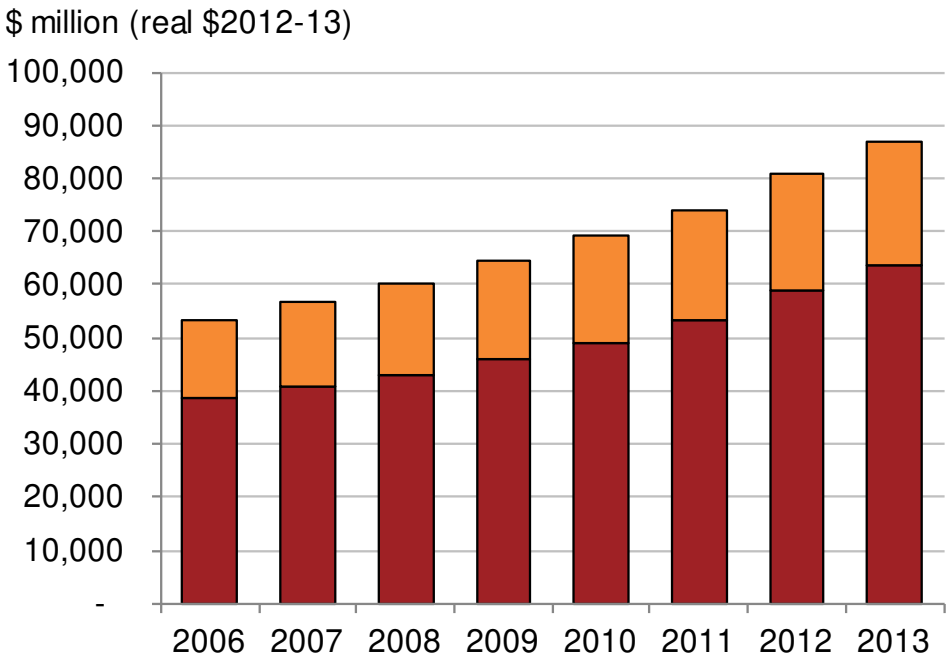
- **Electricity prices have been rising even while consumption has been falling.**
  - **Tariff structures are leading to bad decisions**
  - **Australians are paying for assets they no longer need or want**

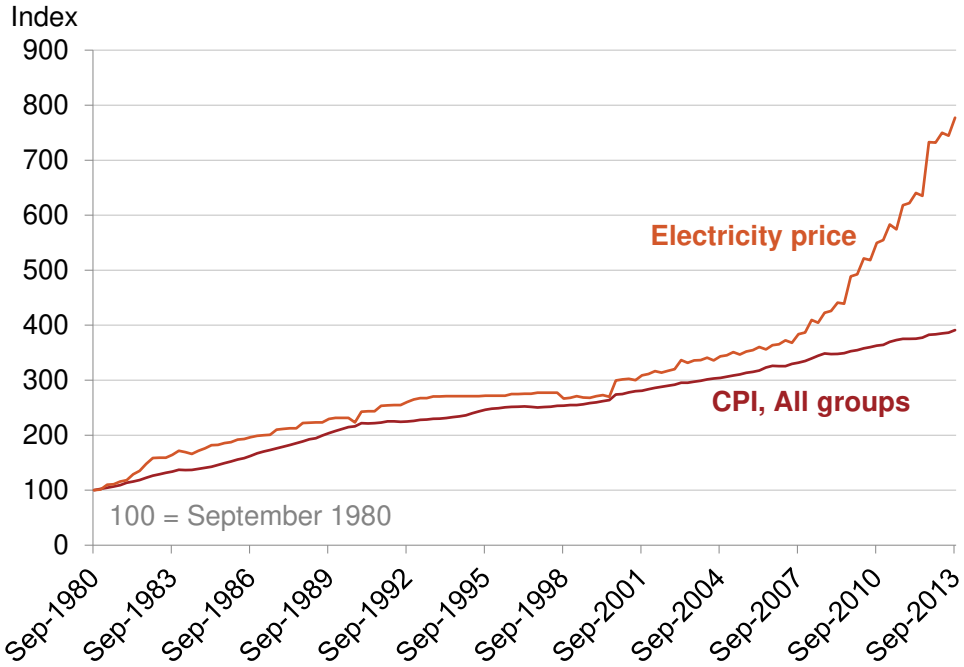
- **Tariff structures lead to some consumers subsidising others in a way that is unfair and provide little incentive for efficient investment.**

Network spending and rising power prices

Rapid increases in network spending have been driving retail power prices

Network costs grew by 64% between 2006 and 2013...





...and electricity prices grew by 75%.

Putting the customer back in front

How to make electricity cheaper

Recommendations

Address clear regulatory flaws

- Align rates of return with the risks involved and the cost of managing those risks
- Establish a consistent, national approach to setting reliability standards
- Address governance concerns with government ownership or privatise
- Review capital expenditure against updated forecasts

Shock to the system

Strategies to reduce network costs in a time of falling demand

Recommendations

Address overinvestment and make prices more cost-reflective

- Ensure that investments better match future needs
- Begin the hard task of reforming network tariffs to reflect costs incurred
- Review the value of network assets – who pays?

