

'Market-Based Balancing' MPOC Change Request

Nov 2014

The revised Cash-Out mechanism and pricing explained

- The proposed ‘Market-Based Balancing’ Change Request seeks to modify the cash-out mechanism by;
 - Replacing the current ‘Imbalance Limit Overrun Notice’ (“**ILON**”) regime with automatic ex-post cashing-out of all operational imbalance outside of tolerance; and
 - linking cash-out prices (currently referred to as Mismatch Prices) to the spot market in lieu of using Balancing Gas Exchange outcomes.
- This slide pack looks to inform the reader of;
 - the modified cash-out mechanism; and
 - how prices would be set,

under the MBB version of the Maui Pipeline Operating Code.

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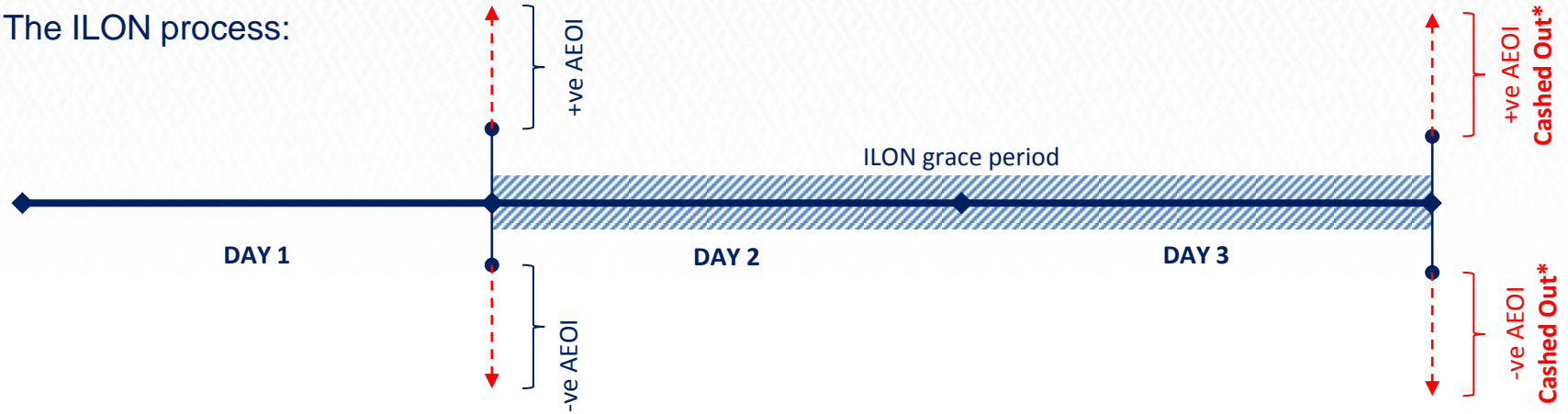
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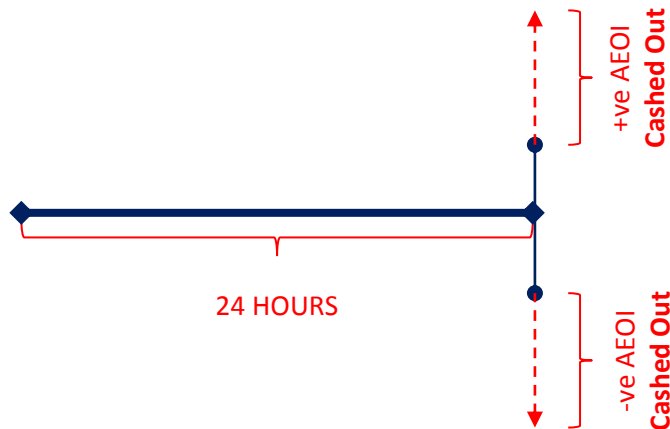
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Moving from ILONs to Daily Cash-Outs

The ILON process:



The Daily Cash-Out process:

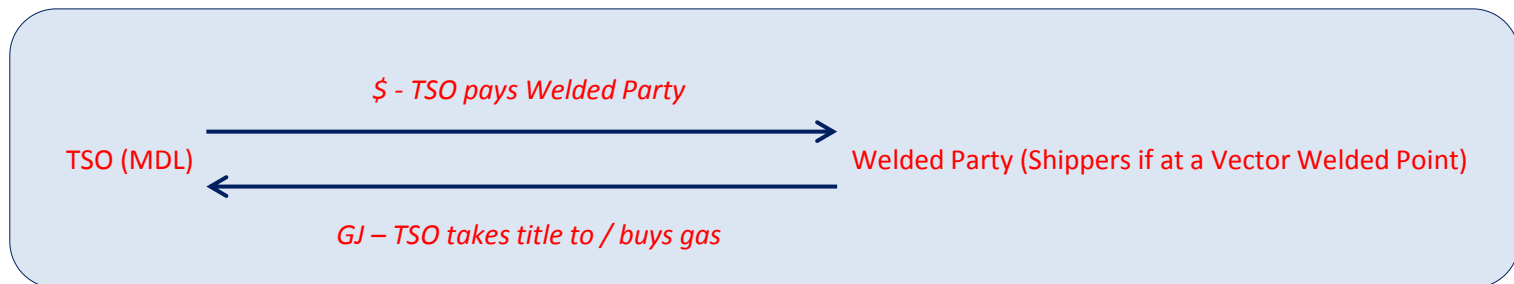


- The ILON process will be replaced by a 24 hour delivery service
- All Accumulated Excess Operational Imbalance (“**AEOI**”) (Operational Imbalance above tolerance) will be automatically cashed out at the end of each day
- There will be a staggered soft-landing period, during which time allowable tolerances at Welded Points will be increased.

