15 March 2013

Independent Pricing and Regulatory Tribunal
Level 8, 1 Market Street
Sydney, NSW 2000

Submitted online: www.ipart.nsw.gov.au/Home/Consumer_Information/Lodge_a_submission

Dear Mr Oeser

REVIEW OF METHOD FOR DETERMINING THE WACC: DEALING WITH UNCERTAINTY AND CHANGING MARKET CONDITIONS. OTHER INDUSTRIES DISCUSSION PAPER.

Origin Energy (Origin) welcomes the opportunity to participate in the Independent Pricing and Review Tribunal’s (IPART) review of method for determining the weighted average cost of capital (WACC).

As a standard retailer of electricity and gas in NSW and a major participant in energy markets across Australia, Origin is well placed to contribute to this process.

Origin has addressed the questions raised in IPART’s Discussion Paper in the attached submission and looks forward to continued participation in this review. If you have any queries, please contact Keith Robertson on (02) 9503 5674.

Yours sincerely

[Signature]

Phil Moody
Group Manager - Energy Markets Regulatory Development
Background

Origin understands that this review will provide IPART with a framework to develop WACC estimates when setting prices across the range of industries that it regulates. As a major energy retailer, Origin is qualified to comment upon the application of the WACC in regulating electricity and gas retail prices but has not sought in this submission to application to other industries.

In regulating electricity and gas retail prices Origin understands that IPART is most likely to use the WACC to estimate an appropriate retail margin and to calculate the long run marginal cost of generating electricity.

There a number of contextual factors that are important to consider for the energy sector that differ from the other industries that IPART regulates. These factors should influence how IPART exercises discretion in determining a number of parameters within the WACC, particularly in selecting comparable businesses to determine an asset beta.

The economic justification for price regulation is most apparent in monopolistic markets where it acts as a proxy for competition. However, as markets become competitive, the need for price regulation diminishes as competing entities drive economically efficient market outcomes. When effective competition exists, the sole potential role for continued price regulation is to afford protection to those customers who, for whatever reason, choose not to participate in the competitive market. As the Australian Energy Market Commission observed in its "Review of Energy Market Frameworks in light of Climate Change Policies - Final Report":

"If a competitive retail energy market is to emerge and thrive, it is critical that regulated energy prices are set in a manner that does not hinder the development of competition. The competitive energy retail market will not develop where prices are set at a level which precludes discounted, competitive offers being made to customers. This implies that prices should be set to act as a safety net for customers unwilling or unable to take up a competitive, unregulated market offer rather than in an attempt to mimic the outcome of a competitive market. Where prices are set by a regulator over a longer timeframe, ensuring competitive "headroom" in the initial price determination is vital."

The setting of regulated prices within the competitive energy retail market subjects retailers to an asymmetric risk; any under recovery of costs from low regulated prices (that function to suppress market offers generally) leads to lower margins, yet competitive forces curtail any opportunity for retailers to over recover in circumstances where regulated prices are overestimated. Retailers therefore bear the risk of underestimation of the WACC, but will not benefit from overestimation.

Origin recognises that IPART faces a particular challenge in meeting its objective of setting the WACC with reference to an efficient benchmark firm when considering the energy sector. The Australian energy market is characterised by a small number of listed participants and a wholesale market design, regulatory model and level of competition that is in most regards unique and gives rise that otherwise similar energy businesses overseas do not face. Origin encourages IPART to recognise this context when IPART needs to exercise its discretion in considering benchmark firms and WACC values.

Origin has set out its response to the specific issues raised in the discussion paper in the following sections.

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1. Should we set the WACC for an efficient firm that faces similar economic risks to the regulated business and is a new entrant?

The current approach of setting the WACC for a ‘benchmark utility’ that is an efficient firm facing similar economic risks to the regulated business results in a more transparent approach than individually assessing separate business specific risks. However, there are some risks faced by regulated businesses that are not ‘general economic trends’, for example, when assessing the appropriateness of an asset beta, IPART should consider the implied systematic risk in the specific industry and assess the appropriateness giving consideration to other industries for which a WACC is determined.

Australian energy retailers are exposed to a high level of regulatory risk, particularly in relation to retail price regulation and environmental policy e.g. carbon and renewable schemes. Both retailers and generators alike are exposed to a high level of price and volume volatility inherent in the design of the Australian wholesale energy markets.

The Australian retail energy market is not only regarded as one of the most competitive in the world but is also underpinned by complex and volatile wholesale markets. The small number of publicly traded retailers in Australia combined with the design and regulation of Australian energy markets results in a lack of readily comparable businesses for benchmarking. In establishing a suitable benchmark new entrant firm it is also important to note that of the publicly traded Australian energy retailers and the majority are large, vertically integrated players with a lower risk profile than would be expected for a new entrant. It is therefore critical that the unique risks faced by retailers operating in the NEM that may not be evident in “comparables” are considered when assessing WACC values, particularly the asset beta.

Further, when assessing an appropriate level for beta, the financial circumstances of a new entrant also require consideration. For example, new entrant retailers or generators are likely to have less debt capacity and a higher risk margin for a credit risk level than observed with incumbents.

