

IMPROVEMENT TO AMDQ REGIME

STAKEHOLDER WORKSHOP

MELBOURNE
16 MAY 2019

AEMC

Agenda

1. Recap of current arrangements
2. Rule change request
3. Separate entry and exit AMDQ rights
4. Secondary trading of AMDQ rights and benefits
5. AMDQ available for a range of different tenures
6. Examples
7. Implementation

Current arrangements

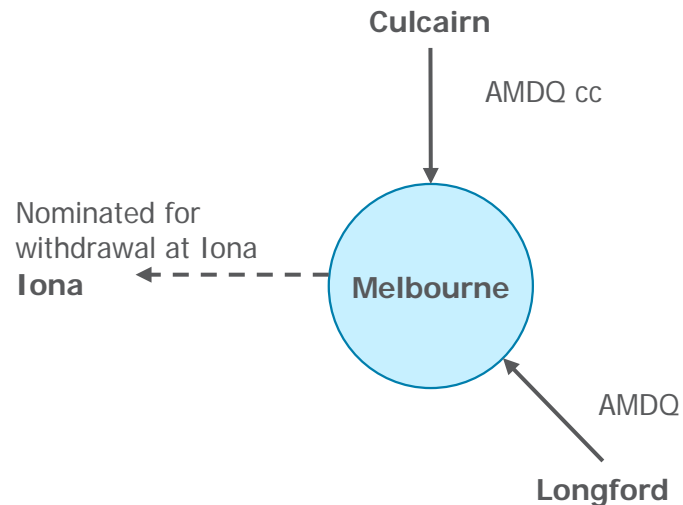
There are currently two AMDQ regimes:

Authorised MDQ: which relates to capacity on the Longford to Melbourne pipeline and is owned by consumers.

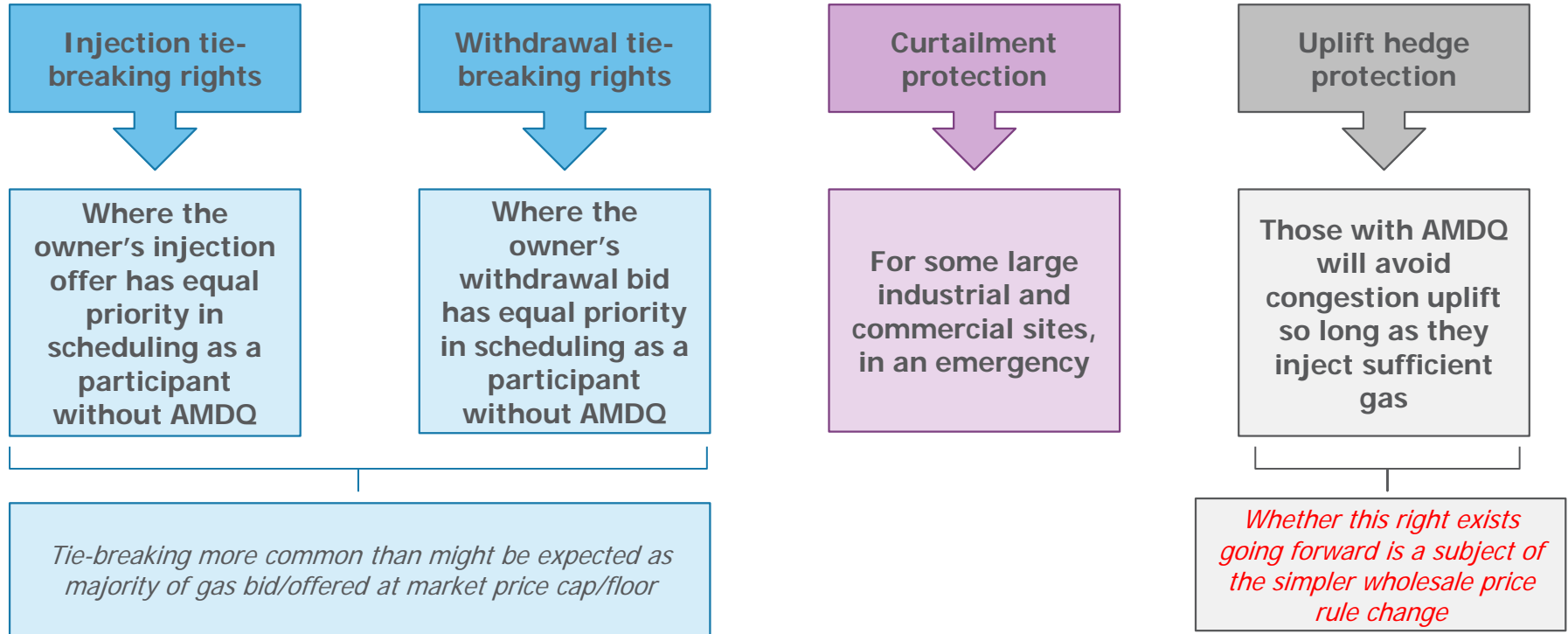
AMDQ cc: which is owned by market participants (some of whom may be end consumers but some may be retailers) and relates to DTS capacity that was built after market start.

