

## Energy Savings Scheme Rule December 2015 consultation submission from: SSROC SLI

Submission content:

Brendan,

Thank you for organising yesterday's meeting on public lighting in the context of the proposed ESS Rule change. Below and attached are the comments made by the [SSROC SLI Program](#) to IPART and the Department of Industry. If you feel that any of the items that we discussed yesterday are not adequately covered in this material, we'd be happy to make further comments by this Friday's submission deadline.

With regards to the specific issue of the definition of the Energy Savers, I suggest that a definition that allowed either the owner of the lights or the road authority to be the Energy Saver would encompass almost all circumstances. Under the NSW Roads Act 1993, local councils are generally the roads authority and owner of public roads in their local government areas with some very clear exceptions (Freeways, tollways, large bridges, some tunnels, isolated rural intersections and private roads). As the road authority, local councils generally pay for the costs of the street lights in their local government areas on all classes of roads including on traffic routes (State Roads, Regional Roads and some specially designated Local Roads with higher traffic volumes where the RMS sets the lighting levels required but the local government remains the road authority). In list of limited exceptions, it is generally the RMS that controls the lights as the road authority (eg with responsibility for freeways, tollways, large bridges and key tunnels) or there is a clear private owner of the lighting such as transport agencies, universities, military bases and mining sites.

I'd be happy to discuss any of the matters raised further as useful.

Regards

Graham Mawer  
Program Manager – SLI Program

Hi,

I am writing with comments on the Commercial Lighting Energy Savings Formula [consultation](#) on behalf of the SSROC [Street Lighting Improvement Program](#) which represents 35 councils provided with street lighting services by Ausgrid. The comments below relate solely to public lighting aspects of the Method Guide, Evidence Manual and Evidence Pack that IPART is consulting on.

With the forthcoming completion of the Networks NSW street lighting tender in the coming weeks, councils in the SSROC SLI Program intend to shortly make an Accreditation Application so, the draft Commercial Lighting Energy Savings Formula documentation is of direct current relevance.

Attached in support of SLI Program comments is a sample extract of an Ausgrid street lighting inventory showing the 27 fields available for each street lighting record. Under the National Electricity Market, utility street lighting inventories are accepted by AEMO for assessing load for energy market purposes (eg as Type 7 metering data) and accepted as the primary basis of billing by electricity distributors, retailers and councils. Overall, it is SSROC's view that IPART should accept utility street lighting inventories as the primary documentation to substantiate baseline conditions and replacement lighting under a public lighting RESA.

Specific SSROC SLI Program comments are as follows:

1) **Method Guide 3.1** – The Energy Saver is currently defined under this method as, “...*the purchaser of the relevant lighting equipment*”. In the case of public lighting in the Ausgrid region, Ausgrid is the owner of the lighting and purchases about 95% of all replacement lighting (eg for Tariff 1 & Tariff 3 lights that Ausgrid funds replacement of). Ausgrid has indicated to the councils it serves that, while it will support councils making ESS accreditation applications, it has taken a policy decision not to seek accreditation for public lighting projects itself. It is therefore important that IPART recognises the councils as the Original Energy Saver. Despite councils being neither the owner of the lights nor funding their initial replacement, councils are clearly the customer and beneficiary of the lighting service. And, when replacements are made by Ausgrid, councils must agree to take on an average of 20 years of future capital, maintenance, network distribution, retail energy, environmental and market charges before a light is replaced.

2) **Method Guide 3.2** – Street lighting services provided by Ausgrid are conducted under pricing determinations by the AER that do not constitute either a purchase or lease of street lighting equipment by councils. Councils however are the primary customer and the major beneficiaries of the end-use services provided for them by the street lighting (eg as per 3.2.1). As the road authority, councils are the only body with the power to determine whether to light a road and to what level under AS/NZS 1158.

With regards to a requirement for co-contribution of at least \$5 (excluding GST) per MWh of energy savings towards the lighting upgrade, a different interpretation of this is required for regulated public lighting services. As per above, the utility wholly funds the capital cost of replacement lighting for some 95% of street lighting on its network that is classified as either Tariff 1 or Tariff 3 lighting. There is no provision under the AER-approved tariff arrangements for councils to partly fund the initial capital costs of the lights which Ausgrid views as commercial-in-confidence in any event. However, when replacements are made, councils must agree to take on an average of 20 years of future capital, maintenance, network distribution, retail energy, environmental and market charges. The method should recognise the councils’ regulated tariff payments to the utility are more than equivalent to the \$5/MWh co-contribution.

