

# DWGM RULE CHANGES

TECHNICAL WORKING GROUP

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9 DECEMBER 2019

AEMC

# Agenda

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Session	Speaker	Time
Welcome	David Feeney	10:00 - 10:15
Session 1: Simpler wholesale price rule change	Ryan Esplin, Andrew Pirie	10:15 - 12:00
<i>Lunch</i>		<i>12:00 – 12:45</i>
Session 2: Improvement to AMDQ regime rule change	Daniela Moraes	12:45 – 2:50
Recap, next steps and close	Owen Pascoe	2:50 – 3:00

# DWGM SIMPLER WHOLESAL PRICE

DWGM TECHNICAL WORKSHOP - 9 DECEMBER 2019

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ANDREW PIRIE  
SENIOR ADVISER

RYAN ESPLIN  
ECONOMIST

DANIELA MORAES  
SENIOR ADVISER

**AEMC**

# Agenda

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1. Recap of consolidated rule change request
  2. Application of constraints in the DTS – submissions and position for final rule
  3. Congestion uplift framework – submissions and position for final rule
  4. Proposed implementation in National Gas Rules and AEMO's procedures
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## Recap of consolidated rule change request

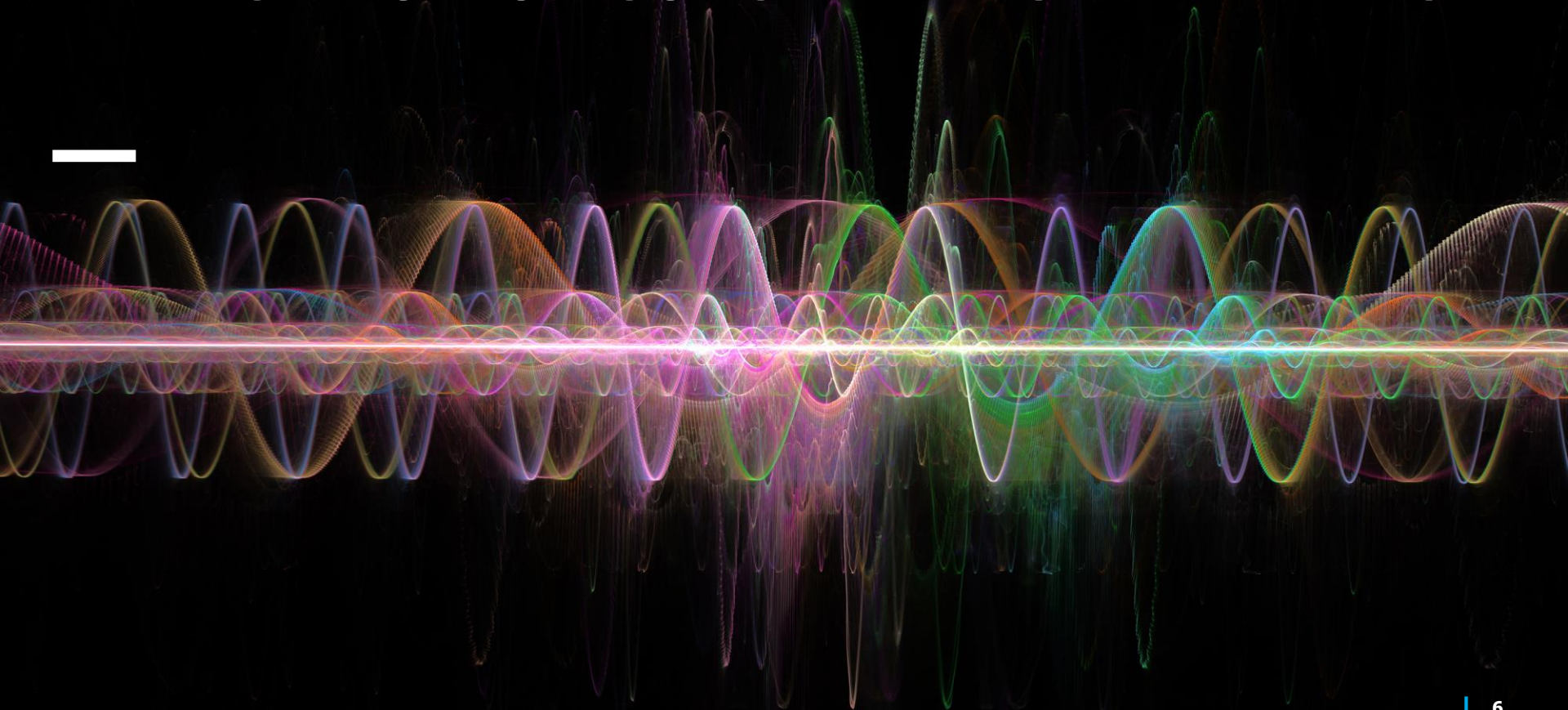
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The DWGM simpler wholesale price rule change is the consolidation of two rule change requests:

- **Application of constraints in the DTS (AEMO/EA)** - suggests that the current arrangements where AEMO is not able to include a system constraint that would act to physically limit scheduled withdrawals in the pricing schedule results in:
  - unpredictable market outcomes that do not reflect the supply/demand balance
  - higher market prices and a lower quantity of gas traded
  - uncertainty and risk that reduce market participant's ability to hedge effectively
  - The rule change proposal is to internalise withdrawal constraints in the pricing schedule.
- **Congestion uplift methodology (Victorian Government)** – suggests that the congestion uplift methodology is:
  - highly complex and may not effectively allocate costs to the causers of those costs
  - may deter financial risk management and trade
  - the evolution of the market may result in more frequent or more material uplift being levied.
  - The rule change proposal is to spread congestion uplift payments across market participants.