AMDQ cc is created from an injection point to the reference hub (Melbourne)

- Market participants have the choice to nominate it for use at the reference hub or to a system withdrawal point (subject to transfer algorithm which takes into account feasibility that transfer of rights can physically honoured).



AMDQ are non-firm capacity rights... What benefits do they provide?



Physical rights

Financial right

RULE CHANGE REQUEST

Improvement to AMDQ regime rule change request

- On 5 November 2018 the AEMC received a rule change request from the Victorian Minister for Energy Environment and Climate Change to improve the current AMDQ regime in the Victorian declared wholesale gas market.
- The proposed rule change is based on the recommendations made by the AEMC in the final report of the DWGM Review.
- The proponent did not include a proposed rule.

Proposed solutions

To address the issues related to the AMDQ regime in the DWGM, the following changes were proposed:



Introduce separate, tradable entry AMDQ rights and exit AMDQ rights.



Introduce an exchange to improve secondary trading of AMDQ rights (permanent transfer) and benefits (temporary transfer).



Make AMDQ available for a range of different tenures.

Issues for consultation

- We published a consultation paper on 14 March 2019.
- Stakeholders were invited to comment on a range of issues, which included:
 - the complexity of the current AMDQ regime and how to address it
 - the introduction of measures to facilitate secondary trading of AMDQ
 - how to make AMDQ available for a range of different tenures in order to maximise the utilisation of the DTS.
- We received 11 submissions on this rule change.

SEPARATE ENTRY AND EXIT AMDQ



Separate entry and exit AMDQ

Issue with current arrangements

- AMDQ cc is created as a point-to-point right from an injection point to the Melbourne hub
- Market participants can nominate AMDQ cc to a withdrawal point, but the nomination process is on a first come, first served basis
- Subject to diversity and locational factors

Benefits of proposed solution

- Separate entry and exit AMDQ at fixed locations will provide greater flexibility for MPs to trade rights that more closely suit their needs

Why separate AMDQ into entry and exit rights?

Evidence on the value of exit AMDQ

Market participants have transferred / nominated AMDQ to the controllable system withdrawal point at Culcairn to the limit of available capacity.

As this does not provide additional uplift hedge protection over leaving AMDQ at the reference hub, we conclude transfer/nomination (which is equivalent to exit AMDQ) is useful to market participants to manage scheduling risk.



How to convert existing AMDQ into entry and exit AMDQ?

The following classes of AMDQ rights are to be recognised:

- **New classes of AMDQ rights:**
 - (i) Entry AMDQ rights
 - (ii) Exit AMDQ rights
- **Existing authorised MDQ converted into classes of AMDQ rights that align with the entry-exit approach of the new rules:**
 - (iii) (Grandfathered) End-User Entry AMDQ rights (Tariff V)
 - (iv) (Grandfathered) End-User Exit AMDQ rights (Tariff V)
 - (v) (Grandfathered) End-User Entry AMDQ rights (Tariff D)
 - (vi) (Grandfathered) End-User Exit AMDQ rights (Tariff D)
- **AEMO authorised MDQ** is retired with capacity released to support the auction of new Exit/Entry AMDQ rights.
- **APA authorised MDQ** is grandfathered in perpetuity, replaced with Entry/Exit AMDQ allocated to APA at Culcairn (exit) and Longford (entry).
- **AMDQ cc** is retired with capacity released to support the auction of new AMDQ rights.

What does not change?

- The entry AMDQ and exit AMDQ that would result from the separation would not be firm rights with respect to scheduling.
- The DWGM would remain as market carriage: physical access to the DTS would be determined through the DWGM scheduling process, subject to the non-firm physical benefits of AMDQ.
- Going forward, new entry AMDQ and exit AMDQ could be created in the same ways AMDQ can currently be created: through the regulatory process or through market led investment.

