

Proposed changes to product type and certificate creation for building based lighting upgrades (activity 34)



15 September 2020



We have undertaken work to recategorise the 'LED other (240V)' lamp type to new lamp types for building based lighting upgrades to align them better with the VEU specifications 2018

We have also determined the available upgrade lamp ballast combinations and the available asset lifetime references for the installation for each lamp type for this activity

We invite you to provide feedback on the proposed changes by 21 September 2020.

Current LED lamp product types in the VEU registry

Many LED lamps approved under building-based lighting upgrades (activity 34) of the VEU program were submitted and approved by us prior to the introduction of the 2018 VEET Regulations (which commenced on 10 December 2018). Under the previous regulations (the 2008 VEET regulations), the legislation did not specify different LED lamp types under activity 34.

When activity 34 was established under the program in 2013, we had developed and implemented several lamp product types in the VEU registry to identify the different LED lamps which were then commonly known to the market. Lamp product type categories which we implemented are listed below in table 1. The 'LED other (240V)' product type was used to capture any LED lamps which did not belong to the other LED product types.





Table 1: Current LED lamp product types in the VEU registry

Current LED product lamp types	Keep (✓) / remove (X)
LED downlight with integrated driver (240V)	✓
LED ELV downlight with a 240V remote driver	✓
LED ELV downlight (lamp only)	✓
LED highbay	✓
LED tube (lamp only)	✓
LED tube (luminaire)	✓
LED other (240V)	X

We propose retaining most of the above LED lamp product types with the exception of the 'LED other (240V)' product type.

Proposed changes to the 'LED other (240V)' lamp product type

With the introduction of the 2018 VEET Regulations and corresponding specifications, various new LED lamp types (table 34.10 of the VEU specifications) were introduced into the program to reflect the advancement of LED technology, and therefore the development of different LED lamp types. The lamp types listed in the 2018 specifications do not map well to the existing product type categories used in the VEU registry. We have now done an extensive review of the LED lamps categorised as 'LED other (240V)' (around 4,000 of them) and propose recategorising the various approved lamps according to table 2 below to align them better with the LED lamp types listed in the VEU Specifications.

This change will provide a better understanding of the type of LED lamps being installed under the program and will enable the commission to implement system changes to minimise the risk of improper VEEC creation claims (see below).





Table 2: Proposed LED product lamp types to replace 'LED other (240V)'

Proposed LED product lamp types
LED lamp with integrated driver
LED lamp with non- integrated driver
Flood light with integrated driver
LED panel light with an integrated driver
LED panel light with a non-integrated driver
LED tube with an integrated driver

Proposed lamp ballast combinations and asset lifetime references for LED lamp upgrades

Linked to our efforts to recategorise the 'LED other (240V)' lamp type, is our work to identify and implement changes to support accredited persons (APs) selecting the right lamp ballast combinations and asset lifetime references for the installation of LED lamps under activity 34 of the VEU program. The key aim of this work is to minimise the risk of improper VEEC creation claims by accredited persons. We have identified a number of instances of APs selecting the incorrect asset lifetime references for certain lighting upgrades.

In our program update of 26 May 2020, we provided guidance to accredited persons for selecting the correct asset lifetime reference for certain lighting upgrade situations.

With the implementation of above LED lamp re-categorisation work, we propose to implement changes in the VEU registry which will prevent certificate claims entered with invalid lamp ballast combination and/or asset lifetime references based on the upgrade lamp type. The matrix of available lamp ballast combinations and asset lifetime references for each lamp type under building based lighting upgrades is detailed in tables in the appendix below.

Feedback on proposed changes

We propose making the following system changes to the VEU registry on 23 September to give effect to the above changes:





- Changes to the product application portal and listing of LED lamps under the Register of Products to reflect the inclusion of the new LED lamp types as listed in table 2 above, and removal of 'LED other (240V)' as a lamp product type.
- Changes to the business rules of the certificate creation process to prevent the creation of certificates which selects invalid lamp ballast combinations and asset lifetime references for an upgrade lamp type.

We believe the changes we propose are reasonable and valid, and will deliver benefits for both us, as program regulator, as well as to program participants involved in the building based lighting upgrades activity.

We are providing stakeholders an opportunity to provide us with feedback on:

- The proposed additions of the LED lamp product types as listed in table 2 above to replace the 'LED other (240V)' lamp type.
- The available lamp ballast combinations and asset lifetime references for each lamp type under building based lighting upgrades (activity 34), as detailed in the appendix below.

Please provide feedback on this proposal by close of business 21 September by email to:

veu@esc.vic.gov.au

Where to get help

If you have any questions or feedback with respect to matters set out in this program update, please contact VEU Support on (03) 9032 1310 or veu@esc.vic.gov.au.



