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2017 Transmission Network Forum



#PQForum



Interactive Session 2

How can transmission
deliver secure, affordable
and sustainable electricity
in the future?

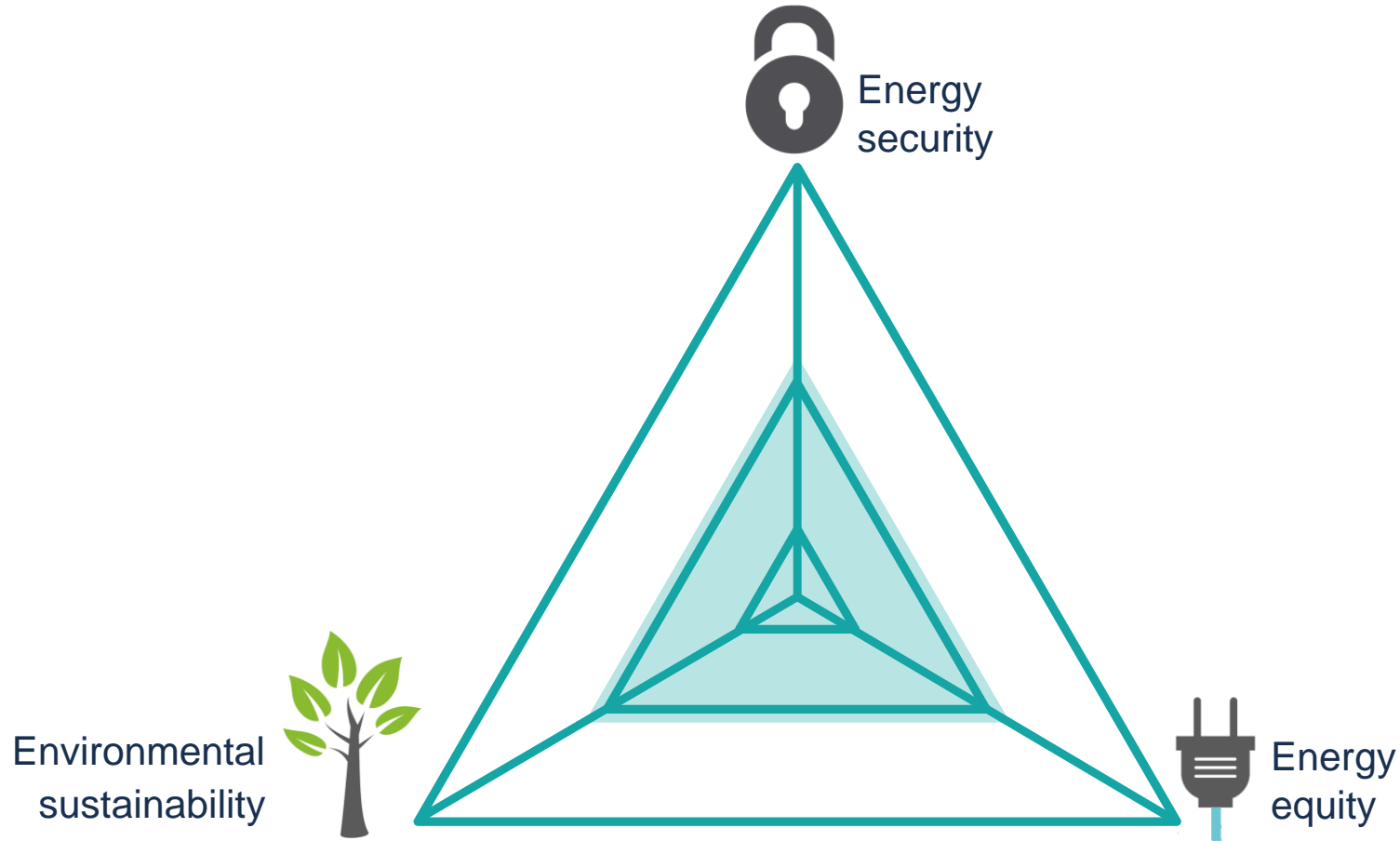


- Current Market Reviews
 - Finkel, Credible Pathways, ENA Transformation Roadmap
- Key concepts of the Future Grid
 - Demand Profile, Generation Diversity, Storage and Interconnection
- What is the optimal mix?
- Questions
- Interactive Discussion

