



# **Revitalising RECs Breathing life back into the market**

**20 November 2009**

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[www.greenmarkets.com.au](http://www.greenmarkets.com.au)**

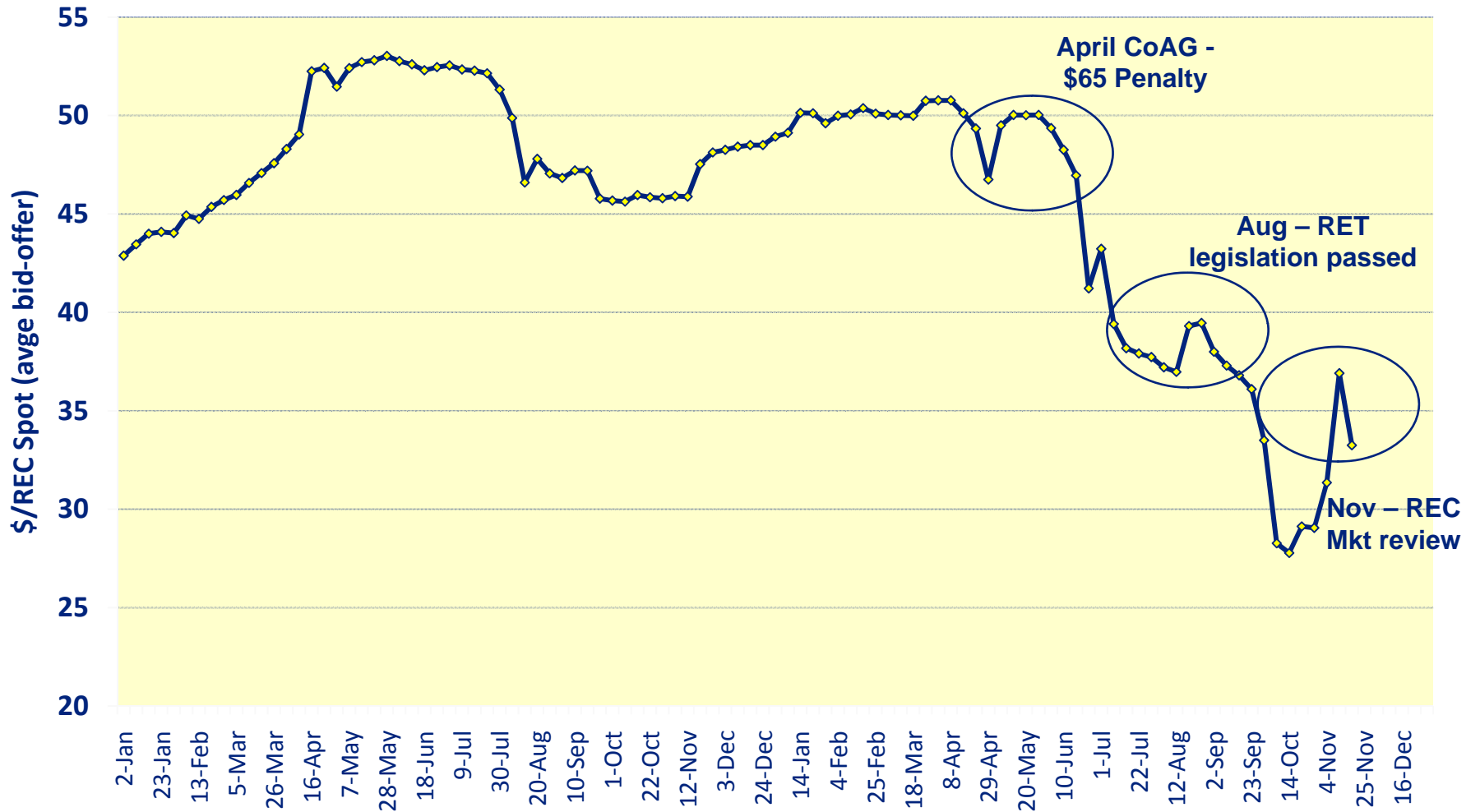
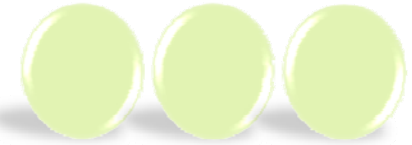
# Agenda

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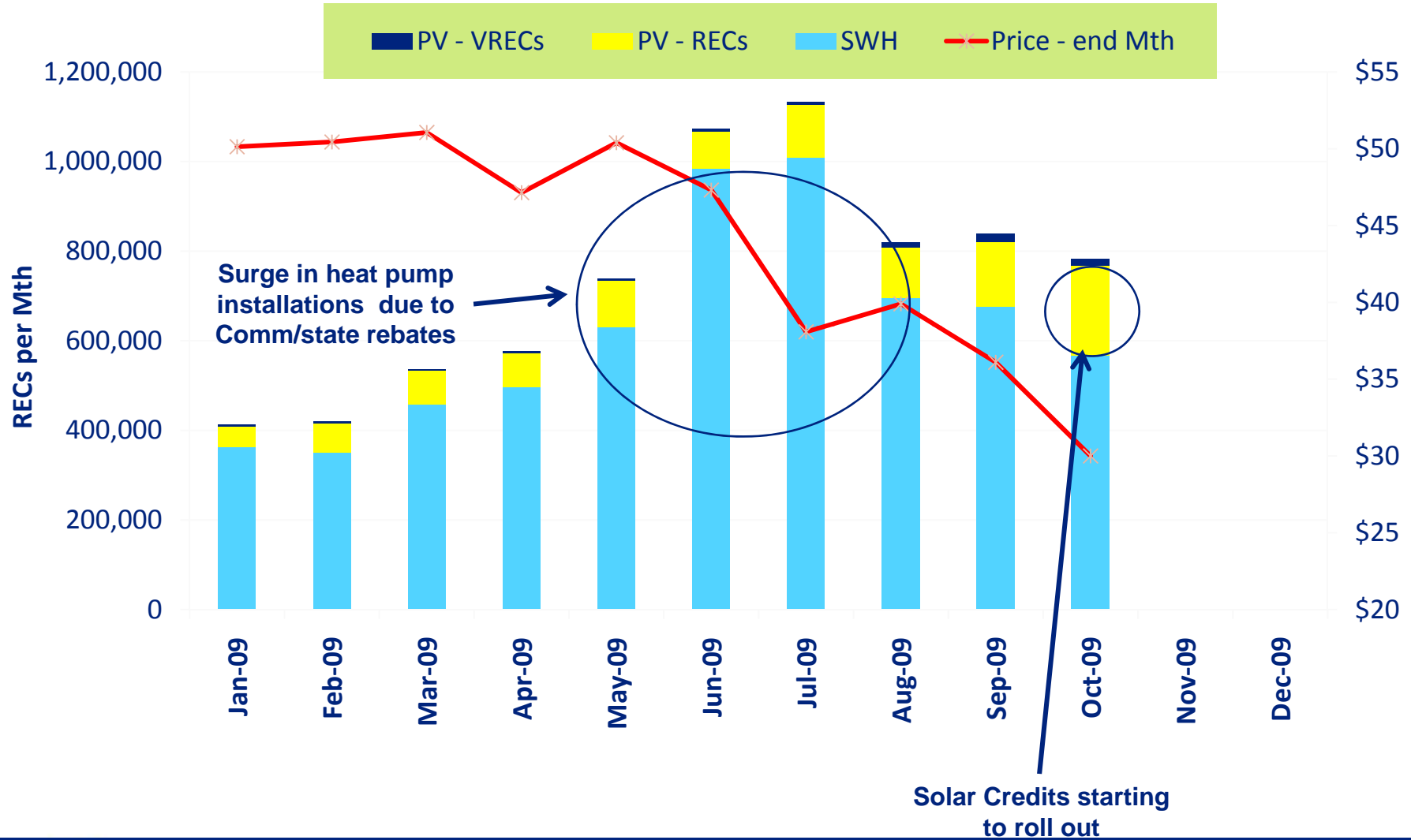
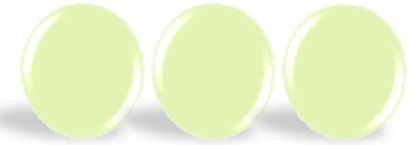


