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Mr P May
Group Manager – Finance and Risk
Envestra Limited
Level 10
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29 September 2010

Dear Paul

Post Tax Revenue Model Methodology – Review of Initial Taxation Asset Base

1. Introduction and summary of findings

Scope of Report

We refer to the letter from Johnson, Winter and Slattery dated 9 June 2010 engaging us to conduct a review of the methodology adopted by Envestra in transitioning to the Australian Energy Regulator (AER)'s post tax revenue model (PTRM) in South Australia and Queensland and to undertake certain additional related tasks. This letter is attached to this report as Appendix A. More specifically, we have:

- reviewed a paper prepared by Envestra that outlines the methodology used to calculate the initial Tax Asset Base (TAB) to be used in the AER's PTRM for preparing Envestra's access arrangement revisions effective 1 July 2011;
- reviewed the financial models that Envestra has created to calculate the initial TAB for the South Australian and Queensland businesses;
- inserted a calculation into those financial models to calculate a weighted average remaining life for the assets that fall into each of the asset classes, which is required for the PTRM; and
- created a separate financial model to estimate whether or not tax losses would exist as at 30 June 2011 for the two businesses when modelled in a manner that is consistent with the standard regulatory benchmark assumptions.

Our review has been limited to the methodology used to calculate the initial TAB and benchmark tax losses. We have not considered the forecasted taxable income or the value of imputation credits to determine a benchmark tax liability for the business.

In completing our review, the following documents were considered:

Liability limited by a scheme approved under Professional Standards Legislation

- AER final decisions in relation to the ETSA Utilities and Jemena Gas Networks
- AER report dated November 2007, which outlines its preliminary methodology to move from a pre to post tax revenue model
- AER report (which was Appendix A to the November 2007 report), dated June 2007, which provides guidance on transitioning an energy business from a pre to post tax regulation
- AER report dated January 2008, which outlines the submission questions and final decisions regarding its methodology to move from a pre to post tax revenue model
- Explanatory paper prepared by Envestra documenting its methodology for transitioning to a post tax revenue model in South Australia and Queensland (this is attached to this report as Appendix B)
- Supporting calculations provided by Envestra

We have not reviewed Envestra's source documentation (such as audited financial and regulatory accounting statements) that is relied upon to determine the Regulatory Asset Base (RAB) additions as these have been subject to external audit and therefore are suitable to be relied upon.

Summary of findings

We have reviewed the method that Envestra has applied to calculate its initial TAB for transitioning its South Australian and Queensland gas distribution businesses from a regime whereby a notional allowance was provided for taxation to one where an explicit calculation is undertaken. This review has taken place against the guidance and precedents from the Australian Energy Regulator on this matter.

We conclude that the method that has been applied by Envestra is consistent with the decisions that are available to a business under Federal tax law and that the simplifications that Envestra has made are consistent with how the AER has undertaken similar calculations for other regulated businesses. We therefore conclude that Envestra's approach is consistent with the AER's requirements.

We have also reviewed the Excel model that Envestra has used to calculate the initial TAB (hereafter referred to as the tax roll forward model, with the separate models for SA and Queensland distinguished where necessary). The tests that we performed detected only minor errors that we remedied for Envestra.

Lastly, at Envestra's request, we also:

- Inserted a calculation in its tax roll forward models for the weighted average remaining life for each of its asset classes, the method for doing which is described below; and
- In a separate model that we created we assessed whether Envestra South Australia or Queensland should be assumed to have a tax loss from earlier periods to the next access arrangement period when its financial situation is modelled on a benchmark basis (that is, consistent with the relevant regulator's assumptions about such matters as the available interest deductions and revenue and expenditure). We conclude that no losses from past periods would be available to carry over into the 2011/12-2015/16 regulatory period.

Structure of the remainder of this report

The remainder of this report is set out as follows.

Section 2 discusses the principles that are appropriate to derive the initial TAB for businesses that transition from a regime whereby a notional allowance (for example, through the use of a pre-tax WACC) to one where the allowance is based upon explicit modelling of taxation. This discussion addresses both first-principles analysis and the guidance from the AER and the AER precedents.

Section 3 then assesses Envestra's proposed method for deriving the initial TAB for its South Australian and Queensland gas distribution networks against these principles.

Sections 4 and 5 then describes the calculations that we have performed for Envestra, namely the calculation of the weighted average effective lives for each asset class and the testing of whether an accumulated tax loss would be expected at the start of the 2011/12 financial year for the reference service activities if the regulatory benchmark assumptions are employed.

2. Principles for deriving the initial Taxation Asset Base

In the guidance that the AER has provided for deriving an initial TAB for businesses transitioning into a post tax regime, it has specified a number of principles to guide the calculation. The high-level principle that the AER appears to have adopted for this calculation is contained in the following statement:[1]

> Most of the DNSPs' assets have economic lives of up to 50 years. Therefore a reasonable assessment of the tax status of each asset depends on the likely behaviour of a company acting in its commercial best interests to take full advantage of changes to tax legislation that have occurred over the life of these assets. This is a

[1] AER, Nov 2007 (Attaching June 2007), pp.59-60.

> straightforward mechanical calculation for a business always subject to taxation using the different rates of depreciation permitted at the time of investment.

We would interpret this statement as implying that the AER intends for an initial TAB for businesses transitioning into a post tax regime as a benchmark TAB of a business in the same position as the business in question applying relevant tax law. This principle is further emphasised in the following statement:[2]

> A post-tax approach is superior in that it facilitates an accurate allowance for tax in setting regulatory revenues. Further, the allowance for tax under a post-tax approach is more closely aligned to the timing of actual tax liabilities than under a pre-tax approach.
>
> …
>
> Careful attention is required to ensure appropriate initial asset values for tax purposes are set (the tax base). The tax base should, where possible take into account the actual tax position of assets that constitute the RAB.

