



12th February 2009

Mr Mike Buckley  
General Manager  
Network Regulation North Branch  
Australian Energy Regulator  
c/o aerinquiry@aer.gov.au

Dear Mr Buckley,

**Re: SSROC Submission on AER's NSW Draft Distribution Determination 2009-2014 & EnergyAustralia's Revised Regulatory Proposal**

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Thank you for the opportunity to comment on the AER's NSW Draft Distribution Determination 2009-14 and EnergyAustralia's Revised Regulatory Proposal of 16 January 2009. SSROC makes this submission on public lighting as the AER prepares to publish proposed 2009-2010 public lighting tariffs and a proposed price path for each NSW DNSP (expected release for comment on 9 March).

Unfortunately, EnergyAustralia's re-iteration of its original submission does nothing to address widely held concerns about EnergyAustralia's proposed street lighting price increases. The proposed increases remain based on inadequate analysis and suffer from a grievous lack of information disclosure.

Street lighting is a vital public good that is provided for the safety and welfare of the community and should NOT be viewed as a profit-maximising commercial venture, as may be appropriate for other product lines of EnergyAustralia. Furthermore, as a monopoly service, there should be absolute transparency on the costing models. EnergyAustralia's claim of commercial-in-confidence issues involved in the relationship with Councils are not credible, and serve only to obscure adequate analysis of a monopoly service.

Councils welcome the AER's careful consideration of street lighting pricing issues thus far and have noted that in Chapter 17 of its Draft Determination the AER did not accept EnergyAustralia's Regulatory Proposal on public lighting. The AER cited concerns that:

- current pricing does not reflect the actual cost of providing the service;
- there is a wide irreconcilable disparity in the tariffs proposed by the three NSW DNSPs;
- there is a lack of records substantiating the age and condition of assets; and
- pricing structures for old assets based on the current replacement cost for assets are not appropriate.

To address serious inadequacies and problems in EnergyAustralia's proposed price increase, the AER proposed a revised basis for new submissions. The AER proposal involved a two-tiered pricing schedule based on the age of assets (one schedule for pre 1 July 2009 assets and another for all new assets installed post 1 July 2009), standard tariff definitions and a financial basis of calculations outlined by the AER (eg building block approach for pre-July 2009 assets and an annuity approach for new assets installed after 1 July 2009). DNSPs were asked to submit new pricing schedules by 16 January 2009.

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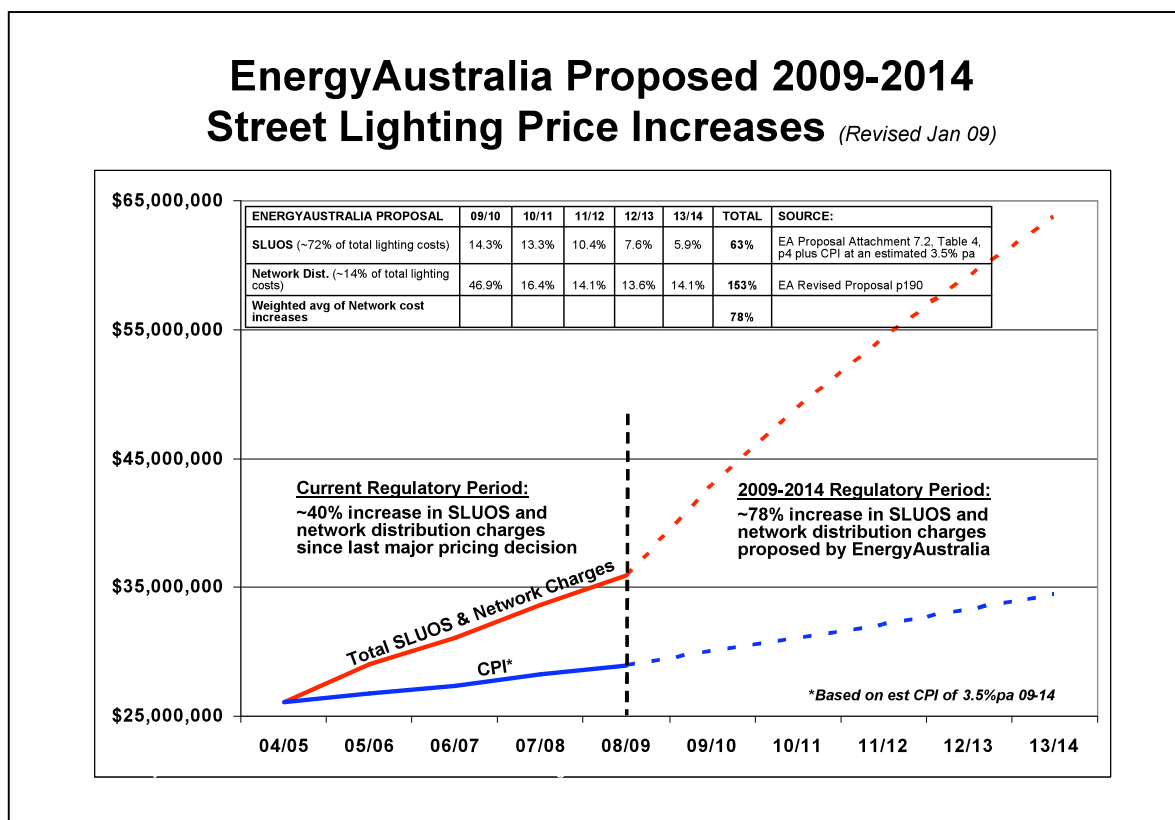
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In Part II, Chapter 7 of EnergyAustralia's Revised Regulatory Proposal of 16 January 2008, the company claims that the AER has failed to make a valid pricing decision in the Draft Determination, and declined to submit new pricing schedules as requested by the AER<sup>1</sup>.

