Update on the Lighting Regulatory Policy in Australia
Several lighting technologies are currently regulated under the *Greenhouse and Energy Minimum Standards Act 2012*:
- Linear Fluorescent Lamps and Ballasts
- Compact Fluorescent Lamps
- Tungsten Filament Lamps (phase-out)
- Halogen Lamps
- Transformers and Converters for Halogen Lamps

Estimated savings from phase out of incandescent light bulbs (2009) (along with state based energy efficiency obligations schemes) is 2.4 terawatt-hours (TWh) of electricity each year (equivalent to the total annual electricity consumption of 400,000 homes).

The average household is estimated to be saving $70 per annum, with cumulative national savings of an estimated $5.5 billion.
LED MEPS Proposal

- Consultation Regulation Impact Statement (November 2016) proposed MEPS for LED Lamps and integrated LED luminaires, in advance of a halogen phase-out.
- Feedback from industry stakeholders identified problems with regulating LED luminaires under current legislation framework.
- Update Discussion Paper issued in September proposed:
  - LED MEPS for capped lamps (directional, non-directional, linear) - 2019
  - Phase-out of range of halogen lighting - 2019
- Further revision to LED MEPS following comments on Supplementary Paper. Working with LED MEPS Technical Working Group to finalise details of the parameters (which will determine impact on industry). Further consultation to follow. Monitoring other international work, including the EU regulation update.
• MEPS have not kept pace with improvements in lighting technology and international best practice - no longer achieving purpose of removing the least efficient lamps from the market
• Inferior LED products are negatively impacting on consumer confidence and uptake of efficient technology, reducing potential energy savings and reduction in emissions.
• Imperfect information, and increased diversity of lighting alternatives makes it difficult for consumers to meaningfully compare the energy efficiency, quality and performance of lighting technologies or be motivated to do so given the low purchase price
• Split incentives - commercial and rental property owners and some builders have no incentive to purchase more efficient, higher quality, but higher upfront cost products as there is no incentive for them to reduce electricity or replacement costs.
LED Performance

- ASEAN LED Benchmarking Results Analysis 2017 – testing of 240 residential LED lamps purchased in December 2016 from nine ASEAN Countries (Australia funded)
  - Efficacy ranged from 116 lm/W down to 17 lm/W
  - Tested luminous flux varied by as much as 397 lm above and 531 lm below the rated luminous flux
  - Colour temperature varied by as much as 4,500 Kelvin (many products were unmarked), with test results as high as 13,290 Kelvin
  - CRI as low as 60 were found, with 30 per cent of lamps tested below 80 CRI
  - Power Factor as low as 0.08

- EU – EEPLIANT Testing – of 76 lamp models (56%) have been identified as showing non-compliance concerning one or more of the EU regulations
LED - Compatibility

- LED lamps have recognised compatibility problems with some legacy installed stock of dimmers and transformers (ELV)
- We see this as a barrier to some households transitioning to LED lighting – particularly from LED downlights
  - Conducting tests of LED lamps (MV only at this stage) that claim to be dimmer compatible against examples of dimmer switches installed in Australian homes
  - Have called for lamp suppliers to submit claims for LED lamp compatibility with installed stock of ELVC converters
- Developing information database to be used by electrical trades to assist with finding a compatible LED lamps (to reduce costs to households)
Efficient Street Lighting

- Commonwealth and state and territory governments, in partnership with the IPWEA Street Lighting and Smart Controls Programme, are seeking to accelerate the transition to LED and smart control street lighting technology to contribute to a range of national policy objectives

- Achievements to date
  - Roadmap
  - Conference
  - Model Specifications
  - Webinars and Website
  - www.slsc.org.au/home
Thank You


• David Boughey – David.Boughey@environment.gov.au
• Steve Coye - steve@lightnaturally.com.au