- 1. Review of recent REC prices**
- 2. RECs surplus (banked RECs)**
- 3. Solar PV will play critical role over next 3 years**
- 4. When do we need new generation?**
- 5. REC Price Review - What to do?**

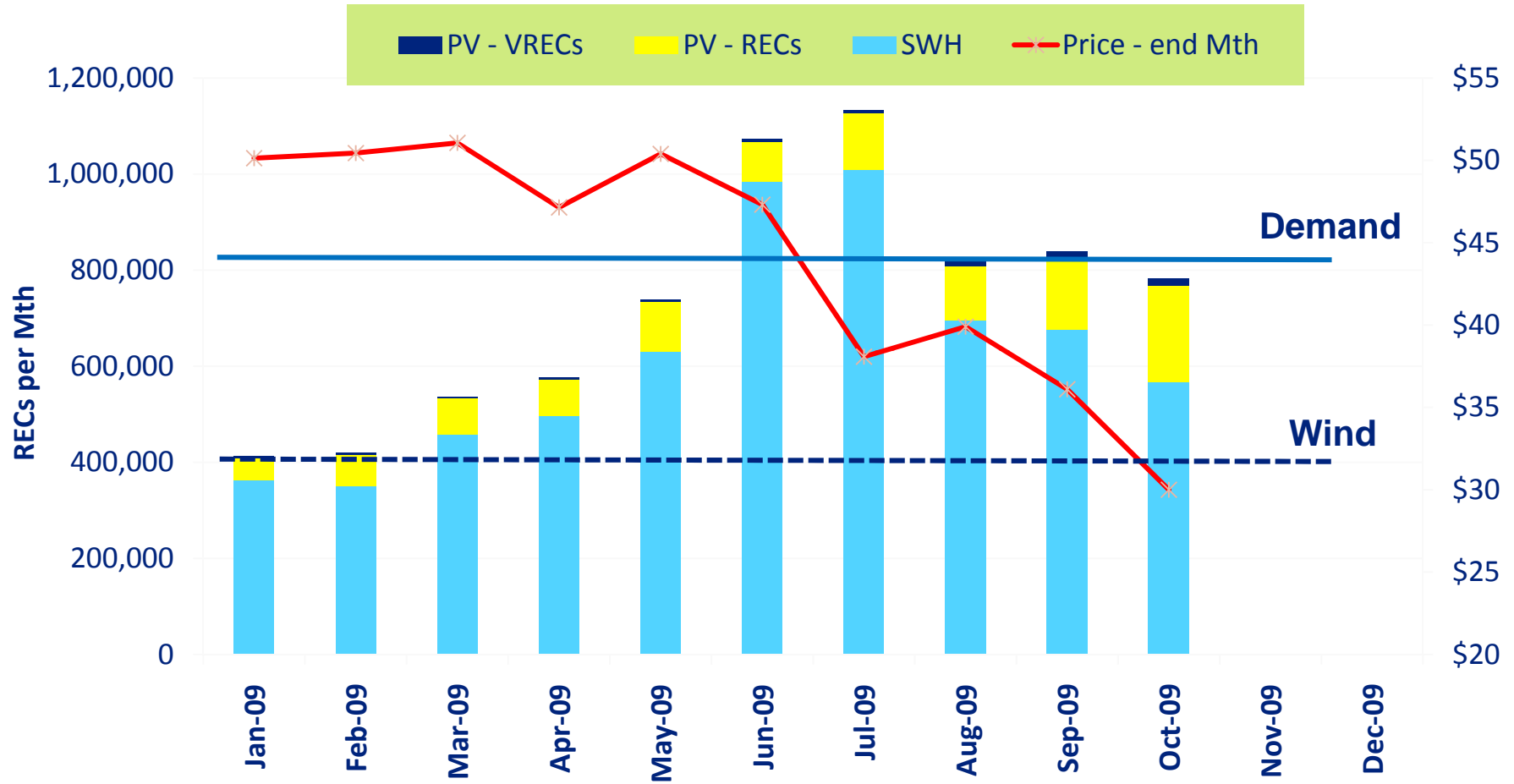
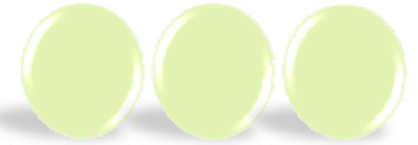
# Weekly spot price since Jan 2008



