WHOLESALE MARKET ANCILLARY PAYMENT PROCEDURES (VICTORIA)

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VERSION RELEASE HISTORY

Version	Effective Date	Summary of Changes
3.0	1 Jan 2023	Reflect changes to NGR as result of National Gas Amendment (DWGM Simpler Wholesale Price) rule 2020. Remove requirement to exclude Uplift hedge quantities from *ancillary payments*. Remove inclusion of *Market Participant* constraints in *ancillary payments* (negative *ancillary payments*). AP redistribution algorithm ("AP flip flop") moved to Uplift Payment Procedures Number changes to enhance clarity Reinstatement of part of clause 5.2.4 previously deleted in error
2.0	1 May 2012	Final – effective 1 May 2012. Changes to reflect enhanced AP algorithm for reduced updated bid functionality
1.1	13 Oct 2011	Draft - Updated to reflect enhanced AP algorithm for reduced updated bid functionality
1.0	16 Aug 2010	Rebranded and updated for NGR
		Market & Systems Operation Rules replaced by NGR Part 19
1.2	May 2008	Updated to incorporate AP Flip Flop and clawback methodologies
1.1	Jan 2007	Remove words "minus one multiplied by" written into section 8.1 Amend errors detected in version 1.0
1.0	11 Nov 2005	First issue

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1. INTRODUCTION

1.1. Purpose and scope

These are the *ancillary payment* procedures made under rule 239 of the National Gas Rules (NGR) (Procedures).

These Procedures have effect only for the purposes set out in the NGR. The NGR and the National Gas Law prevail over these Procedures to the extent of any inconsistency.

Unless expressly stated otherwise in the Procedure, the version of the Procedure that applies to a *gas day* is the version of the Procedure that was in effect at the start of the *gas day*

1.2. Definitions and interpretation

1.2.1. Glossary

Terms defined in the National Gas Law and the NGR have the same meanings in these Procedures unless otherwise specified in this clause.

Defined terms/Terms defined in the NGR are intended to be identified in these Procedures by italicising them, but failure to italicise a defined term does not affect its meaning.

The words, phrases and abbreviations in the table below have the meanings set out opposite them when used in these Procedures.

Term	Definition
Actual Gas Injection Negative Offset Quantity or AGINO	The difference between the amount of gas injected by a *Market Participant* and their constrained on injection quantity.
Actual Gas Withdrawal Negative Offset Quantity or AGWNO	The difference between the amount of gas withdrawn by a *Market Participant* and their constrained on withdrawal quantity.
BoD	Beginning of the gas day
Controllable withdrawal	A quantity of gas that may be scheduled for withdrawal at a *system withdrawal point* and modified on a gas day in accordance with a withdrawal bid and the applicable accreditation by AEMO under Rule 210
Controllable injection	A quantity of gas that may be scheduled for injection at a *system injection point* and modified on a gas day in accordance with an injection bid and the applicable accreditation by AEMO under Rule 210

1.2.2. Interpretation

The following principles of interpretation apply to these Procedures unless otherwise expressly indicated:

(a) These Procedures are subject to the principles of interpretation set out in Schedule 2 of the National Gas Law.

(b) References to time are references to Australian Eastern Standard Time.

2. *ANCILLARY PAYMENTS* – GENERAL

2.1. Constrained on Injections and Withdrawals

In accordance with Rule 239(3), subject to Rules 239(4), (5) and (6), a *Market Participant* who is given a *scheduling instruction* to inject or withdraw more gas under the *operating schedule* than the quantity of gas that the *Market Participant* was scheduled to inject or withdraw under the relevant *pricing schedule*, is entitled to receive an *ancillary payment*. For the purposes of these Procedures, any such increased injection is deemed to be a constrained on injection quantity and any such increased withdrawal is deemed to be a constrained on withdrawal quantity.

Ancillary payments are adjusted at each *operating schedule* during the gas day.

Until such time as:

(a) the constrained on injection quantity is injected into the relevant *system injection point*; or

(b) the constrained on withdrawal quantity is withdrawn from the relevant *system withdrawal point*,

by the *Market Participant*, the amount of *ancillary payments* payable to that *Market Participant* in respect of that constrained on injection quantity or withdrawal quantity (as applicable) increases or decreases at each subsequent updated *operating schedule* in that gas day to the extent that the amount of the constrained on injection quantity or constrained on withdrawal quantity increases or decreases in each subsequent updated *operating schedule* in that gas day.

2.2. Deleted - *Market Participant* Constraint

2.3. Actual Injections or Withdrawals of Gas

Where a *Market Participant*:

(a) injects less than the constrained on injection quantity; or

(b) withdraws less than the constrained on withdrawal quantity,

ancillary payments will not be generated in respect of that shortfall in constrained on injection or withdrawal quantity (as applicable) and for the purposes of the calculations in clauses 5.1 and 5.2 of these Procedures, such shortfall in the constrained on injection quantity is deemed to be the Actual Gas Injection Negative Offset Quantity (AGINO) and such shortfall in the constrained on withdrawal quantity is deemed to be the Actual Gas Withdrawal Negative Offset Quantity (AGWNO).

