

Submission to the
Australian Energy Regulator

In response to

Draft Determination 2009-14
Alternative Controls (Public Lighting)

Prepared by



Trans Tasman Energy Group

Level 2, 200 Alexandra Pde., Fitzroy, VIC 3065
Ph: 9418 3907 email: info@tteg.com.au

On behalf of:

Blacktown City Council

Liverpool City Council

Blue Mountains City Council

Manly City Council

Fairfield City Council

Penrith City Council

Hawkesbury City Council

The Hills Shire Council

March 2009

Foreword

The participating councils welcome the opportunity provided by the AER's "New South Wales draft distribution determination 2009-10 to 2013-14 Alternative control (public lighting services)", (the Paper) of 6 March 2009 and appreciates the AER's efforts to assist Public Lighting Sector development by establishing fair and reasonable public lighting tariffs for the next regulatory period.

Participating Councils and Views

This submission has been prepared by Trans Tasman Energy Group (TTEG), to represent the combined interests of the participating councils. The views expressed are those of the authors and do not necessarily represent the views of any individual council.

- Blacktown City Council
- Blue Mountains City Council
- Fairfield City Council
- Hawkesbury City Council
- Liverpool City Council
- Manly City Council
- Penrith City Council
- The Hills Shire Council

Submission Objective

The participating councils have an objective to assist the assist the AER in establishing fair and reasonable public lighting charges for the 2009-14 period.

We trust our Submission and the issues we have raised will positively contribute to the AER's process.

Timing

We understand the requirement for tight timelines (two weeks) imposed by the AER but trust the AER appreciates that the tight timeframe limits the comprehensiveness of our response.

We have therefore focussed on issues with a major impact on establishing fair DNSP tariffs.

About Trans Tasman Energy Group (TTEG)

TTEG Consultants provide specialist energy sector advice including commercial, environmental and regulatory aspects pertaining to Public Lighting.

In Australia TTEG currently act as public lighting consultants to over one hundred council municipalities and road authorities in Victoria, South Australia and New South Wales.

More Information?

The AER is invited to seek further comments on any points in this Submission from:

Trans Tasman Energy Group Consultants
200 Alexandra Parade, Fitzroy Vic 3065
Ph: 9418 3907
Fax: 9418 3940
Email: info@tteg.com.au

Attn: Mr Craig R Marschall, Principal Consultant

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GLOSSARY

ACCC	Australian Competition and Consumer Commission
AER	Australian Energy Regulator
CAPEX	Capital expenditure
CE	Country Energy
Code	Public Lighting Code, NSW
CLER	Customer Light Equipment Rate (Customer capex)
CPI	consumer price index
DNSP	Distribution Network Service Provider
DORC	Optimised Depreciated Replacement Cost
EA	Energy Australia
EDPD	Electricity Distribution Price Determination
EDPR	Electricity Distribution Price Review
ESCV	Essential Services Commission, Victoria
ESCOSA	Essential Services Commission of South Australia
ETSA	ETSA Utilities (South Australian DNSP)
GSL	Guaranteed Service Level
HPS	High Pressure Sodium Lights
IE	Integral Energy
IPART	Independent Pricing and Regulatory Tribunal
MDA	Meter Data Agent
MUT	Maximum Uniform Tariff
MV	Mercury Vapour Lights
NER	National Electricity Rules
ORG	Office of the Regulator-General
Paper	AER Draft Determination 2009-14, Alternative Controls (Public Lighting), March 2009
PE	photoelectric cell
PLC	Public Lighting Code, Victoria
RAB	Regulatory Asset Base
SECV	State Electricity Commission Victoria
T5	T5 Fluoro luminaires
TTEG	Trans Tasman Energy Group Consultant

1. Summary

We welcome the opportunity provided by the AER to respond to its "New South Wales draft distribution determination 2009-10 to 2013-14 Alternative control (public lighting services)", (the Paper) of 6 March 2009.

Public lighting charges can be complex to establish. We recognise and appreciate the AER's efforts to date in establishing NSW public lighting charges. As NSW is the first jurisdiction to have public lighting charges determined by the AER we trust our Submission and the assessments we have provided will assist the AER in their process of establishing fair and reasonable public lighting charges in NSW for the 2009-14 period.

This submission has been prepared by Trans Tasman Energy Group to represent the interests of the participating councils. The views expressed are those of the authors and do not necessarily represent the views of any individual council.

In providing this Submission we have called on our experience both within Australia (particularly SA and Victoria) and internationally from New Zealand.

Key assessments from our submission include:

ASSET COSTS

1) Fair RAB

The cost of assets is a major component of the DNSP's public lighting charges.

The value of Country Energy's proposed 1 July 2009 opening RAB appears to be not unreasonable if all assets are included – that is there are no 'non contributed' assets.

The RABs proposed by IE and EA do not however appear reasonable.

