

Review of the Victorian declared wholesale gas market

Public forum – Park Royal, Melbourne

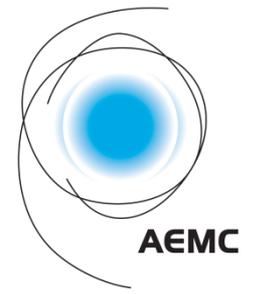


AUSTRALIAN ENERGY MARKET COMMISSION

14 November 2016

Agenda

Time	Item
10.30 – 10.40am	Welcome and introduction
10.40 – 12.15pm	Session 1: the case for change
12.15 – 1.15pm	Lunch
1.15 – 3.25pm	Session 2: the Southern Hub
3.25 – 3.30pm	Next steps



Session 1

The case for change



Why is reform necessary?

East Coast gas market dynamics are changing

LNG exports are placing upward pressure on domestic prices and increasing price volatility:

- LNG exports have linked the domestic market to higher and more volatile international prices;
- Sudden changes in LNG demand may create volatility in domestic gas demand and flows.

Long term gas supply agreements are ending and need to be re-negotiated. New agreements have less volume flexibility or are priced higher, making it more difficult for participants to manage risks.



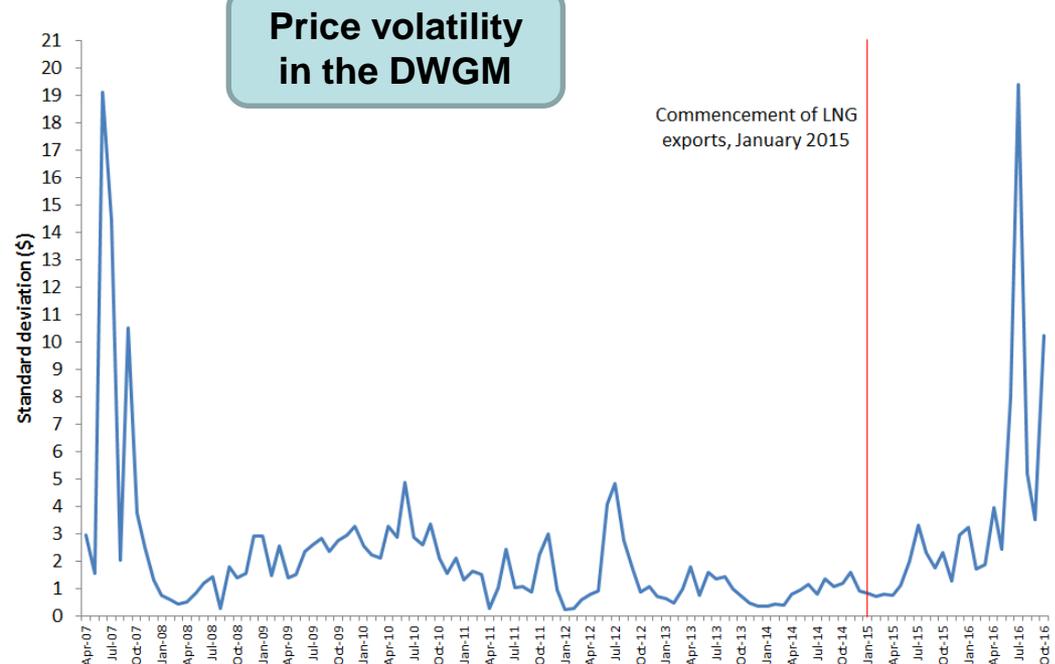
Why is reform necessary?

How is the declared wholesale gas market affected?

- Larger volumes of gas transported from Victoria, due to demand from LNG facilities.
- Potential large volumes of gas sold in the DWGM when LNG facility demand is reduced.

The Victorian gas industry is affected by the wider east coast market forces and is already seeing **increased prices and volatility** in the DWGM.

The issues with the existing DWGM design are likely to be **exacerbated** with increased supply and demand shifts across the east coast.



Drivers for this review

Issues with the DWGM were identified in the **Gas Market Taskforce (Reith Review)**, and reflected in the **Terms of Reference** for this Review:

1. Can participants effectively manage their price and volume risks?
2. Are there signals and incentives for investment in DTS pipeline capacity?
3. Is trading between the DWGM and other east coast markets inhibited?
4. Does the DWGM facilitate upstream and downstream competition?

