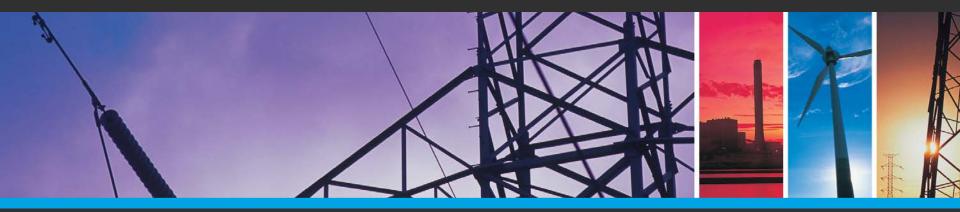


Transitional arrangements

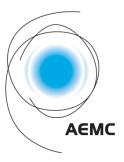
DWGM Stakeholder Working Group 4, 31 August 2016



AUSTRALIAN ENERGY MARKET COMMISSION

Agenda

- 1. Recap
- Desired outcomes
- Southern Hub
- 2. Transitional arrangements (presentation by CEPA)
- Issues and international experience
- Transition options for a Southern Hub



Southern Hub: progress to date



COAG Energy Council's meeting

- On 19 August, the COAG Energy Council **agreed to the roadmap** proposed by the AEMC in the East Coast Wholesale Gas review:
 - 1. Northern Hub at Wallumbilla, Southern Hub, and simplification of the STTMs (in-principle agreement to the Southern Hub model, subject to the final report).
 - 2. Changes to pipeline capacity markets, including the auction of contracted but un-nominated capacity (short term UIOLI).
 - 3. Improvements to information on the Gas Bulletin Board.
- Reforms will be progressed through a Gas Market Reform Group, in consultation with user groups, industry and governments.
 - -The group will be led by Dr Michael Vertigan as its Independent Chair
 - -Initial focus on pipeline capacity markets (item 2 above)

COAG Energy Council's vision

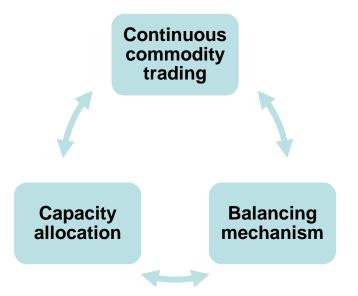
"The Council's vision is for the establishment of a **liquid wholesale gas market** that provides **market signals for investment and supply**, where responses to those signals are facilitated by a supportive investment and regulatory environment, where trade is focused at a point that best serves the needs of participants, where an efficient reference price is established, and producers, consumers and trading markets are connected to infrastructure that enables the opportunity to readily **trade between locations** and arbitrage trading opportunities."

Victorian DWGM review is considering arrangements to:

- allow participants to effectively manage price and volume risk;
- provide appropriate signals and incentives for investment in and use of pipeline capacity; and
- facilitate the efficient trade of gas to and from adjacent markets.

Virtual hub – all gas inside the hub is fungible

- In reality, this is not the case. The laws of physics still apply...
- Role of the System Operator is to manage gap between the virtual hub and physical reality
- Unbundles the three elements of the existing DWGM auction:



Southern Hub overview - Commodity

- MP may supply commodity into/out of the virtual hub using any combination of
 - -GSA/GTA;
 - -bilateral trades; and
 - -OTC trades.
- Optional commodity trading at virtual hub using an anonymous trading platform
 - -Must physically inject/withdraw net position in/out of the virtual hub (to avoid potential balancing charges)
 - As gas inside the virtual hub is fungible, traded gas may be entered and exited at any point (subject to capacity rights)
- Commodity price indices published

Southern Hub overview - Capacity

- Firm capacity rights at entry and exit points
- MPs assigned firm capacity at exit points to distribution
 - Tariffs to Asset Owner
- Firm capacity at all entry and other exit points
 - Rolling auctions, various timescales
 - Tradeable on anonymous trading platform
 - Sale of long term rights drives augmentations
- Contracted but un-nominated capacity sold by System Operator as firm or interruptible
 - Some re-nomination rights retained by original holder
- System Operator sells interruptible capacity available 'on the day' as interruptible
 - Depends on system conditions and sale of significant quantity of firm capacity
 - Counterflow capacity at combined entry/exit points

Southern Hub overview - Balancing

- MPs have **primary balancing responsibility** and must maintain a reasonable balance between supply and demand over the gas day:
 - -Supply is gas MP inject themselves, plus net purchases at virtual hub
 - -Demand is gas MPs exit themselves, plus net sales at virtual hub
- SO has **residual balancing responsibility** if MPs do not maintain adequate balance
 - -Linepack monitored against limits (Residual Balancing Bands or RBB)
 - If limits exceeded, SO buys or sells gas on trading platform where feasible and takes direct action where not (Residual Balancing Action or RBA)

-Costs recovered from causers (to extent practicable) or socialised

- MP may carry over a surplus or shortfall to next day
- Linepack usage charge to offset RBA costs

Southern Hub – Operational considerations

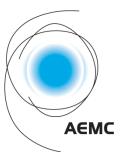
- While trading at virtual hub is optional, nomination of physical gas flows at entry and exit points to SO is mandatory
- Exceeding capacity rights may attract overrun charges (+ any RBA cost)

-May result in SO not accepting nomination

- Improved information flows are needed
 - -MP need to be able to see their position in comparison with system
 - -SO actions need to be transparent
- Market systems need to maintain operational simplicity
 - Likely to include multiple outcomes from one interaction (eg purchase commodity, capacity and nominate to SO)
 - Products on trading platform to be developed to meet range of MP needs, with flexibility to add new products when needed

Liquidity in the Southern Hub model

- Southern Hub model will rely on shippers having access to a liquid trading market.
- 1. Many MPs currently rely on trade through the DWGM (instead of GSAs).
 - If the Southern Hub is illiquid, MPs that rely solely on trading may be exposed to high gas prices.
- 2. Low confidence and liquidity in the early stages of a Southern Hub may result in MPs ignoring the Hub and adjusting their injections/withdrawals to stay in balance. This would reinforce the cycle of low liquidity.
- Focus of this session is **transitional arrangements**. What mechanisms could facilitate or improve liquidity during the transitional period.



Transitional arrangements



Presentation by Cambridge Economic Policy Associates and TPA Solutions