The AER has also observed that a business that was previously under a pre-tax WACC regime may have been overcompensated for its cash taxation payments in the past, including because a pre tax regime may provide a degree of prepayment for future taxation liabilities.[3] It then observed that a movement from pre tax to post tax may provide an element of double payment for future taxation. Notwithstanding this observation, the AER decided that it would be inappropriate to adjust in the future for any such over- (or pre-) payment for taxation that may have arisen in the past:[4]

> The AER does not intend to make adjustment upon transition to a post-tax approach for any additional allowance that may have been received as a result of previous regulatory decisions.

The further specific guidance that the AER provides about the implementation of these principles is as follows:

> The tax base should, where possible take into account the actual tax position of assets that constitute the RAB. The tax base can be established with the following information:
>
> - The date the business was first subject to tax (or the national tax equivalence regime (NTER));
> - The tax value of assets at that date, in sufficient detail to distinguish RAB [regulatory asset base] assets from any non-RAB assets;
> - The vintage profile of the RAB assets when first subject to tax including any capex that took place prior to the commencement of regulation; and

[2] AER, Nov 2007 (Attaching June 2007), p.51.

[3] This is because a pre tax WACC tax allowance equivalent to the long run average of tax payments, whereas a post tax regime reflects short term tax payments. Hence, a pre-payment for future tax would occur where taxation liabilities are forecast to rise over time.

[4] AER, Nov 2007 (Attaching June 2007), p.53.

- The tax base established when first subject to tax can then be rolled forward to the commencement of the post-tax approach taking account of relevant tax depreciation provisions, actual capex and disposals.

3. Application of the principles for deriving the initial Taxation Asset Base

Starting TAB – assets in place at 1 July 1997 and 1 July 1998

Envestra has used 1 July 1997 (for South Australia) and 1 July 1998 (for Queensland) as the starting date for determining its TAB. These dates are proximate to the date at which Envestra was established and first became subject to Federal income tax. We agree with Envestra that this date is consistent with the AER's instructions and reflects the most recent information taken from the tax fixed asset registers for each state.

The information source that Envestra has used to establish the starting TAB for this purpose is an extraction from its tax fixed asset register for the 1997/98 and 1998/99 financial years, which records for each asset:

- the historical cost for that asset;
- the date of capitalisation of the asset;
- the accumulated tax depreciation prior to the start of financial year 1997/98 (for South Australia) and 1998/99 (for Queensland), and hence the depreciated tax value; and
- the depreciation rate and method that has been used for the relevant asset.

Envestra's tax roll forward model uses the information from the tax fixed asset register (that is, the undepreciated value in 1997/98 or 1998/99, the accumulated tax depreciation and applicable tax depreciation rate and method) to derive the depreciated value for each asset that was in place as at 1 July 1997 and 1 July 1998, and then to derive the depreciated tax value through to the start of its next access arrangement period (namely 1 July 2011). Accordingly, Envestra's model continues the method of tax depreciation that had been applied to each of the assets that were in place prior to 1997/98 or 1998/99 through to the start of its next access arrangement period.

Turning to the question of whether all assets are regulated assets, as Envestra does not have sufficient information to verify the classification of these assets as regulatory or non-regulatory additions, it has assumed that all assets are regulated assets.

We note that Envestra's calculation of its initial TAB for SA and Queensland equates to the actual value used in its own tax returns at dates that are proximate to when it was first subject to Federal

income tax, which is consistent with the AER's implementation guidance discussed above. In addition, Envestra's approach of carrying those initial values forward using the depreciation rates and method that had been used to calculate the initial TABs is a practicable means of calculating a benchmark TAB for those assets as at 1 July 2011 and one that is consistent with the AER's instruction and practice.[5] We consider that the assumption that all assets were associated with regulated services is reasonable in the circumstances and would not have a material effect on the results.

Capital expenditure since 1 July 1997

For additions after 1 July 1997 (South Australia) or 1 July 1998 (Queensland) we note that Envestra has:

- Relied upon its audited financial statements for 1997/98 to calculate its 1997/98 additions for South Australia and its audited financial statements for 1998/99 to calculate its 1998/99 additions for Queensland; and

- For each year thereafter, drew the information from information that has been provided to the relevant regulators (the Essential Services Commission of South Australia and the Queensland Competition Authority).

A consequence of Envestra relying upon its financial statements to derive 1997/98 or 1998/99 additions is that all additions to the tax fixed asset register in that income tax year would be regarded as providing reference services. We agree that this is a practical approach given the lack of reliable data available on the true nature of the assets. To the extent that a bias is created, this would tend to overstate the TAB and thereafter lead to lower regulated prices than otherwise, albeit by an extent that is unlikely to be material.

As noted above, for additions after 1 July 1998 (South Australia) or 1 July 1999 (Queensland) Envestra is relying upon information that has been provided previously to the relevant regulators. This source of information is consistent with what has been accepted more generally for regulatory purposes and hence is reasonable.

We also note that Envestra's roll forward model adopts the following simplifying assumptions:

- that capital expenditure takes place at the mid-point of each year and thus records only a half a year of depreciation in the year in which the asset is capitalised; and

[5] We note for completeness that we found several very small errors in the records in its fixed assets registers (which appeared to be typographical errors), which we fixed during our review of its models. None of these errors would pass any reasonable materiality threshold.

- that the definition of capital for taxation purposes aligns with that definition for regulatory accounting purposes.

The first of these assumptions is unbiased, simple and consistent with standard practice under post tax regulatory regimes. The second of these assumptions simplifies the TAB calculation considerably, is consistent with the approach the AER has applied in similar cases (such as for Jemena Gas Networks) and is a definition of capital for tax purposes that is available to gas distribution businesses and, while practice varies, is a definition that is applied by a number of such businesses.

Depreciation lives and method

We have reviewed the lives that Envestra has applied to additions in the period from 1 July 1997 (South Australia) or 1 July 1998 (Queensland) and confirm that those lives are consistent with the safe harbour lives that are determined by the Commissioner of Taxation.