The Daily Cash-Out Mechanism: +ve AEOI



- A positive AEOI will trigger a title transfer from the Welded Party to the pipeline. Welded Party **SELLS** to TSO.



The Daily Cash-Out Mechanism: -ve AEOI



- A negative AEOI will trigger a title transfer to the Welded Party from the pipeline. Welded Party **BUYS** from TSO.

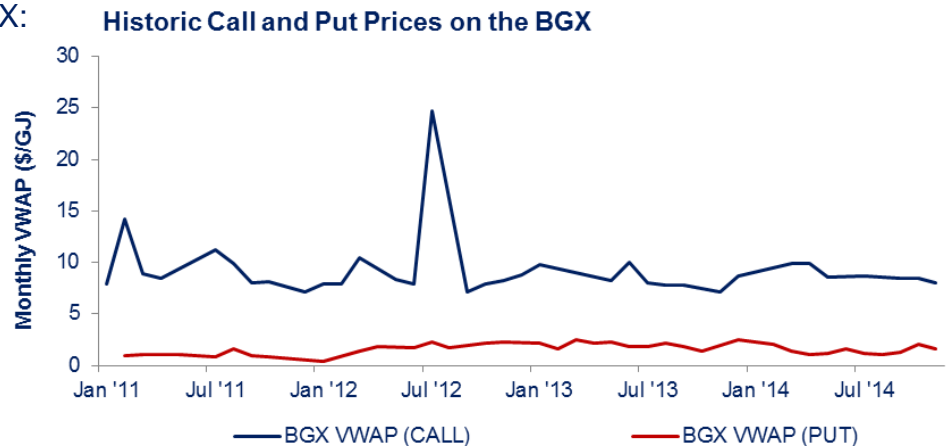


The ILON Mechanism: Prices

Under the current ILON model:

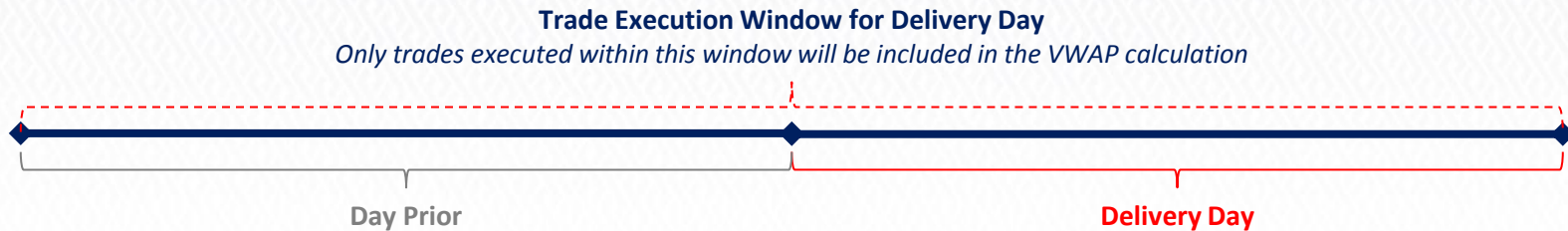


- The Cash-Out Price (+ve/-ve Mismatch Price) is set at least one-day ahead, and is derived using a methodology set by MDL. Current policy is to use weekdays for which 10 TJ of Put/Call gas is available.
- Balancing Gas is sourced on the BGX:



Under the MBB model, Cash-Out Prices are derived from average market prices & balancing gas calls/puts, traded on-the-day or the day prior. (See next slide).

The Daily Cash-Out Mechanism: Prices



Cash-Out Prices:

- **+ve Cash-Outs, the lower of:**
 - Volume Weighted Average Price of trades on the Trading Platform[^] for delivery on the relevant day and executed on that day or the day before (see above) **minus A**; OR
 - The lowest price paid for Put balancing gas (if sold on the same day of delivery) **minus B**.
- **-ve Cash-Outs, the higher of:**
 - Volume Weighted Average Price of trades on the Trading Platform[^] for delivery on the relevant day and executed on that day or the day before (see above) **plus A**; OR
 - The highest price paid for Call balancing gas (if purchased on the same day as delivery) **plus B**.

