DWGM FORWARD TRADING MARKET

STAKEHOLDER WORKSHOP

MELBOURNE
16 MAY 2019

AEMC

Agenda

1. Background
2. Rule change proposal
3. Examples
4. Detailed design options
5. Questions

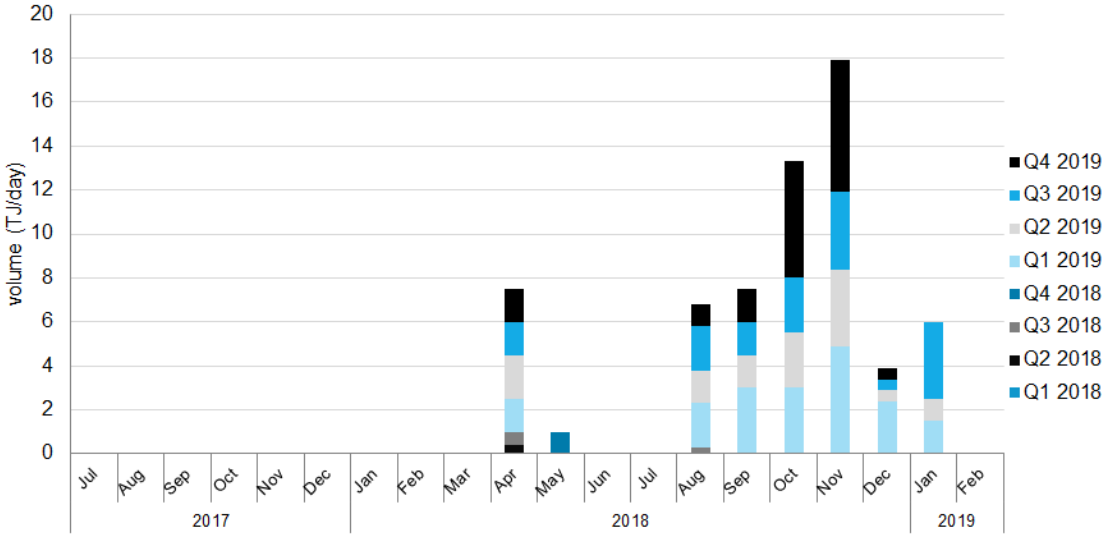
Current price risk management options

- The current contract-based spot price risk management products for DWGM participants include:
  - Bilaterally negotiated contracts: whether a gas supply agreement (GSA) or an OTC contract under these contracts, counterparties find each other, and negotiate bespoke terms and conditions of the contract
  - The ASX offers financial products for gas in the DWGM, which have increased in trading over the past 12 months.
- Additionally, participants can trade gas at trade-points just outside the DTS e.g. Culcairn and Longford

DWGM trades on the ASX

- After a long period of zero trades, DWGM futures started trading towards the second half of the year.
- Whilst trading has increased, the scale of trading is relatively small, with open interest less than 2% of daily demand in the DWGM (total DWGM withdrawals ~645 TJ/day)

Volume traded of ASX Vic gas products (TJ/day)



AEMO operated markets

- Forward markets have been set up for gas outside the DTS for gas and transportation, including:
  - Gas supply hubs – markets operating in Wallumbilla and Moomba which trade standardised short-term physical gas products
  - Pipeline capacity trading reforms – forward market for secondary pipeline capacity rights, came into effect on 1 Mar 2019.
- However, the arrangements for gas commodity and capacity trading are different in the DWGM, which is a gross pool, market-carriage market

RULE CHANGE PROPOSAL

Rule change proposal

- Establish a forward trading market in the DWGM which is similar to the GSH arrangements
- Characteristics of the proposed model:
  - Voluntary participation
  - Trades are for delivery and receipt of gas on the DTS
  - Trades to be considered in DWGM settlement calculations
  - Offer a range of tenures (e.g. daily, weekly, monthly)
  - Variances in FTM contracted position and actual injections/withdrawals settled in the DWGM at the 6am DWGM price.