Envestra has employed the prime cost method for depreciation of all assets installed in the period from 1 July 1997 (South Australia) or 1 July 1998 (Queensland). We note that the tax law provides entities with a choice as to whether the prime cost or reducing balance (diminishing value) method of depreciation is to be employed for an asset. The use of prime cost therefore comprises an acceptable approach for determining depreciation. We also note that the AER has previously expressed a preference for the use of prime cost depreciation. Accordingly, we conclude that Envestra's approach is consistent with the AER's guidance on the matter.

Envestra's financial model for calculating the initial TAB

As noted above, we undertook a review of the calculations that were performed in Envestra's roll forward models (one of which was for South Australia and one for Queensland). As part of this review, we also remedied several small errors that we found; however, none of these errors affected the initial TAB in a material way.

The tests that we undertook included:

- independently replicating the calculation of depreciation on the capital expenditure undertaken since 1 July 1997 (South Australia) or 1 July 1998 (Queensland);

- independently replicating the algorithm for calculating the TAB associated with assets in place prior to 1 July 1997 or 1 July 1998; and

- performing a number of checks on the totals between the various sheets in the tax roll forward models.

As noted above, on the basis of these tests we detected only immaterial errors that we remedied for Envestra.

4. Calculation of weighted average (tax) asset lives

The output of the calculations described in section 3 above comprises:

- a separate written down tax value and associated tax life / tax depreciation method for *individual assets* that were in place prior to 1 July 1997 (South Australia) or 1 July 1998 (Queensland); and

- a separate written down tax value and associated tax life / tax depreciation method for assets aggregated into *yearly expenditures for each of the asset classes* for capital expenditure that has been undertaken from 1 July 1997 or 1 July 1998 (for example, mains expenditure in 2003, etc).

We understand that the AER requires the future tax depreciation calculation to be self-contained within the PTRM, which in turn requires the existing written down tax values to be aggregated into a manageable number of asset classes and an overall asset life and method applied for tax purposes to each of those classes. Envestra engaged us to augment its Excel model discussed above to derive the appropriate remaining (tax) lives for each of its asset classes.

The process that we followed for this calculation was as follows.

- First, we separated out all assets that were being depreciated on a reducing balance (diminishing value) basis from those that were being depreciated on a prime cost basis.

- Secondly, for the reducing balance depreciation assets we aggregated assets into classes according to the rate of depreciation being applied. There was no need for account to be taken of the type of asset in question.

- Thirdly, for the prime cost depreciation assets we:

  - calculated the implied remaining (tax) life for each asset (that is, for the individual pre-1997/98 assets or pre-1998/99 assets and for the yearly-expenditure-by-asset-class for the expenditure from 1997/98 or 1998/99 onwards) by dividing the depreciation that would

be calculated for each asset in 2011/12 by the written down tax value of the asset in question as at the start of 2011/12;

- aggregated the assets into the classes employed by Envestra (that is, mains, inlets, meters, telemetry, IT, other distribution assets and other assets); and

- calculated the weighted average remaining (tax) life across the assets in each of those classes, with the written down tax value being used as the weights.

The actual calculation that was inserted in the Envestra model combined the first and third steps described above as follows:

$$WARL = \frac{\sum_{i=1}^{I}\left(RL_i \cdot WDV_i\right)}{\sum_{i=1}^{I} WDV_i} = \frac{\sum_{i=1}^{I}\left(\frac{WDV_i}{Dep_i} \cdot WDV_i\right)}{\sum_{i=1}^{I} WDV_i} = \frac{\sum_{i=1}^{I}\left(\frac{\left(WDV_i\right)^2}{Dep_i}\right)}{\sum_{i=1}^{I} WDV_i}$$

where WARL is the weighted average life for the asset class in question, RL_i is the remaining life for the i-th asset at the start of 2011/12 (there being I assets in total), WDV_i is the written down tax value for the i-th asset at the start of 2011/12 and Dep_i is the tax depreciation allowance that would apply for the i-th asset for 2011/12.

Figures 1 and 2 reproduce the relevant output from Envestra's initial TAB model for South Australia and Queensland that shows our calculation of the different diminishing value rates that had been used and into which the pre-2011/12 assets can be grouped, and our calculations of the weighted average remaining lives for the prime cost depreciated assets for each or the asset classes employed by Envestra. As explained above, Envestra prepared the model for deriving its initial TAB as at 1 July 2011 and our role was to review the method it adopted and the calculations performed. The weighted average life calculations that are described in this section were inserted by us into the Envestra model.

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Weighted average remaining lives – Envestra SA

Asset Class Name	Initial Tax Value at 1 July 2011 $000s	Tax Lives - Average Remaining Lives
Prime cost assets		
Mains	156,988	25.10
Inlets	64,187	16.19
Meters	42,650	13.04
Telemetry	2,100	6.85
IT Systems	132	0.02
Other Distribution System Equi	3,627	15.47
Other Asset Category	4,138	6.07
Reducing balance (diminishing value) assets		
Historical 40%	0	
Historical 25%	2	
Historical 20%	1,877	
Historical 17%	0	
Historical 6%	277	
Total	**275,976**	

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Weighted average remaining lives – Envestra Qld

Asset Class Name	Initial Tax Value at 1 July 2011 $000s	Tax Lives - Average Remaining Lives
Prime cost assets		
Mains	86,942	23
Inlets	24,119	16
Meters	12,516	13
Telemetry	345	8
IT Systems	255	1
Other Distribution System Equi	1,864	18
Other Asset Category	820	7
Reducing balance (diminishing value) assets		
Historical 40.5%	0	
Historical 25.5%	0	
Historical 20%	139	
Historical 19.5%	194	
Historical 12%	1	
Historical 10.5%	816	
Historical 10%	2,095	
Historical 9%	5	
Historical 8.9%	58	
Historical 7.5%	120	
Historical 7.1%	4	
Historical 6%	104	
Historical 3.8%	2	
Historical 3.6%	2	
Historical 3.5%	46	
Historical 3%	764	
Total	**131,213**	

We note for completeness that some of the reducing balance groups for the Queensland business have an immaterial written down value and further that a number of the historical reducing balance rate-classes could be grouped with little impact on the final calculation.