Rather than addressing the serious inadequacies raised by the AER and Councils, EnergyAustralia simply reiterates its original, deficient proposal and further increased indicative network distribution charges for public lighting in its Revised Regulatory Proposal. Further, EnergyAustralia again refuses to release its pricing model to customers. This lack of disclosure stands in contrast to the disclosure to Councils of extensive cost modelling provided during the previous determination in 2004/05. The lack of disclosure also stands in stark contrast to the claim by the EnergyAustralia CEO during the AER's 30 July 2008 forum that EnergyAustralia would release equivalent information during this determination.

**The total proposed increase in street lighting network charges for EnergyAustralia customers is now approximately 78% during the regulatory period with a first year increase of 19.6%** (see graph below). Total additional costs to Councils served by EnergyAustralia over the regulatory period would be an estimated \$89,000,000 relative to current 08/09 pricing.



Given the continuing lack of progress from EnergyAustralia, the magnitude of price increases proposed, the continuing lack of disclosure, and serious unresolved pricing anomalies, it is imperative that AER undertake a full, open, and transparent analysis of street lighting costs. In that modelling and on-going consultations, Councils request that the following issues be considered:

#### 1) Disclosure

During the pricing review process EnergyAustralia has repeatedly declined to substantiate the basis of large proposed increases and anomalies in public lighting pricing. EnergyAustralia continues to refuse to disclose

<sup>1</sup> SSROC notes that EnergyAustralia has made a further late submission on 30 January 2009 that contains proposed pricing schedules for AER Tariffs 2-6 but no pricing schedule for Tariff 1 assets which would, per the AER definition, apply to more than 95% of all current EnergyAustralia assets. As 'Rate 1' in EnergyAustralia's original pricing proposal is calculated on an annuity basis, it would not meet the AER definition for Tariff 1 as submitted in EnergyAustralia's Regulatory Proposal. As noted in Section 2 below, there is also a material question about the historical basis of EnergyAustralia's 'Rate 1'.

underlying modelling and cost information to its captive street lighting customers. The lack of relevant information leaves Councils at an unreasonable and material disadvantage in making quantitative comment on proposed pricing. It is now a very late stage in the review process, and EnergyAustralia continues to demur. In this monopoly arrangement, EnergyAustralia's approach is apparently to withhold adequate information from customers about the underlying cost of the service. EnergyAustralia's Regulatory Proposal is entirely inadequate as a basis of pricing. It would be wholly inappropriate for the AER to rely upon it in any way in making a pricing review and final determination.

As previously documented, the information withheld concerns key assumptions in EnergyAustralia's cost-to-serve model on which its prices are based. This includes such items as:

- assumed component capital costs;
- total assumed installation time for a light installed on a residential road and a light installed on a main road;
- the assumed allocation of installation labour between brackets and luminaires;
- total assumed spot repair time for the repair of a light on a residential road;
- total assumed spot repair time for the repair of a light on a main road;
- assumed spot replacement rates per annum by component (eg rates at which luminaire types and lamp types fail from all causes);
- total assumed labour costs per hour for a two person crew (with bucket truck and overheads) on the two different road classifications; and
- assumed traffic control costs for Traffic Route Lighting repairs.

Disclosure of such information to Councils is entirely consistent with information sought and provided to Councils by EnergyAustralia during the previous (2004/05) pricing review<sup>2</sup>. Councils' information requests have been thoroughly documented in:

- A letter from the General Manager of SSROC to the CEO of EnergyAustralia of 16 July 2008 (copy provided to AER);
- A request for the release of such information at the AER's 30 July public forum where the EnergyAustralia CEO responded that he "...cannot see why this information should not be made available, especially if it was available as part of the previous IPART determination"<sup>3</sup>;
- A direct oral request to senior EnergyAustralia management by David Lewis, General Manager of SSROC, on 14 October 08 which was followed up in an email request of 15 October 08; and
- Requests for information via SSROC submissions to the AER of 8 August, 15 August and 17 November 2008;
- Requests for information via numerous other Council submissions to the AER during the course of the determination.

