



Australian Government

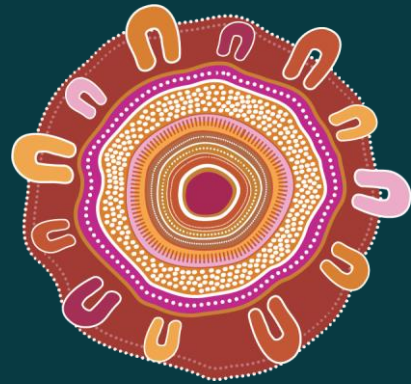
Department of Climate Change, Energy,
the Environment and Water

Lighting Regulations Update Stakeholder Webinar

8 November: Lachlan Bickley, A/g General Manager, Energy
Security, Crisis Response and GEMS Branch

11 November: Dan Croucher, Director, GEMS Lighting and
Water Heating

[DCCEEW.gov.au](https://www.dcceew.gov.au)



We acknowledge the Traditional Owners of Country throughout Australia and recognise their continuing connection to land, waters and culture. We pay our respects to their Elders past and present.

Outline of Webinar

- Overview of Australia's Net Zero Policies
- International perspectives on Energy Efficiency by CLASP
- Industry perspectives on lighting regulations by Lighting Council Australia
- Presentation on actions underway and planned for regulating lighting products in Australia.
- Q&A session: Link <https://app.sli.do/event/7cEXU9jZ97Yv9ps2XTn5BU>
 - Passcode: #EER
- Webinar Poll: <https://app.sli.do/event/7cEXU9jZ97Yv9ps2XTn5BU/polls>

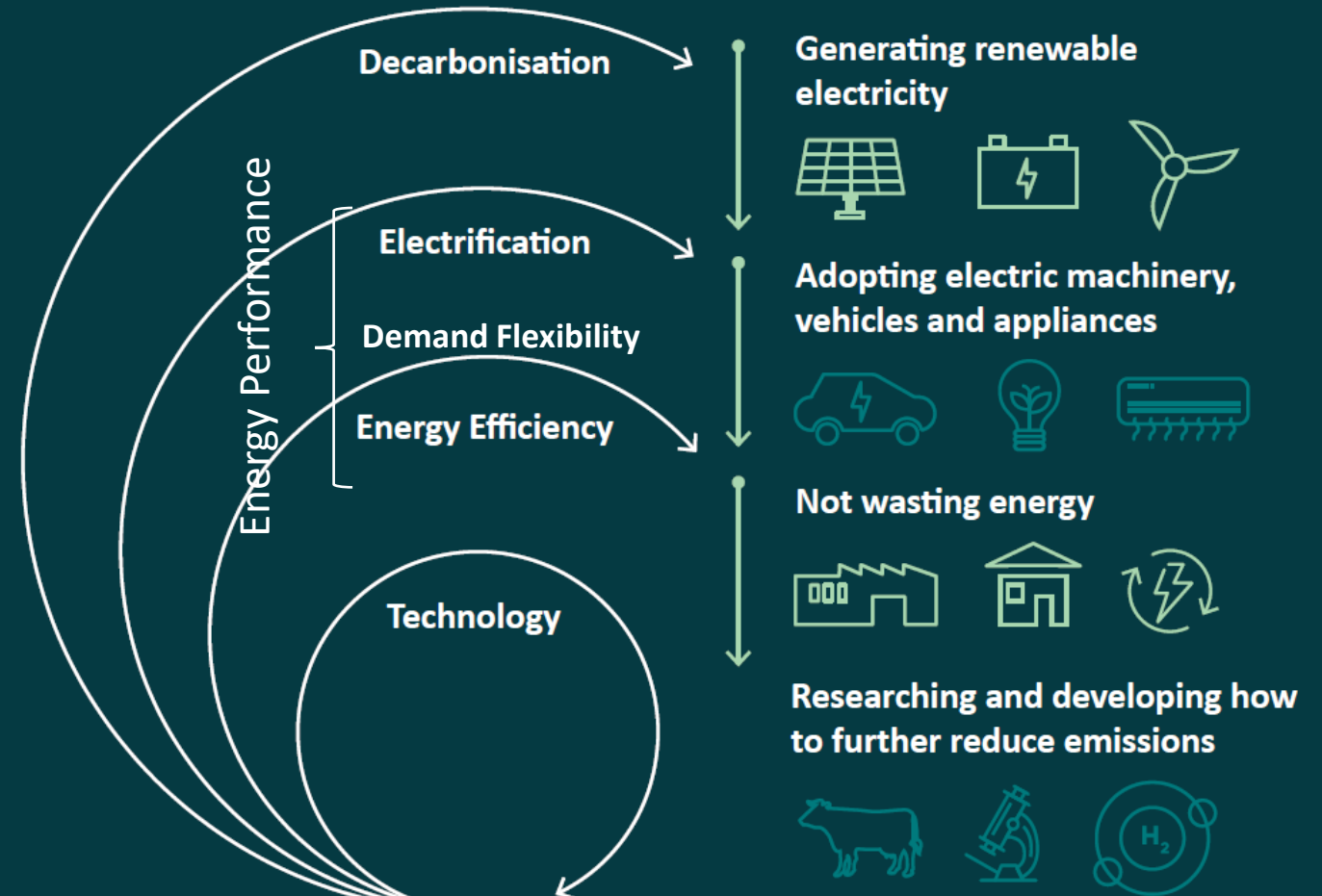


Substantial suite of policies for energy transformation, renewables integration and energy security

POLICIES

- Emissions reduction
 - 43% by 2030
 - 82% renewables in major electricity grids
 - Double energy efficiency
- A Net Zero by 2050 Plan
 - 6 sector plans to decarbonise
- National Energy Transformation Partnership
- National Energy Performance Strategy
- National Electric Vehicle Strategy
- Future Made in Australia
- Energy Efficient Equipment program (Greenhouse and Energy Minimum Standards Act)

Emissions reduction approaches



Greenhouse and Energy Minimum Standards Act 2012

- The GEMS Act underpins the E3 Program. Objectives of the GEMS Act are to:
 - give effect to obligations under the Climate Change Convention and Paris Agreement; and
 - promote the development and adoption of products that:
 - use less energy; or
 - produce fewer greenhouse gases; or
 - contribute to reducing the amount of energy used, or greenhouse gases produced, by other products.