These objectives are consistent with the **COAG Energy Council's Vision** and the Gas Market Development Plan

The **Vision** includes the following themes:

- Liquid wholesale trading market
- Efficient and transparent reference price that provides signals for investment
- Regulatory framework that supports investment
- Ease of trading between hub locations

Commission's key findings

The AEMC has identified a number of issues with the existing DWGM arrangements:

1. Participants are **unable to hedge price and volume risks**, which is problematic in a volatile market. A financial derivatives market (to assist with risk management) has not emerged due to the complexity of the DWGM's design.
2. The DWGM only provides a spot price for gas. It does not provide meaningful, longer term, market-based **reference prices** to inform investment decisions.
3. The DWGM is a 'market carriage' model where access to pipeline capacity is implicitly bundled with DWGM trades. There is no incentive for participants to underwrite **investment in pipeline capacity**, and investment occurs through a regulatory process with costs and risks borne by consumers.
4. The DWGM has significantly different market arrangements and trading platforms to other facilitated gas markets on the east coast, which does not facilitate **trading between the markets**.

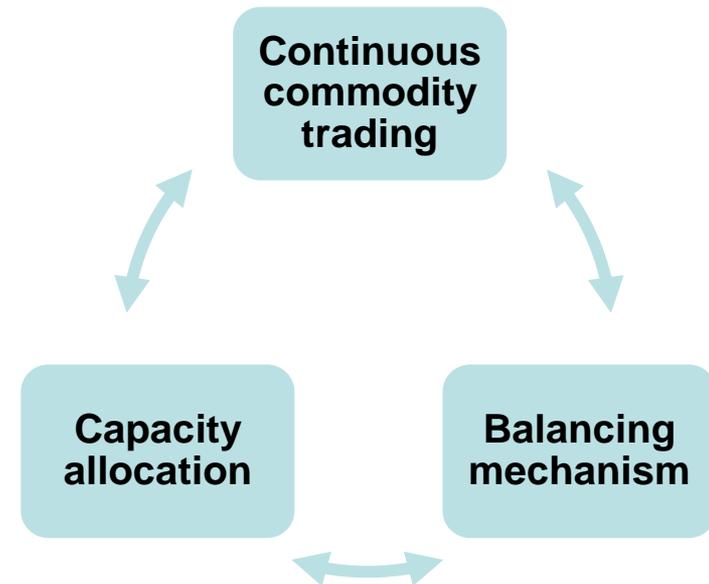
Incremental reforms to the DWGM are **unlikely to resolve these issues** because they are a consequence of the fundamental design of the DWGM.

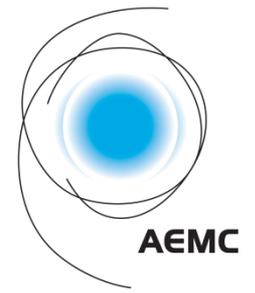
Addressing the key issues

The fundamental design issues with the DWGM can be distilled into two key areas:

1. The **inability to hedge price risk**, other than through very long term, illiquid Gas Supply Agreements.
2. The lack of **incentives** for participants to **invest in pipeline capacity**. Investment occurs pursuant to a regulatory process under which consumers bear risks.

The **Southern Hub model** addresses these by changing the trading mechanism and introducing explicit capacity rights





Session 2

The Southern Hub proposal



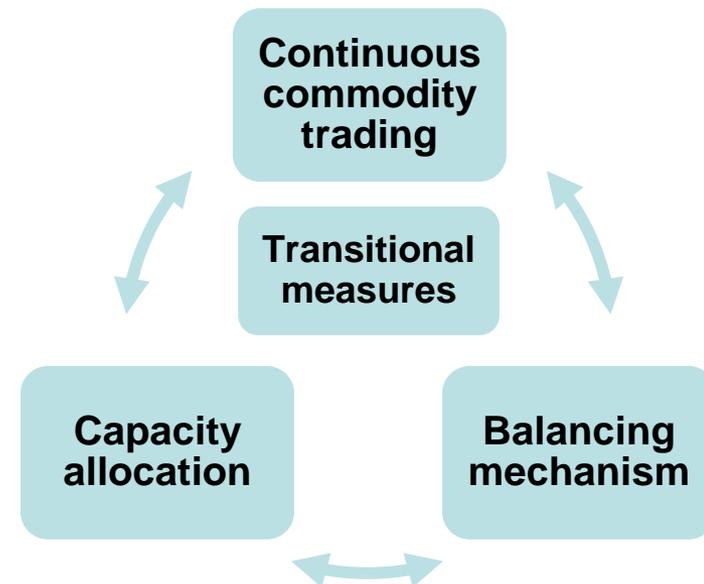
What is the AEMC recommending for the Declared Wholesale Gas Market?

The AEMC has recommended the creation of a 'Southern Hub' – an 'entry-exit' model with exchange-based trading.

