

To whom it may concern

To : The Department of the Environment and Energy, Australia

Re: Consultation Regulation Impact Statement – Lighting

Dear Sir/Madam,

We appreciate the effort put in by the Department of the Environment and Energy, but from a manufacturer's point of view we have several reservations. As with the MEPS for CFLs, everything pre-implementation was fine. But in the implementation, the Department failed. We were one of the victims. Our case was brought to the attention of the Department of Environment but nothing was done. We followed the MEPS for CLFs 100% and, naturally, prices went up. We lost market share to those who had the temerity to sell lamps that did not fully comply with the MEPS. Consider just the 5,000 hours lumen maintenance requirement. Almost none of the CFLs currently in the market meet this requirement. Ours did.

Just registering products for MEPS will not guarantee a quality product. The Department should understand the practical implication of the MEPS implementation. Lamps can be made to fulfil the requirements and registration can be done. But all this comes at a cost to the manufacturer and hence the supplier. We sense that the Department believes that the costs involved should be borne by the suppliers or manufacturers. But all suppliers and manufacturers (especially in the lighting field) are currently in the grip of an economic squeeze. With heavy competition and fraudulent claims about specification compliance, how can the genuine manufacturer survive? We have our lamps tested in independent labs and submit the lab's report to obtain Australian safety approvals. This process costs us USD35,000–55,000 on average every year. Some competitors do not bother with this expense.

A critical issue regarding LEDs is that things are changing rapidly. Products are modified for better performance and appearance almost continuously. We fear that the kind of registration the Department has in mind will hinder these sorts of quality-oriented developments.

Before answering the Department's questions, we have the following questions for the Department:

1. How will the Department ensure that the chips a manufacturer uses to gain MEPS approval will be the same chips the manufacturer uses in the commercial product? (The same question is relevant to LED drivers.) Put another way, what governance will the Department exercise (assuming that manufacturers will not have the freedom of self-regulation)?
2. Has the Department carefully considered the harmonics requirements? It is important that low power factor requirements are not confused with high power factor requirements, as they are in the specification. A Professor in Electrical Engineering from a reputed university should review the specification, as wrong information in the specification will seriously detract from its value.

3. Why is interpolation necessary when making equivalency claims? From a manufacturer's perspective, this is meaningless.
4. What strategy will the Department adopt for, say, 6000 hours requirements? By the time a test is completed, a year has gone by. Why are these requirements mentioned in the paper?
5. **Efficacy (or luminous efficacy) is the ratio of light emitted by a lamp to the power consumed by it, that is, lumens per Watt. When control gear losses are included, it is expressed as lumens per circuit Watt. From this it is claimed that "the higher the efficacy the more efficient the product".**

But this claim is totally wrong and misleads the end-user. I am puzzled as to why the Department stubbornly refuses to accept that the claim is wrong and correct it. I raised this with SEAD too, who commented that:

"I agree that the statement "The higher the efficacy value, the more energy-efficient the lighting product" is not 100% accurate. Had ICF been consulted while SEAD partners were establishing the program requirements and supporting documents, I likely would have proposed something like "Comparing two products with equivalent light output, the more energy-efficient product is the one with the higher efficacy value.""

"Comparing two similar luminaires with equivalent light output, the more energy-efficient product is the one with lower input power and, thus, higher efficacy" is better than my original proposal?"

"In my mind, for consumers, this better addresses concerns about direct comparisons of fluorescent products (relative photometry) to LEDs (absolute photometry) and incorporates the aspect of reduced energy consumption."

I'll now answer the Department's questions one by one ?

General 1. We have estimated that 10,200 lamp and LED luminaire product types would be covered by the proposed LED MEPS over a 10 year period. Do you agree with this product estimate, noting the LED product scope, exemptions and proposed definition of family of models in Attachment H? If not please provide a revised estimate with supporting evidence.

When you say that this is an estimation, we have no say in it.

2. We have estimated that 600 traditional commercial luminaires, being supplied by 40 entities, would be covered by the proposed Commercial Luminaire MEPS. Do you agree with this supplier and product estimate, referencing the proposed definition of family of models in Attachment H? If not please provide a revised estimate with supporting evidence.

No comments for the estimation.

3. We assume that the price of LED lamps and small LED luminaires won't increase, and there will only be a small short term price increase for larger LED luminaires, as a result of proposed changes to regulation. Do you agree with this assumption? If not why not? Please explain.