NEM transitioning



Energy priorities



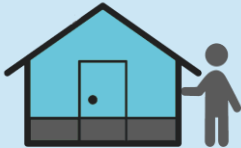
Key Finkel Review outcomes



- Increased Security



- Future Reliability

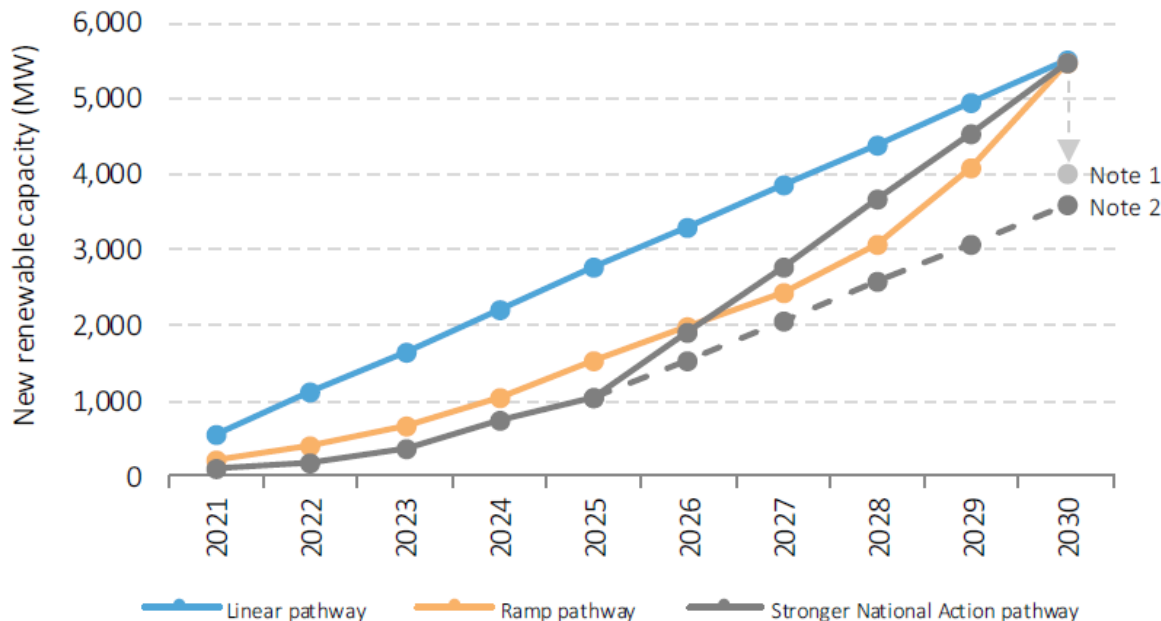


- Rewarding Customers



- Lower Emissions

- Queensland Government review of credible pathways to achieving a 50% RET by 2030.



- *Powering Queensland Plan*
 - Queensland **Energy Security Taskforce**
 - advise and implementation of Finkel Review
 - **Summer Preparedness Plan** for 2017-18 and 2018-19
 - options to expanding **interconnection** between QLD and NSW
- Facilitation of **renewable energy projects**
 - feasibility studies for strategic transmission infrastructure - **'clean energy hub'**
 - **reverse auction** 400MW renewable capacity, including 100MW storage

- ENA and CSIRO proactive initiative
- Two year period – expert evidence, research, extensive stakeholder consultation
- Final Report - April 2017
- Guide electricity network transformation for the next 10 years.

