Potential Generator Market Power in the NEM Rule change

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Purpose of this presentation

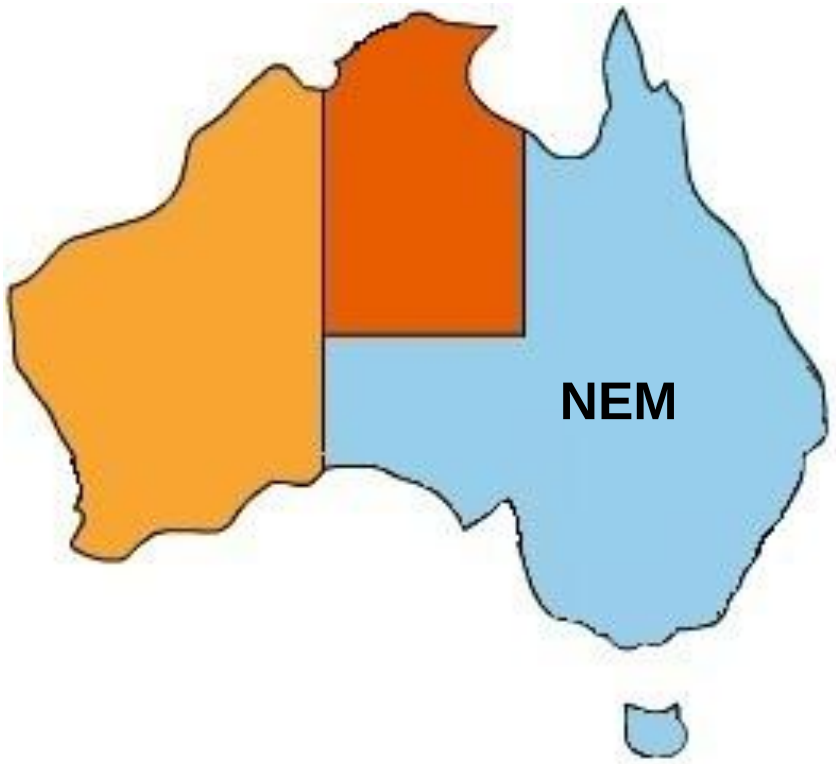
- Brief overview of the AEMC and the rule change process
- Overview of the MEU's rule change proposal
- Summary of the AEMC's process for assessing the MEU's proposal
- Explanation of the approach proposed in the Directions Paper

About the AEMC

About us

- **Governance**
  - Independent, national body
  - Three Commissioners
  - Responsible to the Council of Australian Governments through the Ministerial Council on Energy
- **Our role**

  Two main functions:
  - **Rule making** for the national electricity and gas markets
  - **Reviewing and providing advice** to the MCE on specific energy market issues



The Rule change process

- Anyone may propose a change to the National Electricity Rules
- We may only make a rule if we are satisfied that it is likely to contribute to the achievement of the National Electricity Objective (NEO):

> *"…to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers with respect to –*
> *(a) price, quality, safety, reliability and security of supply of electricity; and*
> *(b) the reliability, safety and security of the national electricity system."*

- We may make a different rule that addresses the issues raised in the rule change request (a more preferable rule) if it is likely to better contribute to the achievement of the NEO

Overview of the MEU's Rule change proposal

The problem the MEU is seeking to address

- MEU considers that some generators have ‘market power’
- MEU considers those generators exercise their market power during periods of high demand to increase the wholesale spot price to very high levels that significantly exceed their costs, with flow on effects for the price and availability of contracts
- Main concern is the bidding behaviour of AGL’s Torrens Island power station and resulting high prices during high demand periods in SA, but also some concerns about generators in other regions
- Proposed rule is intended to constrain these generators’ ability to exercise market power

The MEU's proposed Rule change

- AER would assess which generators in each region have the ability to exercise market power and declare each of those generators to be a 'dominant generator'
- No definition of 'market power' in proposed rule – AER would issue Guidelines setting out its approach
- MEU considers that a generator has market power if it is able, at or above a particular regional demand level, to set the spot price without effective competition from other generators
  - e.g. MEU considers that AGL would be a 'dominant generator' in SA when demand exceeds 2,500 MW – above that level, AGL can bid any price and be assured of dispatch because the output of all other generators combined is not enough to meet demand

