

Removal of LCPs not at rated power

LCPs not determined at rated power will be removed from the public list

In December 2020, we advised that we would remove from our [public list](#)¹ the Lamp Circuit Powers (LCP) that were incorrectly published at multiple power settings for some lighting products.

[Notice 05/2020](#) sought feedback on our proposed timeframes for removal, and the arrangements for projects affected by the removal of these LCPs.

After considering your feedback, we will remove from the public list any LCP that was not determined at a product's rated wattage. We will do this progressively from 1 April 2021.

ACPs will be able to create ESCs using an LCP removed from the list, provided that the LCP was published on the public list as at the project's Implementation Date.

There is no change to the existing equipment requirements for lighting under the Energy Savings Scheme (ESS). You can continue to use products which incorporate dimming capability, multiple wattage settings, or incorporate drivers with adjustable power or current output, provided that the LCP is determined at the rated power of the product.

We have considered your feedback

We received four submissions, which covered three main themes:

- ▼ Restricting the use of products with switchable wattage settings will impose costs and does not reflect market trends and product developments
- ▼ The need for transitional arrangements, and in particular considerations for existing projects and stock levels, and
- ▼ That the legitimate savings and benefits switchable wattage products deliver should be recognised, and that removal will discourage innovation and flexibility.

We thank everyone for their feedback and have given consideration to the issues raised. This Information Paper provides our responses to your submissions.

We have worked with the Essential Services Commission to ensure that our position is as far possible, consistent with the Victorian Energy Upgrades (VEU) program and industry practices. This will ensure commonality between our two programs, consistency in outcomes and reduce costs for stakeholders.

There are no changes to requirements for switchable products

Several submissions expressed concerns that:

- ▼ The removal of low power LCPs would prohibit the use of luminaires that incorporate drivers (control gear) with adjustable current or power settings.
- ▼ This would require products to be redesigned, or modified for use in the ESS, and

¹ Emerging Lighting Technologies (ELT) products such as LEDs and induction luminaires must meet certain safety and performance requirements prior to acceptance for use in a lighting upgrade. Accepted products are maintained on a public list on the ESS website.

- ▼ This would add cost and be inconsistent with market trends and developments.

We are removing LCPs that were not determined at that product's rated wattage conditions and were accepted in error.

We are not removing any product from the public list altogether or making any changes to the existing equipment requirements.

Luminaires with switchable wattage settings or incorporating adjustable power supplies remain eligible for use under the ESS. The LCP published for these products must be determined at the rated wattage, because:

- ▼ The lighting equipment in Table A9.1 and Table A9.2 determines LCP from the equipment's *Nominal Lamp Power*, and
- ▼ The other deemed methods generally use the rated power and/or capacity to determine the energy savings.

Some submissions asked that there be a clear distinction between "easily switchable" or "user configurable" and "factory fixed" luminaires. We consider such a distinction unnecessary as we are not making any change to the equipment requirements and the rated wattage is specified by the manufacturer.

In addition, we note that all luminaires sold in NSW must comply with *AS/NZS 60598.1* which requires in clause 3.2.8 that the *rated wattage* be clearly marked on the luminaire.²

We also note that testing procedures and standards generally require tests to be conducted at rated wattage. For example, *IES LM-79-08* specifies that if the product has dimming capability, measurements shall be performed at the maximum input power condition.

Please refer to the example provided in appendix A for more information.

Dimmable or power adjustable luminaires can utilise Control Multipliers

Submissions noted that removing the lower power LCPs for switchable products would not reflect the energy savings that are achieved by using a lower power setting.

The commercial lighting formula includes a *Control Multiplier* variable which recognises that lighting control systems can affect the power drawn by reducing lighting levels when not required.³

You may apply a control multiplier to a product if it includes controls that allows a user to manually adjust the light output. Table A10.4 includes a control multiplier for *Manual Dimming* which is defined to mean:

A control device that allows a user to control Luminaire light output using a knob, slider or other manual input mechanism or by manually selecting a pre-programmed light level (scene).

