

Energy Efficiency Schemes in Australia

Ric Brazzale, February 2016

A2SE 2016 Summer Study on
Energy Productivity

Rewarding sustainable choices



Green Energy
Trading

- State based schemes are biggest drivers of Energy Efficiency at present – we have some policy stability to 2020.
- What have we got in each state – what are achievements and what is not working so well
- Australia's emission reduction targets are real – and energy efficiency is expected to pick up a significant portion of that (Safeguard Mechanism)
- Do we really want a national scheme? What about harmonisation? How do we bring WA/Qld in?

NEM consumption increased 1.1% in 2015 (emissions increased by 2%)

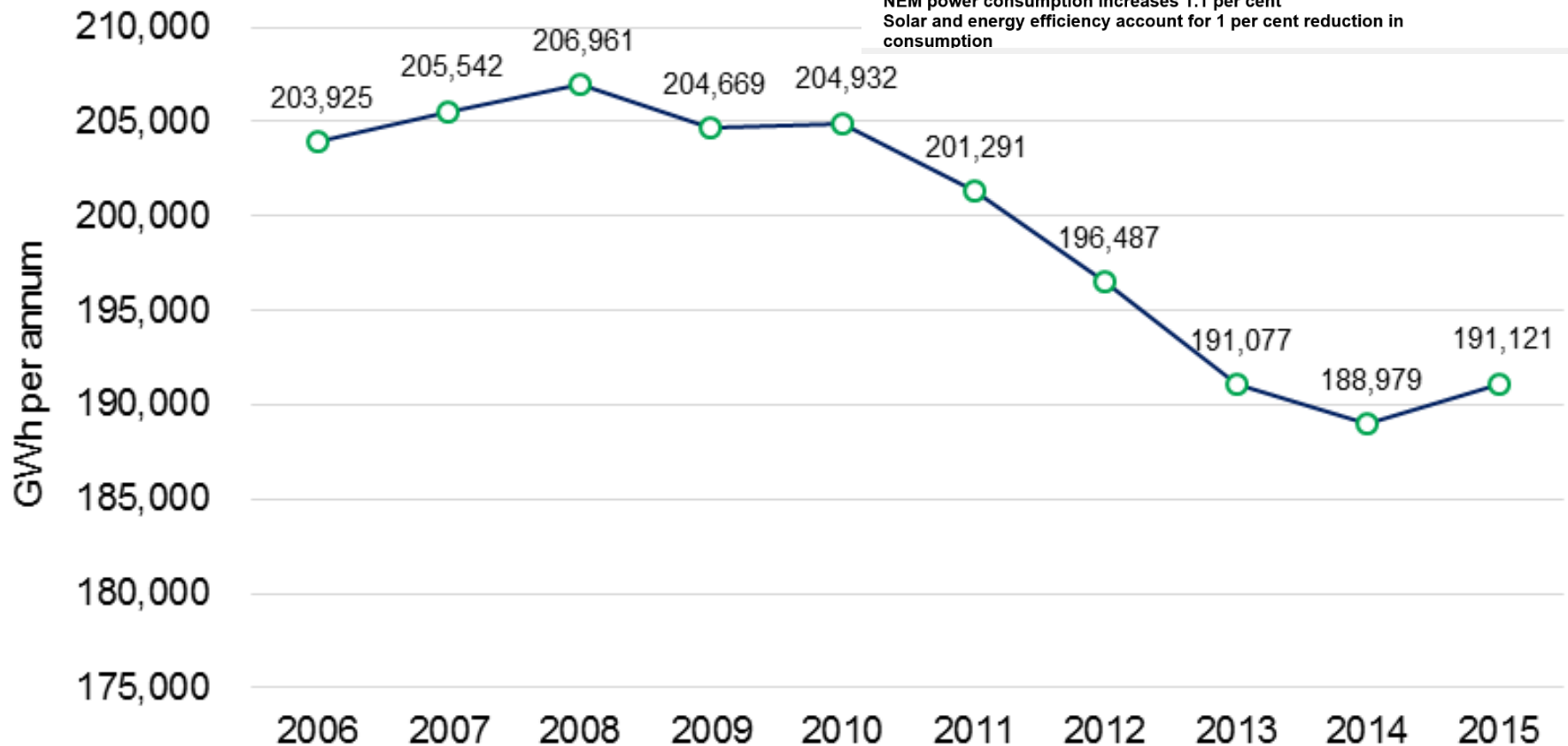


Review of the NEM in 2015

Green Market Insights
Ric Brazzale, Director
www.greenmarkets.com.au



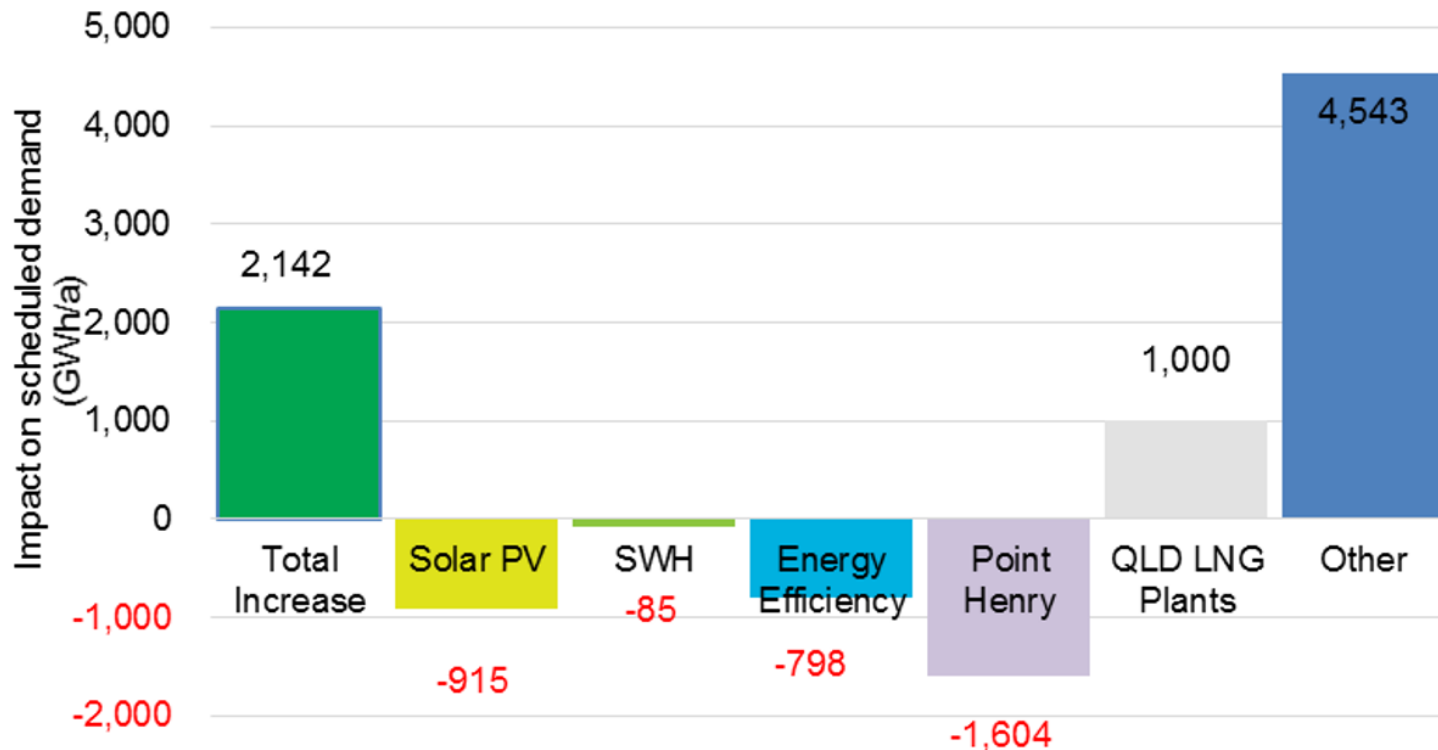
Greenhouse emissions increase by 2.0 per cent in 2015
NEM power consumption increases 1.1 per cent
Solar and energy efficiency account for 1 per cent reduction in consumption