Interactions with rule change requests on DWGM simpler wholesale price

Socialise congestion uplift

- Market participants have transferred / nominated AMDQ to the controllable system withdrawal point at Culcairn to the limit of available capacity.
- As this does not provide additional uplift hedge protection over leaving AMDQ at the reference hub, we conclude transfer/nomination (which is equivalent to exit AMDQ) is still useful to market participants to manage scheduling risk.
- Participants would still value the tie-breaking rights given by AMDQ and this is likely to drive a price for entry or exit AMDQ where transportation capacity is constrained relative to injection or withdrawal capacity.

Internalise withdrawal constraints in the pricing schedule (AEMO/EA rule change)

- Exit AMDQ neither complements nor detracts from internalising withdrawal constraints, which would always be determined based on the actual constraints applying for that schedule rather than the exit AMDQ.

AMDQ AVAILABLE FOR A RANGE OF DIFFERENT TENURES



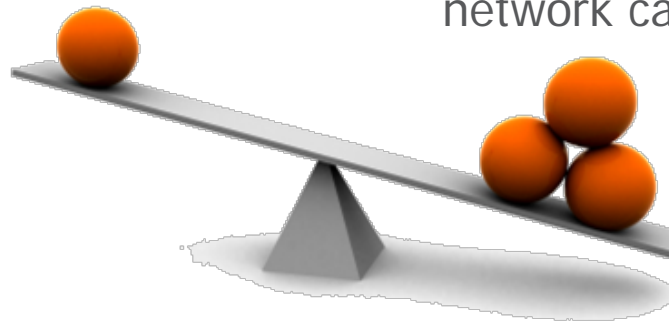
AMDQ available for a range of different tenures

Issue with current arrangements

- AMDQ are conservatively calculated for injections in relation to a '1:20 year scenario' over a five-year period
- Not all capacity that is available is allocated in the short term