# APPLICATION OF CONSTRAINTS IN THE DTS

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## Recap of draft rule

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- The Commission made a draft rule to internalise withdrawal constraints in the determination of the pricing schedule.
- This change would help to achieve more rational price and scheduling outcomes and improve risk management by market participants.

## Seven submissions commented on this part of the draft determination

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- **Rule proponent**
  - ✓ Victorian DELWP
- **Market participant**
  - ✓ Brickworks
- **Retailers**
  - ✓ EnergyAustralia
  - ✓ Origin
  - ✓ AGL
  - ✓ ERM Power
- **Market operator**
  - ✓ AEMO



## Stakeholders are supportive of making the rule

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- Brickworks was supportive.
- AEMO is supportive of making a rule but suggests that:
  1. Transmission constraints should only apply to controllable withdrawals.
  2. We should consider applying constraints to both controllable withdrawals and injections.
- ERM Power are supportive noting that the change will facilitate better risk management.
- AGL, EA and Origin are supportive and encourage the AEMC to implement the change as soon as practicable.
- MEU, the ACCC and the AER made no comments to this specific rule change.

## AEMO's submission: constraints should only apply to controllable withdrawals

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- AEMO considers that transmission constraints should only be applied to controllable withdrawals.
- This is a return to how the market was scheduled prior to the change in 2015.
- Any physical limits on uncontrollable withdrawals implies a curtailment event and the market price is set to the market price cap (\$800/GJ).

## AEMO's submission: suggests constraints may also be applied to controllable injections

- AEMO argues that injection constraints may be more likely in the future, for example due to potential new supply sources.
- This is out of scope for this rule change as the rule change request from AEMO (on behalf of Energy Australia) was explicitly on withdrawal constraints only.
- Therefore, we do not propose to apply transmission constraints to controllable injections as part of this rule change. A separate rule change request could be submitted in the future if issue emerges.

## Implementation and timing

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**The Commission is minded to make a rule that reflects the draft rule, however clarifies that it only applies to controllable withdrawals.**

- The final determination is expected to be published on 12 March 2020.
- Amendments for transitional arrangements are to commence on 19 March 2020.
- AEMO intends to update its procedures in parallel and is planning to commence consultation ahead of the final rule through the GWCF. At the conclusion of this process, AEMO is required to publish a notice.
- NGR Part 15B requires that this notice must be published at least 15 business days before the new procedures are to take effect. If AEMO publish this notice by 26 March 2020, the procedures would take effect by 20 April 2020.
- The AEMC must make a rule that commences on a certain date. The AEMC proposes that the rule commences on **20 April 2020**.

## Question for attendees

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Do you have any concerns with the proposed implementation of internalising withdrawal constraints in the pricing schedule?

Is it appropriate to implement the change in April, or should we consider delaying till after winter?

# CONGESTION UPLIFT FRAMEWORK



## Recap of draft rule

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### **The more preferable draft rule:**

- Retained the current approach in which uplift payments are allocated so far as practicable to the causer of the constraint.
- Retained the ability of MPs to protect against the risk of exposure to congestion uplift payments
- Simplified the mechanism that MPs can use to protect against the risk of incurring congestion uplift payments by:
  - removing the need to inject gas
  - removing the concept of congestion uplift hedge and the associated need for MPs to submit injection hedge nominations
  - implemented a new mechanism based on MPs withdrawals exceeding their allocation of exit certificates, on a daily DTS wide basis.

## 11 submissions commented on this part of the draft determination

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- **Retailers**

- ✓ EnergyAustralia
- ✓ ERM Power
- ✓ Origin
- ✓ AGL

- **Market operator**

- ✓ AEMO

- **Other**

- ✓ Brickworks
- ✓ ACCC
- ✓ AER
- ✓ Victorian government
- ✓ Major energy users
- ✓ EUAA



## Mixed stakeholder views on draft determination

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### Summary

- 3 submissions were mostly supportive (Victorian government, EnergyAustralia, AGL)
- 6 submissions had mixed views on various aspects (AEMO, Major energy users, Brickworks, Origin, ERM) or did not express a specific view (AER).
- 1 was concerned with the impact of smaller retailers (ACCC).
  
- **EA, MEU and Brickworks** – support retaining cost to cause approach. Do not support spreading congestion uplift as it would remove or reduce signals and incentives to minimise congestion.
  
- **AEMO and ERM** – do not consider that the draft rule will allocate costs to their cause or provide efficient incentives. Suggest removing the congestion uplift category, so that total uplift costs may be recovered by surprise, common and congestion DTS SP uplift.

## Stakeholder views on draft rule

### - Removing injection test from congestion uplift protection

#### **Supported by a number of stakeholders:**

- Victorian government, AGL, ERM, EnergyAustralia and Brickworks support removing injection test as:
  - a simplified mechanism
  - removes barrier to entry (injection test disadvantages MP's who are only buying gas, injecting at points other than Longford or using financial instruments to hedge their position).
- AEMO – if retaining a congestion uplift measure, then removing the injection test is an improvement on the status quo.