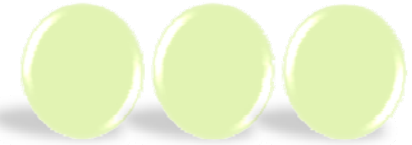
# Deemed RECs created in 2009



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# Cumulative Banked RECs

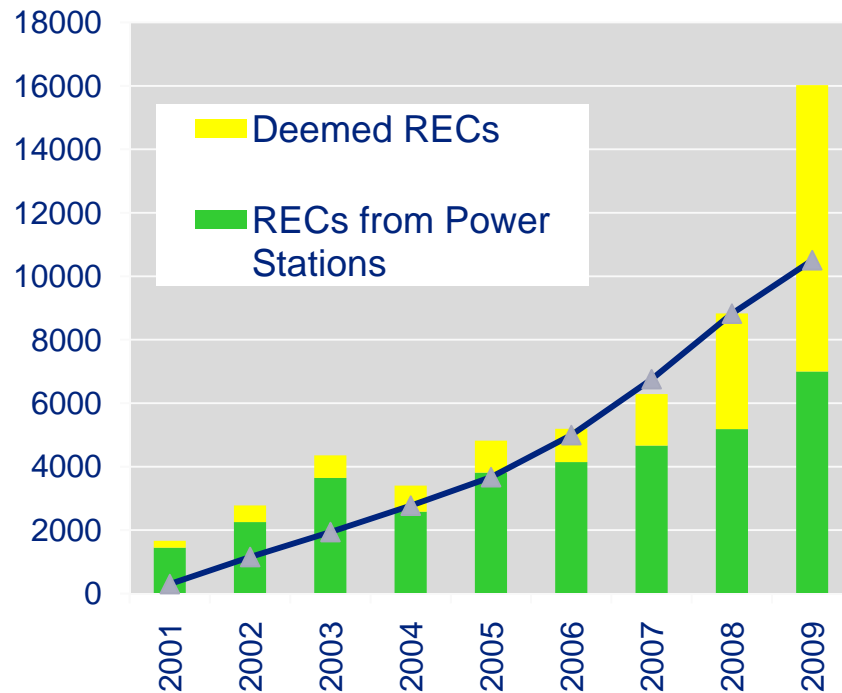


**For 2009 – 16 million RECs will be created (56% from Deemed Solar)**

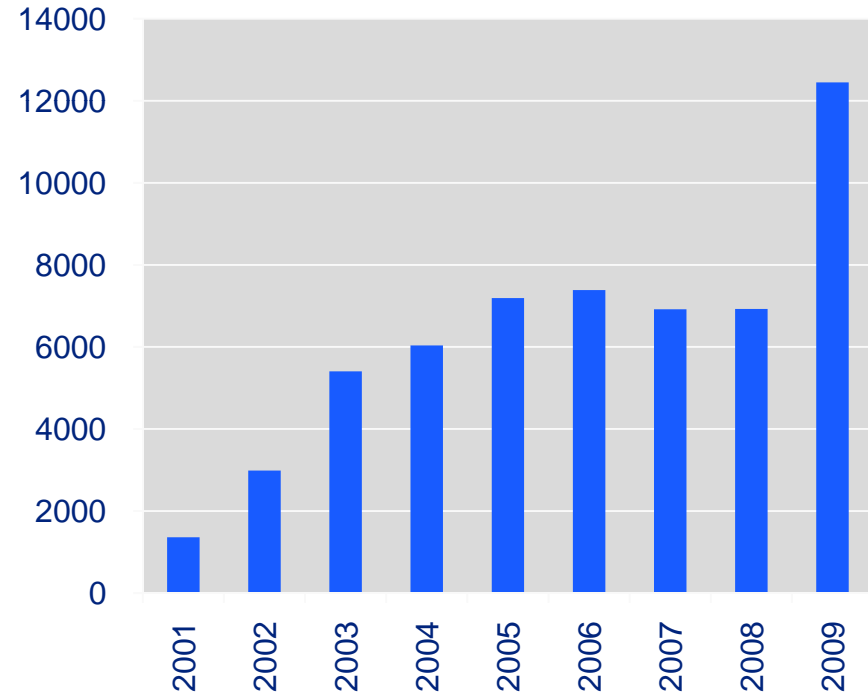
**- Demand for RECs = 10.5 million (incl VRET and GreenPower)**

**Surplus or level of Banked RECs = 12.4 mil**

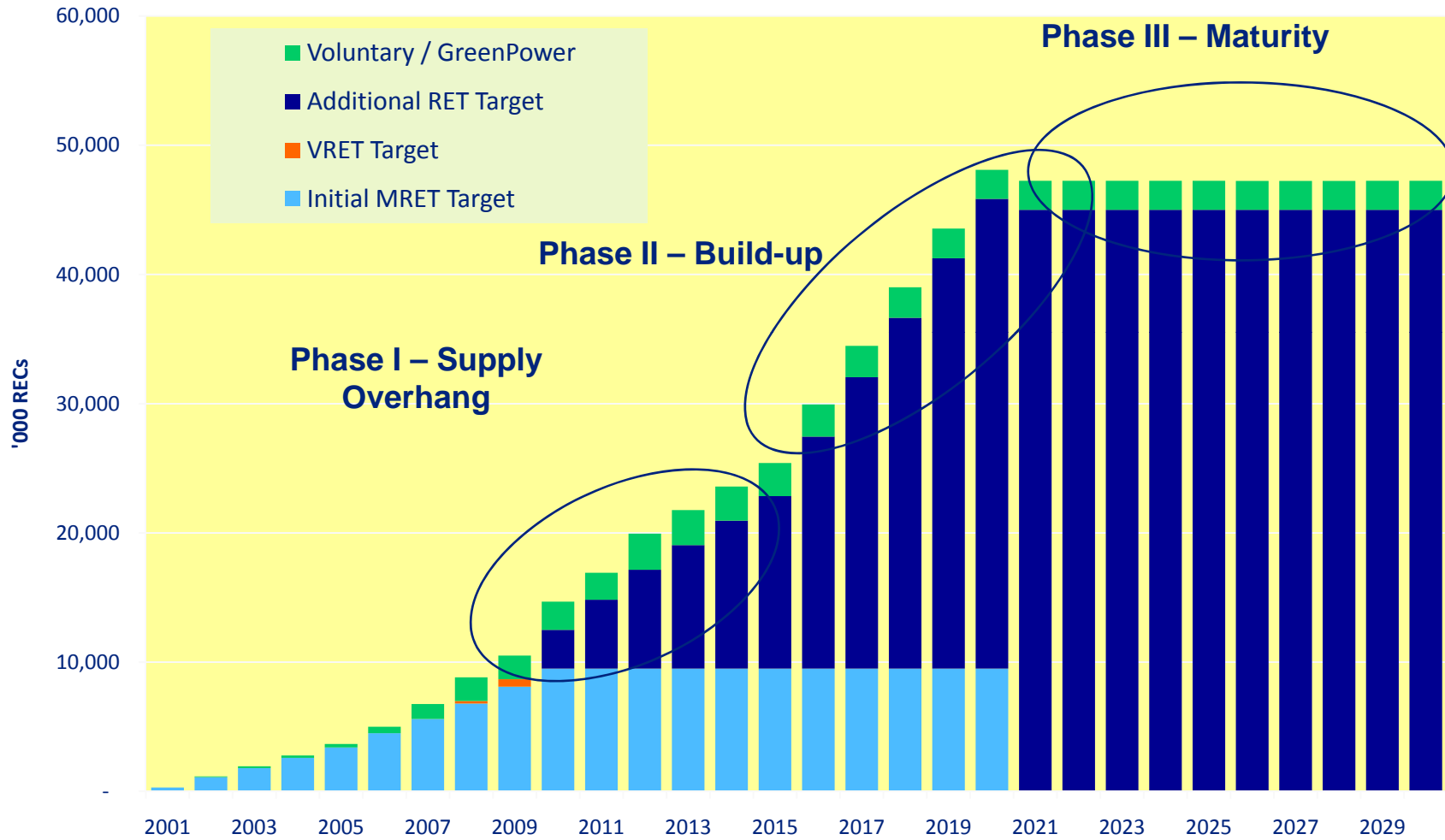
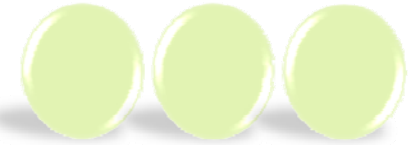
RECs ('000s)



RECs ('000s)



