

RET review and implications for small- scale solar PV

Ric Brazzale, April 2014

SEIA Victorian meeting

Rewarding sustainable choices



Green Energy
Trading

- Where are we now
 - installations, STCs market etc
- The RET Review – what it means and Implications
- Call to action – political engagement

Who is Green Energy Trading?

- Convert environmental credits and other incentives to cash for solar and energy efficiency businesses in Australia
- One of largest independent environmental certificate creators
Accredited for commercial lighting and other activities in NSW & VIC
- Created certificates for more than 820 solar and energy efficiency businesses last financial year



Our team in Hawthorn

www.greenenergytrading.com.au



www.greenmarkets.com.au

- Research, consultancy and advisory associate (Green Energy Markets)
- Check out website for prices, research notes and other market information

Financing solar and EE

- We have implemented an on-line form processing system
- Have now started to act as a “Finance Broker” – to assist solar clients access finance solutions for their customers

Please contact Green Energy Trading on
1300 077 784 or benefit@greenenergytrading.com.au

Making incentives for the use of clean
energy more accessible to Australians

[Read more about us →](#)

[View our services →](#)

New online certificate creation
portal

[Read more →](#)

Introducing Green Energy Online

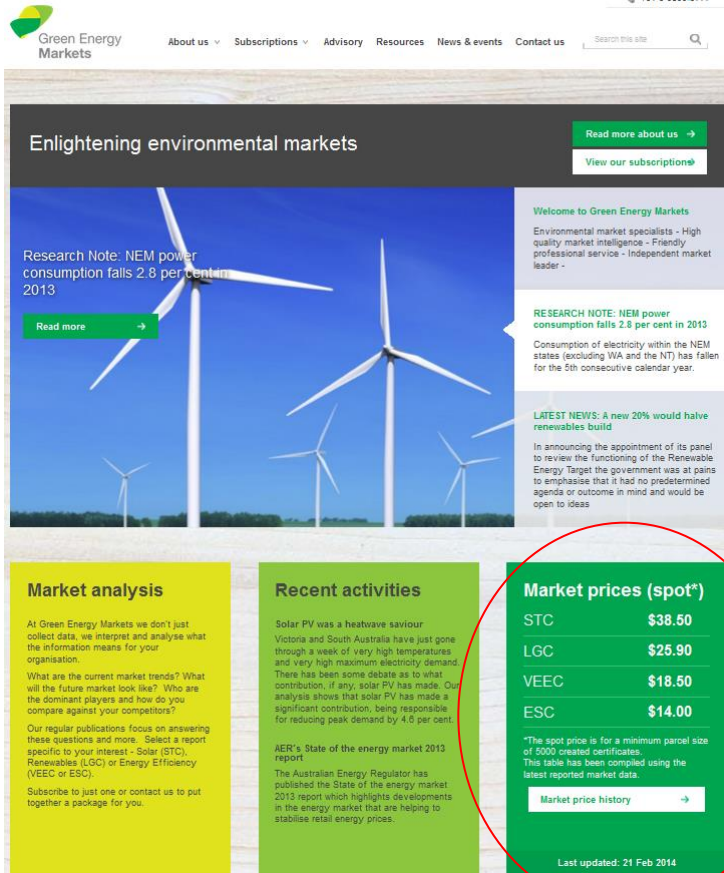
Green Energy Trading is pleased to announce the launch of its online certificate creation portal – Green Energy Online.

Advocating for the RET

The Australian Government has announced its vision of the Renewable Energy Target Market

Up-to-date wholesale prices

www.greenmarkets.com.au

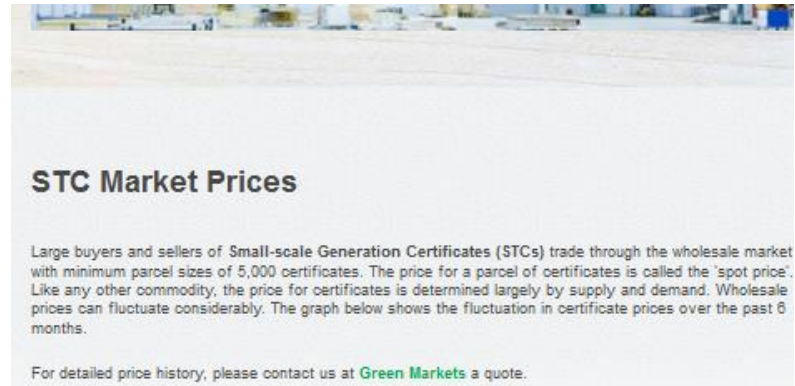


The screenshot shows the Green Energy Markets website. The header includes the logo and navigation links: About us, Subscriptions, Advisory, Resources, News & events, Contact us, and a search bar. The main content area features a large image of wind turbines with the headline "Enlightening environmental markets". Below this, there's a "Research Note: NEM power consumption falls 2.8 per cent in 2013" with a "Read more" button. To the right, a "Welcome to Green Energy Markets" section highlights their expertise. Further down, a "LATEST NEWS" section mentions a new 20% renewable build. The bottom section is divided into three columns: "Market analysis", "Recent activities", and "Market prices (spot*)". The "Market prices (spot*)" column is circled in red and contains a table of current prices for various certificates.

Market prices (spot*)	
STC	\$38.50
LGC	\$25.90
VEEC	\$18.50
ESC	\$14.00

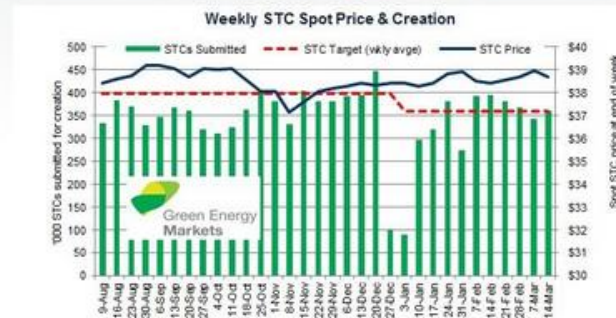
Below the table, it states: "The spot price is for a minimum parcel size of 5000 created certificates. This table has been compiled using the latest reported market data." and includes a "Market price history" link. At the bottom, it says "Last updated: 21 Feb 2014".

Wholesale
certificate prices



The screenshot shows the "STC Market Prices" page. It features a large image of a solar farm. The title "STC Market Prices" is prominently displayed. Below the title, a paragraph explains that Large buyers and sellers of Small-scale Generation Certificates (STCs) trade through the wholesale market with minimum parcel sizes of 5,000 certificates. The price for a parcel of certificates is called the 'spot price'. Like any other commodity, the price for certificates is determined largely by supply and demand. Wholesale prices can fluctuate considerably. The graph below shows the fluctuation in certificate prices over the past 6 months. At the bottom, it says "For detailed price history, please contact us at Green Markets a quote."

Tracking weekly
STC creation



1. Where are we now

Detailed analysis on expected level of STC creation included in Green Energy Market Report for the Clean Energy Regulator (With SolarBusinessServices and Sunwiz)

Modelling for the 2014 binding and 2015–2016 non-binding small-scale technology percentage

The Clean Energy Regulator engaged three consultants to provide forward estimates of the number of small-scale technology certificates (STCs) likely to be created during the 2013, 2014 and 2015 calendar years. A copy of these reports is included below.

- Green Energy Markets – February 2014
- Intelligent Energy Systems – February 2014
- Sinclair Knight Menz-MMA – February 2014

[Download report at
www.greenmarkets.com.au](http://www.greenmarkets.com.au)