We cannot agree with this assumption. LED lamps and small LED luminaires are sold at low prices, which prompts the question: how will a manufacturer recover the registration cost? If this regulation is not implemented properly, the genuine manufacturer will be left bleeding.

4. We assume that the price of traditional commercial luminaires won't change significantly from proposed changes to regulation. Do you agree with this assumption? If not why not? Please explain.

No comments

5. What, if any, unintended outcomes might arise from implementing the policy options? Please explain and give examples if possible.

No comments

6. What might help you easily comply with the proposed regulations? Do you have any suggestions to simplify or streamline the registration process?

Rather than listing so many parameters necessary for registration, give precedence to those parameters that define energy efficiency.

7. If approved, the regulation for LED and Commercial Luminaire MEPS is planned to commence in January 2018, with the determination and test standard to be published six months prior. Noting that existing stock will still be able to be sold after that date, do you consider that this timing is sufficient to allow time for industry to implement this change?

We feel that 8 months prior should be sufficient.

8. If approved, the regulation to increase MEPS for incandescent lamps, is planned to commence in November 2018, conditional on the introduction of LED MEPS (allowing time to address LED quality issues) and the replacement Incandescent MEPS determination being released six months prior, to allow time for industry to alter supply chains and minimise wastage of materials that are no longer needed. Noting that existing stock will still be able to be sold after that date, do you consider that this timing is sufficient to allow time for industry to implement this change?

Yes, sufficient

9. If you consider that timing of proposed regulatory change is inadequate, can you give us details on alternative ways and means that you could comply with regulations.

No comments

LED MEPS

10. Do you consider that the proposed MEPS efficacy level for 2018 is appropriate? If not please explain your rationale with suggested alternative. The proposed level is based on the 2016 IEA4ESSL recommended level (present), noting that suppliers will be required to test at least 10 lamp products (or 4 small, 2 large luminaires) to demonstrate that the mean of the sample of their model meets the minimum efficacy level.

Although we do not agree with the 2016 IEA4ESSL recommended level, meeting the minimum efficacy level is not an issue.

11. Do you agree with the proposed mandatory minimum performance standards, outlined in Attachment H? If not, please advise of alternative approach with supporting rationale.

Agree, in part. As a manufacturer, we are forced to undertake many different tests in order to gain our certifications and registrations. Our fear is that these registrations will just be paper work, as occurred with the MEPS for CFLs. There needs to be industry governance as well.

12. Do you agree with the proposed test methods, outlined in Attachment H? If not please advise of alternative approach with supporting rationale.

Agree

13. Do you agree with the proposed staging of implementation by product category? If not, please advise of alternative approach with supporting rationale.

No comments. Product category varies, based on the application as well.

14. Do you agree with the proposed definition of family of models outlined in Attachment H? If not, please advise of alternative approach with supporting rationale.

Agree

15. Do you agree with the proposed mandatory marking requirements outlined in Attachment H? If not, please advise of alternative approach with supporting rationale.

Agree

16. Please provide indicative costs to implement proposed marking requirements.

It varies

17. Please provide indicative costs to implement proposed marking requirements in a standardised format (i.e. consistent mandatory labelling).

This varies

18. Do you support consistent mandatory labelling on LED packaging, to make it easier for consumers to compare key characteristics of LED products?

Yes, but this will only help those consumers who buy lamps from retail outlets, such as supermarkets and lighting shops. Not all lamps are sold through retail outlets.

19. Please provide an estimate on the cost imposed on suppliers to undertake proposed LED testing.

It varies

Commercial luminaire MEPS

10. Do you identify any concerns with the proposed LOR test approach?

No comments

11. Do you agree that the testing proposed would result in little to no additional testing for suppliers who are already conducting testing for linear lamp registrations?

Don't agree

12. Do you agree that non-integrated commercial luminaires will remain in the market in Australia and New Zealand as products are installed in some new or renovated commercial and industrial buildings over the next five years? Please provide estimates of the future market share of these products.

No comments

13. Do you agree that MEPS on commercial luminaires is warranted if MEPS is introduced for LED luminaires, to prevent the regulatory imbalance described above? If not, please explain your rationale.

Whether MEPS is introduced or not, commercial luminaires are manufactured according to the customer's spec and come with a 5 year warranty.

14. Are there any gaps or issues with the proposed scope definition for commercial luminaires to be subject to MEPS?

No comments

15. Do you consider that the proposed MEPS level is appropriate to achieve energy savings at the cheap end of the commercial market?