Product Determinations

Specify product specific minimum energy performance standards (MEPS) and labelling requirements

GEMS Regulator

administers the Act and Determinations and manages the process for registration, assessment, compliance, inspections, enforcement and engagement

Regulated products

can only be supplied or offered for supply, or used for a commercial purpose, if the model is registered **and** the product complies with the requirements

Program outcomes

2022-23



4.2-6.5 megatonnes
of CO₂ equivalent
reduced



\$1.3 - \$2.1 billion
energy bill savings



5.5-8.5 gigawatt
hours reduced
electricity
consumption

Regulator performance

2023-24



5,256 applications for
registration



83% satisfied with overall
service of GEMS program



77 online retailers
monitored

- 84% correctly
registered



159 store visits

- 97% of household products correctly registered
- 91% correctly displayed energy rating label



63 product models check
tested

- 38 met requirements
- 24 pending finalisation
- 1 failed and registration cancelled

Net Zero: Lighting for Australian Households and Commercial



Households

Consume 25% Electricity + contributes to 26% of scope 2 emissions

Lighting is used at peak times– efficacy important for those on time of use tariffs and for energy security during winter peaks.

Lighting used in evening: Carbon-intensive energy sources/little opportunity to offset with renewables



Commercial

Consume 23% electricity + contributes to 23% of scope 2 emissions

Lighting is used primarily during the day – including during peak times

Moving to net zero by 2050

The choices of appliances and equipment we make can result in big differences to our energy use and emissions – including choosing the light bulbs in our homes.

Important that all sectors – across governments, industry, and households – do what we can.

Every Watt Counts...



Major Equipment Energy Efficiency Programs and the Role of Lighting

November 2024



Where the CLASP Climate Team Works



30 Ecodesign regulations

1275/2008	Electric power consumption standby and off mode
107/2009	Simple set-top boxes
641/2009	Circulators
327/2011	Industrial fans
206/2012	Air-conditioning products and comfort fans
547/2012	Water pumps
932/2012	Household tumble driers
617/2013	Computers
666/2013	Vacuum cleaners
801/2013	Networked standby
813/2013	Space Heaters
814/2013	Water heaters & storage tanks
66/2014	Domestic ovens, hobs, and range hoods
548/2014	Power transformers
1253/2014	Ventilation units
2015/1095	Professional refrigeration
2015/1185	Solid fuel local space heaters
2015/1188	Local space heaters
2015/1189	Solid fuel boilers
2016/2281	Air heating and cooling products, process chillers
2019/424	Servers and data storage products
2019/1782	Electric motors
2019/1782	External power supplies
2019/1784	Welding equipment
2019/2019	Household refrigerating appliances
2019/2020	Lighting sources
2019/2021	Electronic displays (televisions)
2019/2022	Household dishwashers
2019/2023	Household washing machines
2019/2024	Commercial refrigeration

16 Energy labelling Regulations (25 product groups)

626/2011	Air conditioners
392/2012	Household tumble driers
811/2013	Space heaters
812/2013	Water heaters & storage tanks
65/2014	Domestic ovens, hobs and range hoods
1254/2014	Residential ventilation units
2015/1094	Professional refrigeration
2015/1186	Local space heaters
2015/1187	Solid fuel boilers
2019/2013	Electronic displays (televisions, monitors, signage)
2019/2014	Household washing machines
2019/2015	Lighting sources
2019/2016	Household refrigerating appliances
2019/2017	Household dishwashers
2019/2018	Commercial refrigeration
2020/740	Tyres labelling



Lighting products are covered by a technology-neutral regulation package that sets a minimum efficacy of approximately 90 lm/W for general service lighting, phasing out non-LED technologies



Lighting products: **4 products**

- LED lamp, flat panel LED luminaires, self-ballasted fluorescent lamps, public lighting luminaires
- LED lamp MEPS of 60 lm/W are currently under revision, targeting a world leading revised policy of at least 120 lm/W



Home appliances: **14 products**



Office and electronic equipment: **6 products**



Industrial equipment: **6 products**



Commercial equipment: **11 products**

China has issued **15** batches of labeling regulations, covering **41** types of energy consuming products

In addition, China has MEPS for **67** types of energy-consuming products, including all 41 labeled product types

Indian Equipment Efficiency Policies

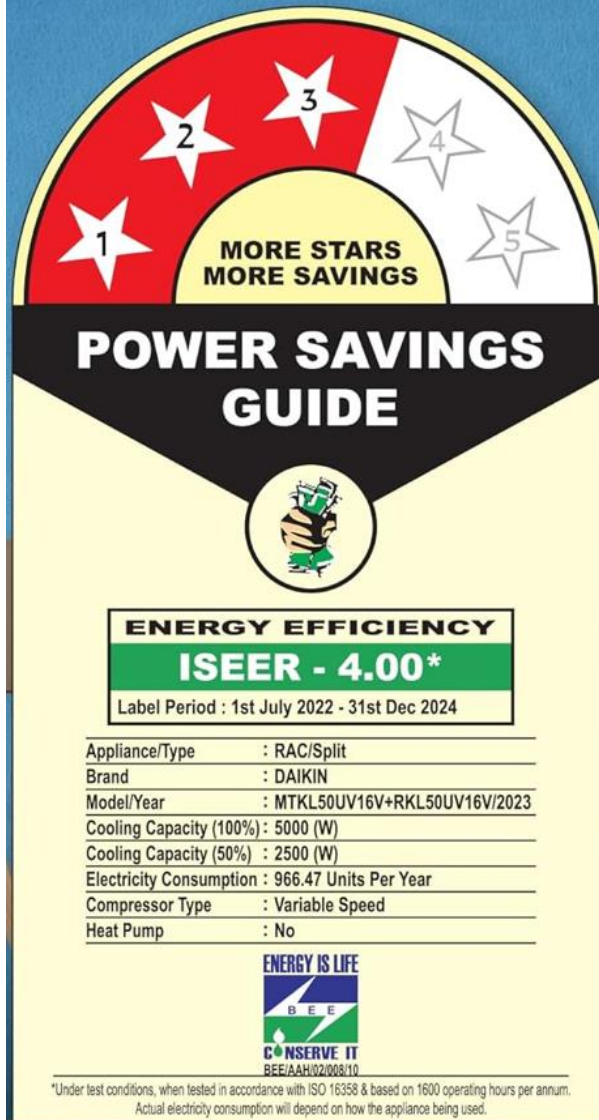
India's Star Labeling Policies also act as a de facto MEPS, as there is a minimum threshold to receive a label. The label is mandatory for 16 product categories. The minimum for LED lamps is 90 lm/W since 2023, increased from 68 lm/W in 2018 and 79 lm/W in 2020

