



# The Energy Savings Scheme and transformation of the lighting market

---

National Energy Efficiency Conference, Melbourne

20 September 2017

# Learning from the impacts of the ESS on NSW lighting market

---

1

Economic and  
market impacts

2

Transformation  
by luck or intent

3

Lessons for  
future policy



# Economic and market impacts

# The ESS has upgraded over 3.7 million inefficient lights at over 10,000 NSW business sites

## Over 2011 and 2016, energy saving lighting retrofits delivered:

**8,225 GWh** of energy savings for customers<sup>1</sup>

**\$1.6 billion** in customer energy bill savings<sup>2</sup>

**\$600 million** in new investment in NSW

**\$670 million** in net economic benefits to NSW<sup>2</sup>

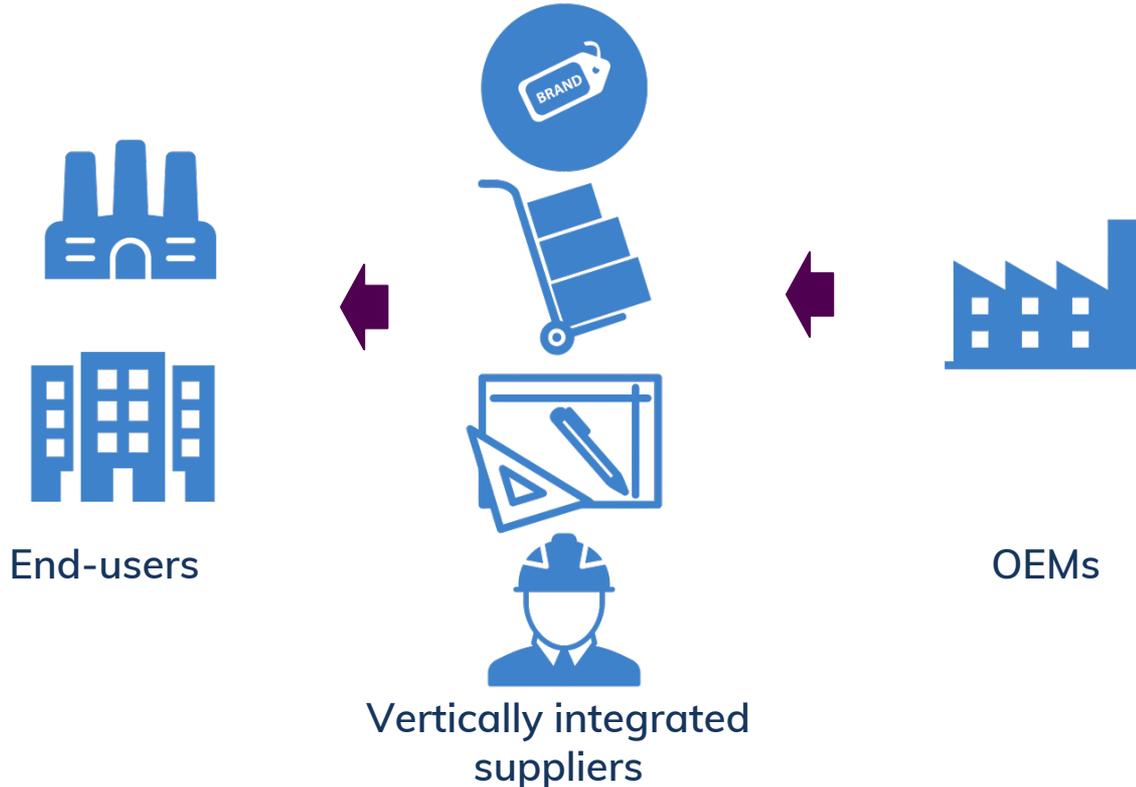
**2.96** Cost benefit ratio

**1,830** indirect jobs created by improved productivity

# The traditional lighting supply chain has many barriers to the installation of efficient lighting



# A new retrofit market has driven innovation in lighting product design and business models



## Customer-direct business models

breakdown split incentives and provide a platform for retrofits of other technologies