As outlined in previous submissions, Councils' information requests are entirely consistent with the information publicly released during pricing review processes by Victorian Essential Services Commission including its 2004 determination and recent 2008 Review of Energy Efficient Public Lighting Charges<sup>4</sup>. Component capital costs, consumables costs, assumed failure rates, labour costs and labour assumptions are all being presented, validated, and revised in an open process.

In Section 17.6.8 of its Draft Determination, the AER states that EnergyAustralia has provided "...a scaled down version of the cost-to-serve model for each council". In fact, however, the information provided by EnergyAustralia is so 'scaled down' as to provide no meaningful cost-to-serve information. Councils dispute that the information provided on 13 August 2008 constitute an adequate cost-to-serve model. Indeed, Councils note that no new information was provided to Councils in distributions from EnergyAustralia to Councils made via the

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<sup>2</sup> EnergyAustralia's Street Lighting Cost-to-Serve Final Report (Document EA6487/03) was made available to Councils during the 2004/05 pricing review along with at least three supplementary briefings by the authors, PB Associates, and EnergyAustralia management on the approach to modelling and related assumptions.

<sup>3</sup> As per minutes of 30 July 2008 AER Forum

<sup>4</sup> <http://www.esc.vic.gov.au/NR/exeres/ECF10921-9F8F-49A3-B904-6254FC6180C6.htm>

AER in August 2008. The information consisted of high-level, low-content documents previously released by the AER to Councils, and a council-specific spreadsheet showing total inventory counts multiplied by proposed component prices. Notably, Councils are already in possession of detailed inventories, and EnergyAustralia had already provided total component prices in its Regulatory Proposal. Accordingly, this information was not new. Furthermore, it provided only proposed prices, and provided no information on EnergyAustralia's costs and underlying cost assumptions. As with EnergyAustralia's Regulatory Proposal, the additional information distributed on 13 August contained only TOTAL capex for each capital item but no breakdown of how this capital cost was arrived at and TOTAL annual opex costs for each lamp type but no breakdown of how these operating costs were arrived at.

In seeking additional information Councils have offered, if need be, to abide by any reasonable confidentiality undertakings requested by EnergyAustralia as they did in the 2004/05 pricing review process.

## 2) 'Original' Funding

In Section 17.6.11.2, the AER has proposed that existing lighting owned and constructed by the DNSP be classified as Tariff Class 1.

More than 95% of EnergyAustralia's public lighting assets are thought to be classified as 'Rate 1' which broadly has the same definition as the AER's Tariff Class 1. Of note is that:

- The fundamental assumption behind EnergyAustralia's 'Rate 1' tariff is that the ORIGINAL capital for lighting at that point was provided by EnergyAustralia<sup>5</sup>. The assumption that EnergyAustralia provided the original capital for these installations is one element contributing to the high valuation EnergyAustralia places on its existing lighting assets (eg as opposed to a sinking-fund arrangement where the original capital was provided by others).
- However, in contrast to EnergyAustralia's unsupported assumption, the vast majority of lighting points on EnergyAustralia's network were in fact first lit by Council Electricity Departments or by County Councils in the decades prior to the creation of corporatised electricity companies such as Sydney Electricity (1990) and Shortland Electricity (1993).
- In most cases, the ORIGINAL capital was thus provided by Councils or the County Councils they owned and managed.
- At corporatisation, NO compensation was paid to Councils for the assets (including the public lighting assets) transferred from the County Councils to the new State-owned entities.

Councils submit that there is a material question about which party actually provided the original capital for the vast bulk of lighting installations in the EnergyAustralia distribution territory and thus the appropriateness of key assumptions underlying the dominant Rate 1 tariff.

## 3) Assumed Asset Age

The average age of existing assets may well be older than the estimated half life of public lighting assets. And, the average age of this portfolio of existing assets will also continue to increase during the regulatory period as no new assets will be put in this basket. For example, if the average age of existing Rate 1 assets is 13 years at 1 July 2009, the average age at the end of the regulatory period would be 18 years.

Reflecting this changing age profile through the course of the determination, the annual capital charge for Tariff 1 assets should be adjusted each year accordingly.

## 4) Past Technology Selections

In Section 17.6.4 of its Draft Determination, the AER states that evidence would be required to substantiate a claim that EnergyAustralia has mis-invested in out of date lighting technology. Past mis-investment is highly material to assumed asset base underlying the AER's proposed Tariff class 1 assumptions.

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In EnergyAustralia's Supplementary Response (p11), the company states that its approach to technology selection "...been to evaluate and install luminaires that would avoid a maintenance regime that would increase cost of service to public lighting customers and decrease the effectiveness of public lighting to the community". This statement is consistent with lighting contracts that existed in past decades which specified that EnergyAustralia would "...keep the lamps and all appliances...efficient and reasonably in accordance with the latest improvements"<sup>6</sup> and statements that EnergyAustralia "...has been exercising a close control over all aspects of costs with a view to minimising price increases."<sup>7</sup>.