3) **Method Guide 3.6** – Under the current regulatory approach to street lighting, there are no contracts between councils and utilities and no binding service-level regulation. Councils are therefore not in a position to impose the training requirements of ESS Notice 01/2013 “Minimum Requirements for Installed Conduct (Default Savings Factors)” on Ausgrid, Ausgrid linesmen or Ausgrid sub-contractors’ linesmen who may undertake street lighting replacements. Given the wide variety of people who undertake street lighting replacements within the utility (estimated in the hundreds for Ausgrid), a generalised training requirement such as ESS Notice 01/2013 would be extremely costly to both implement and to track. SSROC also notes that the particular linesmen who install a replacement light is not a field tracked in the street lighting inventories that councils are provided with by the utility.

4) **Method Guide 3.7.3** – Utility lighting upgrades are mostly replacement lighting. When replacing existing street lighting, no new AS/NZS 1158 compliance calculations are undertaken by either the utility or the councils. In practice, the utilities have a series of AS/NZS 1158-compliant design scenarios that they ask lighting suppliers to meet in a tender situation. These design scenarios are intended to ensure that the replacement lights perform at least as well as the old light being removed but do not guarantee compliance

with AS/NZS 1158 design requirements at any particular light. This approach is used by utilities Australia-wide and should be recognised in the method under “Other Benchmarks” as acceptable to IPART if the councils, as the road authority, are willing to accept the replacement light from the utility.

Councils also note that Ausgrid, in undertaking its evaluation of replacement lighting types, does not share all its AS/NZS 1158 compliance calculations and supplier submissions with councils and councils could not reasonably compel Ausgrid to provide this information for an IPART accreditation submission or at the time of an audit. In any event, Ausgrid is likely to view much of the material submitted by suppliers in a tender situation and its evaluation of that material as commercial-in-confidence.

**5) Method Guide 3.8** – This section states that ACP are, “...*responsible for all lighting upgrade activities conducted on your behalf by your representatives, which includes third parties.*” In the case of public lighting, neither councils nor their ACPs would have a contractual relationship with Ausgrid or its linesmen or its subcontracted linesmen. Councils and their ACPs would therefore not, “...*have control over all aspects of the lighting upgrade*”. The method should recognise that public lighting, as a regulated and non-contracted service, does not fit in any way with this requirement. The method should recognise the differing nature of how public lighting is administered.

**6) Method Guide 3.8.1** – Ausgrid linesmen and Ausgrid’s subcontractor linesmen, in undertaking lighting replacements, would in no way be “representatives” of either councils or their ACPs as noted above. An alternative approach for public lighting is needed that recognises the unique nature of public lighting arrangements.

**7) Method Guide 3.8.2** – Requirements for councils or their ACPs to have, “...*formal, documented and enforceable contracts or agreements with all your representiaves (as defined above)*” are infeasbile in the context of public lighting as the councils do not have contracts with the utilities and neither councils nor their ACPs would have any power to impose contractual arrangements on the utility, its linesmen or its subcontractors.

**8) Method Guide 3.10** – This section contains a requirement for councils or their ACPs to have \$5 million in public liability insurance for the life of the RESA (12 years in the case of public lighting) covering the replacement or rectification or property damaged in replacing lights as well as a \$5m product liability insurance policy covering the replacement lights. As neither the councils nor their ACPs will purchase the lights, contract with any party for their installation nor will they be the owner of the lights, this is an infeasible requirement in the context of public lighting. In any event, such insurance policies (or comparable self-insurance arrangements) would already be in place for the utility undertaking public lighting replacements.

**9) Method Guide Appendix A Table A10.4** – None of the Controls System and Control Multipliers for Lighting Upgrades appear to cover public lighting which is generally controlled by a very low energy-consuming nighttime-linked photocell without dimming. The default control multiplier (CM) for public lighting controlled by photocells should be 1.0 reflecting the primacy of the AEMO Unmetered Load Table (or equivalent testing) which looks at total luminaire consumption for purposes of retail electricity billing and for electricity market management purposes.

10) **Evidence Guide – 3.1.4** - In the case of public lighting upgrades, neither councils (nor their ACPs) would have a contractual relationship with Ausgrid or its linesmen or its subcontracted linesmen. The particular linesmen and their supervisors who installed a replacement light is not a field tracked in the street lighting inventories that are provided to councils by the utility. Therefore, imposing a requirement track installers and supervisors of public lighting on councils or their ACPs is both infeasible and impractical. Under the National Electricity Market, utility street lighting inventories are accepted by AEMO for assessing load for energy market purposes (eg as Type 7 metering data) and accepted as the primary basis of billing by electricity distributors, retailers and councils. In the few instances where councils own large numbers of lights directly, comparable equivalent inventories generally exist or could reasonably be created for project purposes.