5. Regulatory tax loss calculation

We were also engaged by Envestra to ascertain whether Envestra should be assumed to have a tax loss for regulatory purposes to carry over into the 2011/12-2015/16 access arrangement period from the earlier access arrangement periods.

It is appropriate for the calculation referred to above to be derived as a notional calculation, that is, one that reflects the relevant regulator's assumptions about the firm's financing arrangements (stock of debt and applicable interest rate), revenue and expenditure. Undertaking a notional calculation ensures that there is consistency across the various input assumptions that regulators have adopted (such as the regulatory WACC). This method also proxies for the approach that would have applied if a post tax regime had applied all along to these assets.

Our calculation has proceeded as follows.

- First, we have obtained information from the relevant regulators' decision documents of financial models for the previous two access arrangement periods for the South Australian and Queensland businesses on the key variables, namely:

  - Revenue;

  - The projected regulatory asset base, gearing assumption and assumed cost of debt – which collectively determine the benchmark annual interest deduction; and

  - Operating expenses.

  We note that the first regulatory decision for South Australia did not disclose the debt margin that it assumed in its WACC calculation. We have assumed a debt margin of 1.55 per cent, which was the value that was used by the QCA in its 2001 decision on Envestra's Queensland gas distribution business. We have also assumed a benchmark tax loss position at the commencement of regulation of zero.

- Secondly, we have sourced the annual tax depreciation allowance from the Envestra tax roll forward models described in section 3 above.

- Thirdly, we have calculated the annual income for company tax purposes (and associated tax liability) on the assumption that any tax losses would be carried forward for future periods.

The results of our analysis are that both Envestra's South Australian and Queensland businesses would have been in a 'benchmark' tax paying position in 2010/11 and so there would not be any accumulated tax losses to be carried forward to the 2011/12 to 2015/16 access arrangement period.

We note that the calculations below were performed on the basis of the forecasts that were contained within the relevant regulator's final decision or financial model and that we have not adjusted for any difference between forecast and actual values for inflation, revenue, operating expenditure, the cost of debt or the regulatory asset base (the tax depreciation values reflect actual

outcomes). However, we have tested the effect of modest changes to the inputs in the tax loss calculation and our finding (namely that no tax losses would remain from earlier periods) remains unchanged.

Benchmark Taxable Income – South Australia

Tax calculation

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
Revenue	104.80	108.00	110.80	114.30	117.90	121.98	128.94	133.72	141.02	147.91	
Opex	36.61	37.28	37.68	39.03	40.48	56.62	59.54	60.31	63.07	64.67	
Interest	28.10	29.11	29.95	30.72	31.46	36.28	39.02	40.59	42.68	44.52	
Tax depreciation	11.78	11.88	12.29	13.07	13.09	12.90	13.12	13.20	14.33	16.13	
Tax losses carried forward	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Taxable Income	28.31	29.73	30.87	31.48	32.87	16.18	17.26	19.62	20.95	22.59	
Tax payable	**8.49**	**8.92**	**9.26**	**9.44**	**9.86**	**4.85**	**5.18**	**5.89**	**6.28**	**6.78**	

Benchmark Taxable Income – Queensland

Tax calculation

	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	
Revenue	29.70	31.40	33.20	34.90	36.70	36.71	39.03	41.56	44.19	46.77	
Opex	10.42	10.63	10.84	11.06	11.27	16.14	16.25	16.76	17.15	17.49	
Interest	8.12	8.70	9.26	9.81	10.39	9.42	10.02	10.72	11.41	12.01	
Tax depreciation	5.21	5.32	5.55	5.49	5.45	6.45	7.66	8.21	8.95	8.80	
Tax losses carried forward	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.00**
Taxable Income	5.95	6.75	7.55	8.54	9.59	4.71	5.10	5.87	6.67	8.47	
Tax payable	**1.78**	**2.03**	**2.26**	**2.56**	**2.88**	**1.41**	**1.53**	**1.76**	**2.00**	**2.54**	

6. Declarations

As a professional services firm, PwC has an ongoing relationship with Envestra. PwC audits Envestra, advises it in relation to taxation matters and has provided advice to Envestra in relation to both previous and the forthcoming regulatory review. Further details of PwC's relationship with Envestra can be provided if necessary.

We confirm that, in preparing this report, we have made all the inquiries that we believe are desirable and appropriate and that no matters of significance that we regard as relevant have, to our knowledge, been withheld. We have been provided with a copy of the Federal Court's Guidelines for Expert Witnesses in Proceeding in the Federal Court of Australia and this report has been prepared in accordance with those Guidelines.

Appendix C sets out the curriculum vita of the authors of this report.

* * *

PRICEWATERHOUSECOOPERS

29 September 2010

Should you have any questions in respect to the above mentioned analysis, please do not hesitate to contact the authors below on 08 8218 7450 or 03 8603 4973.

Yours sincerely,

Scott Bryant
Partner

Jeff Balchin
Executive Director

PricewaterhouseCoopers is committed to providing our clients with the very best service. We would appreciate your feedback or suggestions for improvement. You can provide this feedback by talking to your engagement partner, calling us within Australia on 1300 792 111 or visiting our website http://www.pwcfeedback.com.au/

Appendix A

Terms of Reference

JOHNSON WINTER & SLATTERY

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9 June 2010

Mr Scott Bryant
PricewaterhouseCoopers
91 King William Street
ADELAIDE SA 5000

Dear Mr Bryant

Envestra Limited – South Australian and Queensland Access Arrangement Reviews

We act for Envestra Limited in relation to the AER's review of Envestra's Access Arrangement for South Australia and Queensland.

Envestra Limited wishes to engage you to prepare an expert report in connection with the AER's review of Envestra's Access Arrangement for South Australia and Queensland.