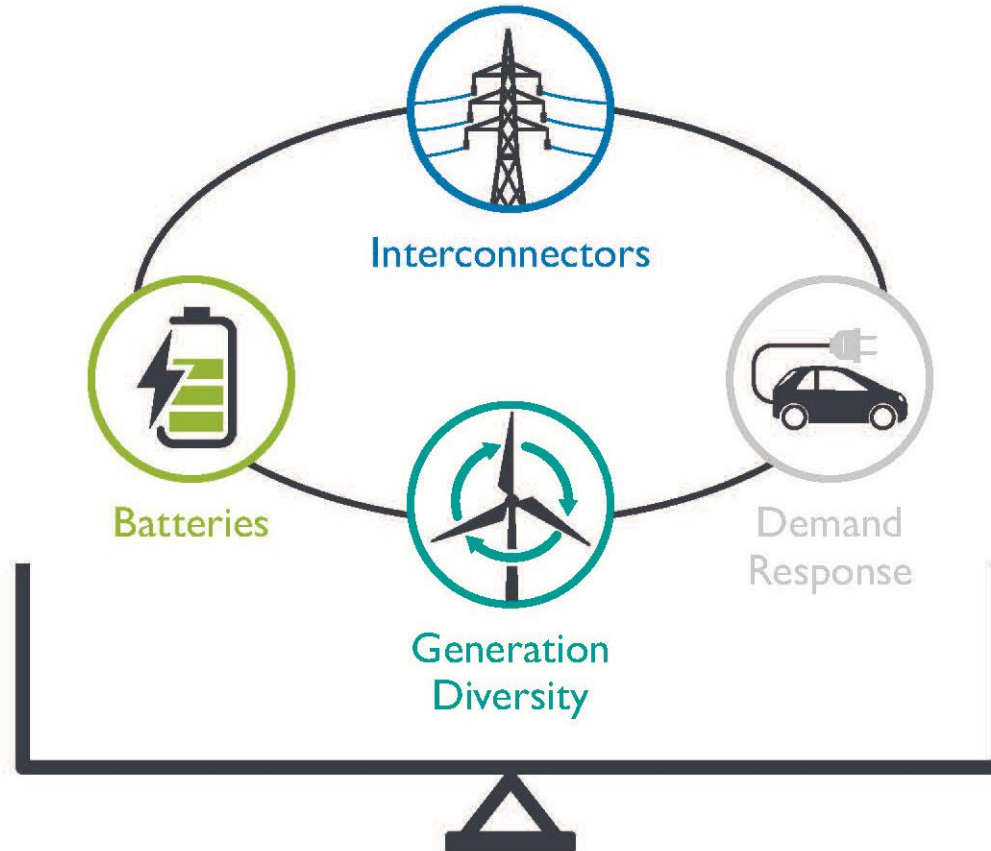


2017-27

Key themes for transmission

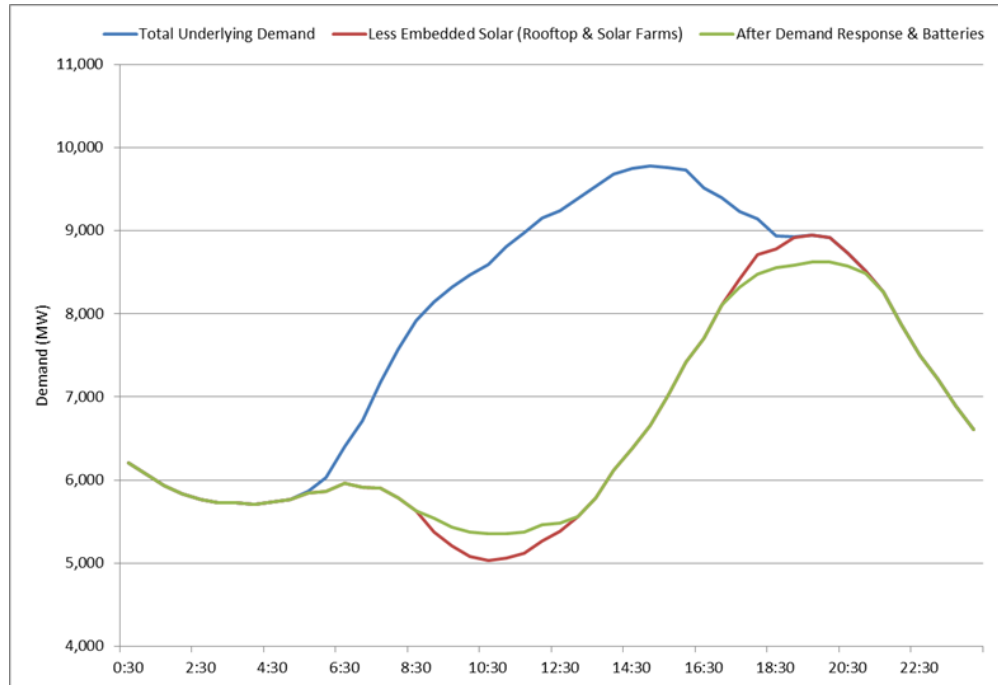
Focus Area	Finkel	CP	ENTR
System security	✓	✓	✓
System planning	✓	✓	✓
Summer preparedness	✓	✓	
Support REZ development	✓	✓	
Customer interests	✓	✓	✓
Strategic Plan and Implementation	✓	✓	✓
Business resilience	✓	✓	✓