Fair pricing for power

Strategies to make prices fairer and cheaper

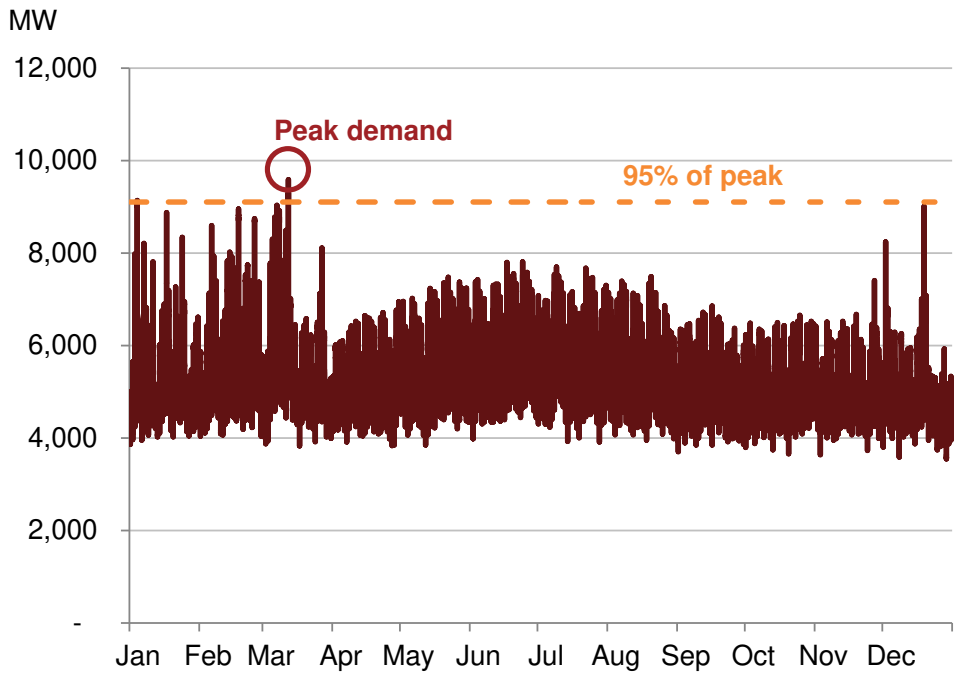
Recommendations

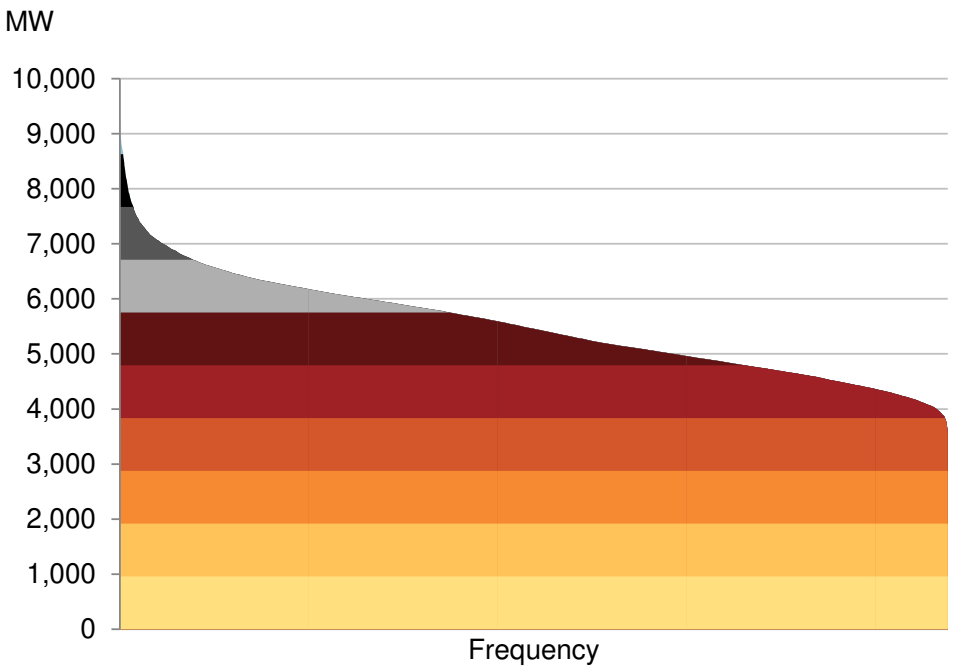
Make prices more cost-reflective

- A capacity charge better reflects the cost of building and operating the network. It would remove unfair subsidies
- Critical peak pricing would reduce peak demand and ultimately, lower prices