This letter sets out the matters which Envestra Limited wishes you to address in your report and the requirements that report must comply with to be capable of use in the AER review.

Background

The terms and conditions upon which Envestra provides access to its network are subject to five yearly reviews by the AER.

The AER undertakes that review by considering the terms and conditions proposed by Envestra against criteria set out in the National Gas Law and National Gas Rules. The matters that will be considered by the AER include the determination of the tax asset base for Envestra Limited's South Australian and Queensland distribution systems.

Envestra wishes to engage you to provide an expert report on:

(a) whether the methodology used by Envestra to establish its tax asset base in its access arrangement proposal satisfies and is consistent with the requirements of the National

Gas Law and National Gas Rules and the guidance provided by the AER in the following papers:

- "Electricity Distribution Network Service Providers: Transition of Energy Businesses from Pre-tax to Post-tax Regulation", dated June 2007; and
- "Matters Relevant to Distribution Determinations for ACT and NSW DNSPs for 2009-2014: Post tax revenue model, Roll forward model, Efficiency Benefit Sharing Scheme, Service Target Performance Incentive Scheme, Guideline on Control Mechanisms for Direct Control Services"[1], dated November 2007; and

(b) whether Envestra has correctly applied that methodology to derive a value for the tax asset base as at 30 June 2011.

Use of Report

It is intended your report will be included by Envestra in its access arrangement submission to the AER. The report may be provided by the AER to its own advisers.

The report must be expressed so that it may be relied upon both by Envestra and by the AER.

The AER may ask queries in respect of the report and you will be required to assist Envestra in answering these queries. The AER may choose to interview the authors of the report and if so you will be required to participate in any such interviews.

The report will be reviewed by Envestra's legal advisers and will be used by them to provide legal advice to Envestra as to its rights and obligations under the National Gas Law and National Gas Rules. You will be required to work with these legal advisers and Envestra personnel to assist them prepare Envestra's access arrangement submission and submissions in response to the draft and final decisions made by the AER.

If Envestra chooses to challenge any decision made by the AER, that appeal will be made to the Australian Competition Tribunal and the report will be considered by the Tribunal. Envestra may also appeal to a court and the report would be subject to review by such court. You should therefore be conscious that the report may be used in the resolution of a dispute between the AER and Envestra as to the appropriate level of Envestra's distribution tariffs. Due to this, the report will need to comply with the Federal Court requirements for expert reports, which are outlined below.

It is also possible that should Envestra appeal the AER's decision, Envestra may require you on any such appeal to present evidence to the appeal body in explanation of your report. You should also appreciate that you may be cross-examined by other parties to the appeal in respect of your report.

You must ensure you are available to assist Envestra until such time as the Access Arrangement Review and any subsequent appeal is finalised.

Time Frame

Envestra's access arrangement submissions are due by 30 September 2010. We request that you provide your final report to us by 15 June 2010 so that we may finalise Envestra's submissions in advance of the due date.

Compliance with the Code of Conduct for Expert Witnesses

Attached is a copy of the Federal Court's Practice Note CM 7, entitled "Expert Witnesses in the Federal Court of Australia", which comprises the code of conduct for expert witnesses in the Federal Court of Australia (**the Code of Conduct**).

Please read and familiarise yourself with the Code of Conduct and comply with it at all times in the course of your engagement by Envestra.

In particular, your report prepared for Envestra should contain a statement to the effect that the author of the report has read the Code of Conduct and agrees to comply with it.

Your report must also:

1. give details of the expert's qualifications and of the literature or other material used in making the report;
2. state all of the questions or issues that the expert has been asked to address;
3. state all of the factual premises upon which the report proceeds;
4. attach to the report all documents and other materials that the expert has been instructed to consider;
5. attach to the report any photographs, plans, calculations, analyses, measurements, survey reports or other intrinsic matter referred to in the report;
6. state all assumptions of fact made by the expert in the report clearly and fully;
7. identify and state the qualifications of each person who carried out any tests or experiments upon which the expert relied in compiling the report;
8. state the reasons for the opinions given by the expert witness, and summarise them where several opinions are given;
9. state, if the expert's opinion is not fully researched because the expert considers that insufficient data is available, or for any other reason, that the opinion is no more than a provisional one; and
10. make it clear when a particular question or issue falls outside the relevant field of expertise.

It is also a requirement that the report be signed by the expert and include a declaration that the expert has made all the inquiries which the expert believes are desirable and appropriate and that no matters of significance which the expert regards as relevant have, to the expert's knowledge, been withheld from the report.

Envestra will request the principal author of the report to sign a statutory declaration to the effect that the Code of Conduct has been complied with. This is to ensure that your report carries maximum weight and probative value and will be suitable to rely upon in any subsequent court proceedings.

Please also attach a copy of these terms of reference to the report.

Terms of Engagement

Your contract for the provision of the report will be directly with Envestra Limited. You should forward to Envestra Limited any terms you propose govern that contract as well as your fee proposal. Your invoices for the production of the report are to be addressed and sent to Envestra Limited.

Contact with us

We request that you contact us or Envestra Limited by telephone in the first instance to discuss any requests for the provision of data or your preliminary conclusions. All enquiries to Envestra Limited should be made to Craig de Laine on 8418 1129 or craig.delaine@envestra.com.au.

Please sign a counterpart of this letter and forward it to Envestra Limited to confirm your acceptance of the engagement by Envestra.

Yours faithfully

Johnson Winter & Slattery

Enclosed: Federal Court of Australia Practice Note CM 7, "Expert Witnesses in Proceedings in the Federal Court of Australia"

....
Signed and acknowledged on behalf of

Date ....