The MEU's proposed Rule change

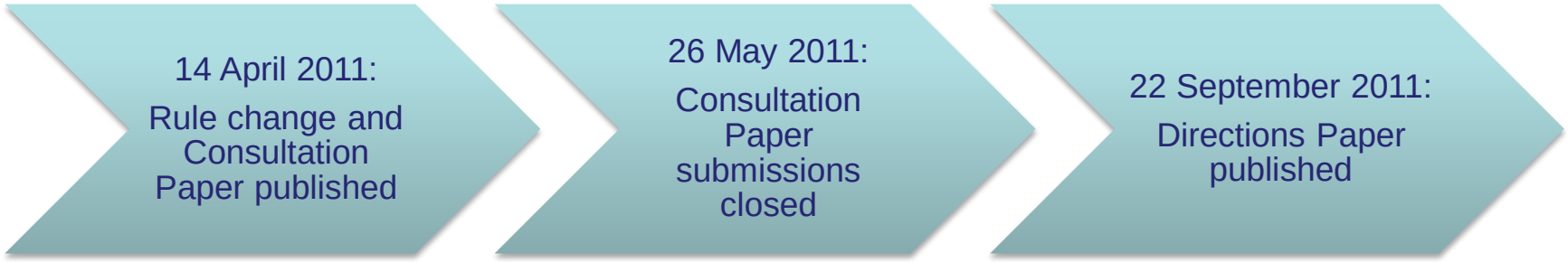
- If a generator is declared to be a 'dominant generator':
  - it can offer any price and capacity until demand reaches the level at which it was declared dominant
  - above that level, it must offer all of its available generation capacity at a maximum price of $300/MWh
  - all other generators remain free to offer any capacity and price
  - the regional reference price is determined as usual, and that price applies to all generators including the dominant generator
- Rule would apply in all NEM regions

Some context: recent SA wholesale prices

Year	Number of half-hour prices	
	above $5,000/MWh	above $300/MWh
2006	1	62
2007	3	78
2008	52	78
2009	50	97
2010	24	58

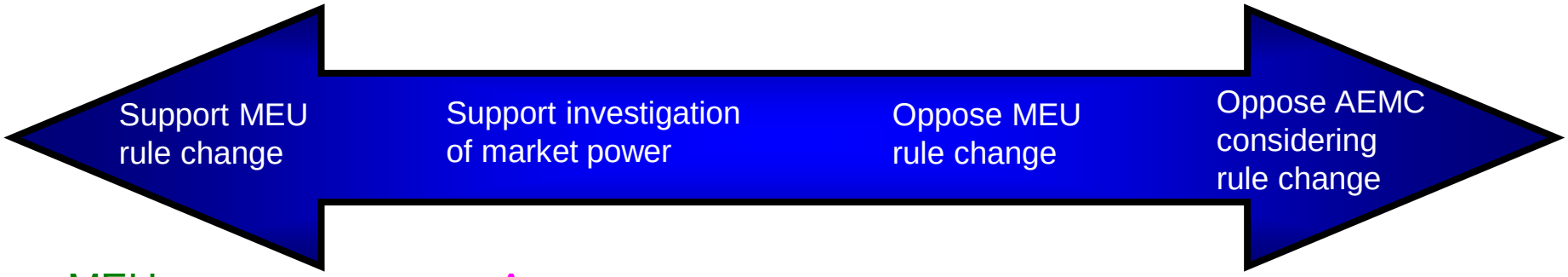
The AEMC's process for assessing the MEU's proposal

Our process so far



- 19 Consultation Paper submissions were received, plus two documents for the Web Forum
- Some submissions included detailed economic reports
- Very broad range of views
- Directions Paper submissions close 17 November 2011

Submissions to the Consultation Paper



MEU

Kimberly-Clark

Energy Action Group

EUAA

Australian Paper

Aurora

AER

AEMO

SA Govt

LYMMCo

International Power

AGL

NEM Generators Group

Origin

Hydro Tasmania

TRUenergy

ESAA

Barclays Capital

AFMA

User
Government/Regulator
Retailer
Generator
Other

Our assessment framework

- Outcome of rule change process may be that we decide to:
  - make the MEU's proposed rule
  - make a more preferable rule
  - not make any rule change
- Our assessment framework for this rule change involves 3 steps:

1. Defining the problem	2. Assessing whether there is evidence of that problem	3 Assessing potential solutions to that problem
• What is the appropriate approach to defining market power in the context of the NEM?	• Is there evidence of the exercise or likely exercise of substantial market power in the NEM?	• Will the MEU's proposed rule or a more preferable rule promote the NEO?