#### **Not supported:**

- Origin - removing the injection test represents a fundamental change to the existing framework that may have broader implications for security of supply and risk management. In Origin's view, such a change is unlikely to deliver material benefits relative to the existing framework.

## Stakeholder views on draft rule

### - Daily DTS-wide basis of congestion uplift mechanism

#### Issues raised by stakeholders (AEMO, EA, Origin, AGL, Brickworks):

- **Time period:** congestion uplift mechanism should be **interval** based instead of daily, so it provides incentives for MPs to manage withdrawals across the day.
- **Locational aspect:**
  - Suggested that withdrawal congestion is mostly a locational issue, so the congestion mechanism should be **zonal**, instead of DTS-wide.
  - Participants should need to hold exit certificates in the zone that congestion is occurring (otherwise exit certificates at Culcairn could be used to protect against MP's withdrawals at Iona for example)

# Interaction between rule changes on AMDQ regime and simpler wholesale price

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## Uncontrollable exit capacity certificates

### Current arrangements – AMDQ

- AMDQ provides tariff D and V customers with limited curtailment protection in case of emergencies and congestion uplift hedge so long as MP injects enough gas.

### Draft rule – Uncontrollable exit capacity certificates

- Uncontrollable exit capacity certificates replace authorised MDQ that is currently owned by tariff D gas consumers and held on behalf of tariff V gas consumers by AEMO.
- Benefits provided by holding: limited curtailment protection in case of emergencies and protection against congestion uplift payments, so long as MPs don't withdraw more gas than their holdings of exit capacity certificates. Injection test no longer required to activate congestion uplift hedge.
- To be auctioned and only market participants can participate in the auction.
- With the distinction between tariff D and V customers removed, it would be left to retailers as to how they are going to allocate the benefits of the uncontrollable exit capacity certificates to its customer base.

## Stakeholder views on auctioning uncontrollable exit capacity certificates

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Many stakeholders did not support auctioning of uncontrollable exit capacity certificates:

- **Victorian Government:** AEMC should be particularly sensitive to the possibility that needing to participate in an auction for uncontrolled exit rights will pose an additional barrier to entry within the retail market.
- **EA:** ...cautious that the design of the auction does not create challenges for new entrant retailers to obtain capacity rights. Current metering arrangements mean retailers often do not get a clear view of their actual customer load until approximately 6 months after and therefore are likely to be hesitant to release 'unused' capacity certificates back into the auction ahead of time.
- **AEMO:** not convinced auctioning uncontrollable exit capacity certificates is most efficient or pragmatic option. ... They are likely to be a non-scarce resource – it makes little sense to auction them off.
- **MEU:** AMDQ rights holders should not be required to pay for limiting their exposure to the costs of congestion through having to purchase the needed AMDQ.
- **Brickworks:** replacing the existing free allocation of AMDQ rights with a need to purchase uncontrollable exit capacity certificates would impose additional costs on end users to minimise the risk of congestion uplift costs.

## Alternative to auction uncontrollable exit capacity certificates

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- AEMO proposed uncontrollable exit capacity certificates to be dynamically allocated, similar to how authorised MDQ is dynamically allocated in the current market.
- However, it also noted that consideration would need to be given as to how gas powered generation (GPG; which is uncontrollable) can be allocated uncontrollable exit capacity certificates.

## Summary of policy options considered for final determination

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<b>Draft rule</b>	<b>Alternative option 1</b>	<b>Alternative option 2</b>
<b>Daily DTS-wide congestion uplift mechanism</b>	<b>Zonal interval congestion uplift mechanism</b>	<b>Not require a congestion uplift category</b>
The AEMC is not intending to proceed with the draft rule or alternative option 1 for the final rule.		The AEMC intends to proceed with alternative option 2 for the final rule.

## Alternative option 1: Zonal and interval-based congestion mechanism

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### Features

- **Retains:**
  - Allocation of uplift payments so far as practicable to the causer.
  - Aspects of the draft rule that were generally supported by stakeholders – removing injection test and congestion uplift hedge processes as these changes are expected to reduce complexity, administrative burden and barriers to entry.
  - Exit capacity certificates (for controllable withdrawals) provide congestion uplift protection
- **Makes changes to the draft rule** to incorporate stakeholder feedback:
  - No uncontrollable exit capacity certificates, and no auction.
  - Uncontrollable exit capacity 'amount' dynamically allocated by AEMO on a zonal and interval basis.
  - MP's exposed to congestion uplift charges where MP's withdrawals exceed their (controllable) exit capacity certificates and/or uncontrollable exit capacity 'amount' on a zonal and interval basis.



# Alternative option 1: Zonal and interval-based congestion mechanism

## Issues – Signals and incentives

- Congestion uplift was originally designed for system constraints related to a single pipeline (LMP). Over time, expansions of the DTS have meant that congestion uplift does not always provide clear or strong locational signal for participants to avoid causing constraints.
- The table below shows that, over the recent period since the Longford outage on 1 October 2016, a number of events involving congestion uplift were due to unplanned outages and unexpected increases in demand.