Solar and energy efficiency making material contribution

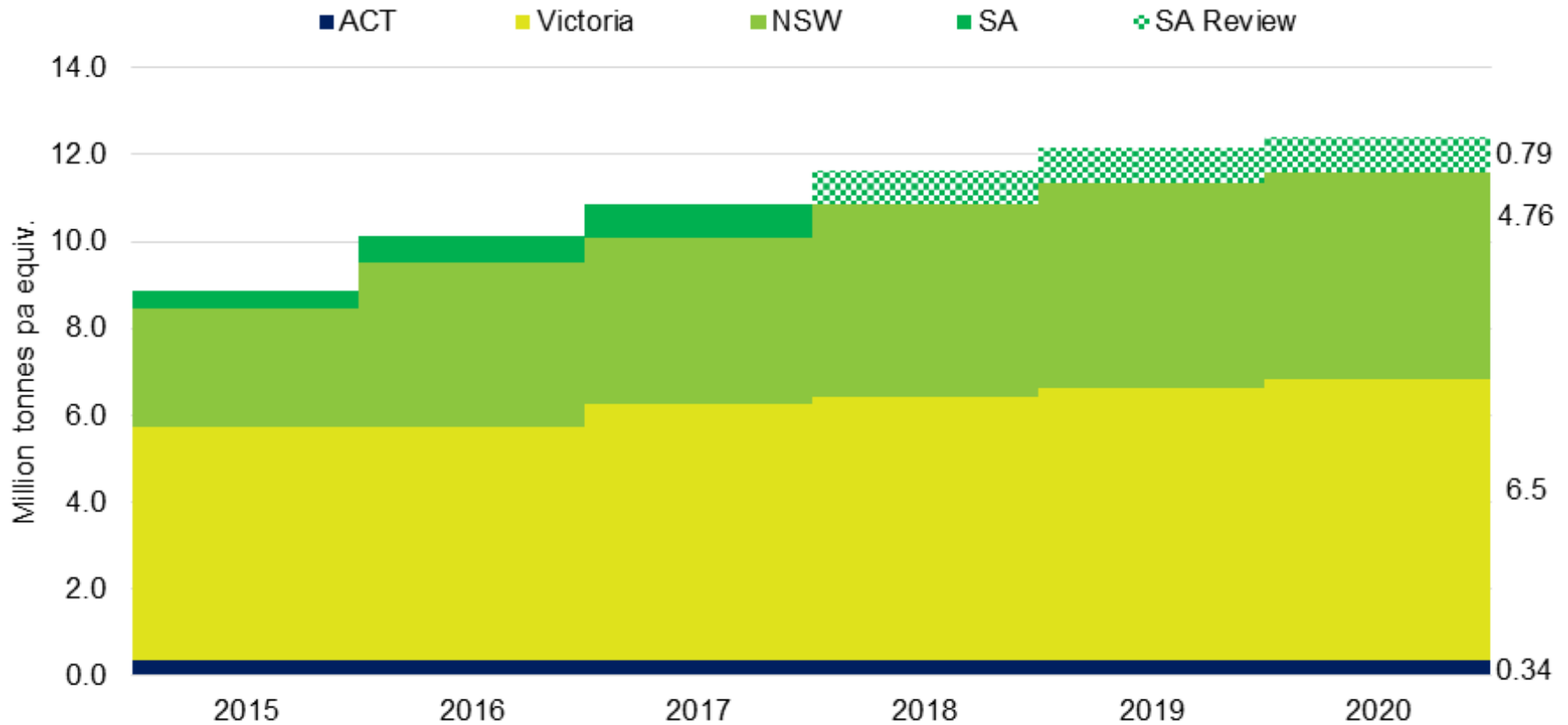
Average of 660 MW of solar PV installed in NEM each year over 2014 and 2015

Figure 2. Contributors to changes in electricity consumption (2015 cf: 2014)



