15 May 2017

John Pierce
Chairman
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Submitted online: www.aemc.gov.au

Dear Mr Pierce

Review of the Victorian DWGM – Assessment of Alternative Market Designs

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Australian Energy Market Commission's (AEMC) Review of the Victorian Declared Wholesale Gas Market (DWGM), Assessment of Alternative Market Designs Discussion Paper.

Origin is strongly supportive of pursuing a targeted approach to market reform that builds upon the valued features of the existing DWGM model. Such an approach will ensure the COAG Energy Council's vision for enhanced market efficiency is achieved while simultaneously minimising the cost of transition and maximising overall market benefits. This approach is also consistent with the prevailing view that the case for dismantling the existing market has not been made.

Targeted package of reforms

As previously noted by the AEMC, the DWGM has largely achieved its objectives of supporting retail competition and encouraging diversity of supply and upstream competition. This is largely due to the gross pool and market carriage elements of the existing framework, which aid liquidity and facilitate new market entry and competition. The centralised approach to balancing is also efficient and adequately incentivises market participants to remain in balance while also ensuring system security.

But it is clear there are also opportunities for improvement. While the DWGM provides an effective mechanism for managing short-term trading positions, avenues for managing pricing risk are limited. Signals and incentives for investment in pipeline capacity could also be improved to facilitate more market-led outcomes.

Origin has identified a package of targeted reforms that is consistent with preserving the benefits of the current market framework while also ensuring these identified shortcomings are overcome, consistent with the COAG Energy Council's vision. The reform package is comprised of a number of the alternate options outlined by the AEMC, as noted below.

1. **Transmission constrained pricing schedule (Option 3.1)**: Maintain the gross pool but simplify the pricing mechanism by removing ancillary payments and associated uplift charges. A single auction schedule that optimises bids and offers subject to all transmission pipeline constraints would provide a 'cleaner' market price and assist with facilitating the development of financial derivatives to manage risk.

2. **Forward physical trading outside the DWGM (Option 4.2)**: Establish a voluntary trading platform for trading day-ahead and longer-term products. This is consistent with a key element

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of the AEMC's model and would allow market participants to trade longer dated products on the exchange ahead of the mandatory daily auction. It would also provide greater consistency with the Wallumbilla Gas Supply Hub (GSH), hence improving opportunities for trade between the two markets.

3. **Simplify AMDQ(cc) and improve tradability**: Remove the ancillary benefits linked to AMDQ(cc) (e.g. an uplift hedge tied to injections) and refocus its role to a firm tie-breaking right at times of congestion. The ability to trade AMDQ should also be improved. This would assist with reducing market complexity and provide participants with clarity as to the actual role and value of AMDQ(cc), a key outworking of which is improved price signals for market-led investment in the Declared Transmission System (DTS).

4. **Zonal pricing with settlement residues (Option 6.3)**: Separate the DTS into four distinct trading zones and establish capacity rights between those zones. This would provide more locational specific price signals and assist with identifying (and potentially addressing) congestion within the market, and also compartmentalise the cost of congestion, which could ultimately facilitate the development of financial products.

There is value in undertaking a staged approach to the reform process to assist with minimising any costs of transition and adverse impacts on market participants. Such an approach will also allow for an examination of success/failure, which is essential when pursuing a fundamental market reform program. Consistent with this, Origin believes Reforms 1 to 3 above could be implemented as an initial reform package, with further consideration given to the merit of Reform 4 after the market has been given sufficient time to adjust and the impact of Reforms 1 to 3 is determined.

More detailed views on the rationale for these reforms are provided in Attachment A. These views should be considered alongside Origin's earlier response to the AEMC's Draft Final Report, which provided a more detailed assessment of the performance of the DWGM along with our fundamental concerns with the Commissions original draft model. With respect to the latter, it should be noted that many of our original concerns apply to Options 4.4, 6.4 and 6.5, which represent variations of the original draft model.

Physical contracting should not be prohibited

One of the additional reform options outlined in the Discussion Paper (Option 3.4) would make producer participation in the DWGM mandatory and potentially expand the footprint of the DTS to cover all interconnected pipelines. Origin does not believe a market intervention of this magnitude is warranted given the nature of the issues identified (e.g. to drive liquidity in financial derivatives markets). Further, we have fundamental concerns around the implications for existing contractual arrangements and investments made outside the DTS, noting there would be significant legal and transitional challenges associated with pursuing such a measure.

