4 December 2015

Manager Energy Projects
Operations and Programs Branch
NSW Department of Industry – Division of Resources and Energy
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Re: NSW Energy Savings Scheme Rule Change Amendments

To whom it may concern,

Lighting Council Australia (Lighting Council) welcomes the opportunity to comment on the *New South Wales Energy Savings Scheme Rule Change Amendments Consultation Paper*. Lighting Council believes implementation of our proposals would increase participation rates/competition in the NSW Energy Savings Scheme (ESS), reduce compliance costs, decrease the amount of damage to the environment due to upgrades under the ESS, maintain service levels when downlights are replaced, increase the opportunities for efficiency upgrades across more building classes and areas, and verify the ongoing service of installed products.

Lighting Council is comfortable with the following NSW Government positions expressed in the *Review of the Energy Savings Scheme Position Paper (October 2015)*:

- Extension of the NSW ESS to 2025
- An increase in energy efficiency savings targets from 5% to 7% in 2016 and up to 8.5% by 2019
- The introduction of a regional network factor of 1.03

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Lighting Council proposes the following:

1. **Alignment of product requirements within incentive schemes operating in Australia**

   Lighting Council is aware of six different energy efficiency incentive schemes operating in Australia. Our goal is to seek the alignment of lighting product requirements, documentation required, product registration processes, public information and alignment of review/consultation processes in order to reduce confusion, regulatory duplication and compliance costs inherent in the current arrangements.

   Lighting Council suggests commitment is needed from all state and Commonwealth scheme owners for harmonisation/alignment of schemes - including product registrations, product requirements and method alignment. The brief mention[1] of harmonisation within the NSW Government's *Review of the Energy Savings Scheme Position Paper* reveals there is much work to be done in this area.

   Many Lighting Council members comment that the opportunity costs due to misalignment of the various schemes is the principal reason they are not involved with these government incentive schemes. The additional resources required to administer the various schemes means that many companies consider it is not worth becoming involved. Lighting Council suggests this situation is resulting in reduced competition and a reduction in the number of quality equipment/brands available and being installed under the schemes.

2. **Response to Question 2 of the Consultation Paper: Do you think that the requirements of a Product Stewardship Scheme such as FluoroCycle are appropriate?**

   FluoroCycle is a voluntary product stewardship initiative which was launched as a partnership between government and industry through the Council of Australian Governments in 2010. During 2013, Lighting Council Australia took over responsibility and management of the scheme as an industry-led and funded initiative.

[1] NSW Government *Review of the Energy Savings Scheme Position Paper, October 2015, Section 6.4 (p81)*

FluoroCycle is designed to increase the national recycling rate of waste mercury-containing lamps. Lamp recycling can help reduce the amount of mercury being sent to landfill. As mercury released into landfill can convert to toxic methylmercury, there is no completely safe way of disposing of lighting waste to landfill. The mercury may escape through the atmosphere and spread to the wider environment. Recycling is currently the only safe and appropriate way to manage wastes containing mercury.

The majority of the mercury vapour in lamps is contained in the phosphor powder at the end of a lamp's life. Following collection, lighting waste is crushed and the untreated phosphor powder is generally stored in sealed steel drums until mercury processing can be completed.

Currently it is estimated that 90 per cent of waste lamps are sent to landfill. FluoroCycle targets the commercial and industrial sectors where the bulk of waste lamps are generated.

The scheme has received strong support from industry with over 270 organisations joining as Signatories.

FluoroCycle Commercial Users commit to:

- Recycle all waste mercury-containing lamps at their nominated sites.
- Have a requirement in relevant contracts for all waste mercury-containing lamps to be recycled.
- Adhere to the FluoroCycle Guidelines and Signatory Guide to FluoroCycle Branding.
- Maintain adequate and suitable occupational health and safety policies that apply to the safe handling, collection, and transport of mercury-containing lamps.
- Provide induction and training of staff necessary to ensure adherence to this commitment.
- Cooperate with random and/or risk-based audits or surveys.
- Submit an annual statement of compliance.

FluoroCycle Facilitators commit to:

- Promote the FluoroCycle scheme and lamp recycling to their clients.
- Adhere to the FluoroCycle Guidelines and Guide to FluoroCycle Branding.
- Provide induction and training of staff necessary to ensure adherence to this commitment.

- Cooperate with random and/or risk-based audits or surveys.
- Submit an annual statement of compliance.

Lighting Council Australia supports the inclusion of a requirement for energy efficiency upgrades to include appropriate disposal of products containing mercury by adhering to the recycling and disposal guidelines of the FluoroCycle scheme.

3. Response to Question 3 of the consultation paper: Do you think that the exclusion of Implementation post codes outside of the Metropolitan Levy Areas is appropriate?

