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13 May 2009

Dr John Tamblyn
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AEMC Submissions
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By email: submissions@aemc.gov.au

Dear Dr Tamblyn

**EMO 0001 - Review of Energy Market Frameworks in light of Climate Change Policies: Discussion Paper, Public Forum Melbourne 1 May 2009**

Origin Energy (Origin) welcomes the opportunity to provide comments in response to the Melbourne Public forum Discussion Paper. Given the short time frame for responding, Origin limits its comments to the transmission, remote connection and retail price regulation issues. Our main points on these issues are summarised below and discussed in greater detail later in this submission.

***Retail regulation***

- The AEMC's commitment to increase the flexibility in the regulated retail regimes is welcomed, but is not sufficient to mitigate the risks associated with the introduction of the CPRS given the fundamental flaws in the jurisdictional methodologies used to determine retail prices.
- The AEMC should undertake a detailed assessment of the risks and limitations of the current jurisdictional retail pricing frameworks and develop principles outlining a basic approach to modelling energy costs and risks under the CPRS and eRET.
- Any relevant framework should commit to the inclusion of a direct pass-through of network costs and other regulated charges.
- The recent amendments to the CPRS (i.e. fixed price in 2011 and delayed start) do not address all the risks facing retailers subject to retail price regulation and indeed creates a new set of risks and uncertainties.

***Remote connection***

- Origin is supportive of the AEMC's preferred option for addressing remote generation connection.
- There may be merit in investigating further mechanisms for strengthening incentives for TNSPs to build Network Extensions for Remote Generation (NERG), including offering a higher Weighted Average Cost of Capital (WACC).



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*Transmission*

- Non-pricing signals, such as access to fuel resources are likely to dominate pricing signals when it comes to locational decisions given the limited scope for renewable generators to choose where they locate.
- A CSP-CSC type arrangement for congested areas which allocates the CSC by auction and therefore allocates rights to transmission to those who value them most highly is worth further exploration.

If you wish to discuss any of these issues further please do not hesitate to contact me on (02) 8345 5250 or Con Van Kemenade on (02) 8345 5278.

Yours Sincerely,

Tim O'Grady
Head of Public Policy

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## Retail price regulation

As noted in our previous submissions, Origin strongly supports the AEMC's views that retail price regulation represents a material issue for effective implementation of the CPRS and eRET. As we have stated previously, the only real solution to the problems identified by the AEMC and industry in managing CPRS cost pass-through is to provide for full retail price deregulation. We reiterate that retail price deregulation does not mean unconstrained activity by retailers as there are still significant remaining obligations on energy retailers under both specific industry and general consumer regulations.

We recognise, however, that a number of jurisdictions have indicated a continued preference for retail price regulation through the period of the introduction of the CPRS. As we have stated previously, this places a heavy burden of responsibility on jurisdictions to ensure that their price control mechanisms promote competition and allow for the effective pass through of CPRS and eRET costs, including all risk management costs.

The current regulated retail pricing regimes are insufficiently flexible to account for what will be an uncertain and likely volatile trading environment. Our views, however, go beyond the issue of limited flexibility, to concerns with the fundamental approaches adopted by jurisdictional regulators to modelling energy costs and to setting retail prices. These concerns are compounded by the increased complexity of retail pricing under the CPRS and eRET.

Our position on these matters remains, notwithstanding the recently announced changes to the proposed CPRS.

Given the realities, Origin is pleased that the AEMC is intending to develop principles to guide jurisdictional CPRS pass-through. Some form of consistency in approach across the NEM jurisdictions has the potential to greatly enhance the quality of the outcomes.

Ideally, Origin considers that the AEMC would not only develop basic principles of a CPRS pass through but also take a leadership role in this area and provide clear guidelines to jurisdictional regulators to some level of detail. This would facilitate jurisdictions meeting their broad commitment to competition and full carbon cost pass through under the Australian Energy Market Agreement in an efficient and cost effective manner.

Our thoughts on a number of key issues relating to retail price regulation under the CPRS and eRET are outlined below.

### *Recent amendments to the CPRS*

Origin acknowledges that some of the expected risks in the early years of the retail pricing regimes may be mitigated by the Federal Government's recent amendments to the Scheme - in particular, the postponement of the start of the Scheme to June 2011, the $10 carbon price cap in the first year (2011-12) and full auctioning and trading of carbon permits delayed until 2012.