In summary, EnergyAustralia has had responsibility to ensure that the lighting technology practices were efficient and current for decades. Historically, councils have had little say on technology selection, and have been dependent on EnergyAustralia for performing public lighting services efficiently.

However, EnergyAustralia failed to meet its obligations in this regard. In the particular case of obsolete 2\*20W tubular fluorescent lighting (and similar related luminaires such as 1\*40W TF and 1\*80W TF) the following facts are pertinent:

- The 2\*20W TF luminaires was developed in about 1958-1959 and its optical characteristics and performance changed little over future decades;
- "Until about 1985, 2\*20W and 40W fluorescent lamps were the common choices [on residential roads in Australia]."<sup>8</sup>
- By the mid 1980's, 2\*20W TF and 40W TF luminaires were acknowledged to have high overall costs due to high outage rates;
- Recognising this, most Australian utilities discontinued new installations in the mid 1980s and, in the case of Victoria, the SECV began a pro-active bulk removal program for TF2\*20 luminaires in the mid 1980s which is understood to have been complete by about 1990;
- Evidence of the high outage rates and consequent high cost maintenance regime required for the TF2\*20 is to be found in EnergyAustralia's bulk lamp replacement cycle on residential roads which, until about 2005, needed to be 18 months to cope with the requirements of the large population of TF2\*20 luminaires on the EnergyAustralia network. In these bulk lamp replacements, all the starters also had to be replaced every 18 months as well because of their high failure rates. Further evidence of the high maintenance costs is found in EnergyAustralia's proposed 78% first year increase in SLUOS charges for TF2\*20W luminaires which, as the luminaires are no longer being installed, can only be based on the previously unrecognised but actual maintenance costs of this technology.
- EnergyAustralia continued to install 2\*20 TF lighting until July 2004 after Councils, having been made aware of the consequences, jointly wrote to EnergyAustralia insisting installations be stopped along with installations of obsolete high wattage mercury vapour luminaires on main roads (see below)
- 2\*20W TF lighting does not currently and has not for many years complied with key aspects of AS1158.3.1, the lighting standard for residential roads in Australia.
- With respect to lighting effectiveness, the 2\*20W TF delivered lighting to the absolute minimum lighting level in AS1158 to about 15m either side of the pole. It was thus impossible to comply with the minimum required lighting levels in AS1158 over more than 30m. However, the average spacing of EnergyAustralia's lights on residential roads is perhaps 66m based on a historic practice going back many decades of installing a light on every second distribution pole.
- On those occasions in which some council input was involved in lighting selection, councils generally requested and relied on EnergyAustralia advice which in hindsight was often incomplete and incorrect. For example, councils regularly receive requests from the public for additional lighting to be installed. In those cases, the normal practice was for the council to refer the request to EnergyAustralia, seeking advice as to whether and what type of new luminaire would be appropriate. EnergyAustralia regularly

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<sup>6</sup> PBA "EnergyAustralia Streetlighting Cost to Serve" 16 October 2003, p. 28.

<sup>7</sup> Sydney Electricity letter to councils, 27 June 1991.

<sup>8</sup> Public Lighting in Australia – Energy Efficiency Challenges and Opportunities Final Report 2005, Dept of the Environment and Heritage, Australian Greenhouse Office, p19

recommended use of additional TF2x20s up to July 2004.<sup>9</sup> Furthermore, it should be noted that EnergyAustralia also continued to encourage the use of TF2x20s through prices which were lower than those for the better performing mercury luminaires widely used by other utilities, and indicating that such cost differences were cost-reflective.<sup>10</sup> Historical pricing, based on poor cost analyses, continually and inappropriately encouraged councils to accept TF2x20s.

A similar case of mis-investment using outdated technology exists with respect to EnergyAustralia's continued use of high wattage mercury vapour lighting on main roads for many years after this was discontinued elsewhere. As a result of its continued use of this technology beyond the point with the case of TF2\*20 luminaires, EnergyAustralia has the largest percentage of residual high wattage mercury vapour lighting in Australia at 60% of all main road lighting (based on 2007 inventories) or approximately double the national average<sup>11</sup>.

## 5) Assumed Asset Life of Brackets

In reference to Section 17.6.2 of the Draft Determination Councils accept that brackets on residential roads have, since 2004, been replaced in conjunction with EnergyAustralia bulk luminaire replacement programs. However, this does not appear to have been the historic practice as evidenced by wide-ranging SLI Program site visits where brackets and luminaires are manifestly of a different vintage. It is unclear why brackets replaced as part of current bulk luminaire replacement programs would need to be replaced in 20 years in conjunction with luminaires based on the available evidence.

Councils note that in the November 2008 ESC Energy Efficient Public Lighting Charges – Draft Decision, the ESC have again affirmed the use of 35 years (p24) as the reasonable economic life of brackets as well as poles.