Electricity demand rarely approaches the peak

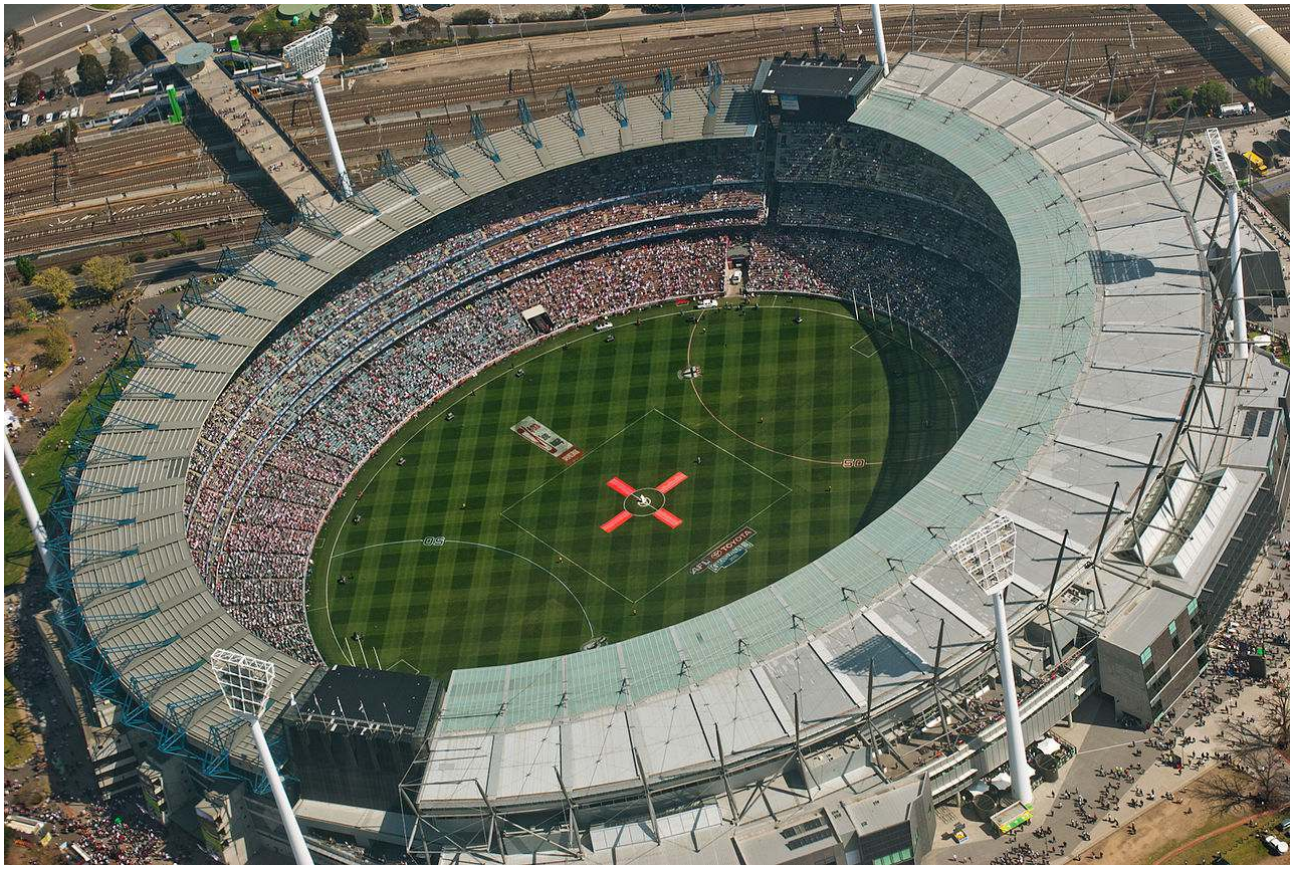
In 2013, demand came within 5 per cent of the peak for only 6 hours





