



Australian Government

Department of Climate Change, Energy,  
the Environment and Water

# IEA Solid State Lighting Annex - Australia

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Jo Brennan, Director, Nationwide House Energy Rating Scheme  
and Lighting, Residential Energy Efficiency Branch  
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[DCCEEW.gov.au](https://www.dcceew.gov.au)



# Acknowledgement of Country

Our department recognises the First Peoples of this nation and their ongoing connection to culture and country. We acknowledge First Nations Peoples as the Traditional Owners, Custodians and Lore Keepers of the world's oldest living culture and pay respects to their Elders past, present and emerging.

# Outline

- Australian climate and energy policies
- Overview of lighting related Australian policy work
- Priority regulatory activity in lighting
- Other lighting energy efficiency activities



# Australian climate and energy policies

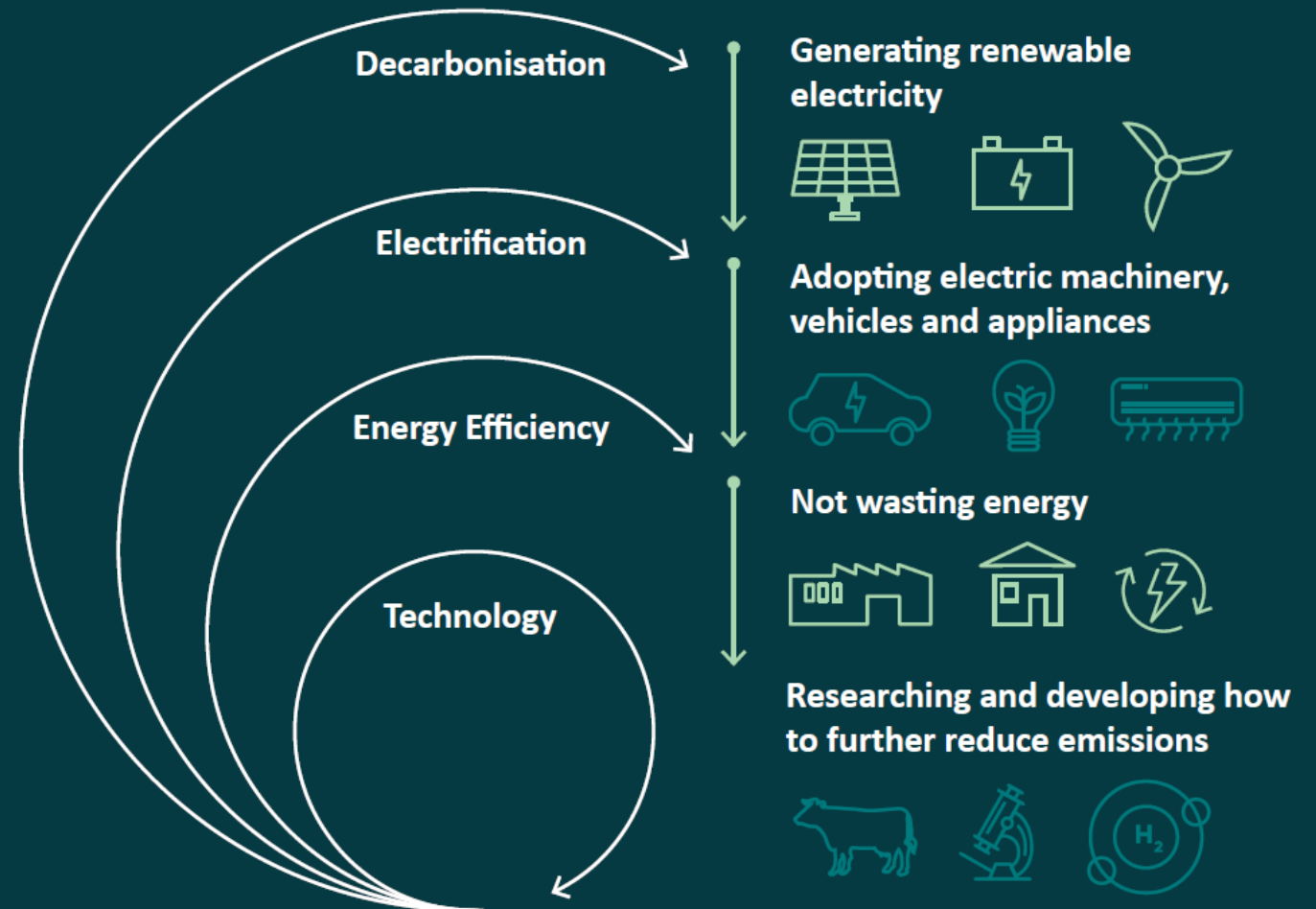
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# Substantial suite of new policies for energy transformation, renewables integration and energy security