Purpose of the Directions Paper

- Purpose is to define the problem that the rule change proposal is seeking to address, and how the AEMC will test whether there is evidence of a problem that potentially justifies a rule change
- Problem that MEU's proposal is seeking to address is the exercise of market power by generators in the NEM, where that market power is used to increase wholesale spot or contract prices
- Submitters had very different views on:
  - the appropriate definition of market power; and
  - whether 'market power' was the most appropriate term
- Primary purpose of the paper is to set out the AEMC's proposed approach to defining market power in the context of the NEM

The approach proposed in the AEMC's Directions Paper

Key issues addressed in the Directions Paper

- ‘Market power’ or ‘substantial market power’?
  - Why a distinction should be made between the two terms and why ‘substantial market power’ is more appropriate in the context of the NEM
- Proposed definition of ‘substantial market power’
- Proposed definition of the ‘exercise’ of substantial market power
- Market definition
- ‘Tacit collusion’
- The Commission’s power to make the MEU’s proposed Rule or a more preferable Rule

‘Market power’ or ‘substantial market power’?

- Consistent with several submissions, we consider that ‘market power’ is not the most useful concept in this context - ‘substantial market power’ is a more useful term
- This approach clearly distinguishes between:
  - *substantial market power*, which involves sustained pricing above a level that would prevail in a workably competitive market
  - *transient pricing power*, which involves a transient ability to price above cost for short periods of time
- Also reflects that workable competition is the relevant benchmark for regulatory intervention, not perfect competition

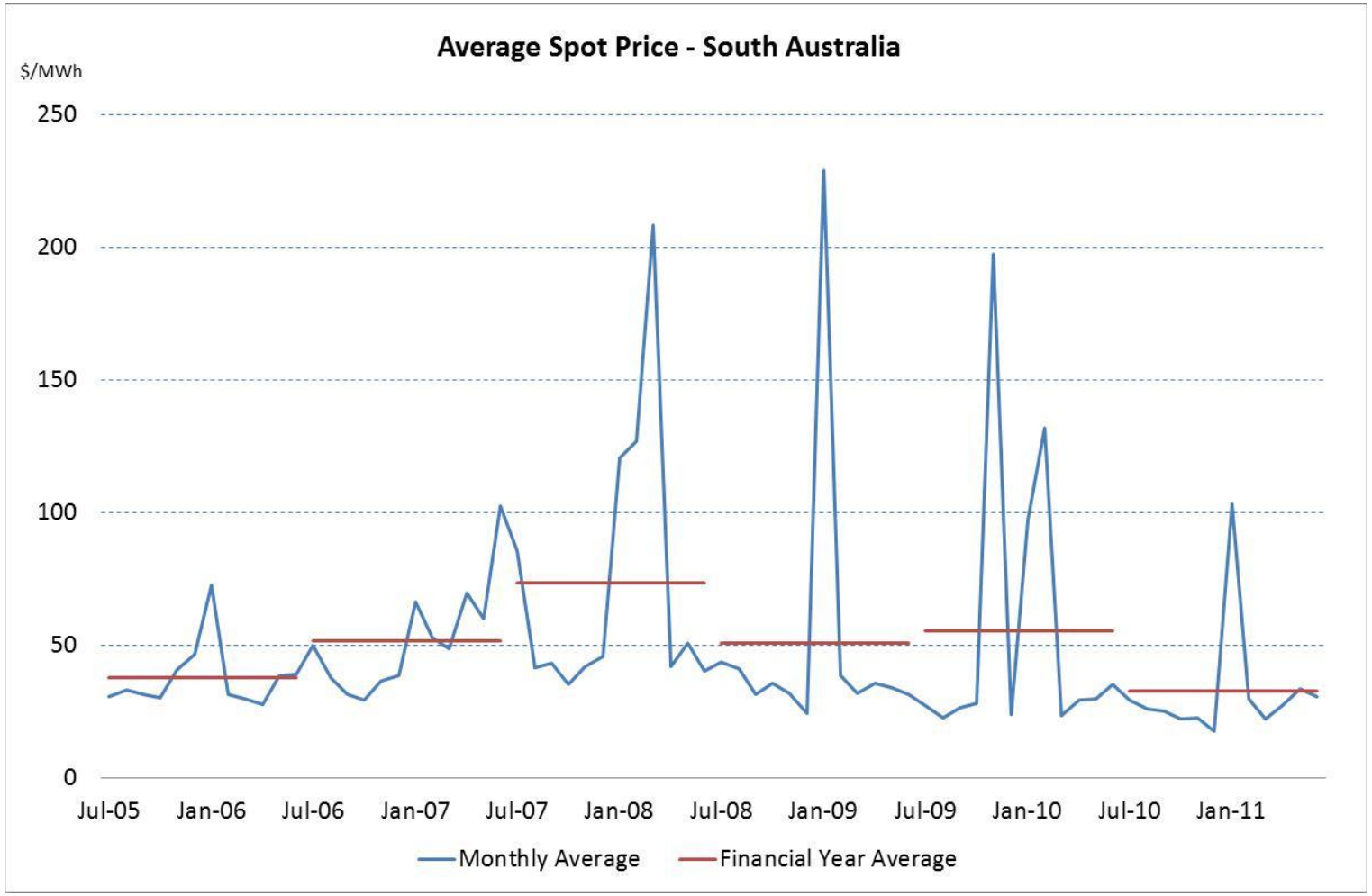
‘Market power’ or ‘substantial market power’?

