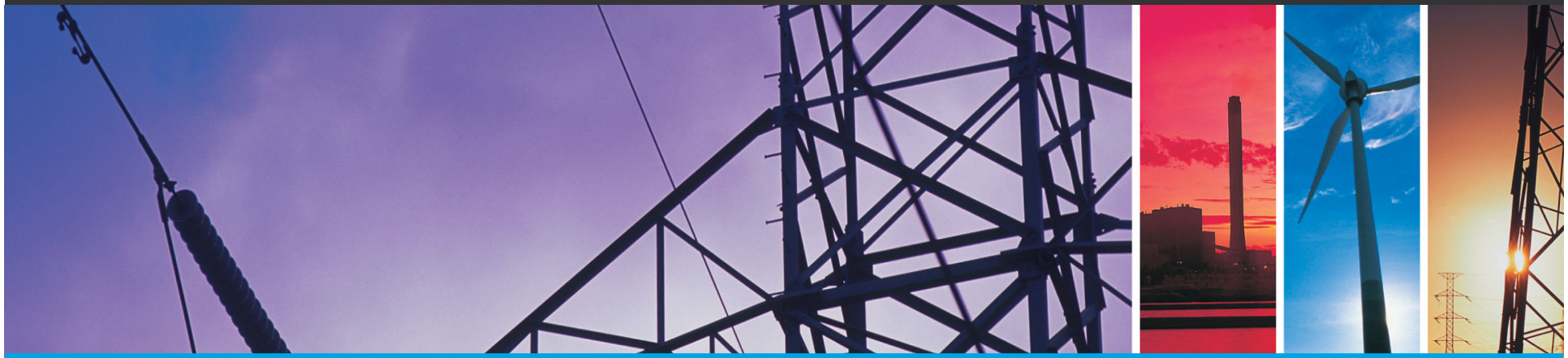
Session 2: Update following 1st Interim Report

Public Forum

8 May 2009

Review of Energy Market Frameworks in light of Climate Change Policies



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Update following 1st Interim Report (1)

Eight generic issues identified for the Review:

1. Convergence of gas and electricity markets
2. Generation capacity in the short term
3. Investing to meet reliability standards with increased use of renewables
4. System operation with intermittency
5. Connecting new generators to energy networks
6. Augmenting networks and managing congestion
7. Retailing
8. Financing new energy investments

Update following 1st Interim Report (2)

- Consideration of issues in Western Australia:
  - Generation capacity in the short term (issue 2) and investing to meet reliability standards with increased use of renewables (issue 3) were combined
  - Financing new energy investments (issue 8) not explicitly considered in a Western Australian context
- Therefore, six issues considered – and summarised over next slides
- Followed by a very brief summary of our consideration of the issues in the NEM

System operation with intermittency (1)

Rationale for 1st Interim position

- Current arrangements for operating the system and dispatching generation are already exhibiting signs of stress:
  - main responsibility for balancing borne by Verve Energy, and not settled cost-reflectively
  - intermittent generators can “spill” onto the system
  - overnight, this spilling may imply that thermal plant should be taken off or coal plant replaced with flexible gas turbines
  - costs of ancillary services may not be efficiently allocated
- Likely increase in intermittent generation as a result of expanded RET will exacerbate these issues

System operation with intermittency (2)

Submissions

- Stakeholders considered this a significant issue to progress
- Range of views on possible options for change

Updated position

- Remains a material issue – intend to provide advice on potential approaches and principles for changes to MCE

Current focus of work

- Developing a package of options that would aim to facilitate more efficient balancing outcomes with increased intermittent generation

Connecting remote generation (1)

Rationale for 1st Interim position

- Framework already showing signs of stress through connection queue
  - lengthy design and regulatory process, linked to “unconstrained” network planning approach
  - will be exacerbated by increased number of generators seeking connection as a result of the expanded RET
- Additionally, these generators are likely to be:
  - clustered in similar geographical areas; and
  - remote from the existing grid
- Existing framework based on bilateral negotiation is not likely to facilitate coordination of applications and allow consideration of future connections and efficient sizing

Connecting remote generation (2)

Submissions

- Stakeholders broadly supported position in 1st Interim, noting:
  - long application lead times and speculative applications in queue
  - transparency of connections process and impact of confidentiality provisions on management of developments at same location
  - some support, but also caution, for AEMC NEM proposals

Updated position

- Remains a material issue – intend to provide advice on potential approach and principles for changes to MCE

Current focus of work

- Considering how framework could best be amended – in combination with efficient provision and utilisation of the transmission network

Efficient provision and utilisation of the transmission network (1)

Rationale for 1st Interim position

- "Unconstrained" network planning approach can lead to inefficient over-investment in transmission network
  - may be efficient to allow some congestion to occur
- No market mechanism to allow for management of constraints
- Consequential effect on costs and lead times for new connections
- Planning assumptions may not be reflective of output
  - expanded RET will increase low capacity factor generation
- Locational signals need to ensure that generator locational decisions, as well as network response to these, promote efficient outcomes

Efficient provision and utilisation of the transmission network (2)

Submissions

- Stakeholders unanimously agreed this is a significant issue, noting:
  - "unconstrained' planning approach should be reviewed as a matter of priority
  - but measures to address this may be complex
  - locational signals should be reviewed – may give weak or even perverse signals

Updated position

- Remains a material issue – intend to provide advice on potential approaches and principles for changes to MCE