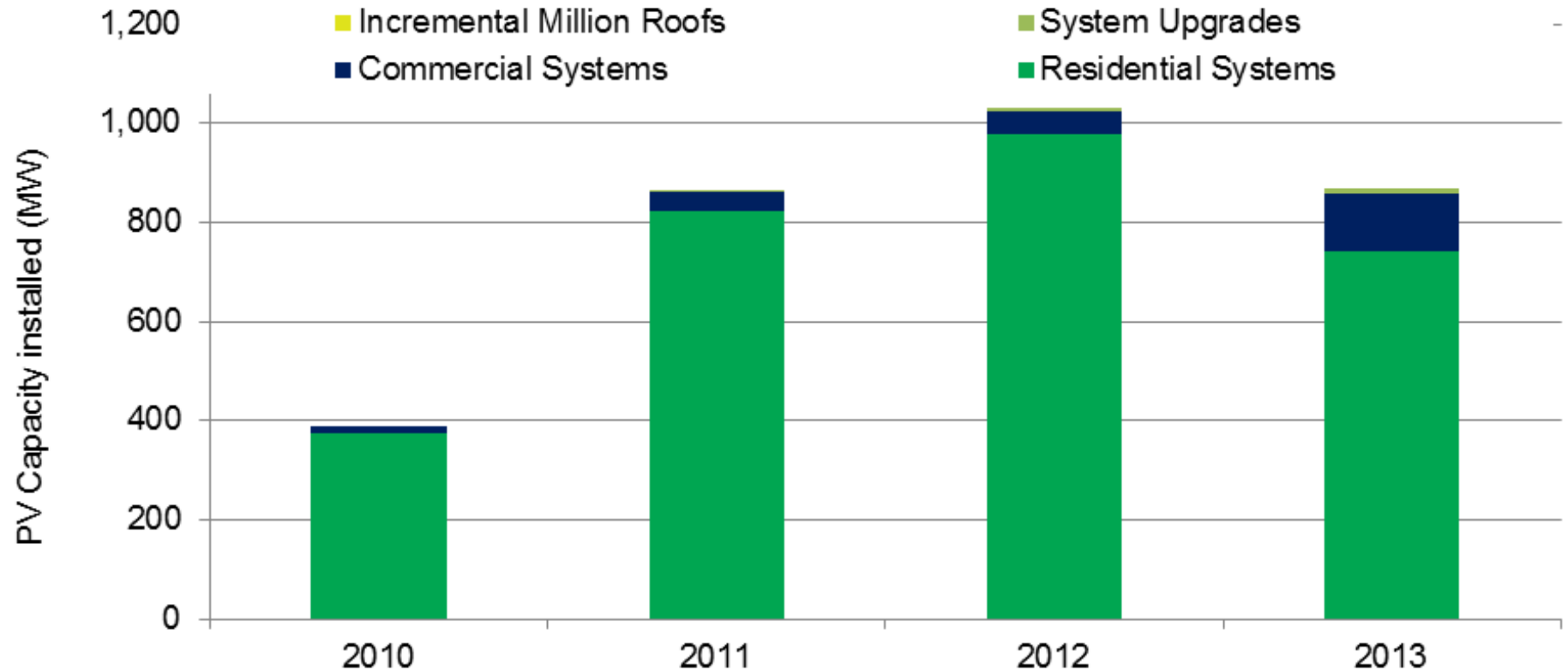
Green Energy
Markets

Small-scale technology certificates
Data modelling for 2014 to 2016

Report to the Clean Energy Regulator

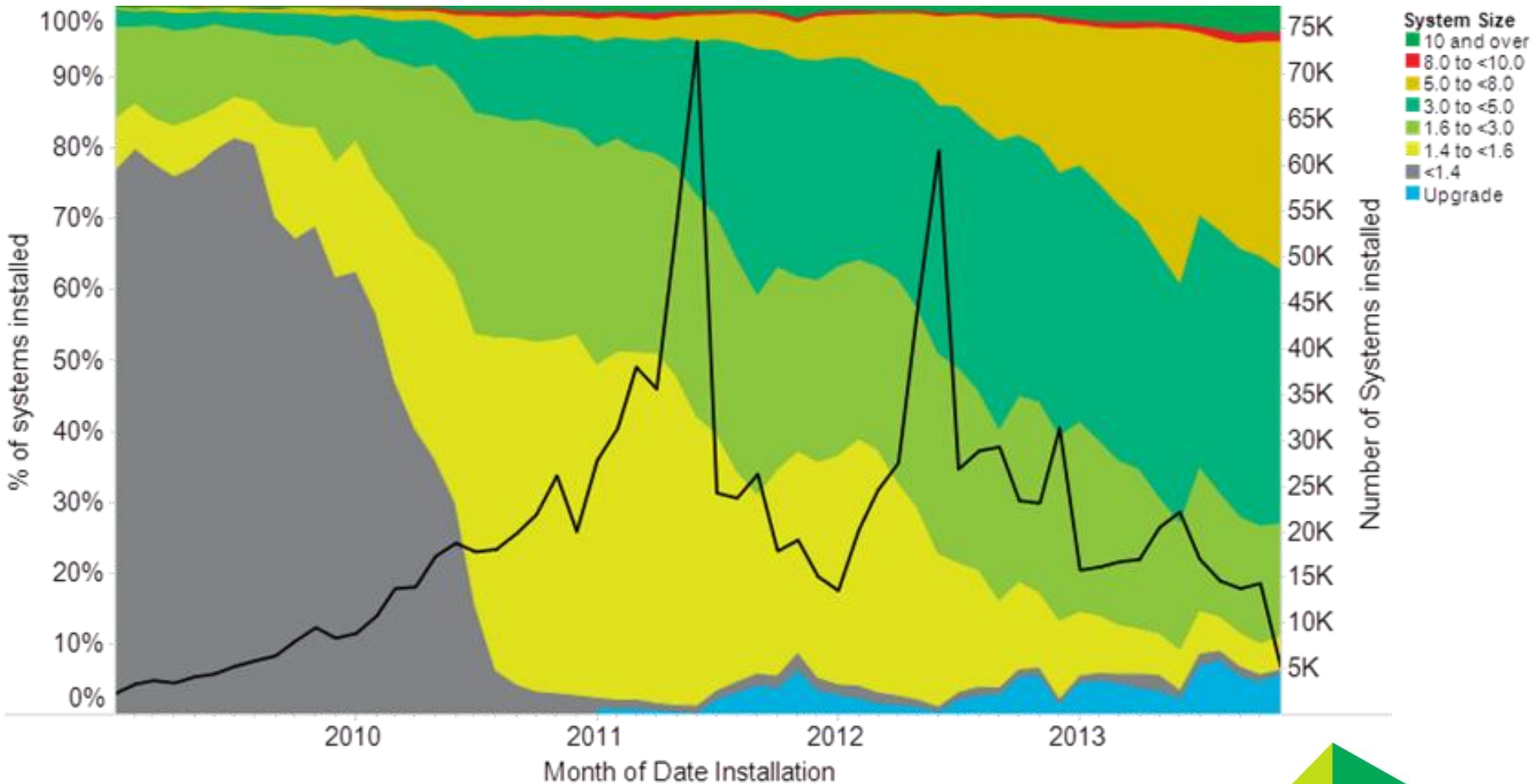
January 2014

PV Installs fell 16% in 2013



	2010	2011	2012	2013
Residential Systems	376.3	824.2	977.2	742.0
Commercial Systems	12.9	35.7	46.7	116.7
System Upgrades	0.0	5.9	8.5	11.3
Incremental Million Roofs	0.0	0.0	0.0	0.0
Total	389.3	865.8	1,032.3	870.0
Commercial %	3.3%	4.1%	4.5%	13.4%

Average size of systems increasing recently 70% of systems >3kW

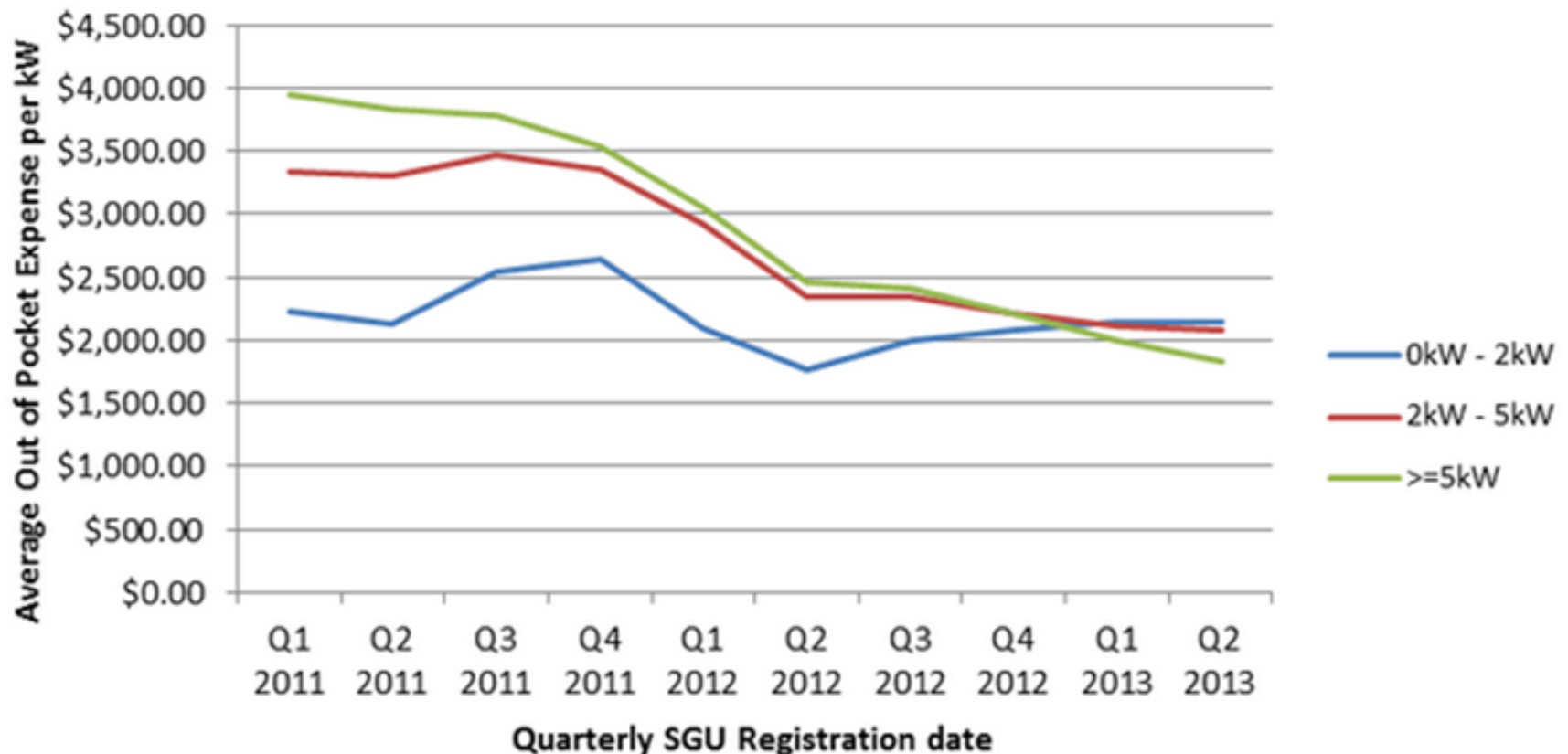


Note: not all systems installed in 2013 have been submitted
So 2013 data will be under-stated