- Capacity rights are separated from commodity sales
 - **Explicit capacity rights** are introduced at entry and some exit points
 - **Continuous commodity trading** at a 'virtual' point replaces the existing daily scheduling mechanism
- **Balancing mechanism** operated by AEMO on the day guarantees system security and gas delivery
- Plus **transitional measures** for participants and the system operator to adjust to the new Southern Hub model

Represents a substantial change to the DWGM, but

- is the standard market design adopted across at least 25 European markets of different characteristics;
- uses the same trading mechanism as at Wallumbilla Gas Supply Hub.



Recommendation addresses issues with the existing DWGM

Gas trading arrangements

Instead of mandatory, daily trading in the current DWGM, participants would have more flexible options for trading gas, including through an exchange.

- Provide market participants a greater ability to **manage price risk**
- Create longer term **reference prices** to inform investment decisions
- Provide **consistent trading arrangements** to those at Wallumbilla

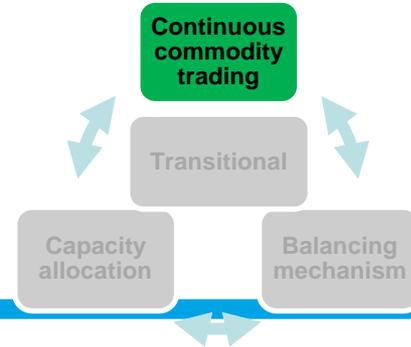
Pipeline capacity arrangements

Instead of capacity being implicitly bundled with gas trades in the current DWGM, participants would obtain explicit entry and exit rights.

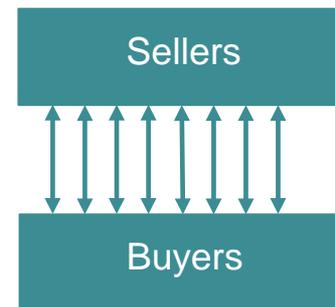
- Allow participants to signal the need for additional investment in capacity by committing to buy entry and exit rights:
- **improving investment decision making**
 - **reducing risks to consumers**

The recommendations have been designed to reinforce the aspects of the DWGM that have been positive to date – **system security** and **retail market competition**.

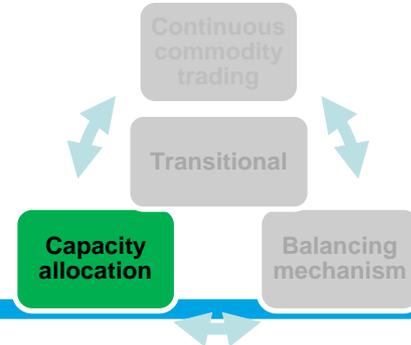
Commodity trading in a virtual hub



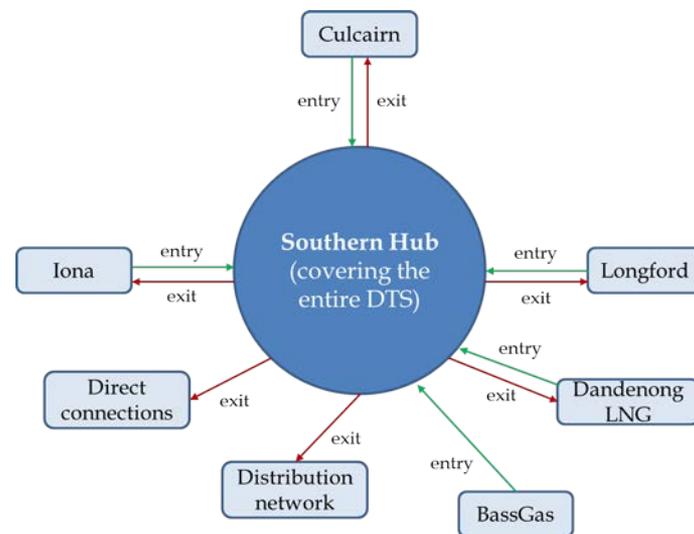
- Participants may trade gas **voluntarily** at any time (**continuous**). There would be more options for commodity trading, like Wallumbilla:
 - through an anonymous trading platform
 - OTC contracts
 - Gas supply agreements
- Trading platform (Trayport) and trading products based on those offered to the GSH, but tailored to meet needs of the system operator and participants in the Southern Hub
- Despite sharing many characteristics with Wallumbilla, the Southern Hub would be a **virtual hub**, like the existing DWGM. The virtual hub means that:
 - Participants are responsible for the delivery and receipt of gas to and from the system
 - Participants are not responsible for ensuring that gas is transported across the system
 - AEMO, as system operator, manages the system to ensure the physical delivery of gas and system security
- The virtual hub should **pool liquidity**, as all gas inside the hub is assumed to be equivalent and fungible.