However, the amended CPRS policy does not address all the risks facing retailers subject to retail price regulation and indeed creates a new set of risks and uncertainties. These in turn must be considered by regulators when establishing new pricing frameworks and price paths commencing in the 2010 to 2011 period and which apply across the complex transition period until 2013 or 2014.

Any multi-year pricing framework will need to accommodate (depending on the starting date):

- A period with no CPRS but featuring eRET, multiple energy efficiency and demand-side programs and significant uncertainties about future costs (this will impact on liquidity generally, price volatility and the SRMC and LRMC);
- A 1 year period covered by a fixed $10 carbon cost and with no permit auctions; and

- Commencement of carbon permit auctioning and trading with expected $40 carbon price caps (with escalation) from 1 July 2012.

Origin does not believe any of the current regulated pricing models are capable of addressing these risks, nor are they capable of adapting to the changing circumstances over the regulatory pricing period.

***Price path re-opening/ cost-pass through arrangements***

Given the considerable uncertainty that the transition to CPRS and eRET is placing on energy markets (including the impact on transmission and distribution costs and mandatory renewable target costs), Origin supports the AEMC's recognition of the need for any pricing regulatory regime to have re-opening provisions. These provisions should reflect the real potential for changing and unforseen circumstances and thereby better "mimic" the activities of a prudent retailer in managing uncertainty in a competitive market.

It should be noted, however, that whilst we agree with the general principle of re-openings/pass through, Origin's experience with these mechanisms to date has proven to be time-consuming and costly with limited effectiveness. In their current form, and most particularly if they are the sole adjustment mechanism available to regulators, Origin believes that these mechanisms do not address the challenges of transitioning to the CPRS and eRET, even under the amended Scheme.

Particularly concerning is that the current arrangements do not address the important issue of recovery of revenue lost. Re-openers such as the one in the NSW regulated pricing framework may adjust the forward energy cost calculation, but do nothing to address prior losses incurred by retailers (particularly the host retailer).

***Importance of an appropriate methodology to assess energy cost and market risks***

Origin is concerned that a focus on "re-opening" or "pass-through" arrangements will distract from the more critical element of establishing an appropriate methodology in the first place to assess energy costs in the transition period.

The fundamental importance of a sound underlying pricing methodology is not addressed in the AEMC Discussion paper. This gap in the framework is disappointing, particularly given the expressed commitments by jurisdictions to allowing a full "pass-through" of CPRS costs and eRET costs. At this stage, retailers have no information on how this cost will be assessed to ensure there is adequate "pass-through".

While the pricing regulators have never provided any transparency about the statistical uncertainty of their energy cost models or about the sensitivities of these models to different input assumptions, it should be clear that small "errors" in the modelling have

significant impacts on whether a retail market is viable and sustainable or whether the financial position of a retailer (particularly a host retailer with an obligation to offer) will rapidly deteriorate.

The reality of this is seen in the decline in competition in all jurisdictions subject to formal retail price regulation (outside Victoria) in 2007-08 to 2008-09 despite at least 2 of these jurisdictions having "pass through" and/or re-opening mechanisms in place that were intended to address the risks associated with forecasting an efficient retailer's costs of supply.

The assessment of a retailer's energy costs is always a theoretical exercise, and different jurisdictions have in the past attempted to model these costs using very different approaches and rely on different historical and forecast data series as inputs to the model. Generally the objective is to replicate the hedging and risk management behaviour of an "efficient" and/or "prudent" retailer, and while some jurisdictions represent this more effectively than others, all are based on theoretical models that bear limited resemblance to the way individual retailers (or retailers in general) actually manage their energy costs and risks.

For example, reliance on modelling to forecast prices and predict behaviour in the new CPRS and eRET environment will be fraught with difficulty.

Similarly, reliance on past market behaviour will also prove to be unsatisfactory as a forecasting tool and carry a very high risk for retailers. For example, some jurisdictional pricing regimes use the previous two years' AFMA or ICAP data to calculate future contract prices. This reliance on historical data will not be appropriate once the CPRS takes effect as we can expect generators and retailers to be far more risk averse in their hedging and contract strategies than they have been historically, particularly in the transition years. Moreover, generator bidding strategies (and subsequent contract strategies) can be expected to change in ways difficult to predict as it will depend not only on their carbon intensity and free permit levels, but on their financial and investment position and the lifecycle of their plant.