Of particular importance is the assumed bracket life on main roads where brackets are high capital cost items and the assumed asset life is very material to overall charges. As evidenced from 2008 SLI Program follow-up inspections of outages reported to EnergyAustralia in 2006/2007, it does not appear that luminaire and bracket replacement are coincident in the vast bulk of main road spot repairs. That luminaire and bracket replacement are not coincident in such repairs could be readily established by comparing recent years of EnergyAustralia data on bracket purchasing volumes for brackets used on main roads (eg brackets of type T1-T7) as compared to main road luminaire purchasing volumes (excluding those brackets and luminaires associated with new installations).

Proper treatment of the average asset life of these asset classes such as brackets, and particularly those on main roads with high capital costs, is essential to appropriate financial calculations.

## 6) EnergyAustralia Labour Assumptions

A key aspect of capital cost assumptions is assumed labour inputs. To date, EnergyAustralia has withheld assumptions about installation and repair times for residential and main roads. However, we note three aspects of this that appear to warrant consideration:

- a) **Bulk vs Spot Replacements** - In the last major pricing review in 2004/05, EnergyAustralia's labour assumptions for luminaire replacements were based on those replacements happening on a spot basis over a distributed area. In contrast, up to 40,000 luminaire replacements<sup>12</sup> made by EnergyAustralia on residential roads since the last pricing review were actually done on a bulk basis (eg single crews doing up to 30 replacements in a day in a contiguous area). Indeed, it is likely that well over half of all replacements undertaken during the past regulatory period were done on a bulk basis. However, tariff structures and assumed labour inputs in claimed capital expenditure are based on these having been done on a 100% spot replacement basis. EnergyAustralia is proposing to continue a large bulk luminaire replacement program

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<sup>9</sup> e.g., general design guidance provided in a letter from EnergyAustralia to Sutherland Shire Council, 16 April 1997; and numerous specific examples, e.g., EnergyAustralia, letter to Burwood Council, 8 September 2003.

<sup>10</sup> e.g., Sydney Electricity, letter to Marrickville Council, 12 May 1995 in response to a query regarding the most cost efficient and lowest cost lighting solution for residential streets.

<sup>11</sup> Public Lighting in Australia – Energy Efficiency Challenges and Opportunities Final Report 2005, Dept of the Environment and Heritage, Australian Greenhouse Office, p19

<sup>12</sup> EnergyAustralia Accelerated Replacement Program of obsolete tubular fluorescent lighting with SLA Suburban 80W MBFs with new lighting separately identified in EnergyAustralia inventories

during the coming regulatory period involving up to 61,000 remaining obsolete fluorescent luminaires<sup>13</sup>. This makes a 100% spot replacement assumption an incorrect starting point for assumed labour inputs to street lighting capital expenditure and to tariffs.

Notably, the November 2008 ESC Energy Efficient Public Lighting Charges – Draft Decision, is based on a bulk luminaire replacement approach and as such provides useful benchmarks for more appropriate labour assumptions.

- b) **Benchmarking of Labour Assumptions** – In the 2004/05 pricing review, Councils were informed that EnergyAustralia labour assumptions in its pricing model were 2.3 hours for lights on main roads and 1 hour for installations on residential roads. Repair times were 1 hour for lights in main roads and 40 minutes for lights on residential roads.

Such labour assumptions used by EnergyAustralia appeared to be markedly higher than those determined in Victorian ESC 2004 pricing review. The significant differences in apparent labour assumptions are material, and warrant detailed examination.

- c) **Assumed Travel Time** – In the 2004/05 pricing review, a key aspect of EnergyAustralia's assumed labour inputs appeared to be assumed travel time between jobs. In the case of repairs or replacements, Councils were informed that EnergyAustralia's standard assumption was an average 40 minutes of travel time between jobs<sup>14</sup>.

This average travel time would represent material logistical inefficiency on the part of EnergyAustralia. In the SSROC area, encompassing 16 Councils from inner Sydney to its outer boundaries, there are approximately 108,000 lights<sup>15</sup> in an area of approximately 417 sq km<sup>16</sup>. Average lighting density is thus just over 250 lights per sq km. Councils understand that EnergyAustralia undertakes an average of 17,000 spot repairs per year<sup>17</sup> or repairs on about 6.9% of its portfolio. As an approximation, EnergyAustralia thus repairs an average of 17.27 lights in each square kilometer of urban service territory per year. There would therefore be on average one repair per week in each 3 sq km area assuming an efficiently scheduled weekly service run (the area would be smaller if pushed to the maximum 8 day allowable average repair time under the NSW Public Lighting Code). The average distance between efficiently scheduled repairs is thus about 1.73 km. Even allowing for reasonable set-up times, an assumption of 40 minutes travel time between repair or replacement jobs appears greatly excessive.

## 7) Energy Efficient Road Lighting

As per SSROC's previous submissions to the AER, EnergyAustralia's proposed pricing for energy efficient lighting is a major source of Council concern. Large unexplained differences exist between the proposed costs for these lights and other lighting types and between EnergyAustralia's proposed prices for these lights and the prices proposed by other utilities.

