



## **BACKGROUND BRIEFING: Shocking! Getting your head around...electricity pricing**

# ***What next for electricity prices?***

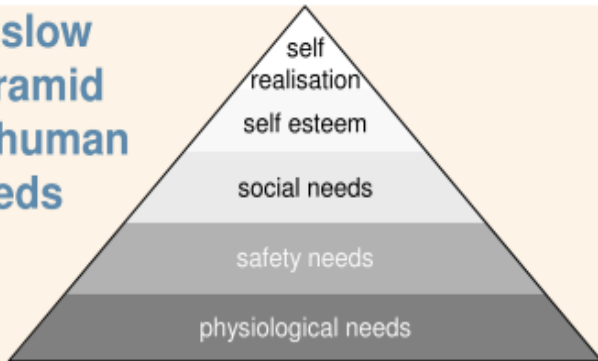
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Joint Director (Engineering), CEEM

*Australian Science Media  
Centre Webinar  
31 October, 2012*

# Depends on our choices which depends on priority of our energy objectives

## Maslow pyramid of human needs



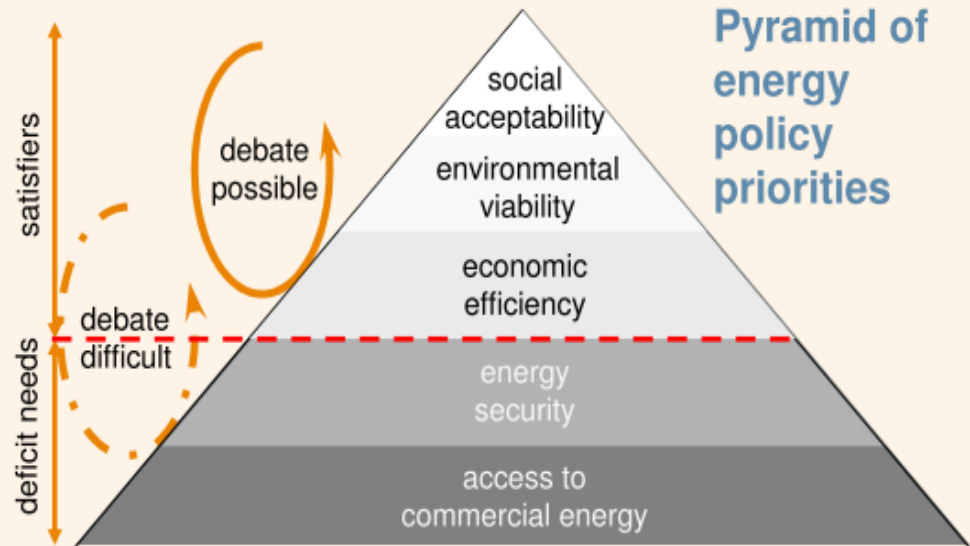
*"A person who is lacking food, safety, love and esteem would most probably hunger for food more strongly than for anything else," stated the American psychologist Abraham Maslow in 1943 while formulating a theory to explain the motivational structure of a healthy person.*

## If Maslow were in Energy Politics...



Abraham Maslow

*... he would argue that access to energy, supply security, energy costs, environmental issues and social acceptance are not subject to trade-off, but to a hierarchy: we cannot successfully address higher order issues before proposing and implementing solutions for more direct needs.*



(World Energy Council, 2010)