- This approach also reinforces the need to adopt a long-term perspective and to recognise that wholesale electricity markets involve large lumpy investments and significant fixed costs
- A transitory price spike that causes the wholesale price to exceed costs in the short term does not in itself indicate the existence of a market power problem that justifies regulatory intervention
- Price spikes are relevant, but need to adopt a longer term view – are they of sufficient size and frequency that they affect average prices?
- Occasional price spikes are an inherent feature of the market and provide a mechanism for generators to recover efficient fixed costs

Some context: recent SA wholesale prices

Year	Number of half-hour prices – South Australia			
	above $5,000/MWh	above $300/MWh	below $0/MWh	below -$300/MWh
2006	1	62	1	0
2007	3	78	10	2
2008	52	78	51	3
2009	50	97	93	8
2010	24	58	139	18

Some context: recent SA wholesale prices



Proposed definition of ‘substantial market power’

The ability of a generator to increase annual average wholesale prices to a level that exceeds long run marginal cost (LRMC) and sustain prices at that level due to the presence of significant barriers to entry

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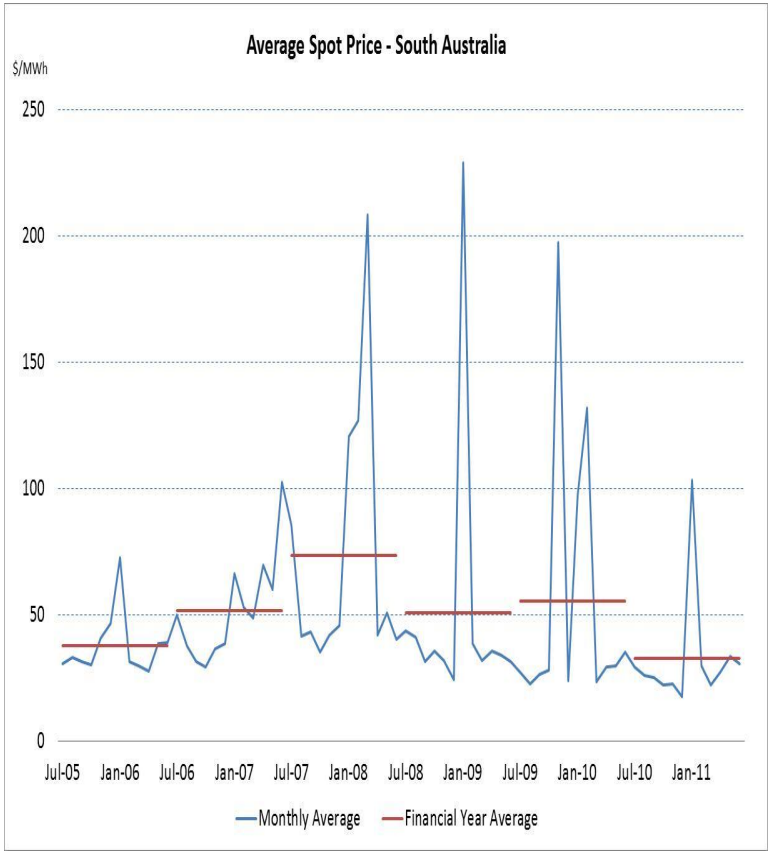
Proposed definition of ‘substantial market power’ - wholesale prices