## POLICIES

- 82% renewable electricity target by 2030
- A Net Zero by 2050 Plan
- National Energy Transformation Partnership
- National Energy Performance Strategy
- National Electric Vehicle Strategy
- Consultation on fuel efficiency standards
- Introduction of the Minimum Stockholding Obligation for liquid fuels from 1 July 2023
- Energy workforce planning with the first Australian Energy Employment Report (AEER)

## Emissions reduction approaches



# Strong investment to drive energy transformation

## Rewiring the Nation

– \$20 billion in low-cost finance for the urgent upgrade and expansion of Australia's electricity grid



## Powering the Regions Fund provides \$1.9 billion

for dedicated support to make sure traditional and new industries in regional Australia can harness the economic opportunities of decarbonisation



## \$224.3 million for the Community Batteries

for Household Solar grants program, to deploy 400 community-scale batteries for up to 100,000 Australian households



## \$345 million for the Electric Car Discount

which will cut taxes by exempting eligible electric cars from fringe benefits tax and the 5% import tariff



## Expanding the Driving the Nation Fund to \$500 million

to build a national electric vehicle charging network and infrastructure for zero-emission vehicles



## \$105.2 million to support First Nations communities to respond to climate change,

includes \$89.3 million towards a clean energy strategy and microgrids, and \$15.9 million towards the new Torres Strait Climate Centre of Excellence

## \$62 million towards Skilling the Clean Energy Workforce,

including financial support, assistance and mentoring to 10,000 New Energy Apprenticeships



## \$102.2 million for Community Solar Banks

for 25,000 Australians living in apartments, rentals and low-income households across Australia



## \$71.9 million to build a Hydrogen Hub in Townsville,

fast-tracking Australia's green hydrogen industry and taking the Government's planned investments in regional hydrogen to over \$525 million



## \$47.1m to restore the Climate Change Authority,

improving transparency and accountability of climate action in Australia



## \$22.8 million to support the Australian Energy Regulator

to help integrate more renewable energy into the National Electricity Market (NEM)

## ARENA and the CEFC,

established under the Labor Government in 2012, will have their funding maintained, plus \$60.0 million to expand ARENA's Large Scale Battery Storage Funding Round



# Policy drivers – lighting initiatives

- Lowering cost of living pressures
- National Energy Performance Strategy
- Greenhouse and Energy minimum standards
- 2025 Energy Market design
- Product stewardship
- Light pollution
- Building codes
- Global context – Minamata





# National Energy Performance Strategy

The \$15.2m National Energy Performance Strategy will deliver a high energy performance economy and the energy efficiency savings required to meet the Government's 2030 and 2050 emission reduction targets, while driving down energy bills and improving energy security.

## CONSULTATION:

- Views were sought on governance, energy efficiency targets, residential, commercial and industrial sectors, supply chains and the workforce.
- 135 submissions were received in response to the Government's consultation paper.