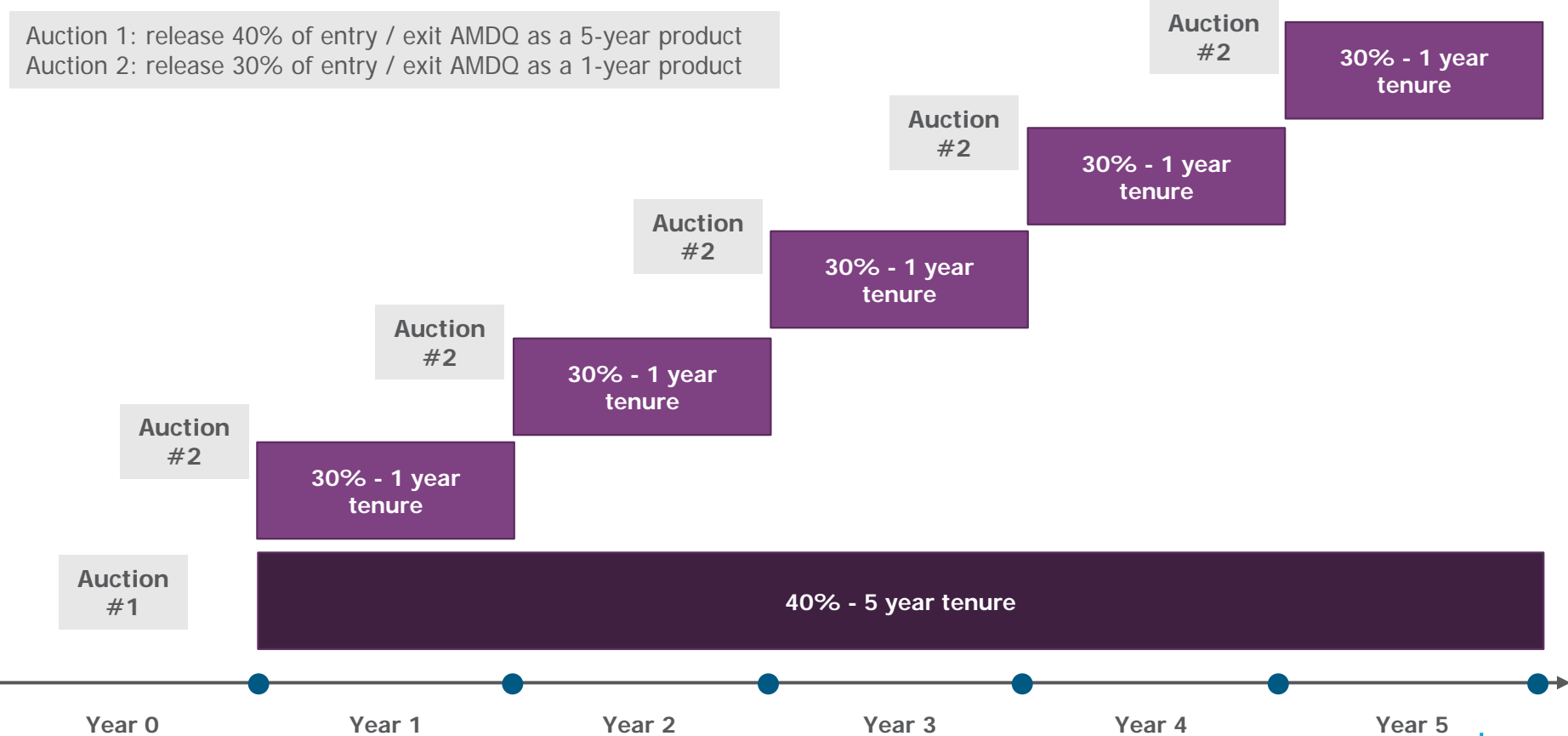
Benefits of proposed solution

- A variety of AMDQ tenures would better reflect market participants strategies and portfolio needs
- Reduce barriers to entry for smaller players
- Maximise the utilisation of the network capacity



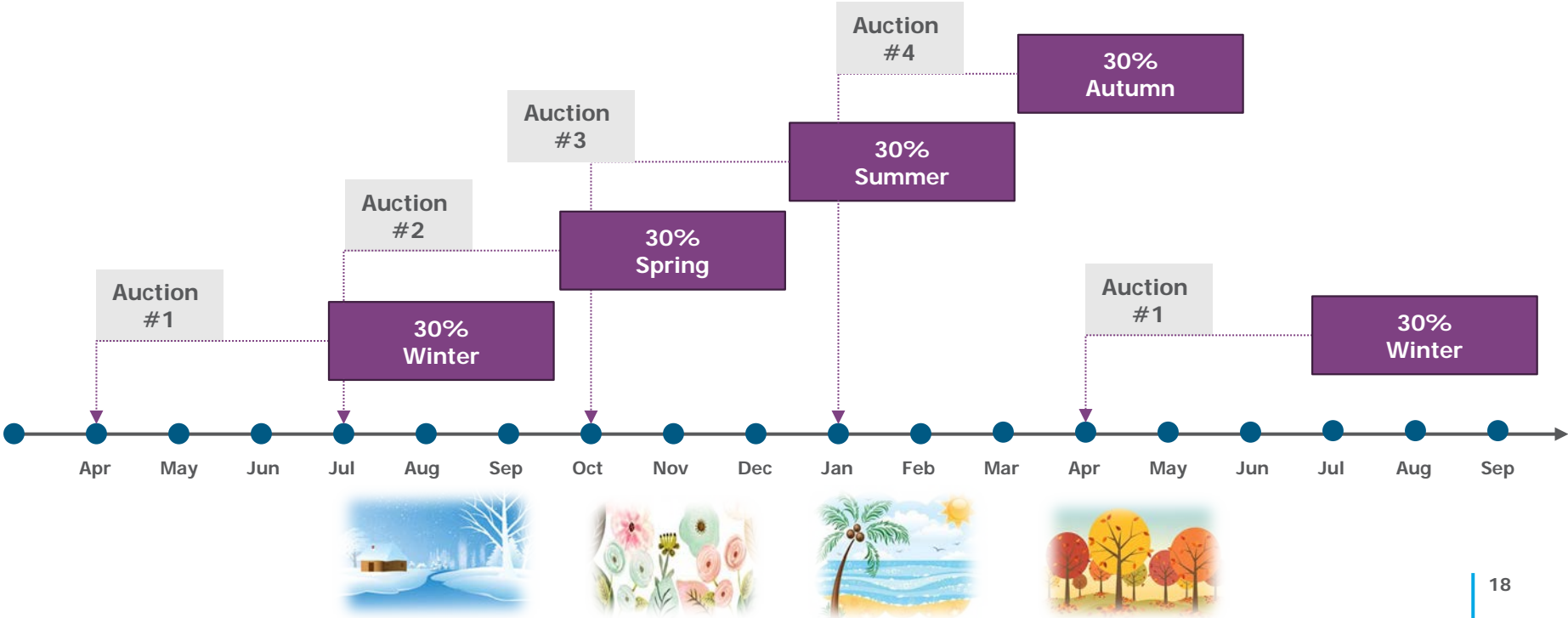
Primary auction – proposed long and medium term products