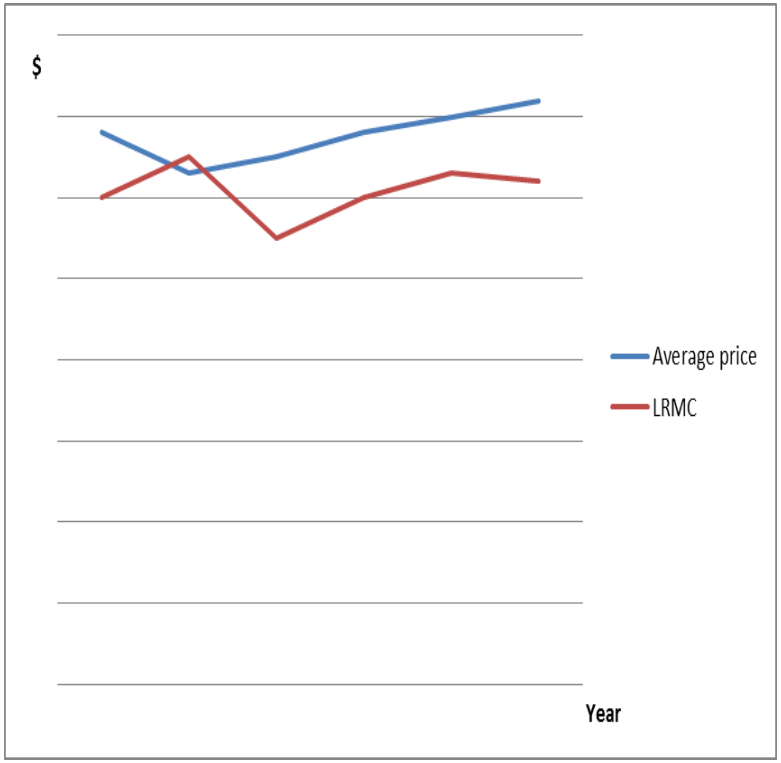
- Use of ‘annual average’ wholesale prices reflects need to adopt a longer term perspective, and our views on market definition
- Price spikes must be considered in context, including effects of low or negative prices in other periods
  - Prices do not need to be *continuously* above LRMC: consider effect of price spikes on average annual prices
- Spot and contract prices are both relevant



Proposed definition of 'substantial market power' - sustained prices and barriers to entry

- Prices must also be able to be sustained at that level:
  - in a workably competitive market prices may exceed LRMC in some periods, but sustained pricing above LRMC should incentivise new entry or expansion, which will compete away those high prices
  - but this will not occur if there are substantial barriers to entry

Hypothetical example only



Proposed definition of ‘substantial market power’ - LRMC

- Relevant cost measure is long run marginal cost (LRMC)
- Reflects level of pricing that should exist on average in a workably competitive market
- LRMC is a more appropriate benchmark than SRMC, particularly given need to allow an opportunity to recover efficient fixed costs
  - SRMC is the cost of an incremental change in demand holding capacity constant
  - LRMC is the cost of an incremental change in demand, assuming all factors of production including capacity can be changed
- Our approach to calculating LRMC is set out in the Directions Paper and NERA report - differs from what several other bodies call LRMC