Date	Congestion uplift payment amount	Cause
5/12/2016	\$33,581	"Pigging" program on the SWP required injections at Iona CPP
26/05/2017	\$24,066	Insufficient injections at Iona CPP during a planned outage at Brooklyn Compressor Station
3/08/2017	\$1,026	Lower than expected temperatures and higher than forecast GPG demand
30/11/2017	\$623	Longford equipment outage
20/12/2017	\$984	Higher than forecast GPG demand during planned outage at Brooklyn Compressor Station
23/02/2018	\$3,860	Unplanned outage at the Brooklyn Compressor Station
27/05/2019	\$2,761	High demand and under-delivery from Longford
29/05/2019	\$6,473	High demand, lower than expected temperatures and higher than forecast GPG demand
19/06/2019	\$5,615	High demand, unplanned coal plant outage resulting in higher than forecast GPG demand

- In most cases, it is unlikely that MPs could have expected these events and changed their behavior to make them less likely to occur. Congestion uplift does not always provide a clear signal that participants can respond to.

## Alternative option 1: Zonal and interval-based congestion mechanism

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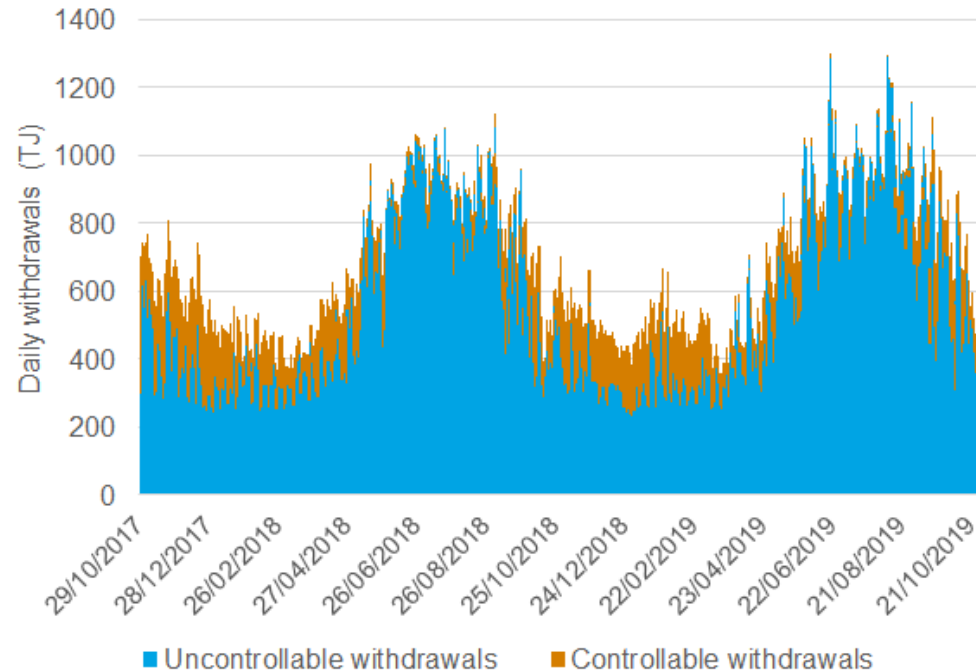
### Limitations associated with developing this alternative congestion uplift mechanism:

- Removing uncontrollable exit capacity certificates means that exceedance by uncontrollable withdrawals would need to be derived by AEMO on some basis (e.g. demand forecast profiles). AEMO would take on the role of calculating a participant's uplift exposure and participants would have limited ability to manage this risk (as participants can't buy protection and unlikely to invest in pipeline expansion).
- The DWGM is a "single hub" with non-site specific demand forecasts provided on a hub-wide basis and with a single retail market. It does not appear to be practical to divide uncontrollable withdrawal exceedance into zones for the purpose of congestion uplift allocation as this would involve more fundamental changes to the market (e.g. moving to a zonal market with zonal prices/schedules).
- As forecast demand is not on a zonal basis, exceedance by uncontrollable withdrawals would need to be calculated on a single zone basis. Congestion uplift is therefore unlikely to provide a locational signal.
- Complications relating to GPG:
  - *If remain uncontrollable* - on what basis to calculate uncontrollable exit certificate 'amount' for GPG, if it does not have any certificates? Historical forecasts for example would not be appropriate due to outages and intermittent nature of GPG load.
  - *If made controllable* – GPG could protect against congestion uplift by purchasing exit capacity certificates, however this change has broader implications (e.g. need to be accredited and scheduled).

# Alternative option 1: Zonal and interval-based congestion mechanism

## Issues – practicality of mechanism

- Uncontrollable withdrawals usually represent the majority of system withdrawals.
- If uncontrollable exit capacity were dynamically allocated on some basis, it would likely add complexity for minimal benefit as uncontrollable withdrawals cannot respond to avoid a congestion uplift event.
- It is therefore unlikely to create meaningful market or investment signals.