## End-user centric product design

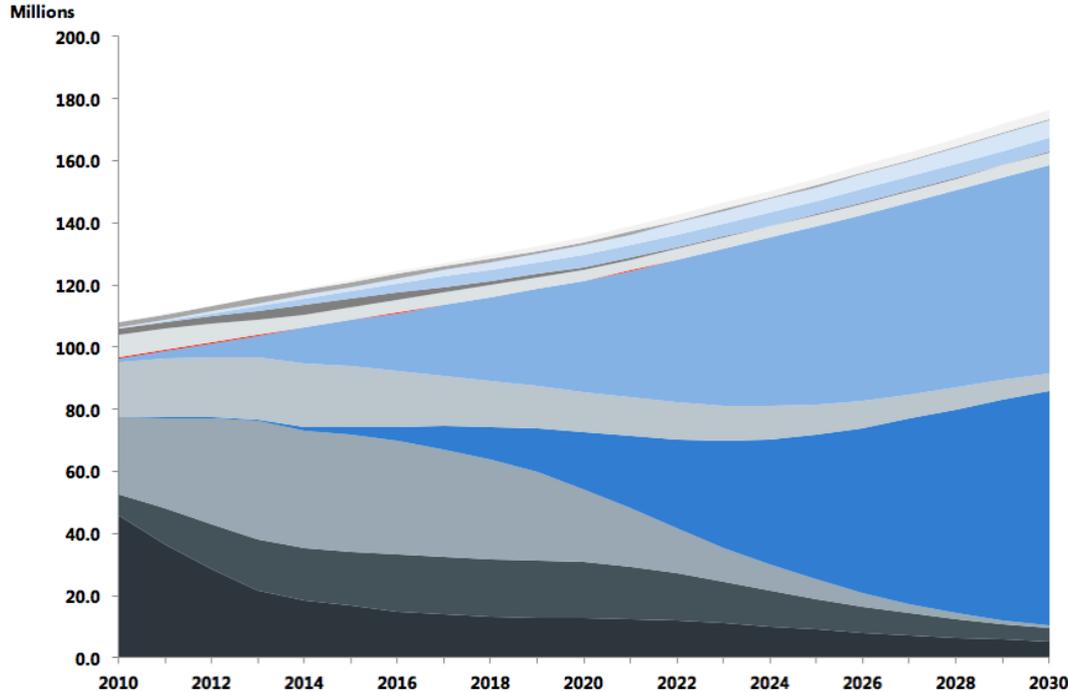
is focussed on quality, lifetime and running costs