Considering the inventories for each DNSP, we would expect a reasonable 1 July 2009 RAB should approximate the values established in the following table:

Opening RABs 1 July 2009 (\$m, nominal)

<u>DNSP</u>	<u>Initial</u>¹	<u>DNSP Rev</u>²	<u>AER</u>³	<u>Fair</u>
Country Energy	15.0	15.9	15.3	15.9
EnergyAustralia	139.2	111.3	110.8	34
Integral Energy	37.3	37.5	37.7	23

We therefore request the AER to reassess the RAB's as proposed by EA and IE based on the information provided in this submission - section 5.3.2 Regulated Asset Base.

NOTE: Actual inventory data including new lights and retirements needs to be made to councils on a regular basis by DNSPs.

¹ Table 17.4 Draft Decision January 2009

² Table 3.4 Draft Decision March 2009

³ Table 3.4 Draft Decision March 2009

2) "Non contributed' and gifted assets

The DNSP's RABs may include asset 'costs' which should be treated as 'customer contributions' as the DNSP has not paid for these assets - that is they are 'non contributed'.

The 'non contributed' assets in consideration are those established by the smaller regional electricity networks prior to the establishment of the corporatised DNSPs.

If 'non contributed' assets are to be excluded then the RAB should be decreased by up to 23%.⁴

Our views are expanded in section 5.3.2 Regulated Asset Base.

3) Annual Capex

The annual capex provided by the DNSPs for the period 2004/5 to 2008/9 all appears reasonable in terms of % of their proposed asset base, but the annual capex needs to be considered in terms of a fair RAB as also shown in the table.

DNSP	DNSP Proposed			Fair RAB		
	RAB	\$ p.a.	%	RAB	\$ p.a.	%
Country Energy	15.9	2	13%	15.9	2.0	13%
EnergyAustralia	111.3	12	11%	34	4.5	13%
Integral Energy	37.5	5	13%	23	2.9	13%

EA's average expenditure would have seen around 30,000 luminaires replaced/installed p.a. over the past 4 years ie an estimated 120,000 lights over the 4 year period which represents around half their inventory.

Our views are expanded in section 5.3.2 Regulated Asset Base.

4) Asset life

Luminaires at 20 years and poles/brackets at 35 years and columns at 40 years would see the average life at around 28 years – not 20 years, as has been adopted for various assessments within the Paper.

The AER should adopt 28 years as representing a fair 'half life' for assets.

Our views are expanded in section 5.3.2 Regulated Asset Base

5) Capex Allocation

The AER should require a consistent approach for capex allocation for all DNSPs, based on actual efficient costs and consistent with Australian Tax Accounting standards.

If possible, the AER should use the DNSPs' actual tax accounting records.

6) Asset component costs

We note that costs for components vary between DNSP's. In considering efficient costs, should not the lowest cost be considered for all DNSPs or at least a cost approaching the lowest cost?

If DNSPs are not purchasing at the lowest cost (or somewhere near it) why should customers be penalised?

⁴ Allowing for all assets prior to 1996 to be treated as 'non contributed'.

7) Cost Visibility

We support the AER's views regarding the charges in the Paper's table 4.4 but we are not clear how the cost has been split between luminaire and bracket and also how the asset lives have attributed to those splits.

Clarification of the components in the Paper's table 4.4 is required.

8) WACC

We consider the WACC a fair and reasonable approach and accept the AER's approach to adopting the WACC established for standard control services for the 2009-14 regulatory period. It is however critical that the WACC is only applied to actual expenditure.

9) DORC

We support the AER's approach to rejecting any approach by a DNSP proposing depreciated optimized replacement cost (DORC) as an effective mechanism to establishing asset costs as by its nature it is not a true reflection of the actual cost incurred in providing the asset.

MAINTENANCE

10) Maintenance charge component

We expected the annual maintenance charges in AER Table 3.7 to be reflected in the proposed 2009/10 rates for tariff class 2 and 4 as they exclude any capex.

We however notice in the DNSP's tariff tables that all proposed tariff are significantly higher than the bulk replacement rate in Table 3.7.

An example is for an MV80 light which should be amongst the cheapest to maintain at less than \$15.75 p.a.⁵. – yet the following tariffs have been proposed: ~ \$42 (IE) to \$48 (CE).

Based on the DNSP's proposed tariffs, it would be cheaper to undertake a full bulk replacement each year.

It would appear that the DNSP has allowed the full bulk replacement cost in one year rather than averaging over the 3 year change out period? If so, we expect the DNSP's proposed rates for all other tariff classes may therefore also be inflated in a similar manner?

The DNSP's proposed tariffs require investigation and rectification for the maintenance component as they are not in line with AER Table 3.7 or a fair and reasonable charge.

Based on our analysis a reduction in excess of 60% of the DNSP's proposed tariff would reasonably be expected.

11) Bulk replacement

The 3 year bulk replacement program in NSW is less than the 4 years for other jurisdictions. We propose 3.5 years as a minimum and 5 years to be considered for HPS lights. The longer period would see the maintenance component cost decrease by around 17%.