Where a *Market Participant*:

(c) injects more than the constrained on injection quantity; or

(d) withdraws more than the constrained on withdrawal quantity,

ancillary payments will not be generated in respect of that excess of constrained on injection or withdrawal quantity (as applicable).

2.4. Deleted – Uplift Hedges

2.5. Deleted – Accreditation

2.6. Reduced Bid Quantities in Reschedules

If the bid quantities in reschedules are reduced such that the constrained on quantities in the reschedules are reduced the negative *ancillary payments* are modified so as to totally offset the positive *ancillary payment*s incurred in previous schedules.

3. DETERMINATION OF ADJUSTED BID STEPS

3.1. Deleted – Determination of *Scheduled injection* Used for Uplift Hedge

3.2. Determination of Adjusted Bid Steps

For each *injection* or *withdrawal bid* in respect of any *pricing* and *operating schedule*, break points are determined automatically by AEMO between bid steps from zero up to the maximum quantity offered by that *Market Participant*s shown by way of example in Table 1. In this example, the *injection bid* quantities in the 1st and 2nd reschedules are lower than the total quantity bid in the BoD schedule.

As shown by way of example in columns 1 and 2 in Table 2, all break points across all pricing and *operating schedules* are ranked by their cumulative quantities so that there are up to:

a) 55 injection or withdrawal break points between 0 and the maximum quantity bid over all schedules; and

b) [Deleted] .

For each *injection* or *withdrawal bid* in respect of each *pricing* and *operating schedule*, the existing bid steps are divided by AEMO into more steps by applying the new break points. This is carried out by associating each pricing break point for each schedule with each cumulative quantity break point. In the example in Table 2, a total of 13 adjusted bid steps are created and apply to each *pricing* and *operating schedule*. For adjusted bid steps where the cumulative bid quantity for a *pricing* and *operating schedule* exceeds the maximum bid quantity for that schedule the bid price is set in accordance with clause 3.3 of these Procedures.

The resulting divided *injection* or *withdrawal bids* are used by AEMO in the calculations set out in Chapters 4 to 7 of these Procedures.

In Table 2, a total of 13 adjusted bid steps are created. The system should generate the same number of adjusted bid steps for each schedule for the relevant bids for each combination of MP(x) and *system point* (point).

Table 1 Bid steps

Bid Step	BoD Schedule		1st reschedule		2nd reschedule	
	Cumulative Quantity (GJ)	Bid Price ($/GJ)	Cumulative Quantity (GJ)	Bid Price ($/GJ)	Cumulative Quantity (GJ)	Bid Price ($/GJ)
1	15	2.0	16	2.1	17	2.2
2	30	2.5	32	2.6	34	2.7
3	45	3.0	48	3.1	51	3.2
4	60	3.5	64	3.6	68	3.7
5	75	4.0				

Table 2 Adjusted bid steps

Adj bid step		Bid price ($/GJ)		
	Cumulative Quantity (GJ)	BoD Schedule	1st reschedule	2nd reschedule
1	15	2.0	2.1	2.2
2	16	2.5	2.1	2.2
3	17	2.5	2.6	2.2
4	30	2.5	2.6	2.7
5	32	3.0	2.6	2.7
6	34	3.0	3.1	2.7
7	45	3.0	3.1	3.2
8	48	3.5	3.1	3.2
9	51	3.5	3.6	3.2
10	60	3.5	3.6	3.7
11	64	4.0	3.6	3.7
12	68	4.0	3.6	3.7
13	75	4.0	3.6	3.7

3.3. Association of Bid Prices with Adjusted Bid Steps

The bid prices associated with the adjusted bid steps of each *pricing* and *operating schedule* are set by AEMO equal to the bid price for that bid step in that schedule.

For adjusted bid steps where the cumulative bid quantity for a *pricing* and *operating schedule* exceeds the maximum bid quantity for that schedule the bid price is set equal to the bid price of the maximum bid step for that schedule.

If AEMO has limited the *market price* to the *administered price cap* for a schedule in accordance with Rule 239(5) then the bid prices associated with the adjusted bid steps for that schedule are capped at the *administered price cap*.

4. DETERMINATION AND ALLOCATION OF QUANTITIES TO ADJUSTED BID STEPS

4.1. *Pricing schedule*

4.1.1. Determination of effective *pricing schedule* quantities for *ancillary payments*

For each *Market Participant*, the effective *pricing schedule* quantity used by AEMO in calculating *ancillary payments* for that *Market Participant's pricing schedule controllable quantity* at each *system injection and withdrawal point* is:

(a) for the initial *pricing schedule* of the gas day, equal to the *pricing schedule* quantity produced at the start of the gas day; and

(b) for each subsequent updated *pricing schedule* of the gas day, equal to:

(i) the *pricing schedule* quantity for the *scheduling horizon* of that subsequent updated *pricing schedule*

plus

(ii) the sum of each *pricing schedule* quantity for each relevant *scheduling* interval for each of the previous *pricing schedule*s.