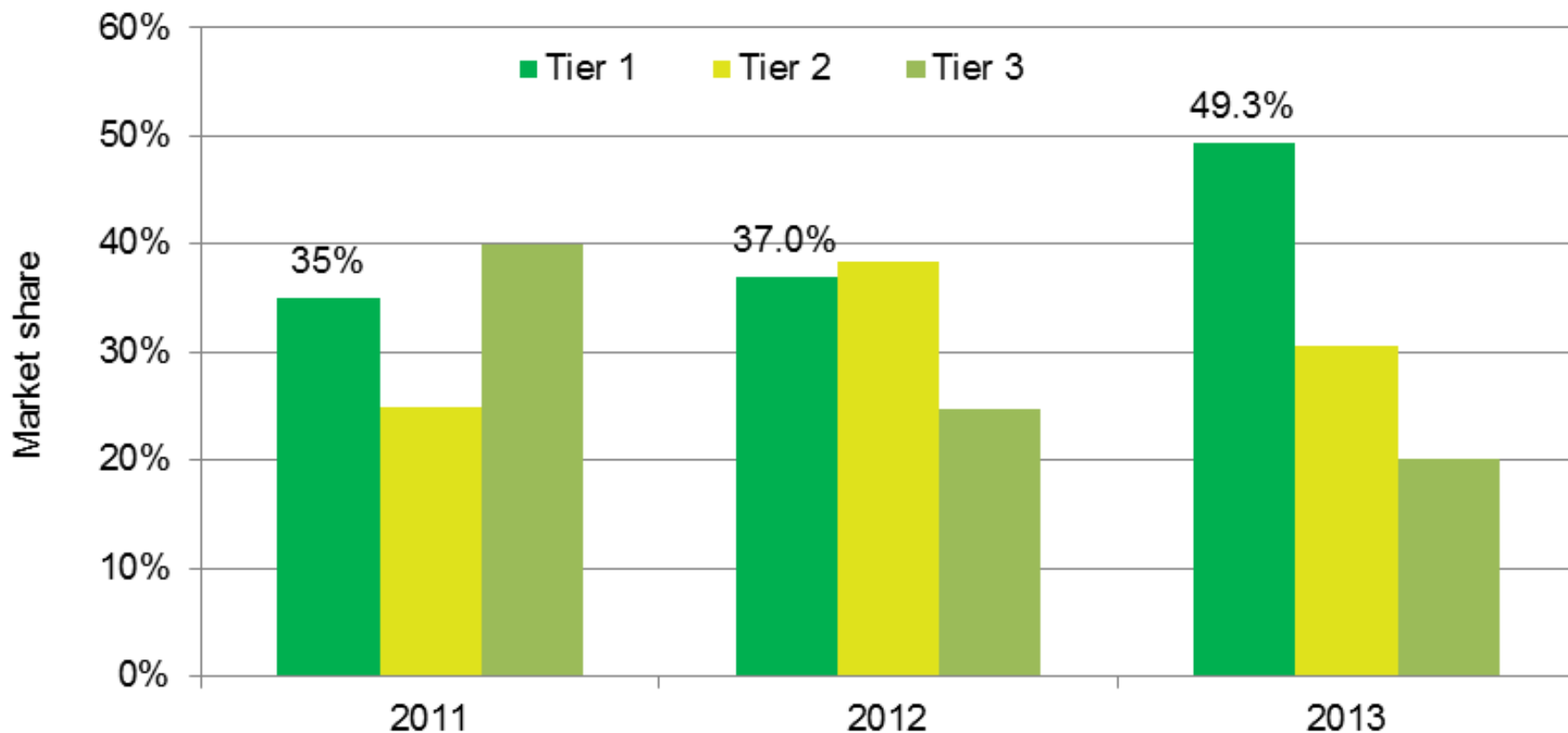
Out of pocket expenses falling

Cost (5kW) halved over last 3 years

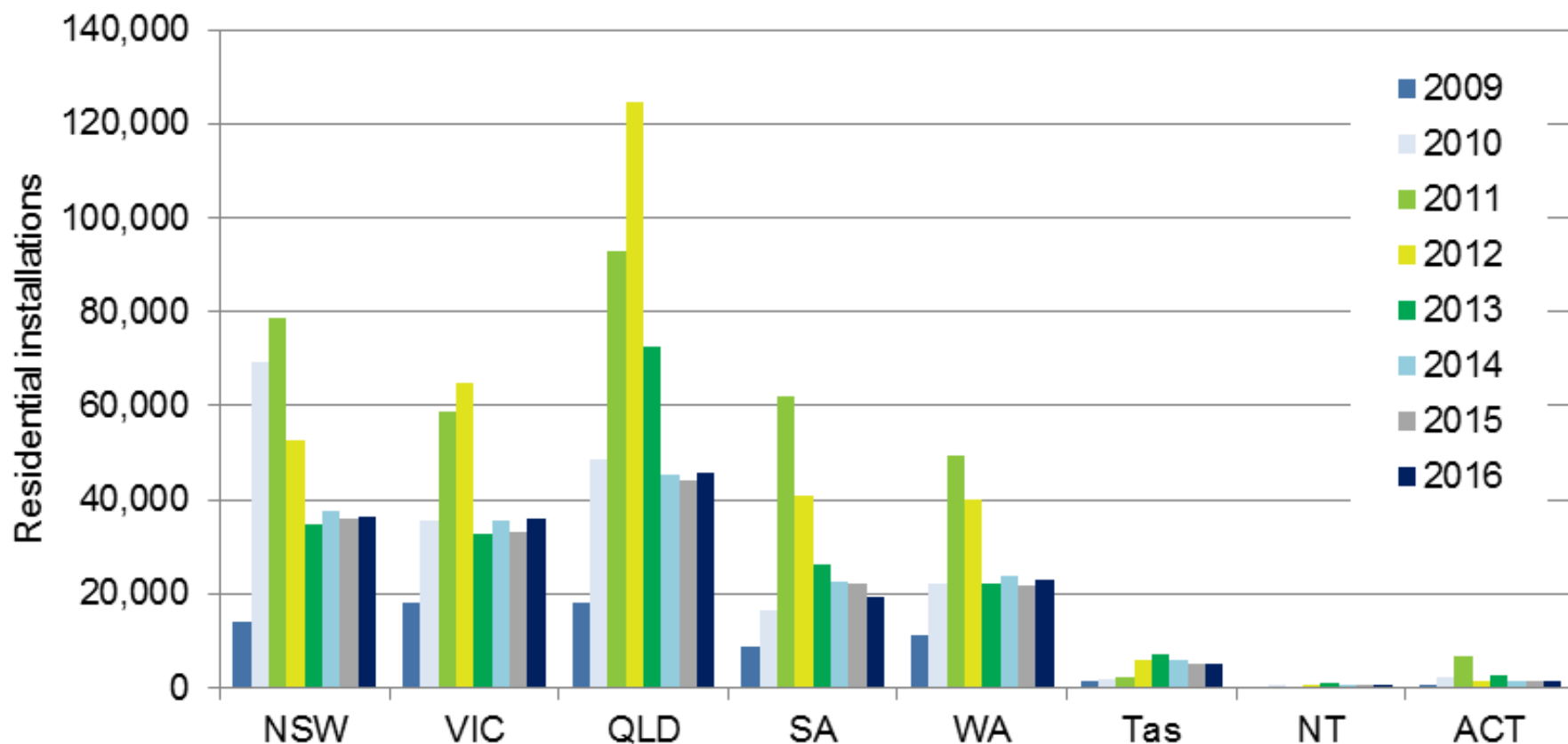
Quarterly average out-of-pocket expense per kW by installed capacity



Market moving to quality panels

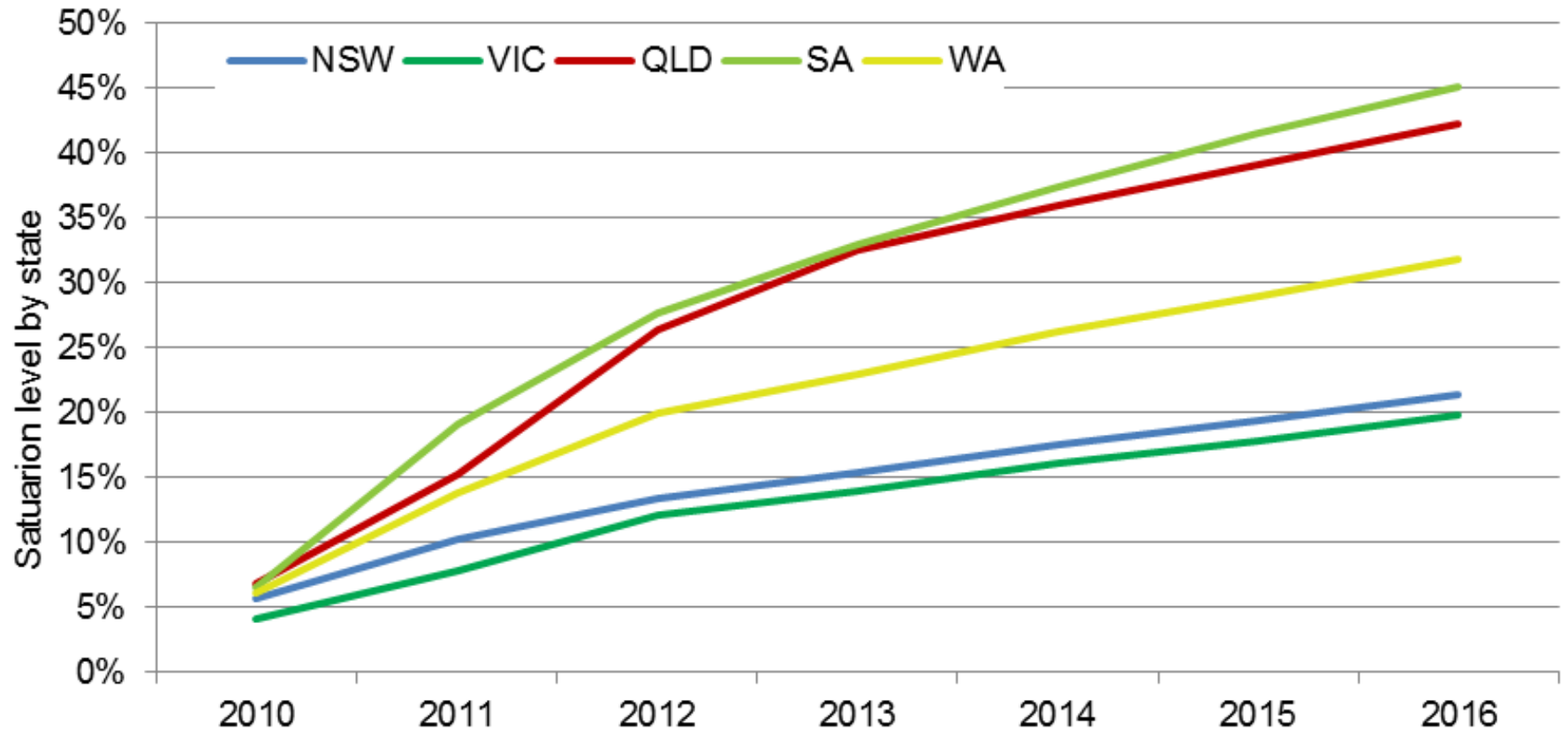


Residential systems to fall in 2014 (mainly Qld and SA)