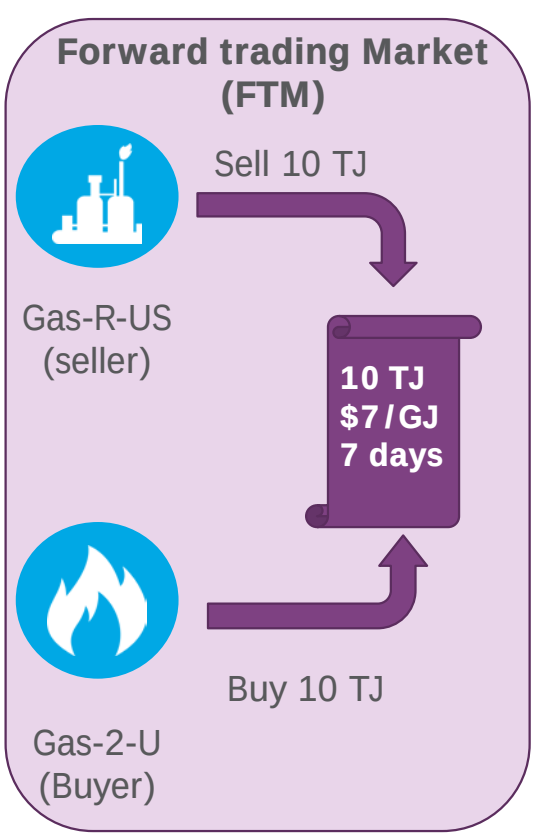
Benefits identified by the proponent

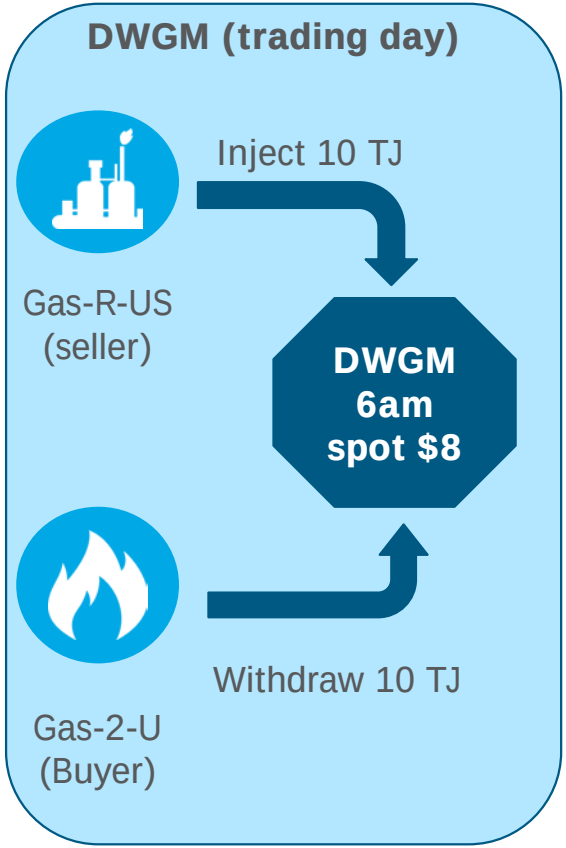
- More options to **manage price risk** and hedge positions ahead of the gas day
- Exchange would be **transparent**, and allow development of forward curves
- Encourage **new entrants** outside the DWGM to potentially enter the market
- Greater **consistency** across other market on the east coast, potentially improving interregional gas flows
- Reduce **search and transaction costs** and counterparty risk