Mandatory Label

- | | |
|--|--|
| 1. Frost Free Refrigerator | 10. Deep Freezers |
| 2. Stationary Storage Type Electric Water Heater | 11. Ultra-High Definition (UHD) Televisions |
| 3. Colour Television | 12. Room Air Conditioner (Fixed Speed) |
| 4. Washing Machine | 13. RAC (Cassette, Floor Standing Tower, Ceiling, Corner AC) |
| 5. Room Air Conditioner (Variable Speed) | 14. Distribution Transformer |
| 6. TFL | 15. Direct Cool Refrigerator |
| 7. LED LAMPS | 16. Ceiling Fan |
| 8. Chillers | |
| 9. Light Commercial AC | |

Voluntary Label

- | | |
|--|--|
| 1. Three Phase Induction Motor | 12. Air Compressors |
| 2. Submersible Pump | 13. High Energy Li-Battery |
| 3. Domestic Gas Stove | 14. Tyres/Tires |
| 4. Laptop / Notebook | 15. Side by Side/Multi Door Refrigerator |
| 5. Ballast | 16. Pedestal Fan |
| 6. Office Automation Products | 17. Table/Wall Fan |
| 7. Diesel Engine Driven Monoset Pumps - Agricultural | 18. Induction Hob |
| 8. Solid State Inverter | 19. Solar Photovoltaic |
| 9. Diesel Generator Set | 20. PV Inverters |
| 10. Microwave Oven | |
| 11. Solar Water Heater | |



POWER SAVINGS GUIDE

ENERGY EFFICIENCY
ISEER - 4.00*

Label Period : 1st July 2022 - 31st Dec 2024

Appliance/Type	: RAC/Split
Brand	: DAIKIN
Model/Year	: MTKL50UV16V+RKL50UV16V/2023
Cooling Capacity (100%)	: 5000 (W)
Cooling Capacity (50%)	: 2500 (W)
Electricity Consumption	: 966.47 Units Per Year
Compressor Type	: Variable Speed
Heat Pump	: No

ENERGY IS LIFE
B E E
CONSERVE IT
BEE/AAH/2008/10

*Under test conditions, when tested in accordance with ISO 16358 & based on 1600 operating hours per annum. Actual electricity consumption will depend on how the appliance being used.

Federal policy:

- The US Department of Energy (DOE) currently regulates **65 products**.
- The US federal government has regulated lighting efficiency since prior to the 1977 formation of the DOE, while the US DOE has had a program in place for lighting standards since the 1980's.
- **Current federal lighting policy:** general service lamps (GSLs) and general service incandescent lamps (GSILs) are required to meet or exceed 45 lm/W (effective 2023).
 - Current GSL policy is tech neutral; levels eliminate most halogen and incandescent products, (not compact fluorescent lamps (CFLs)).
- **Future federal lighting policy:** increasing to 120 lm/W, effective July 2028.
 - New limit (120 lm/W) will effectively eliminate CFLs from market.

State policies:

- At the state level, the US is rapidly shifting away from fluorescent lighting (CFLs and LFLs) with bans
- Some states have moved forward with restrictions on T5, T8, and T12 linear fluorescent products because they contain mercury, and as LED tubes are much more energy efficient.

Adopted	Introduced
California: AB2208	Illinois: HB2363
Vermont: ACT120	Maryland: HB 1021
Colorado: HB23-1161	Massachusetts: H.777 and S.538
Hawaii: SB690 SD2	Nevada: AB 144
Rhode Island: H.5550	New Mexico: HB 185
Maine: LD 1814	Washington: HB 1185
Oregon: HB2351	

Thank you!
Any questions?



Efficient Appliances for People & the Planet

clasp.ngo

Lighting regulation update

David Crossley
National Technical Manager

Topics

- Lighting Council Australia (LCA) support for MEPS regulation.
- LCA's role in education and compliance
- Good news for consumers and industry
- Brief history of MEPS development (key points)
- Communication ideas

LCA support for MEPS

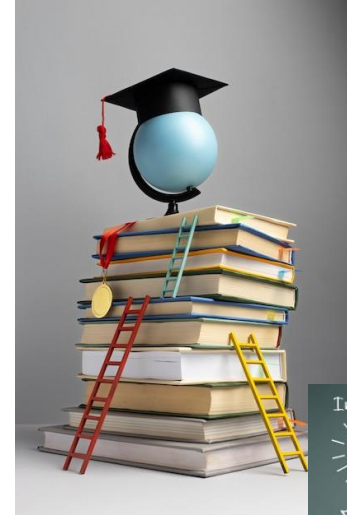
- **MEPS will:**
 - Raise product efficiency.
 - Address performance aspects.
 - Give consumers (and the market) confidence.
 - Provide a level playing field.



LCA's role in education and compliance

LCA committed to:

- Market education.
- Smooth market transition
- Market intelligence and suggestions to assist surveillance and enforcement.