Not quite sure. What is replaced with what defines the energy savings. MEPS is for general requirements only.

16. As a supplier, do you consider that MEPS on commercial luminaires would have a minor, moderate or major impact on your business? What, if any, concerns do you have with this option? Please provide estimates of any reduction in overall sales – where you are currently selling commercial luminaires that will be below the proposed MEPS.

Moderate or major impact on our business. It all depends on the Department's implementation strategy.

17. Is there any significant product categories that may be removed from the market as a result of the proposed MEPS levels?

No comments

18. With the removal of the poorest performing luminaires, do you agree that there are adequate replacement products at a relatively similar price, resulting in a minor impact on the end user consumer?

Agree, in part

19. Limited data is available to assess the impact of the proposed MEPS on price. Modelling has assumed a 0.5 per cent increase in price with a 1 per cent increase in efficacy relationship. Is this assumption broadly reasonable? If not, please advise of alternative with supporting rationale. The E3 Program would

welcome price data on commercial luminaires sold with associated efficacy to substantiate the accuracy of modelling (to be held in-confidence).

If you take a commercial luminaire, the price can vary dramatically. For example, a LED panel can be made for AUD30, but also for AUD45. Both can meet MEPS, so any particular price increase cannot be determined. It is all based on the customer's requirements.

Mandatory labelling – all lighting technologies

29. Please provide indicative costs to implement proposed label requirements.

No comments

30. Do you consider in the absence of the further phase-out of incandescent and halogen lamps, that mandatory labelling across remaining incandescent, halogen, CFL, LED lamp and small LED luminaire products primarily used in the residential sector would assist consumers in selecting a light bulb to meet their needs?

Not really

31. How long would industry require to implement proposed label requirements? Please provide rationale.

No comments

32. Do you consider that an information label, similar to the US FTC, would be most suitable for the Australian market? If not, please provide alternative suggestion with supporting rationale.

No comments

33. Do you consider that incandescent watt equivalency should be included as a mandatory attribute? Alternatively should this attribute be voluntary, allowing suppliers to transition away from this equivalency as consumers become more informed about lumens?

No longer needed, as consumers are well informed.

34. Do you agree with our assertion that implementing labelling independently in New Zealand would be difficult?

No comments

35. Do you consider that mandatory labelling will significantly increase the purchase of energy efficient light bulbs in Australia? If yes, please provide research to support your claims.

We doubt it, as the market penetration of LED light bulbs has declined dramatically. We even stopped manufacturing them, mainly because they cannot compete against low quality bulbs. Perhaps you need to make the MEPS for incandescent lamps tighter so as to remove the most inefficient lamps.

36. Can you advise of existing electronic transformers installed that are not compatible with any LED MR16 lamps on the market and if possible estimated number of installs.

No comments

37. The Department requests further advice to confirm the assumption that sensors and timers sold post 2010 are generally three wire.

No comments

38. Please advise if you consider if there are moisture ingress concerns with LED under certain conditions, including data/evidence to support your claims.

It's all up to the environment of the application.

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39. Please advise of any conditions (heat/moisture/other) where LED would not be a suitable replacement with data to support claims.

No comments

40. Is the exception for traffic lights necessary or are LED now considered superior under these conditions and thus the exception is no longer necessary?

It all depends on the design. LEDs can be made to work under extreme conditions.

41. Do you have any concerns with the proposed timetable to phase out halogen lamps? Are there any halogen type lamps on the market where there is no LED suitable replacement?

No comments

42. Are there additional costs to industry or consumers that need to be considered with this option, not already specified in the Impacts section of this RIS?

No comments

43. Do you consider that the estimated costs of this option are realistic? Please explain with supporting data, if possible.

No comments

44. Please suggest options to assist households with incompatible legacy lighting systems to make the transition to LED lighting.

Incompatibility arises when it comes to dimmers and electronic transformers. It is not that easy to assist households. Should educate electricians instead.

Information and education campaign

45. Do you think a broad education campaign would be beneficial to raise awareness of changes and assist in the transition?

Yes, absolutely

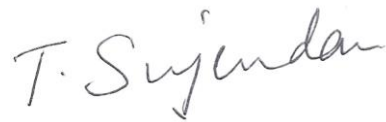
46. Would your organisation like to be involved in the development of the communication strategy and rollout?

Yes

47. Do you have any feedback/suggestions on how communications could be best approached, drawing on any experience through the 'Change the Globe' campaign or New Zealand's Rightlight education campaign?

No comments

Your's Sincerely,



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