Solar and energy efficiency accounted for 1% reduction in power demand

Schemes total of 12.4 mta by 2020



Equivalent to a combined market of \$350 million per annum by 2020

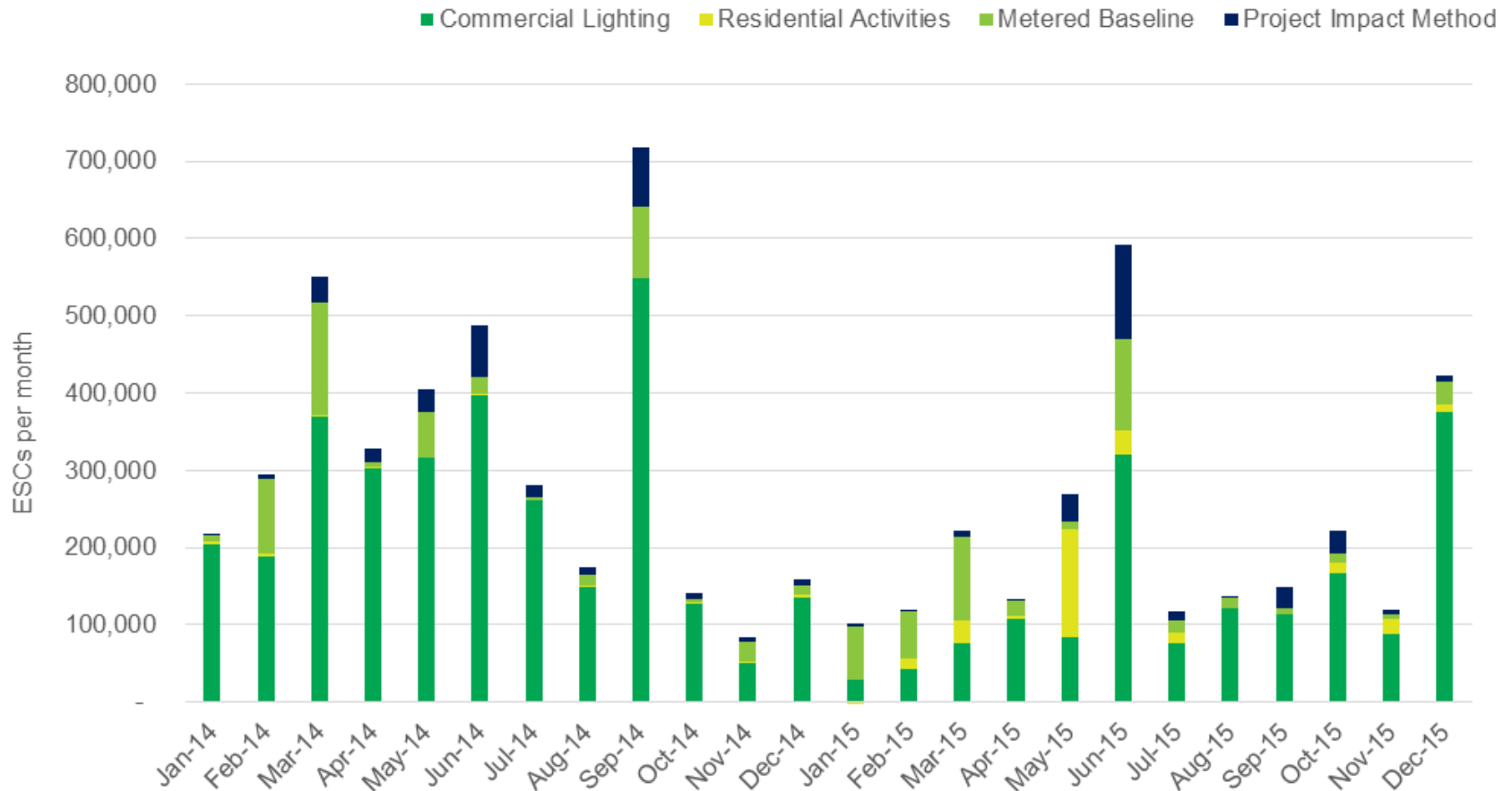


EE Schemes in Australia

Scheme	Started	Type	Coverage	Target (2015) tonnes GHG	Target Review
Victorian Energy Efficiency Target Scheme	1 Jan 2009	Certificate based	Residential and business, electricity and gas	5.4 million	Expanded to 6.5m by 2020
NSW Energy Saving Scheme	1 Jul 2009	Certificate based	Residential and business, electricity and gas from 2016	2.7 million (5% of liable electricity sales)	Expanded to 8.5% by 2019 and extended to 2025
SA Retail Energy Efficiency Scheme	1 Jan 2009	Direct obligation	Residential and business, electricity and gas	0.4 million (equiv)	2016 Review for 2018-2020 period
ACT Energy Efficiency Implementation Scheme	1 Jan 2013	Direct obligation	Residential and business, electricity only	0.34 million (14% of electricity sales)	Expanded to 2020 in Jun 2015

More than 50 energy efficiency schemes operating globally according to Regulatory Assistance Project <http://www.raonline.org/>.