Appendix B

Envestra Methodology Paper

Explanatory Paper

Methodology for Transitioning to the Post Tax Revenue Model in South Australia and Queensland

Envestra Limited

May 2010

1. Background

Rule 72(1)(h) of the National Gas Rules (NGR) requires that an "*access arrangement information for a full access arrangement proposal (other than an access arrangement variation proposal) must include.... [1]the proposed method for dealing with taxation, and a demonstration of how the allowance for taxation is calculated*". Rule 76 provides that total revenue must be established including "*the estimated cost of corporate income tax for the year*".

There are two ways that the estimated cost of corporate income tax can be incorporated into the determination of total revenue. The first is by applying a pre-tax regulatory framework to determining total revenue. Under this approach the cost of tax is directly incorporated into the weighted average cost of capital (WACC) used to determine the rate of return component of total revenue. The pre-tax approach is currently applied in South Australia.

The second approach is by applying a post-tax regulatory framework, which involves specifically forecasting the tax liabilities of the business. This requires determining a tax asset base (TAB), forecast taxable income and the value of imputation credits in order to forecast a benchmark tax liability for the business. A post-tax WACC is applied to determine the rate of return. The post-tax approach is currently applied in Queensland.

The NGR do not stipulate whether a pre-tax or post-tax approach should be used to determine total revenue. However, the AER strongly prefers that a post-tax approach be used to estimate the cost of corporate income tax. Envestra therefore intends to adopt this approach for determining total revenue for both South Australia and Queensland.

In the case of South Australia this will require developing arrangements to transition from a pre-tax approach to a post-tax approach. The principal issue to facilitate this transition is to establish a regulatory TAB as at the end of the current regulatory period (30 June 2011). The TAB is relevant for the purposes of determining the tax depreciation input used in calculating taxable income.

While the previous Regulator in Queensland applied a post-tax approach, it did so in a manner that is not consistent with the approach used by other regulatory bodies, including the Australian Energy Regulator (AER). For example, there was no TAB set for the current period as tax depreciation was set to equal regulatory depreciation. Envestra therefore also needs to set a TAB in Queensland.

The purpose of this Paper is to outline the methodology used by Envestra to calculate the TAB to be used in the AER's Post Tax Revenue Model (PTRM) for preparing Envestra's Access Arrangement Revisions effective from 1 July 2011. This paper sets the methodology used for both South Australia and Queensland.

2. Outline of Methodology

The AER has provided significant guidance to those businesses transitioning from a pre-tax to a post-tax approach. Envestra has followed this guidance in setting its TAB, which value has been specifically determined having regard to the guidance provided by the AER in:

[1] Rule 72(1)(h) specifically referenced from this point

- its paper titled: "*Electricity Distribution Network Service Providers: Transition of Energy Businesses from Pre-tax to Post-tax Regulation*"[2], dated June 2007; and

- its paper titled: "*Matters Relevant to Distribution Determinations for ACT and NSW DNSPs for 2009-2014: Post tax revenue model, Roll forward model, Efficiency Benefit Sharing Scheme, Service Target Performance Incentive Scheme, Guideline on Control Mechanisms for Direct Control Services*"[3], dated November 2007.

The June 2007 paper (pg. 53) stated that:

"The tax base should, where possible take into account the actual tax position of assets that constitute the RAB. The tax base can be established with the following information:

- *The date the business was first subject to tax (or the national tax equivalence regime (NTER));*

- *The tax value of assets at that date, in sufficient detail to distinguish RAB [regulatory asset base] assets from any non-RAB assets;*

- *The vintage profile of the RAB assets when first subject to tax including any capex that took place prior to the commencement of regulation; and*

- *The tax base established when first subject to tax can then be rolled forward to the commencement of the post-tax approach taking account of relevant tax depreciation provisions, actual capex and disposals.*

Further to this, the November 2007 paper (pg. x) re-iterated that:

> *The AER proposes to establish appropriate values for the tax base in light of the specific circumstances of each business. One of the most notable influences concerns business ownership. The proposed approach involves taking the value of a firm's assets for tax purposes when it first became subject to tax, and rolling these values forward to the date when a post-tax approach is to apply, taking account of relevant tax depreciation rules and actual capex and disposals.*

Envestra's approach satisfies all such guidance provided by the AER on establishing the TAB. Envestra was formed in August 1997. Given this, Envestra has taken the value of its TAB at the closest and most practical starting point that accords with the first year that Envestra became subject to taxation. The starting date is 1 July 1997 in the case of South Australia and 1 July 1998 in the case of Queensland (1 July 1998 is the earliest available tax asset register available for Queensland).

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[2] Appendix A of:

http://www.aer.gov.au/content/item.phtml?itemId=719156&nodeId=dc01485fb21058c5bc17b7c150965b5f&fn=Preliminary%20positions%20paper%20(November%202007).pdf

[3]

http://www.aer.gov.au/content/item.phtml?itemId=719156&nodeId=dc01485fb21058c5bc17b7c150965b5f&fn=Preliminary%20positions%20paper%20(November%202007).pdf

This information, along with the vintage profile of assets, is taken directly from the tax asset registers for both states at this time. The tax asset registers were used to compile Envestra's 1997/98 tax return and financial statements and were subject to audit, and as such, have a high level of integrity.

Envestra has rolled-forward its tax asset base from 1 July 1997 for South Australia and 1 July 1998 for Queensland up until to 30 June 2011 (the end of the current Access Arrangement period) using a roll-forward method that:

- adopts the vintage profile of assets as at the corresponding "start dates" for South Australia and Queensland (as outlined above);
- includes additions/disposals from the audited statutory financial statements for 1997/98 in the case of South Australia (as no regulatory information was available) and regulatory additions/disposals for both states thereafter; and
- calculates depreciation on the starting TAB value based on depreciation rates/methods set out in the tax asset register and for additions based on the prime cost depreciation method and effective lives as per accepted tax laws at the applicable time.

In order to complete the roll-forward, Envestra has used the following information sources:

- tax asset register at the start dates of 1 July 1997 for South Australia and 1 July 1998 for Queensland;
- the audited statutory financial statements from the start date of 1 July 1997 to 30 June 1998; and
- regulatory accounting information from 1 July 1998 to 30 June 2011.