Residential systems saturation

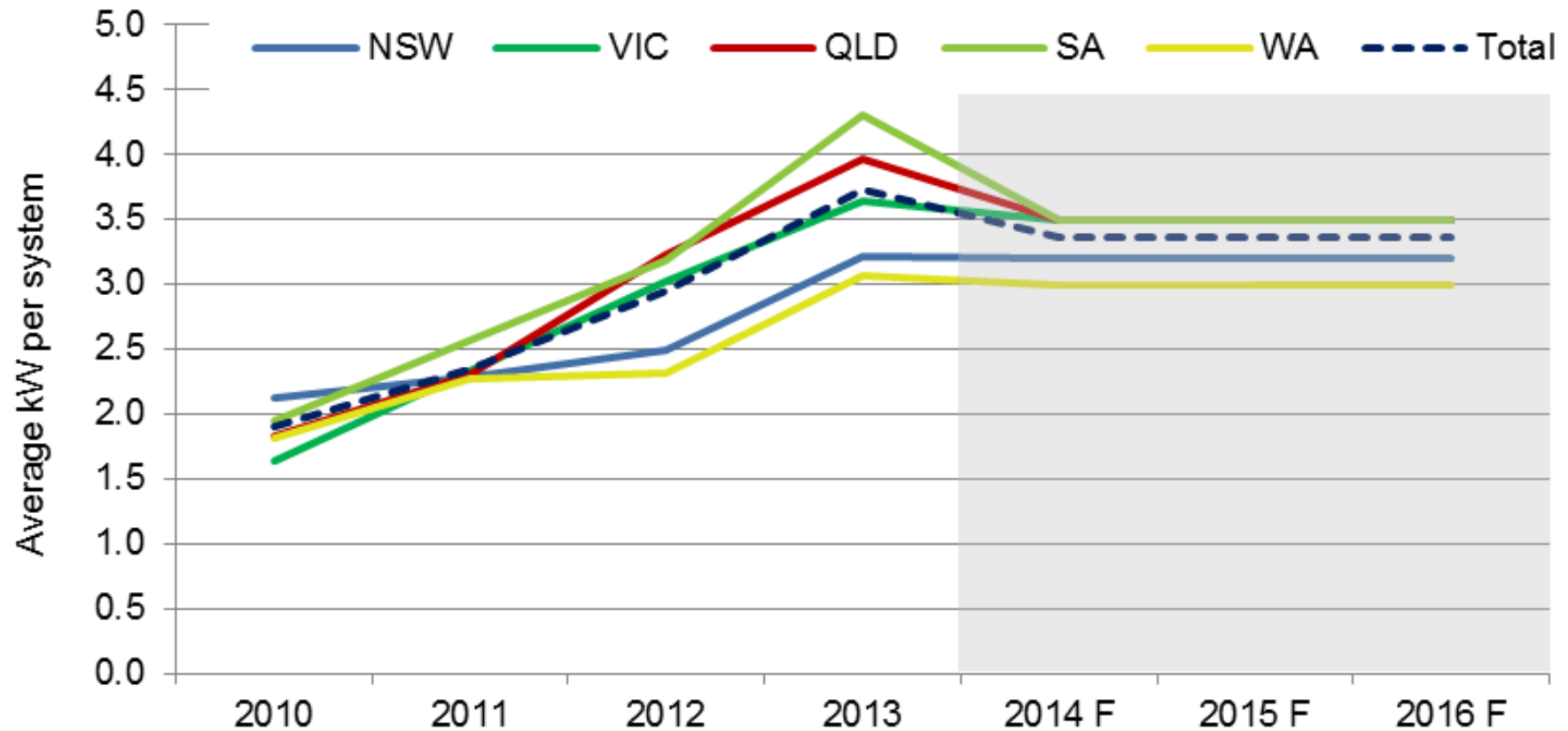
– high levels of saturation in Qld/SA



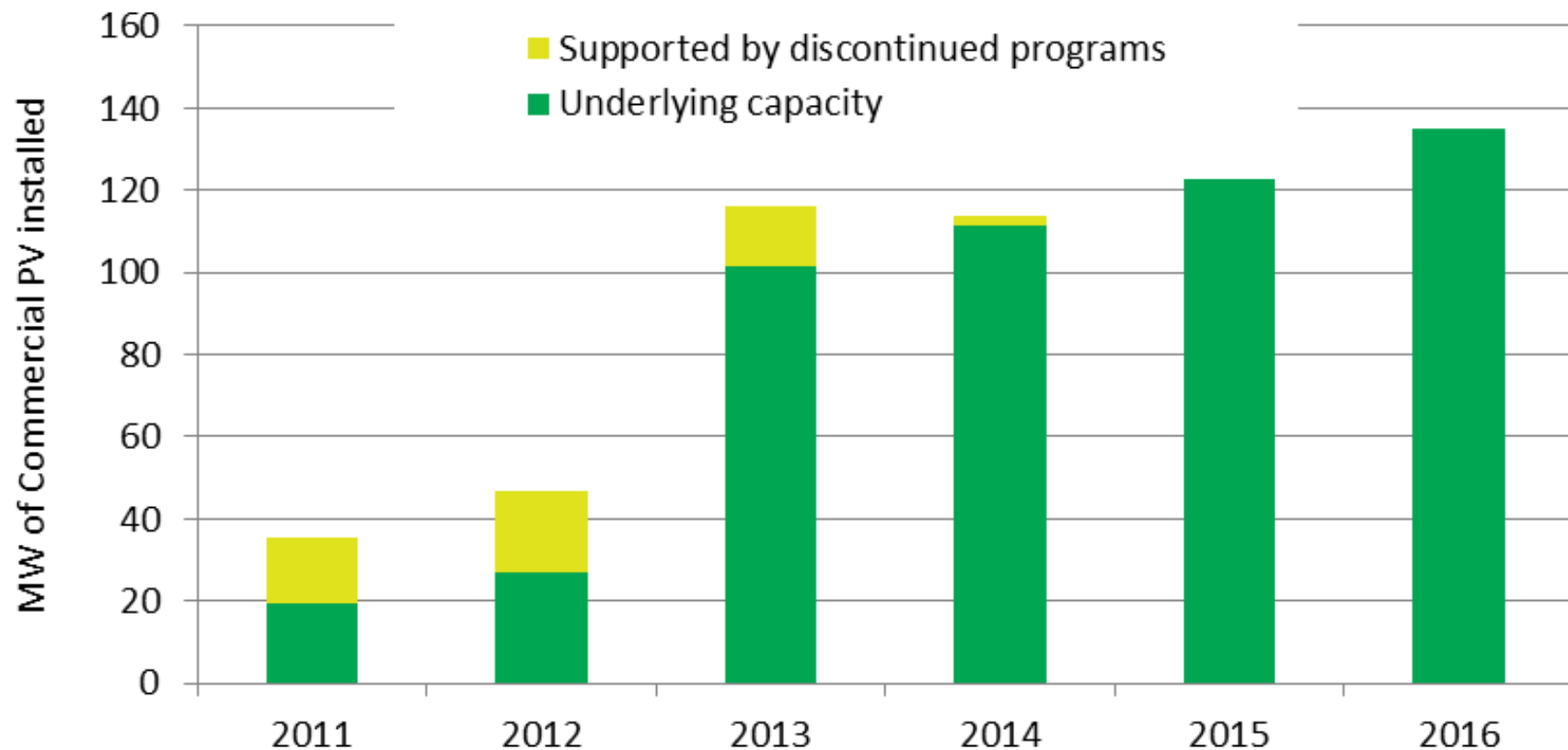
Proportion of owner occupied, detached and semi-detached homes

Slight reduction in system size expected

Still above 3kW

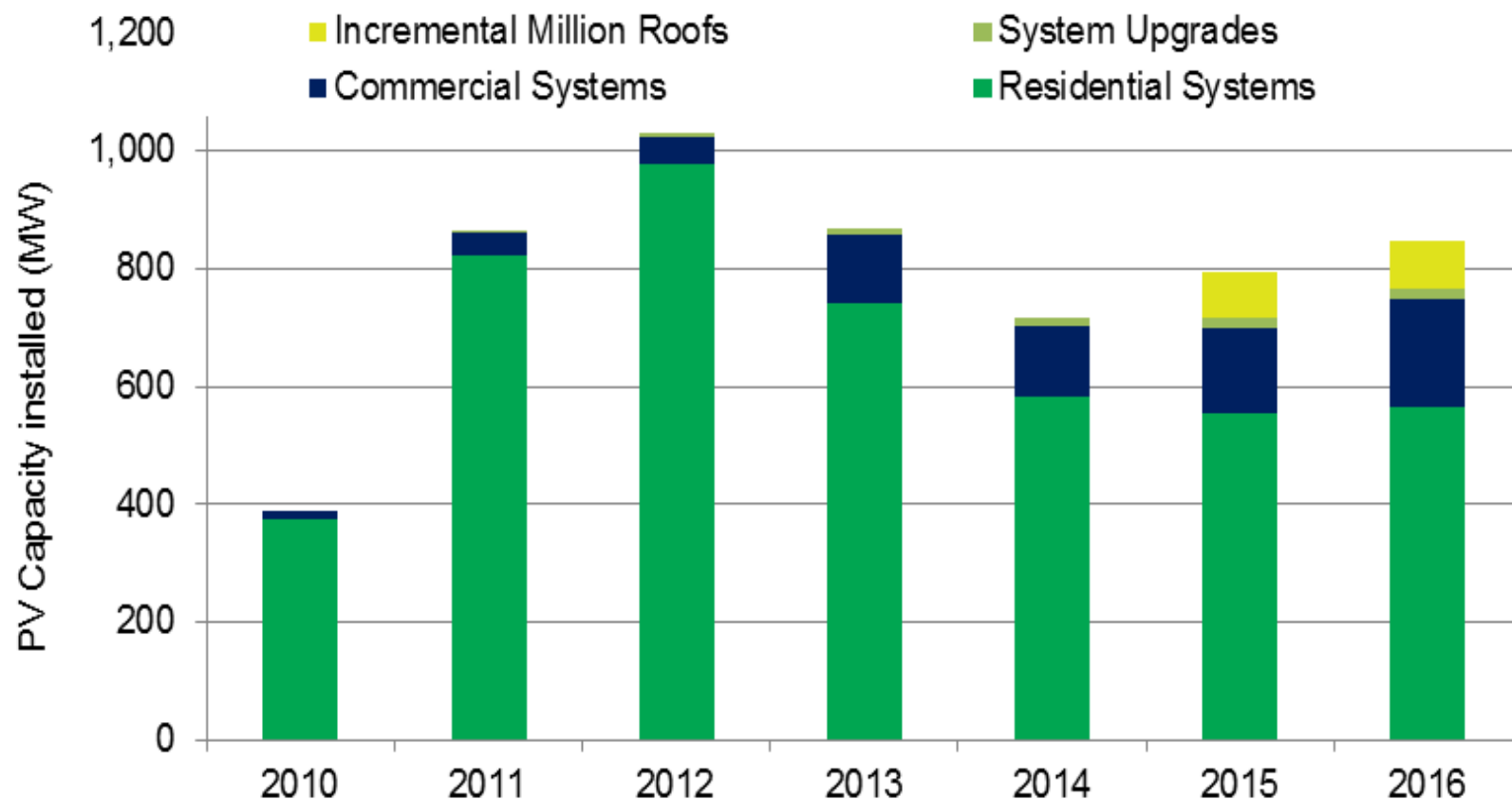


Increase in commercial installs (systems 10kW+)



>10kW market had been supported by other programs which have ceased

Million solar roofs to support future growth



- Residential market to fall from 2013
- Commercial market to increase
- Upgrade market small but growing

2014 Target announced on 14 March

10.48% - 18.657m STCs



www.greenenergytrading.com.au

Under “News”

This is equivalent to 730 MW of solar PV installations - 16 per cent lower than the 870 MW estimated to have been installed in 2013.



STP of 10.48 per cent – what does it mean?

17 Mar 2014

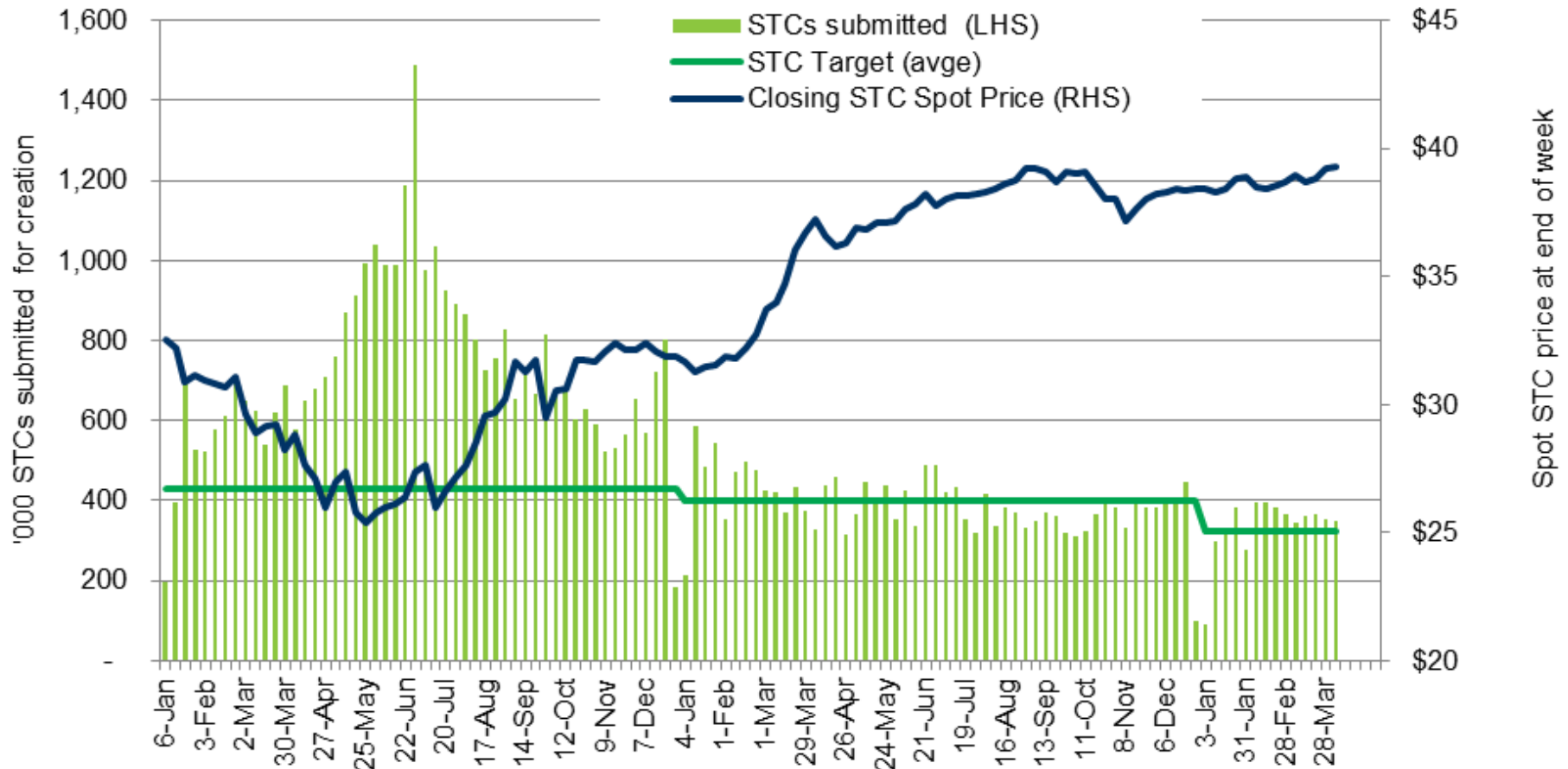
By Ric Brazzale, Managing Director, Green Energy Trading