What this means is that the assumptions built into modelling carried out to date by jurisdictions need to be questioned at their most fundamental levels for the application of the CPRS and eRET. Building in 'flexibility' to what are increasingly going to be unsound modelling and price setting approaches will not mitigate against unnecessary risk; it may even compound the problems.

Given this, Origin requests that before finalising any principles regarding flexibility mechanisms, that the AEMC undertake a detailed assessment of the risks and limitations of the current jurisdictional approaches. This should then help inform the development of principles regarding a basic approach to modelling energy costs and risks under the CPRS and eRET. This does not necessarily mean that all jurisdictions must adopt the same inputs, but equally, it is neither necessary nor desirable that each jurisdiction continue to "model" the NEM market energy cost outcomes in completely different ways. While the jurisdictional generation mix may differ, Origin does not accept that there is any fundamental jurisdictional difference in the way the national wholesale energy market operates to set the price in each jurisdiction or in the policy objectives each jurisdiction purports to have for retaining retail price regulation.

*Direct pass- through of network costs*

Origin highlights that any relevant framework should commit to the inclusion of a direct pass-through of network costs and other regulated charges. These are charges that the retailer has no control over and also provide important signals to consumers on the true costs of their energy use. Constraints on network price pass-through pose an even greater threat under CPRS and eRET because of the likely impact of both these schemes on both local and general distribution and transmission prices. Origin therefore considers that a commitment to this principle is fundamental if the policy objectives of CPRS are to be achieved.

Jurisdictions such as SA have already adopted this approach while maintaining a "bundled retail price" from the consumers' perspective. Other jurisdictions, however, have not yet undertaken this very basic policy reform. The current Queensland approach provides only for a pass through of "average" network costs across the state. This has already created significant distortions and has locked in retail price cross-subsidies between regions and market segments that had been progressively unwound at the network pricing level.

*Questions from Discussion Paper*

**For retailers with a price capped customer base, what measures or instruments will be available to effectively manage their financial exposure to carbon related cost volatility in the first twelve months of the CPRS?**

There are only a limited number of strategies available to retailers to manage the risks of both wholesale and network price movements associated with the introduction of the CPRS. These risks are compounded by the parallel increase in obligations under eRET.

Where the price is capped, retailers generally have only two levers that can be practically applied to manage financial exposure: cost of supply and quantity of goods sold. There is limited flexibility in costs to supply[1]. It is also clear from market outcomes in some states during 2007-08 and 2008-09 that where retailers have the option they can and do exit the market in circumstances where the regulator has not recognised the full costs of supply.

Host retailers, however, (who are the retailers most constrained by the pricing determination) are also the least able to manage the quantity of goods sold. In most instances, the host retailer acts as a standing retailer, a default retailer (if customers choose to revert to regulated prices) and the retailer of last resort. While a host retailer can also offer or withdraw market based contracts, the majority of their demand is non-discretionary. The less cost reflective the retail price, the greater the burden and risks on the host retailer as other retailers withdraw and customers revert to regulated prices[2]. The financial collapse of such retailers is, however, a risk that the community and governments cannot afford to allow. (Nor should they allow the continued decline of market based churn without proper investigation as to the reasons).

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[1] Given that so much of the retailer's costs are made up, for instance, by regulated charges and external factors such as the wholesale energy costs.

[2] For instance, there is some evidence based on NSW Treasury data that the number of customers on regulated contracts has actually increased since mid-2008. This possible outcome may be worthy of further investigation by the AEMC given that the NSW regulated pricing regime provides a reasonable test of the effectiveness of "re-opening" provisions in the regulated pricing regime.

Host retailers have therefore sought to protect their exposure to both regulated and market customers by obtaining a high level of coverage of their forecast demand and wholesale spot market volatility through a portfolio of wholesale contracts (swaps, caps and other hedging arrangements as appropriate). Traditionally, some pricing regulators have attempted to calculate a retailer's energy costs by attempting to replicate a typical retail hedging strategy. The more sophisticated methodologies, such as the one employed in NSW, have done so in the context of a prudent retailer's risk management appetite and strategy (i.e. the extent to which the retailer will tolerate exposure to the spot market rather than contract market).