NOTE: There is currently no mechanism for tracking but concerns have been raised that the current 3 year interval may not actually be being achieved by DNSPs. The longer interval combined with a tracking process would be acceptable.

⁵ (IE) identified in Table 3.7

TARRIF CLASSES

12) Tariff class

We strongly support the AER's approach to recognising tariff classes determined by funding rather than ownership.

This approach is consistent with South Australian CLER (Customer Lighting Equipment Rate) where the capex has been provided by the customer.

13) Simplification of Tariffs

In considering all jurisdictions the price lists provided by NSW DNSPs is the most complicated and could certainly benefit from rationalisation of number of line items and presentation of tariffs with a brief description in addition to any DNSP codes.

14) Post 2009 tariffs – Class 3

To provide clarity, the maintenance⁶ and asset (annuity) charge components for tariff class 3 should be shown separately.

Furthermore, as luminaires, brackets and columns may not be replaced simultaneously a requirement exists for separate charges because of the different asset lives. The annuity cost component for assets installed from July 2009 must be split between luminaires (20 years) and brackets/poles (35 years) and columns (40 years).

All components can then be summated to provide a single tariff.

Our views are expanded in section 6.4.1 Annuity Model.

OTHER

15) Early Replacement

We support the AER's approach (Paper cl 4.4.3) in recognising that the prime consideration for any costs regarding early retirement of lights should be *'did the DNSP provide the capital funding?'* If not, then the DNSP should not be entitled to any compensation.

Any assets 'gifted' to the DNSP or are 'non contributed' assets need to be clearly identified so that the customer is not required to pay for a residual life if the customer opts for early retirement of the light.

Ideally, the actual WDV for each light /bracket, plus the cost of removal should be the appropriate "payout" figure.

16) Price path

We support the AER's approach being until it has a full understanding of cost impacts, to apply CPI to post July 2009 lights and also maintenance (excluding capex costs) for all lights.

17) Commencement Date

We support the AER's approach that the new tariffs will apply if a customer accepts a quotation for construction of new assets from the relevant DNSP after 30 June 2009.

⁶ This rate should be the same as for tariff class 4.

18) New Asset Introduction

We support the AER's approach to the introduction of new assets over the period.

19) Contestability

The use of contractors by EA indicates that the potential for competition exists in NSW. The development of contestable options for customers is supported.

20) Review Process

We are not aware of any opportunity provided within the regulations for AER to review costs during the regulatory period.

We however submit that due to the pricing uncertainties that exist within the Paper, and the opportunities and issues outlined in our Submission, that the AER explores alternatives to enable further sector participation in establishing public lighting charges for the regulatory period that represent efficient expenditures by DNSPs.

2. Submission Outline

A brief outline of the contents our Submission is stated below.

- Section 3: In this section we provide comments regarding chapter 1 of the AER's Paper. To enable the AER to easily cross reference our Submission to the Paper we have used (as sub points) the same numbering system as used in the Paper. For example, Paper point 1.2 "Regulatory Requirements" has been included in our Submission as 3.1.2.
- Section 4: In this section we provide comments regarding chapter 2 of the AER's Paper using the same approach to numbering as per section 3 above
- Section 5: As for section 4 but in response to AER chapter 3.
- Section 6: As for section 4 but in response to AER chapter 4.
- Section 7: As for section 4 but in response to AER chapter 5.

3. Introduction

In this section we consider the Paper's chapter 1.

NOTE: Numbering as described in Section 2 of our submission.

3.1.2 Regulatory Requirements

In proposing that the 2008-9 tariffs must decrease for Country Energy (by 33%) and Energy Australia (by 6%), the Paper provides an indication that the prior mechanism for establishing tariffs was not reflective of efficient costs.

The views contained in this submission support the AER's view. Indeed we propose that tariffs must be further decreased to reflect fair and reasonable costs.

We however note that public lighting was not addressed in any depth in the Wilson Cook reports provided to the AER. As such, the AER has been required to establish and assess DNSP's costs.

We note the AER's objective to establish efficient cost for public lighting services

In the absence of competition, adopting a limited building block approach to analysis is reasonable.

We however note that EA uses contractors. On this basis EA should only be receiving a 'contract management fee' and any allocation of corporate or other overheads should be assessed on this basis and be minimal.

The use of contractors would also indicate that the potential for competition exists in NSW and that the development of a contestable option for customers is supported.

3.1.3 AER Draft Decision

The separation of charges in to pre and post 2009 should assist with the process moving forward.

In establishing an annuity approach, the AER will need to establish capex components based on asset life eg luminaires at 20 years and brackets at 35 years.

4. NSW DNSP pricing proposals

In this section we consider the Paper's chapter 2.

NOTE: Numbering as described in Section 2 of our submission.