## THE STRATEGY RELEASE:

- The Strategy will be adaptive and scalable over time to allow for changes in Australia's energy markets, technologies, and needs of energy consumers, and to ensure it continues to contribute to our emission reduction goals.



# E3 – energy efficiency standards partnership

- The E3 program is a shared initiative of the Australian Government, states and territories and the New Zealand Government.
- The program sets out the **minimum energy efficiency standards** and energy rating **labelling requirements** for appliances like fridges, washers, dryers, dishwashers, TVs.
- The program seeks to increase the energy efficiency of appliances to **reduce energy use and greenhouse gas emissions.**
- Purchasing **efficient models means households and businesses consume less energy, save money** on their energy bills, and reduce greenhouse gas emissions.

Between 2019 and 2021, appliances and equipment standards saved **\$3.7 billion in avoided energy bills**

Appliance and equipment standards **avoided approx. 12.2 Mt of carbon emissions** in that period

Commercial Buildings Disclosure Program has **saved over \$82.6 million in energy bills since 2011**

**Households saved up to \$180 on electricity bills** in 2018 from energy efficiency regulations

# Priority Lighting Regulatory Action

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Proposals to introduce new minimum standards for LEDs and continue to phase out inefficient lighting

# E3 Program: Minimum Energy Performance Standards

**MEPS** specify the minimum level of energy performance products must meet or exceed before they can be offered for sale or used for commercial purposes.

**Lighting is a priority area for action under the Greenhouse and Energy Minimum Standards Act**

**MEPS are an important policy lever to meet net zero:**

- effective way to increase the energy efficiency of products
- manufacturers are given appropriate signals to increase product efficiency
- Provide a minimum standard for companies to go above and beyond
- For consumers, MEPS mean products available in the market use less energy and have lower running costs over their lifetime