However, the forward contract market for the period beyond mid 2010 is illiquid and there is minimal depth of price discovery that will be available as a guide to wholesale energy costs in the early years of the scheme. While retailers can obtain some hedges for the forward contract years, these are limited in quantity and by no means cover the obligations of host retailers or their main competitors. In addition, where these forward market contracts include carbon cost pass through clauses, the retailer's position remains very uncertain, and they provide no mechanism for understanding the actual costs host retailers will face in supplying a large-scale portfolio of small customers.

**Given the uncertainty about carbon related costs in the early years of the CPRS, is regulatory review of costs each twelve months frequent enough?**

Origin considers that given the inadequacies and the inherent weaknesses of the current regulatory arrangements, that at a minimum any regulatory review or re-opening arrangements must include the following elements:

- Be conducted on a rolling 6-month basis (such that cumulative errors can be addressed); and

- Be based on a look back approach that ensures future prices correct for both updated forecasts and recover previous year forecast errors.

Origin is not aware that any retail pricing regulator has addressed the latter issue of recovery of foregone revenues due to incorrect forecasts by the regulators although such arrangements are not uncommon in the regulatory pricing frameworks for network businesses.

Given the asymmetrical risks (as recognised by the AEMC), however, it seems only appropriate that retailers should have some redress for past forecast errors by pricing regulators.

**Is there a case to plan explicitly for further review and adjustment of the treatment of CPRS costs in regulated price caps shortly (e.g. six months) after the start of the scheme?**

There is certainly a case to plan explicitly for further review and adjustment of the treatment of CPRS costs in regulated price caps shortly after the start of the scheme, and six months may be an appropriate timeframe.

However, we again note that focussing on reviews of costs rather than the assumptions behind cost calculations will be problematic and will only serve to further entrench the current inadequacy of the jurisdictional pricing approaches for the CPRS and eRET environment.

Remote connection

- **Is it necessary to place any additional obligations or financial incentives on network businesses to build NERGs?**
- **Which of the proposed alternatives best manages customers' exposure to risk?**
- **Will the proposed model be required for distribution and, if so, is it suitable?**

Origin is supportive of the AEMC's preferred option for addressing remote generation connection. Reassuringly, we are also pleased that this more strategic approach to transmission investment appears to be consistent with Darryl Biggar's sentiments regarding the social benefits of a more "pro-active" approach to network planning in his paper prepared for the AEMC "A Framework for Analysing Transmission Policies in the Light of Climate Change Policies" (p 29).

We consider that the AEMC's preferred option presents the right balance between facilitating market led investment in transmission to support remote generation, whilst capturing the necessary strategic/scale benefits in meeting the climate change policy targets.

In respect to the questions posed above, we agree that existing obligations on TNSPs to connect, as well as provision of a reasonable WACC allowance, provides some incentive for TNSPs to build NERGs. We consider, however, that there might be merit in investigating further mechanisms for strengthening these incentives. One area worth further consideration is the provision of additional flex around the existing allowable WACC for TNSPs specifically related to building NERGs. Thus, a TNSP could be given the opportunity to secure a higher WACC on a NERG if it is able to achieve full utilisation of the asset by a particular future date. It would only receive the usual rate of return if full utilisation is not achieved.

This kind of an approach would encourage TNSPs to identify and coordinate generator interest in NERGs, as well as efficiently price and size the assets. In either case, therefore, the opportunity for a higher rate of return will provide the incentive for TNSPs to build NERGs, while the requirement for full utilisation in order to achieve the bonus could discipline any tendency to overbuild.

This would transfer some of the risk of optimal sizing and stranding risk otherwise borne by consumers to TNSPs who would be better able to manage it. In this regard, we did not consider that a fully symmetrical incentive; that is, also allowing for reductions in the normal rate of return for underutilised assets, should be contemplated by the AEMC. We are concerned that a fully symmetrical incentive would be seen to create excessive financial risk for TNSPs, and thus discourage them from building NERGs entirely.

As a final point, we do not see any reason why the model being proposed should not also apply to potential NERGs connecting into the distribution network. While likely to be less common, we do foresee some circumstances where this may arise and the Rules should allow for this to occur.