4.2.1 Building Block

Whilst we agree that in the absence of competition that a building block approach is reasonable, we have concerns regarding the appropriateness of the inputs by the DNSPs.

Our concerns pertain to:

- 1 July 2004 RABs as proposed by DNSPs,
- subsequent treatment by DNSPs in establishing the 30 June 2009 RAB value,
- applied depreciation
- treatment of gifted assets
- maintenance costs
- maintenance intervals

Our concerns are investigated later in our submission but have been summarised by DNSP below.

4.2.2 Annuity

The AER's consideration of an annuity approach to assets after July 2009 shows merit as it provides future price certainty.

Due to time constraints we have not conducted the analysis but we have concerns that this approach may actually lead to a higher overall cost unless the inputs⁷ are appropriately considered eg costs and life of each component.

As a minimum it is appropriate to have the maintenance and asset cost components separately identified with asset costs further split based on asset age between luminaire (20 years) and poles/brackets (35 years).

All components can then be summated to provide a single tariff.

Our views are expanded in section 6.4.1 Annuity Model.

4.2.4 Country Energy

We have particular concerns regarding the following:

- The assumed 10 year life is low. If assets have been replaced at the end of their economic life then 14 years would represent a 50% life. NOTE: We do not have CE's data to conduct this analysis.
- If the life is 10 years then it would appear that CE has not been replacing assets at the end of their economic life.
- In establishing a fair charge for the customer tax benefits to the DNSP need to be considered as it impacts on the DNSP's profits.

⁷ Post Tax Revenue Handbook, ACCC, October 2001

4.2.4 Energy Australia

We have particular concerns regarding the following:

- The value of EA's asset base is exceptionally high when compared to other DNSP's, other jurisdictions and to a fair and reasonable assessment.
- Based on the data provided by EA (Paper's table 3.2), EA's annual capex 2004/5 - 2008/9 is around \$13 million p.a. and a cost of this magnitude would provide for the replacement of around 40,000 MV 80 luminaires p.a. – around 15% of EA's inventory p.a. and is clearly excessive.
- the bulk replacement program at 2.5 years, where 4 years is adopted in other jurisdictions and 3.5 years may be reasonable for NSW for the next period.

4.2.5 Integral

We have particular concerns regarding the following:

- both the value and the increase of Integral's asset base. NOTE: It will have increased around 75% from \$21 million in 2004 to \$37 million in 2008/9.
- The remaining asset life must be carefully assessed to ensure assets have been replaced at the end of their economic life- otherwise the DNSP will be receiving an asset charge on a fully depreciated asset. The 'old' asset may also lead to higher maintenance costs.
- the bulk replacement program at 3 years, where 4 years is adopted in other jurisdictions and 3.5 years may be reasonable for NSW for the next period.
- The tax treatment of gifted assets particularly requires review. Should not these assets simply be recognised by the DNSP as tariff class 2 ie capital funded by the customer?
- Any assets 'gifted' to the DNSP need to be clearly identified so that the customer is not required to pay for a residual life if the customer opts for early retirement of the light.

5. Assets prior to 1 July 2009

In this section we consider the Paper's chapter 3.

NOTE: Numbering as described in Section 2 of our submission.

5.3.1 Limited Building Block

We learn from the AER's Paper that:

The AER's objective in requiring DNSPs to apply a building block approach to existing public lighting assets is to separate existing assets from new replacement assets—given the age of the NSW DNSP's existing assets and the significant increases in replacement costs in recent times. This approach provides certainty and transparency to customers and allows the NSW DNSPs to recover a return on their investment. (our underlining)

It appears the AER has recognised that the existing assets are "aged" and has also formed a view that there has been a significant increase in public lighting costs in recent times.

We support a view that like all public lighting networks our consultants have assessed throughout Australia and New Zealand that the assets are typically below the optimised replacement of 50% of their life.

If the assets are "aged" then the AER cannot reasonably allow DNSPs to adopt a 50% life for determining asset charges as appears to have been the AER's approach.

In considering the RAB for each DNSP, important aspects are:

- Asset value
- Asset life
- Treatment of asset costs

These aspects are considered below.

5.3.2 Regulated Asset Base

Important aspects public lighting assets include columns, brackets, long pipes, luminaires plus the cost of installation.

DNSPs replace streetlight assets as they reach the end of their economic lives and the process is a continuing one. It follows that for well-managed streetlight assets we can assume that the average age of assets in general use is about half the expected economic life of those assets.

If the average asset life is less than 50% then the DNSP has not been replacing assets in a timely manner and it is not fair and reasonable for the DNSP's customers to be charged on this basis.

From the AER's Draft Decision we were advised how the RAB for DNSPs was established:

"..... the AER proposed that the asset valuation for public lighting should be derived by deducting the opening RAB from the current regulatory control period (which only included prescribed services) from the closing RAB from the 1999–04 regulatory control period (which included both prescribed and public lighting services) (the AER's formula)."