The problem with networks

For the AFL grand final, MCG ticket prices are higher and sales are limited

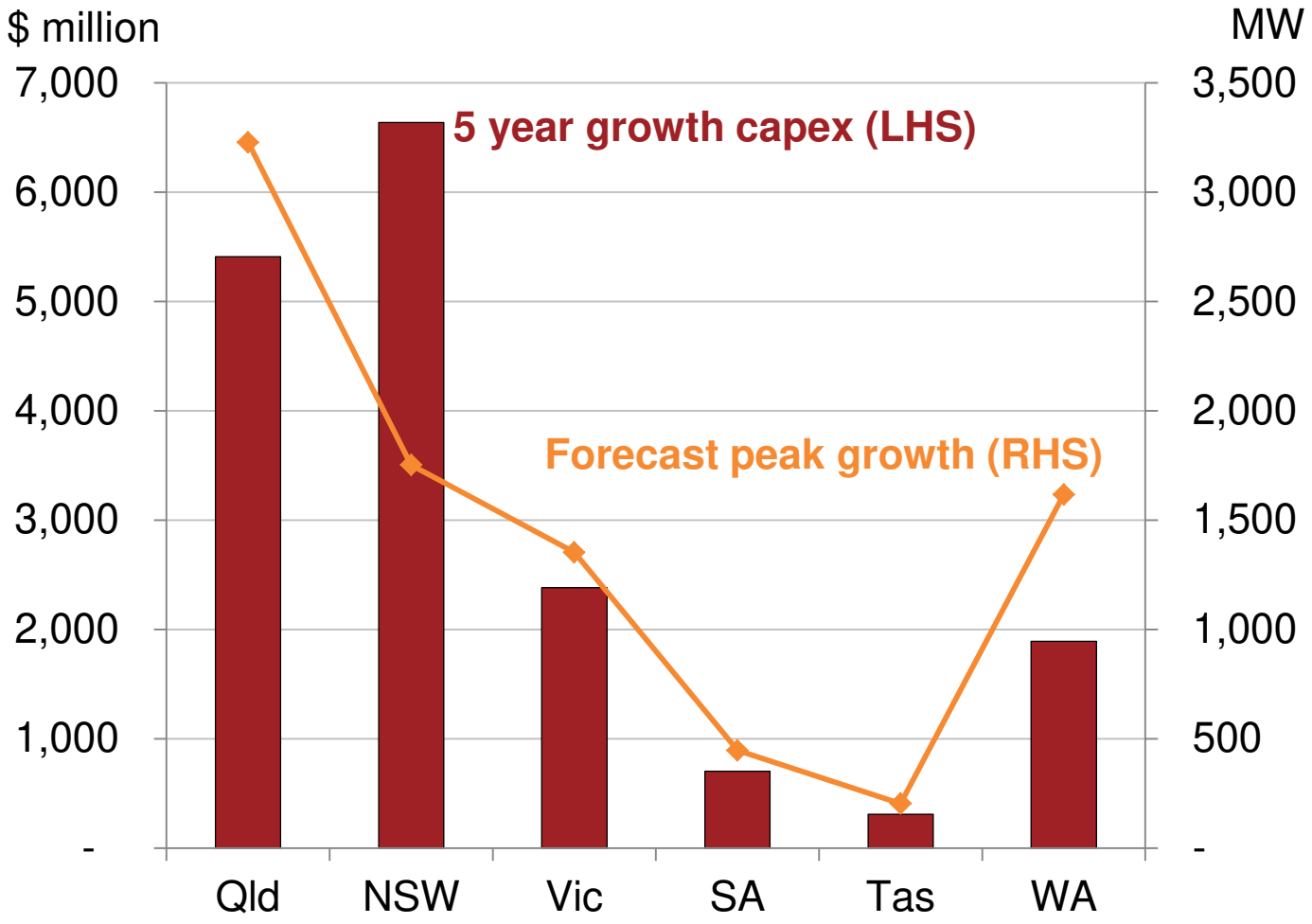


Source: Sheko, Alexander (2010), 'The Melbourne Cricket Ground during the 2010 AFL Grand Final'

Under the regulated model, more infrastructure drives higher prices

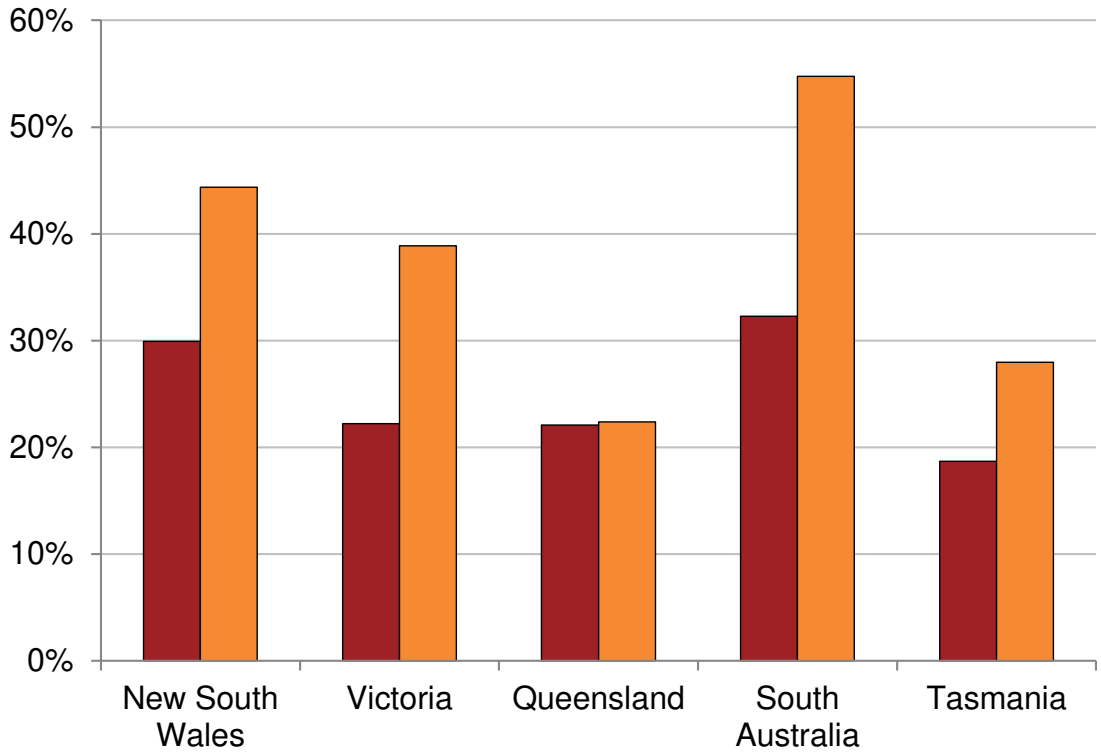
Peak demand expectations drive growth

Actual growth capex over 5 years since 2009 reflect peak demand forecast



Why look at households?