# Three Phases to the Target

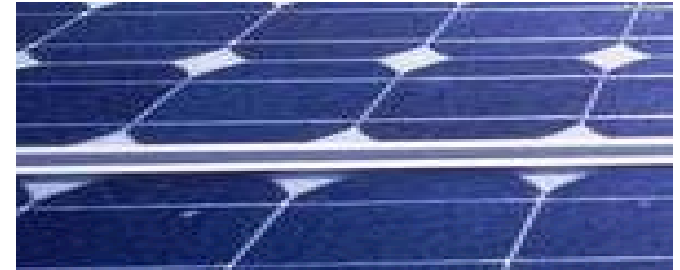




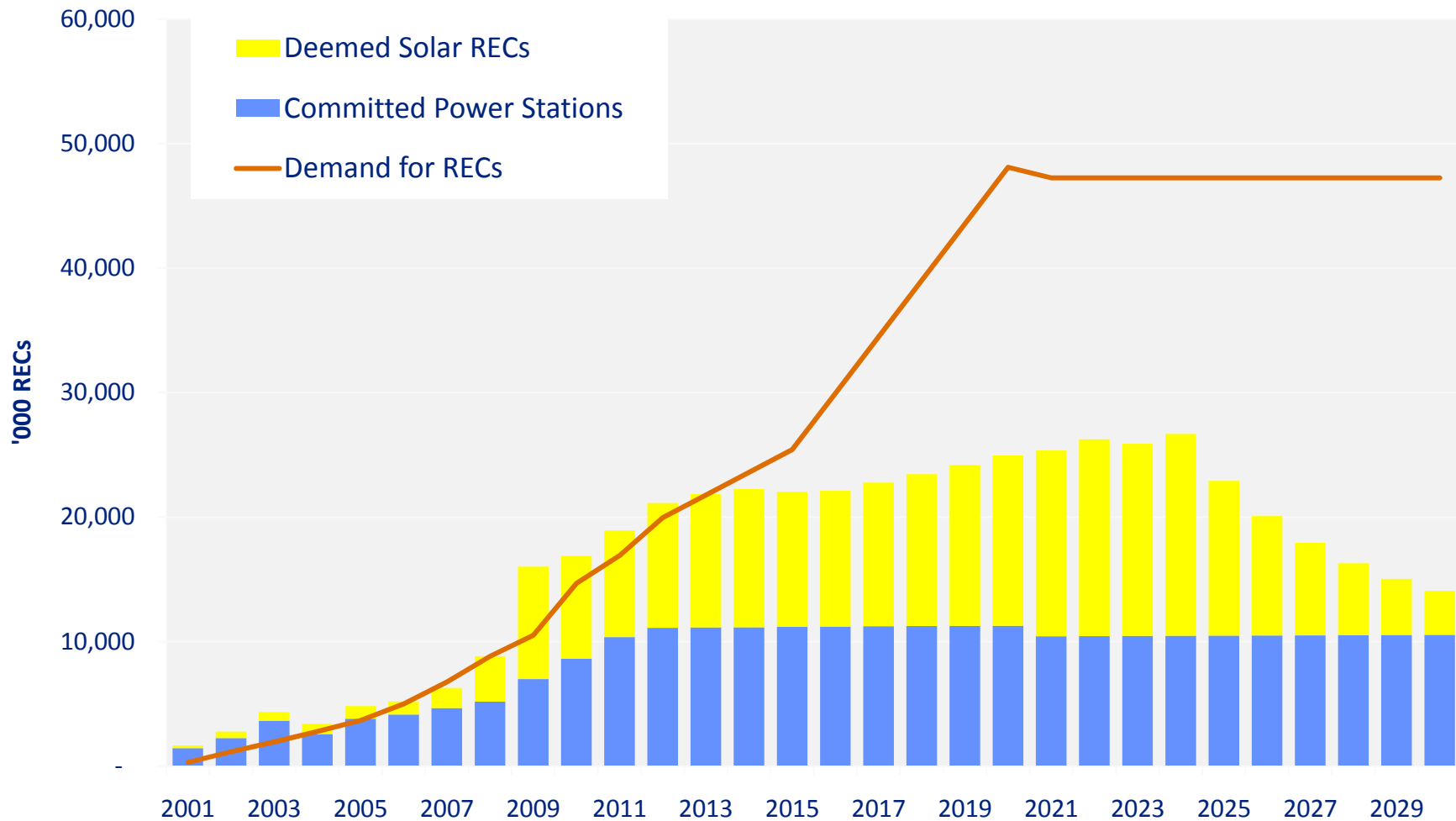
## Supply of RECs

Key sensitivities will be :

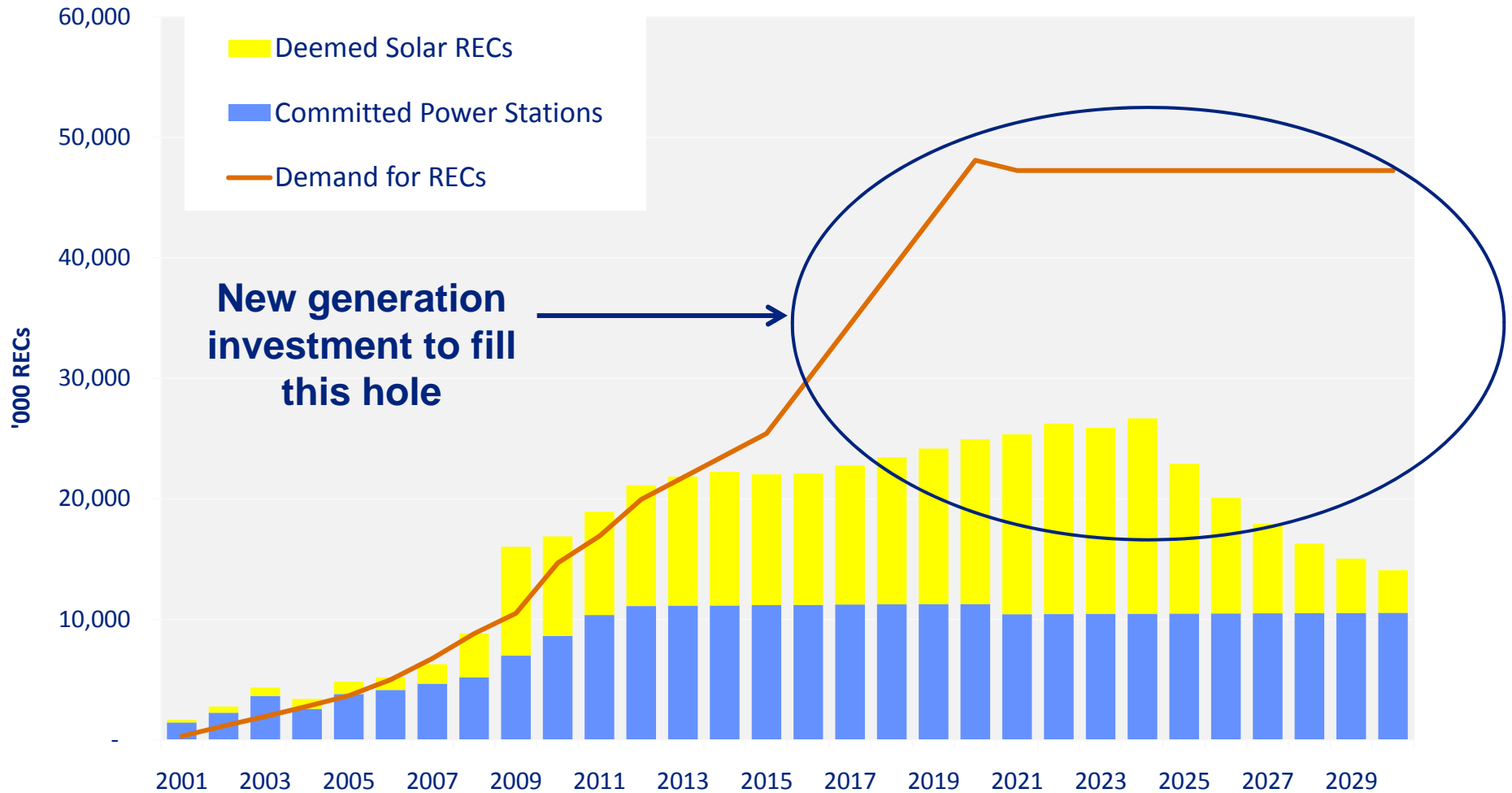
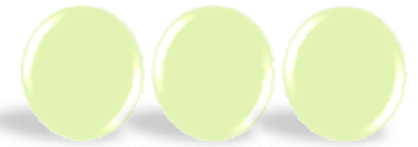
- growth in deemed SWH RECs (heat pumps)
- growth in deemed PV RECs
- level of new project commitments (wind)