# Using MEPS: Proposed Lighting Regulations

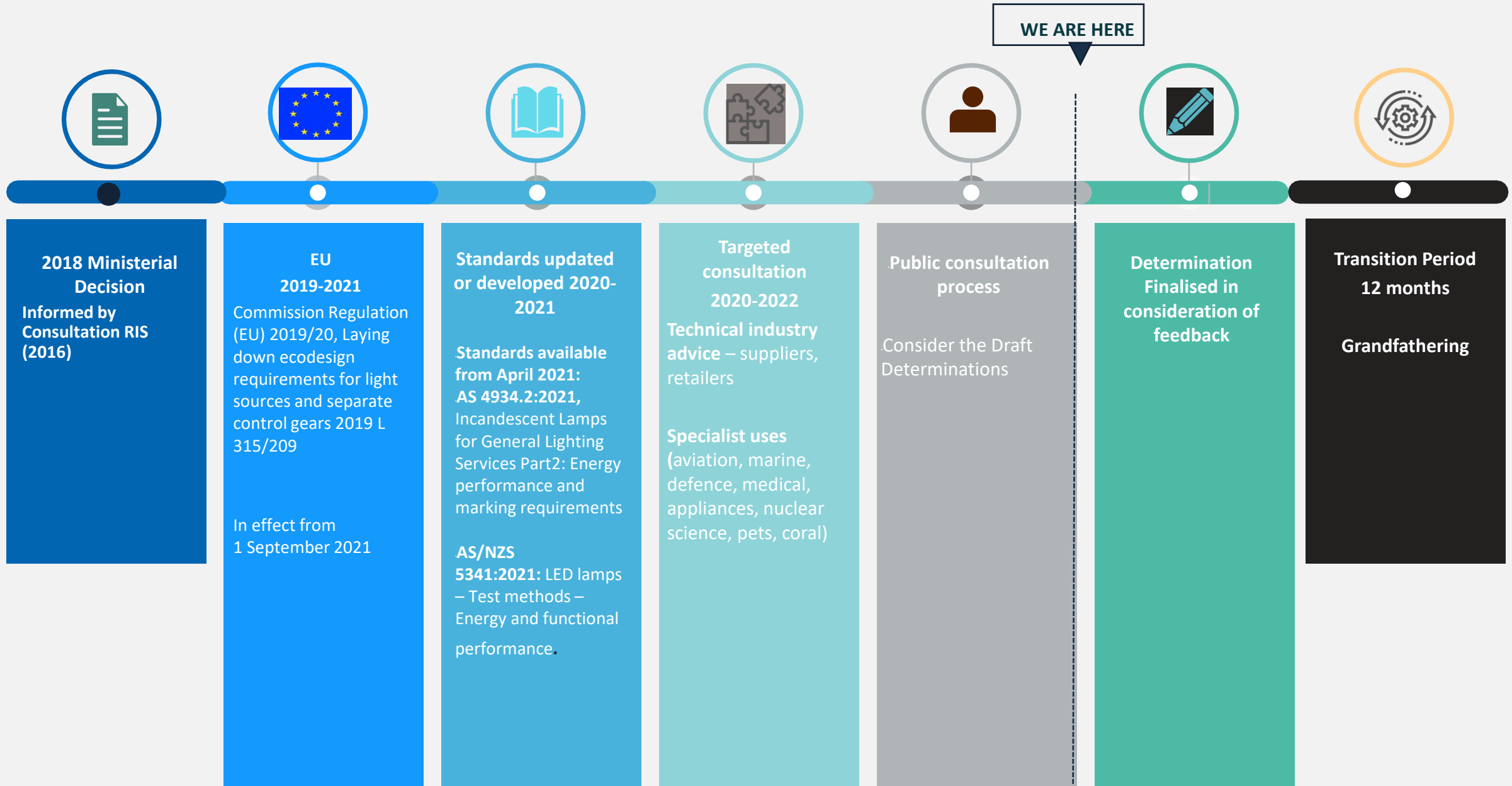
## Australia

- Incandescent and halogen lamps
  - Looking to widen the scope of and increase MEPS
- LED lamps – introduce MEPS
  - Align with *Commission Regulation (EU) including 2019/20, Laying down ecodesign requirements for light sources and separate control gears 2019 L315/209*

## New Zealand

- Incandescent and halogen lamps
  - Not regulating
- LED lamps – introduce MEPS
  - Align with EU

# Using MEPS: Journey to date



# Feedback Received from the Public Consultation Process

- The vast majority of received submissions were supportive of the phase out of inefficient lights and the introduction of MEPS for LED's
- 60% of submissions were from international organisations
- Some concerns about LED impact on human health
- Concerns about lack of progress on phase out of fluorescents (tubes and CFL's)
- Need to provide updated key lighting data for decision makers
- LED MEPS – despite strong support, some dissenting voices were raised.
  - ❑ Industry concerned about reduced innovation in lighting technologies due to regulatory costs, in particular costs associated with compliance and administration

# Using MEPS: Testing Data

Non-directional Mains voltage LED Lamp (single capped) test results compared with proposed MEPS limit