Importantly, the November 2008 ESC Energy Efficient Public Lighting Charges – Draft Decision, takes a detailed look at cost assumptions for the two key energy efficient luminaires in question. As such, it provides an important independent benchmark for NSW pricing. **Notably, the recommended operation and maintenance charges for these new lighting types in the Victorian Draft Decision are broadly half the amount proposed by EnergyAustralia.**<sup>18</sup>

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<sup>13</sup> Based on 2007 EnergyAustralia portfolio data provided to SSROC

<sup>14</sup> EnergyAustralia briefing for SSROC 8 December 2003

<sup>15</sup> Based on EnergyAustralia supplied inventories

<sup>16</sup> [http://www.dlg.nsw.gov.au/dlg/dlghome/dlg\\_LocalGovDirectory.asp?index=1&CN=ALL#52](http://www.dlg.nsw.gov.au/dlg/dlghome/dlg_LocalGovDirectory.asp?index=1&CN=ALL#52); Excluding areas of bushland in the Sutherland Shire that are unserved.

<sup>17</sup> Based on total repairs reported to SSROC by EnergyAustralia for 2006/07

<sup>18</sup> Eg Table 5.1 – 5.5 of Draft Determination versus proposed EnergyAustralia 'lamp' charges in its Regulatory Proposal Attachment 7.2 2009/10

## 8) Retrofitting and Exit Charges

Councils welcome the AER's conclusions with regards to potential double-counting and arbitrary age assignments with regards to EnergyAustralia's proposed Rate 4 (Section 17.6.3). We note however, continuing concern about EnergyAustralia's approach to the valuation of its assets in the event of a retrofit requested by Council before an asset has reached the end of its working life or in the case that a Council wishes to exit arrangements altogether regarding existing assets.

EnergyAustralia's 'undepreciated asset charges' are based on straight line depreciation from the current cost of a 'Modern Engineering Equivalent' rather than the actual depreciated cost of the original installation or an estimate of the cost of the original installation. The 'Modern Engineering Equivalent' or written up value of the assets:

- Has little relationship to any reasonable or commonly accepted valuation of the individual aged assets being removed from the network and for which EnergyAustralia will no longer be responsible in the case of an exit;
- Has little relationship to the actual undepreciated amount of the original investment that EnergyAustralia has yet to recover;
- In Council's experience, can often be a very substantial fraction of the original cost of the installation despite the significant age and poor condition of the assets;
- Results in inappropriately high 'exit charges' should Councils wish to assume responsibility for lighting in the limited cases where this is feasible (eg parks, squares and certain underground-supplied installations); and
- Is a significant barrier to consideration of competitive alternatives, raising questions about EnergyAustralia's use of its monopoly power.

It is also unclear why, if Councils agree to pay for the residual condition based capital charge on the asset being replaced before the end of its useful life, they would also be liable for a higher on-going tariff for the new asset (eg under Tariff class 6) than would otherwise be the case (eg under Tariff class 3 or 5).

## 9) Network Distribution Charges

In EnergyAustralia's Revised Regulatory Proposal (p190) of Jan 2009, it has substantially revised upwards proposed increases in network distribution charges for public lighting. Indicative pricing is now for a first year increase of **47%** (6.1c/kWh for 2009/2010 vs current Tariff 401 pricing of 4.1526c/kWh<sup>19</sup>) and an overall increase during the regulatory period of **153%** (10.5c/kWh for 2009/2010 vs current Tariff 401 pricing of 4.1526c/kWh).

EnergyAustralia has cited rapid load growth and the need for enhanced reliability as key drivers of very significant capital expenditure. However, key differences in the characteristics of public lighting suggest that the proposed increases may represent an inappropriate cross subsidy from public lighting customers to other classes of customers.

**a) Public lighting is held to a very different and substantially lower reliability service standard than general network customers.** EnergyAustralia aims for 99.999% reliability on its network<sup>20</sup> and proposes substantial investment over the regulatory period to meet a number of reliability goals. However, public lighting accounts are held to a substantially lower reliability service standard than general network customers. In summary:

- Under the NSW Public Lighting Code and DNSP reporting requirements<sup>21</sup>, public lighting reliability is measured in days not minutes as is the case for other network customers;
- Public lighting supply interruptions are explicitly excluded from current network reliability measures (eg SAIDI and SAIFI figures). Currently, the NSW Department of Water & Energy (under provisions of the *Electricity Supply Act 1995*) required that each electricity network operator produce an Annual Electricity Network Performance Report covering major issues concerning the operation of their network including

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[http://www.energy.com.au/energy/ea.nsf/AttachmentsByTitle/Network+Price+List+0809/\\$FILE/Final+\\_Network\\_Price\\_list\\_2008-2009\\_290508.pdf](http://www.energy.com.au/energy/ea.nsf/AttachmentsByTitle/Network+Price+List+0809/$FILE/Final+_Network_Price_list_2008-2009_290508.pdf)