Appendix

Table 3: Available lamp ballast combinations and available asset lifetime reference conditions for installed LED lamp product types.¹

Lamp ballast combinations	Installed LED lamp product types ²											
	LED highbay	LED tube (lamp only)	LED downlight with integral driver (240V)	LED ELV downlight with 240V remote driver	LED ELV downlight (lamp only)	LED lamp with ID	LED lamp with NID	Flood light with ID	LED panel light with ID	LED panel light with NID	LED tube with ID	LED tube (luminaire)
LED integrated luminaire	LR		LR			LR		LR	LR			LR
LED lamp with integral driver, connected with a non-integral legacy ballast used for a T8 or T12 linear or circular fluorescent lamp, marked with EEI of A or electronic ballast with no EEI marked												M/R
LED lamp with integral driver, connected with a non-integral legacy ballast used for a T8 or T12 linear or circular fluorescent lamp, marked with EEI of > B or magnetic ballast with no EEI marked												M/R

¹ Asset lifetime conditions being LR = luminaire replacement, M = modification, R = retrofit

² ID denotes integrated driver and NID denotes non-integrated driver





Lamp ballast combinations	Installed LED lamp product types ²											
	LED highbay	LED tube (lamp only)	LED downlight with integral driver (240V)	LED ELV downlight with 240V remote driver	LED ELV downlight (lamp only)	LED lamp with ID	LED lamp with NID	Flood light with ID	LED panel light with ID	LED panel light with NID	LED tube with ID	LED tube (luminaire)
LED lamp with integral driver with no associated legacy ballast connected	LR		LR/M/R ³			LR/M/R ⁴		LR	LR		M/R	LR
LED lamp with ID, connected with a legacy ballast used for a T5 linear or circular fluorescent lamp											M/R	
LED lamp with ID, connected with a legacy electronic ballast used for HID lamps	M/R					M/R		M/R				
LED lamp with ID, connected with a legacy magnetic ballast used for HID lamps	M/R					M/R		M/R				

³ Asset lifetime condition luminaire replacement (LR) is not allowed for GU10 lamp installations

⁴ Asset lifetime condition luminaire replacement (LR) is not allowed for GLS and reflector lamp installations





Lamp ballast combinations	Installed LED lamp product types ²											
	LED highbay	LED tube (lamp only)	LED downlight with integral driver (240V)	LED ELV downlight with 240V remote driver	LED ELV downlight (lamp only)	LED lamp with ID	LED lamp with NID	Flood light with ID	LED panel light with ID	LED panel light with NID	LED tube with ID	LED tube (luminaire)
Non-integrated LED lamp with remote driver or ELC		M/R		LR/M/R	LR/M/R ⁵		LR			LR		
Non-integrated LED luminaire with remote driver				LR/M/R	LR/M/R		LR			LR		

⁵ Asset lifetime condition luminaire replacement (LR) is not allowed for installations of MR16 lamps





Table 4: Available lamp ballast combinations and available asset lifetime reference conditions for installed fluorescent lamp product types⁶

Lamp ballast combinations	Installed fluorescent lamp product types					
	CFL (GLS)	CFL downlight	T5 linear fluorescent lamp with T5 adaptor	T5 fluorescent lamp	T8 fluorescent lamp	T12 fluorescent lamp
Compact fluorescent lamp with integral ballast	R/M	R/M				
Compact fluorescent lamp with non-integral ballast (EEI of A or electronic with no EEI marked)	R/M	R/M				
Compact fluorescent lamp with non-integral ballast (EEI > B or magnetic ballast with no EEI marked)	R/M	R/M				
T5 linear or circular fluorescent lamp with ballast				R/M		
T8 or T12 linear or circular fluorescent lamp with ballast (EEI of A or electronic with no EEI marked)					R/M	R/M
T8 or T12 linear or circular fluorescent lamp with ballast (EEI of > B or magnetic with no EEI marked)					R/M	R/M

⁶ Asset lifetime conditions being LR = luminaire replacement, M = modification, R = retrofit





Table 5: Available lamp ballast combinations and available asset lifetime reference conditions for other installed lamp product types⁷

Lamp ballast combination	Other installed lamp product types				
	High pressure sodium	Induction	Mercury vapour	Metal halide	Other
High pressure sodium lamp with magnetic ballast	LR				
Induction lamp with integrated ballast		LR			
Induction lamp with non-integral ballast		LR			
Mercury vapour lamp with ballast			LR		
Self-ballasted mercury vapour lamp			LR		
Metal halide lamp with electronic ballast				LR	

⁷ Asset lifetime conditions being LR = luminaire replacement, M = modification, R = retrofit





Lamp ballast combination	Other installed lamp product types				
	High pressure sodium	Induction	Mercury vapour	Metal halide	Other
Metal halide lamp with magnetic ballast				LR	
Other – LCP determined by ESC *					LR/M/R

* This option is only available for lamp products which have been provided a LCP determination by the commission