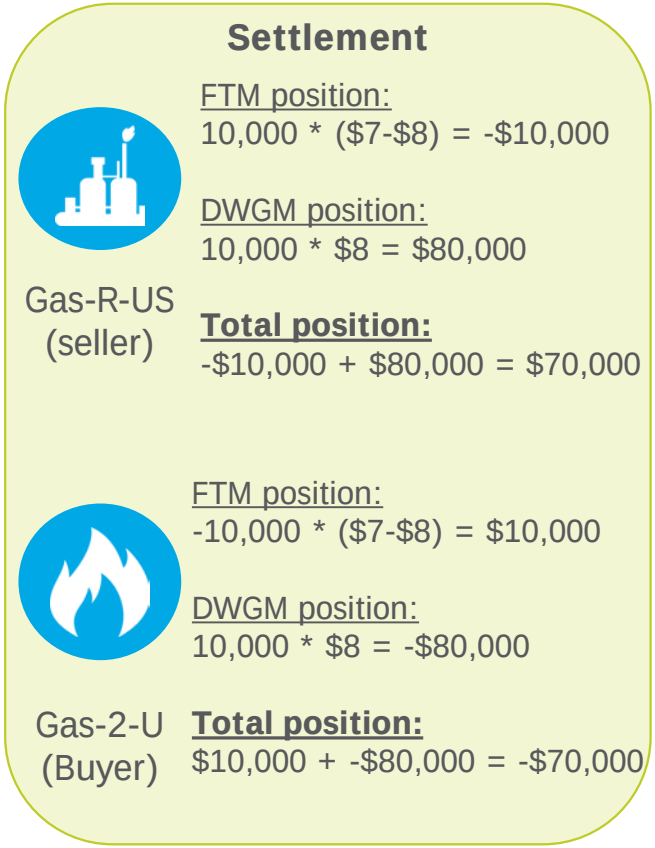
Proposed contribute to the NGO:

- Provide greater transparency into long term pricing
- Provide a direct, market-based means to manage price risk
- Reducing barriers to entry and participation in the DWGM
- Reduce barriers to trade between DWGM and other east coast gas markets.

How would this work?

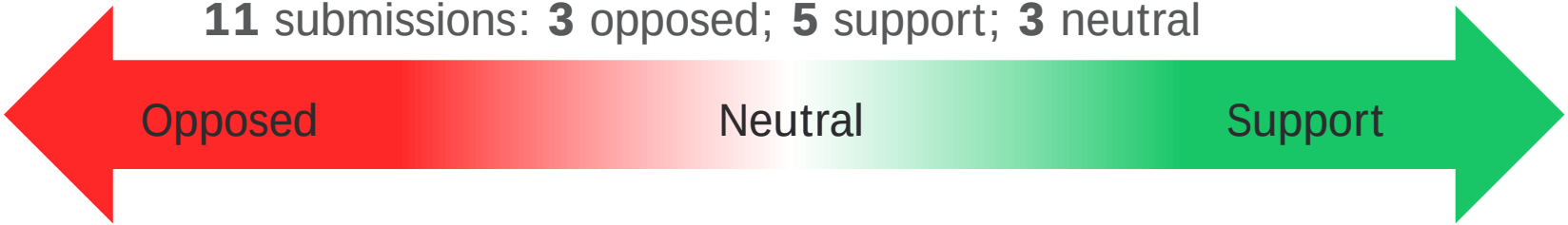






Submission on the consultation paper

11 submissions: **3** opposed; **5** support; **3** neutral



AGL Energy

Powershop/Meridian

ERM Power

AER

APA

Qenos

AEMO

MEU

EnergyAustralia

Origin Energy

Snowy Hydro

Submission summary

Arguments in support of	Arguments against the change
• Improve future investment decisions, encourage new entrants and boost competition • Provide additional flexibility to trade day-ahead and longer-dated products • Improve pricing information • Reduce the search and transaction costs • Increase alignment with the GSH to lower transaction costs and complexity across both markets.	• ASX Vic gas futures market maturing • Sufficient liquidity in gas OTC markets • Complexity of recent reforms limit uptake and involvement by participants • Increasing activity by gas brokers in the market • Sufficient trade at Culcairn and Longford • There would be costs associated with the market (prudentials, participant fees, trade fees)