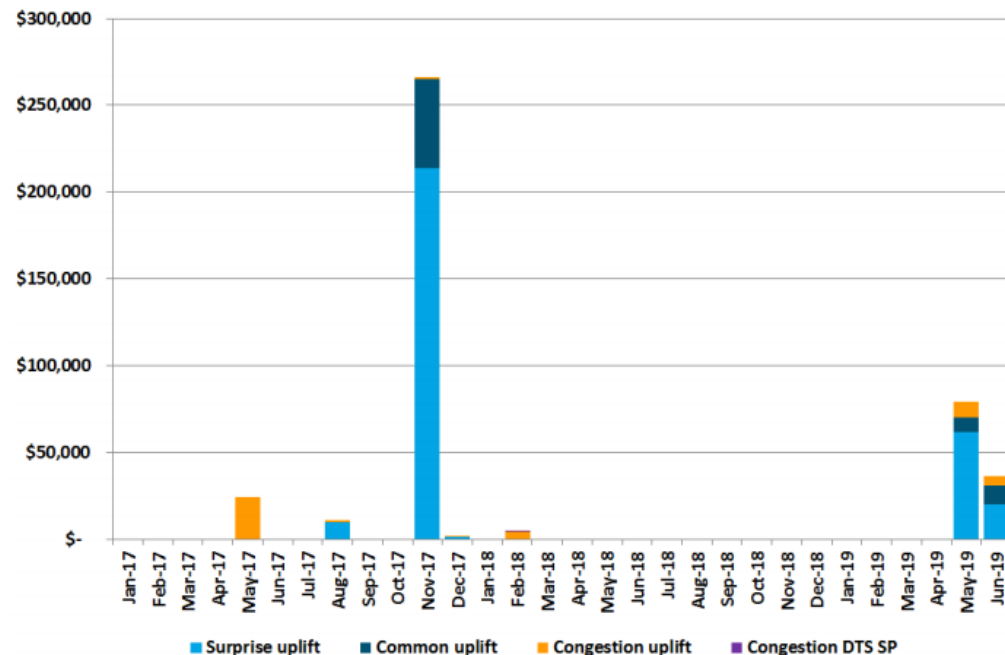


# Alternative option 1: Zonal and interval-based congestion mechanism

## Issues – materiality

- It does not appear that a practical mechanism could be developed that would provide clear signals and incentives that outweigh the costs associated with the mechanism.
- It would create a more complex regime than the previous regime, which would not be appropriate given the size of congestion uplift payments.

Figure 1.1: Uplift payments by type in 2017, 2018 and the first half of 2019



Source: AEMO

## Alternative option 2: Not requiring a congestion uplift category

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### Features

- **Retains:**

- the current approach in which **uplift** payments are allocated so far as practicable to cause
- the draft rule, removes the need to inject gas and removes the concept of congestion uplift hedge and the associated need for MPs to submit injection hedge nominations

- **Changes from the draft rule:**

- Recommends that AEMO remove the congestion uplift category from their procedures.
- Amendments to the NGR, for example to remove links between AMDQ/capacity certificates and uplift and other redundant clauses (see slides 29 and 30).

## Alternative option 2: Not requiring a congestion uplift category

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### Pros

- **Uplift** payments remain allocated so far as practicable to the cause (as per current Rules).
- Reduces administrative burden as it removes complex uplift hedge processes and need for participants to purchase exit certificates to protect against congestion uplift.
- AEMO to update their uplift (and any other relevant) procedures to reflect the final rule. Through this consultation process, AEMO can remove the congestion uplift category, so that uplift payments are allocated to other uplift categories (currently these categories are surprise, common and congestion DTS SP). The chart on slide 26 shows that most uplift payments since 2017 were caused by surprise events.
- Retaining an allocation based on cost to cause as far as practicable, is more appropriate than socialising congestion uplift across all market participants.

## Alternative option 2: Not requiring a congestion uplift category

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### Other matters

- A concern raised by some stakeholders was the potential for system congestion due to high gas usage from GPG. On this issue the AEMC notes that:
  - The operation of GPG are restricted through the connection process. This would also apply to any new GPG units to be built in Victoria. The connection process is AEMO's preferred method of managing the potential of GPG withdrawals exceeding system capacity.
  - When GPG exceeds its demand forecast this may cause a temporal constraint (surprise uplift)
  - GPG also has incentives to avoid causing constraints due to deviation payments.
  - While demand from GPG may increase in future due to the retirement of coal generators, expansions such as the WORM would increase the capacity and available linepack of the system.
- In amending the Uplift procedures, AEMO may be able to make changes to improve the allocation of cost to cause.

## Question for attendees

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Are there any further implementation issues with not requiring a congestion uplift category?



# Uncontrollable exit capacity certificates and curtailment protection

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## Current arrangements

- The curtailment of gas customers in the DWGM is decided using the Gas Emergency Protocol (the Protocol), which includes the Gas Load Curtailment and Gas Rationing and Recovery Guidelines. The Protocol is a requirement of section 53 of the National Gas (Victoria) Act 2008.
- However, according to rule 343(2), if a threat to system security is attributable to a transmission constraint then to the extent practicable, AEMO must, prior to curtailing any other customers, use reasonable endeavours to curtail those customers who, in AEMO's reasonable opinion, are using more than the authorised MDQ or quantities in AMDQ credit certificates assigned to those customers.

## Shortcomings of the current mechanism

- Rule 343(2) limits the protection provided by AMDQ to a scenario where there is a transmission constraint, which may not include a simple supply shortfall.
- In addition, for a curtailment event it is unlikely that AEMO will only curtail table 0. Any sizeable curtailment event will likely necessitate a broader response that will mean that curtailment is not limited to just table 0 particularly where a timely response to a curtailment notice is required.
- The last gas curtailment on the DTS occurred on 22 July 2002 (curtailed load with and without AMDQ).

# Curtailement protection

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## Draft rule

- If curtailment is required as a result of a transmission constraint, draft rule 343(2) requires AEMO to curtail those customers not covered by uncontrollable exit capacity certificates before those that are covered (similar wording as current rule).