4.1.2. Allocation of effective *pricing schedule* quantities to adjusted bid steps

The *pricing schedule* controllable quantities determined under clause 4.1.1 for a *Market Participant* for each *pricing schedule* are allocated to the adjusted bid steps of the bid that applied for that *pricing schedule* in order of increasing price for injections and decreasing price for withdrawals.

Effective *pricing schedule* quantities should be allocated to each adjusted bid step including adjusted bid steps where the cumulative quantity for that adjusted bid step exceeds the maximum bid quantity.

4.2. *Operating schedule*

4.2.1. Determination of *operating schedule* quantities for *ancillary payments*

For each *Market Participant*, the *operating schedule* quantity used by AEMO in calculating *ancillary payments* for that *Market Participant's operating schedule* controllable injection or *operating schedule* controllable withdrawal is:

(a) for the initial *operating schedule* of the gas day, equal to the *operating schedule* quantity produced at the start of the gas day; and

(b) for each subsequent *operating schedule* of the gas day, equal to:

(i) the *operating schedule* quantity of that subsequent *operating schedule* for the *scheduling* horizon

plus

(ii) the sum of each *operating schedule* quantity for each *scheduling* interval related to each of the previous *operating schedule*s.

If an ad hoc *operating schedule* is produced to replace an already approved *operating schedule*, then the schedule quantity for the *scheduling interval* in that ad hoc *operating schedule* will be used to calculate the *operating schedule* quantities.

4.2.2. Allocation of *operating schedule* quantities to adjusted bids steps

The *operating schedule* controllable quantities determined under clause 4.2.1 for a *Market Participant* for each *operating schedule* are allocated to the adjusted bid steps of the bid that applied for that *operating schedule* in order of increasing price for injections and decreasing price for withdrawals.

Operating pricing schedule quantities should be allocated to each adjusted bid step including adjusted bid steps where the cumulative quantity for that adjusted bid step exceeds the maximum bid quantity.

5. ACTUAL QUANTITIES

This Chapter sets out the methodology used by AEMO to calculate for each *Market Participant*, the quantity of gas within each adjusted bid step of an *operating schedule* that will not generate *ancillary payments* due to that *Market Participant's* failure to comply with the relevant *scheduling instruction*.

5.1. Calculation of Actual Gas Injected Negative Offset (AGINO)

5.1.1. Determination of effective actual injection quantity

A *Market Participant's* effective actual injection quantity at a controllable injection point in a *scheduling interval* is a quantity of gas equal to the lesser of:

(a) the last approved *operating schedule* injection approved by AEMO for; and

(b) the quantity of gas actually injected by,

that *Market Participant* at that controllable injection point in that *scheduling interval*.

A *Market Participant's* effective actual injection quantity at a controllable injection point for a gas day is the sum of the effective actual injection quantity of all the *scheduling intervals* for that gas day.

5.1.2. Allocation of effective actual injection quantity to adjusted bid steps

A *Market Participant's* effective actual injection quantity for a controllable injection point for an *operating schedule* will be allocated by AEMO to the adjusted bid steps of the bid that applied to that *operating schedule* in order of increasing price.

5.1.3. Calculation of AGINO for the last *operating schedule* of the gas day

A *Market Participant's* AGINO for a controllable injection point for each adjusted bid step in the last *operating schedule* of the gas day is a quantity of gas equal to the greater of:

(a) zero; and

(b) the *operating schedule* injections for that adjusted bid step for the last *operating schedule* of the gas day allocated in accordance with clause 4.2.2 less the effective actual injections allocated to that adjusted bid step in accordance with clause 5.1.2.

5.1.4. Calculation of AGINO for *operating schedules* prior to the last *operating schedule* of the gas day

A *Market Participant's* AGINO for a controllable injection point for each adjusted price step in each *operating schedule* prior to the last *operating schedule* of the gas day is a quantity of gas equal to the greater of:

(a) zero; and

(b) the AGINO for that adjusted bid step as determined under clause 5.1.3

less

(i) the *operating schedule* injections for that adjusted bid step for the last *operating schedule* of the gas day allocated in accordance with clause 4.2.2; and

(ii) the minimum of *operating schedule* injections for that adjusted bid step for the specified *operating schedule* and all the subsequent *operating schedules* for the remainder of the gas day allocated in accordance with clause 4.2.2.