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Yours Sincerely,

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Reforming the Victorian Declared Wholesale Gas Market

1. Transmission constrained pricing schedule (Option 3.1)

Market participants are generally only able to hedge long term price risks within the current framework by trading gas bilaterally outside of the market (e.g. with producers at injection points). The lack of successful financial risk management products is largely due to the fact that not all trading risk is captured in a single commodity price – due to separate uplift and deviation charges, hedging the commodity price can still expose traders to other price risks. Market participants can also observe that ancillary payments have been made for the entire market, though there is no direct link as to why they have been made and what portion of the DTS was constrained.

Origin believes this fundamental shortcoming of the existing market framework could be addressed by removing ancillary payments and associated uplift charges and implementing a single transmission constrained pricing schedule. This approach would effectively internalise the cost of ancillary payments and uplift charges in the pricing schedule and provide a 'cleaner' market price upon which complimentary financial products could be developed.

Wholesale market efficiency

A single transmission constrained pricing schedule would result in spot prices that reflect the marginal value of gas required to satisfy demand. Such an approach will provide market participants with greater certainty as to the actual value of gas and an improved ability to manage the risks associated with participating in the wholesale market.

Exposing all market participants to the marginal price of gas rather than only sellers scheduled out of merit order (as is currently the case) is likely to be more allocatively efficient, since market participants will face a more meaningful price signal upon which to base their actions. As noted by the AEMC, currently only those participants whose demand has risen (or supply fallen) since the last schedule face incentives via uplift charges to curb their withdrawals (or increase their injections). This is despite the fact there may be other participants capable of curbing their demand (or raising their injections) at lower cost when faced with appropriate price signals.

The enhanced ability to hedge the spot price using financial derivatives will enable market participants to manage the risks associated with more volatile pricing should it occur. But this reform should also be accompanied by a review of the market price cap (MPC) and cumulative price threshold (CTP) to ensure they remain fit for purpose (i.e. they limit financial risk for market participants while simultaneously allowing the market to send appropriate price signals in support of reliability of supply). A periodic review mechanism similar to that used in the National Electricity Market (NEM) should also be established.

The Discussion Paper highlights a potential concern that LNG holders could withhold cheaper injections (e.g. from Longford) in order to create constraints and require high-priced LNG to be scheduled, thereby raising prices to the entire market. Origin does not believe underlying behavioural incentives/drivers will change as a result of the reform and therefore agrees with the AEMC's view that it will not materially increase the potential for such behaviour.

Impact on cost-to-cause

A trade-off associated with the proposed reform is that the current imperative to identify "causers" of costs and levy various charges on the relevant causers would be diluted – prices would be set as they are in most commodity markets, reflecting the open interaction of supply and demand. Nonetheless, market participants would still be exposed to deviation payments in the event their actions caused

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more expensive gas to be scheduled out of merit order in the subsequent schedule. Incentives to accurately forecast and behave in accordance with scheduling requirements therefore remain. Consequently, it is not clear that material deviations would ultimately increase or that productive efficiency would be reduced under the single auction framework.

Signals and incentives for efficient investment in pipeline capacity

AMDQ(cc) currently provides rights holders with protection against congestion uplift charges. While the removal of ancillary payments and uplift charges will make this protection redundant, as discussed under Item 3, Origin does not believe this will diminish signals and incentives for market-led investment in the DTS.

2. Forward physical trading platform outside the DWGM (Option 4.2)

Establishing a voluntary facilitated trading platform outside the market (e.g. at Longford) is a relatively light-handed reform that would preserve the benefits of the existing gross pool model while also:

- providing market participants with additional flexibility to trade day-ahead and longer-dated products;
- improving opportunities for cross-market trade through increased alignment with the Wallumbilla GSH; and
- enhancing the level of pricing information available to market participants and stakeholders.

The AEMC notes there is a risk this approach could reduce the level of "genuine" trades that occur in the DWGM auction, with trades executed outside of the market. But Origin does not believe liquidity in the DWGM will be materially impeded given market participants are likely to continue to rely on the DWGM to manage daily gas requirements.

Further, regardless of any changes to the proportion of pure buy/sell orders, the DWGM will continue to provide maximum visibility of all gas that is potentially available for supply and demand for withdrawal within the system. This includes the value of flexible LNG supply, which is typically bid into the market to balance a participant's exposure in the event of a supply disruption and/or high-priced event. This 'all in' approach improves price discovery within the market and facilitates access to balancing gas, which along with the open access regime is highly conducive to new market entry. It was also a key reason as to why market participants relied heavily on the DWGM to acquire additional volumes of gas during the volatile trading period observed in July 2016.