## Issue with the draft rule

- AEMO is of the view that it may be more appropriate for all curtailment to be determined under the National Gas (Victoria) Act 2008 rather than the National Gas Rules and supports decoupling the curtailment process from the market and removing this clause from the NGR.
- In addition, section 53 of the National Gas (Victoria) Act 2008 requires AEMO to have regard to the economic and social needs of the Victorian community when making the Protocol.

**As a consequence, AEMO would remove Table 0 from the existing Gas Load Curtailment and Gas Rationing and Recovery Guidelines.**

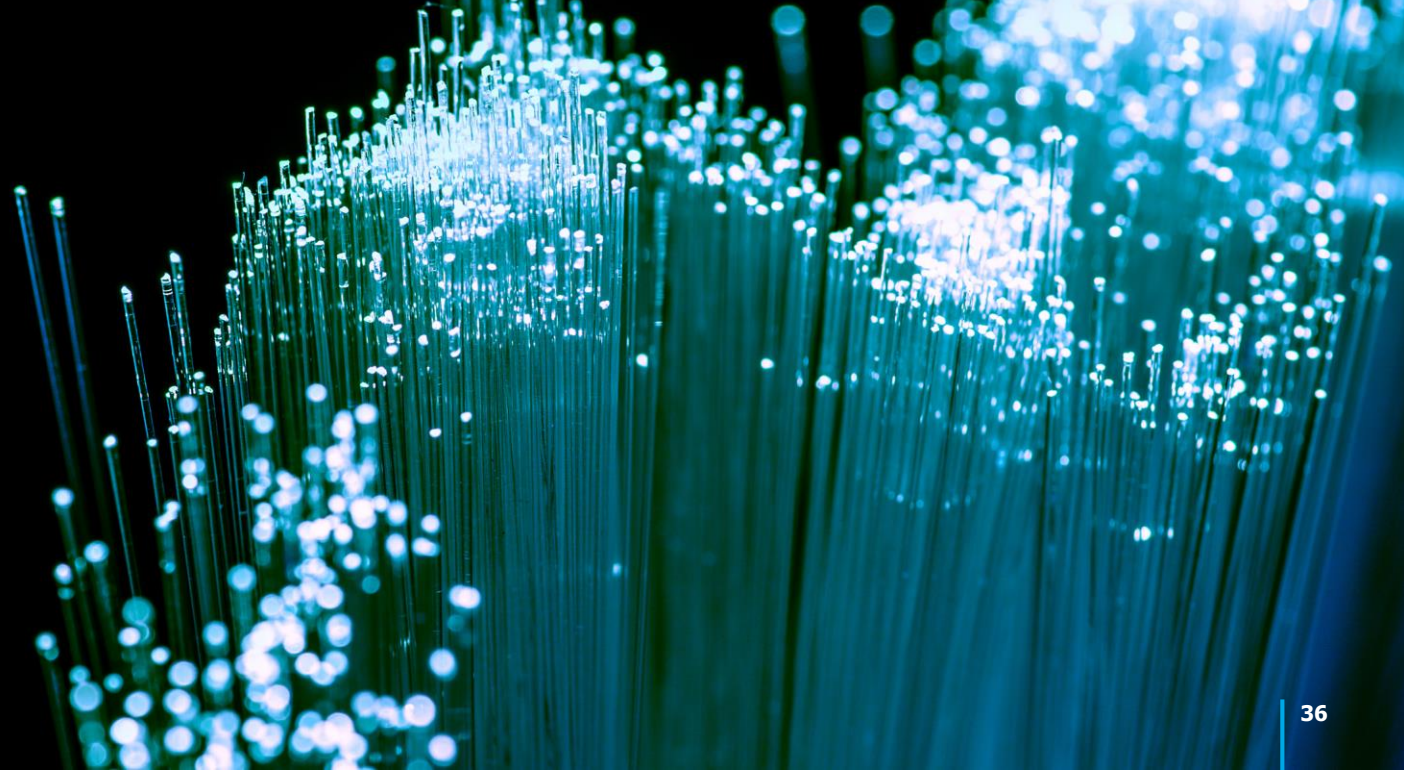
## Question for attendees

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Are there any concerns or unintended consequences due to the proposed change to curtailment protection?

# PROPOSED IMPLEMENTATION IN NGR AND AEMO PROCEDURES

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## Proposed implementation in National Gas Rules

### Alternative option 2 – Not requiring a congestion uplift category

- 240(1)(a) & (b) – delete the words “daily and within day” as this qualification is not necessary.

#### **240 Uplift payments**

- (1) Subject to subrule (2), AEMO must make Procedures (**uplift payment procedures**) governing the determination of:
  - (a) an estimate of the portion (if any) of any ancillary payments in respect of a gas day in accordance with rule 239 which are attributable to ~~daily and within day~~ transmission constraints;
  - (b) an estimate of the total size in GJ of the ~~daily and within day~~ transmission constraint (if any) giving rise to the portion of ancillary payments estimated in accordance with paragraph (a); and
  - (c) with respect to any ancillary payments, the uplift payments payable by or to each declared transmission system service provider and Market Participant.