# Supply of RECs



# Supply of RECs



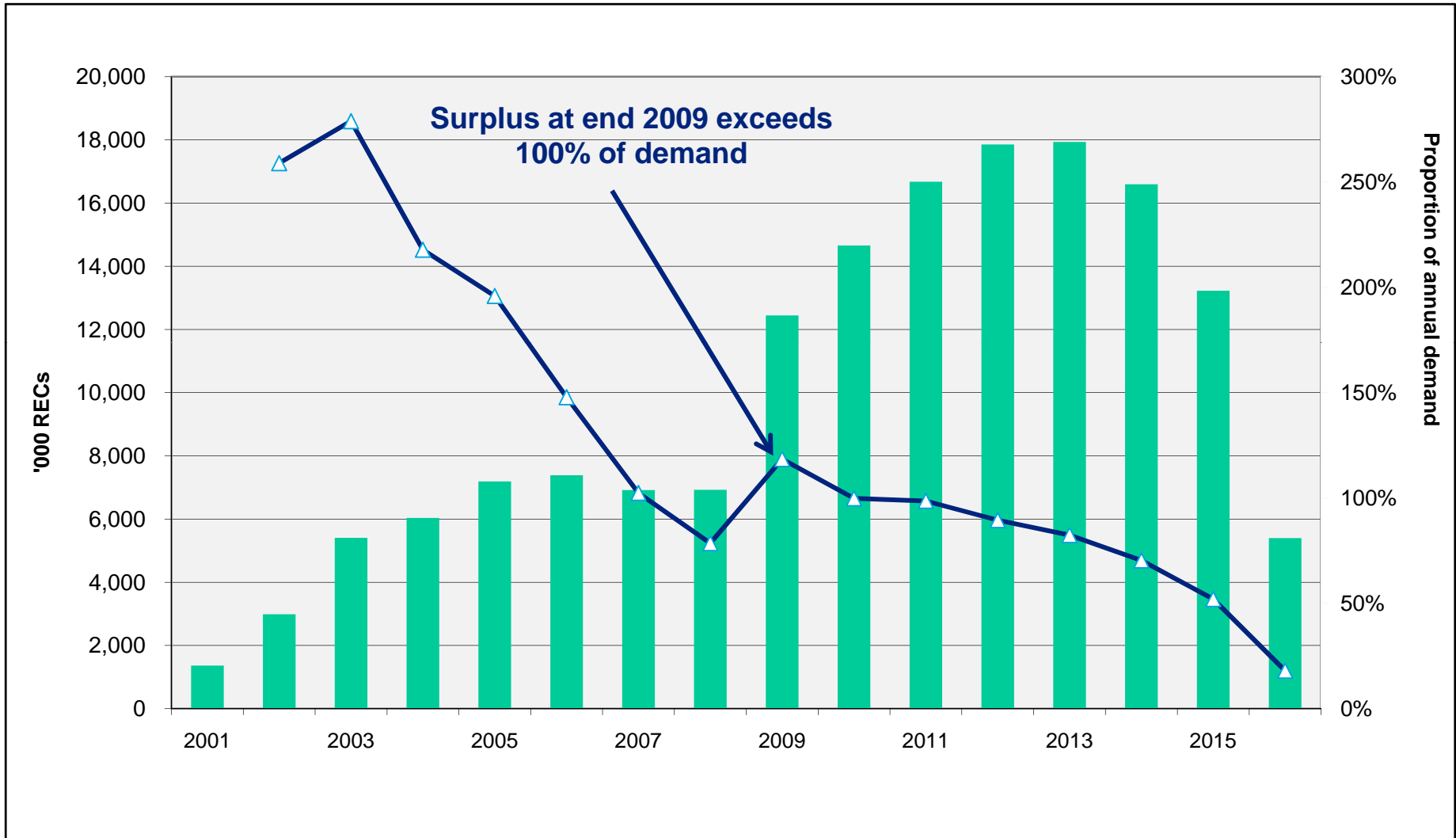
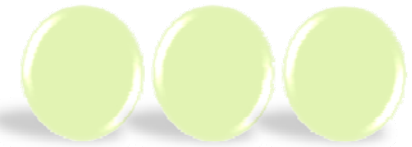
# Balancing supply and demand