It is appropriate to assess WACC based on the WACC of a new entrant; however the approach to WACC should also be addressed. Increasing efficiency and competition in the market is dependent upon there being potential for sufficient returns to be realised from investment in the market by new competitors.

2. What is the appropriate averaging period for the cost of debt?

Longer term average data should be used for both the risk free rate and debt margin. While short term data reflects current market conditions, short term market fluctuations can mean that there is a divergence from the longer term assumptions and return requirements used in assessing the viability of future investments and business models. In particular, the utility market is typically a capital intensive business with long-lived assets, contracts and business models and so a long term view is formed in relation to investment decisions.

To align with IPART’s goal to “enhance the long-term interest of consumers through efficient investment in and the commercially sustainable provision of efficient services”, the inputs into WACC should be formed based on assumptions that support sustainable investments and businesses in the sector. New investments are not typically made reactively based on short term market conditions. The timeframe for making investment decisions and implementing any new investment proposal are based on long term views of viability and sustainability of each investment. In order to
better match the WACC to assumptions used by new entrants and existing participants seeking to
investment in a market, stable, longer term averages should be used.

Additionally, the timing of refinancing and new debt issues are not linked to the regulatory cycle
but rather the liquidity needs and existing facilities in place for each company. Entities may also
elect to use derivatives to fix their borrowing costs on particular instruments. This means that is
not reasonable to conclude that the average cost of debt of new or existing market participants
could be aligned with the short term cost of debt.

Using a long term averaging period means consumers are also exposed to a lower degree of
variability and any benefits/costs due to changes in debt pricing would be passed through to
consumers over time.

Origin considers a minimum of 5 years to be an appropriate averaging period for the cost of debt.
However, there are some merits in the ‘hybrid approach’ as outlined in the response to question 6.

3. If a long-term average is used for the cost of debt, should it be adjusted annually?

Origin believes that IPART should review the key parameters being not only the cost of debt but
also the risk free rate, market risk premium and beta as part of its annual review. However, as the
parameters should reflect the long term view, it is not expected that an annual review would lead
to material changes in the adopted WACC and in turn a high level of regulatory uncertainty.

4. If a short-term averaging period is used, are 40 days sufficient to address the practicality
concern in regard to risk management strategies?

If a short-term averaging period of 40 days is used, the risk of highly volatile regulatory outcomes is
not mitigated and hence there would be limited certainty provided as required by entities making
long term investment decisions.

5. Are there merits in the hybrid approach (Section 3.5.4)?

One merit of the hybrid approach is that it assists in achieving an outcome that more closely
reflects current market conditions. For example, where companies have issued floating rate debt,
they would be exposed to short term fluctuations in the risk free rate. However, if the hybrid
approach is utilised, a balanced approach, adjusting for the fact that not all debt is floating rate,
should be used.

However, it is important to provide certainty in order to attract investment, and using a short term
variable increases the potential for volatility in the WACC outcome. Additionally, combining short
and long term measures would result in a WACC comprised of parameters that are not internally
consistent. Due to the interrelationship between all WACC parameters, including cost of equity
parameters which can move in opposite directions, it is more ideal to maintain consistency in
relation to, inter alia, the time horizon for the risk free rate and cost of debt, and the benchmark
credit rating and gearing levels.
6. What is the appropriate term to maturity to use for the cost of debt calculation?

As the energy retailers and generators are typically capital intensive business with long-lived assets, contracts and business models, a prudent liquidity management strategy would include matching debt obligations to asset revenues and also mitigating refinancing risk through issuing debt across a range of tenors ranging from short term debt, e.g. 3-5 years, as well as longer term debt that may exceed 10 years.

Origin considers that a longer term maturity of 10 years appropriately reflects the average tenor of debt facilities used when selecting data points for the cost of debt calculation.

As a separate note, Origin also recommends that, to reflect the actual financing practices of privately held utilities, adjustments be made to margins to cater for the actual range of credit ratings held and the variety in "forms of debt" typically issued by Australian utilities. The Australian domestic bond market is quite limited in terms of depth and maturity so, as part of an entity's prudent liquidity management strategy to reduce refinancing risk and secure sufficient liquidity, foreign markets (e.g. 144A, EMTN, USPP) are becoming an increasingly common source of longer-term funding, with debt swapped back to AUD. It is also important to consider the likely credit rating of a new entrant to the market when making pricing assumptions in relation to both domestic and foreign debt.

7. What alternative models, if any, should we use to estimate the cost of equity as a cross check for an industry sector or the overall market?

The Capital Asset Pricing Model (CAPM), is well understood and one of the most extensively used models in corporate finance. The model is applied by Australian state and commonwealth regulators as well as in many foreign jurisdictions. For this reason, as well as the fact that the cost of equity being calculated is not being calculated in respect of a specific entity where more bespoke data and analysis may be possible, but rather for a "benchmark utility", Origin believes it is appropriate to base the cost of equity calculation on the CAPM model.

Using a well understood and extensively used model also results in increased transparency and improved forecasting ability upon which investment decisions can be made.

Origin agrees with the cross checks of the cost of equity to be used as outlined in Section 4.8 of the December 2012 WACC Review Discussion Paper.