Auction 1: release 40% of entry / exit AMDQ as a 5-year product
Auction 2: release 30% of entry / exit AMDQ as a 1-year product



Primary auction – proposed short-term seasonal products

4 auctions per year: Jan, Apr, Jul, Oct
release 30% of entry / exit AMDQ as a quarterly product



Primary allocation of entry and exit AMDQ

- **Primary allocation:** likely follow the same methodology as the current auction of AMDQ credit certificates.
 - ✓ Rule 329G of the NGR sets out the requirements for AEMO to allocate available AMDQ credit certificates on the basis of an auction.
 - ✓ It also requires AEMO to make procedures in which it details the process to be followed for such allocation.
- **Auction design:** rule 329G(3) states that available AMDQ cc is allocated to the persons that offer the highest amount for those AMDQ cc
- **Reserve price:** set to recover anticipated AEMO costs in conducting the auction. Proceeds to the auction are used to offset the cost of operating the DWGM as stated in NGR rule 330(1)
- **Allocation process / determination of winning bidders:** AEMO will allocate available AMDQ credit certificates on the basis of highest priced price step to lowest priced price step, as described in clause 6.5.2 of the AMDQ Procedures

Primary allocation of entry and exit AMDQ

Auction participation / eligibility

Bidder need to meet certain eligibility criteria (as set out in clause 6.1.2 of the AMDQ Procedures). For example:

- A bidder must be a registered Market Participant in the DWGM, or have applied for registration as an MP with the reasonable expectation of becoming registered by the expected allocation date.
- A bidder must have gained accreditation of a controllable quantity at any system injection point at the relevant Close Proximity Injection Point, or have a reasonable expectation of obtaining accreditation by the expected allocation date.

- The AMDQ cc total bid quantity, together with all other AMDQ cc held by the bidder at the relevant CPP must not exceed the bidder's accredited controllable quantity held or reasonably expected to be obtained.



Calculation of the amount of AMDQ to be released

System capability modelling to be conducted and updated at least once per year for the purpose of informing the allocation of AMDQ rights via the Primary Auction.

- i. assume full system availability of transmission system assets, as recognised in the Service Envelope Agreement, plus any increase in (Entry/Exit) capacity from extensions or expansions, as per rule 329 of the NGR
- ii. account for any constraints that might be an outcome of the AMDQ rights accreditation process (e.g. where DTS capacity < the capacity of interconnected facilities)
- iii. to the extent feasible, optimise zonal operational settings in respect of compressor commitment, linepack targets and max/min pressures
- iv. testing for the maximum injection and withdrawal capacity that is deliverable across all system injection and withdrawal zones, and that is simultaneously physically feasible when tested against a 1:20 year peak demand day assumption for the DTS, calculated for each month in order to maximise release of AMDQ

Determination of traded products

AEMO to consult with industry on the characteristics associated with the allocation of each entry and exit AMDQ product:

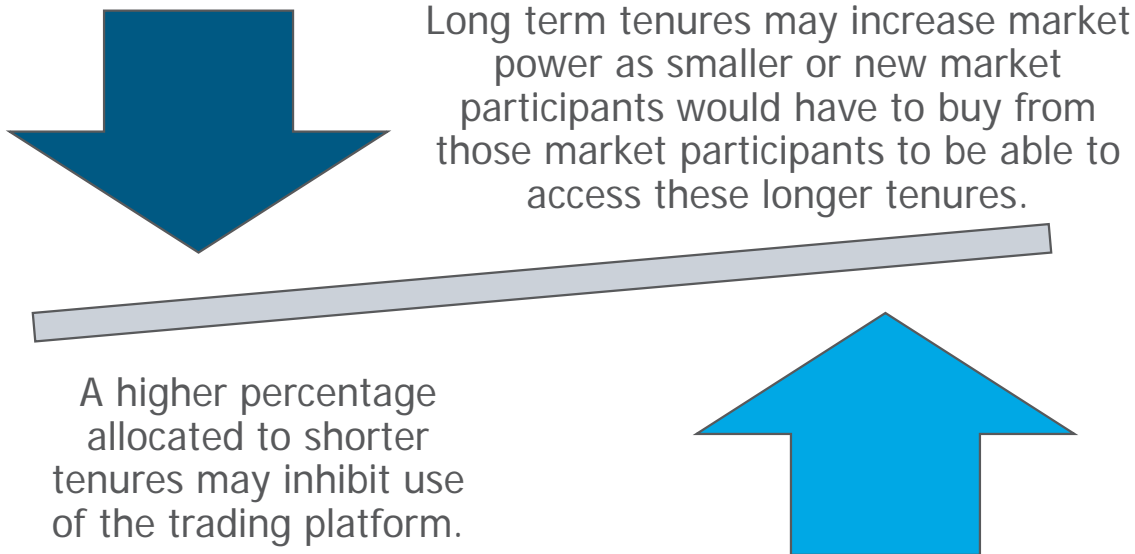
- a. tenure of each entry and exit AMDQ product to be auctioned
 - b. number and timing of auctions
 - c. release percentage for each product, per auction
- This is to occur two years prior to the start of each Access Arrangement period

- Rules may include a set of default products / settings



Trade off

Careful consideration needs to be given to the choice of tenure range and percentage allocated to them:



SECONDARY TRADING OF AMDQ



Secondary trading of AMDQ

Issue with current arrangements

- Trading is difficult
- Search / transactions costs are high
- Lengthy processing time for trades



Benefits of proposed solution

- Facilitate trading and allocation of AMDQ to those that value it most
- Improve price discovery by market participants
- Anonymous trading



Secondary trading of AMDQ in practice

- Secondary trading to occur through standardised products on Trayport, which is the system used for the capacity trading platform and the gas supply hubs
- Trades to be conducted by either:
 - entering bids or offers on standardised products, which are automatically matched through the exchange, or
 - entering bilateral (pre-matched) trades in listed, for settlement through the exchange.
- Bids and offers made through the exchange for capacity products are fully anonymous (i.e. the names of counterparties are not revealed before or after the transaction)
- Bilateral trades outside the platform would still be allowed (?)

Advantages in utilising existing capacity trading platform (CTP)

- ✓ minimise IT development and implementation costs
- ✓ spread payments over a longer period may have added benefit for smaller market participants
- ✓ common settlement across multiple markets
- ✓ common prudential framework with shared collateral
- ✓ common IT and trading systems reduces administrative burden and transaction costs for participants
- ✓ transparent reporting of anonymous trading for price discovery

Secondary trading of AMDQ – standardised products

- Current products offered as part of the Capacity trading platform reforms include:
 - ✓ day-ahead
 - ✓ daily (6-day rolling)
 - ✓ weekly (4-week rolling)
 - ✓ and monthly products (3-month rolling)
 - minimum contract size of 500 GJ per day
- These products were defined by AEMO in consultation with industry and are not included in the NGR
- Same rationale to be applied for secondary trading of AMDQ rights
 - ✓ allow for quicker and easier change in the products offered over time, if necessary
- Need to amend the GSH exchange agreement

Ability to trade AMDQ

| TYPE OF RIGHTS HOLDER | ENTRY AMDQ | EXIT AMDQ |
|--|---|---|
| Tariff V customer (residential and small business) | <ul style="list-style-type: none"> • Dynamically allocated to retailers, retailers can trade benefits • Allow retailers to on-sell the entry AMDQ benefits at Longford if they are unable to use it themselves because they are not injecting gas to service their customers' demand from Longford. • Tariff V customers remain the owner of the rights. | N/A <ul style="list-style-type: none"> • Tie-breaking rights are not required at uncontrollable withdrawal points (where all tariff V customers are) |
| Tariff D customer (non-market participant) | <ul style="list-style-type: none"> • Allocated to the retailer • Retailer can trade benefits | <ul style="list-style-type: none"> • Allocated to the retailer • Benefits cannot be traded |
| Tariff D customer (market participant) | <ul style="list-style-type: none"> • Permanent trade of rights • Temporary trade of benefits | <ul style="list-style-type: none"> • Permanent trade of rights • Temporary trade of benefits |
| Market participants | <ul style="list-style-type: none"> • Permanent trade of rights • Temporary trade of benefits | <ul style="list-style-type: none"> • Permanent trade of rights • Temporary trade of benefits |