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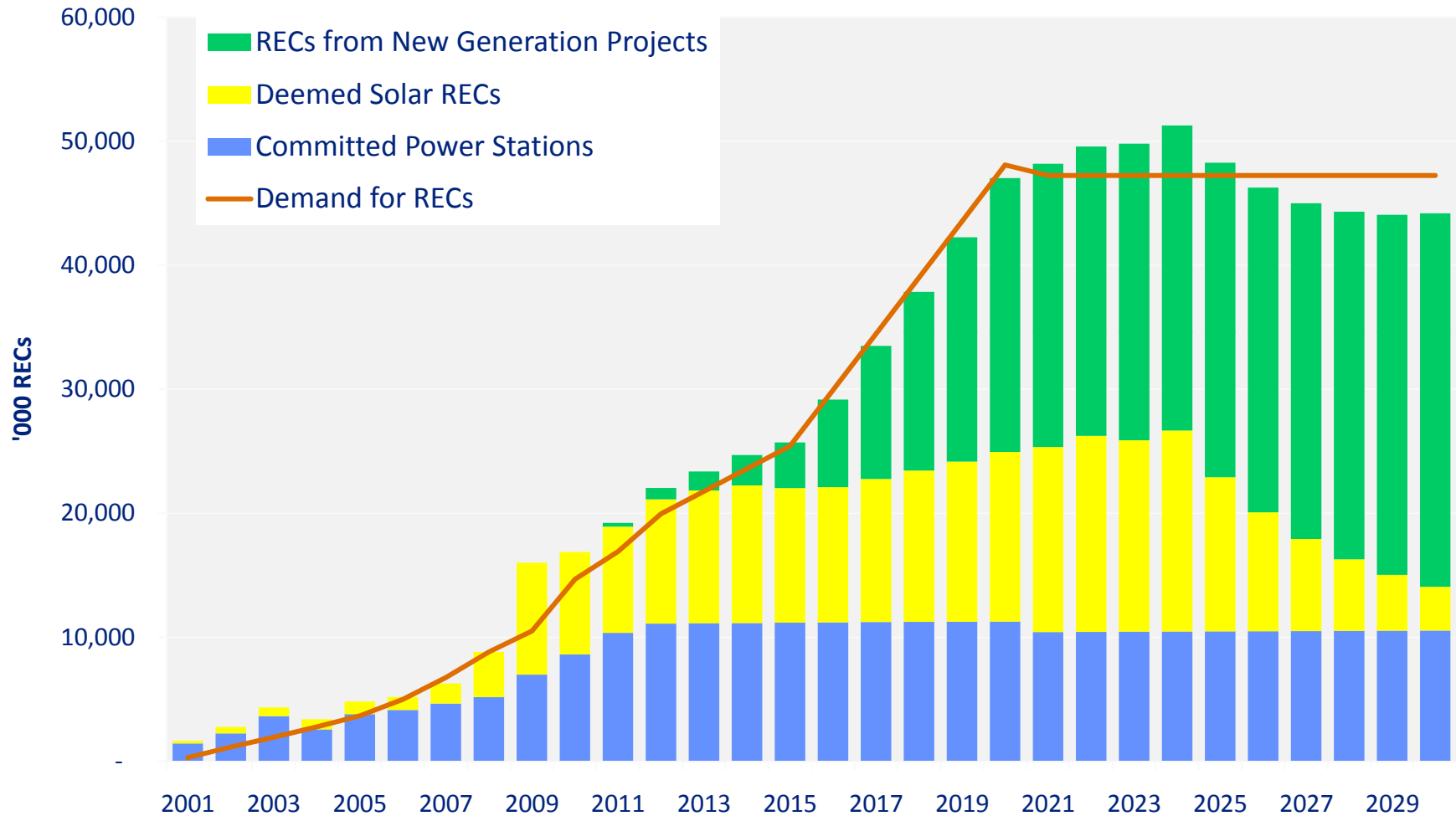
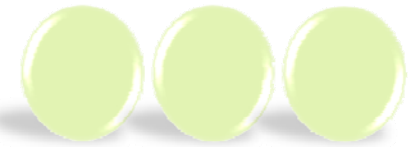


- **Modelling assumes that supply adjusts so that the level of banked RECs (surplus) does not exceed 100% of the target in any year**
  - Price will balance short term supply and demand
- **New renewable projects committed as demand / price warrants**
- **Expect that the absolute level of Banked RECs increases – Retailers and Financial Intermediaries are expected to hold on to RECs**

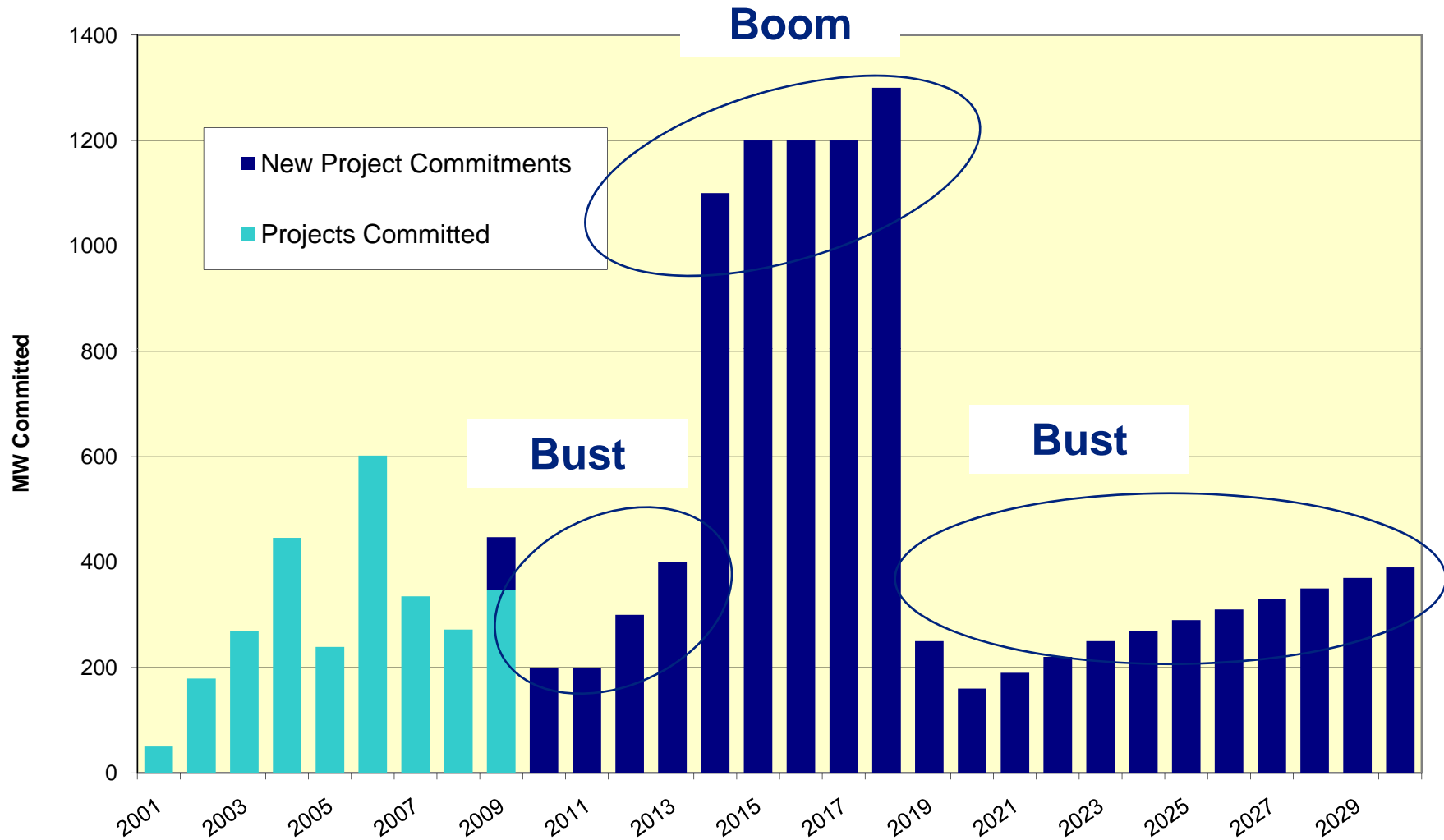
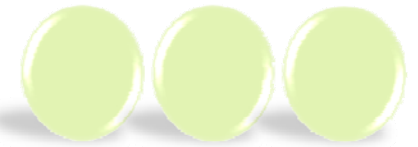
# RECs Surplus – No New Projects