The Federal Government announced late on Friday 14 March 2014 that the Small-scale Technology Percentage (STP) for 2014 is to be 10.48 per cent.

The STP represents the proportion of an electricity supplier's sales that it needs to surrender each year as Small-scale Technology Certificates (STCs) to meet its obligations under the Renewable Energy Target. (For more information go to <http://ret.cleanenergyregulator.gov.au/Latest-Updates/2014/The-2014-small-scale-technology-percentage-and-renewable-power-percentage-set>.)

The STP of 10.48 per cent equates to an annual STC Target of 18.657 million certificates. This implies that the expected level of liable electricity sales for 2014 is approximately 178,000 Giga Watt hours (GWh). This is similar to the level of liable electricity sales in 2013.

Tracking to target



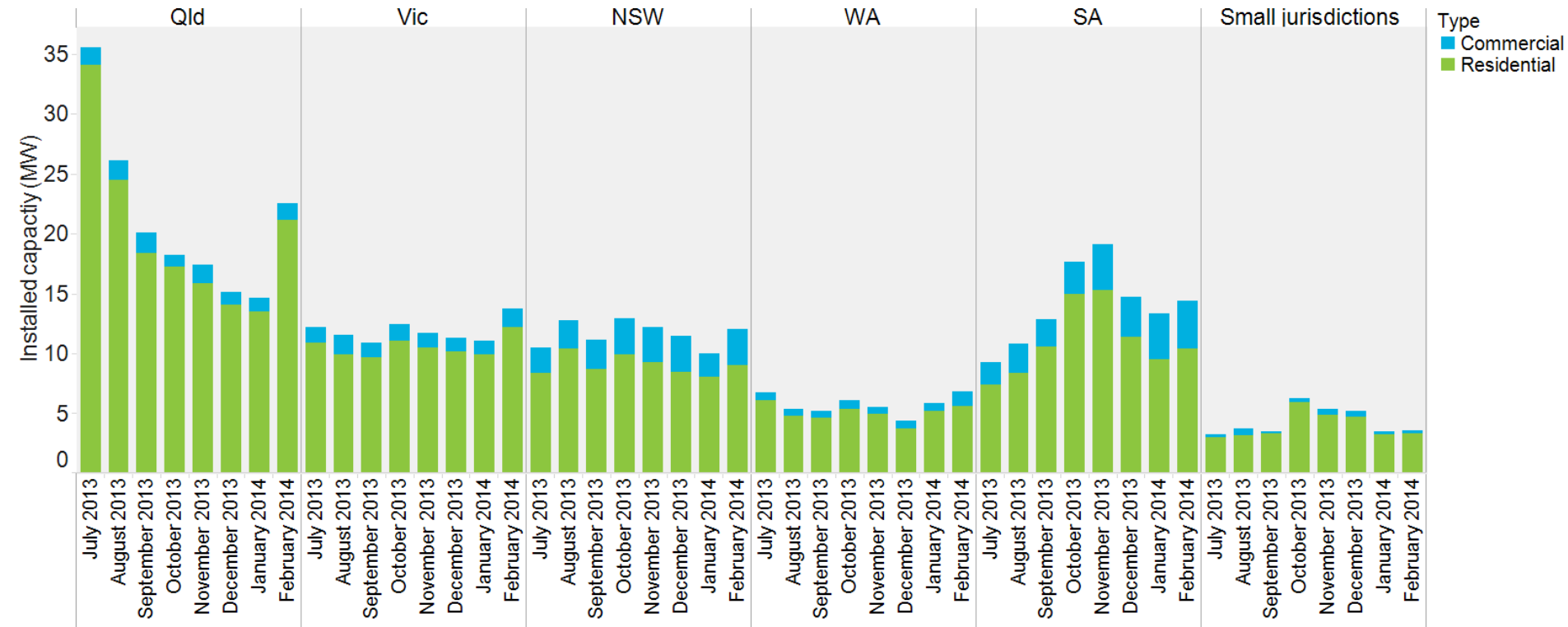
Spot wholesale price (for April 2014 delivery) of \$39.30

For delivery from May onwards - \$1 lower

Clearing house may be used by end April !!!!

Capacity installed by month

- Solar PV systems creating STCs per month
- Commercial are those systems >10kW



- Capacity installed in Vic reasonably stable at 12 to 13 MW per month
- Commercial sized systems increasing as proportion of total capacity

2. RET Review

- Panel announced – Chaired by Dick Warburton (climate sceptic)
- Other members
 - Brian Fisher (former ABARE)
 - Matthew Zema (AEMO)
 - Shirley I'nt Veld (former Chair of WA Govt generation business)
- Terms of reference released in Feb 2014(fairly broad)
- Report to government by mid-year

Renewable energy review could have a preordained outcome

25

By Giles Parkinson on 18 February 2014

Australian clean energy groups put on plenty of bravado when the federal government unveiled the members and the terms of reference of its long-threatened review of the renewable energy target on Monday. "Bring it on," strutted the Clean Energy Council. The CEC and other groups such as Vestas, the world's biggest wind turbine maker, and Pacific Hydro, Australia's biggest specialist investor in renewables, suggested the facts would speak for themselves.



If the clean energy industry thinks that facts will win this argument, it is kidding itself. It has taken the government several months to work out how it will get around its statutory obligation for the Climate Change Authority to conduct the next review. In choosing climate change science denier Dick Warburton to head its inquiry, the Abbott government has chosen someone who has not let facts get in the way of his ideology and policy positions.

<http://reneweconomy.com.au/2014/renewable-energy-review-could-have-a-preordained-outcome-29730>

The review should provide advice on:

1. whether the objective of the RET scheme, to deliver 41,000 gigawatt hours (GWh) and small scale solar generation by 2020, is still appropriate;
2. the extent of the RET's impact on electricity prices, and the range of options available to reduce any impact while managing sovereign risk;
3. the operation of the small-scale and large-scale components of the RET and their interaction;
4. implications of projected electricity demand for the 41,000 (GWh) target; and
5. implementation arrangements for any proposed reforms to the RET, including how to manage transition issues, risks and any adjustment costs that may arise from policy changes to the RET.

Call for submissions

(Released on 5 April 2014)



[HOME](#) > [PAPERS](#)

Papers

The Panel has released a paper to assist individuals and organisations preparing submissions.

The paper identifies a number of key matters to be considered as part of the review, but comments on any matters covered by **Terms of Reference** are welcome. The Panel is particularly interested to receive evidence that supports findings and conclusions made in submissions. This Call for Submissions closes at 5pm on Friday 16 May 2014.

The Panel is also seeking feedback on the assumptions consultation paper (at Attachment B of the Call for Submissions paper).

The Panel requests comments on the assumptions consultation paper by 17 April 2014.

Your submission on the Terms of Reference or your comments on the modelling assumptions can be lodged through the **Online submissions** form.

- [Call for Submissions paper](#) – [PDF 655KB](#) | [DOC 270KB](#)

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Review of the Renewable Energy Target

Expert Panel

Call for Submissions

5 April 2014



Some key questions they are seeking answers to

- *Should the LRET be abolished, reduced or increased? If retained, what level should it be? What would the impact of such changes be?*
- *Do small-scale renewable energy systems still require support through the SRES? If so, for what period will support be required for?*
- *Should the LRET and SRES schemes be recombined?*

We have been told that there are two key issues:

- Demand has fallen (this was not expected – and represents a change in circumstances)
- Concerns over rises in power prices (cost-of-living pressures)

But what are the “real” issues?

Demand has fallen

Generators and Retailers profitability severely impacted

- Generators losing money, writing down value of assets and closing plant
- Retailers profitability falling (selling less as average consumption per household has fallen)

Massive losses hit EnergyAustralia as demand falls, solar soars

6

Stanwell pushes back on RET

6 Feb, 6:23 AM  4

Industries | Resources and Energy | Climate | Policy & Politics

The largest power generator in Queensland, Stanwell Corporation, believes Australia is now among the world's most expensive countries for energy as policies...

Stanwell, which announced plans yesterday to mothball a coal facility built in the 1980s, will today make the case that the carbon pricing policy need to be revised to keep...

"These policies appear to have been implemented for impact on electricity prices and economic growth," Stanwell will say, according to [The Australian](#).

Utilities in the country, has slumped to a loss of \$1.2 billion, slashing the value of its Yallourn brown coal fired generation assets.