5.2. Calculation of actual gas withdrawn negative offset (AGWNO)

5.2.1. Determination of effective actual withdrawal quantity

A *Market Participant's* effective actual withdrawal quantity from a controllable withdrawal point in a *scheduling interval* is a quantity of gas equal to the lesser of:

(a) the last approved *operating schedule* withdrawal approved by AEMO for; and

(b) the quantity of gas actually withdrawn by

that *Market Participant* at that controllable withdrawal point in that *scheduling interval*.

A *Market Participant's* effective actual withdrawal quantity at a controllable withdrawal point for a gas day is the sum of that *Market Participant's* effective actual withdrawal quantity of all the *scheduling intervals*.

5.2.2. Allocation of the effective actual withdrawal quantity to adjusted bid steps

The quantity determined under clause 5.2.1 for each *Market Participant* for each controllable withdrawal point for each *operating schedule* is then allocated by AEMO to the adjusted bid steps of the bid that applied to that *operating schedule* in order of decreasing price.

5.2.3. Calculation of AGWNO for the last *operating schedule* of the gas day

A *Market Participant's* AGWNO for each controllable withdrawal point for each adjusted bid step for the last *operating schedule* of the gas day is the greater of:

(a) zero; and

(b) the *operating schedule* withdrawals by that *Market Participant* for that adjusted bid step for the last *operating schedule* of the gas day allocated in accordance with clause 4.2.2 less the effective actual withdrawals allocated to that adjusted bid step in accordance with clause 5.2.2

5.2.4. Calculation of AGWNO for *operating schedules* prior to the last *operating schedule* of the gas day

A *Market Participant's* AGWNO for a controllable withdrawal point for each adjusted price step in each *operating schedule* prior to the last *operating schedule* of the gas day is a quantity of gas equal to the greater of:

(a) zero; and

(b) the AGWNO for that adjusted bid step as determined under clause 5.2.3

less

(i) the *operating schedule* withdrawals for that adjusted bid step for the last *operating schedule* of the gas day allocated in accordance with clause 4.2.2; and

(ii) the minimum of *operating schedule* withdrawals by that *Market Participant* for the adjusted bid step for the specified *operating schedule* and all the subsequent *operating schedules* for the remainder of the gas day allocated in accordance with clause 4.2.2.

6. DELETED – MARKET PARTICIPANT CONSTRAINTS

7. CALCULATION OF *ANCILLARY PAYMENTS*

7.1. Determining the constrained on injection quantity for an adjusted bid step and *operating schedule*

A *Market Participant's* constrained on injection quantity for each controllable injection point for each adjusted bid step for each *operating schedule* is determined by AEMO as the greater of:

(a) zero; and

(b) that *Market Participant's operating schedule* injection quantity at that controllable injection point for that adjusted bid step and *operating schedule* allocated in accordance with clause 4.2.2

less

that *Market Participant's* AGINO for that adjusted bid step and *operating schedule* at that controllable injection point as determined under clauses 5.1.3 and 5.1.4

less

that *Market Participant's* effective *pricing schedule* for that adjusted bid step and *operating schedule* at that controllable injection point as determined under clauses 4.1.1 and 4.1.2

7.2. Determining the constrained on withdrawal quantity for an adjusted bid step and *operating schedule*

A *Market Participant's* constrained on withdrawal quantity for each controllable withdrawal point for each adjusted bid step for each *operating schedule* is determined by AEMO as the greater of:

(a) zero; and

(b) that *Market Participant's operating schedule* withdrawal quantity for that adjusted bid step and *operating schedule* at that controllable withdrawal point allocated in accordance with clause 4.2.2

less

that *Market Participant's* AGWNO for that adjusted bid step and that *operating schedule* at that controllable withdrawal point determined under clauses 5.2.3 and 5.2.4

less

that *Market Participant's* effective *pricing schedule* for that adjusted bid step and that *operating schedule* at that controllable withdrawal point as determined under clauses 4.1.1 and 4.1.2.

7.3. Calculation of matched changes in constrained on injection and withdrawal quantities

7.3.1. Calculation of matched changes in constrained on injection quantity for an adjusted bid step and *operating schedule*

A *Market Participant's* matched change in constrained on injection quantities for each controllable injection point and each adjusted bid step is the quantity of constrained on injection quantity which was scheduled in an earlier *operating schedule* but was scheduled off in a subsequent *operating schedule*.

The matched change in constrained on injection quantities for each controllable injection point for each adjusted bid step for each *operating schedule* is calculated by AEMO for each combination of two different *operating schedules* of the gas day starting with the second *operating schedule* (s=2) and then iterating forward to the last *operating schedule* (s=5), as shown in the example in the table below.