11) **Evidence Guide 3.2** – As per above, imposing a requirement to track installers and supervisors of public lighting on councils or their ACPs is both infeasible and impractical. Under the National Electricity Market, utility street lighting inventories are accepted by AEMO for assessing load for energy market purposes (eg as Type 7 metering data) and accepted as the primary basis of billing by electricity distributors, retailers and councils. Public lighting inventories should therefore be accepted by IPART as the primary record to evidence both baseline lighting and replacement lighting.

12) **Evidence Guide 3.5** – See response to Method Guide 3.7.3

13) **Evidence Guide 5.1.1** – As noted above, as councils and their ACPs will not be the purchaser of the replacement lighting equipment, the method should recognise and alternative approach to public lighting.

14) **Evidence Guide 5.1.2** – For public lighting projects, the implementation date should be evidenced by the date recorded by the utility in the public lighting inventory. Councils note that CCEW certificates do not have relevance in this context, that tax invoices for equipment purchases are viewed as commercial-in-confidence documents by the utilities and that no comparable document to a ‘Commissioning Report’ exists in this context.

15) **Evidence Guide 5.1.3** – See Method Guide 3.1 comments

16) **Evidence Guide 5.2.1** – See Method Guide 3.7.3 comments

17) **Evidence Guide 5.2.2** – In the context of public lighting, the public lighting inventory prepared by the utility should be accepted by IPART as the primary evidence of baseline and post-installation equipment and consumption. Securing geo-tagged photos, completing lighting diagrams, securing disposal receipts or CCEW’s appear infeasible alternatives or do not have relevance to public lighting in this context.

18) **Evidence Guide 5.2.3** – See Method Guide 3.7.3 comments. Councils also note that CCEW certificates do not have relevance in this context, that tax invoices for equipment purchases are viewed as commercial-in-confidence documents by the utilities and that no comparable document to a ‘Commissioning Report’ exists in this context. Requirements for at least two items from Table 5.6 as supporting evidence are therefore impractical in the context of public lighting. Acceptance by the utility and councils of the replacement luminaire types should be accepted as an alternative. Councils also note that AS/NZS

1158 Part 6 is a few weeks away from being withdrawn because it represented a Technical Barrier to Trade and is likely in breach Australia's international trade obligations.

19) **Evidence Guide 5.2.4** – See Method Guide 3.7.3 comments. Acceptance by the utility and councils of the replacement luminaire types should be accepted as an alternative.

20) **Evidence Guide 5.2.5**. – In the context of public lighting replacements, lighting diagrams, disposal receipts and CCEWs are not available and not a feasible requirement. The public lighting inventory prepared by the utility should be accepted by IPART as the primary evidence of baseline and post-installation equipment.

21) **Evidence Guide 5.2.6** - In the context of public lighting replacements, lighting diagrams, geo-tagged photos and CCEWs are not available and not a feasible requirement. The AEMO load table entry (or comparable supporting evidence where an alternative luminaire is used) should be accepted as the primary evidence for total load including the controls approach. While the AEMO Unmetered Load Tables should be the default, some allowance should be made for technologies not currently on the load tables if supported by appropriate testing documentation (eg new technologies that utilities have not yet adopted or are unlikely to use but may be perfectly suitable for public lighting directly owned by road authorities and councils such decorative road lighting, decorative lighting in parks, floodlights etc).

22) **Evidence Guide 5.3.1** – See Method Guide 3.7.3 comments

23) **Evidence Guide 5.3.2** – CCEWs are not available for public lighting replacements. Utility acceptance of the installation by entry of the lighting details into the public lighting inventory should be taken as acceptance of electrical compliance.

24) **Evidence Pack** - With respect to the Evidence Pack, as per the comments above many of the fields requested appear to relate to building lighting upgrades. Significant amendment appears to be required to use this Evidence Pack for public lighting.

Attached to this submission is a sample extract of 100 rows from a typical street lighting inventory. This sample, from 30 June 2015, is offered as an example of the types of information contained in Ausgrid's street lighting inventory that could be provided to IPART and an auditor under a public lighting RESA to substantiate both the baseline and post-installation situation. We'd be happy to walk IPART staff the 27 fields tracked for each luminaire if useful.

More broadly, we'd be happy to discuss any aspect of the comments above with IPART at any point. Regards,

**Graham Mawer**

Program Manager – SSROC SLI Program