

18 December 2016

Manager Sustainable Energy Programs
Operations and Programs Branch
NSW Department of Industry, Resources and Energy Division
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Dear Manager Sustainable Energy Programs

Energy Mad Submission on NSW Energy Savings Scheme Rule Change 2016-2017

Thank you for the opportunity for Energy Mad to submit feedback on the proposed changes to the NSW Energy Savings Scheme Rule Change 2016-2017.

Energy Mad is listed on the Main Board of the New Zealand Stock Exchange and focuses solely on energy efficient lighting.

2.5 million homes have Energy Mad's "Ecobulb" energy saving light bulbs from 80 electricity utility projects, and from wholesale and retail distribution, in 14 countries (including New Zealand, Australia, the United States – 33 utility projects including a New York wide project – and Germany).

Over 1.1 million Australian homes have had Energy Mad's energy saving CFL and LED "Ecobulbs" installed through energy efficiency scheme, electricity utility and State Government projects in NSW, Victoria, Queensland, South Australia, the ACT and Western Australia.

Over 50 Accredited Providers currently (or have) purchase Energy Mad's Ecobulbs for their installation activities in the Victorian VEET, the South Australian REES, the ACT EEIS and the NSW ESS Schemes.

[More information about Energy Mad can be found in Section 2 of this document titled "About Energy Mad".]

We welcome the positive engagement with stakeholders that is demonstrated by this consultation process and we thank you for your work to further enhance the Energy Savings Scheme.

1. Feedback on Proposed Changes to the NSW Energy Savings Scheme Rule Change 2016-2017

Energy Mad's feedback on the proposed changes to the Energy Savings Scheme Rule applies to the Home Energy Efficiency Retrofit sub-method, and can be summarized as follows:

1. For Question 13, we agree with amending the definition for Small Business Building to allow Energy Savings to be calculated for BCA class 5, 7b and 8 buildings.
2. For Question 14, we agree with amending the definition for Residential Building to allow Energy Savings to be calculated for BCA class 4 buildings.
3. For Question 15, we agree with the following:
 - a. Provide separate Electricity Savings Factors for Small Business Buildings based on 4,200 hours in Activity Definitions E1, E4 and E5.
 - b. Provide a separate Deemed Activity Electricity Savings equation based on 3,000 operating hours in Activity E11.
 - c. Provide separate Electricity Savings Factors for Small Business Buildings based on 3,000 hours for 'LED Lamp only – ELV' replacements in Activity Definition E1.

- d. Provide separate Electricity Savings Factors for Small Business Buildings based on 1,000 operating hours in Activity Definitions E2.
- 4. For Question 16, we agree with the proposal to expand Activity E1 to allow Energy Savings to be calculated when replacing an ELV halogen downlight with a 240V LED.
- 5. For the draft ESS Rule §9.8 Activity E1, we:
 - a. Note the bottom part of Table E1.2 “*Small Business Building Electricity Savings Factor (MWh per Lamp replaced)*” that allows the replacement of the “*Tungsten halogen lamp 240V*” with:
 - i. “*LED Lamp only – 240V Self Ballasted*”; or
 - ii. “*LED Lamp and Driver or LED Luminaire – recessed*”.
 - b. This bottom part of Table E1.2 has specified **incorrectly lower Energy Savings for the “LED Lamp only – 240V Self Ballasted”**. Energy Mad recommends the Energy Savings for the “LED Lamp only – 240V Self Ballasted” be set to the same Energy Savings listed in this table for the “LED Lamp and Driver or LED Luminaire – recessed”.

2. About Energy Mad

Energy Mad's goal is to “**save enough electricity to power New Zealand for one year!**”

Energy Mad has achieved the following successes that has got it 40% of the way towards achieving this goal:

- 3.1 Developed and sourced the ultra-high performance CFL and LED “*Ecobulbs*” that replace incandescent and halogen lamps.
- 3.2 2.5 million homes have Energy Mad's Ecobulb energy saving light bulbs from 80 electricity utility projects, and from wholesale and retail distribution, in 14 countries (including New Zealand, Australia, the United States – 33 utility projects including a New York wide project – and Germany).
- 3.3 Over 1.1 million Australian homes have had Energy Mad's energy saving CFL and LED Ecobulbs installed through energy efficiency scheme, electricity utility and State Government projects in NSW, Victoria, Queensland, South Australia, the ACT and Western Australia.
- 3.4 Over 50 Accredited Providers currently (or have) purchase Energy Mad's Ecobulbs for their installation activities in the Victorian VEET, the South Australian REES, the ACT EEIS and the NSW ESS Schemes.
- 3.5 Developed and implemented 37 New Zealand household and commercial Ecobulb CFL projects with government, 25 electricity utilities, 450 supermarket stores and 240 Shell New Zealand convenience stores. 5.0 million Ecobulbs were sold and installed, with 57% of New Zealand homes having purchased five or more Ecobulb light bulbs each.
- 3.6 These New Zealand Ecobulb projects used funding from 25 electric utilities and the New Zealand government. They involved direct mail to utility customers, along with innovative point of sale displays.
- 3.7 They included developing the innovative monitoring methodology to measure the peak load, electricity savings, and carbon dioxide emission reductions arising from the Energy Mad Ecobulb projects. These projects were independently verified to the Clean Development Mechanism of the Kyoto Protocol.
- 3.8 Supplied energy saving bulbs to all 8,000 Walgreens (the world's second largest retailer) United States stores.

- 3.9 Globally Energy Mad's Ecobulbs have saved 726MW of electricity generating capacity, \$4.1 billion from customer's electricity bills and 19,000 GWh of energy for households and businesses.
- 3.10 Being New Zealand's fastest growing company in by winning the 2007 Deloitte "Fast 50" Award.
- 3.11 New Zealand award winners for business, energy efficiency, sustainability and clean technology, and innovation.
- 3.12 Listed on the Main Board of the New Zealand Stock Exchange in October 2011.

Further information about Energy Mad can be found <http://www.energymad.com/>.

Kind Regards



Dr Chris Mardon
Founder, Energy Mad