Interactions with rule change request on DWGM forward trading market

- Introduction of a forward trading market in the DWGM could make AMDQ transfer and trading more attractive:
 - For example, market participants selling a forward product would have access to transparent pricing and availability of entry AMDQ to make pricing decisions and make entry AMDQ purchases to get priority in scheduling injections.
 - Purchasers would similarly be able to access exit AMDQ to get priority in scheduling withdrawals.
- Making AMDQ more readily tradeable would enable participants to match their forward position with their AMDQ position:
 - For example, a seller in the FTM may want to acquire AMDQ at a specific injection location to have tie-breaking rights to meet its FTM position.

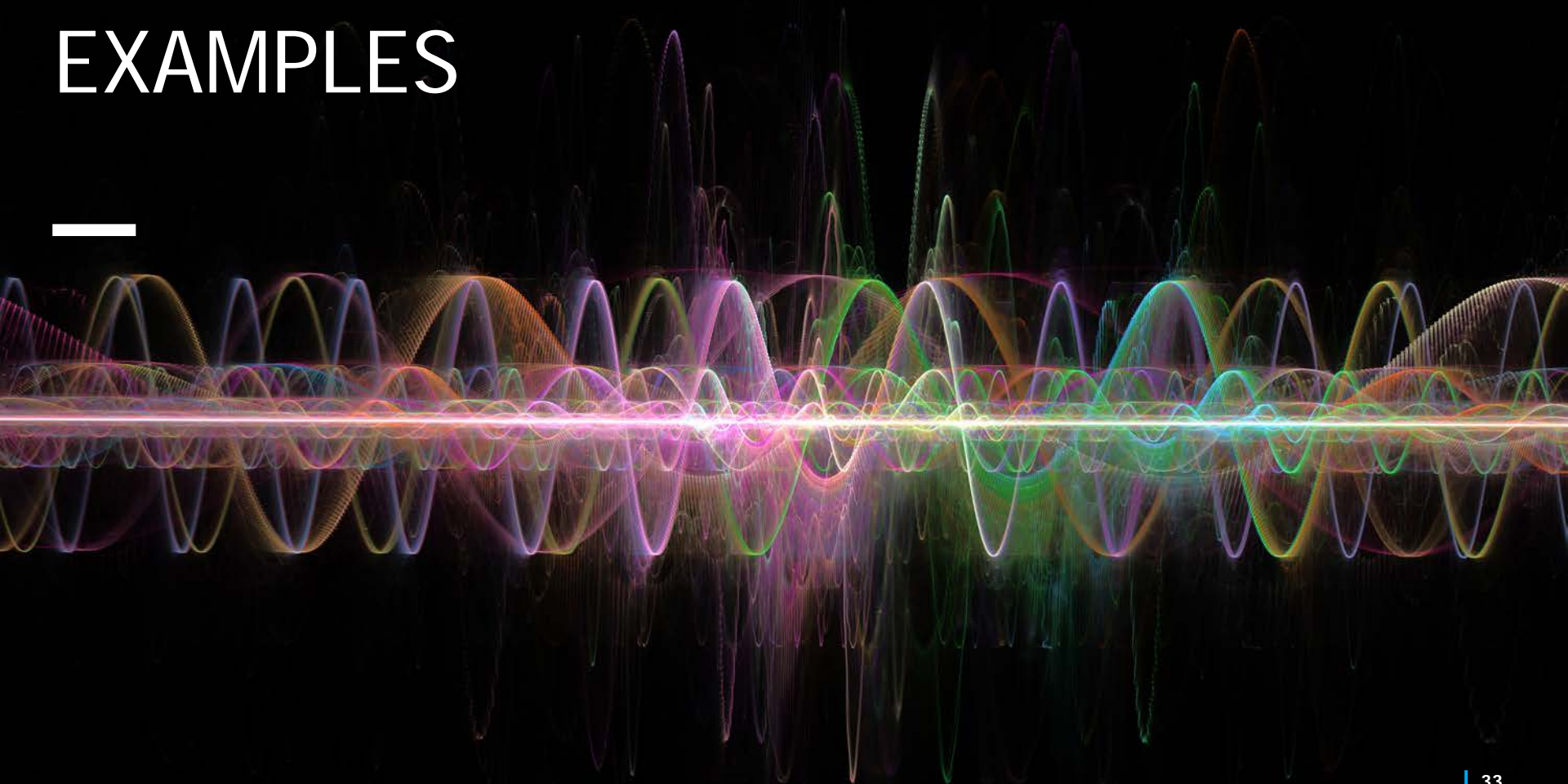
Transfer algorithm issue

- AEMO noted in its submission that the exchange trading system cannot accommodate a transfer algorithm
- Exchange trading system limited to transactions at system injection/withdrawal points
- Benefits of these traded AMDQ rights limited to application against Controllable Quantities (per NGR definition) at these system injection/withdrawal points, or along the related zonal flow path
- Although access to the exchange trading system may be limited per the above, as per current/historic practice:
 - a) Tariff D AMDQ (MIRN) will remain tradable via bilateral agreement and AEMO procedures (algorithm/transfer/registration)
 - b) Tariff D/ Tariff V transfers/reallocation to occur via procedure similar to existing arrangements

Secondary trading of AMDQ – transfer to a different CPP

- Market participants wishing to transfer purchased entry CPP to an alternate entry CPP on the pipeline path would be able to nominate this on the capacity trading platform.
 - For example, a market participant could purchase entry AMDQ from Longford CPP on the Longford Melbourne Pipeline and nominate this as entry AMDQ for the Pakenham CPP on the Longford Melbourne Pipeline (but could not, for example, nominate to the Iona CPP as that is on a different pipeline path).
- Exit AMDQ at distribution and transmission customer sites potentially will not contribute to an uplift hedge. Benefits would be so limited that trading is unlikely.
- Consideration should be given to excluding trading in exit AMDQ at the reference hub, but this will depend on the overall approach to exit AMDQ associated with distribution and transmission customers.

EXAMPLES



Example: trading AMDQ rights under the new framework



Example

- A retailer serves customers with a diverse range of supply needs and demand risks.