This approach is discussed in more detail in the remainder of this paper.

3. Establishing the Starting Value

As outlined above, Envestra has applied its "start date" as the date that most closely corresponds to when Envestra first became subject to taxation and for where information are available. Envestra has a tax asset register as at 1 July 1997 for South Australia and for 1 July 1998 for Queensland. Envestra has therefore used the available information most closely corresponding with August 1997 as the basis for its "starting position" for each state.

Envestra's tax asset registers have been maintained on a Preceda asset register system and have a high level of integrity. They are reviewed annually by PriceWaterhouseCoopers via their annual review of Envestra tax returns. The registers include all assets in Envestra networks including all assets pre-dating the 1 July 1997 and 1 July 1998 "start dates" along with information pertaining to the remaining useful life of those assets.

4. Capital Expenditure and Disposals

Envestra has relied on both statutory and regulatory information for the purpose of determining the capital expenditure and disposals for inclusion in the TAB. In particular, for:

- 1 July 1997 to 30 June 1998 – for South Australia, additions and disposals are taken from the audited statutory financial statements;

- 1 July 1998 to 30 June 2005 – regulatory additions and disposals taken directly from the amounts used by the previous state regulators to roll-forward the regulatory asset base (RAB) up to the year prior to the commencement of the current regulatory period;
- 1 July 2005 to 30 June 2009 – regulatory additions and disposals taken from the audited regulatory accounting statements submitted to the regulator; and
- 1 July 2009 to 30 June 2011 – forecast additions and disposals based on the same information used to adjust the RAB (that is, regulatory information).

In summary, the additions and disposals included in the TAB are consistent with the additions and disposals included in the RAB for all but 1997/98 in South Australia where that information is not available. Furthermore, the TAB uses gross capital expenditure while only net capital expenditure is included in the RAB.

Finally, the Queensland Competition Authority (QCA) only provided total capital expenditure for 2000 and 2001. Envestra has allocated this total capital expenditure to asset categories according to the average proportion of expenditure by asset category over the remainder of the 2001/02 to 2005/06 regulatory period.

The resultant capital expenditure for South Australia and Queensland is set out in the below tables.

There have been no disposals removed from the RAB in South Australia. The QCA removed from the additions included in the RAB $0.01 million in disposals for each year of the 2001/02 to 2005/06 regulatory period. This reduction is included in the gross capital expenditure amounts set out in table 2.

Table 1: Capital Expenditure Included in the TAB for SA, 1997/98 to 2010/11 ($'000)

	1997/98	**1998/99**	**1999/00**	**2000/01**	**2001/02**	**2002/03**	**2003/04**
Mains	8,481	13,912	15,216	11,848	14,644	10,280	6,447
Inlets	2,903	3,919	4,359	5,116	5,050	4,901	6,187
Meters	3,798	4,144	4,017	5,046	5,110	5,196	4,481
Other Distribution Equipment	55	0	0	0	701	0	0
RDL/Telemetry	0	0	0	0	186	6	121
Information Technology	35	0.592	7	1,113	37	3	68
Other Assets	0	1,580	1,354	0	824	51	3,553
Total	**15,272**	**23,556**	**24,953**	**23,123**	**26,552**	**20,436**	**20,856**

Table 1 (continued)

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Mains	8,230	10,684	13,860	15,400	17,603	14,575	24,840
Inlets	6,876	7,957	9,846	10,363	9,861	9,799	10,840
Meters	4,080	4,691	5,281	6,832	6,777	6,886	6,993
Other Distribution Equipment	199	423	637	917	232	430	335
RDL/Telemetry	717	219	333	1,052	0	0	0
Information Technology	146	262	994	826	664	928	792
Other Assets	655	865	1,243	762	0	0	1,475
Total	**20,902**	**25,101**	**32,195**	**36,152**	**35,137**	**32,617**	**45,273**

Table 2: Capital Expenditure Included in the TAB for Qld, 1998/99 to 2010/11 ($'000)

	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04
Mains	8,630	6,356	5,657	6,208	5,024	6,414
Inlets	1,228	1,848	1,645	1,807	2,105	2,073
Meters	977	1,493	1,328	1,555	1,861	1,752
Other Distribution Equipment	99	17	15	30	50	0
RDL/Telemetry	0	0	0	0	0	0
Information Technology	120	53	47	20	50	50
Other Assets	0	195	174	40	380	170
Total	11,054	9,962	8,866	9,660	9,470	10,460

Table 2 (continued)

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Mains	7,389	10,933	8,095	6,491	10,602	11,454	11,885
Inlets	1,981	2,086	3,045	4,599	4,407	3,661	4,371
Meters	1,309	1,567	1,433	1,983	1,821	1,623	1,929
Other Distribution Equipment	0	0	0	0	261	28	123
RDL/Telemetry	0	0	7,366	2,040	0	0	0
Information Technology	90	93	0	107	599	501	710
Other Assets	140	372	100	139	0	0	376
Total	**10,910**	**15,051**	**20,039**	**15,361**	**17,690**	**17,267**	**19,393**

5. Segregation of Assets

Segregation of assets between reference and non-reference services is relevant for tax depreciation calculations, in particular to ensure that only assets involved in the provision of reference services are included in the opening TAB as at 1 July 2011.

Envestra's opening TAB as at 1 July 1997 and 1 July 1998 do not include any assets used in the provision of non-reference services.

In terms of additions, the 1997/98 statutory information does not accurately record assets purchased for the purposes of providing non-reference services. While Envestra cannot discount the possibility that some assets were purchased for this purpose, it is likely that these assets were of a low value. Envestra will assume that the 1997/98 additions were for assets involved in the provision of reference services. This is a conservative assumption. In the event that the 1997/98 additions did contain some assets used in the provision of non-reference services, the tax asset base will be overstated.

For the remainder of the period, regulatory information was used as the basis for additions to the TAB, which information accurately segregates additions between reference and non-reference services.