 Print

Warm weather and solar PV eat Origin's energy earnings

2

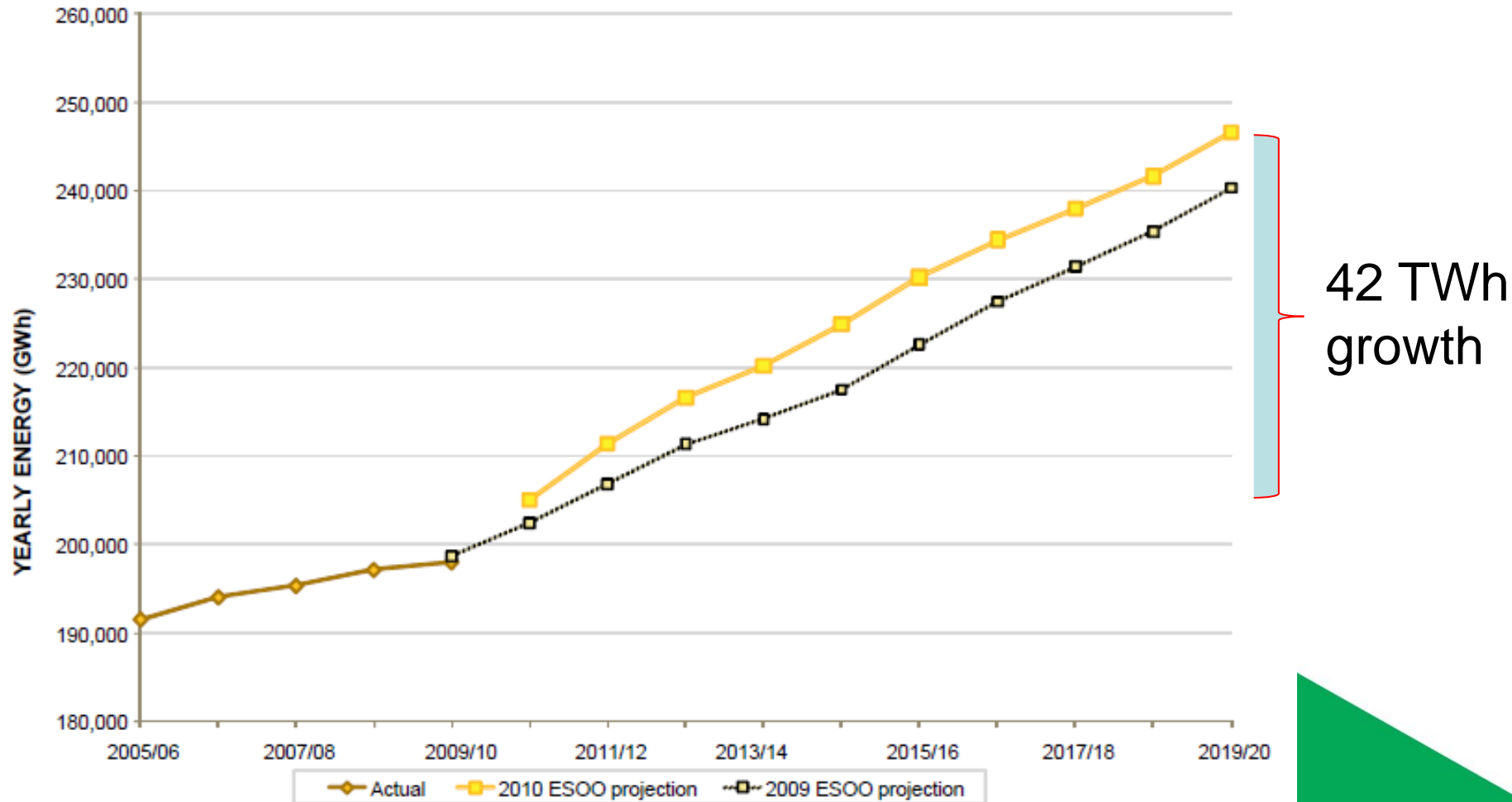
By [Giles Parkinson](#) on 20 February 2014

Origin Energy, Australia's largest utility, has reported a sharp slump in earnings from its core energy markets business – putting the blame mostly on Australia's warmest ever winter, and the growing impact of rooftop solar PV.

 Print

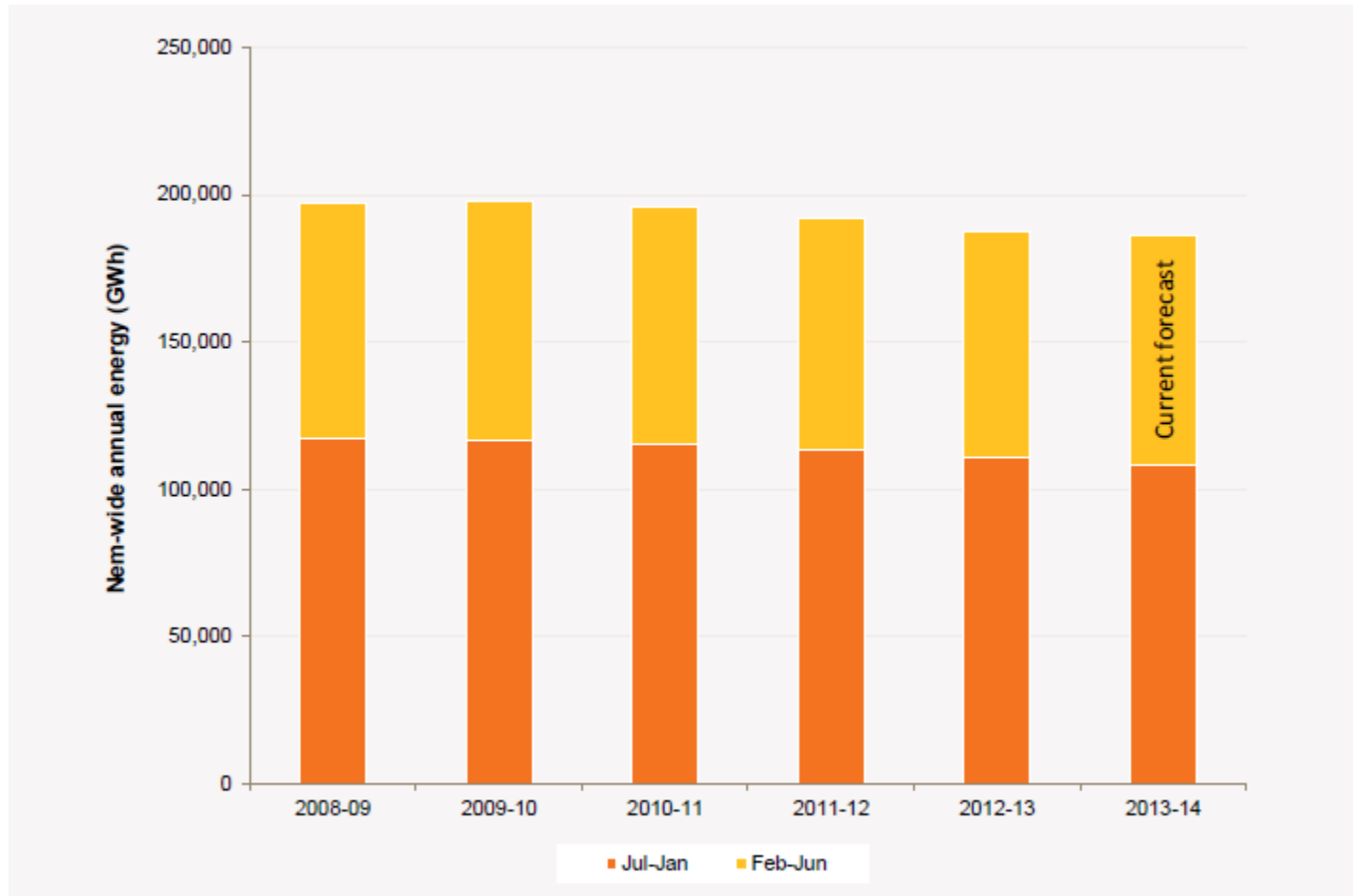
AEMO in 2010 projecting growth in electricity consumption

Figure 4-3—Comparison of NEM-wide medium economic growth energy projections (GWh)



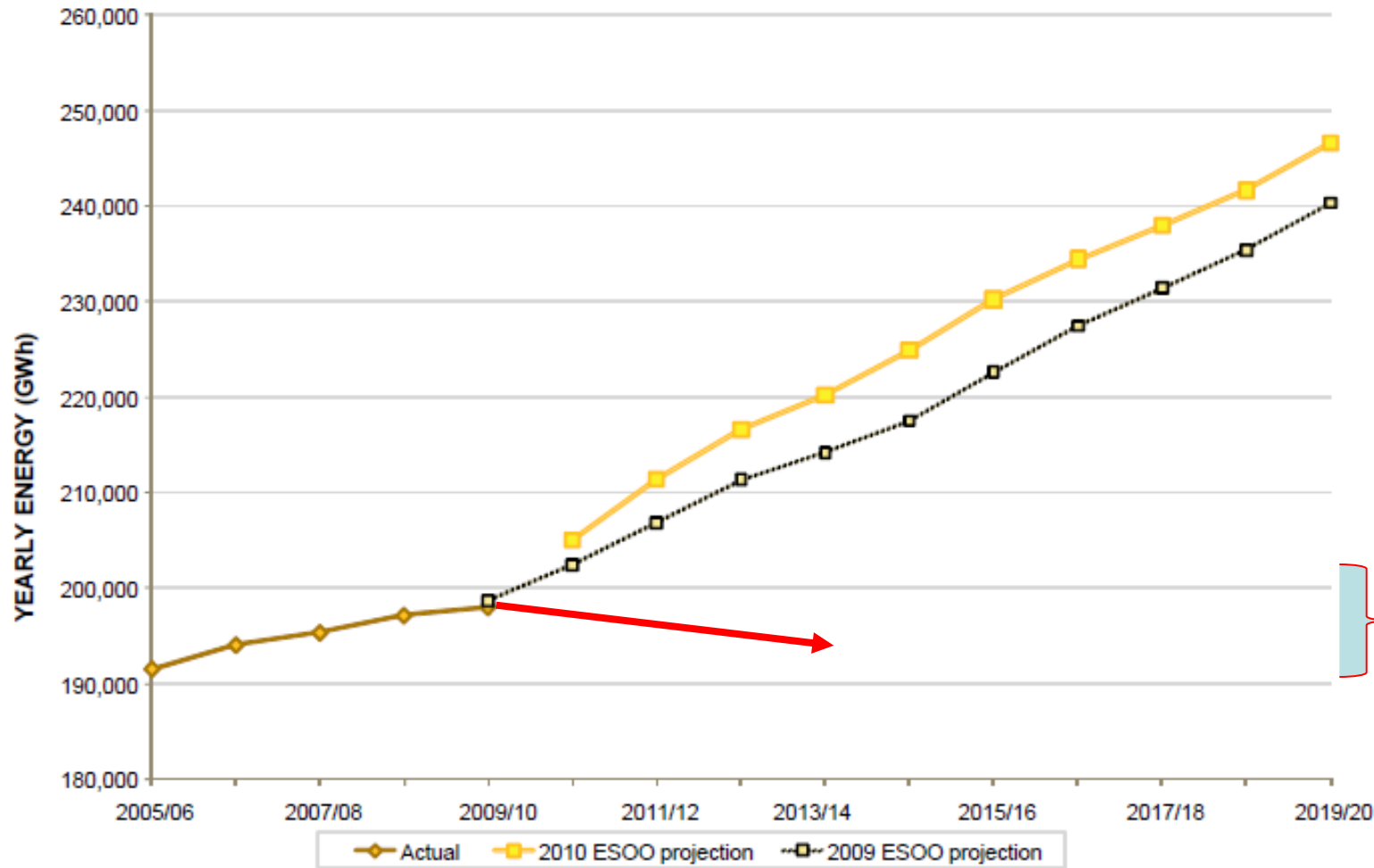
AEMO downgraded demand again in Feb 2014

Figure 2 — Six-year comparison of energy consumption



Actual demand falling (continue to fall with plant closures)