Proposed definition of ‘substantial market power’ - LRMC

- In electricity generation, capacity is added in ‘lumpy’ increments
- Effect of a sustained increase in demand is to bring forward the time at which a future lump of capacity is required
- LRMC measures the operating and capital costs, in net present value terms, that would be incurred to bring forward a future capacity expansion to meet an incremental increase in demand
- Is the LRMC ‘for the market’, based on the optimal investment profile to meet the increment in demand
- Effect of lumpy investment means that LRMC varies over time
  - LRMC will be lower when utilisation is low and expansions are not necessary for some time, and higher when there is little spare capacity

Proposed definition of the ‘exercise’ of substantial market power

A generator exercises substantial market power where it engages in conduct that has the effect of increasing annual average wholesale prices to a level that exceeds LRMC, and the generator is able (or is likely to be able) to sustain prices at that level due to the presence of significant barriers to entry

Proposed definition of the ‘exercise’ of substantial market power

- Regulatory intervention is only justified if there is evidence of the exercise or likely exercise of substantial market power
  - the mere possession of substantial market power is not sufficient if it is never exercised
- We will assess whether there is evidence of the exercise of substantial market power, or any expected changes that may mean that the exercise of substantial market power is likely in the future
- Exercise of substantial market power only *potentially* justifies a rule change
  - need to be satisfied that the specific rule change will promote the NEO

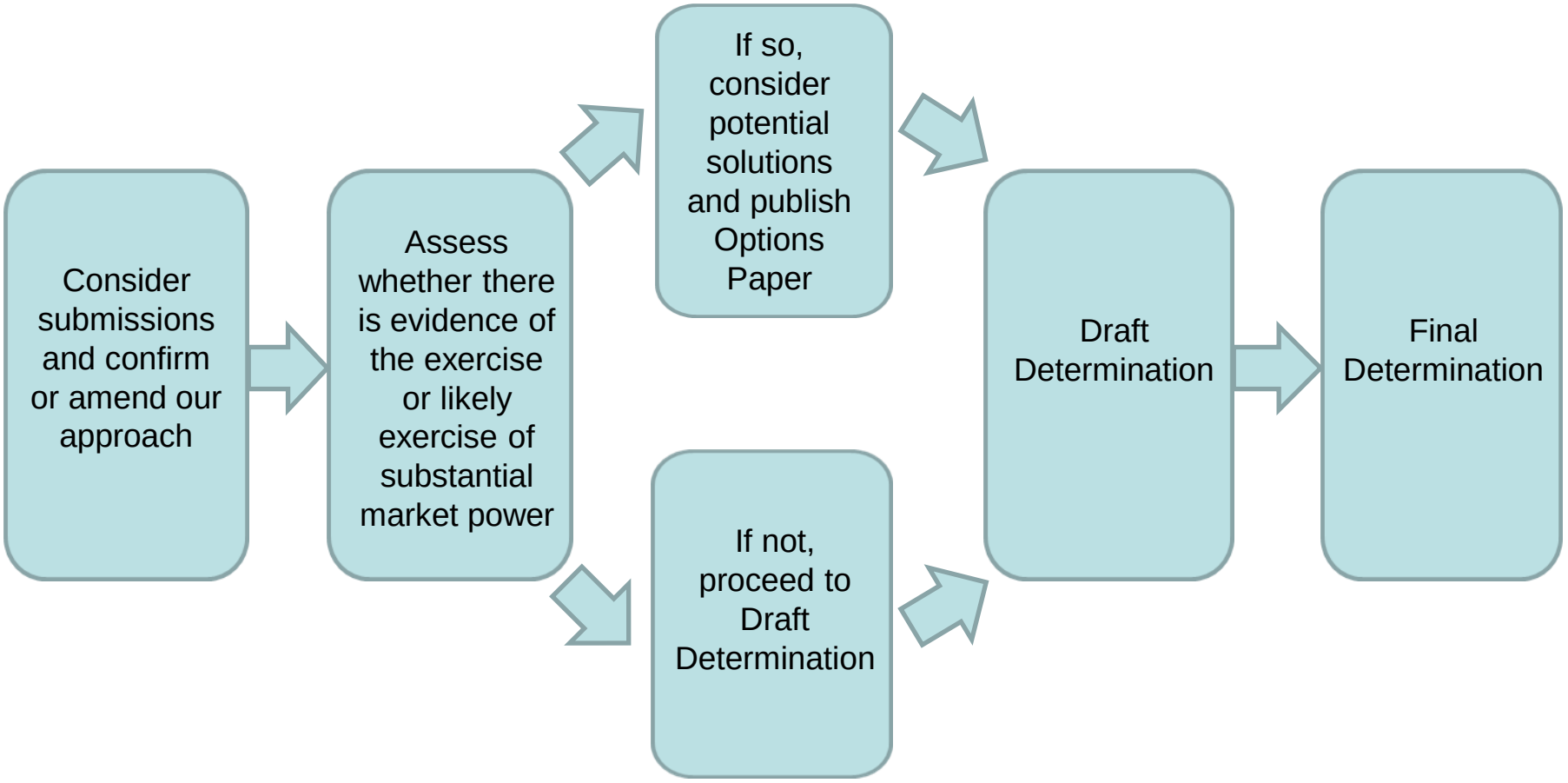
Defining the relevant ‘market’