6. Effective Tax Lives

The Envestra tax asset register sets out the remaining tax effective lives in respect of the starting tax asset value at 1 July 1997 and 1 July 1998. These lives will be used to roll forward the starting asset value through to 30 June 2011.

The tax effective lives in respect of additions are based on Australian Tax Office rulings and guidelines at the time that assets were first installed ready for use in the operation of the distribution network in South Australia and Queensland. Additions will be assumed to occur mid-year.

7. Tax Depreciation Method

Tax depreciation has been based on the principles used by Envestra to complete its audited tax returns.

For assets that were in place prior to 1 July 1997 in South Australia and 1 July 1998 in Queensland, the method of tax depreciation and the remaining life for the asset is as per the tax asset register. This method included a mixture of prime cost and reducing balance (diminishing value) approaches depending on when the asset was capitalised (which was subject to the PWC audit process described earlier). The 1 July 1997 starting value has therefore been adjusted in a manner that is consistent with the approach used by Envestra for its tax returns.

From 1 July 1997 and 1 July 1998, tax depreciation has been calculated on a prime cost basis for all assets as per the Tax Commissioner's safe harbour effective lives and or the Tax Commissioner's 20 year cap as it has applied.

Section 89(1) (d) of the NGR states that "*the depreciation schedule should be designed… so that (subject to the rules about capital redundancy), an asset is depreciated only once (ie that the amount by which the asset is depreciated over its economic life does not exceed the value of the asset at the time of its inclusion in the capital base (adjusted if the accounting method approved by the AER permits, for inflation))"*.

Envestra considers that its approach to calculating tax depreciation is consistent with this requirement.

8. Tax losses

Envestra will conduct modeling to determine whether there are tax losses required to be carried forward at 30 June 2011. To the extent there are tax losses at 30 June 2011, the losses will be incorporated into the regulatory revenue calculation under the PTRM for the 2011/12 to 2015/16 regulatory period.

Appendix C

Curriculum Vita

Scott Bryant

Partner – Tax & Legal

Scott specialises in Corporate and International Taxation, including FBT. With over 20 years of experience Scott has a keen understanding of taxation advice and compliance relating to Corporate and International taxes, capital structures, mergers, acquisitions and floats/sales as well as corporate restructures and managing ATO audits for his clients.

While now based in Adelaide, Scott has also worked both in Melbourne, and Canberra advising listed and large private companies with a focus on Resources (upstream and downstream), Infrastructure, Utilities and major projects including privatisation and tax due diligence related assignments.

Accordingly, Scott has deep experience and an excellent understanding of the taxation, financial and commercial drivers for the successful management of utility and resources infrastructure, property and plant and equipment, both at a domestic and international level.

Qualifications

- LLB, BEc, GDLP
- Barrister / Solicitor in Supreme Court of SA
- Fellow of Taxation Institute of Australia
- Associate Member of Institute Of Chartered Accounts

Other relevant general experience

Scott is a regular presenter of taxation related papers and topics both locally and nationally, is a Fellow of the Taxation Institute of Australia, a former Chairman of the TIA – Technical & Legislative sub-committee, former member of the TIA Education Committee, and serving member of SA State Council.

Jeff Balchin

Executive Director

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Jeff is an economist in the PwC Economics team. Jeff has over 17 years of experience in relation to economic regulation issues across the electricity, gas, airports, ports and water industries in Australia and New Zealand. He has advised governments, regulators and major corporations on issues including the development of regulatory frameworks, regulatory price reviews, licensing and franchise bidding and market design. Jeff has also undertaken a number of expert witness assignments. His particular specialities have been on the application of finance principles to economic regulation, the design of incentive compatible regulation and the drafting and economic interpretation of regulatory instruments. His experience is outlined below in more detail.

Prior to joining PwC Jeff was a Director with the Allen Consulting Group, where he built a consulting practice with a strong specialisation in the economic regulation of price and service and prior to that he held a number of policy positions in the Commonwealth Government.

Qualifications and professional/business associations

- Bachelor Economics (First Class Honours) University of Adelaide

Relevant Experience

- *Strategic advisor to regulators and regulated businesses* – he has been a strategic adviser on economic regulation issues to regulators during a number of major price reviews, including the Victorian 2008, 2003 and 1998 gas distribution price reviews, the Victorian 2006 and 2001 electricity distribution price reviews, the South Australian 2006 gas distribution price review and the South Australian 2005 electricity distribution price review. He has also been retained by regulated businesses to provide strategic advice during major regulatory reviews, including to the electricity transmission businesses during the AEMC review of the revenue setting rules (2005/6), Jemena during its current gas and electricity reviews and a major NZ energy business and airport.
- *Finance issues* – he has provided advice on a range of finance issues to regulators and regulated businesses, including a major review of equity betas for the ACCC in 2001, a further study for the Victorian ESC in 2008 and then for the network industry associations in 2008/9. He has also advised on benchmark cost of debt and credit rating issues for regulated entities. He has provided extensive advice to NZ utilities in relation to deriving an allowance for taxation that is consistent with the various 'benchmark' assumptions made by the regulator. He has also provided substantial advice in relation to regulatory asset valuation and depreciation issues. He has also advised in relation to cost allocation issues (and the related issue of treatment of related party arrangements) to regulators and regulated businesses.
- *Cost benefit studies* – he has advised in relation to methodological issues in quantifying the economic costs and benefits of electricity transmission investment during applications for conversion of unregulated transmission interconnectors, and more recently advised the AEMC on how the CPRS and expanded RET should be treated when assessing the costs and benefits of projects. He has also advised in relation to the economic benefits of IT projects to make expanded use of advanced metering infrastructure.
- *Incentive regimes* – he has advised on the design of incentives for regulated businesses to minimise cost, undertake efficient service improvement and on the design of price controls (an objective of which is to create an incentive for firms to structure prices efficiently).

Liability limited by a scheme approved under Professional Standards Legislation