Benefits

Benefits of MEPS regulation

- Removal of poor products
- Increased consumer confidence
- Innovation
- Reduced energy consumption and environmental impact.



Brief history

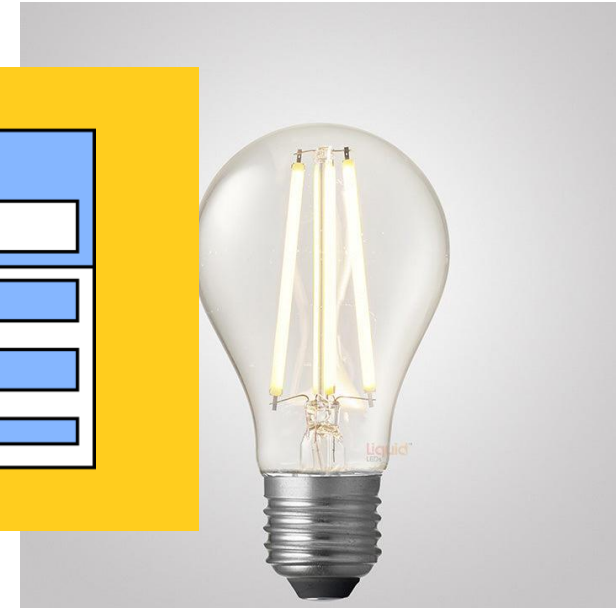
Key points:

- Project started 2014.
- Scope reduction 2017.
- ELV reflector lamp compatibility.
- EU standard alignment.
- Reduced registration costs.



Communication suggestions

- Fact sheets
- Comparison tools showing savings
- Social media
- Collaboration with retailers
- Engage with industry publications



Incandescent	Halogen	CFL	LED
Power: 60 Watts	Power: 50 Watts	Power: 15 Watts	Power: 8.5 Watts
Lumens: 800	Lumens: 800	Lumens: 800	Lumens: 800
Life: 750 hours	Life: 1500 hours	Life: 10,000 hours	Life: 50,000 hours
Energy Cost Per Year: £3.76	Energy Cost Per Year: £7.30	Energy Cost Per Year: £2.19	Energy Cost Per Year: £0.95

Contact

David Crossley

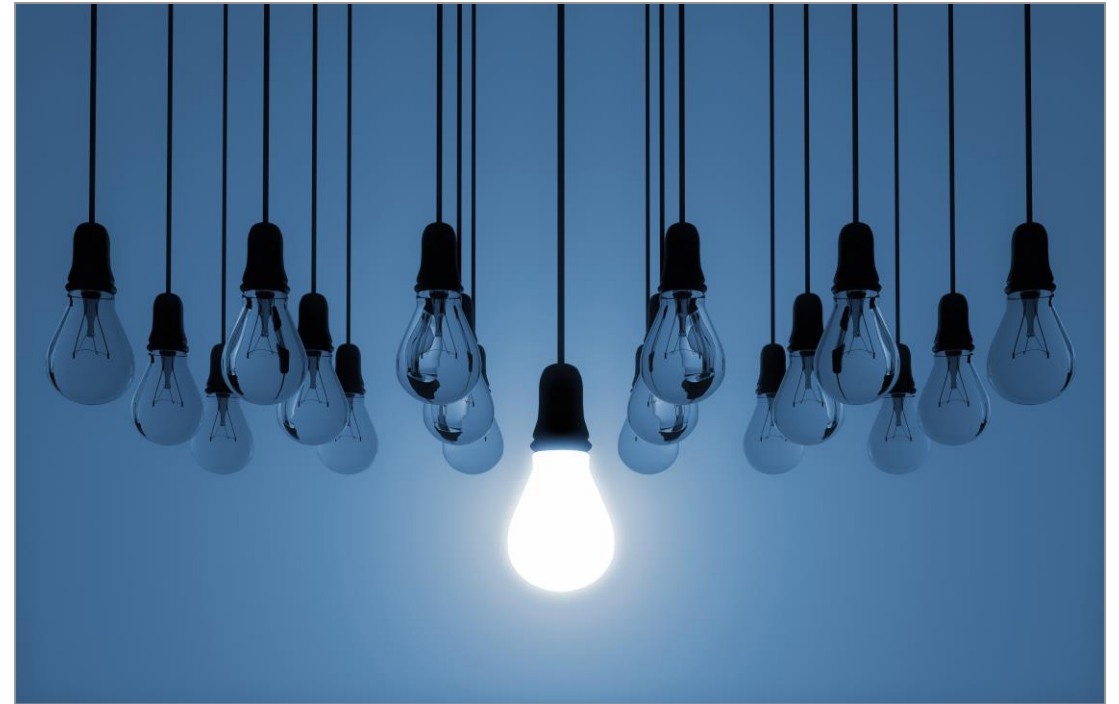
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Proposed Lighting Regulations

Outline

- Lighting Regulations (incandescent and LED lamps)
- Why regulate to phase out inefficient lamps and introduce MEPS on LED lamps?
- Registration and Compliance under GEMS
- What we have heard – changes since public consultation
- Lighting Regulation – next steps



Proposed Lighting Regulations

Moving Australia towards net zero

Lighting Regulations

2018 - DRIS gives authority to: phase out a broader range of inefficient incandescent and halogen lamps and introduce minimum energy performance standards on LED lamps.

19 July 2024: Energy Ministers agreed to the determination for Incandescent and halogen lamps (Australia only)

New determination will take effect 12 months and one day after the determination is registered on the Federal Register of Legislation. – registered 4 October 2024

Proposed LED lamps – introduce MEPS (Australia and New Zealand)

- Align with European Commission Regulation (EU) (adapted for Australian context)
- Narrower scope - will not apply to integrated luminaires
- Allows alternative (to EU approach) and more flexible/modern approaches to demonstrating compliance for some parameters including: useful luminous flux and colour consistency.