In the following table, the NSW DNSPs have provided their initial RAB assessment and subsequent revisions to the AER, who has in turn provided its own assessment of an appropriate opening asset base at 1 July 2009.

Opening RABs 1 July 2009 (\$m, nominal)

<u>DNSP</u>	<u>Initial</u> ⁸	<u>DNSP Rev</u> ⁹	<u>AER</u> ²
Country Energy	15.0	15.9	15.3
EnergyAustralia	139.2	111.3	110.8
Integral Energy	37.3	37.5	37.7

In forming its view on the proposed opening asset bases the AER used the following process:

"In order to review the proposed public lighting opening RABs the AER compared each DNSP's proposed opening RAB with an opening RAB derived by estimating historical capex over the past twenty years and deducting depreciation. The objective was to gauge the level of asset value remaining as at 30 June 2009 that resulted from a standard twenty year life of public lighting assets (to simplify the calculation the 35 year standard asset life of supports was excluded). The estimated historical capex was calculated by averaging actual public lighting capital expenditure in the current regulatory control period and assuming the same average level of expenditure was made over the last twenty years. The notional capital expenditure was depreciated using the straight line method."(our underlining)

We commend the AER in identifying that the DNSP's proposed RAB's required investigation and for undertaking a process attempting to reconstruct a reasonable asset base.

We however advise the AER its process requires review in that it:

- 1.** Adopted a 20 year asset life and ignored the 35 year life for assets which may contribute to 50% of the RAB. A 28 year average asset life can be considered appropriate.
- 2.** Used average capex for the current regulatory period where in section 3.1 of the Paper we were advised by the AER there has been "significant increases in

⁸ Table 17.4 Draft Decision January 2009

⁹ Table 3.4 Draft Decision March 2009

replacement costs in recent times.” That is current DNSP expenditures are not representative.

3. Does not appear to have recognized any ‘non cost’ to DNSP’s of ‘non contributed’ assets
4. DNSP’s have not recognized the treatment of ‘gifted’ assets in their RAB roll forward.
5. Actual DNSP expenditures to be used.

Non contributed Assets

In discussions with councils we understand capital costs for lights installed prior to corporatisation were funded by others and these assets were acquired by DNSPs at no cost in the corporatisation process. That is, there was no cost to the DNSP in acquiring those assets.

In section 1.2.3 of the Paper the AER stated “*The AER proposed to determine the initial price levels and the price path with reference to the efficient costs of providing public lighting services.*”

If our understanding is correct, and DNSPs have not funded public lighting assets in their inventory and therefore not incurred any costs, then to be consistent with the AER’s price path objectives, the AER must consider the following in its Final Determination:

- any asset costs in the RAB can only include actual costs incurred by the DNSP. We have not performed the analysis but the removal of these assets would decrease the AER’s proposed 1 July 2009 opening RAB for each DNSP. We would expect a reduction in the luminaire component by 10%¹⁰ and the other components by 37%¹⁰. Allowing for luminaires at 50% of the RAB, we would expect a 23% reduction on any of the proposed RABs.
- Any assets not paid for by the DNSP must be charged on the tariff that recognizes the customer contribution to the asset ie any DNSP capex costs must be excluded.

Gifted assets

In considering the DNSP’s RABs we would expect to see ‘gifted’ assets recognized as customer contributions. The treatment of these assets is not clear in the RAB tables and requires to be identified.

DORC

Whilst considering asset costs, we support the AER’s approach to rejecting any approach by a DNSP proposing depreciated optimized replacement cost (DORC) as an effective mechanism to establishing asset costs as by its nature it is not a true reflection of the actual cost incurred in providing the asset.

Actual Cost

As it appears we may only considering the period since corporatisation, whilst the DNSPs have provided their capex and RAB for 2004/5 to 2008/9, an appropriate approach for the AER would be to simply use actual asset costs as per the DNSP’s actual tax accounts.

¹⁰ Assuming the DNSP only paid for lights from 1996

This would not only remove any doubt regarding actual cost but would also simplify the AERs process.

Asset life

We are concerned that the AER’s process adopted a “*standard twenty year life of public lighting assets (to simplify the calculation the 35 year standard asset life of supports was excluded).*”

Our experience indicates that assets which may contribute to 50% of the RAB may have a 35 year life or longer eg brackets/poles 35 years and columns 40 years.

ETSA Utilities’ advised the SAIIR¹¹ the weighted average life for public lighting assets was 28 years – an assessment which TTEG supports.

On this basis, a 28 year average asset life can be considered appropriate for the AER process.

Inventory and the proposed RAB

Although we do not have current public lighting inventories for each DNSP, as a guideline we can refer to the inventories for 2002/3 established by the Department of Environment and Heritage¹² as partly reproduced below:

State	Distribution business	Lantern numbers*	Major roads	Minor roads
NSW	Country Energy**	130,129	28	72
	Energy Australia	247,134	31	69
	Integral Energy	173,833	26	74

In considering the above table we have several observations regarding the RABs proposed by the DNSPs as shown in the following table.