Arguments for the FTM

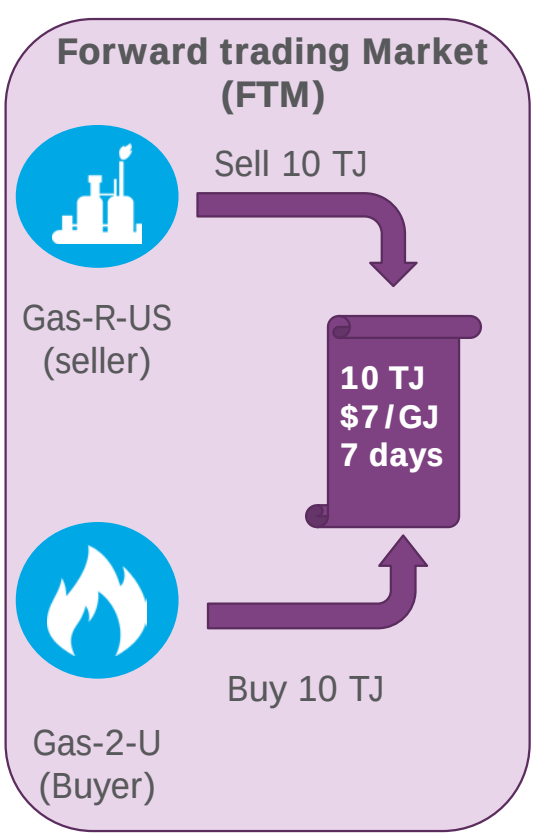
Arguments to proceed	
Reduces search costs	Central exchange avoids the process of identifying potential counterparties. However these may not be huge given the small number of players in the DWGM market and the introduction of brokers in the market.
Enable new trades	As the exchange is anonymous it enables some parties that would not normally trade to do so, again brokers could do this, at a cost.
Improve transparency of pricing	Establish pricing figures for different products could allow participants to build a forward curve and improve operational and investment decisions, however ASX figures, ACCC GSA figures and brokers intelligence (although this is not costless), may already do this.
Reduce administrative burden	Could avoid some sub-allocation processes and align debts and credits between GSH and FTM from interregional trades could lead to more efficient management of prudentials in both markets.
Interregional consistency	May reduce barriers for trade and encourage participants to enter the market due to familiarity with the other markets like the GSH. Also aligns with the long term move to the Target Model.
Consolidate trades on other markets	There are currently small trades of short term GSAs, trades at the Culcairn trade-points, and OTC contracts that all occur. If a FTM is introduced, it has the potential to consolidate and improve liquidity from these separate markets.
Complement the ASX	Shorter term products that could be purchased on the FTM could provide parties with more confidence to use the longer term ASX products as they could buy firming products on the FTM.