Table 3 Matched changes - Injections

Operating schedule s	Combinations of *operating schedules* (s, s')
S=2	(2,1)
S=3	(3,2), (3,1)
S=4	(4,3), (4,2), (4,1)
S=5	(5,4), (5,3), (5,2), (5,1)

For each *operating schedule* s in a gas day and for each earlier *operating schedule* s' = s-1, s-2, ….,1 (in that order) in that gas day, a *Market Participant's* matched change in constrained on injection quantity for schedules s and s' is calculated by AEMO as follows:

(a) if s' = s-1 (i.e. combinations (2,1), (3,2), (4,3), (5,4)), the matched change in constrained on injection quantities equals the lesser of:

(i) the greater of zero and the negative of the change in that *Market Participant's* constrained on injection quantity at *operating schedule* s; and

(ii) the greater of zero and the change in that *Market Participant's* constrained on injection quantity at *operating schedule* s'.

(b) Otherwise, the matched change equals the lesser of:

(i) the greater of zero and the negative of the change in that *Market Participant's* constrained on injection quantity at *operating schedule* s, less the sum over all *operating schedule*s s" from *operating schedule* s'+1 to *operating schedule* s-1 of that *Market Participant's* matched change in constrained on injection quantity for combinations of *operating schedule*s s and s"; and

(ii) the greater of zero and the change in that *Market Participant's* constrained on injection quantity at *operating schedule* s', less the sum over all *operating schedule*s s" from *operating schedule* s'+1 to *operating schedule* s-1 of the matched change in constrained on injection quantity for combinations of *operating schedule*s s' and s".

7.3.2. Calculation of the matched change in constrained on withdrawal quantity for a bid step and *operating schedule*

A *Market Participant's* matched change in constrained on withdrawal quantity for each controllable withdrawal point and each adjusted bid step is calculated by AEMO for each combination of two different *operating schedules* of the gas day for each *operating schedule* starting with the second *operating schedule* (s=2) and then iterating forward to the last *operating schedule* (s=5).

Table 4 Matched changes - withdrawals

Operating schedule s	Combinations of *operating schedule*s (s,s')
S=2	(2,1)
S=3	(3,2), (3,1)
S=4	(4,3), (4,2), (4,1)
S=5	(5,4), (5,3), (5,2), (5,1)

For each *operating schedule* s and for each earlier *operating schedule* s' = s-1, s-2, ….,1 (in that order) in that gas day, a *Market Participant's* matched change in constrained on withdrawal quantity for schedules s and s' is calculated as follows:

(a) if s' = s-1 (i.e. combinations (2,1), (3,2), (4,3), (5,4)), the matched change in constrained on withdrawal quantity equals the lesser of:

(i) the greater of zero and the negative of the change in that *Market Participant's* constrained on withdrawal quantity at *operating schedule* s; and

(ii) the greater of zero and the change in that *Market Participant's* constrained on withdrawal quantity at *operating schedule* s'.

(b) Otherwise, the matched change in constrained on withdrawal quantities equals the lesser of:

(i) the greater of zero and the negative of the change in that *Market Participant's* constrained on withdrawal quantity at *operating schedule* s, less the sum over all *operating schedule*s s" from s"= s'+1 to s"=s-1 of the matched change in that *Market Participant's* constrained on withdrawal quantity for combinations of schedules s and s''; and

(ii) the greater of zero and the change in constrained on withdrawal quantity at *operating schedule* s', less the sum over all *operating schedule*s s" from *operating schedule* s'+1 to *operating schedule* s-1, of the matched change in constrained on withdrawal quantity for combinations of schedules s' and s".

7.4. Calculation of *Ancillary payments* for Injection Quantities

7.4.1. Calculation of initial *ancillary payments* for the initial *operating schedule* of the gas day

The initial injection *ancillary payment* (if any) payable to a *Market Participant* for each controllable injection point for each adjusted bid step for the first *operating schedule* in the gas day is calculated by AEMO in accordance with the following formula:

A x B

Where

A = that *Market Participant's* constrained on injection quantity for that adjusted bid step for the first *operating schedule* in the gas day at that controllable injection point determined under clause 7.1,

B = an amount of compensation expressed in $/GJ equal to the greater of:

zero; and

the bid price for the adjusted bid step in the first *operating schedule* less the *market price* applicable for the first *operating schedule* in the gas day.

For the avoidance of doubt, a positive initial injection *ancillary payment* represents a payment from AEMO to a *Market Participant*.

If gas was injected by that *Market Participant* without that injection being accredited by AEMO in accordance with the Rules, the amount of the initial injection *ancillary payment* for that adjusted bid step must be zero.

7.4.2. Calculation of initial *ancillary payments* for each updated *operating schedule* of the gas day

The initial injection *ancillary payment* (if any) payable to a *Market Participant* for each controllable injection point for each adjusted bid step for each updated schedule is calculated in accordance with the following formula:

(A - B) x C

Where:

A = that *Market Participant's* constrained on injection quantity for that adjusted bid step for the current *operating schedule* at that controllable injection point as determined under clause 7.1;

B = that *Market Participant's* constrained on injection quantity for that adjusted bid step for the previous *operating schedule* at that controllable injection point as determined under clause 7.1;

C = an amount of compensation expressed in $/GJ equal to the greater of:

zero; and

the current *operating schedule* bid price for that adjusted bid step less the current *pricing schedule* market price.