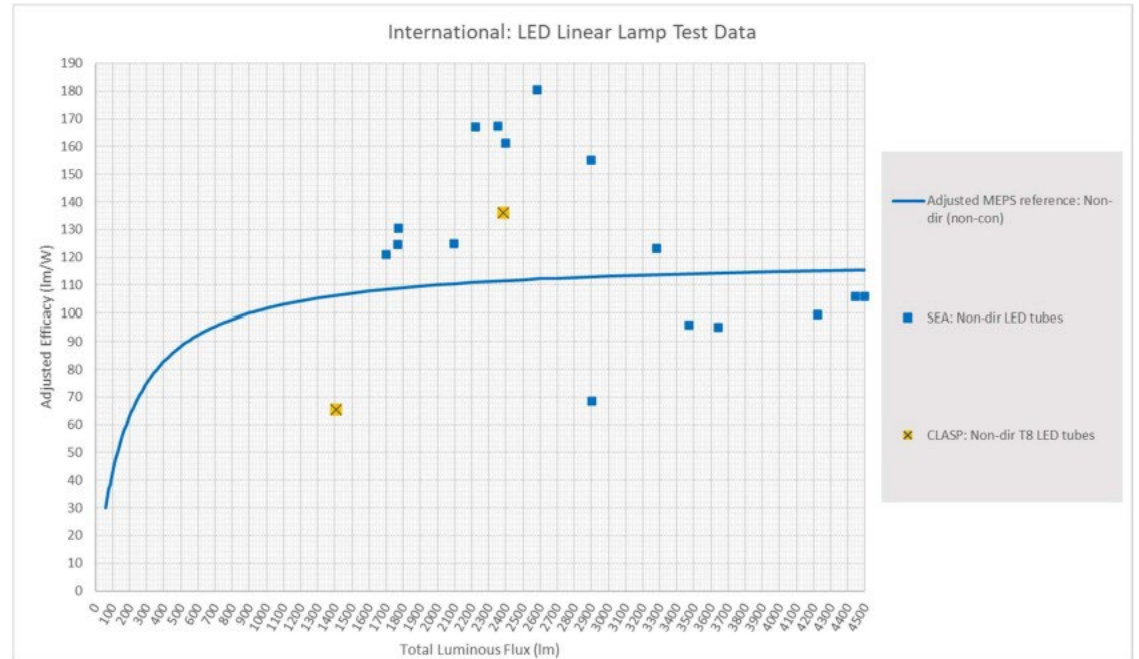
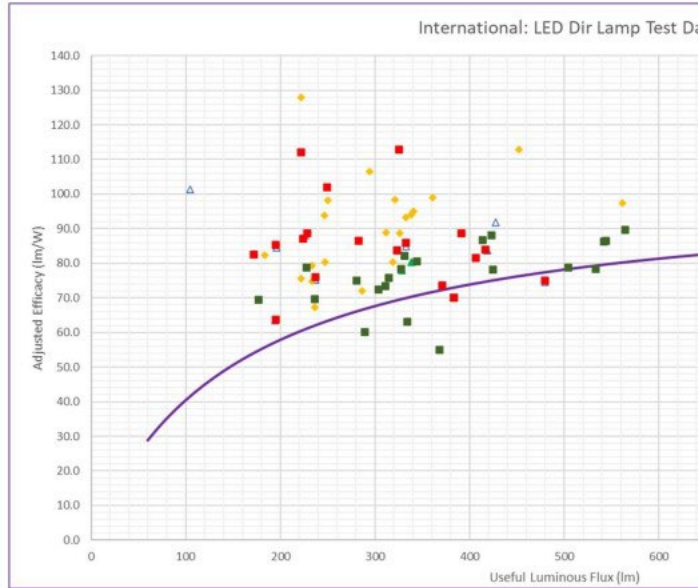
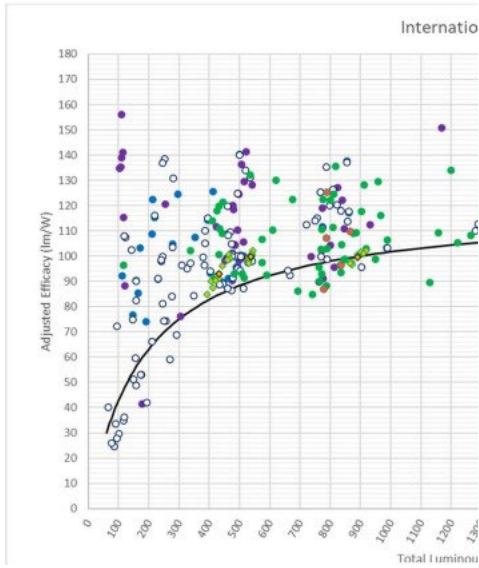
Products sampled from markets in Europe/Aust (2018 -2021)	Tested
MV Non-Dir lamp	296