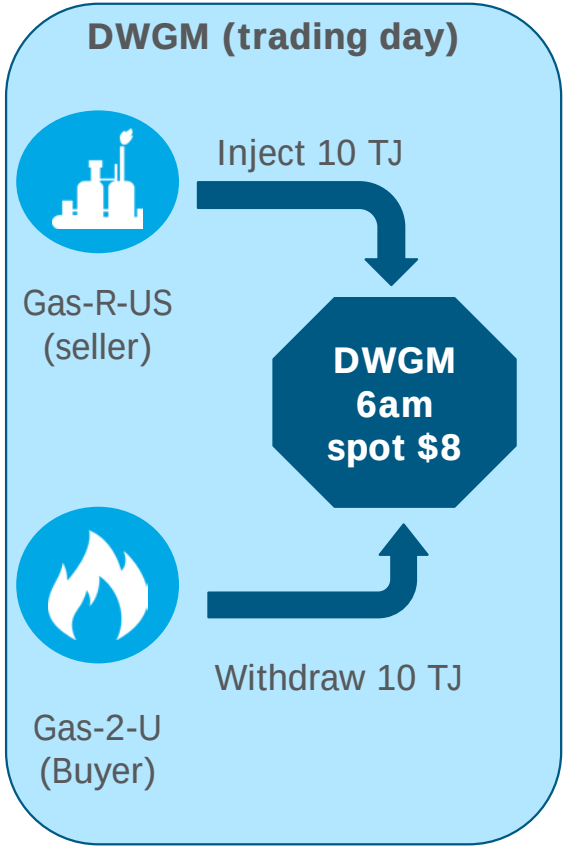
Arguments against the FTM

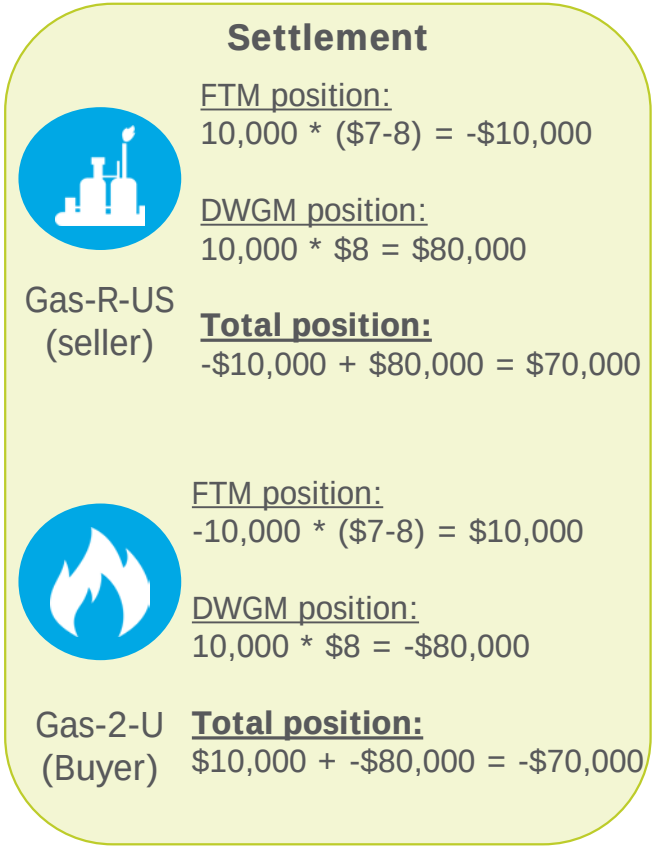
Arguments not to proceed	
Could split liquidity on the ASX	If the FTM competes with the ASX market (which is just starting to mature), it could split liquidity over the two markets which would be a poor outcome for all parties.
There may not be a market failure	Over the past 12 months stakeholders have reported an increase in trade on the ASX, several brokers entering the market, more trade on the trade-points just outside the DTS and more trade of OTC contracts - an FTM could introduce unnecessary costs to address a problem that isn't there.

