



# Australian Solar Hot Water market

Australian Solar Energy Society

March 2010

---

# Who is Solahart?

# Who is Solahart?

---

- Launched our first solar water heater into the market in 1953 – one year before the Australian Solar Energy Society was born.
- Since then we have sold well over 1M solar water heaters Worldwide.
- We have exported to over 80 countries.
- A flagship brand in the Rheem stable.
- Our model is through a specialised Dealer channel due to complexities of selling and installation SHW.
- Over 100 specialised Dealers in Australia employing hundreds of people from Esperance to Hobart.

---

# Why Solar Hot Water?

# Why Solar Hot Water?

---

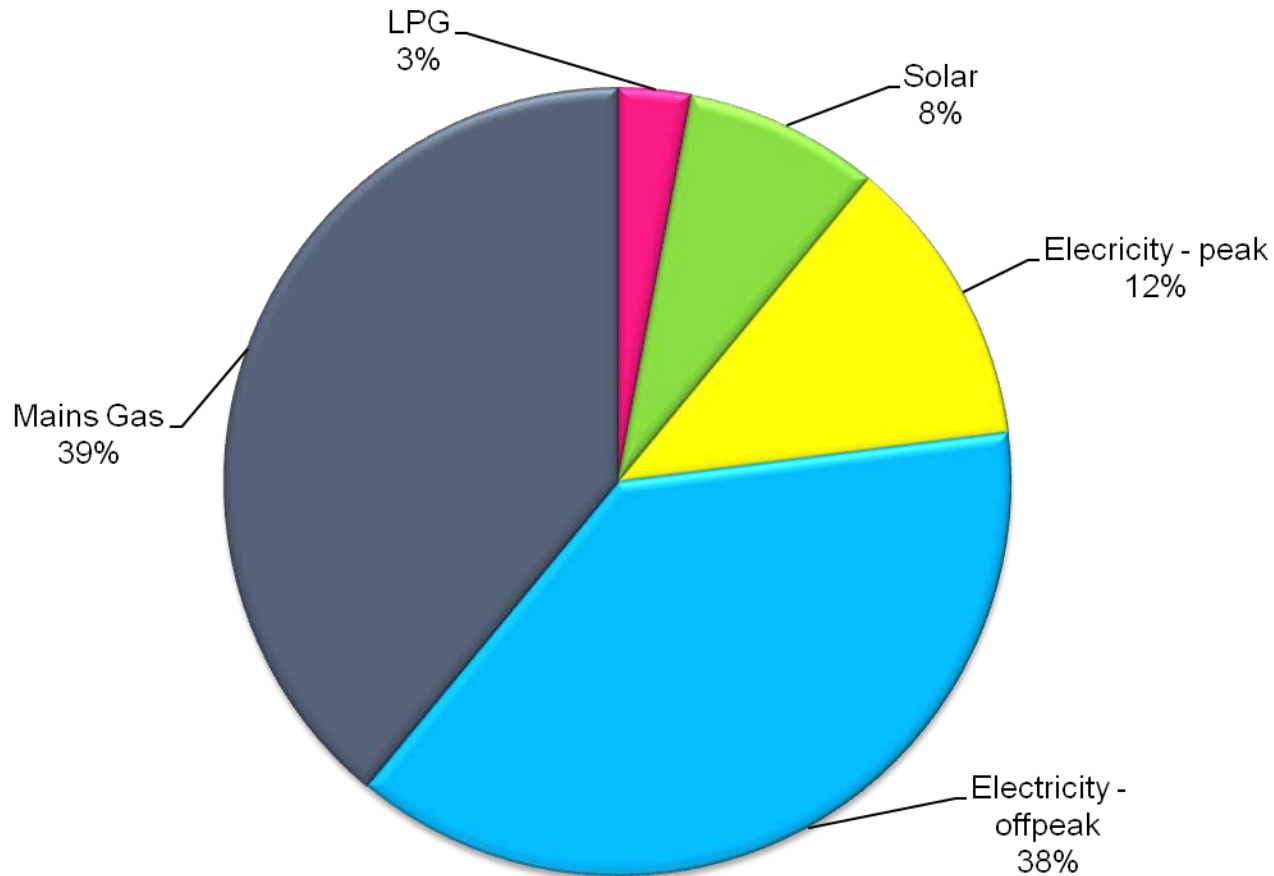
- Electric water heaters account for 25% of total household energy consumption.
- Installing SHW can reduce the energy used to heat water by up to 85%.
- There are still rebates available to help with up front affordability.
- Energy costs are skyrocketing, harness the Sun's free energy.
- Electric water heaters to be phased out 2012 – starting in reticulated areas in 2010.
- There are in excess of 4M electric water heaters installed in Australia.
- Reduces CO<sup>2</sup> emissions by up to 3 tonnes.