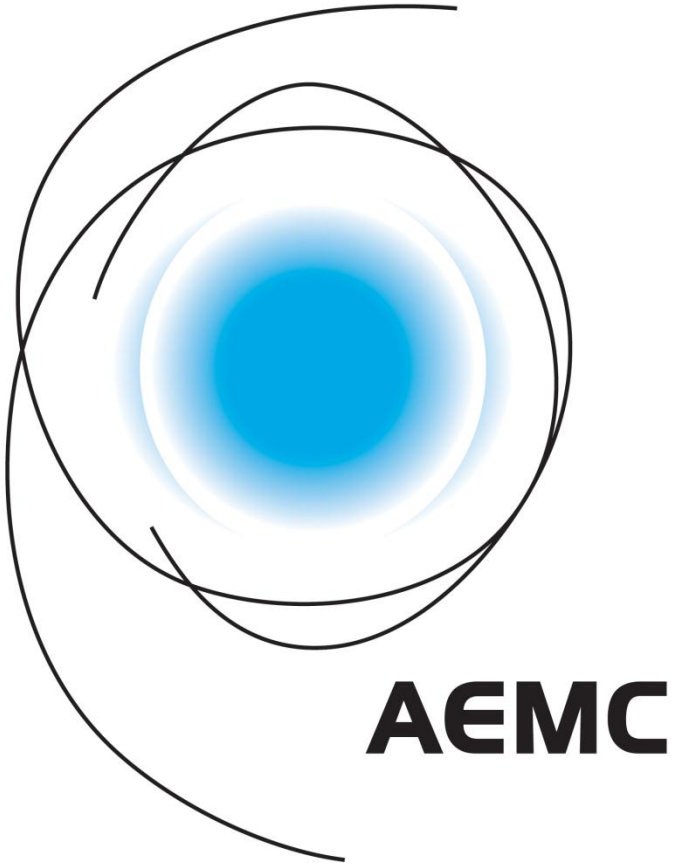
- Necessary to define the relevant market in which to assess whether a firm has substantial market power:
  - represents the field of actual or potential competition
  - affects the ‘price’ used when undertaking market power assessment
  - adopt the usual competition law approach of defining the market by reference to product, geographical, functional and temporal dimensions
- *Product*: electrical energy supplied to the wholesale market. Both spot and contract prices are relevant
- *Functional*: Electricity generation. Does not include retail

Defining the relevant ‘market’

- *Temporal:* At least 1 year, and potentially 2-3 years. Ensures that consider a sufficient period to cover the full demand cycle (eg seasonal variations) and longer term substitution possibilities
- *Geographical:*
  - Empirical assessment required to determine geographic dimension, eg if entire NEM is one market or each region is a separate market
  - Propose to apply ‘SSNIP’ test – could a hypothetical monopolist in the market profitably impose a 5-10% price increase and maintain it for 1-2 years, or would substitution from generation in other regions make the price increase unprofitable
  - Extent of interconnector constraints will be important

Process from here




AEMC