Scope of agreed incandescent determination

	Parameter	Description
1.	Widen the scope of the products to be phased out and increase MEPS	Types of MV lamps in scope: Mains voltage (rated voltage > 140 V ac or dc) halogen, carbon filament, tungsten filament (reflector) lamps with cap types: E13, E14, E26, E27, BA15d, B22d, GU10, GZ10 Minimum efficacy requirement has increased for MV lamps (equivalent to CLF MEPS)
2.	Narrow the range of low power decorative lamps available for sale	Change from 'less than or equal to 25W' to less than 10W
3.	In scope extra low voltage lamps (11V – 13V)	Power no more than 37W and with cap types G4, GY 6.35, GU4, GZ4, GU5.3, GX5.3 or G53 More efficient can meet MEPS (level hasn't changed). Need to be registered in the GEMS database for sale
4.	Grandfathering period allowed	Five years from the date the regulation becomes effective (4 October 2025 to 3 October 2030)
5.	Models in a family	8 models in a family

Incandescent Determination - Exclusions

2016 Incandescent Determination	2024 Incandescent Determination
Lamps intended for traffic signals.	No – LED substitutes are available
Automotive lamps	No – not within scope
Very Long life lamps intended for air and sea navigation purposes	Aeronautical Ground Lights
No	Aircraft lamps designed to operate on an aircraft and must satisfy requirements of standards referenced in the determination.
Oven lamps (temperature rating greater than 300 degrees)	High Temperature lamps (functional definition)
Infrared heat lamps	Infrared heat lamps (functional definition)
Reinforced construction (rough use of vibration) lamps.	No – LED substitutes are available.
Low power decorative lamps with rated power ≤ 25 W	Low power decorative lamps with rated power < 10 W

LED Determination – Key Components

Unchanged from Public consultation in December 2022 to March 2023

- Align with EU requirements (some adjustments for Australian context)
- Sets levels **for minimum allowed energy efficiency** (lumens per Watt)
 - based on Minimum Efficacy from luminous flux and max power with adjustments depending on:
 - mains voltage or extra low voltage
 - Colour Rendering
 - directional/non-directional
 - colour tuneable, anti-glare shield, and high-luminance lamps.
- Temporal Light Modulation and Photobiological Safety limits (blue light and UV hazard levels, flicker (visible and non-visible))
- Information displayed on the product and the package

LED Determination – EU Alignment

While alignment with EU was a core objective, the Australian context required several variations:

- Tailored legal language and terminology for the Australian legislative context;
- Many exemptions in the EU regulation weren't required in this determination as they are outside of the narrower scope.

Parameter	EU	Australian Context
Defining the scope	Regulates "White Light"	Single-capped and double-capped lamps
Directional Lamps	Require measurements in 90° or 120° beam angles	Allows alternative measurement of all forward facing lumens (180°) = reduced test costs for some products
Colour Consistency	Expressed by step size of MacAdam ellipses plotted in CIE 1931 (x,y) chromaticity diagram	Same as EU plus chromaticity u'v' circles to be used, with claims made based on conformance with 6-step u'v' chromaticity circles.
Minimum Efficacy	Maximum allowed lamp power for the luminous flux	Sets the minimum luminous flux permitted for the lamp power of the product, to align with existing lighting determinations.
Photobiological Safety	Covered by other EU regulation	requirements are included for low voltage lamps ($\leq 50V$ a.c. r.m.s. or $\leq 120 V$ ripple-free d.c. (Mains Voltage covered by other electrical safety regulations)
CRI levels	EU CRI exemption for some CRI<80 products largely related to other technologies such as HID lamps.	A more specific allowance for a small range of special purpose retrofit LED lamps to meet CRI ≥ 70 has been included instead.
Packaging	EU rating Label	Doesn't require a full energy rating label (like EU), only requiring the package be marked with the rated luminous efficacy, expressed in lumens per watt https://www.energyrating.gov.au/industry-information/publications/light-bulb-labelling-consumer-study

Scope of proposed LED regulation

Unchanged from Public consultation in December 2022 to March 2023

Proposed MEPS (based on Minimum Efficacy from luminous flux, max power, CRI)

MEPS levels for non-smart, non-directional lamps with CRI of 80:

Equiv. Incandescent Wattage (W)	LED lamp expected luminous flux (lm)	MEPS max power (W)	MEPS Min efficacy (lm/W)
15	135	2.8	47.6
25	245	3.8	64.1
40	470	5.9	80.3
60	800	8.8	90.7
75	1000	10.6	94.2
100	1500	15.1	99.2
150	2450	23.7	103.5
200	3450	32.7	105.6

MEPS levels for Smart (connected) lamps with CRI of 80:

Incandescent Wattage (W)	LED lamp expected luminous flux (lm)	MEPS max power (W)	MEPS Min efficacy (lm/W)
15	135	3.4	40.0
25	245	4.4	56.1
40	470	6.4	73.6
60	800	9.4	85.5
75	1000	11.2	89.6
100	1500	15.7	95.8
150	2450	24.2	101.2
200	3450	33.2	103.9

Scope of proposed LED regulation

Unchanged from Public consultation in December 2022 to March 2023

Proposed MEPS (based on Minimum Efficacy from luminous flux, max power, CRI)

Proposed MEPS levels for linear lamps

Equiv Linear fluorescent	LED lamp expected luminous flux (lm)#	MEPS max power (W)	MEPS Min efficacy (lm/W)
T8 (600 mm)	800	8.8	90.7
T8 (900 mm)	1200	12.4	96.6
T8 (1200 mm)	1600	16.0	99.9
T8 (1500 mm)	2000	19.6	101.9
T5 HE (1200 mm)	1600	16.0	99.9
T5 HO (1200 mm)	3200	30.4	105.2

#based on Design Lights Consortium minimum luminous flux levels.