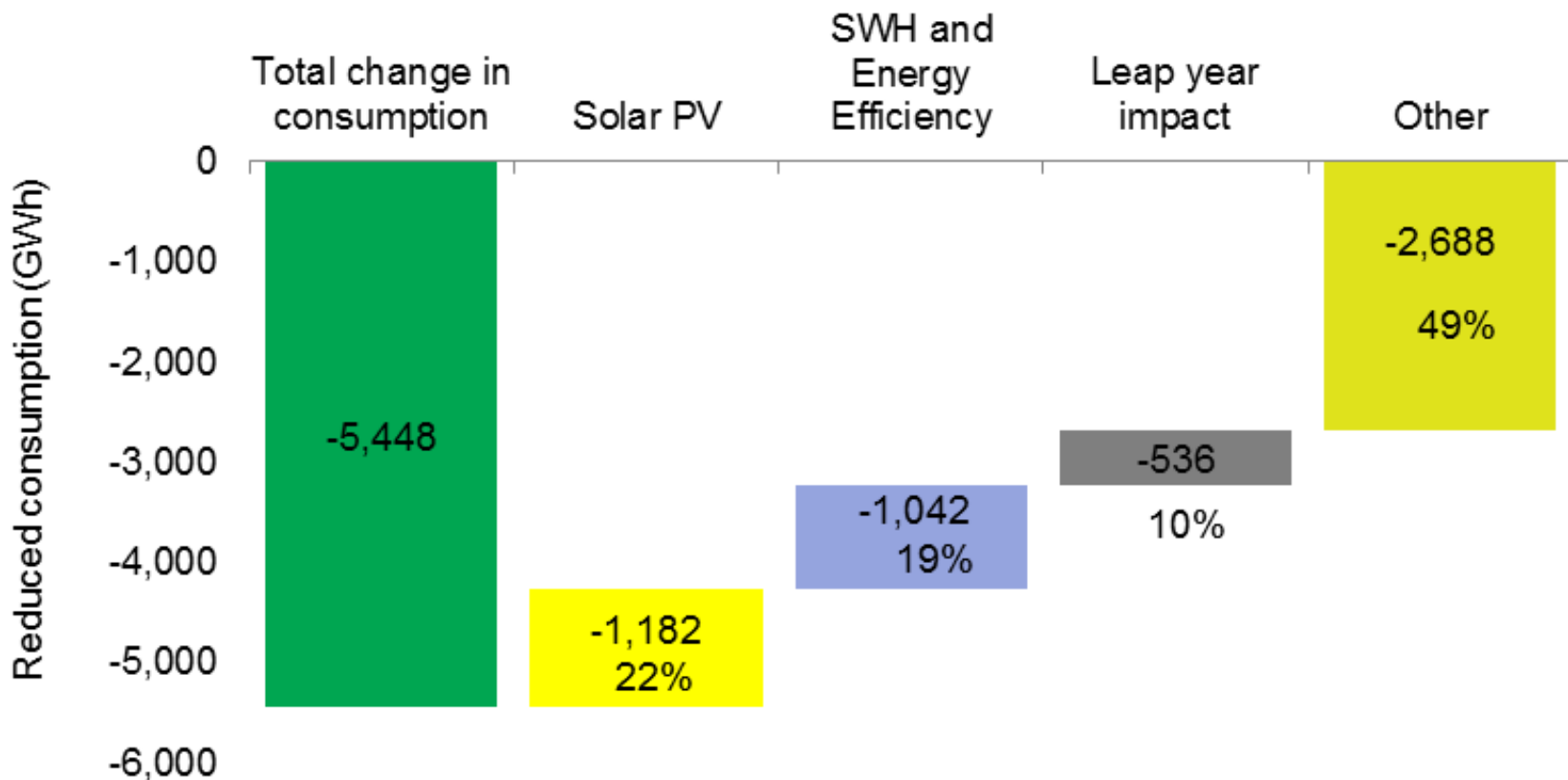
Figure 4-3—Comparison of NEM-wide medium economic growth energy projections (GWh)



10-20 TWh
Reduction?

Distributed energy has had an impact

- NEM consumption fell by 2.8% in 2013 cf: 2012
- Solar and EE contributed more than 40% of reduction



What is a real 20% Target

Scale back distorting RET, privatise power assets: Ferguson

SID MAHER | THE AUSTRALIAN | MARCH 21, 2014 12:00AM



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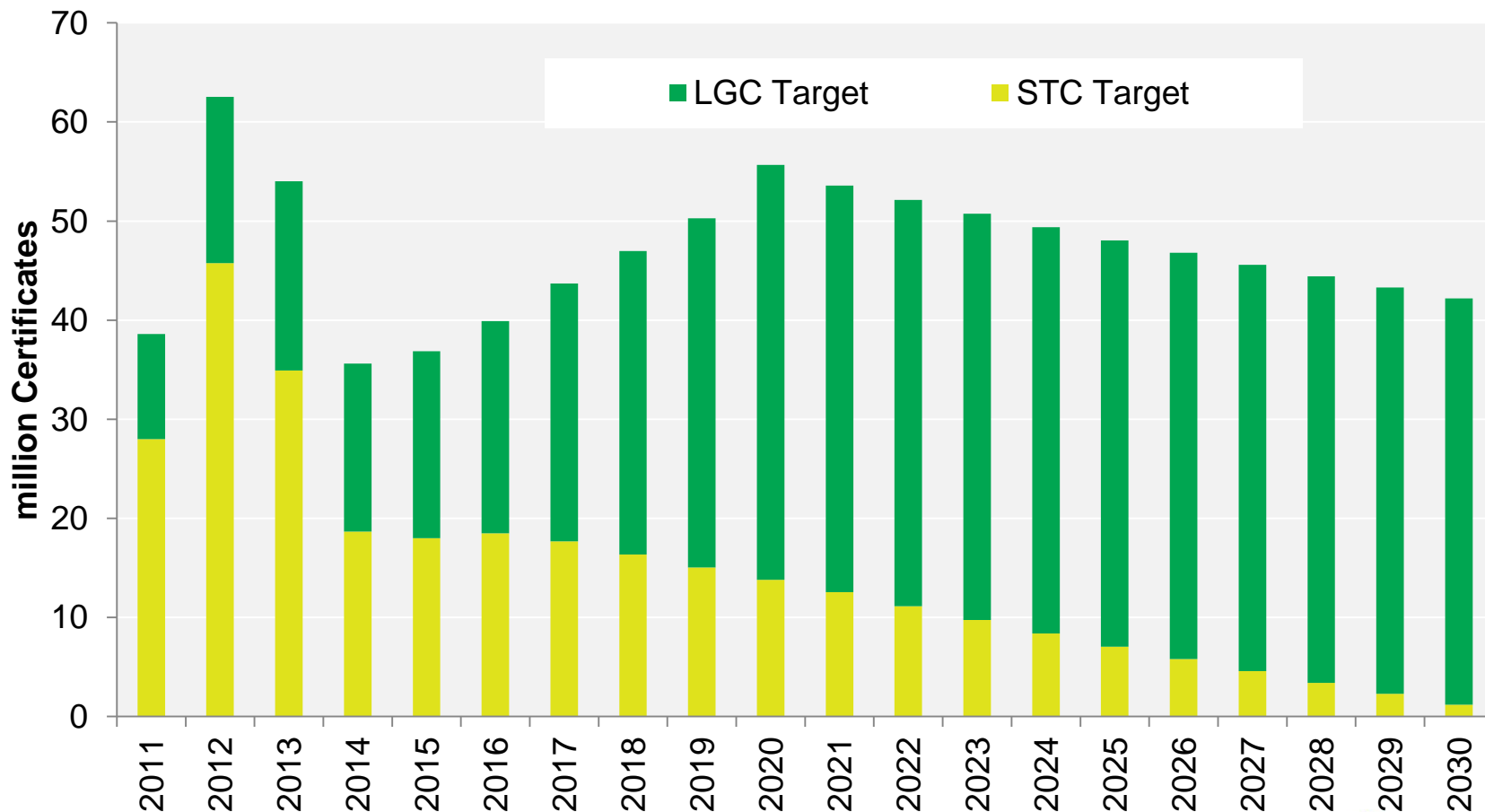
FORMER energy minister Martin Ferguson has called for the scaling back of the renewable energy target, arguing that the scheme is distorting proper price signals and undermining the resilience of the national electricity market.

He has called for the scheme, which is being reviewed by the federal government, to be scaled back to a "true" 20 per cent by 2020, instead of its current 41,000 gigawatt hours fixed benchmark.

Electricity industry leaders have warned that lower-than-expected demand for electricity means the 41,000GWh target will be more like 25 per cent or more if the current subdued demand continues.

- When the scheme was split back in 2010 – it was recognised that the RET would deliver 22% share
- How do you deal with the SRES in such a reduction? – RAA argues that SRES already taken a hair-cut out of the CCA review (phasing out deeming to 2030)

STC target set to reduce from 2017



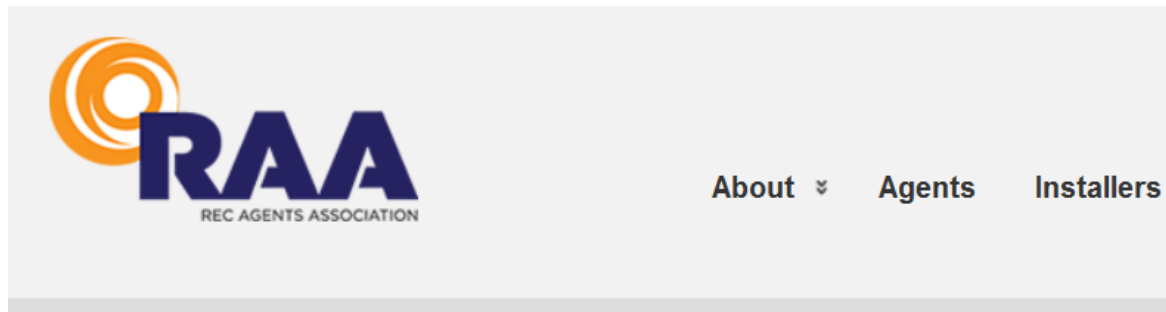
Assumes 800 MW of PV installed in 2016 then reducing at 2% pa

What about rises in power prices?

- Power prices have risen predominantly to network charges (although previous multiplier and FiTs did contribute – but these are gone – cant do anything about this now, although some states tried)
- Network charges are the issue – but we don't hear state and commonwealth governments raise this any more
- Reframe the issue – Is it really about “government doesn't believe that we should incur any cost in reducing emissions”

“We have to accept that in the changed circumstances of today, the renewable energy target is causing pretty significant price pressure in the system and we ought to be an affordable energy superpower ... cheap energy ought to be one of our comparative advantages ... what we will be looking at is what we need to do to get power prices down significantly,” he said.

PM Tony Abbott, Guardian 18 December 2013



RAA report on impact of the Renewable Energy Target on power prices

POSTED ON FEBRUARY 19, 2014

The full report can be found [here](http://www.recagents.asn.au/raa-report-on-impact-of-the-renewable-energy-target-on-power-prices/)

Media release – Small-scale renewable energy target zero cost to householders

The Small-scale Renewable Energy Scheme (SRES) will have a zero net cost impact on household power bills, according to an analysis released today by the REC Agents

<http://www.recagents.asn.au/raa-report-on-impact-of-the-renewable-energy-target-on-power-prices/>

- Cost pass-through (AEMC) was going to be only 0.26c/kWh (<1%)
- This would be offset by a reduction in wholesale prices due to lower demand

JUNKING ENERGY TARGET IS RIGHT

*We have paid a
very high price for
a misguided policy*

JUDITH SLOAN
CONTRIBUTING ECONOMICS
EDITOR



expenditure (than high-income households)".