$A = [0-10\%]^*$ of VWAP + Cash-Out Transmission Price + Cash-Out Trading Fee Price

$B = \text{Cash-Out Transmission Price} + \text{Cash-Out Trading Fee Price}$

[^]emsTradepoint will be considered a 'Trading Platform' under the MPOC, so will set this price

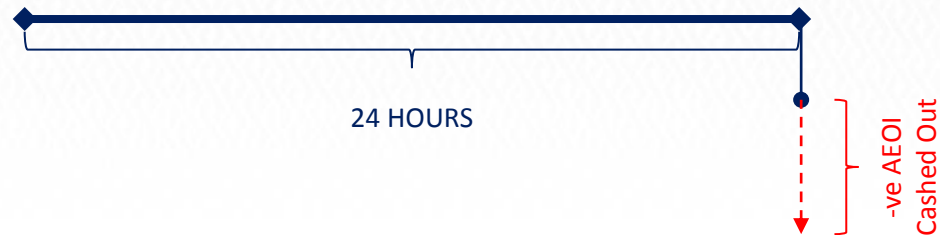
*The percentage is set by MDL

EXAMPLE 1: +ve Cash-Out, no Balancing Gas



Cash-Out Volume	10,000 GJ (Sold to MDL)
<i>Put Balancing Gas?</i>	<i>No Put gas sold by MDL</i>
<i>emsTradepoint VWAP</i>	<i>\$6.00/GJ</i>
<i>Adjustment %</i>	<i>5%</i>
<i>Cash-Out Transmission Price</i>	<i>\$0.20/GJ</i>
<i>Cash-Out Trading Fee</i>	<i>\$0.10/GJ</i>
Cash-Out Price	\$5.40/GJ - \$54,000.00

EXAMPLE 2: -ve Cash-Out, no Balancing Gas



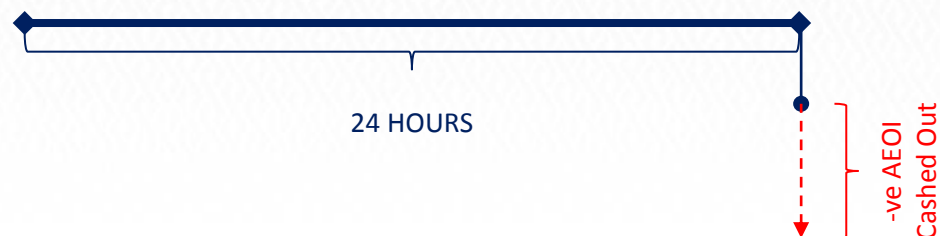
Cash-Out Volume	10,000 GJ (Sold to Welded Party)
<i>Call Balancing Gas?</i>	<i>No Call gas bought by MDL</i>
<i>emsTradepoint VWAP</i>	<i>\$6.00/GJ</i>
<i>Adjustment %</i>	<i>5%</i>
<i>Cash-Out Transmission Price</i>	<i>\$0.20/GJ</i>
<i>Cash-Out Trading Fee</i>	<i>\$0.10/GJ</i>
Cash-Out Price	\$6.60/GJ - \$66,000.00

EXAMPLE 3: +ve Cash-Out, Put Balancing Gas



Cash-Out Volume	10,000 GJ (Sold to MDL)
<i>Put Balancing Gas, Lowest \$/GJ</i>	<i>\$5.00/GJ</i>
<i>emsTradepoint VWAP</i>	<i>\$6.00/GJ (N/A, higher after adjustment)</i>
<i>Adjustment %</i>	<i>5%</i>
<i>Cash-Out Transmission Price</i>	<i>\$0.20/GJ</i>
<i>Cash-Out Trading Fee</i>	<i>\$0.10/GJ</i>
Cash-Out Price	\$4.70/GJ - \$47,000.00

EXAMPLE 4: -ve Cash-Out, Call Balancing Gas



Cash-Out Volume	10,000 GJ (Sold to Welded Party)
<i>Call Balancing Gas, Highest \$/GJ</i>	<i>\$6.50/GJ</i>
<i>emsTradepoint VWAP</i>	<i>\$6.00/GJ (N/A, lower after adjustment)</i>
<i>Adjustment %</i>	<i>5%</i>
<i>Cash-Out Transmission Price</i>	<i>\$0.20/GJ</i>
<i>Cash-Out Trading Fee</i>	<i>\$0.10/GJ</i>
Cash-Out Price	\$6.80/GJ - \$68,000.00

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- On an annual basis, the TSO calculates the overall recovery of balancing gas costs/incomes and cash-out costs/incomes:

+ Monies received from Welded Parties for –ve AEOI
+ Monies received from consumers of Put Balancing Gas
+ Monies received from Peaking Charge
- Monies paid to Welded Parties for +ve AEOI
- Monies paid to suppliers of Call Balancing Gas

Net = Overall Recovery

If:

- Overall Recovery > 0:** The TSO redistributes this to users by lowering the tariff in the following year.
- Overall Recovery < 0:** The TSO shares the cost evenly with all users by increasing the tariff in the following year.

Thank you.

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