<sup>20</sup> EnergyAustralia presentation to AER Forum 30 July 2009

<sup>21</sup> IPART Electricity DNSP Reporting Manual, Dec 2007, p13



reliability. The reports are produced using an outline issued by the Department<sup>22</sup> consistent with the guidelines established by SCONRRR<sup>23</sup> and as detailed in the National Regulatory Reporting for Electricity Distribution and Retailing Businesses - Utilities Regulators Forum Discussion Paper March 2002<sup>24</sup>. Of note is that:

- public lighting customers are explicitly excluded from the definition of distribution customers<sup>25</sup>; and
- interruptions to unmetered public lighting supplies are explicitly excluded from reliability reporting<sup>26</sup>.
- Under the proposed Service Target Performance Incentive Scheme for DNSPs released by the AER on 4 February 2009<sup>27</sup>, the STPIS will again explicitly exclude street lighting supply interruptions (as per Appendix A – Note 2).
- There is no regulated reliability target for NSW public lighting with provisions of only limited effectiveness in a voluntary NSW Public Lighting Code:
  - In Section 11.1, the Code cites the need to maintain the in-service values of the Australia Standard AS/NZ1158. This Standard sets a minimum 95% availability at any given point. 95% availability is notably several standard deviations lower level of reliability than is being targeted for other classes of network customers. And, there is no penalty specified for failing to meet even this reliability level or any incentive to exceed it.
  - In Section 11.2b, the Code says the DNSP needs to repair street lighting within an average of 8 working days of the fault being reported. In Section 12.1, a \$15 penalty becomes payable where the repair has not been completed in 12 working days. In practice, the small penalty amount is only paid to customers on application<sup>28</sup> and no penalties were reported to have been paid to Councils as public lighting customers in the first two years of Code implementation<sup>29</sup>. Notably, penalties are non-recurrent in the case of prolonged outages.
- Prolonged outages due to underground supply faults have apparently been excluded in EnergyAustralia reporting of average repair times to Councils<sup>30</sup>. However, as some indication of how long underground supply faults to public lighting can go unattended, a report provided to SSROC by EnergyAustralia for 06/07 indicated that outages exceeding 50 days had occurred in 30 of 41 Councils served. In 17 Council areas outages exceeding 100 days occurred and in at least 4 cases outages exceeded 200 days<sup>31</sup>. Most of these prolonged outages are likely to have been cause by network supply faults.
- Councils are still expected to pay the full cost for lighting even in the case of prolonged outages.

**b) Public lighting load is declining.** At Councils' request, EnergyAustralia has recently adopted default replacement lighting choices that will see a steady decline in the overall energy consumption of lighting. As individual customers and as a collective, the public lighting load on the EnergyAustralia network is expected to decline by approximately 35% as new energy efficient technologies agreed to by EnergyAustralia are fully deployed<sup>32</sup>. A quarter to a third of this load decline is expected over the coming regulatory period just

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<sup>22</sup> <http://www.deus.nsw.gov.au/energy/Electricity/Electricity%20Network%20Performance%20Report.asp>

<sup>23</sup>

<http://www.esc.vic.gov.au/public/Energy/Regulation+and+Compliance/Performance+Reports/National+Comparative+Performance+Data+-+Electricity/Energy+Distribution+Businesses+-+National+Comparative+Performance+Data+-+Electricity.htm>

<sup>24</sup> <http://www.accc.gov.au/content/item.phtml?itemId=332190&nodeId=dc4aa2ded45414f0492929936649b125&fn>

<sup>25</sup> Ibid p8 Business Descriptors - Distribution Customer

<sup>26</sup> Ibid p6 Table 1: Reliability Measures, Note 3

<sup>27</sup>

<http://www.aer.gov.au/content/item.phtml?itemId=726473&nodeId=ab47a81b3d3089d11e8db58ebc4040b2&fn=Proposed%20amended%20STPIS%20-%20February%202009.pdf>

<sup>28</sup> NSW Electricity Information Paper No 5, p8

<sup>29</sup> As per feedback from Councils and as confirmed at an SSROC meeting with EnergyAustralia management of 18 Sep 2007

<sup>30</sup> As per documentation provided by EnergyAustralia to SSROC at a meeting with EnergyAustralia management of 18 Sep 2007

<sup>31</sup> Ibid

<sup>32</sup> Based on defaults agreed to with EnergyAustralia, loads as determined by the NSW Street Lighting Load Table and EnergyAustralia supplied inventories. Analysis available on request.

through the normal course of replacements as older luminaires fail (eg even without accelerated replacement programs).

Specifically, all old high wattage mercury vapour lights on main roads (250W MBF, 400W MBF and 700W MBF) that are replaced over the regulatory period will use on average 33% less energy than the luminaires they replace. Old high wattage mercury vapour lights on main roads account for approximately 60% of the lighting on main roads and are generally in the latter stages of their useful life.