Commercial lighting has dominated in NSW

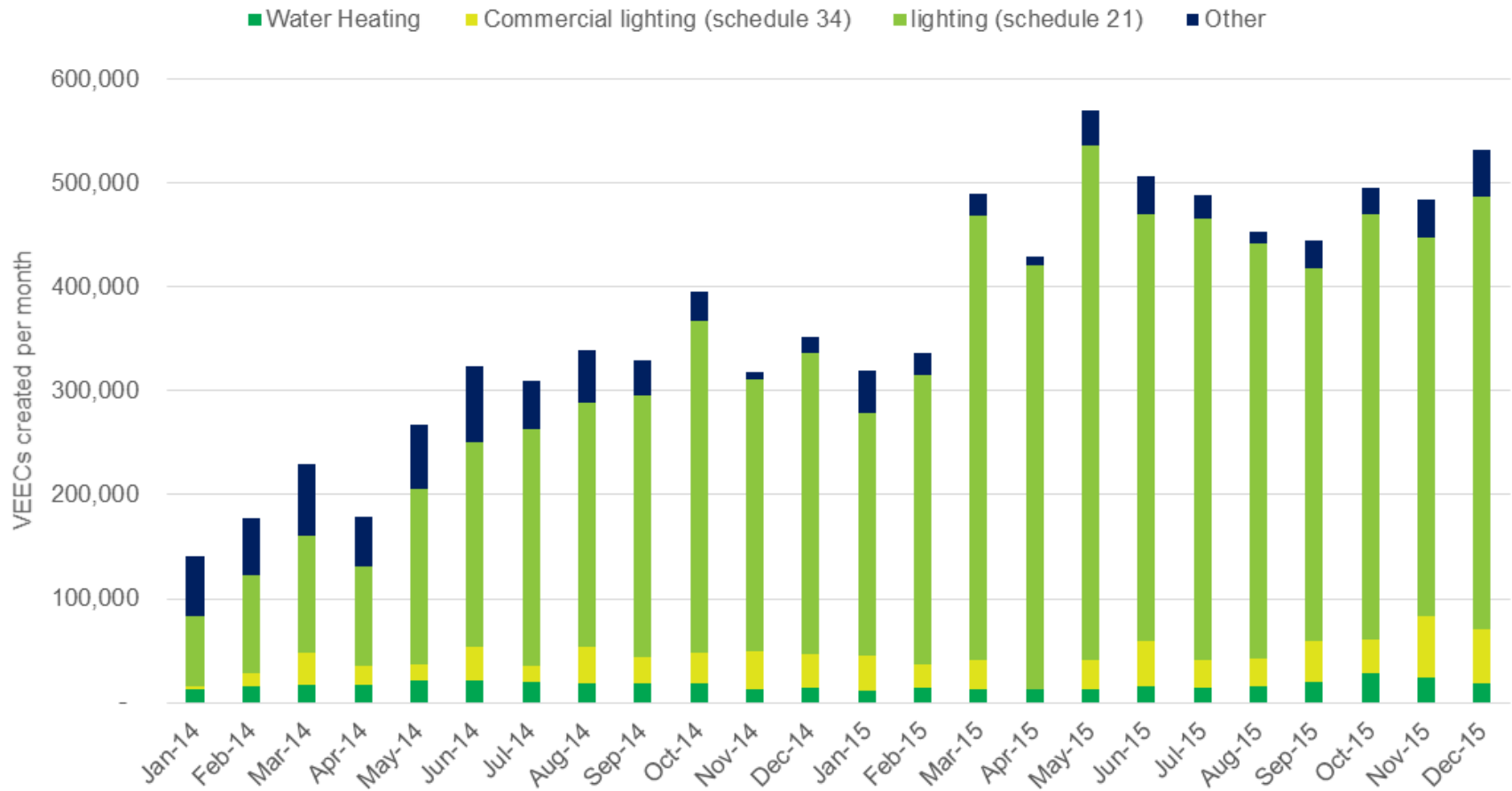


Commercial lighting accounted for:

- 85% of ESCs in 2013
- 80% of ESCs in 2014
- 62% of ESCs in 2015

Residential activities negligible - but 11% in 2015 (appliances)

Residential activities dominating in Victoria



	2013	2014	2015
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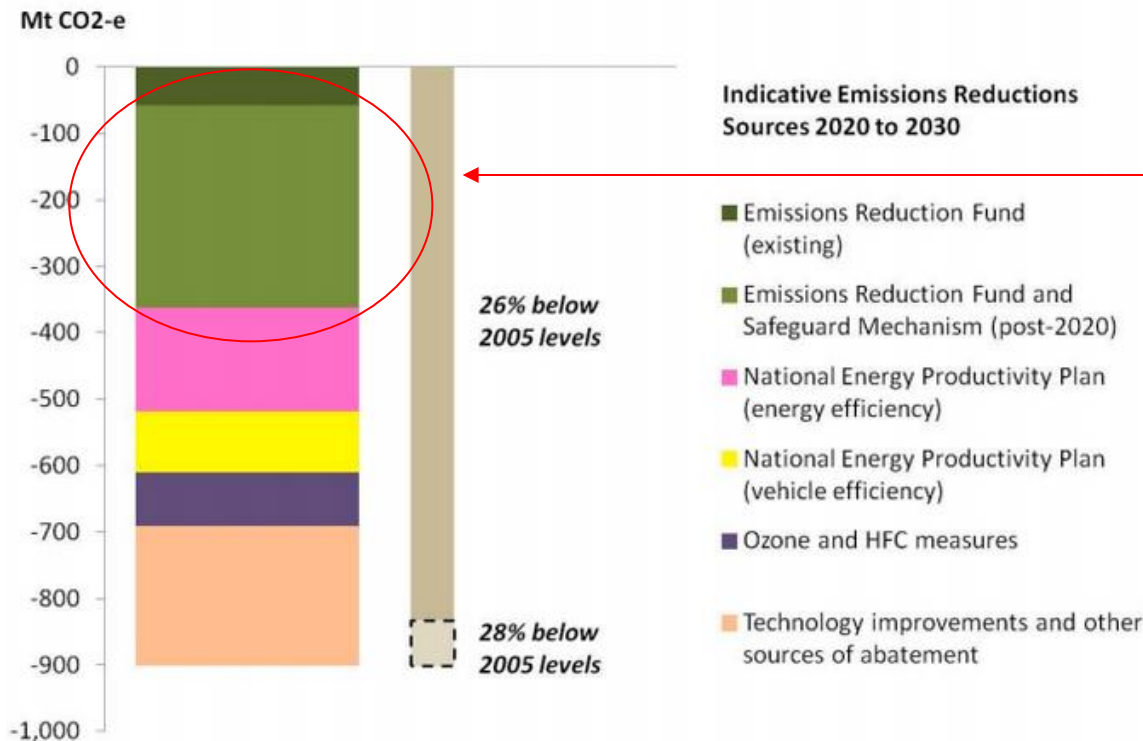
SPCs	50.9%		
Commercial lighting (schedule 34)	2.2%	8.5%	7.1%
Lighting (schedule 21)	19.7%	69.0%	83.5%

Business vs Residential

- NSW has supported predominantly business activities (commercial lighting)
- Victoria has supported predominantly residential activities (SPCs and Halogen replacement)
- WHY?
- Free activities vs Requiring customer contribution?
- What happened to harmonisation?