Optimal balance



Changing demand profile

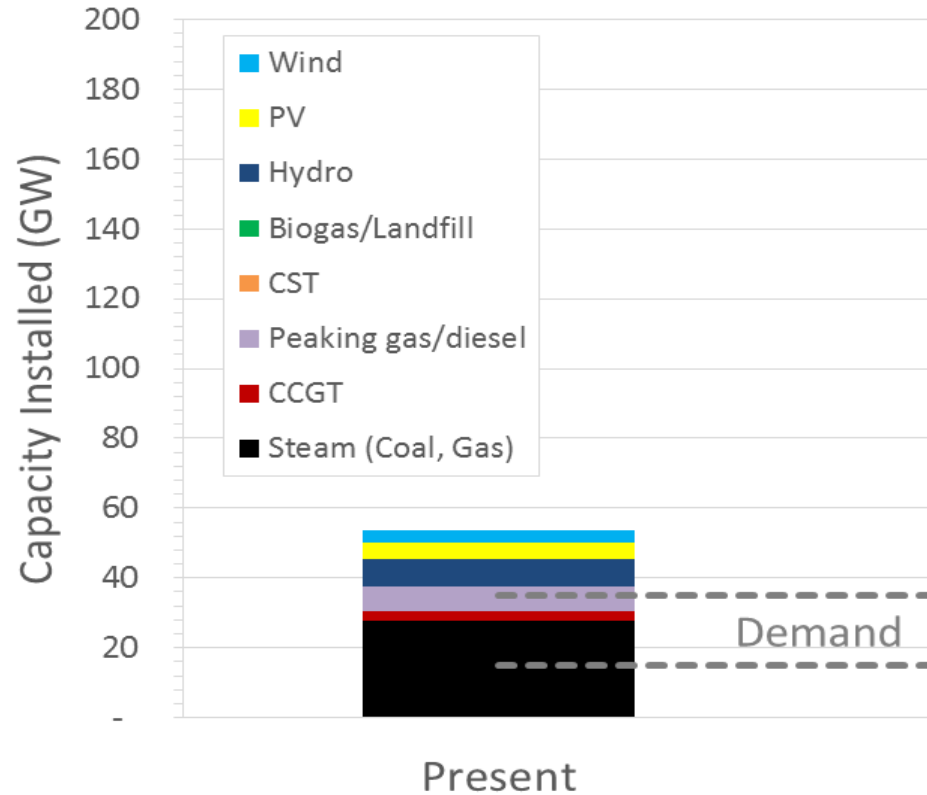
- Distributed Energy Resources: Solar
- Demand Response
- Batteries
- Electric Vehicles