We expect this will accommodate most of the products where a low power LCP was incorrectly published.

² AS/NZS 60598.1 is prescribed through the Gas and Electrical (Consumer Safety) Act 2017 and AS/NZS 3820.

³ The Control Multipliers reduce the Baseline Consumption and/or Upgrade Consumption when the lighting equipment is connected to a lighting control system specified in Table A10.4 of the ESS Rule.

Other control multipliers may apply if the product's light output is reduced automatically through sensors or programming.

Process for identifying and removing low power LCPs

We have been working with the Victorian Essential Services Commission to identify low power LCPs that may have been published in error. We will progressively remove these LCPs as they are identified after contacting the applicant who submitted the original product application. We will provide them with an opportunity to demonstrate that the LCP is not a low power LCP (i.e. it was determined at its rated power).

If you identify any products with lower power LCPs on our public list, we ask that you report it and we will investigate accordingly.

Please provide any details to esslighting@ipart.nsw.gov.au.

ESCs can be created using an LCP on the list at the Implementation Date

The submissions expressed concerns about the effects of removing low power LCPs on existing implementations. To address these concerns, we are proceeding with the proposal set out in *Notice 05/2020*. This will permit ACPs to calculate and create ESCs using a lower power LCP that is not on the public list at the time of ESC creation, provided that:

- ▼ The lower power LCP was on the public list as at the Implementation Date, and
- ▼ Low power LCP corresponds to the power setting selected or configured as at the time ESCs are created.

Accordingly, no project implemented prior to 1 April 2021 will be unduly affected by the removal of a low power LCP. Appendix B below provides examples for clarity.

Some submissions requested that we provide stakeholders with time to clear stock and develop compliant products. We consider it unnecessary to do this as we are not removing any products from the public list altogether (only incorrectly rated LCPs), and we are not changing any requirements for lighting equipment under the ESS. We also note that we advised stakeholders that we would be removing the lower power LCPs on 4 December 2020. This provided stakeholders with over three months' notice.

Appendix A: Examples and further clarification

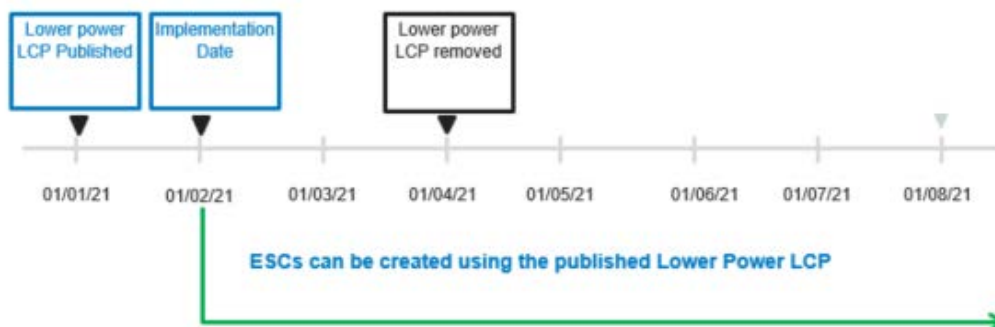
Example 1 – LCP wattage as marked on the luminaire aligns with the testing done

Luminaire Company	
Model: Model 1 - 10W LED Luminaire	
Made in NSW	
Input Voltage: 100-240V	Rated power: Max 10W (adjustable between 2-10W)
Input Current: 0.048A	Power Factor: 0.9 lagging
Frequency: 50/60 Hz	

Published LCP must be determined at the rated wattage marked on the luminaire's label. i.e. at 10W

Appendix B: Creating ESCs where LCP was published at Implementation Date

Scenario 1 - Lower power LCP published at Implementation Date



Scenario 2 – Lower power LCP removed before Implementation Date