- Retailer must manage long and short term risks.

Primary auction

- Purchase 5 year flat Entry AMDQ to support long term business customers
- Annual purchases of 1 year flat Entry AMDQ to address customer growth
- Purchase seasonal quarterly products to manage load-factor weather risk



Secondary trading platform

- Retailer can adjust position over time via secondary trading
 - ✓ Anytime trading of standard products
 - ✓ Day-ahead trading to support nominations
 - ✓ Transparency of pricing
 - ✓ Low transaction costs



Example: entry and exit AMDQ in practice



Example

- A retailer wishes to refill the Iona gas storage facility over summer, in preparation for upcoming winter demand.
- It purchases a quantity of exit AMDQ for the summer period for exit at Iona.
- This provides it with exit tie-breaking rights to withdraw gas from the DTS at Iona for the summer period (schedule priority during summer constraints).

or

Can buy summer Exit AMDQ as quarterly product in the primary auction



Can buy "as needed" Exit AMDQ via the secondary trading platform from another market participant



Example: secondary trading of AMDQ in practice



Example

A tariff D customer (large industry) who holds entry and exit AMDQ and is a market participant is planning to shut down its factory for a month.

or

Can offer its entry and exit AMDQ on the secondary trading platform



If not registered in the trading platform, it can bilaterally negotiate with another participant and inform AEMO of the trade



If not a market participant, it can use the retailer as an agent to sell it on its behalf on the secondary trading platform



Example: secondary trading of AMDQ and forward trading market



Example A

A new entrant market participant has entered into a forward contract through the exchange to sell gas.

or

Buy entry AMDQ on the secondary trading platform

Buy entry AMDQ as an annual or quarterly product in the primary auction



Example B

A tariff D customer who holds entry and exit AMDQ and is a market participant decides to enter into a supply contract through the forward trading exchange.

Sell entry AMDQ on the secondary trading platform on a permanent basis (as delivery is at the hub)



Implementation

Option A

Implement draft rules as a package

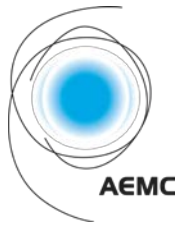
Start at next access arrangement period:
Jan 2023



Option B

Implement draft rules in a staggered manner

Secondary trading: Jan 2022
Shorter tenures: Jan 2022
Entry/exit: Jan 2023



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