# Supply of RECs



# Project Commitments



# When will REC prices rise?



- Price needs to support new REC creation coming forward to meet higher target
- Wind has generally been seen as the “new entrant” technology that will set the future price
- Does this still hold? – Not in short term
  
- Large scale volumes of RECs available from SWH and PV as the REC price increases

# Solar rollout key to short term

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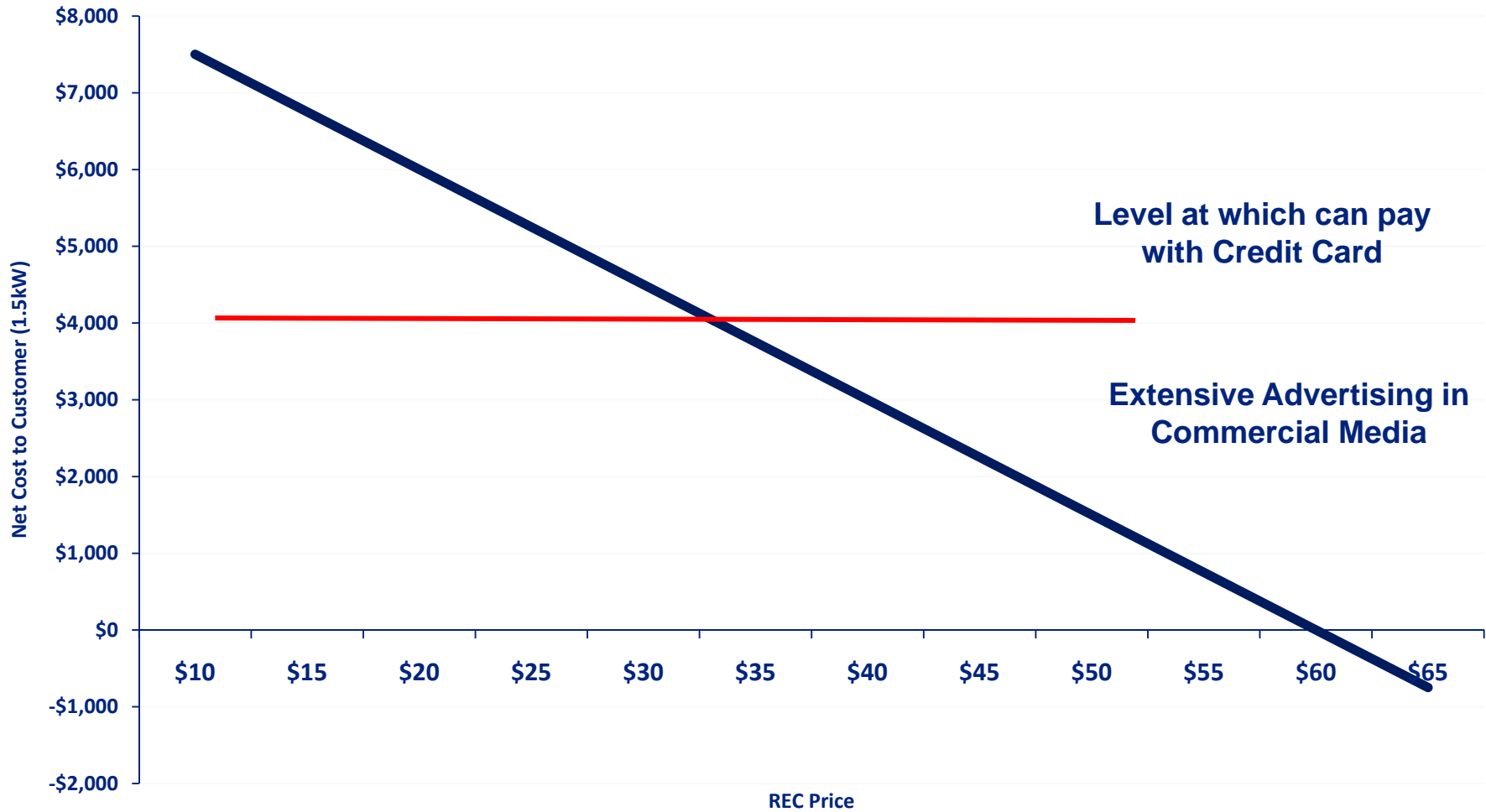
- **Dynamics of solar market will be important for short term supply**
  - Price will balance short term supply and demand
- **SWH**
  - Commercial systems sensitive to pricing
  - Residential – electric resistance phase-out
- **Solar PV installations attractive**
  - Lower international panel prices
  - Stronger A\$

# Impact of \$10 /REC price change

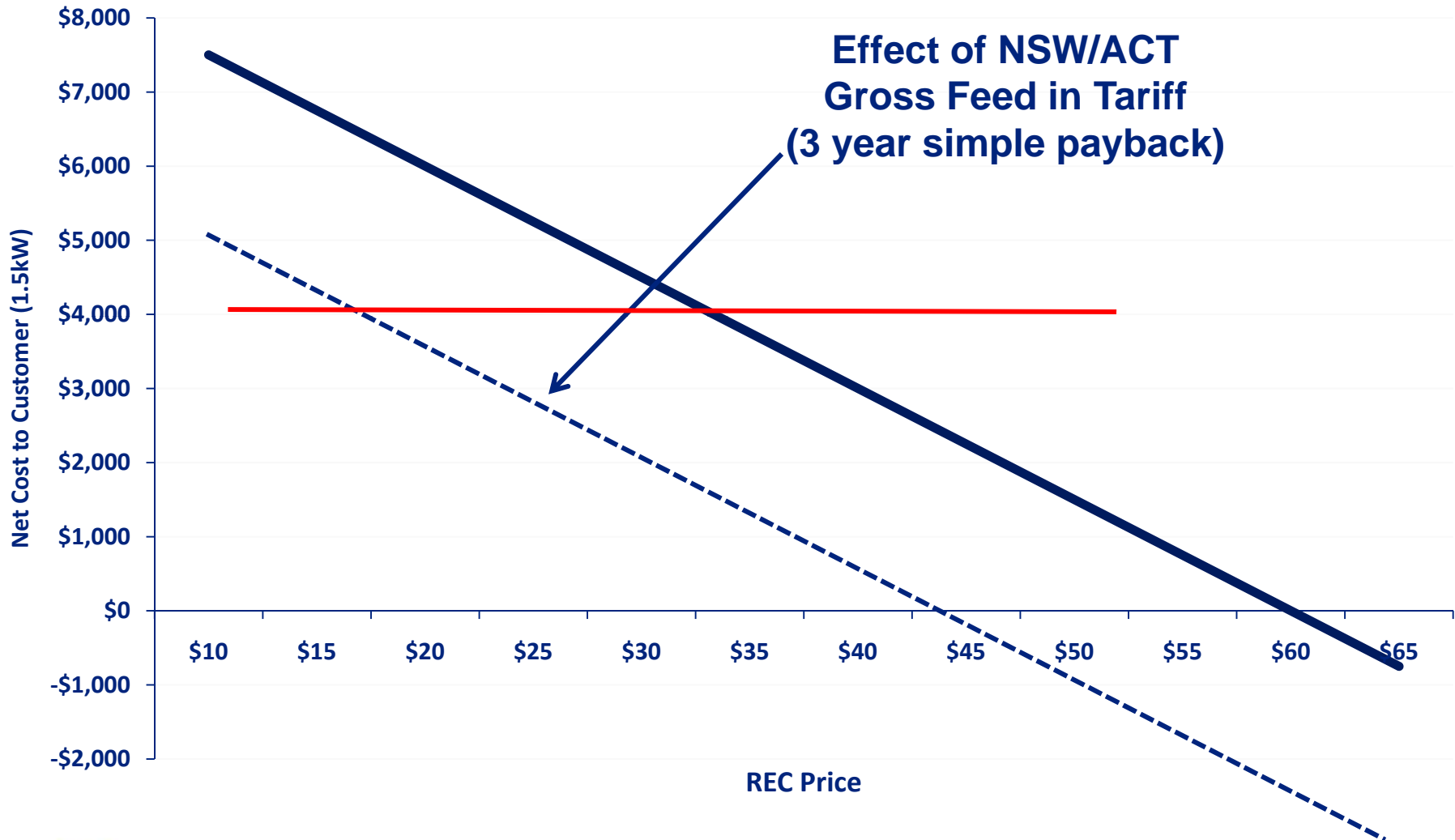
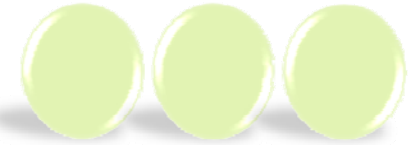