Energy Efficiency expected to play key role in emissions reduction

Australia can achieve the 2030 target by improving productivity, reducing costs and through technology



The Safeguard Mechanism may create another source of demand for ACCUs

Presentation on announcement of Australia's 2030 target for Paris Conference

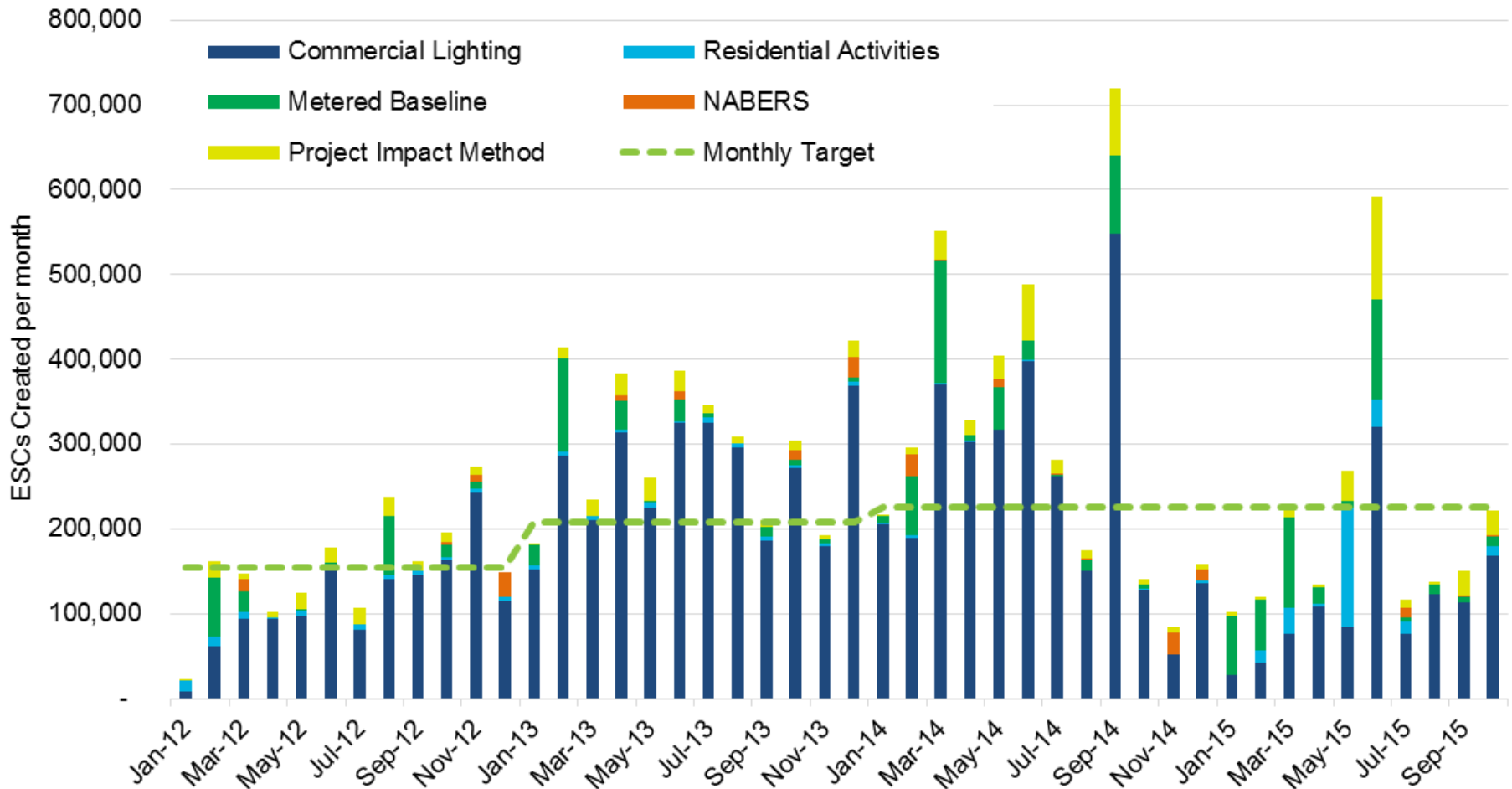
Safeguard mechanism

– how might it work?