Given that many poor people rent houses, or cannot afford to install solar panels and the like, they effectively subsidise the wealthier people who can.

But unlike the carbon tax for which there was specific compensation paid, there has been no mechanism to help poor people meet the higher cost of electricity as a result of the RET.

Apologists for the RET will make the claim that the extent to which the RET has contributed to higher electricity prices is small — 3-5 per cent.

This claim is contentious. It

Unsubstantiated claims

- Solar panels on expensive suburbs (wealthy people subsidised by poor people)
- RET leads to electricity prices being 25 to 40% higher by 2020

Top 10 postcode areas in Vic

- Nearly all have lower than average income levels
- Most are on the metropolitan fringe (mortgage belt) or in regional areas

Postcode	Locality/area	Total Solar PV Installations	Total dwellings	Dwellings with Solar PV	Difference from average state income	Urban classification
3029	Hoppers Crossing area	4,185	24,212	17%	-14%	Major urban - Capital City
3030	Werribee area	3,706	29,011	13%	-5%	Major urban - Capital City
3977	Cranbourne North area	3,502	24,572	14%	-17%	Major urban - Capital City
3023	Caroline Springs area	2,782	18,757	15%	-14%	Major urban - Capital City
3805	Narre Warren area	2,461	17,869	14%	-15%	Major urban - Capital City
3064	Craigieburn area	2,390	16,802	14%	-18%	Major urban - Capital City
3216	Belmont area	2,267	21,927	10%	-6%	Major urban - Non-Capital City
3150	Glen Waverly area	2,055	21,897	9%	6%	Major urban - Capital City
3551	Epson/Bendigo area	1,875	8,952	21%	-11%	Rural
3037	Hillside area	1,871	15,223	12%	-14%	Major urban - Capital City

Note: Dwellings includes rental properties and apartments

- Range of possible outcomes – “some good, some bad and some ugly”
- There are three steps to the process:
 - RET Review Panel recommendations to the Government
 - Government response to the recommendations
 - What gets through the Senate
- Looking at 6 to 12 months of uncertainty
- Looking at 6 to 12 months of advocacy

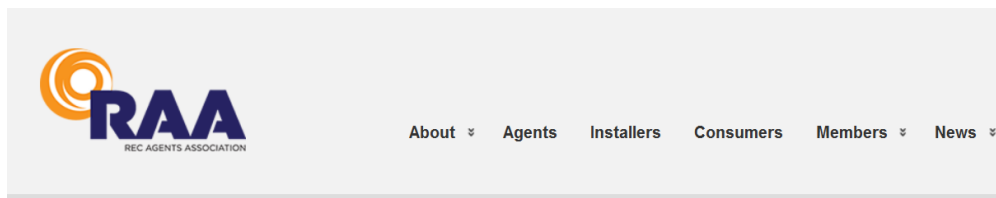
3. Call to arms

RET Review approach

- We will participate in the RET review process and ensure that (i) the facts are understood and (ii) contest the unsubstantiated claims
- But it is really about the political process
 - Jobs and businesses involved in the sector
 - Large numbers of people have solar on their roof
 - Solar has strong community support
 - It reduces power bills
 - It protects us from worst impacts of rising gas prices
- And it is about mobilising the industry and consumers/voters that have solar (or want solar)

Developed facts sheet

- address myths and falsehoods



Welcome to REC Agents

REC Agents provide the link between [system owners](#), [installers](#), and the [renewable energy certificate market](#).

Increasingly, REC Agents in Australia are adopting more sophisticated practices and procedures.

The REC Agents Association (RAA) defines, encourages and promotes best practice in the industry, to new and potential Agents, as well as current stakeholders.

This site is designed to help [Agents](#) identify and deliver best practice to their clients, and to assist installers and system owners select an Agent that adheres to industry standards and practices.

FACTS ABOUT SOLAR

Click here for
the truth
about solar

Click

Facts about Solar and the Small-scale Renewable Energy Scheme

Ric Brazzale 4 March 2014

A number of spurious claims have been made about the solar industry, the renewable energy target and the cost and contribution that solar makes.

The REC Agents Association (RAA) has developed a “Facts” section to its website that includes up-to-date information about solar and includes data and information about the Small-scale Renewable Energy Scheme (SRES) and links to analysis expanding on the contribution that the solar industry makes.

Certificates are created under the SRES which forms part of the Renewable Energy Target which supports the progressive increase in renewable energy.

RAA is a national industry association representing companies that create and trade renewable energy certificates. RAA members work with solar companies to create Renewable Energy Certificates (RECs) that support households and businesses investing in solar.

RECs generally account for 20 to 30% of the capital cost of a typical solar system and reduces the payback from 8-9 years to 6-7 years.

PUP supports RET or Not?

Clive Palmer casts big shadow but Labor gets Save Solar tick

Tristan Edis | 20 Mar, 10:17 PM 1

Climate | Policy & Politics | Renewable energy | Solar energy | Wind power



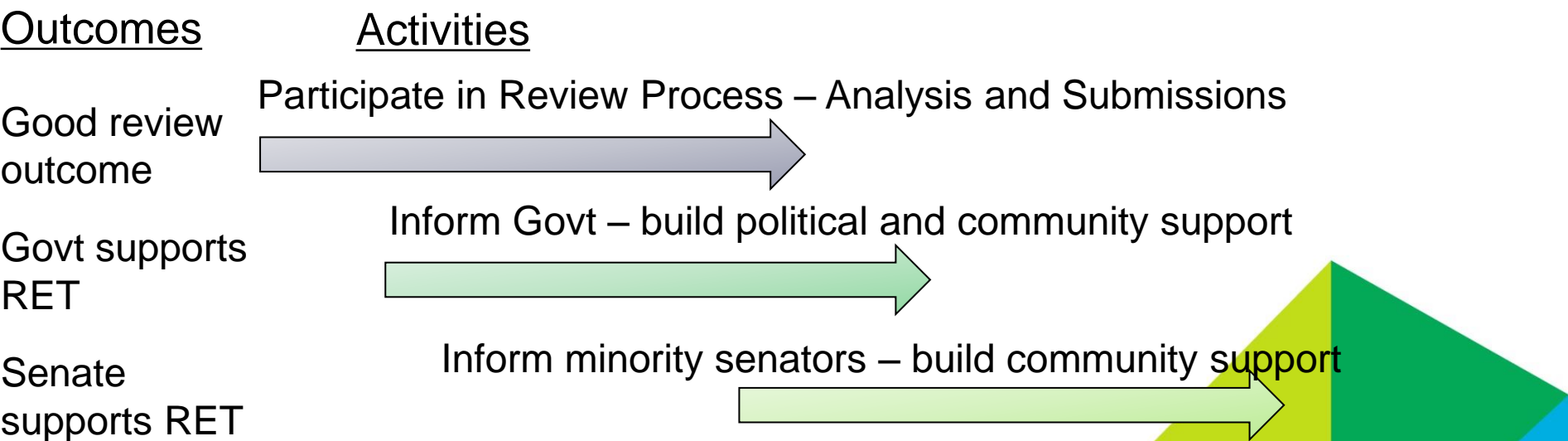
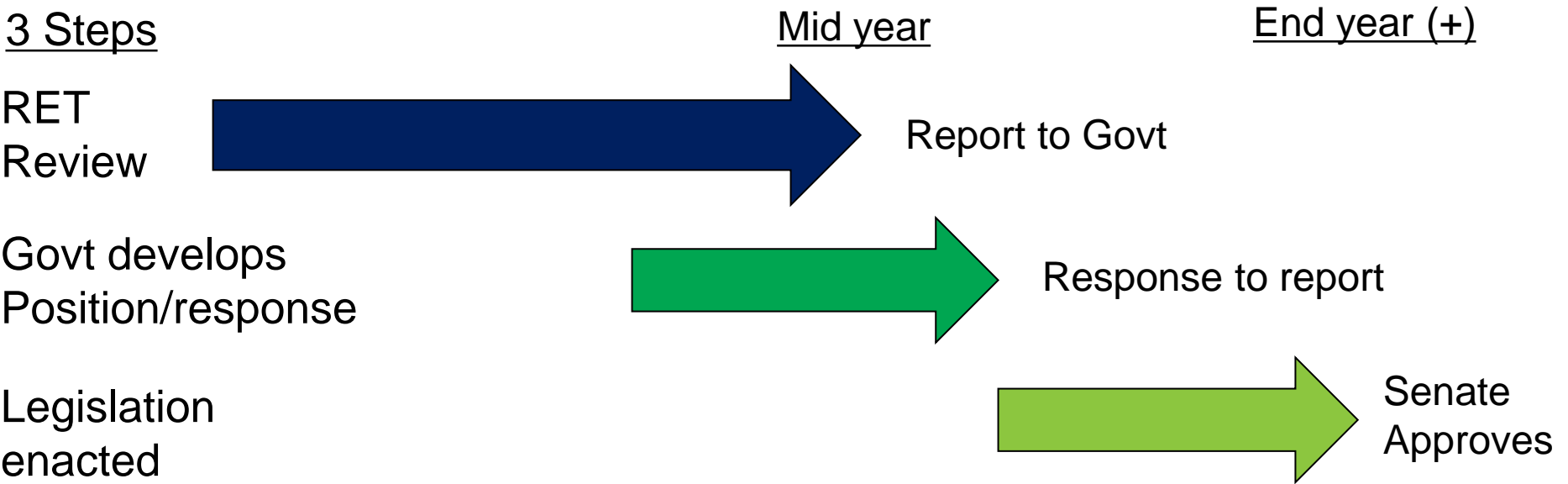
Clive Palmer showed that he is completely out of his depth after just a few minutes of questioning from Radio National's Fran Kelly yesterday. After [endorsing a statement the prior day](#) from his WA senate candidate saying that the "RET scheme should remain as is", Palmer didn't seem to realise that the Renewable Energy Target scheme - the one that is also historically referred to as MRET or the [Mandatory Renewable Energy Target](#), was actually mandatory.

After telling Fran Kelly that the government should just stick with what the prior review of the RET recommended (which was to largely leave the Renewable Energy Target legislation unaltered and importantly *mandatory* for electricity retailers to meet), Palmer suddenly changed his tune when Fran

<http://www.businessspectator.com.au/article/2014/3/20/wind-power/clive-palmer-casts-big-shadow-labor-gets-save-solar-tick>

- After initially support the RET, Palmer backtracks saying that he does not support mandatory measures
- PUP to hold balance of power in the Senate so its position is extremely important

12 months of advocacy



- Solar PV is making a material contribution – it is getting noticed and is seen as an easy target
- RET (SRES) is the remaining policy support for solar
- RET is important to making solar affordable (contributes 20 to 30% of up front cost)
- RET Review represents major challenge to our industry
- Industry needs to mobilise to build political and community support

Thank you

Presented by:
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