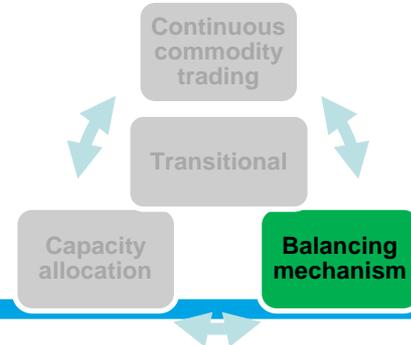
Entry and exit capacity rights



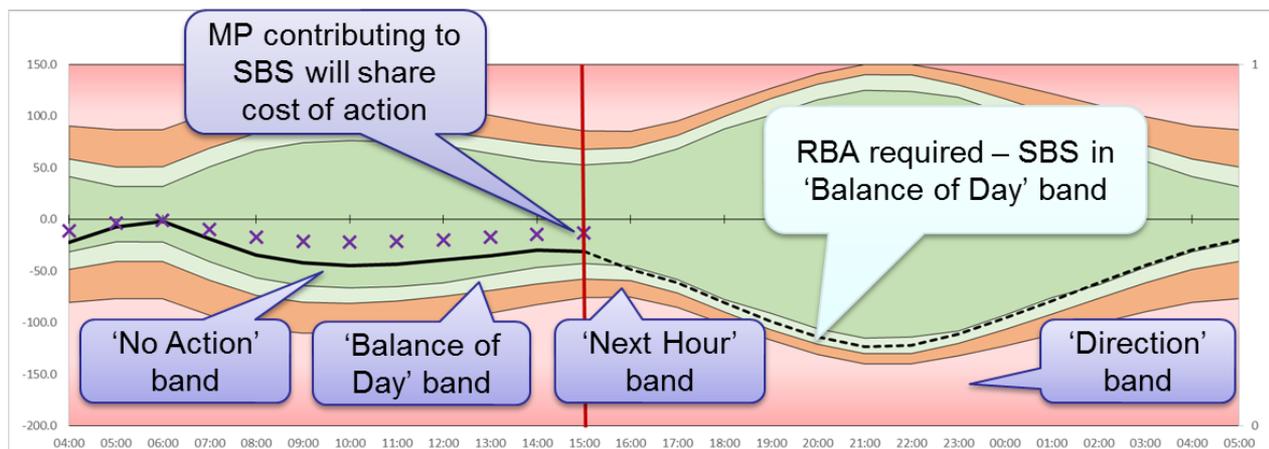
- The Southern Hub would have explicit and tradable entry and exit rights to the DTS
- The amount of firm **baseline capacity** available at each point would be proposed by the pipeline operator and approved by the AER, in consultation with stakeholders
 - At distribution points, baseline capacity would be allocated dynamically
 - At other entry and exit points, baseline capacity would be auctioned
- Interruptible **‘above baseline’ capacity** is also available on a day ahead/ within day basis, once all baseline capacity is sold.
- **Secondary trading** of capacity would be available:
 - Bilateral trading between participants
 - Day-ahead auctioning of contracted but un-nominated capacity
- **New baseline capacity** could be underwritten by participants in exchange for firm entry or exit rights. A hybrid open season/ integrated auction process would determine interest in additional capacity.



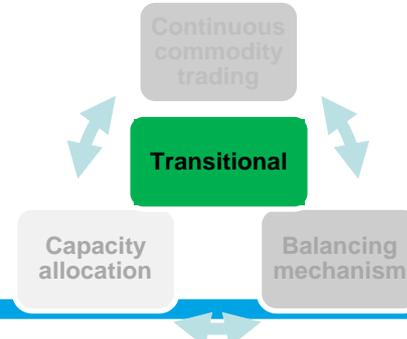
Compulsory balancing mechanism



- While trading will be **voluntary**, market participants would be subject to a **compulsory** balancing mechanism
- The balancing mechanism achieves system security and delivery of gas through:
 - **Financial incentives** on MPs not to cause system security issues; and
 - **Residual balancing** by AEMO, if despite these incentives, system security approaches becoming threatened.
- Costs of residual balancing to be passed on to the participants that caused the imbalance
- MPs would receive enough information about their position, and the system position, to manage imbalances.
- AEMO may also use emergency direction powers, if market based mechanisms do not deliver system security.



Transitional arrangements



Market trials would inform whether transitional measures are appropriate to:

- help stimulate liquidity in the commodity market
- mitigate some of the impacts of changed market arrangements on participants

Some options were canvassed by CEPA in their report for the AEMC.