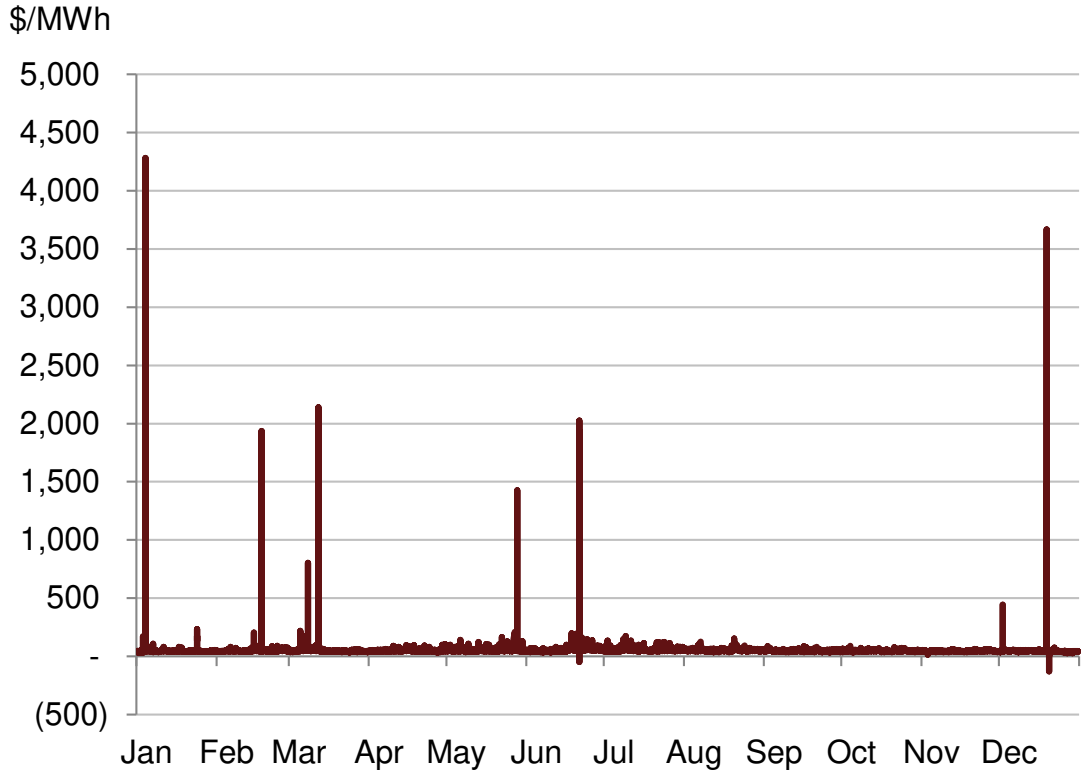
Households are large contributors to peak demand…



...and many large businesses already have more efficient traiffs.

The solution: charge more at peak times

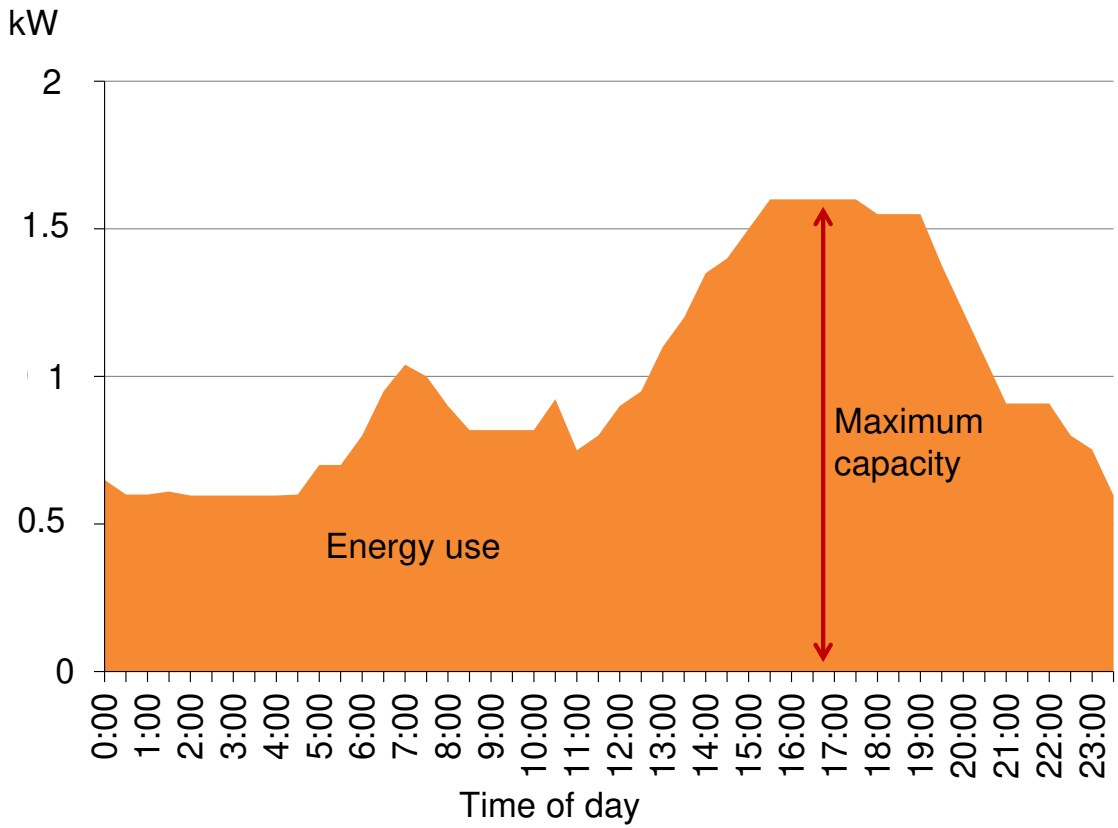
Wholesale electricity is sold into a pool market….