## Proposed implementation in National Gas Rules

### Alternative option 2 – Not requiring a congestion uplift category

- 240(1)(2)(a) – retain principle that ‘uplift payments are to be allocated so far as practicable to the cause’.
- 240(2)(b) – delete as there would no longer be a link between exit capacity certificates and congestion uplift and there would no longer be a mechanism by which MPs can be allocated congestion uplift.
  - (2) In making the uplift payment procedures, AEMO must apply the following principles:
    - (a) uplift payments are to be allocated so far as practicable to the cause;
    - (b) ~~in allocating uplift payments arising from events occasioning daily transmission constraints AEMO must take into account the extent to which a Market Participant’s AMIQ is exit capacity certificates are exceeded by the sum of its scheduled withdrawals and forecast demand and scheduled withdrawals for the relevant gas day;~~

# Proposed implementation in National Gas Rules

## Alternative option 2 – Not requiring a congestion uplift category

- 240(9)(b) to (d) – delete. As there will not be a link between congestion uplift and authorized MDQ/exit capacity certificates and AEMO will no longer be required to have a congestion uplift category, there does not appear to be a need to publish information on quantities of gas withdrawn by tariff V & D withdrawal points.
  - (9) If, in accordance with the uplift payment procedures, AEMO determines that any part of any ancillary payments which are payable in respect of a gas day is attributable to a transmission constraint, then AEMO must also determine and publish:
    - (a) after taking into consideration the service envelope agreement, the extent (measured in GJ) to which that transmission constraint was caused by the failure of the declared transmission system service provider to fulfil its obligations under its service envelope agreement in that trading interval;
    - (b) ~~the aggregate of any quantities of gas withdrawn at tariff D withdrawal points in that trading interval in excess of the~~ authorised MDQuncontrollable exit capacity certificates ~~applicable to those tariff D withdrawal points;~~
    - (c) ~~the aggregate quantity of gas, if any, withdrawn at all tariff V withdrawal points in that trading interval in excess of the aggregate~~ authorised MDQuncontrollable exit capacity certificates ~~applicable to those tariff V withdrawal points; and~~
    - (d) ~~the aggregate quantity of gas withdrawn at all tariff D withdrawal points in that trading interval.~~

## Proposed implementation in National Gas Rules

### Alternative option 2 – Not requiring a congestion uplift category

- Transitional arrangements – AEMO to amend Uplift payment, Ancillary payment and any other procedures that AEMO considers relevant having regard to the amending rule.



## Question for attendees

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Are there any issues with the proposed changes to the National Gas Rules?

# BACKGROUND - ANCILLARY AND UPLIFT PAYMENTS

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## Current methodology – Imbalance payments and deviation payments

	Calculation	Time period	Applies to
<b>Imbalance payments</b>	Ex-ante. MPs incur or receive based on net difference between injections and withdrawals.	Daily. May be updated across schedules.	Injections and withdrawals
<b>Deviation payments</b>	Ex-post. MPs incur or receive deviation payments based on difference between <u>scheduled</u> and <u>actual</u> outcomes: - scheduled vs actual withdrawals (scheduled and forecast) - scheduled vs actual injections	Scheduling interval (next scheduled price)	Injections and withdrawals

## Current methodology - Ancillary payments and uplift payments

	Calculation (all ex-post)	Time period	Applies to
<b>Ancillary payments</b>	Paid to constrained <u>on</u> injections and withdrawals (usually injections) where scheduled to inject or withdraw more in OS than PS. AP flip flop reduces fluctuations in aggregate APs.	Scheduling interval	Injection and withdrawals
<b>Congestion uplift</b>	MP's scheduled withdrawals exceed its AMIQ uplift hedge.	Scheduling interval	Controllable and uncontrollable W.
<b>Surprise uplift</b>	MP <u>deviations</u> from scheduled injections in previous schedule.	Scheduling interval	Injections
	MP <u>deviations</u> in effective demand forecast and controllable withdrawals and <u>changes</u> in demand forecast and controllable withdrawals between schedules.	Scheduling interval	Controllable and uncontrollable W.
<b>Congestion DTS SP</b>	Shortfall in system capacity due to a breach of the SEA. Max. limit on congestion uplift DTSSP; if exceeded the amount is added to common.	Scheduling interval	DTS SP
<b>Common uplift</b>	If aggregate amount of uplift payments allocated to congestion uplift and surprise uplift do not full fund APs on the day. May arise due to: 1. AEMO overriding total demand forecast. Additional scheduled W over actuals cannot be attributed to specific MPs forecasting errors. 2. SEA limits amount of uplift payments payable by DTS SP. 3. Remainder where no basis for categorising in other uplift types.	Gas day	MP's actual daily withdrawals as % of total actual daily withdrawals