DNSP	Inventory		RAB \$'mill	
	2002/3	v's CE	Proposed	v's CE
Country Energy	130,129	n/a	15.9	n/a
EnergyAustralia	247,134	190%	111.3	700%
Integral Energy	173,833	134%	37.5	236%

Based on similar public lighting asset bases we have established in other jurisdictions for assets fully funded by the DNSP, we consider Country Energy’s RAB is not unreasonable.

Based on the relative inventories for each DNSP, the proposed RABs by other DNSPs are excessive (Integral Energy) and in the case of Energy Australia extremely excessive.

¹¹ SAIIR 2000 Report on Public Lighting

¹² Table 3. 2002/2003 Public lighting inventory of distribution businesses Public Lighting in Australia – Energy Efficiency Challenges and Opportunities Final Report 2005

Fair RAB

Considering the inventories for each DNSP, we would expect a reasonable 1 July 2009 RAB may be approximated as established in the following table:

DNSP	RAB \$'mill	
	Proposed	Fair
Country Energy	15.9	15.9
EnergyAustralia	111.3	34
Integral Energy	37.5	23

IMPORTANT NOTE:

In providing the estimations in the above table we have not had access to each DNSP's asset and inventory register. Our assessment has purely been based on proportioning the expected asset cost to the CE asset cost, which we believe represents a fair assessment for their inventory.

5.3.3 Annual Capex

As shown in the following table, the annual capex provided by the DNSPs for the period 2004/5 to 2008/9 all appears reasonable in terms of % of their proposed asset base, but the annual capex needs to be considered in terms of a fair RAB as also shown in the table.

DNSP	DNSP Proposed			Fair RAB		
	RAB	\$ p.a.	%	RAB	\$ p.a.	% (A)
Country Energy	15.9	2	13%	15.9	2.0	13%
EnergyAustralia	111.3	12	11%	34	4.5	13%
Integral Energy	37.5	5	13%	23	2.9	13%

NOTE: (A) Like the asset base itself, without visibility to the DNSP's actual inventories and aging we cannot perform a complete analysis. We have therefore conservatively adopted the 13% as provided by CE and IE. A fair %age is however dependent on the number of new (additional) assets installed.

In considering replacement lights alone, luminaires / brackets/columns should be replaced at the end of their economic life ie 20 / 35 /40 years respectively. That is around 5% / 2.9% / 2.5% respectively of the inventory should be replaced p.a.

Typically half the asset base value will be attributable to luminaires with the balance to poles/ brackets.

In simply considering replacement assets in terms of the "Fair RAB" (above), a fair assessment should be around 8% to 10% p.a allowing for the RAB to approximate the DORC. NOTE: Whilst asset values in the RAB are depreciated annually they are also indexed.

The impact of new (additional) asset installations will of course be in addition to replacement assets.

NOTE: If we allow \$300¹³ as the average cost of a luminaire /bracket to be replaced then each \$1million of replacement capex should allow for around 3,300 luminaire replacements p.a. if solely attributed to luminaires

In considering EA's inventory, it should be replacing around 5% of lights p.a. i.e. around 12,500 lights p.a.

Allowing the \$300 / light (above), EA's claimed average \$12¹⁴ million p.a. expenditure would have seen it replacing around 40,000 lights pa? Whilst we recognise that EA's claimed capex includes new (additional) installations – their annual capex is excessive.

Timely Asset Replacement

If DNSPs (other than CE) have actually incurred their claimed capex expenditures then it could indicate that the DNSP has not been replacing assets at the end of their asset life. If this has occurred, then the DNSP would have been receiving an asset charge in the tariff yet the asset would not have been replaced. In addition, if the asset has not been replaced, then maintenance costs would have increased, and outages would have been above the norm. We noted with interest that EA made such a claim in its submission to the AER regarding maintenance.

RAB Impact

Annual capital charges are based on the RAB so it is important that an appropriate RAB is established.

The EA and Integral Energy RABs are considered excessive and must be revised.

The impact (if any) of 'non contributed' assets and gifted assets also need to be considered.

Indexing

To maintain the DNSP's investment return annual indexation by CPI on the RAB is considered fair and reasonable.

It is however critical that the indexation is only applied to the fair (revised) RAB.

Return on Capital

We consider the WACC a fair and reasonable approach and accept the AER's approach to adopting the WACC established for standard control services for the 2009-14 regulatory period.

It is however critical that the WACC is only applied to the fair (revised) RAB.

Return of Capital

We support the AER's rejection of EA's proposed adoption of replacement cost.

The DNSP's have all considered a remaining life approach. In terms of efficient asset management, CE's 50% asset life approach is appropriate.

¹³ Not an unreasonable estimate based on the Paper's costs in Table 4.1 and 4.2 and for brackets at 35 years, luminaires 20 years and for 80% of lights on minor roads.

