Myths and legends of the electricity market

Alan Finkel, Australia’s Chief Scientist
Chair of the “Finkel Review”
MYTH ZERO: Speakers follow their topic
MYTH ONE: It’s not too late to go back
It’s too late! – rampant disruption
Different reviews...
Australia’s report card: fallen behind

Everyone else has a **strategy**!

Regulatory **system** suffering from 10 years of policy paralysis

Our very own trifecta

- High prices
- High emissions
- High uncertainty
Electricity policy

Electricity STRATEGY

Emissions policy
Needs three interlocking elements:

• Trajectory

• Mechanism

• Reliability obligation
MYTH TWO: Renewables share and emissions reduction are interchangeable
Orderly Transition (electricity strategy)

Atmospheric emissions

Not the same as percentage renewables!

42% renewables

28%
Generation mix needed – but it’s not an outcome
Need to focus on outcomes...

INPUTS

Generation mix (coal, gas, solar, wind)

OUTPUTS

Wholesale price

National Electricity Market (NEM)

OUTCOMES

SECURITY

EMISSIONS

RELIABILITY

AFFORDABILITY
MYTH THREE: It’s only about next summer
Today:  

Tomorrow:
Transportation sector in Australia
Direct combustion sector in Australia

Leeds should be a leading 'hydrogen city', report suggests
MYTH FOUR: The market will work it out
What can forward-looking market rules do?

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<tr>
<th>Accepted recommendations</th>
<th>Will help to...</th>
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<tr>
<td>• Strategic reserve</td>
<td>Meet extreme demand</td>
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<td>• Day ahead market (Rec. 3.4)</td>
<td>Ensure reliability</td>
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<td>• Enhanced security obligations such as minimum levels of inertia (Chapter 2)</td>
<td>Avoid power supply disruption (blackouts)</td>
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<td>• Improved system planning</td>
<td>Efficiently plan transmission lines and interconnectors</td>
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<td>• Renewable energy zones (Chapter 5)</td>
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<td>• Three-year notice of closure</td>
<td>Signal new investment opportunities</td>
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MYTH FIVE: Batteries are for toys and iPhones
What’s in the news?

World's most powerful lithium ion battery finished in SA

Tesla's giant back-up battery is intended to ease SA's blackout risk this summer, with capacity to keep the power on in about 30,000 homes for more than an hour.
Meeting Australia's Paris greenhouse commitment at zero net cost

![Graph showing cost comparison](image)

Fig. 1. Comparison of costs for future generation mixes.
MYTH SIX: It’s easy
It’s not!

The goal:
A National Electricity Market that is

• Outcomes focused
• Creating whole of economy opportunities
• Guided by effective market rules
• Supported by a wide range of technologies
“Everything must change so that everything can stay the same”

THANK YOU