Particularly beneficial options may include:

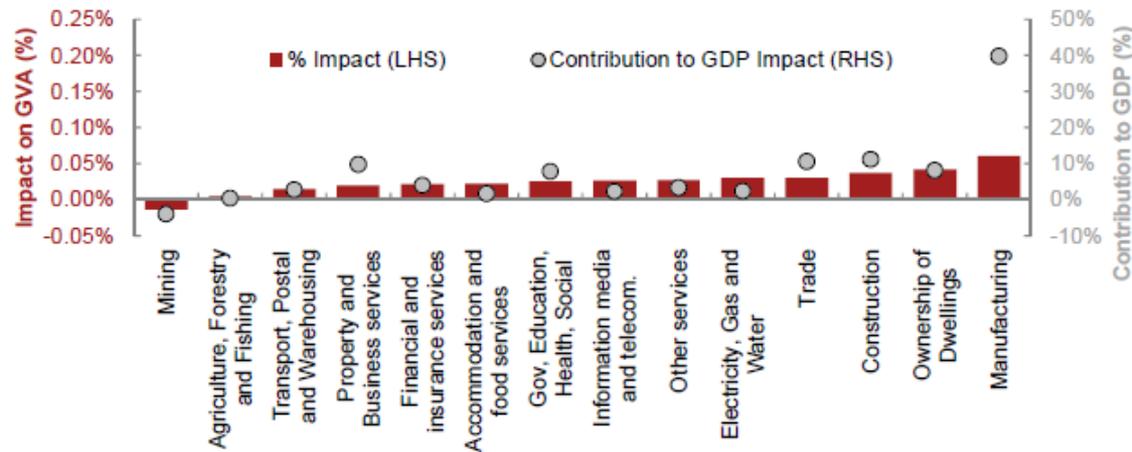
- *Financial tolerances*: financial protection for participants against residual balancing costs, to a threshold. Instead, these costs would be socialised
- *Daily balancing*: financial incentives to balance each day, to concentrate liquidity into simple daily or balance of day products

Transitional measures would be rolled back in time, and provide a pathway to the target Southern Hub model

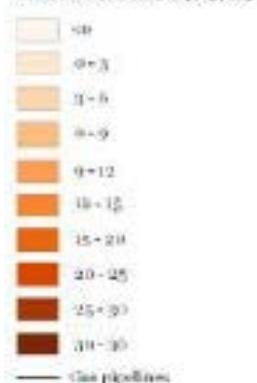
Southern hub would deliver substantial benefits to Victorian consumers

PwC estimates that implementing the southern hub has the potential to result in an annual incremental contribution in Australia's GDP of between **\$0.2B and \$1.7B**.

70% of the benefits are expected to be in Victoria.



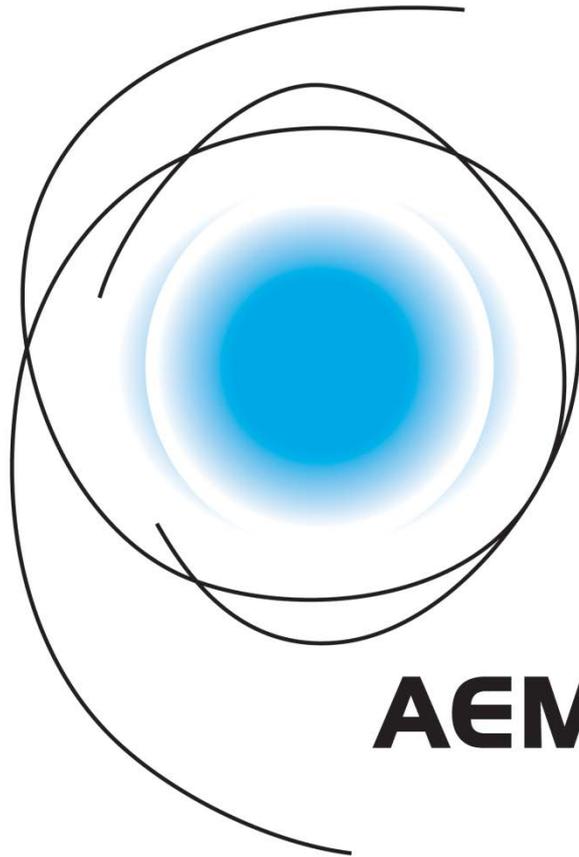
Impact on manufacturing value added in 2040 (\$m)



Manufacturing output is estimated to account for 40% of the incremental change in GDP.

Manufacturing in greater Melbourne accounts for the majority of this increase.

PwC also estimates broad second round impacts, particularly in services industries.



AEMC