# Overview of current allocation of ancillary payments to uplift payments

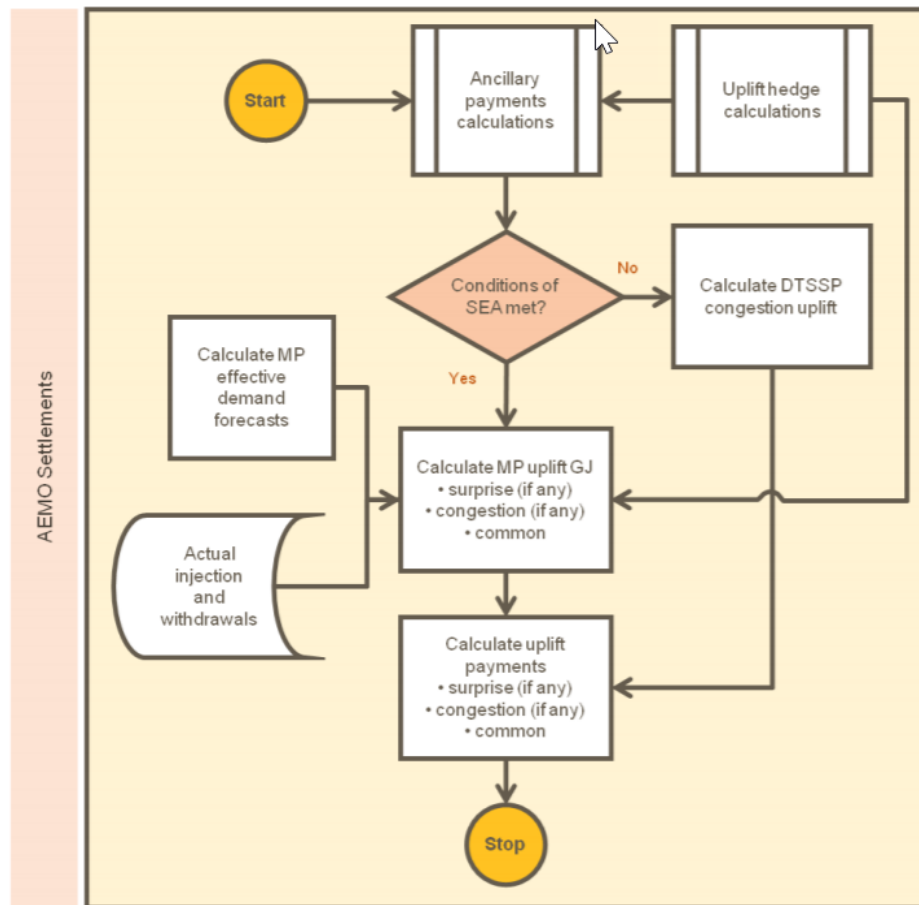


Figure 15-1

Calculation of uplift payments

## Current method of allocating ancillary payments to uplift payment types

- AEMO's *Technical guide to the Victorian DWGM* sets out all of the steps and formulae involved in allocating APs to uplift payment types.

Table 15.8 summarises the three types of uplift quantities—surprise, congestion and common—which form the basis for allocating APs and calculating UPs.

Table 15.8 Total uplift quantities

Schedule	Surprise uplift		Congestion uplift		AEMO residual override		Total uplift	
	GJ		GJ		GJ		GJ	
	Positive	Negative	Positive	Negative	Positive	Negative	Positive	Negative
1	1.0	0.0	38.1	0.0	0.0	-1.0	39.1	-1.0
2	1.0	-10.3	0.0	-2.0	1.0	-1.0	2.0	-13.3
3	5.0	-1.0	1.0	0.0	3.0	0.0	9.0	-1.0
4	3.0	-1.0	1.0	0.0	1.0	-1.0	5.0	-2.0
5	0.0	-3.0	0.0	0.0	2.0	0.0	2.0	-3.0

Table 15.12 Calculation of uplift payments

Schedule	Congestion uplift payment \$	Surprise uplift payment \$	Total UP \$	Common uplift payment \$
<i>s</i>	<i>CUP</i>	<i>SUP</i>	<i>TUP</i>	<i>MUP</i>
1	0.0	0.0	0.0	0.0
2	-15.0	-77.4	-100.0	-7.5
3	0.0	-66.7	-200.0	-133.3
4	33.3	100.0	200.0	66.7
5	0.0	0.0	0.0	0.0

AEMO, *Technical Guide to the Victorian DWGM*, July 2013

# Current method of allocating uplift payment types to market participants

- AEMO's *Technical guide to the Victorian DWGM* sets out all of the steps and formulae involved in allocating uplift payments to MPs.

Table 15.13 Allocations of surprise uplift payments to market participants

Schedule	Positive surprise uplift payments			Negative surprise uplift payments			MP B total surprise uplift payment
	Positive uplift payment rate	MP B positive surprise uplift quantity	MP B surprise uplift payment	Negative uplift payment rate	MP B negative surprise uplift quantity	MP B surprise uplift payment	
	\$/GJ	GJ	\$	\$/GJ	GJ	\$	\$
$s$	$UPR^+$	$QUS^+$	$SUP^+$	$UPR^-$	$QUS^-$	$SUP^-$	$SUP^+ + SUP^-$
1	0.0	1.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	7.5	-10.3	-77.4	-77.4
3	0.0	5.0	0.0	66.7	0.0	0.0	0.0
4	33.3	3.0	100.0	0.0	0.0	0.0	100.0
5	0.0	0.0	0.0	0.0	-2.0	0.0	0.0

Table 15.15 Allocations of common uplift payments to market participants

Schedule	MP B's actual daily withdrawal	Total all MPs' daily actual withdrawals	MP B's proportion of actual withdrawals	Total common UP	MP B's common UP
	GJ	GJ	%	\$	\$
$s$	$QWA(p)=A$	$\sum_p QWA(p)=B$	$A/B$	$MUP_s$	$MUP_s(p)$
1	135	253	53	0.0	0.0
2				-7.5	-4.0
3				-133.3	-71.1
4				66.7	35.6
5				0.0	0.0