EXAMPLES

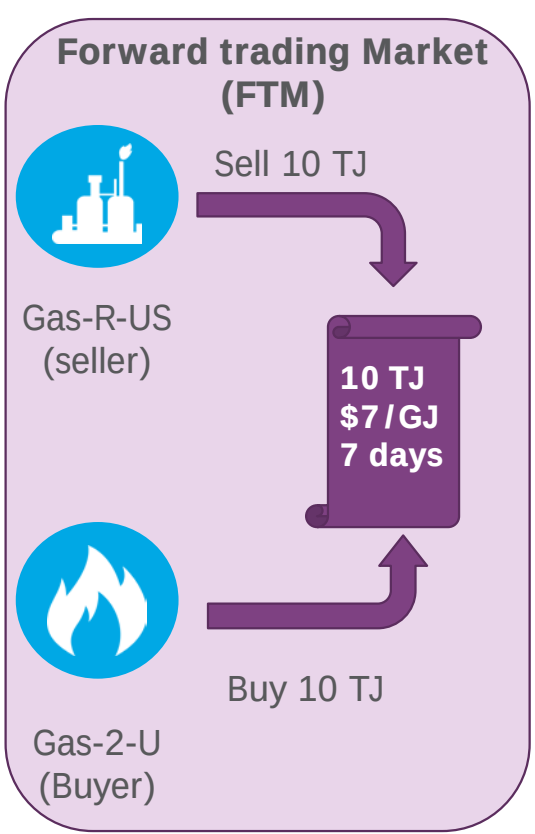
Base scenario

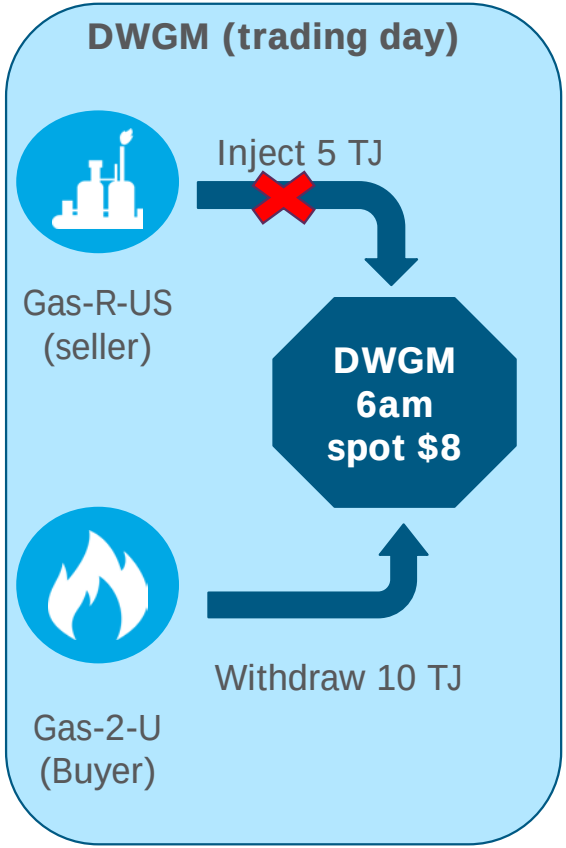


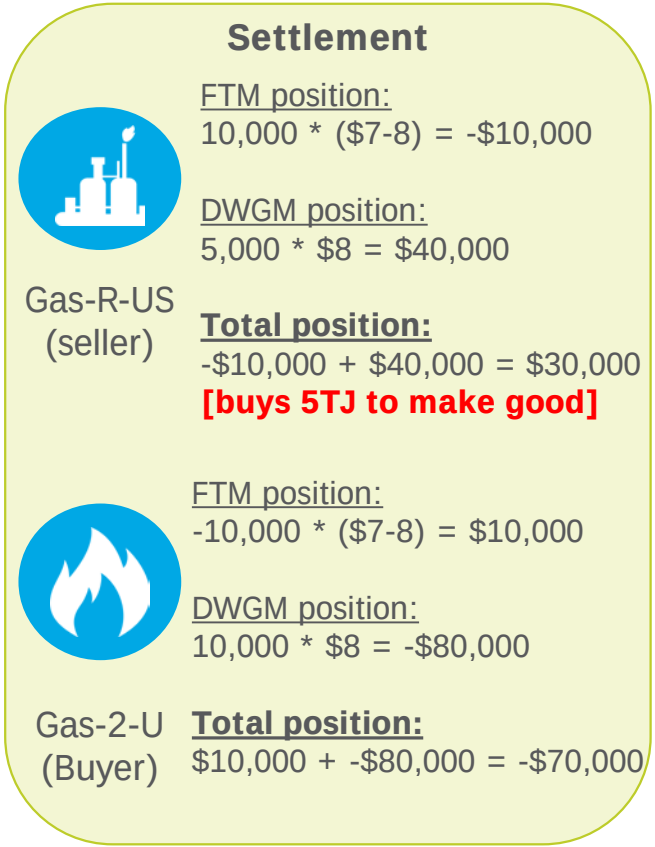




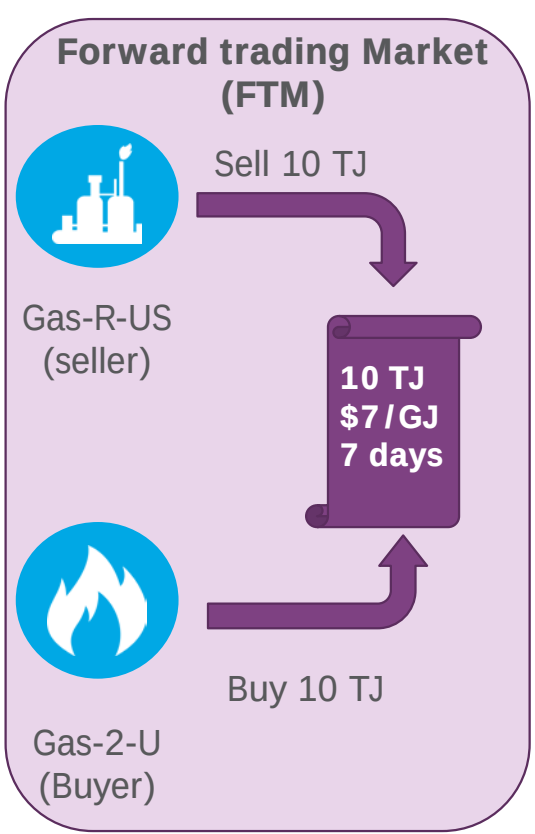
Example 1 - Supply is constrained

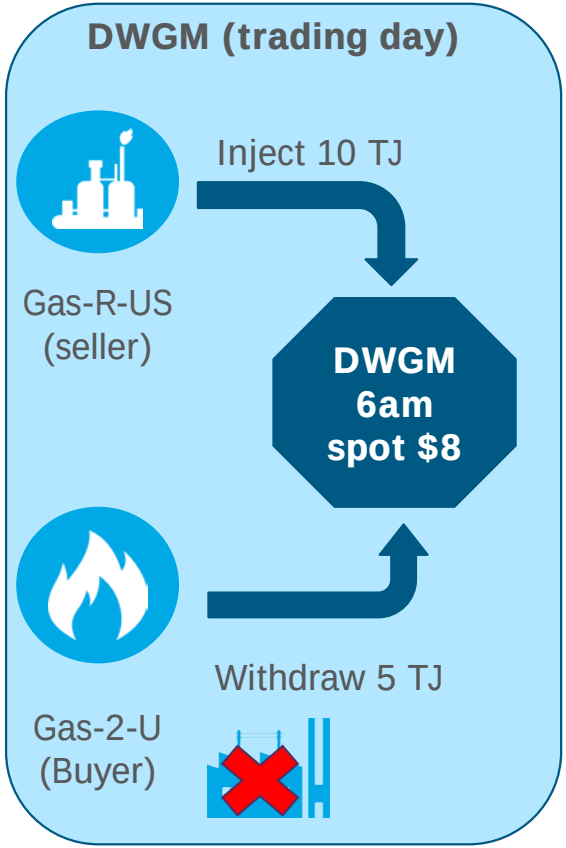






Example 2 - Demand is low





Settlement

Gas-R-US (seller)

FTM position:
10,000 * ($7-8) = -$10,000

DWGM position:
10,000 * $8 = $80,000

Total position:
-$10,000 + $80,000 = $70,000

Gas-2-U (Buyer)

FTM position:
-10,000 * ($7-8) = $10,000

DWGM position:
5,000 * $8 = -$40,000

Total position:
$10,000 + -$40,000 = -$30,000
[Sells 5TJ to market]

DETAILED MARKET DESIGN OPTIONS

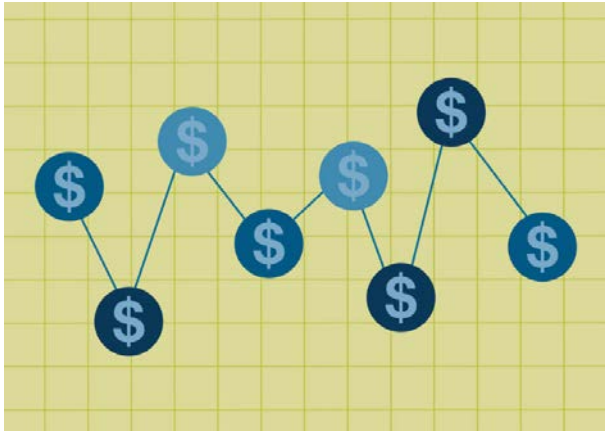
Product suite

- Similar product suite as GSH
  - Allows the potential future development of spread products between the two markets
  - Familiarity with existing suites
  - Process of adding/changing products?

- Interactions with the ASX
  - Should there be any specifications in the rules about the product suite?
  - Can the markets support each other? E.g. ability to buy firming FTM products increase confidence of longer term ASX products?

Market mechanics - Scheduling and settlement

- Proposal is to settle the FTM at the 6am price and any deviations between scheduled and actual injections/withdrawals be subject to deviation payment
- If there is a difference between forward and scheduled positions, the participant would need to either:
  - Purchase gas from the spot market to make good the shortfall in their delivery at the 6am price
  - Sell gas that they do not intend to consume to the market at the 6am price
- Any alternatives we should consider?