¹⁴ Interpreted from Paper Table 3.2

For assets with a 28 year life an average depreciation of 3.17% should apply. This equates to a rate of 7.14% for assets at 50% of their life.

It is however critical that the depreciation is only applied to the fair (revised) RAB.

Summary

The value of Country Energy's proposed 1 July 2009 opening RAB appears to be not unreasonable if all assets are included. If 'non contributed' assets are to be excluded then the RAB should be decreased by up to 23%.¹⁵

The EA and Integral Energy RABs are considered excessive and must be revised.

The asset cost is a major contributor to public lighting charges. We therefore request the AER to reassess the RAB's proposed by EA and IE based on the information provided in our submission.

5.3.4 Efficient Maintenance Charges

Replacement Cycles

Country Energy appears to have adopted the most reasonable approach to providing public lighting services with 3 years bulk replacement program (which we expect are for MV lights) and 5 years for traffic lights which we expect are HPS lights.

As the AER recognised in its Paper, the 2005 AGO Paper established other jurisdictions typically have a 4 year replacement program. Our experience is this approach tends to work well and allows for PE cell replacement each 8 years.

We understand that although 4 years can be accepted under Australian Standards for existing installations, a 3.5¹⁶ year cycle may be considered appropriate to maintain current (new) 80MV light installations within their design requirements.

Based on practices in other jurisdictions and accepting the Australian Standards allowable replacement, proposing a 3 year bulk replacement cycle¹⁶ would appear to be 'over servicing'. If DNSP's believe they achieve savings from a 3 year cycle then they should continue that practice and their costs should be less than for a 3.5 year cycle.

For the purposes of establishing a fair and reasonable maintenance charge a 3.5 year cycle is proposed for MV lights and 5 year (as used by CE) for HPS lights.

Spot Replacement

We read with interest the claimed failure rates submitted by the DNSPs.

We recognise and accept that spot replacement cost is significantly more expensive than bulk replacement, but we do not accept the failures rates claimed by EA as being representative of properly maintained assets. Perhaps it may be due to the age of the assets i.e. not being replaced at the end of their economic life (20 years)?

For a 4 year cycle a 10% annual spot replacement (primarily lamps) may be accepted as a guideline.

¹⁵ Assuming the DNSP only paid for lights from 1996

¹⁶ This requires confirmation based on design requirements

Tariff Rate

We support the AER's view that the bulk replacement cost for IE and EA appear reasonable and that CE should be required to reduce its charges to a cost approaching those rates.

The AER has established Table 3.7 below.

To allow for spot replacements the bulk charges for IE and EA may need to be increased by 20 to 35% (maximum) depending on how the spot replacement process is managed and the light type eg MV, HPS etc.

The annual rates proposed by IE and EA are roughly in line with the CLER¹⁷ rates for South Australia – but these are based on a 4 year cycle.

Table 3.7: Comparison of the cost of bulk replacement between NSW DNSPs

	Country Energy	EnergyAustralia	Integral Energy
Cost of bulk replacement per lamp over BLR period	\$80.35 [^]	\$31.46	\$47.25 [^]
Cost of bulk replacement per lamp per annum.	\$26.78	\$12.58	\$15.75
Time to replace each lamp	16.8 minutes	N/A	6.85 minutes

Source: Country Energy, Pre 1 July 2009 public lighting model; EnergyAustralia, Post 1 July 2009 public lighting model; Integral Energy, Pre 1 July 2009 public lighting model.

Notes: [^] Average cost across total inventory calculated by the AER.

The average cost can however be lowered by around 17% if a 3.5 year cycle was adopted.

Having established the maintenance cost p.a. in Table 3.7 we expected the AER to require these rates to be reflected in the proposed 2009/10 rates for tariff class 2 and 4. We however notice all proposed tariff are significantly higher eg ~ \$48 for an MV80 light ?

The DNSP's proposed tariffs for class 2 and 4 require investigation and rectification as they are not fair and reasonable and around 200% higher than the AER Table 3.7.

Tariffs for class 1 and 3 also require investigation and rectification.

¹⁷ Which exclude any DNSP capex ie is based on customer funded capex

6. NSW DNSP pricing proposals

In this section we consider the Paper's chapter 4.

NOTE: Numbering as described in Section 2 of our submission.

6.4.1 Annuity Model

The AER's consideration of an annuity approach shows merit as it provides future price certainty. Due to time constraints we have not conducted the analysis but we have concerns that this approach may actually lead to a higher overall cost unless the inputs are appropriately considered eg costs and life of each component¹⁸.

It may be appropriate to have the annuity split based on asset age between luminaire (20 years) and poles/brackets (35 years).

We also note that the allocation of costs to luminaires and brackets is not consistent between DNSPs.

Irrespective, the AER should require a consistent approach for all DNSPs that is in accordance with tax accounting standards.

6.4.2 Efficient Costs

Only the efficient cost directly attributed to the DNSP should be included in the annuity.