... prices rise dramatically at constrained times.

Charge for capacity, rather than energy

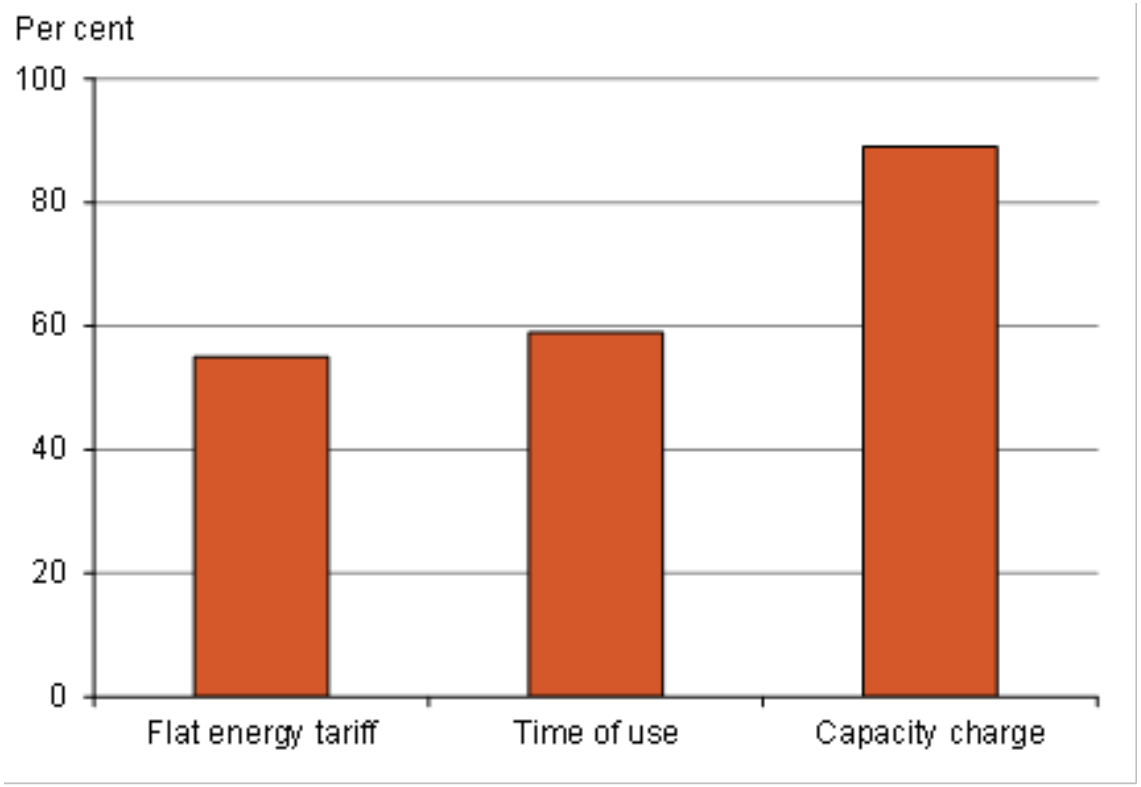
Customers would be charged based on their maximum annual use



- **Encourages customers to become aware of their maximum use.**
- **No change in the total amount paid by customers under a revenue cap.**