For the avoidance of doubt, a positive initial injection *ancillary payment* value represents a payment from AEMO to a *Market Participant*.

If gas was injected by that *Market Participant* without that injection being accredited by AEMO in accordance with the Rules, the initial injection *ancillary payment* for that adjusted bid step must be zero.

7.4.3. Calculation of revised injection *ancillary payments* for the initial *operating schedule* of the gas day

The revised injection *ancillary payment* payable to a *Market Participant* for each adjusted bid step for the initial *operating schedule* in the gas day at a controllable injection point equals the initial injection *ancillary payment* payable to that *Market Participant* for that controllable injection point and for that adjusted bid step as determined under clause 7.4.1.

7.4.4. Calculation of the revised injection *ancillary payments* for each updated *operating schedule* of the gas day

The revised injection *ancillary payment* payable to a *Market Participant* for each controllable injection point and for each adjusted bid step for the updated *operating schedule* in the gas day equals:

(a) the initial injection *ancillary payment* for that adjusted bid step for that current schedule for that *Market Participant* at that controllable injection point as determined under clause 7.4.1 if this value is greater than or equal to zero

(b) Otherwise, the sum over all previous *operating schedules* in the gas day of:

  (i) the negative of that *Market Participant's* matched change in constrained on injection quantity of the current schedule and the relevant prior schedule as determined under clause 7.3.1

  (ii) multiplied by an amount ($/GJ) of compensation defined as

    (A) the greater of zero and

    (B) the lesser of the bid price for the adjusted bid step in the current *operating schedule;* and the bid price for that adjusted bid step in the relevant prior *operating schedule*

    less

    the *market price* applicable for the current *operating schedule*.

For the avoidance of doubt, a positive revised injection *ancillary payment* value represents a payment from AEMO to a Market Participant.

If gas was injected by that *Market Participant* without that injection of gas being accredited by AEMO under the Rules, the amount of the revised injection *ancillary payment* for that adjusted bid step must be equal to zero.

7.4.5. Calculation of modified injection *ancillary payments* for the initial *operating schedule* of the gas day

The modified injection *ancillary payment* payable to a *Market Participant* for each adjusted bid step for the initial *operating schedule* in the gas day at a controllable injection point equals the initial injection *ancillary payment* payable to that *Market Participant* for that controllable injection point and for that adjusted bid step as determined under clause 7.4.1.

7.4.6. Calculation of modified injection *ancillary payments* for each updated *operating schedule* of the gas day

The modified injection *ancillary payment* payable to a *Market Participant* for each controllable injection point and for each adjusted bid step for the updated *operating schedule* in the gas day equals:

(a) the initial injection *ancillary payment* for that adjusted bid step for that current schedule for that *Market Participant* at that controllable injection point as determined under clause 7.4.1 if this value is greater than or equal to zero

(b) Otherwise, the sum over all previous *operating schedules* in the gas day of:

(i) the negative of that *Market Participant's* matched change in constrained on injection quantity of the current schedule and the relevant prior schedule as determined under clause 7.3.1

(ii) multiplied by an amount ($/GJ) of compensation defined as the greater of:

(A) zero; and

(B) the modified bid price for the adjusted bid step in the current *operating schedule*

less

the modified market price applicable for the current *operating schedule*.

7.4.7. Calculation of final injection *ancillary payments* for the initial *operating schedule* of the gas day

The final injection *ancillary payment* payable to a *Market Participant* for each adjusted bid step for the first *operating schedule* in the gas day at each controllable injection point is equal to the revised injection *ancillary payment* payable to that *Market Participant* under clause 7.4.3

For the avoidance of doubt, the calculations in clause 7.4.3 and this clause do not change the initial *ancillary payment* payable to a *Market Participant* for each adjusted bid step for the first *operating schedule* in the gas day at each controllable injection point.

7.4.8. Calculation of final injection *ancillary payments* for each updated *operating schedule* of the gas day

The final injection *ancillary payment* payable to a *Market Participant* for each controllable injection point for each adjusted bid step for each updated *operating schedule* in the gas day is:

(a) the revised injection *ancillary payment* payable to that *Market Participant* for that controllable injection point and adjusted bid step for the current schedule if not all of the following conditions are met :

(i) the sum of all revised injection *ancillary payments* to all *Market Participants* for all controllable injection points and all adjusted bid steps for the current *operating schedule* is greater than zero;

(ii) the initial injection *ancillary payment* payable to that *Market Participant* for the current *operating schedule* is less than zero;

(iii) not all revised injection *ancillary payments* equal the corresponding initial injection *ancillary payments* payable to each *Market Participant* for all controllable injection points, and adjusted bid steps for the updated schedule;

(b) Otherwise, it is the greater of

(i) the initial injection *ancillary payment* payable to that *Market Participant*; and

(ii) the revised injection *ancillary payment* payable to that *Market Participant* plus an amount calculated as the average rate of *ancillary payment* multiplied by that *Market Participant's* change in constrained on injection quantity for the current *operating schedule*.