## Vertical integration

has driven down prices by removing intermediaries

# Globally, LEDs are now becoming the norm for new sales in the dominant new-build and refurb segment

## Forecast total stocks of NSW lighting fixtures



**The ESS brought LEDs to NSW 2-3 years early**  
The retrofit market now represent ~13% NSW lighting sales

**ESS retrofits are now retiring inefficiency legacy technology** around 7-10 years earlier than business as usual

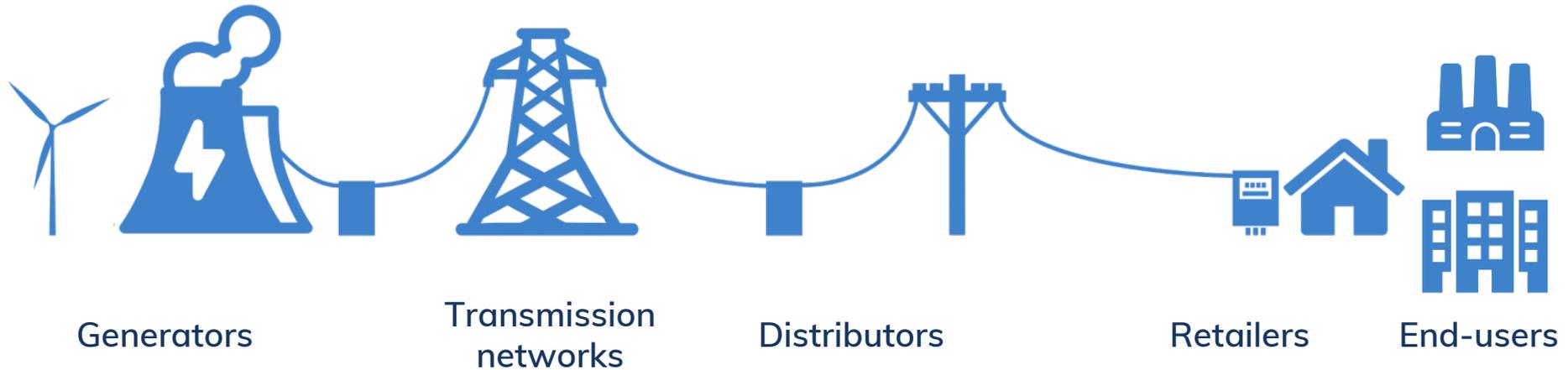
2

Transformation by luck or intent

# The ESS aims to deliver energy savings

We originally hoped to nudge transformation in the electricity market

## Electricity supply

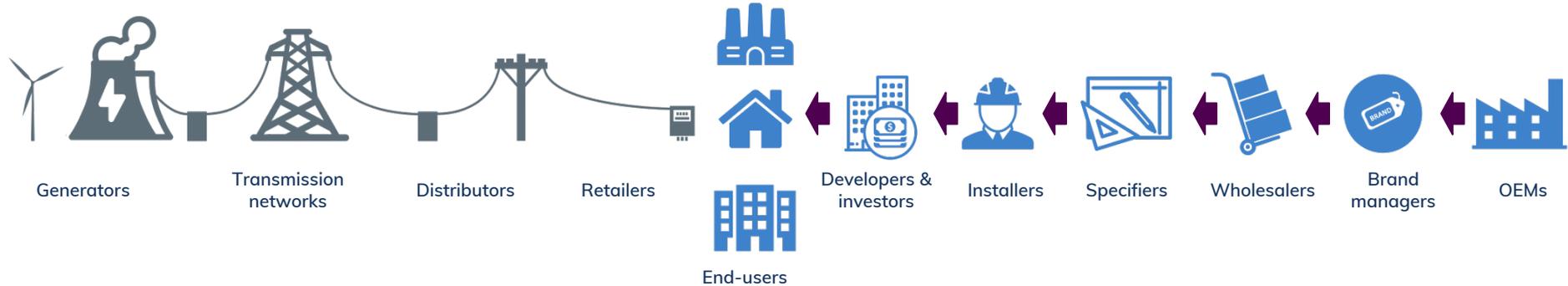


# We all need to take a broader view of the energy and energy services markets as integrated

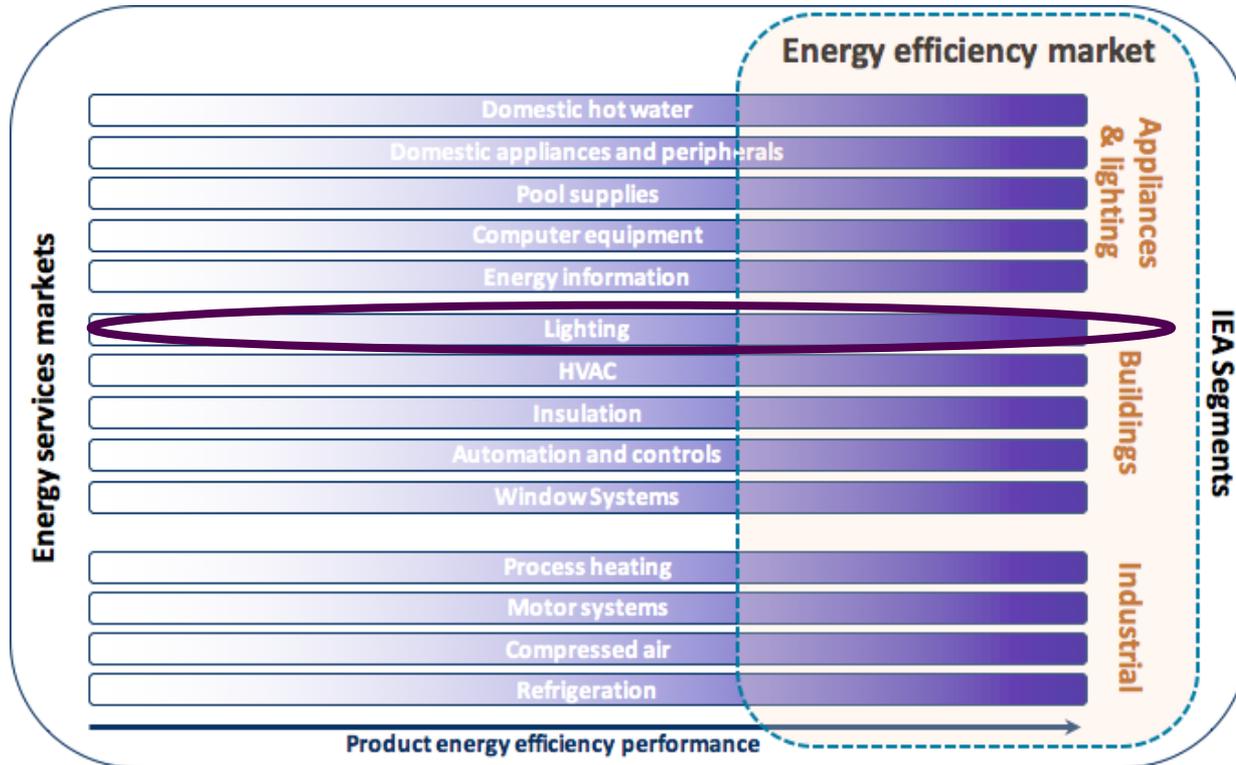
Too often, policy treats demand as exogenous. Instead, it is driven by the supply chains of the energy services consumers use energy for

## Electricity supply

## Electricity demand



# The other energy services supply chain networks have similar barriers and opportunities to lighting



Lighting represents <10% of energy savings opportunities cost effective on current technology and prices - before the potential impacts of transformation are considered

 3

# Lessons for future policy

# Policy and operational settings have played an essential role in driving market transformation

But transformation isn't codified as an objective of these settings

The crucial elements that supported transformation include:

- Availability of outcomes-based incentives for energy savings
- Long term investor clarity provided by legislated targets
- Mandatory customer co-payment requirements
- ESS and VEET product registry and quality approval processes

# Energy efficiency policy and programs should actively pursue and track transformation outcomes

## Policy and evaluation priorities include:

- Codification and patient management of long-term transformation settings
- Understand and track baseline technology, structure, dynamics, and program impacts
- Complementary efficiency programs and industry policy linkages
- Look beyond electricity and gas

## Administration priorities include:

- Document and adhere to a clear and consistent policy basis for changes
- Align notice for regulatory changes to the timeframes of the business cycles that the changes hope to constructively influence

# Thank you

Henry Adams

Director

+61 412 622 915

[henry.adams@commoncapital.com.au](mailto:henry.adams@commoncapital.com.au)