# Accessibility: affordability is key, hence prices

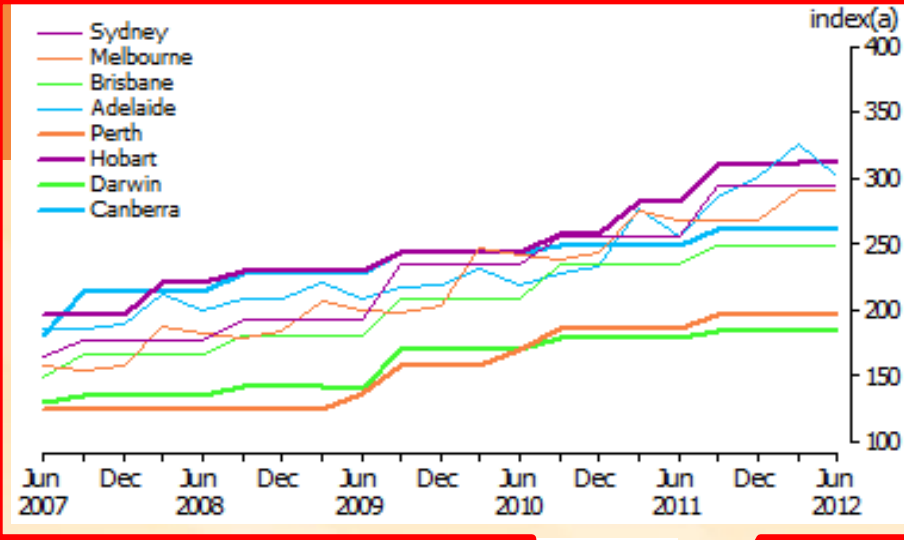
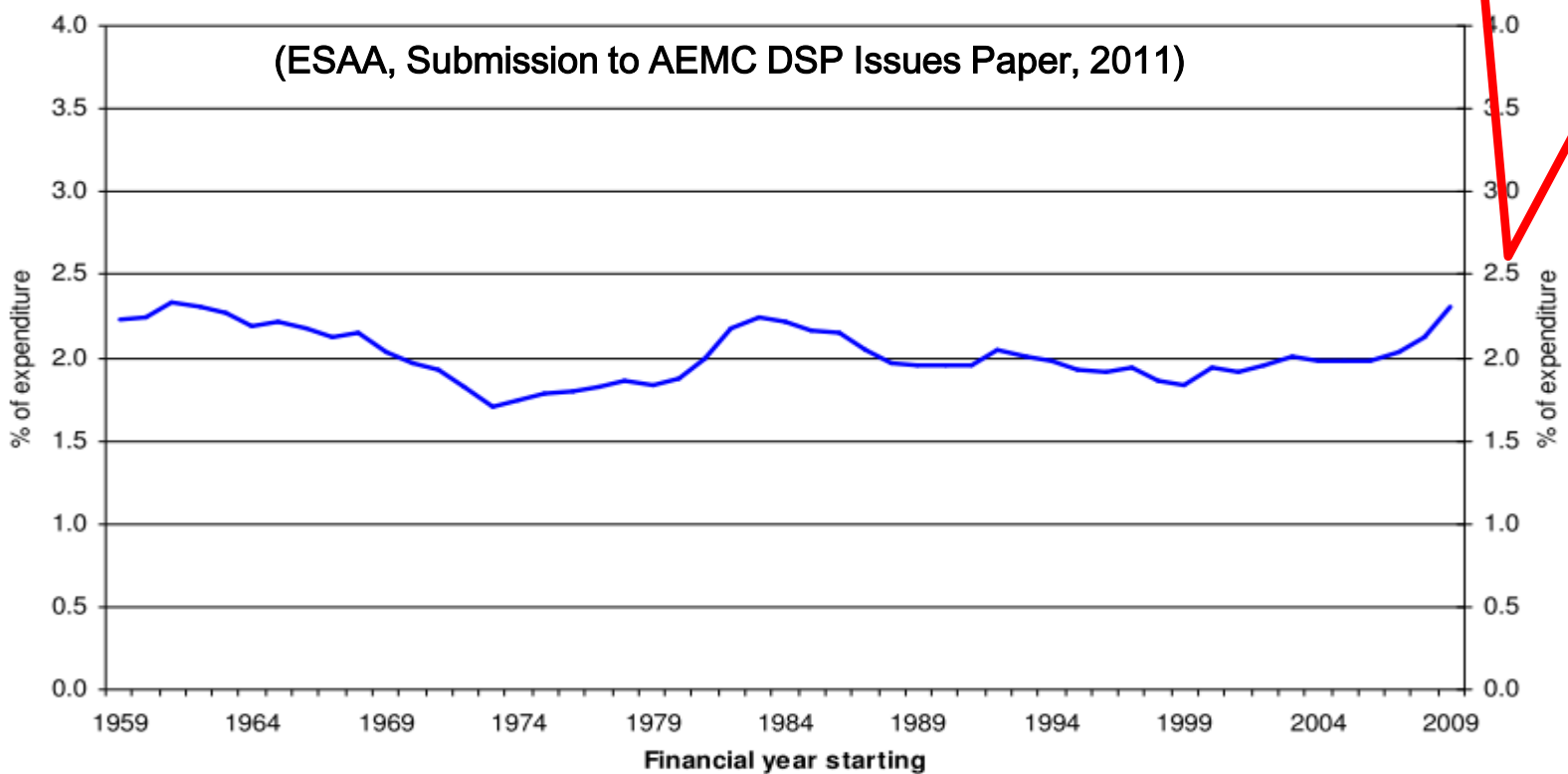