	Solar PV (1.5kW)	Residential SWH	Commercial SWH
Number of RECs	150 (with Solar Credits)	30	325
Value of RECs at \$35/REC	\$5,250	\$1050	\$11,375
<b>Other rebates</b>	Net feed in tariffs in most states -Gross in NSW/ACT	\$1000 - \$1600 (Comm Rebate) + state rebates / VEECs	
<b>Impact of \$10 / REC price change</b>	\$1500 Extremely price sensitive	\$300	\$3,250 Extremely price sensitive

# PV - Net Cost to Customer (1.5kW)



# PV - Net Cost to Customer (1.5kW)



# Tension between Short and Medium Term



## Short Term

- A significant surplus of RECs has developed
- RECs created greater than RECs demand
- Some-one will need to “bank” significant volumes of RECs
- Would otherwise expect the price to fall until the level of RECs created = RECs demand
- REC price fall will result in significant slowdown in solar installations (experience tells us this)

# Tension between Short and Medium Term

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## Medium Term

- We will need to have significant levels of new projects committed before 2013
- Solar Credits start to wind out by 2012/13
- Current spot Price of \$30.00
- Cost of renewable generation projects >\$50 REC
- Who will commit to any new projects before 2013?

# Tension between Short and Medium Term



- **Price needs to rise to meet medium term RECs deficit**
- **But cannot increase too high or too fast so as to encourage further solar – which then creates an oversupply of RECs**
- **Solar Credits timeframe is important in this regard**
- **Expect that any price increase will attract further solar installations – PV then Commercial HP**
- **Price expected to stay low while Solar Credits (5x) in place**
- **Renewable generation not needed**

# CoAG Review Eligibility Requirement



The Commonwealth will prepare a report to COAG before the end of 2009 to examine the eligibility of heat pumps as well as new small-scale renewable technologies that are not currently eligible under the RET, and the current 'self-generation' provisions of the RET, which mainly affect off-grid remote resource developments, to ensure that they are meeting the original policy intent to exclude such projects without creating any unintended impacts on the RET's overall objectives.

RET Scheme – agreed by CoAG, 30 April 2009

# CoAG Review of REC Spot Market



## MEDIA RELEASE

**Senator the Hon Penny Wong**

*Minister for Climate Change and Water*

PW 322/09

5 November 2009

### **COAG TO CONSIDER RENEWABLE ENERGY CERTIFICATE MARKET**

A COAG review into the Federal Government's Renewable Energy Target will consider factors that may be impacting upon the Renewable Energy Certificate (REC) market in the short and long term.

"The review will explicitly examine the current state of the RET spot market and whether the spot market has any implications for the deployment of large-scale projects such as wind farms," Senator Wong said.

Senator Wong said uncertainty regarding the establishment of the Carbon Pollution Reduction Scheme could be harming market sentiment and impacting on the REC spot price.

**Review to report to CoAG by the end of the year**

# Risks to intervention



- **Government intervention introduces elements of risk and uncertainty**
- **Market is working – we have seen industry respond effectively over the last 9 years**
- **Other Govt policies (rebates / solar credits) have lead to short term selective support to solar technologies – CPRS will support utility scale plants in longer term (delays in CPRS has not helped)**
- **Sovereign risk issues in removing successful technologies – if remove heat pumps – who will be next if they are too successful? – PV – wind?**
- **Solar Business have invested based on current regime – will they be compensated if the scheme changes**





## What to do? and implications?

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**Need to be clear on objective – is it to get more renewable power projects implemented – ie. more wind?.**

**If so then what are the best options?**

- **A higher price – in itself will not work where other technologies are more cost competitive**
- **Increasing demand in the short term (through removing heat pumps or increasing the target) – may not solve the problem as Solar PV (with multiplier) is more economic than wind, and quicker to respond**
- **NSW Govt is supporting PV (gross FIT) – why cant it also support local wind (it did through desal-plant)**
- **Why cant a FIT also be applied to larger scale generation?**

# Politically attractive to support solar



Some Examples	PV	SWH/HP
Commonwealth	Solar Credit – RET Solar Schools	\$1600 /\$1000 rebate for replacing electric WH
NSW	Gross FIT – 60c cap of 50 MW	Rebates of \$800-\$1000 for replacing electric WH
VIC	Net FIT – 60c	VEEC scheme supports SWH
QLD		Bulk SWH Purchase – 200,000 systems



## What to do – continued?

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- Solar Credits timeframe – is critical – the leveraging of the multiplier means that PV should be the technology that picks up market share in the short term as the price rises
- If Governments want renewable power projects – then govt can go through an open procurement process – where they contract for a certain number of MW of generation projects each year.

### We have precedents already:

- NSW and Vic Govts contracted de-sal plants to wind projects
- Qld Govt initiated bulk SWH purchase (200,000 systems)

Is more government intervention – however govt created the problem in the first place – and this can be seen as levelling the playing field (over the next 3 years or so)

# Govt to re-dress a problem that it created

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- There are limited things that can be done that do not involve further distorting the market.
- Government could contract for RECs (equivalent to Phantom RECs) from renewable power generators over say a 10 year period (around 10 million RECs over the next 3-4 years)
- It could then offer the RECs back into the market from 2017 onwards as the target starts to ramp up
- This will lead to a more progressive build up in generation commitments compared to the “bust-boom-bust” approach that is represented by the profile of the current target.



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**Thank You**