On residential roads, new energy efficient lighting will use up to 65% less energy than EnergyAustralia's default light until 2008, the 80W mercury vapour. Regardless of which older residential road lighting technology is being replaced (eg 80W MBF, 70W HPS, 50W MBF, 50W HPS and a variety of obsolete fluorescent luminaires), the new energy efficient lights will not exceed the energy consumption of the current installation. Only in exceptional cases (eg where an upgrade in lighting levels is required) would replacements exceed the power consumption of current installations.

As most Councils served by EnergyAustralia are well established areas with no new subdivisions, the decline in load from existing lighting will substantially exceed any growth in load from new public lighting assets on EnergyAustralia's network which have been growing at less than 0.5%/yr<sup>33</sup>.

In conclusion, it appears that EnergyAustralia seeks for public lighting customers to cross subsidise the reinforcement of the network for reliability, well beyond the reliability levels being met for public lighting customers. Furthermore, EnergyAustralia proposes to cross subsidise capital expenses associated with load growth that is not attributable to public lighting.

#### **10) Inappropriate On-Going Network Tariffs for Council-Owned Lighting**

On a related matter, Councils seek the AER's assistance in its Final Determination in resolving a long-standing concern about Councils' inability to access the appropriate Network Tariff 401 for Council-owned lighting.

Council-owned lighting, whether separately metered or connected as a "Special Small Services," is separately billed to the main public lighting account. These Council-owned lighting accounts have typically been placed on a General Supply Tariff, and pay network and, consequently, retail energy charges as if the bulk of their consumption was during peak periods. This results in considerably higher ongoing charges for such installations of perhaps 30-40%, even if they use the same lighting technology and energy consumption is identical to EnergyAustralia standard luminaires.

Following queries from SSROC in 2003 about these non-cost reflective network and retail charges, and potential competition issues, EnergyAustralia introduced a new network tariff in 2004. The tariff definition is: "*Public Lighting [401]: Available for metered and unmetered supplies that are deemed to have a similar usage profile to public lighting and have some form of on/off control. The form of on/off control may be photoelectric cell, timer, ripple or other control.*"<sup>34</sup>

In practice, however, Councils have been unable to switch accounts to this more appropriate network tariff or correspondingly appropriate retail tariffs.

In an effort to progress this, a number of "test" accounts were identified by Woollahra and Rockdale Councils in 2004/05 and were checked by Council staff to ensure consistency with EnergyAustralia's published tariff definition<sup>35</sup>. Despite various commitments to work through the issues involved, EnergyAustralia has yet to resolve even these "test" accounts.

Combined with the high exit charges from arrangements concerning existing assets (see item 8 above), these charges represent a significant barrier to consideration of competitive alternatives in the limited cases where

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<sup>33</sup> Based on comparison of EnergyAustralia inventory summaries provided in 2004 and 2007

<sup>34</sup> [www.energy.com.au/energy/ea.nsf/AttachmentsByTitle/Network+Price+List+06\\_07/\\$FILE/Network\\_Price\\_List\\_FY07.pdf](http://www.energy.com.au/energy/ea.nsf/AttachmentsByTitle/Network+Price+List+06_07/$FILE/Network_Price_List_FY07.pdf)

<sup>35</sup> **Woollahra Accounts:** 805843340, 910336905, 911351449, 911378528, 911387305, 911435033, 911442321, 911529824, 91175697, 911795833, 916880154, 916880162, 920221005, 920234886, 921040743, 921606498, 829912703, 806180799, 805494482, 821847029;  
**Rockdale Accounts:** 830886674, 833076814, 830886420, 829837210, 830703581

Councils are able to manage their own lighting independent of the distribution network poles (eg parks, squares and certain underground-supplied installations).

SSROC welcomes further discussion with the AER about any of these items as well as matters raised in previously submitted documents.

Yours sincerely,



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SSROC

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Leta Webb – Executive Director, SHOROC  
Roger Stephan - Hunter Councils*

**SLI Program Councils:**

The Council of the Municipality of Ashfield	Kogarah Municipal Council
Rockdale City Council	Bankstown City Council
Ku-ring-gai Council	Ryde City Council
The Council of the City of Botany Bay	Lake Macquarie City Council
Singleton Shire Council	Burwood Council
Lane Cove Municipal Council	Strathfield Municipal Council
City of Canada Bay Council	Leichhardt Municipal Council
Sutherland Shire Council	Canterbury City Council
Marrickville Council	Warringah Council
Cessnock City Council	Mosman Municipal Council
Waverley Council	Council of the City of Sydney
Newcastle City Council	Willoughby City Council
Gosford City Council	North Sydney Council
Woollahra Municipal Council	The Council of the Shire of Hornsby
Pittwater Council	Wyong Shire Council
The Council of the Municipality of Hunters Hill	Port Stephens Council
Hurstville City Council	Randwick City Council