Chart 3: Share of Household Final Consumption Expenditure on Electricity, Gas and Other Fuels, 1959-2009 (per cent)

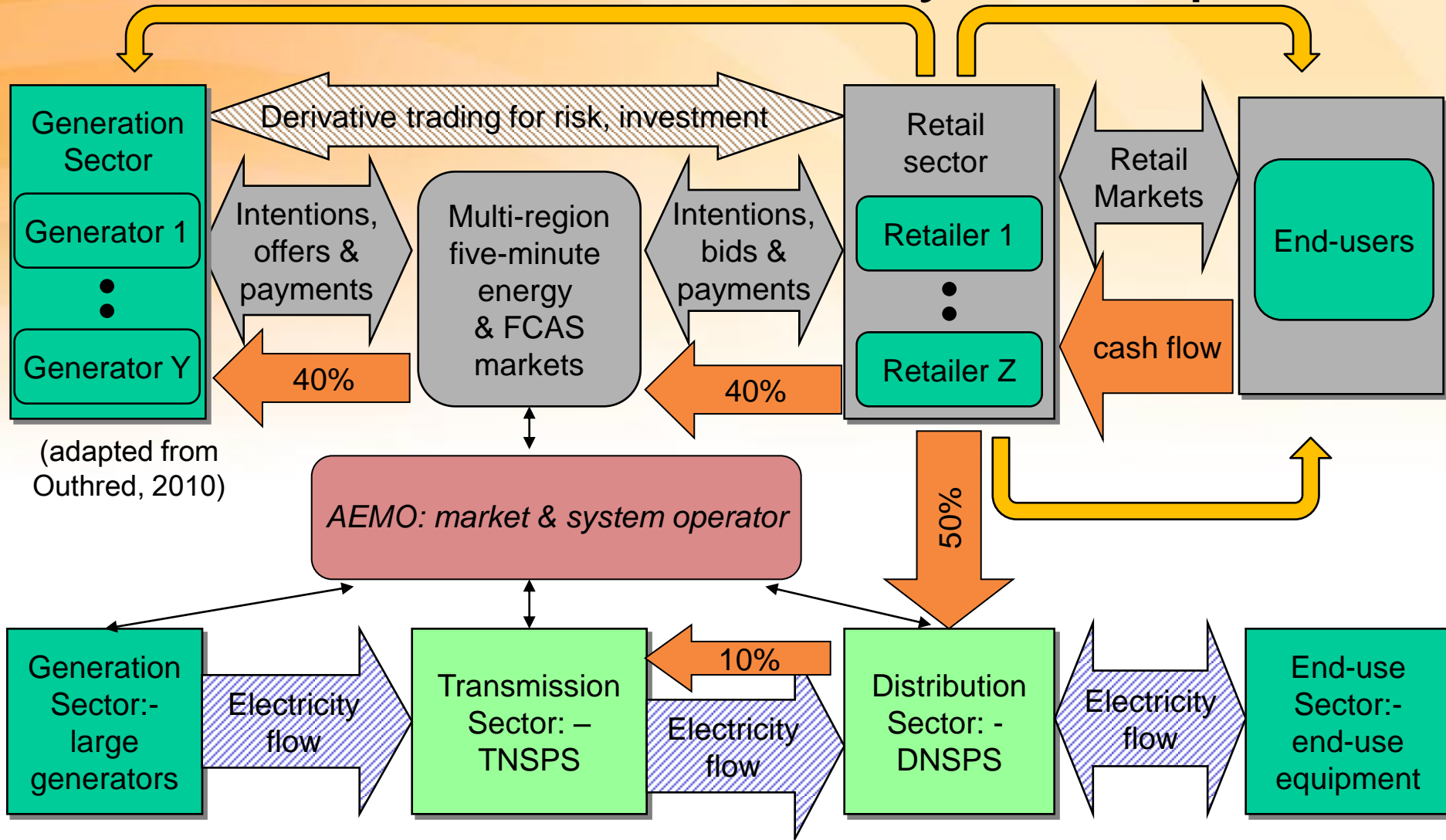


(ESAA, Submission to AEMC DSP Issues Paper, 2011)

# Key questions: are these increasing prices...

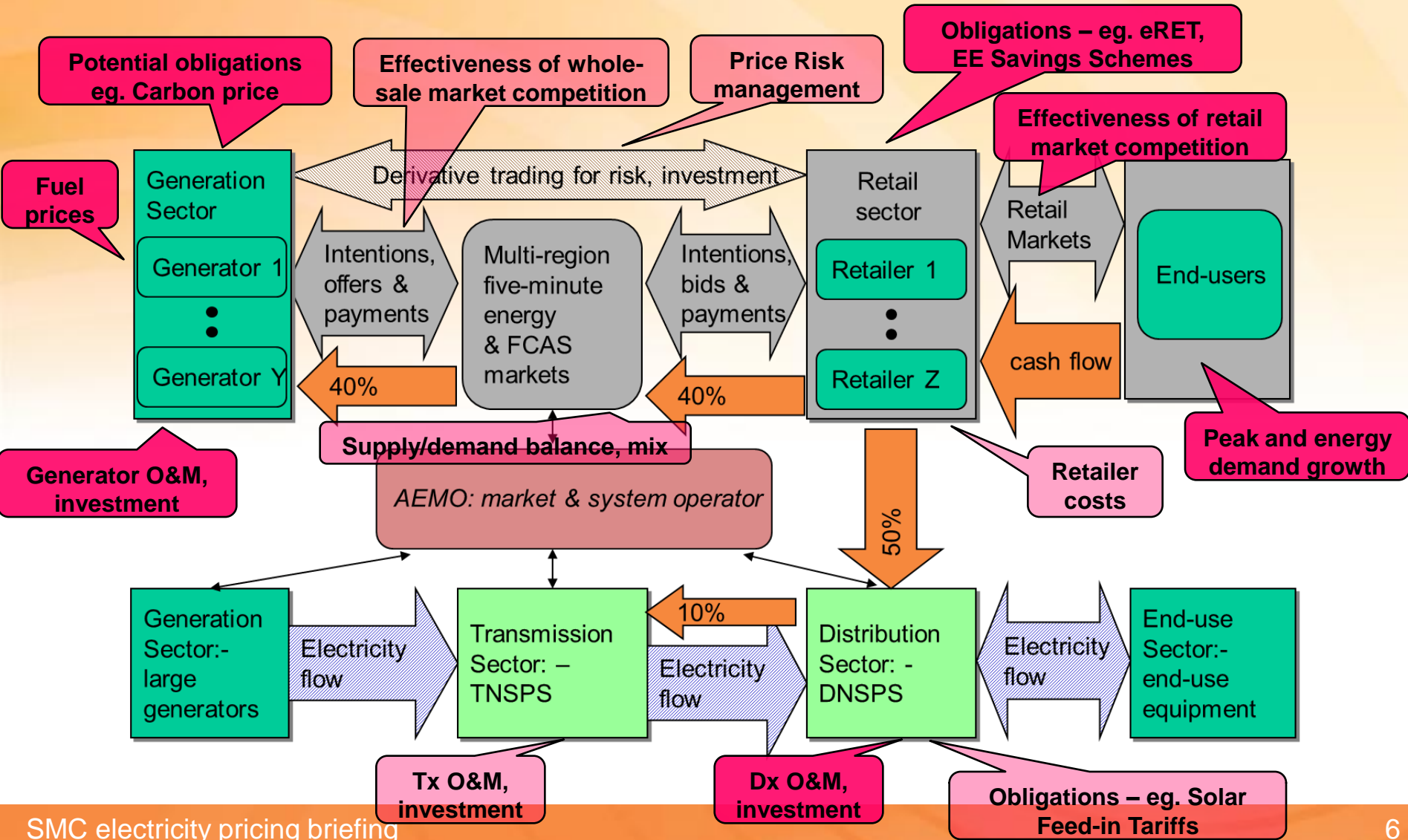
- required to cover costs necessary to maintain or improve energy security and reliability benefits to end-users?
  - eg. from aging assets, growing peak demand and/or energy consumption  
*Are reliability standards actually set by those who will pay?*
- economically efficient? ie. appropriately allocate costs, benefits to participants on basis of their contribution to societal welfare
  - According to standard mkt theory **yes**, unless there are market failures  
*But electricity markets exhibit every possible form of market failure*
- an outcome of now pricing previously unpriced environmental externalities such as climate change
  - Failing to ‘price’ greenhouse emissions is economically inefficient and inequitable... yet attractive to some key stakeholders  
*But question is not whether to price C (costs \$ to mitigate, \$ of damage and \$ to adapt if you don’t) but who pays how much to whom when*