Proposed MEPS levels for connected linear lamps

Linear fluorescent	LED lamp expected luminous flux (lm)	MEPS max power (W)	MEPS Min efficacy (lm/W)
T8 (600 mm)	800	9.4	85.5
T8 (900 mm)	1200	13.0	92.6
T8 (1200 mm)	1600	16.6	96.6
T8 (1500 mm)	2000	20.2	99.2
T5 HE (1200 mm)	1600	16.6	96.6
T5 HO (1200 mm)	3200	31.0	103.4

Scope of proposed LED regulation

Unchanged from Public consultation in December 2022 to March 2023

- Temporal Light Modulation and Photobiological Safety requirements
 - Temporal light modulation (flicker). Maximum levels for visible (≤ 1 Pstlm) and non-visible (≤ 0.9 SVM). This aligns with current EU regulation
 - NOTE: EU will revise SVM to ≤ 0.4 on 1 September 2024.
 - Blue light hazard must be RGO or RG1 unlimited for low voltage lamps.
 - Aligns with blue light hazard requirements already in place for mains voltage LED lamps under state electrical safety regulation.
 - Ultraviolet and violet radiation. All lamps within scope must be RG0 – the lowest level of UV radiation risk.
- Test reports at time of registration not mandatory.
 - Testing specifically for registration in Australia is not required
 - At time of registration, only need to reference for a test already completed
 - Change since public consultation – can voluntarily provide test report

Scope of proposed LED lamp regulation (cont)

Unchanged from Public consultation in December 2022 to March 2023

- Markings on the bulb (rated values):
 - lumens, CCT and (for directional lamp) beam angle if they can fit
- Markings on the package (rated values)
 - model number, useful luminous flux, power, efficacy, CCT (or range), beam angle for directional lamp, cap type, rated life, standby power (if not zero), network standby power (if not zero), CRI (additional markings if ≥ 70 and < 80), if it can be dimmed and links to dimming compatibility).
- Accuracy of claims
 - equivalence to incandescent (if claimed) for non-directional lamps must be accurate
- Unlimited Grandfathering Arrangements
 - Stock can be run out (imported before LED Lamp determination takes effect)

Scope of proposed LED lamp regulation (cont)

Changes since Public consultation in December 2022 and March 2023 and targeted consultation:

- *More significant changes to Section 7 Families of Models**
 - Increased number of models in a family from 50 to 100
 - CRI requirements – allows for models to be grouped into 3 pre-identified bands
 - Lifetime – 3 pre-identified bands of lifetime rather than models having the same lifetime
 - For single-capped lamps – removed requirement for glass bulb shapes to be the same (can now be different shapes in a family)
 - For double-capped lamps – removed requirement for same tube length
 - Special purpose category (up to 10 miscellaneous models**). One special purpose family per product class.

*updated Section 7 details available at: <https://consult.dcceew.gov.au/proposed-lighting-regulations>

** test report details need to be provided for each model if using this category

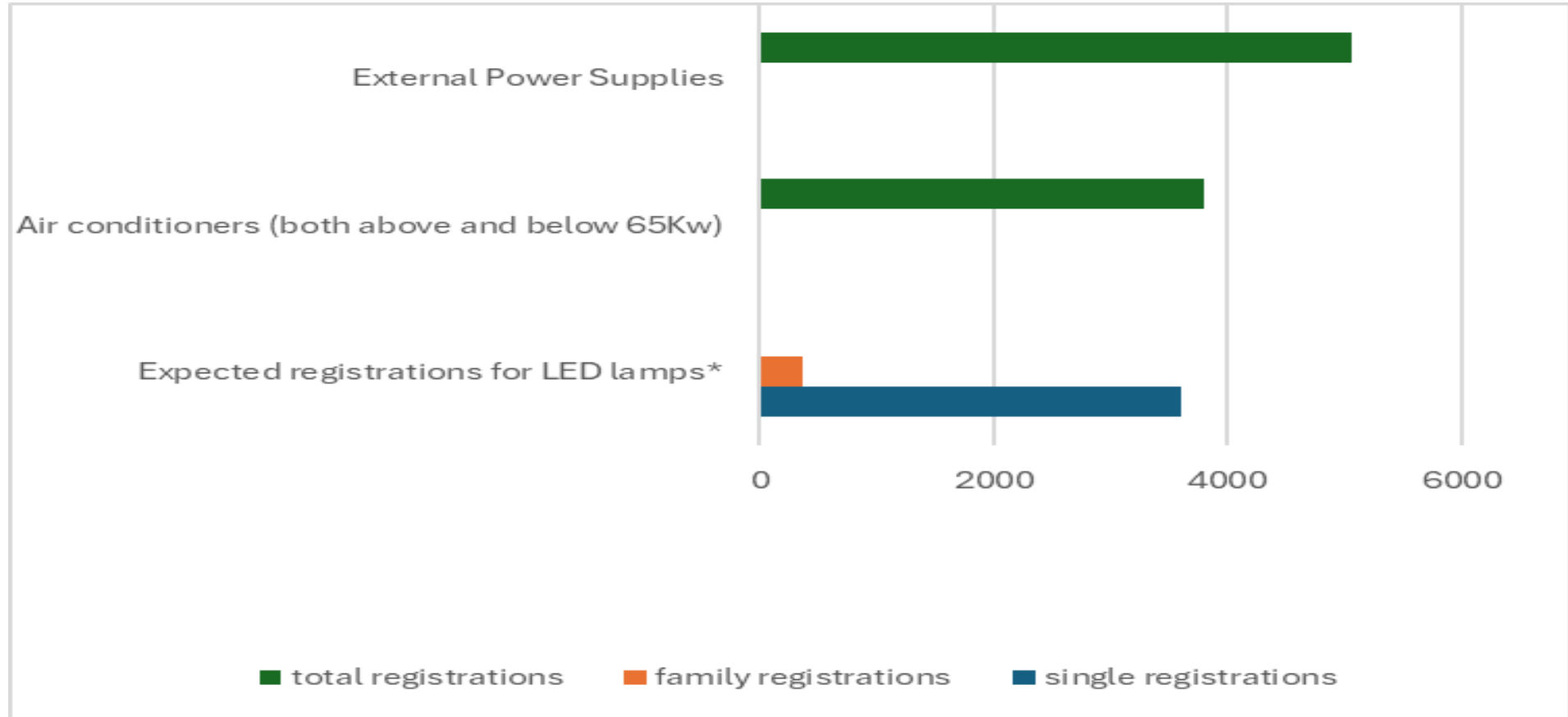
Regulation Scale: potential number of LED registrations

Approx 3600 LEDs models (doubling 2018 Market Sample*):

	Exposure Draft	Updated Determination
Number of models allowed in a family under the GEMS determination	50	100
Expected family registrations for all LEDs	740	370
Case Study: Large Supplier single registration	456	456
Case Study: Large Supplier family registrations	80	Approx 30

Regulation Scale: potential number of LED registrations (Cont...)