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Efficient provision and utilisation of the transmission network

- **How do the CPRS and eRET affect the balance between pricing signals (e.g. transmission connection costs) and non-pricing signals (e.g. access to fuel) for generator locational decisions?**
- **What are the more important drivers for potential inefficient costs as a result of the CPRS and eRET? Operational decisions or investment decisions? Decision making by TNSPs or by generators?**
- **What are the key issues to consider when assessing options for change?**

In Origin's view non-pricing signals, such as access to fuel resources, are likely to dominate pricing signals when it comes to locational decisions. This will continue under climate change policies, given that large scale renewable resources tend to be located in particular locations. New generation will tend to locate in these areas because that is where the resource is. Flexibility in respect to transporting the fuel, rather than the product, is generally much more limited and costly. Darryl Biggar emphasises the limited evidence internationally of nodal prices having had much of a role in influencing long term investment locational decisions by generators. He reproduces comments from the Maryland Public Service Commission of PJM, which are particularly instructive: "Locational marginal pricing in energy markets is a valuable source of information to investors, but it has not proven adequate to incent the investment community to invest in new generation in constrained areas" (p16).

As Biggar notes, even the considerably higher location transmission charges in Scotland relative to other areas of the UK do not seem to dissuade new renewable generation from wanting to locate in these regions. Biggar identifies concerns of the real potential for such pricing policies to be in conflict with the objectives of climate change policies: "For example, in the case of the UK, Castelnuovo et al (2008) note that several market players seem convinced that the UK will not meet its renewable target unless significant new wind generation capacity is built in remote Scottish locations. But these locations are precisely those most disadvantaged by the current UK transmission pricing policy"(p 4).

Origin believes this highlights an important issue going forward under Climate change policies, which has received little attention in the Biggar paper. We consider that regardless of whether locational signals are increased, through transmission charges or price signals, it is unlikely to substantively change the locational decisions of new renewable entrants, as they will be largely constrained to locating in particular areas. In this regard, (as we discussed in our submission to the Interim Report), applying any kind of significant new charge to new entrant generators, which will be difficult to avoid, may act as a barrier to entry. If this primarily affects renewable generation entrants then this in turn may undermine climate change objectives.

We therefore disagree with Biggar that an internally consistent transmission policy under a zonal pricing framework implies that new entrants should pay for transmission to preserve the existing access of incumbents. To the extent existing generators have not themselves been subject to such a charge this confers them with an implicit access right to transmission which may be considered discriminatory and thereby anticompetitive, and ultimately at odds with achieving climate change objectives.

On the other hand, if such charges do not deter new entry, then multiple generators locating in the same areas over time will generate considerable competition for scarce transmission capacity, and thereby expose incumbent generators to an increasing level of

congestion risk over time. Under existing arrangements such exposure to congestion risk is impossible to manage. We believe that introducing a mechanism to manage this risk going forward will be critical in encouraging future investment in renewable and low emissions generation to a level necessary to meet climate change objectives.

It is in this context that we proposed a CSP-CSC type arrangement for congested areas in our submission to the 1st Interim Report. This allocates the CSC by auction providing transmission rights to those who value them most highly, rather than on the basis of whether they are an incumbent or new entrant. We think this will be good both for competition and meeting climate change objectives.

In some respects we think the issue to be addressed mirrors that being considered in respect of access to "slots" (rights to take off and land at particular times) at airports terminals. Administrative allocation of scarce transmission slots to incumbent airlines to date is widely considered to have deterred airline competition within the US, European and UK airline markets, and a move to full auctioning of slots at airports which become congested is now being actively considered in these jurisdictions[3].

We agree with Biggar however, that a useful alternative to a rights based approach to scarce transmission capacity such as CSC-CSP may be to amend the regulatory test to build out intra-regional congestion where it becomes substantive for affected generators. We further agree that the consequential increase in transmission costs that such an approach would necessary entail relative to existing approaches to transmission investment could well be outweighed by the public good benefits of transmission capacity. These include increased reliability, enhanced competition across the network, and the positive flow on impacts of firmer transmission access for new investment in generation.

[3] See for example NERA report, "study to assess the effects of different slot allocation schemes, A Report for the European Commission, DG TREN, January 2004