3. Simplify AMDQ(cc) and improve tradability

Significant market-led investment has occurred in the DTS in recent years, in part driven by changes to the Australian Energy Market Operator's (AEMO) procedures that link AMDQ(cc) rights at points of interconnection with a market participant's capacity rights on the other side of the pipeline (i.e. outside of the market). Outside of these recent investments, the AEMC previously noted there has not been any privately funded expansion of the DTS to support general demand growth. But this is not necessarily an indication the current framework does not support adequate levels of investment. Rather, it may be a reflection that market participants are confident the regulatory framework will facilitate the required level of investment.

Given the above, Origin does not believe fundamental reform of capacity rights in the DWGM is necessary. AMDQ(cc) can be used in a way that effectively provides firm access as required, which is

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an essential feature of any capacity right. But there is merit in simplifying the role of AMDQ(cc) such that it is not linked to any ancillary benefits (e.g. an uplift hedge tied to injections). Coupled with the implementation of a transmission constrained pricing schedule, this would assist with reducing market complexity and provide market participants with clarity as to the actual role and value of AMDQ(cc). It would also address a fundamental shortcoming of the existing market framework – namely that market participants must inject and withdraw gas in order to achieve pricing certainty and manage risk. Under the revised approach, a retailer without AMDQ(cc) would have the ability to strike a derivative contract with a shipper holding AMDQ(cc) injection rights and withdraw gas with price certainly.

Further, the allocation of AMDQ to end-use customers represents a potential inefficiency in the market, particularly where those rights are tied to a market customer indefinitely and cannot be traded. As noted by the AEMC, this approach can give rise to underutilisation of AMDQ due to the over allocation of rights to single large customer (tariff D) or group of customers (tariff V). Consideration should therefore be given to both the allocation mechanism and tradability of these rights.

4. Zonal pricing with settlement residues (Option 6.3)

The absence of more granular price signals gives rise to a range of issues in the DWGM. In particular, it impedes investment signals within the market and also provides less meaningful price signals to market participants who have limited visibility of the actual value of gas at different locations across the DTS.

In conjunction with reforms to the pricing schedule described above (Option 3.1), Origin believes these issues could be addressed by implementing four distinct trading zones, largely as defined by the AEMC in its earlier discussion paper, and introducing capacity rights between those zones.

Risk management

Establishing pricing zones across the DTS would introduce inter-zonal pricing risk into the market. But market participants would be able to manage this risk using inter-zonal settlement rights. Further, the compartmentalisation of congestion costs within each pricing zone should reduce participants' exposure to costs they cannot control. Coupled with greater visibility over the locational price of gas, these factors should ultimately drive more efficient market outcomes and the development of a meaningful reference price.

Origin also does not believe dividing the DTS into four zones would negatively impact market liquidity or detract from the evolution of financial derivatives when coupled with reforms to the pricing schedule. Financial derivatives could emerge that reference trading outcomes within a single, more liquid zone, or even the weighted-average of prices observed across the market.

Investment signals

A key function of an effective wholesale market is managing congestion. This is particularly important in the DTS where various kinds of congestion can arise as a result of the highly variable retail load and physical constraints in the system. Typical forms of congestion are: pipeline capacity congestion (where pipelines are overbooked); and linepack capacity congestion (caused by extreme demand, where flat profiled injections are insufficient to maintain minimum pressures during peak periods).

These forms of congestion will be present regardless of the market model adopted and create uncertainty and risk for market participants. The mechanism for managing the impact of congestion on the wholesale gas market is therefore very important – AEMO's market pricing algorithm already optimises on a locational basis to reflect the physical realities of the DTS and ensure demand is met.

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But so too is the ability for market participants to efficiently identify and potentially address these congestion issues through additional investment.

A key benefit of the zonal pricing model is that it would provide greater transparency around points of congestion and (assuming capacity rights are adequately defined) stronger incentives for market-led investment. With respect to the latter, capacity rights would be backed by physical network capacity and demand from market participants for additional rights should ideally prompt the network owner to invest in additional inter-zonal capacity. Market participants could also directly underwrite the creation of more capacity in return for receiving newly created inter-zonal rights.

Capacity rights would also only relate to inter-zonal congestion and a separate process would be required to govern investment within zones. But Origin believes the existing regulatory approach would likely be sufficient for this purpose.

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