8. How should we estimate a current market-implied measure of the expected market risk premium?

As the Market Risk Premium (MRP) is a measure of the long term excess return earned on a diversified portfolio of equities over the risk free return, the MRP should be a long term estimate.

As the MRP is not stable over time, a long term averaging period, based on an agreed methodology, should be used to reduce variability around the ultimate WACC measure, providing a greater degree of certainty upon which investment in the sector may be made and continued participation remains viable. Using a long term averaging period assists in removing any short term impacts of abnormal market conditions and provides a more stable outcome than short term or forward looking
Origin does not believe that forward looking models for MRP provide a greater degree of certainty or accuracy around the MRP than historical averages.

9. Should we use a long-term average (for example 10 years) to estimate the risk free rate to be consistent with the long term averaging period used for the market risk premium estimate?

It is important to ensure that the parameters of the WACC are internally consistent. Internal consistency should be maintained in relation to, inter alia, the time horizon for the risk free rate and cost of debt, and the benchmark credit rating and gearing levels. Where IPART determines a range for a specific parameter, it should ensure that the methodology to select the value within that range remains consistent.

As the MRP and Risk Free Rate tend to move in opposite directions, the averaging period as well as the time horizon should be aligned for both measures to avoid under or over estimation of the return on equity.

10. What model, or models, should be used in estimating the range for the WACC, and why?

A robust approach to estimating the WACC range is required in order to enhance transparency and minimise volatility around the outcome, thereby fostering confidence around sector economics required to attract new investment and entrants. Providing certainty is particularly important as market conditions change.

Consistent with the responses provided throughout this document, Origin believes that an efficient cost of capital that reflects the general consensus used for long-term planning and investment analysis by utilities must be reflected in the range for WACC. In highly volatile markets, short term data reflects the cost of capital to invest at a point in time only and would not typically be the basis of meaningful new investment. Therefore, the WACC estimation model should use long-term averages for the risk free rate, debt margin and MRP, with the CAPM model used to determine the cost of equity. This approach is presented as Scenario 1 in Section 5.3 of the December 2012 WACC Review Discussion Paper.

11. Which of the Scenarios in Section 5.3 do you prefer and why?

As noted above, Scenario 1 is the approach that Origin considers to be most appropriate.

12. If we continue using Scenario 5 (our current methodology, Section 5.3), should we also have regard to the midpoint of the WACC range estimated using current data for all parameters (including the market risk premium) as a reference point?

As illustrated by the relatively higher midpoints of the other Scenarios presented in Section 5.3, even the upper bound of the range for Scenario 5 can be below the midpoint of what an efficient
cost of capital would be over a longer period, taking into account that investment decisions are based on a longer term view of a sector. Therefore, using the mid-point could result in an even greater degree of underestimation and disincentive for new entrants to the market or new investment. As noted by the NZCC, the social costs of setting the allowed rates of return too low would probably outweigh the costs of return set too high. Competition in retail energy markets can be expected to compete away any overestimation of WACC, where underestimation is likely to stifle competition and investment.

If Scenario 5 continued to be used, Origin considers that using a mid-point is unlikely to provide an appropriate outcome; rather, a comparison between the Scenario 1 outcome and the Scenario 5 outcome should be used to determine the level of adjustment required.

13. How can the exercise of discretion in selecting the WACC value from within the feasible range be structured to increase predictability and certainty while still ensuring that our primary objective for setting the WACC can be achieved?

14. If we establish a framework to guide the exercise of this discretion, what should be included?

In general, introducing an element of discretion decreases predictability and certainty. However, a case could be made, given the particular conditions and competitive nature of the energy sector, to raise WACC to allow for new entrants to participate without a corresponding impact of undue social costs.

In any case, the use of discretion must be bound to tightly articulated parameters in order to limit the detrimental impact to predictability and certainty around pricing methodology. The considerations to be taken into account where discretion is to be used should also be clear and, where possible, relate to clearly available data. The circumstances that would cause the use of discretion to be required should also be clearly described.

15. What other information should be used in determining the WACC? How can this best be integrated into decision making?

Reasonableness testing:
The separate components of WACC should be subject to a ‘reasonableness test’ such as a broad market survey of operators and providers of capital to the market, to ensure that the WACC outcome is appropriate. This would be particularly important at times of high market stress and illiquidity as experienced over the past 5 years.

Gamma:
There continues to be limited market consensus on both the use and magnitude of gamma. Further, given that capital for new entrants could come from offshore, arguably the gamma of a new entrant would be zero. To include gamma potentially discourages foreign investment in new entrants.
**Leverage:**

The leverage ratio that would be reasonable for a new entrant should be used as the foundation for the leverage ratio applied in WACC.

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<th>16. Should we use the midpoint of the estimated cost of debt in calculating the tax expense?</th>
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In the circumstances described with respect to the recent decision, we could see a coherent argument to adopt a midpoint. However, using the midpoint approach in all circumstances may not be appropriate as all the circumstances that IPART is considering in setting its benchmark return must be considered together. In general, we favour the principles of consistency between WACC parameters.