Market mechanics – AEMO systems

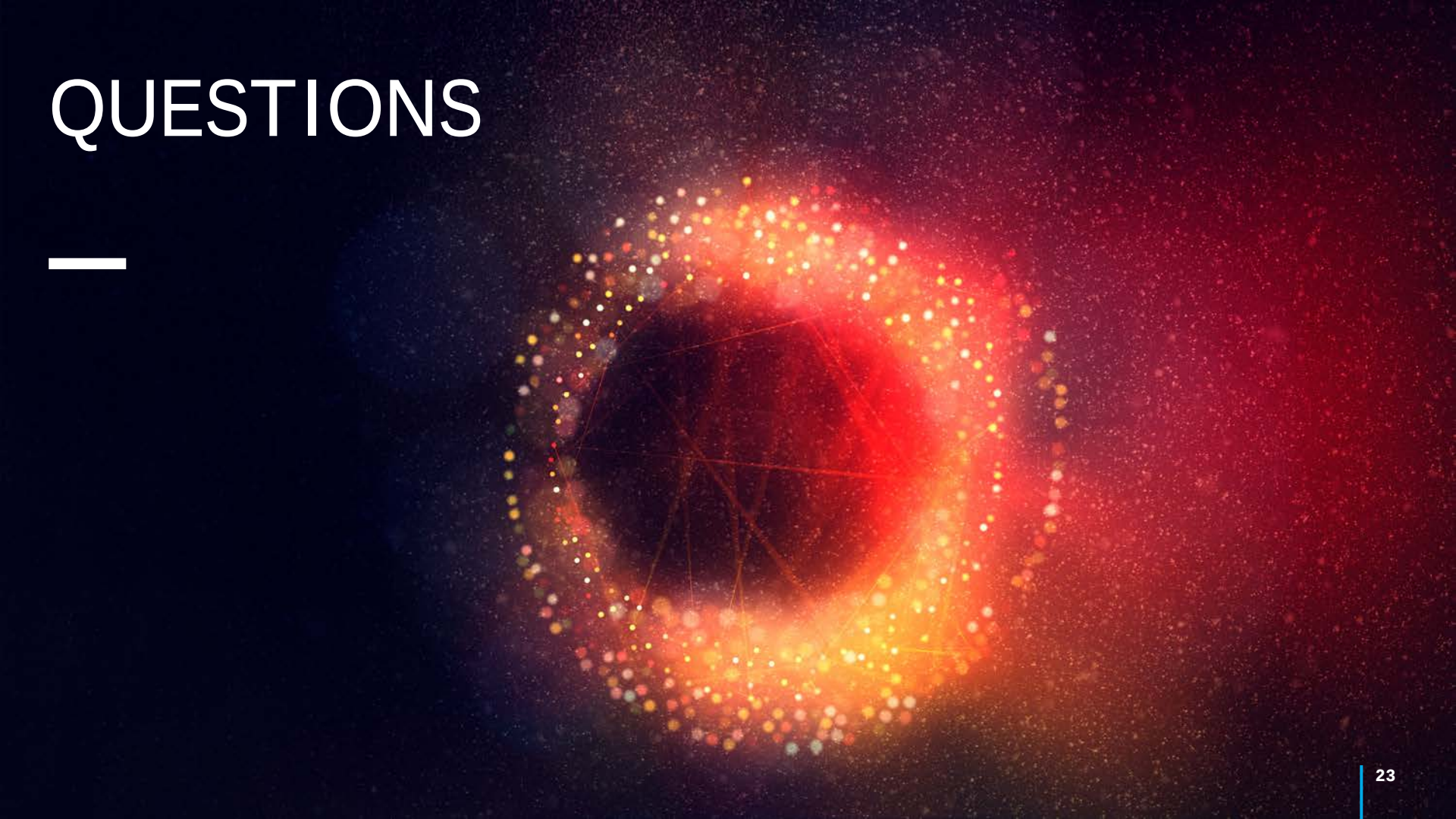
- Prudentials
  - Could use the same framework as GSH and CTP
    - Based on participant exposure from contract positions
    - Potential benefits for trade between GSH and FTM as minimise open positions
- Sub-allocation process
  - Potential to avoid using the sub-allocation process as participant trades could be done directly on the FTM
  - Could result in potential cost savings for participants

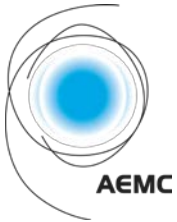
Implementation

- Interaction with the AMDQ secondary trading platform
  - Potential efficiency benefits from using the same platform
  - Any improvements with aligning operating and pricing schedules also beneficial to FTM

- Timeframes for implementation
  - Implement all rule changes together? Are there dependencies?
  - Aside from AEMO's system change processes, are there any other considerations for implementation timeframes?

QUESTIONS





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