Lighting Council Australia does not agree that a requirement to recycle lighting waste containing mercury will become a barrier for potential energy efficiency upgrades in regional NSW. The major lamp recyclers such as CMA Ecocycle and Toxfree already offer collections across regional NSW. Lamp Recyclers, a national lamp collector, offers pre-paid lamp collection boxes which can be returned to any Australia Post outlet.

Many existing FluoroCycle Signatories are based in regional areas of NSW including Essential Energy in Queanbeyan and Lismore City Council in Goonellabah. In addition, as Signatories to FluoroCycle, several national business and government organisations have already committed to recycle from all their sites. These include regional sites such as Broken Hill, Cooma and Griffith. These cities and towns are not included in the postcodes subject to the Metropolitan waste levy areas listed in Table A25 of the ESS Rule.

As lamp recycling and collection options already exist across regional NSW and many large organisations already recycle from these cities and towns, Lighting Council Australia does not support excluding regional NSW from the requirements of ESS.

4. Response to proposed changes to Activity Definition E1 *Replace halogen downlight with efficient luminaire and/or lamp.*

Lighting Council considers the proposed reduction in downward light output (from 500 lumens down to 385 lumens) required by replacement downlights will result in reduced service levels for the majority of upgraded installations (i.e. those installations where MR16 type luminaires are upgraded). We suggest two lumen levels should be set to cover both GU10 type replacements and MR16 type replacements.

GU10 type halogen lamps have a typical efficacy of 7-10 lumens per Watt. Hence the lumen range of installed 35W and 50W GU10 halogen lamps will be between 245 lumens and 500 lumens (e.g. a quality 50W GU10 halogen lamp will emit 500 lumens) A minimum requirement around the middle of this range (say 385 lumens) should accommodate both 35W and 50W GU10 replacements. Too low a minimum requirement will be a significant reduction in service level and disappoint homeowners where quality 50W lamps are replaced.

MR16 type lamps have been regulated under the Commonwealth Government GEMS Act and required to meet the minimum efficacy levels of the Australian standard AS 4934.2:2011 *Incandescent lamps for general lighting services - Minimum Energy Performance Standards (MEPS) requirements.* MR16 lamps have been required to achieve the following lumen output before being placed onto the Australian market:

- 35W = 462 lumens
- 50W = 722 lumens

A minimum requirement for MR16 lamp replacements around the middle of this range (say 600 lumens) should accommodate both 35W and 50W MR16 replacements. Too low a minimum requirement will be a significant reduction in service levels and disappoint homeowners, especially where 50W lamps are replaced.

5. Commercial lighting activity

The Commercial Lighting Energy Savings Formula currently allows for energy savings to be calculated for control systems using control multipliers. However, the current factors do not reflect the energy savings achievable through the use of occupancy sensors on luminaires and multiple lighting modes (commonly referred to as multimode lighting).

The proposed change to the NSW ESS Rule under Table A10.4A includes additional standard control multipliers for occupancy sensors that switch a luminaire on and off and a control multiplier equation to account for a luminaire's energy saving in reduced power mode. Lighting Council supports this proposed table and in addition suggests that that building areas as well as building classes should be recognised.

Lighting Council considers that certain areas of buildings (as well as the class of a building) should determine whether a control multiplier applies or not. For example, a back of house corridor in a shopping centre (Class 6 building) will have very little pedestrian traffic compared with a retail/public corridor in the same shopping centre. In this case a control multiplier should apply to the back of house corridor in a Class 6 building as the traffic patterns compare to a Class 2 residential corridor where a control multiplier may be applied.

6. **Comment on the development of an evaluation, monitoring and verification framework for the ESS.**

   Lighting Council supports the development of an evaluation, monitoring and verification framework for the ESS as outlined in section 6.1.4 of the *Review of the NSW Energy Savings Scheme Position Paper*. Furthermore we consider such a framework should include a component to verify the ongoing service of the products installed under the scheme.

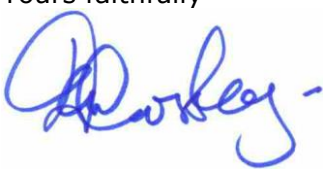
   The scheme provides deemed energy savings over ten years and upfront certificate creation for lighting replacements, yet these savings may not be achieved if the installed products fail and are replaced by inferior products within that 10 year period. Many of the products registered for use under the ESS are little known brands and we question the quality of such products.

Thank you for your consideration of Lighting Council's position. Contact me if you require additional information or if you wish Lighting Council to be involved in ongoing developments in this area.

About Lighting Council Australia

Lighting Council Australia is the peak body for Australia's lighting industry. Its members include manufacturers and suppliers of luminaires, lighting control devices, lamps, solid state lighting and associated technologies. Lighting Council's goal is to encourage the use of environmentally appropriate, energy efficient, quality lighting systems.

Yours faithfully



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