(iii) For the purposes of (ii), the average rate of *ancillary payment* is the sum of all revised injection *ancillary payments* across all *Market Participants*, all controllable injection points and all adjusted bid steps for the current *operating schedule* divided by the greater of:

(A) the sum over all *Market Participants*, all controllable injection points and all adjusted bid steps for the current *operating schedule* of the sum of all positive changes in constrained on injection quantity for the current *operating schedule*; and

(B) negative one multiplied by the sum over all *Market Participants*, all controllable injection points and all adjusted bid steps for the current *operating schedule* of the negative changes in constrained on injection quantity for the current *operating schedule*.

7.5. Calculation of *ancillary payments* for withdrawal quantities

7.5.1. Calculation of initial withdrawal *ancillary payments* for the initial *operating schedule* of the gas day

The initial withdrawal *ancillary payment* payable to each *Market Participant*, for each controllable withdrawal point for each adjusted bid step for the first *operating schedule* in the gas day is:

A x B

Where:

A = that *Market Participant's* constrained on withdrawal quantity for that adjusted bid step for the first *operating schedule* in the gas day at each controllable withdrawal point as determined under clause 7.2; and

B = an amount of compensation expressed in $/GJ which is the greater of:

(i) zero; and

(ii) the *market price* less the bid price for the adjusted bid step in the first *operating schedule* of the gas day.

For the avoidance of doubt, a positive initial withdrawal *ancillary payment* represents a payment from AEMO to a *Market Participant*.

If gas was withdrawn by that *Market Participant* without that withdrawal being accredited by AEMO under the Rules, the amount of initial withdrawal *ancillary payment* payable to that *Market Participant* for that adjusted bid step is zero.

7.5.2. Calculation of initial withdrawal *ancillary payments* for each updated *operating schedule* of the gas day

The initial withdrawal *ancillary payment* payable to a *Market Participant* for each controllable withdrawal point and for each adjusted bid step for each updated schedule is:

(A - B) x C

Where:

A = the constrained on withdrawals by that *Market Participant* for that adjusted bid step for the current *operating schedule* at each controllable withdrawal point as determined for that *Market Participant* under clause 7.2

B = the constrained on withdrawals by that *Market Participant* for that adjusted bid step for the previous *operating schedule* at each controllable withdrawal point as determined under clause 7.2

C = an amount of compensation expressed as $/GJ equal to the greater of:

(i) zero; and

(ii) the current *pricing schedule market price* less the current *operating schedule* bid price for that adjusted bid step.

For the avoidance of doubt, a positive *ancillary payment* represents a payment from AEMO to a *Market Participant*.

If gas was withdrawn by that *Market Participant* without that withdrawal being accredited by AEMO under the Rules, the *ancillary payment* payable to that *Market Participant* for that adjusted bid step is zero.

7.5.3. Calculation of revised withdrawal *ancillary payments* for the initial *operating schedule* of the gas day

The amount of revised withdrawal *ancillary payment* determined for each *Market Participant*, for each controllable withdrawal point for each adjusted bid step for the first *operating schedule* in the gas day is equal to the initial withdrawal *ancillary payment* for that adjusted bid step for the first *operating schedule* in the gas day for that *Market Participant* at that controllable withdrawal point as determined under clause 7.5.1.

7.5.4. Calculation of revised withdrawal *ancillary payments* for each updated *operating schedule* of the gas day

The amount of revised withdrawal *ancillary payment* for each *Market Participant*, for each controllable withdrawal point and for each adjusted bid step for the updated *operating schedule* in the gas day is determined as:

(a) the initial withdrawal *ancillary payment* for that adjusted bid step for that current *operating schedule* for that *Market Participant* at that controllable withdrawal point as determined under clause 7.5.2 if this value is greater than or equal to zero.

(b) otherwise, the sum over all prior schedules in the gas day of:

(i) the negative of the matched change in constrained on withdrawal quantity of the current *operating schedule* and the relevant prior *operating schedule* as determined under clause 7.3.2

(ii) multiplied by a per unit amount of compensation defined as the greater of

(A) zero; and

(B) the lesser of the bid price for the adjusted bid step in the current *operating schedule* and the bid price for that adjusted bid step in the relevant prior *operating schedule*

less

the *market price* for the current *operating schedule*.

For the avoidance of doubt, a positive revised withdrawal *ancillary payment* value represents a payment from AEMO to a *Market Participant*.

If gas was withdrawn by that *Market Participant* without that withdrawal of gas being accredited by AEMO under the Rules, the amount of the revised withdrawal *ancillary payment* for that adjusted bid step is equal to zero.