# The Australian NEM – many costs, prices..





# ..and many drivers of cost, price outcomes



# Retail markets and network expenditure

- *The unfinished business of electricity industry restructuring*
- Current market selling the wrong product – electricity kWh rather than the desired energy services of energy users
  - homogenous, low engagement competition isn't really competition
- Don't actually have prices, instead tariffs (schedule of fees)
  - traditionally 'charge' 'schedule of fees' sufficient to deliver essential current & future access to 'reliable' electricity supply 'service' s.t. underlying customer 'class' costs, wider considerations (eg. equity).
  - unresolved question for restructured electricity industries – only limited moves towards economically efficient prices requiring major changes to interface b/n supply and demand sides of electricity industry and NSPs
  - Little apparent interest or willingness to do this to date by key players
- Inevitably limits to the role of prices given electricity's wider societal objectives including accessibility, sustainability

# So, these increasing prices are

- in part due to energy security and reliability standards, *but unclear these represent preferences of those who pay*
- clearly not economically efficient because
  - *Current market arrangements don't facilitate appropriate levels of demand-side participation and energy efficiency which are both essential to improve economic efficiency*
  - *Network expenditure has evident 'gold plating', currently largely ignores non-network solutions*
- in part welcome + overdue recognition of need to price greenhouse externalities through C price, renewable energy target
  - *At present, only partial removal of a long running subsidy to large high emission generators*

***Future prices? – depends on our choices on above and more***



# And ways forward

- Electricity industry trends not destiny... but often default
- Many key opportunities going forward lie on the demand-side; energy efficiency, demand-side participation, distributed gen.
- However end-users have to be 'ready, willing and able' to act
  - Need support from Energy Service Companies (ESCOs) focussed on delivery of energy services - the missing 'institutional' player in the NEM  
*This should be key focus of future 'reform' including 'Power of Choice'*
- More economically efficient retail, network prices can play useful role but inherently limited in addressing wider concerns
  - *Coherent and comprehensive policy, market and regulatory framework*
- Network decision making better served by formal Integrated Resource Planning approach rather than current arrangements
  - *Greater transparency, stakeholder participation, separation of powers*



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Thank you... and *questions*

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