Comparison on Registrations for different GEMS products



Proposed LED Regulation: Summary of cost reduction initiatives

Registration costs (minimise fees)

- Changes to the family of models requirements

Transition cost reduction

- Grandfathering (generally) – where changes to the GEMS Act mean that compliant stock offered for supply before determination is in place do not need to register
- Unlimited grandfathering for LED lamps (compliant and non-compliant stock)

Administration costs (time and effort to comply with regulatory requirements)

- Test reports – can reference tests already completed/provided by manufacturer
- Information sessions on using the GEMS registration system
- Information on how to sort models into families

Supporting information

Is regulation needed?

Summary of Supporting information

1. 2022 to 24: Public (December 2022 to March 2023) and targeted consultations (up to January 2024)^
 - Exposure draft determinations, submissions and post-consultation report also available online
2. 2023-24: Review what has happened in the lighting market since 2018 decision to regulate* (September 2024)
3. 2023-24: Market screening data* (October 2024)

^ information available at: <https://consult.dcceew.gov.au/proposed-lighting-regulations> (July 2024)

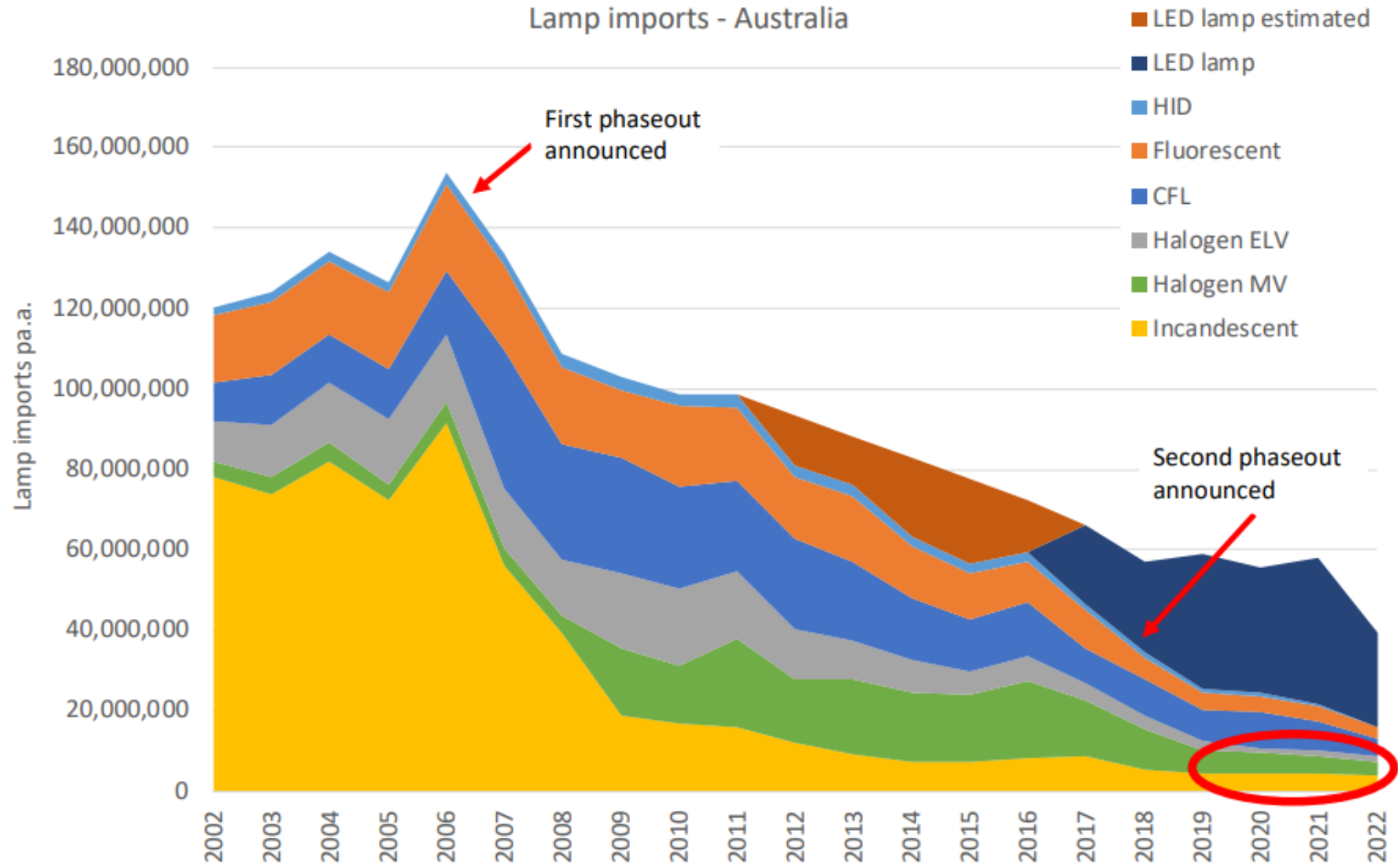
*available on energyrating.gov.au

Supporting information: Market Update Report

Report: Market Update and Conclusions for Minimum Energy Performance Standards for Lighting Products

- Ensure decision-makers aware of updated market conditions
 - As regulatory options remained the same, only market update required rather than redoing a regulatory impact statement.
- Lighting regulations have expanded and evolved considerably in other parts of the world
 - 79% of world's population have regulation in place or under development
 - Risk of poor quality and underperforming products being sold in Australia.
- LEDs has increased market share and supermarkets' share of the lighting market has decreased
 - Market has transitioned to LEDs faster than anticipated in the 2018 DRIS (see import data)
- Summary of public consultation feedback
- Estimates of:
 - average LED lamp efficacy (lm/w)
 - industry cost of using the GEMS Registration System (post-consultation changes)
 - costs and benefits to consumers and businesses and the broader economy of regulation

Lamp imports - Australia



Supporting Information: Market Screening

- lamps available to Australian consumers from online and retail stores
 - October 2023 to present
- A mix of product performance (n=47)
 - some models able to meet all the energy performance, quality and marking requirements
 - others were below MEPS and quality levels
 - Some did not provide accurate information on packaging and lamps.