Current focus of work

- Considering how framework could best be amended – in combination with connecting remote generation

Retail price regulation (1)

Rationale for 1st Interim position

- CPRS is likely to result in large and unpredictable cost increases for retailers in early years
- Will further exacerbate existing situation in Western Australia, where regulated retail tariffs do not enable retailers to recover costs
- Existing price regulation mechanism therefore unlikely to be flexible enough to cope with these large and volatile cost changes
- Note:
  - pricing frameworks are a matter for individual jurisdictions
  - MCE and COAG processes on this issue

Retail price regulation (2)

Submissions

- Most stakeholders agreed this is a significant issue

Updated position

- Remains a material issue for further analysis
  - although start delayed and volatility removed in first year

Current focus of work

- Progressing work on a national basis – may contribute constructively to the developing price regulation process in Western Australia
- Detailed analysis of why CPRS might be different type of cost
- Developing, in consultation with jurisdictional regulators, guiding principles for more flexible retail pricing

Convergence of electricity and gas markets (1)

Rationale for 1st Interim position

- Due to relatively higher gas prices, unlikely to be a material increase in base-load gas-fired generation driven by CPRS
- Expanded RET may lead to increasing role for low-merit gas-fired plant to back-up wind generation
  - identified sub-issues, including timing of nominations and relative inflexibility of pipeline capacity and gas supply
- Considered existing frameworks to be robust as:
  - issues could be resolved through existing market frameworks or were being addressed through jurisdictional initiatives
  - also suggested that if sufficient value was placed on gas, trading should occur - or alternatives such as gas storage

Convergence of electricity and gas markets (2)

Submissions

- Stakeholders questioned our position:
  - lack of flexible pipeline capacity and gas supply
  - would adversely effect investment in fast start gas-fired generation

Updated position

- Existing frameworks do not appear to pose any obstacle to flexible trading – if sufficient demand and adequate price signals present
- Market is small, with limited participants
- Ongoing jurisdictional initiatives e.g. Gas Supply and Emergency Review will examine market mechanisms

Current focus of work

- Not proposing to progress this issue further as part of this review

Reliability in the short term and long term (1)

Rationale for 1st Interim position

- Reserve Capacity Mechanism
  - has delivered adequate generation reserves in the short term
  - appears well place to attract required new investment in the longer term
- Expanded RET will increase intermittent generation, on which less reliance can be placed to be available at times of peak demand
  - Capacity Credits are assigned based on average generation – may over-estimate availability at peak
  - but market frameworks remain robust because allocation methodology can be revised by a Rule change

Reliability in the short term and long term (2)

Submissions

- Stakeholders broadly supportive of Capacity Credits position
  - Renewable Energy Generation Working Group to review this
- Other issues raised included impacts on entry and reliability of:
  - gas-fired plant to provide back up for increased intermittent generation
  - connection application and queuing policy
  - planning and approvals process

Updated position

- Of the other issues raised, some are covered elsewhere in this review, while others do not form part of the energy market frameworks

Current focus of work

- Not proposing to progress this issue further as part of this review

Summary of issues in the NEM

Material issues; mitigation options being developed:

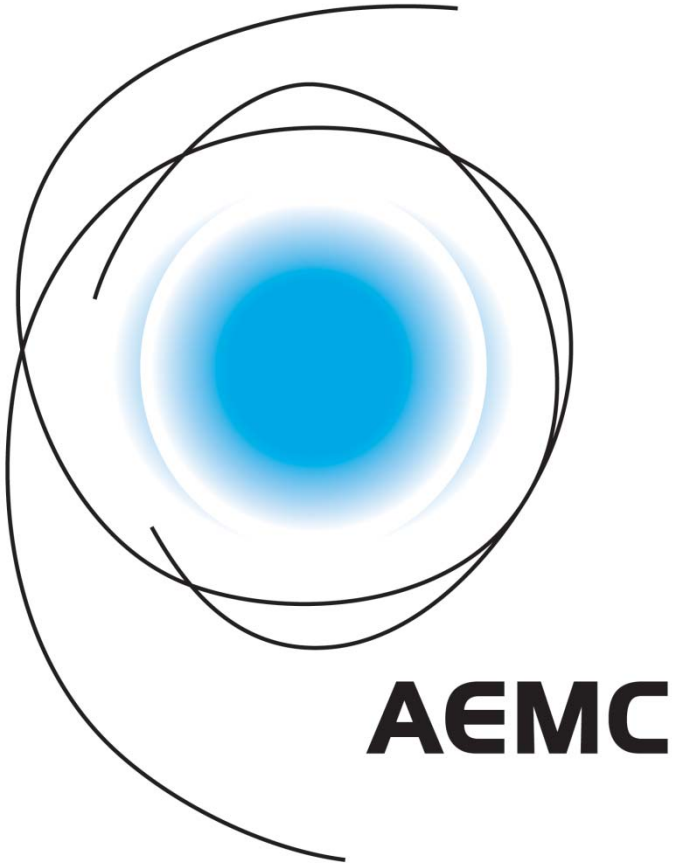
- Short term management of reliability
- Connecting remote generation
- Efficient provision and utilisation of the transmission network
- Retail price regulation

Re-examining materiality – specific issues raised by stakeholders:

- System operation with intermittent generation
- Convergence of electricity and gas markets

Continue to consider that existing frameworks are robust:

- Investing (in the long term) in capacity to meet reliability standards


AEMC