Capacity charges better reflect peaks

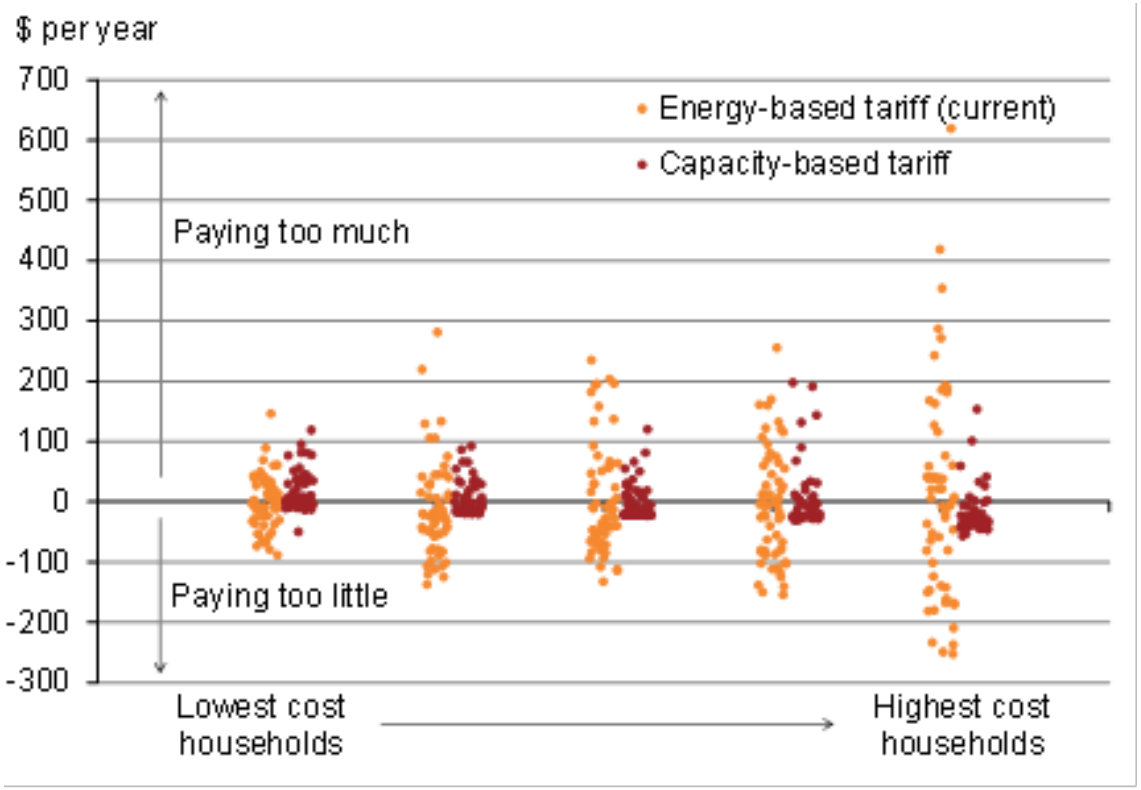
Capacity has a stronger correlation with peak demand than energy use



- **Capacity charge from 6am to 11pm on weekdays**
- **Results modelled using the top half hour of demand per year.**

Capacity charges make power prices fairer

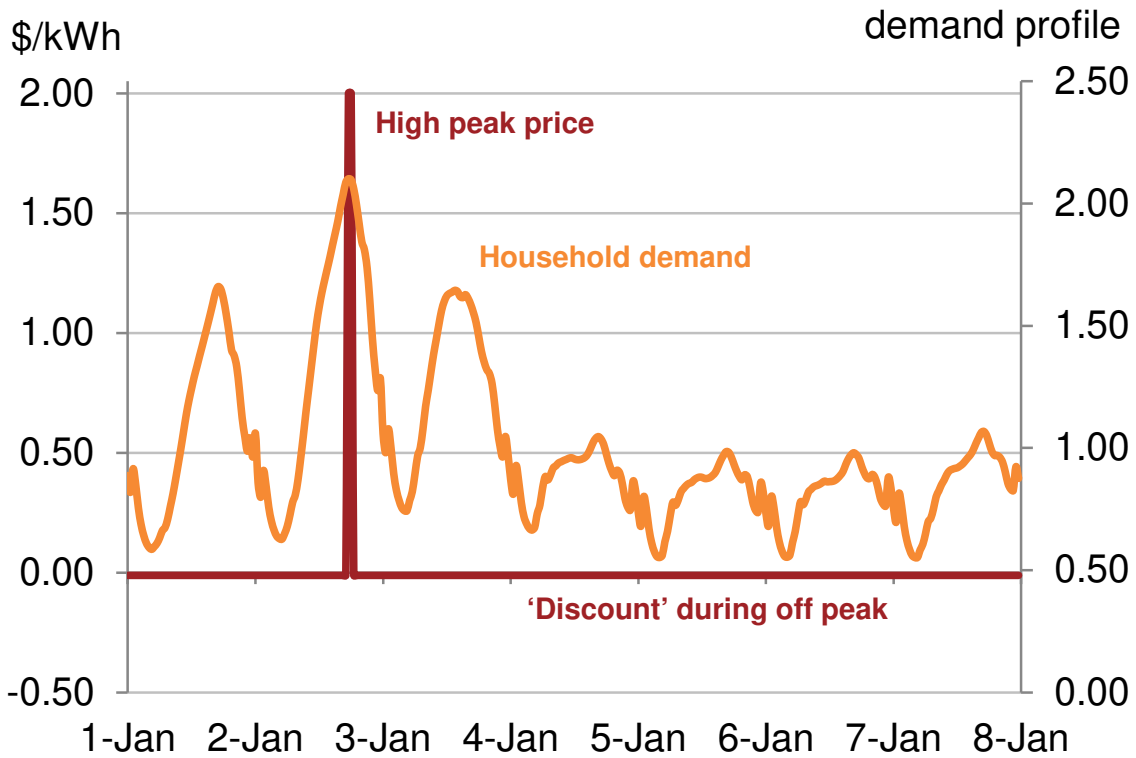
Energy charges mean some households pay too much, others pay too little