7.5.5. Calculation of modified withdrawal *ancillary payments* for the initial *operating schedule* of the gas day

The amount of revised withdrawal *ancillary payment* determined for each *Market participant*, for each controllable withdrawal point for each adjusted bid step for the first *operating schedule* in the gas day is equal to the initial withdrawal *ancillary payment* for that adjusted bid step for the first *operating schedule* in the gas day for that *Market Participant* at that controllable withdrawal point as determined under clause 7.5.1.

7.5.6. Calculation of modified withdrawal *ancillary payments* for each updated *operating schedule* of the gas day

The amount of modified withdrawal *ancillary payment* determined for each *Market Participant*, for each *controllable withdrawal* point for each adjusted bid step for the updated *operating schedule* in the gas day is determined as:

a) The *Market Participant's* initial withdrawal *ancillary payment* for that bid step for that current schedule for that participant at that supply source as determined under clause 7.5.2 if this value is greater than or equal to zero.

b) Otherwise, the sum over all prior schedules in the gas day of:

(i) the negative of the matched change in constrained on withdrawal quantity of the current *operating schedule* and the relevant prior *operating schedule* as determined under clause 7.3.2

(ii) multiplied by a per unit amount of compensation defined as the greater of

(A) zero; and

(B) the modified bid price for the adjusted bid step in the current *operating schedule*

less

the modified *market price* applicable for the current *operating schedule*

7.5.7. Calculation of final withdrawal *ancillary payments* for the initial *operating schedule* of the gas day

The amount of final withdrawal *ancillary payment* to be paid to each *Market Participant*, for each controllable withdrawal point for each adjusted bid step for the first *operating schedule* in the gas day is equal to the revised withdrawal *ancillary payment*.

7.5.8. Calculation of the final withdrawal *ancillary payments* for each updated *operating schedule* of the gas day

The final withdrawal *ancillary payment* payable to a *Market Participant* for each controllable withdrawal point for each bid step for the updated schedule in the gas day is determined as:

(a) the revised withdrawal *ancillary payment* payable for that *Market Participant*, controllable withdrawal and bid step for the current *operating schedule* if not all of the following conditions are met:

(i) the sum of all revised withdrawal *ancillary payments* across all *Market Participants*, controllable withdrawal points and all adjusted bid steps for the current *operating schedule* is greater than zero;

(ii) the initial withdrawal *ancillary payment* payable to that *Market Participant* for the current *operating schedule* is less than zero; and

(iii) not all revised withdrawal *ancillary payments* equal the corresponding initial withdrawal *ancillary payment* for each *Market Participant*, controllable withdrawal point, and adjusted bid step for the updated schedule.

(b) otherwise, it is the greater of

(i) the initial withdrawal *ancillary payment* payable to that Market Participant; and

(ii) the revised withdrawal *ancillary payment* payable to that *Market Participant* plus an amount calculated as the average rate of *ancillary payment* multiplied by the value of the change in constrained on withdrawal quantity for the current *operating schedule*.

(iii) For the purposes of (ii), the average rate of *ancillary payment* is the sum of all revised withdrawal *ancillary payments* across all *Market Participants*, all controllable withdrawal points and all adjusted bid steps for the current *operating schedule* divided by the greater of:

(A) the sum over all *Market Participants*, controllable withdrawal points and all adjusted bid steps for the current *operating schedule* of the sum of all positive changes in constrained on withdrawal quantity for the current *operating schedule*; and

(B) negative one multiplied by the sum over all *Market Participants*, controllable withdrawal points and all adjusted bid steps for the current *operating schedule* of the negative changes in constrained on withdrawal quantity for the current *operating schedule*.

8. CALCULATION OF AVERAGE *ANCILLARY PAYMENTS* RATES [1]

(a) The average rates for positive and negative *ancillary payments* are calculated for each schedule.

[1] Numbering changed to new section and additional numbering added for clarification

(b) The average rate for positive *ancillary payments* (positive average *ancillary payment* rate) for a schedule is determined as:

(i) the sum of the positive final *ancillary payment*s across all *Market Participants*, all controllable injection and withdrawal points and all bid steps for that schedule

divided by

(ii) the sum of the positive changes in constrained up injection and withdrawal quantities across all *Market Participants*, controllable injection and withdrawal points and all bid steps for that schedule.

(c) The average rate for negative *ancillary payment*s (negative average *ancillary payment* rate) for a schedule is determined as:

(i) the sum of the negative final *ancillary payment*s across all participants, controllable injection and withdrawal points and all bid steps for the schedule

divided by

(ii) the sum of the negative changes in constrained up injection and withdrawal quantities across all participants, controllable injection and withdrawal points and all bid steps for the schedule.

(d) The positive average *ancillary payment* rate and the negative average *ancillary payment* rate are positive values.