Luminaire and bracket cost

There appears nothing excessive in the luminaire costs but this is somewhat dependent on the quantities purchased.

Whilst CE's costs appear to be a reasonable average, major road bracket costs appear high for EA and IE

We however note that costs vary between DNSP's. In considering efficient costs, should not the lowest cost be considered for all DNSPs or at least a cost approaching the lowest cost?

If DNSPs are not purchasing at the lowest cost (or somewhere near it) why should customers be penalised?

We note there are no pole costs? The Paper does not consider how they are to be treated?

Installation

Only averages (rather than cost per type) have been provided so it is difficult to comment.

Cost Allocation

With different lives between luminaires and brackets it is important to have an appropriate allocation of cost.

We support the AER's requirement for the reconstruction of the DNSP's proposed charges.

¹⁸ Post Tax Revenue Handbook, ACCC, October 2001

Annuitised Capital Charges (Table 4.3)

The bracket cost for minor roads appears excessive. It is only around 30% of the material cost of a major road and installation cost is less so with the same life of 35 years as a major road – the annuity cost should be less.

Annuitised Construction Charges (Table 4.4)

We support the AER's views regarding these charges but we are not clear how the cost has been split between luminaire and bracket and also the asset lives attributed to those splits.

AER Approach

On page 39 of the Paper the AER stated:

The reason an assessment of brackets should be considered in concert with luminaires is that both assets are assumed to have the same life. For this reason, whenever a bracket or luminaire is replaced, it would be appropriate for the other component to also be replaced.

And on page 40:

To partially overcome the problem of direct comparability of bracket costs, the AER has separately identified the construction costs of a bracket and has included these with the construction costs of the luminaire. By bundling construction costs together, the AER has been able to at least make a direct comparison of construction costs as presented in table 4.4.

We agree the components need to be separately assessed, but in the annuity determination we do not support brackets being attributed a 20 year life to match the luminaire.

Other considerations

With the annuity costs established, as luminaires and brackets may not be replaced simultaneously, the AER needs to provide direction to the DNSP as to how they are applied.

The RAB beyond 2009 will therefore need to identify luminaire and bracket costs separately.

6.4.3 WACC

We consider the WACC a fair and reasonable approach and accept the AER's approach to adopting the WACC established for standard control services for the 2009-14 regulatory period.

It is however critical that the WACC is only applied to a fair asset cost.

6.4.4 Early Replacement

We support the AER's approach (Paper cl 4.4.3) in recognising that the prime consideration should be did the DNSP provide the capital funding? If not, then the DNSP should not be entitled to any compensation.

The DNSP should however be entitled to charge a fair and reasonable price for the removal of the asset.

Ideally, the actual WDV for each light /bracket, plus the cost of removal should be the appropriate "payout" figure.

6.4.5 AER Conclusion on model inputs

We have not reviewed each aspect in detail (due to time constraints) but support the AER's approach to inputs as a minimum requirement.

In determining actual costs DNSPs will need to separately account for luminaires and brackets.

6.4.6 Price Path

We support the AER's approach to applying CPI until it has a full understanding of cost impacts.

7. NSW DNSP pricing proposals

In this section we consider the Paper's chapter 4.

NOTE: Numbering as described in Section 2 of our submission.

7.5.1 Revised Tariff Classes

We support the AER's approach to recognising tariff classes determined by funding rather than ownership.

This approach is consistent with South Australian CLER (Customer Lighting Equipment Rate) where the capex has been provided by the customer.

Simplification of Tariffs

In considering all jurisdictions the price lists provided by NSW DNSPs is the most complicated and could certainly benefit from rationalisation of number of line items.

Tariffs – all classes

As discussed earlier¹⁹, we expected the annual maintenance charges in AER Table 3.7 to be reflected in the proposed 2009/10 rates for tariff class 2 and 4 as they exclude any capex.

We however notice all proposed tariff are significantly higher eg ~ \$42 (IE) to \$48 (CE) for an MV80 light which should be amongst the cheapest to maintain.

It would appear that the DNSP has allowed the full bulk replacement cost in one year rather than averaging over the 3 year change out period?

If so, we expect the DNSP's proposed rates for all tariff classes may therefore be inflated in a similar manner?

The DNSP's proposed tariffs require investigation and rectification as they are not in line with AER Table 3.7 or a fair and reasonable charge.

This requires investigation and rectification by DNSPs.

NOTE: In considering costs, PE cells only need to be changed every 2nd bulk replacement.

Tariff Class 3

As luminaires and brackets may not be replaced simultaneously a requirement exists for separate charges.

7.5.2 Commencement Date

We support the AER's approach that the new tariffs will apply if a customer accepts a quotation for construction of new assets from the relevant DNSP after 30 June 2009.

7.5.3 New Asset Introduction

We support the AER's approach to the introduction of new assets over the period.

¹⁹ 5.3.4 Efficient Maintenance Charges