NOTE: Use is only for market screening purposes (not laboratory testing). Comparison with an accredited lab indicated only 0-2.7% variation in results.

Supporting Information: Market Screening (cont...)

Key results – Minimum Energy Performance Standards

- 34% of non-directional and 18% of directional (reflector) efficacy below the proposed MEPS level.
- Five models were significantly below the required Colour Rendering Index (CRI) of 80 (approx. 10%)
 - several other models were borderline and would require further testing if regulations were in place.
- 22% of non-directional and 18% of directional products exceeded the proposed SVM MEPS level of 0.9 (non-visible flicker).

Supporting Information: Market Screening (cont...)

Proposed Information Requirements for Lamp Packaging (rated values):

Model number: for cross referencing with the GEMS registration system

Cap type: specified for single capped and double capped lamps

Rated life: $L_{70}B_{50}$

Colour Rendering Index (additional markings if < 80)

Luminous flux: Light output of the lamp (in lumens)

Power: in watts

Standby power (if not zero): in watts

Network standby power (if not zero): in watts

Efficacy of the lamp: expressed as lumens per watt (lm/w)

Corelated Colour Temperature (CCT): expressed in Kelvin

Beam angle: directional lamp only

If it is **dimnable** (and links to dimming compatibility)

If claiming **equivalence to incandescent** lamps, those claims must be accurate (for non-directional)

Supporting Information: Market Screening (cont...)

Market Screening found:

a wide variation in marking of performance and product information on packages and lamps:

lamps supplied in bubble wrap without a package or lamps in blank boxes or no marking on the lamps themselves

Well-labelled lamps and packages clearly aimed at informing the consumer.

Report available at:

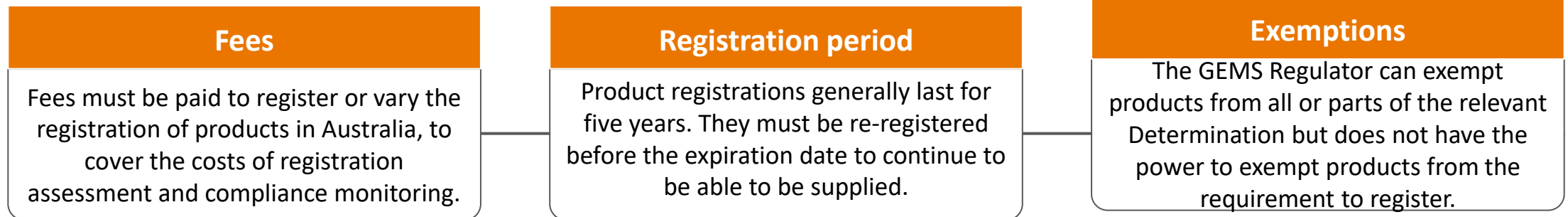
www.energyrating.gov.au/industry-information/publications/led-lamp-performance-results-house-testing-lamps-sampled-australian-market

Proposed Lighting Regulations

GEMS Registration and Compliance and next steps

Registration

- Once a product is in-scope of a GEMS Determination, it becomes a **regulated product**:
 - Regulated products must be registered before they can be sold.
 - In Australia, there are four steps to register a product:
 - Checking whether the product has already been registered; if not then
 - Test the product; then
 - Apply for registration; and
 - Receive confirmation.



Our compliance approach

- ▶ We take a **risk-based approach** to compliance. We make every effort to assist responsible parties to voluntarily comply.
- ▶ Where suppliers attempt to comply, we will in the first instance, provide education and support to assist to meet the requirements of the *GEMS Act*.
- ▶ We conduct a range of activities under the compliance policy and framework.
- ▶ Our **compliance approach** considers a graduated response to non-compliance, focusing on:
 - ▶ Engagement and education
 - ▶ Monitoring compliance
 - ▶ Investigating non-compliance
 - ▶ Responding to non-compliance.

Our compliance objective is to **maximise voluntarily compliance** with the Act, whilst implementing strategies and responses to identify, and then deter, non-compliance.

When **considering a response option** we review the responsible party's

- ▶ Non-compliance history
- ▶ Behaviours
- ▶ Motivations
- ▶ Intentions

to determine the most appropriate response actions.

Where **deliberate failure to comply** is identified, there are a range of response options

- ▶ Suspending a model's registration
- ▶ Cancelling a model's registration
- ▶ Enforceable undertakings
- ▶ Infringement notices
- ▶ Civil penalty orders
- ▶ Injunctions

Proposed Lighting Regulations – next steps:

Incandescent determination:

- Action Energy Ministers decision on the determination
- Direct engagement with affected suppliers of incandescent lamps
- Further engage with lighting suppliers on the determination and implementation
- Messages for consumers
 - conversion tables
 - education about how to choose good quality LED lamps

Proposed LED lamp regulation:

- The proposed LED determination needs to be agreed by Energy Ministers.
- Increase awareness of the GEMS registration system for LED suppliers



Q&A:

- Time for questions (30 mins)
- Slido link: <https://app.sli.do/event/7cEXU9jZ97Yv9ps2XTn5BU>

Or Scan QR code

Passcode: #EER

Panel available to answer questions:

Dan Croucher
Jennifer Beckman
Keelie Williams
Ange Palombi



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