Directional LED Lamps (single capped) test results compared with proposed MEPS limit

Products sampled from markets in Europe (2018 -2021)	Tested	Below MEPS	%
Dir lamp	76	8	10.5%

Non-directional mains voltage linear LED lamps (double capped) - [Fluorescent tube replacement] compared with proposed MEPS limit

Products sampled from markets in Europe (2018 -2021)	Tested	Below MEPS	%
MV Non-Dir linear lamp	18	7	39%





# LED Lamps: Concessions to reduce cost and burden

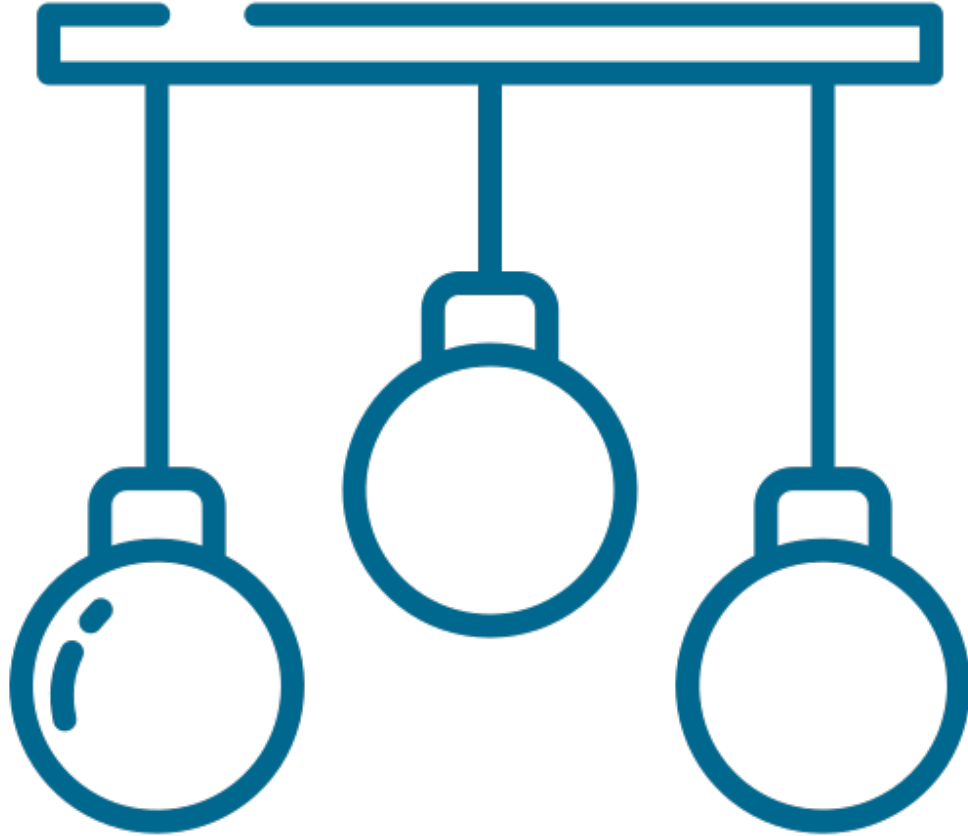
Significant steps taken to streamline the regulatory approach and reduce the administrative burden on industry, including:

- Recognising that many companies will be demonstrating compliance with EU or other market requirements
- Registration of a product or family of products (which is required under the GEMS Act) will not require the upload of a test report for the LED lamp
  - Registration is similar to EU
  - A generous family definition has been proposed to help reduce the registration fees component.
- Flexible requirements
  - useful luminous flux measure and packaging requirements on directional lamps
  - u'v' circles instead of MacAdam ellipses
- Transition period