- Larger emitters to be given emission baselines
- To the extent that they exceed them then will need to surrender Aust. Carbon Credit Units (ACCUs)
- Eligible projects can produce ACCUs – eg commercial lighting
- Electricity Generators will also have baselines
- Baselines can be progressively strengthened over time
- Effectively becomes a “baseline and credit” emission reduction scheme

Discussion

Commercial lighting has dominated in NSW

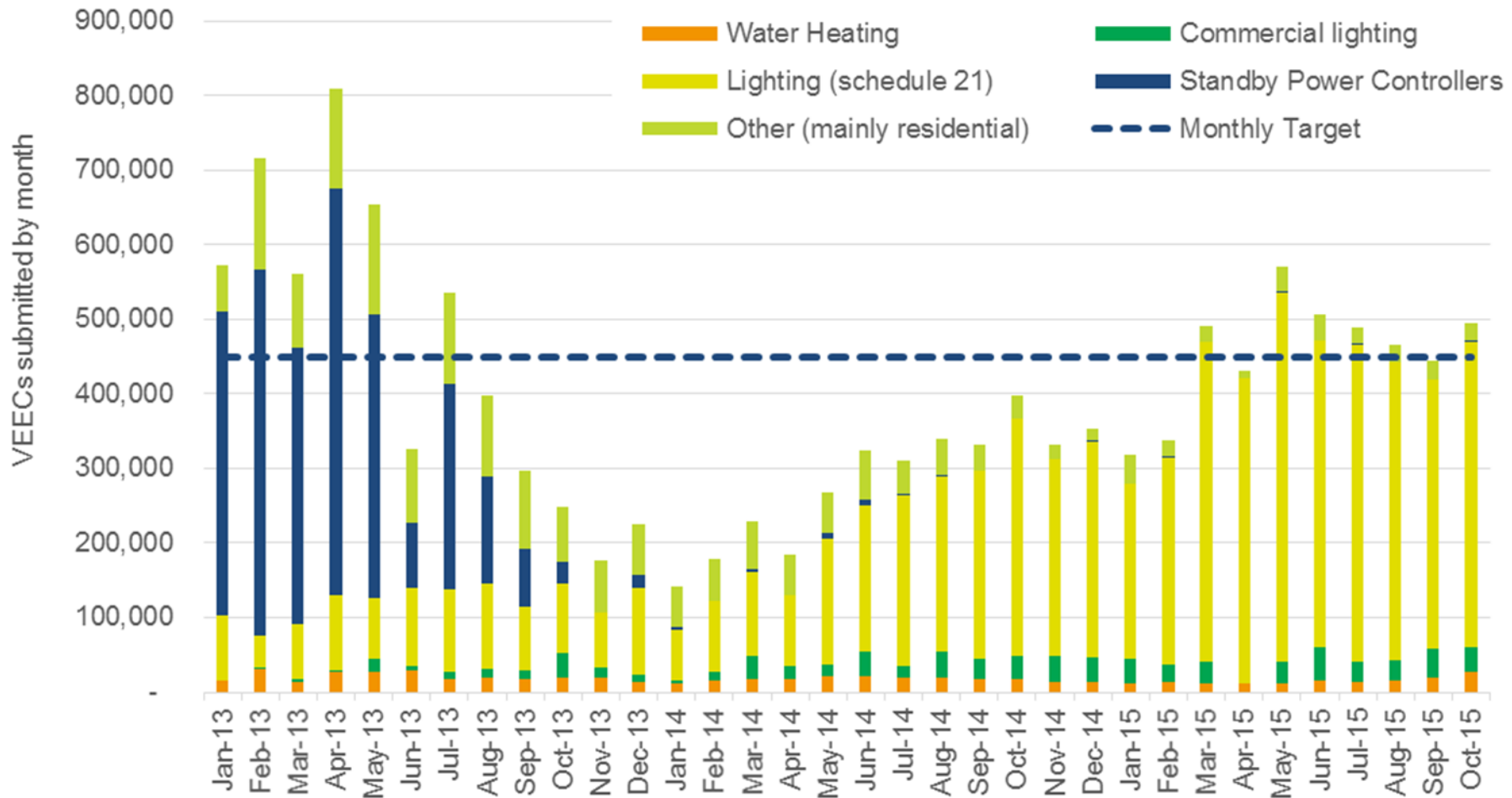


Commercial lighting accounted for:

- 85% of ESCs in 2013
- 80% of ESCs in 2014
- 55% of ESCs in YTD Oct 2015

Residential activities negligible - but 12% so far in 2015 (appliances)

Residential activities dominating in Victoria



	2013	2014	2015 YTD
Commercial lighting	2.2%	8.5%	6.2%
Residential Lighting	19.7%	69.0%	85.0%
SPCs	50.9%		