- **Now in Victoria, efficient users of the network subsidise others by an average of $150 a year.**

Critical peak pricing to be used in some locations

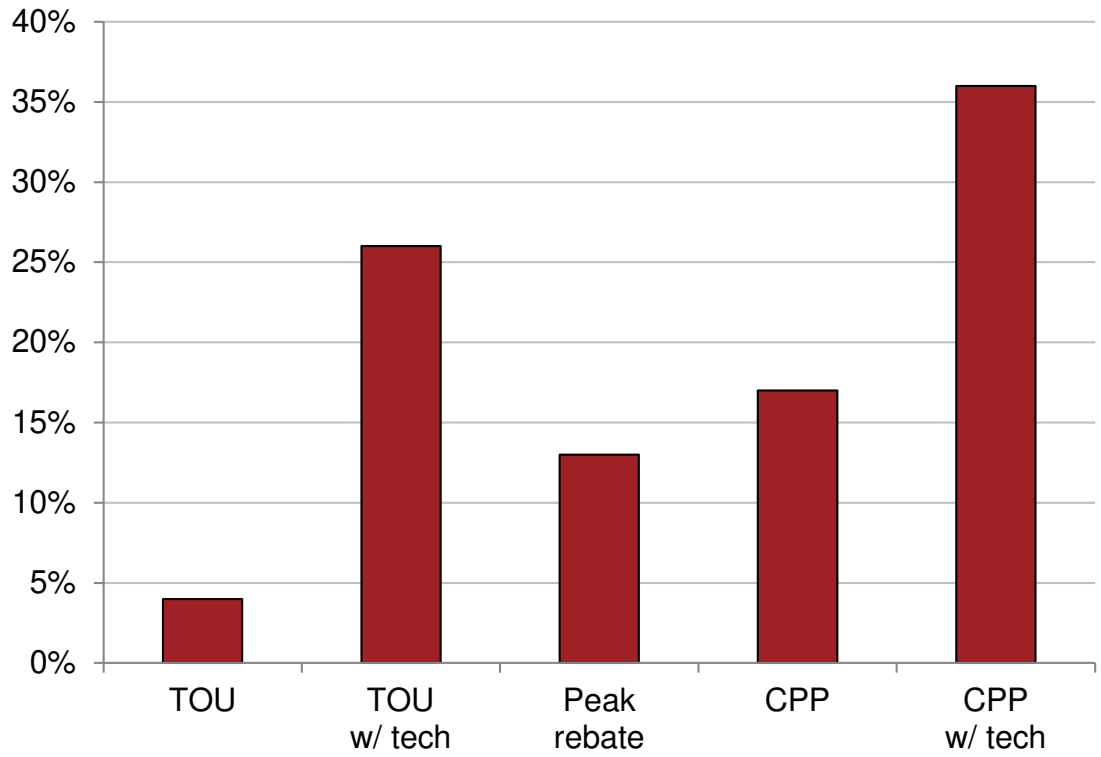
Alongside capacity charges, CPP can be designed to be revenue neutral



- **CPP operates as a 'non-network' solution to a capacity constraint.**
- **Only applies in constrained areas**
- **Cost-benefit cost to justify metering investment**

CPP has proven effective in reducing peak demand

Where a network is under strain, a sharper price signal is warranted



Source: Faruqui, A., and Sergici, S. (2010)

- **CPP results in a 17% decline in peak demand, or 36% with technology.**
- **Results may be lower without voluntary participation.**

Key advantages of the proposed solution

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More cost reflective

The price each customer pays reflects pressure they put on the system.

Customers can respond

Customers that reduce their maximum consumption pay less (unlike, say, with fixed charges).

Networks recover regulated revenue

Allows a way to recover the cost of building the network, even with falling energy demand.

Resilient to future technologies

A design that is not technology specific allows for future changes (eg, introduction of electric vehicles).

Considers metering availability

Capacity can be billed on estimates where interval meters are not available. Pricing design would support a staged metering rollout.

Barriers to implementation

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Retail price regulation

Network solutions will work best where retailers have flexibility to help manage the transition.

Smarter metering

Smart meters are available in Victoria, but not in other states.

Regulatory process

The regulated model means changes occur slowly and may need to fall within 5 year regulatory periods.

Consumer backlash

Many customers find change challenging and a fairer system will mean some customers pay more. Transitional arrangements and engagement are critical – the Victorian ‘moratorium’ on time of use pricing is an example of the potential backlash.

Political will needs structural support

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Energy Green Paper

Pursue tariff reform and improved consumer access to energy use data, including electricity network tariff reform to limit cross-subsidies

AEMC

Draft rule determination: National Electricity Amendment (Distribution Network Pricing Arrangements) Rule 2014

Losers have louder voices

Customers tend to value losses more highly than they value gains.

Clear outcomes and process are necessary

Selling the benefits across all stakeholders and by all stakeholders makes this a hard reform to implement.

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