# Other lighting activities

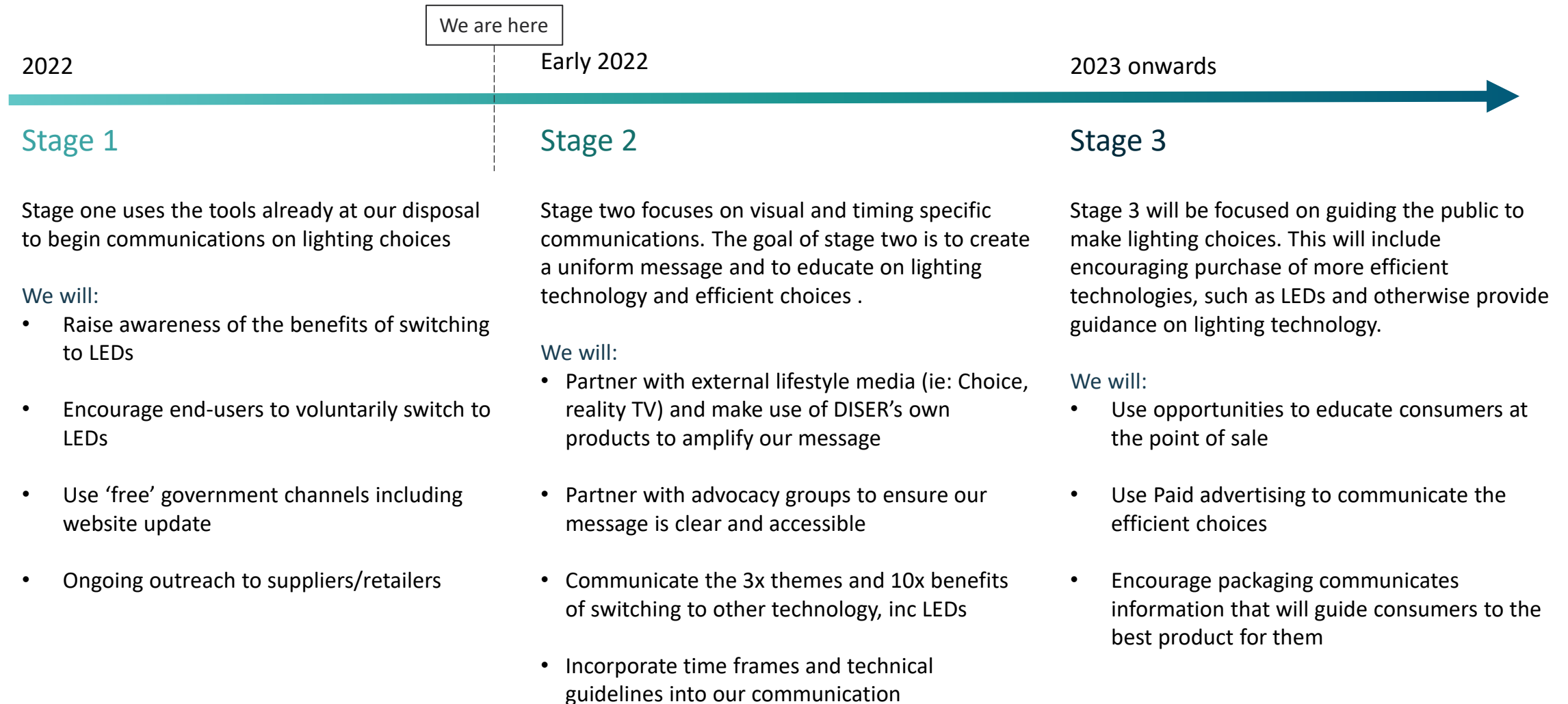
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# Other lighting work



- Street lighting
  - Rule change by energy market operator
  - Guidance, training and communications
- Communication:
  - Communication strategy
  - Lighting health – fact sheets
  - Dimmer compatibility tools
  - Lighting conversion products
  - Benefits promotion

# Communications timeline– general stages



Questions?

Please take this opportunity to ask us any questions