Generation diversity

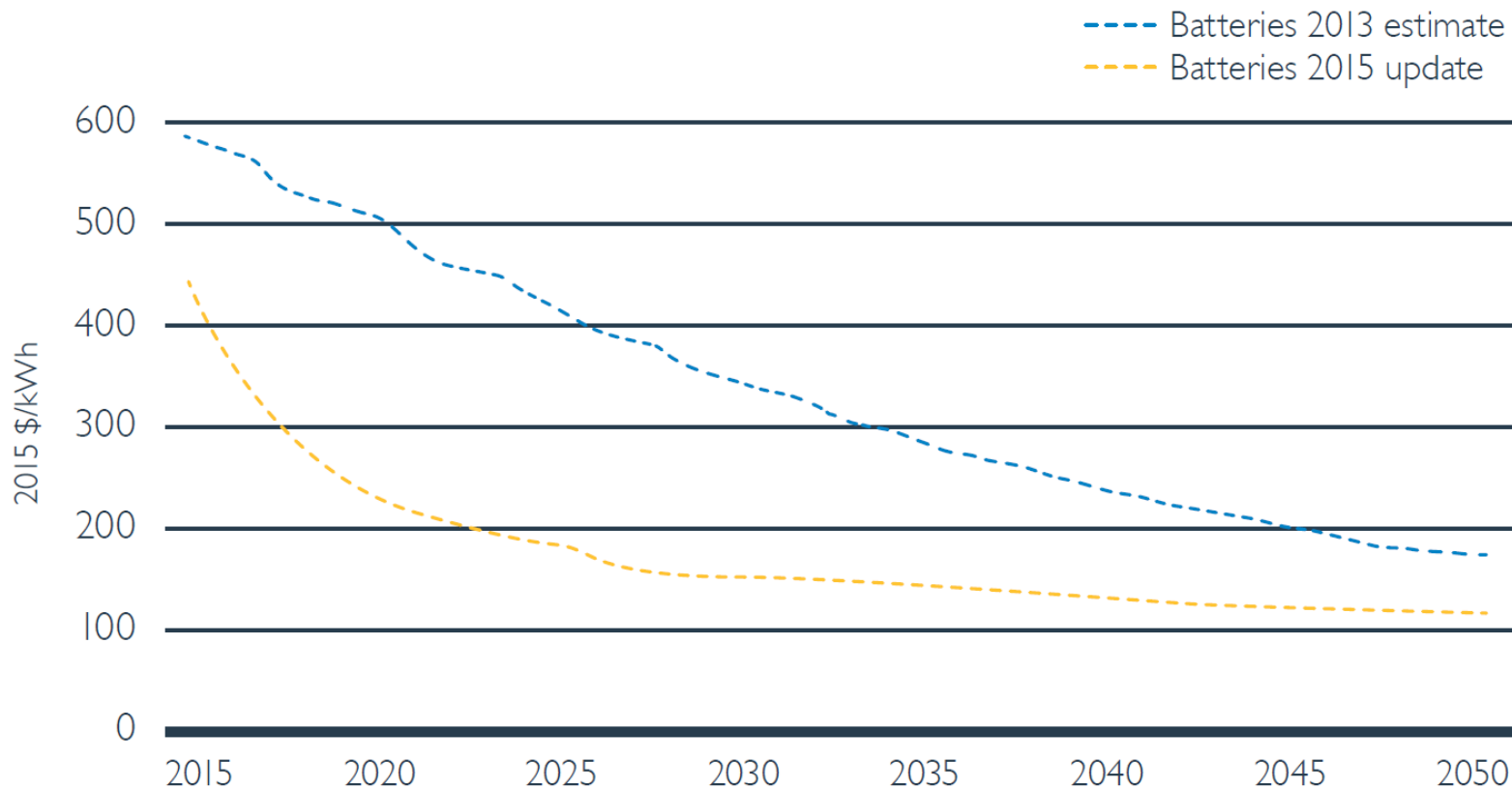


Generation diversity

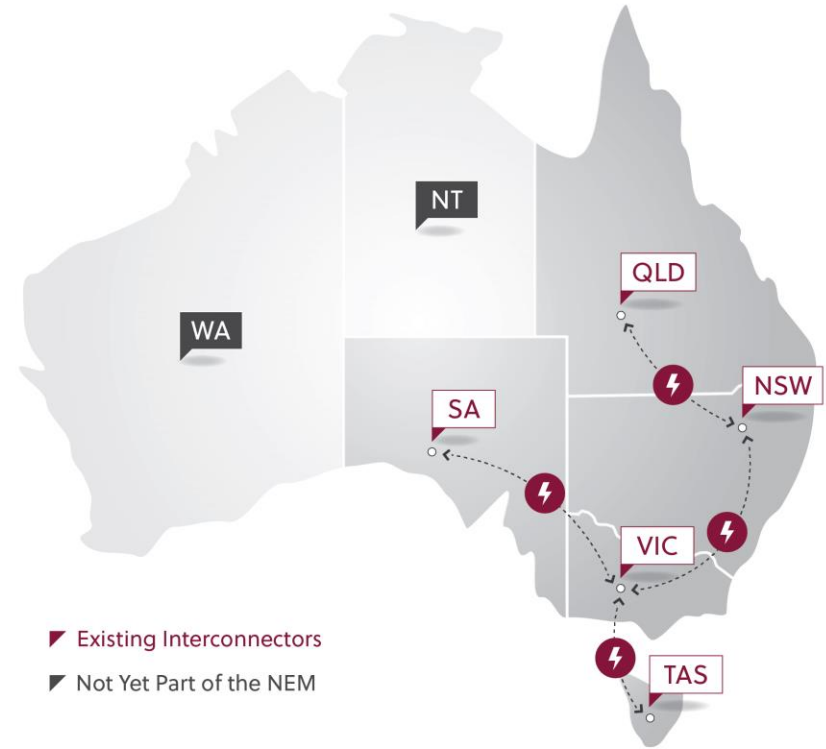


Source: J. Riesz, B. Elliston, "The impact of technology availability on the costs of 100% renewable electricity generation scenarios for Australia", 38th IAAE International Conference, Antalya, Turkey, May 2015.

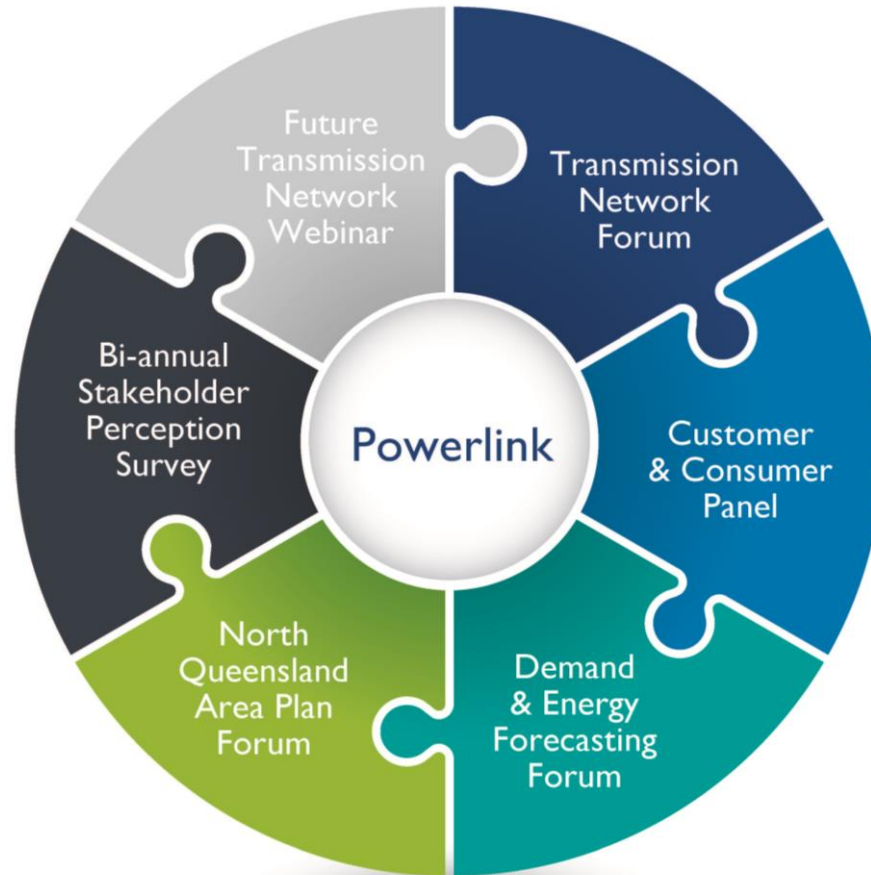
Storage



- AEMO has highlighted a number of interconnector upgrades in NTNDP
- There will be significant generation changes in next 5 to 10 years
- How much interconnection is the right amount?



Current customer engagement



"Powerlink demonstrated a genuine desire to put the interests of its customers first."

"This customer focus has allowed for a constructive approach in our scrutiny of the proposal."

- AER Board member, Jim Cox

Questions?

Thank you



Questions for discussion



1. *What system security initiatives will deliver best value for customers?*
2. *What is the most effective way Powerlink can contribute to downward pressure on electricity prices?*
3. *How should Powerlink inform and engage with customers to ensure the network continues to meet their future needs? Who else should Powerlink be engaging with?*