---

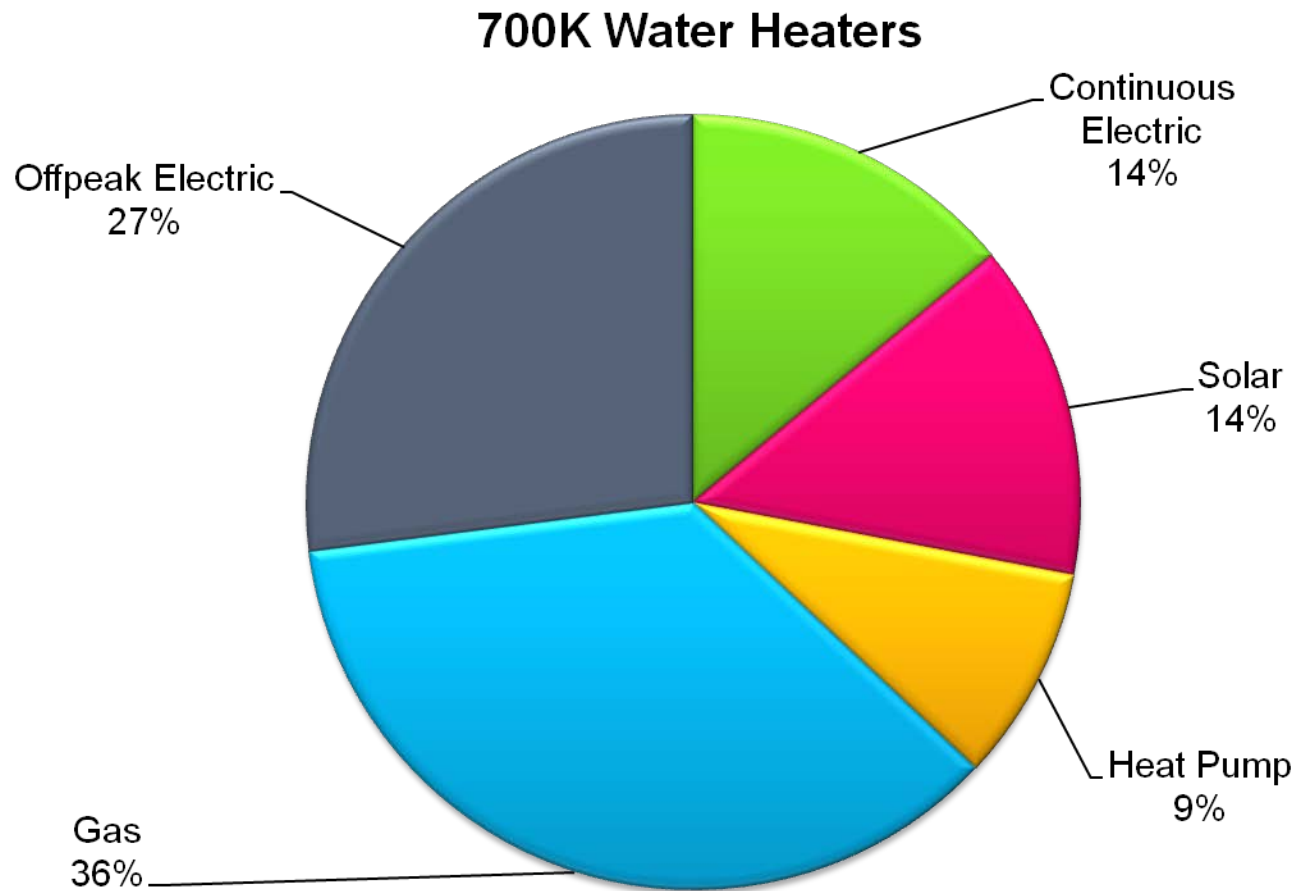
# Snapshot of Australian Market

# Installed market - 4.25M electric water heaters and 0.66M solar water heaters

Installed Water Heaters (2008 ABS)



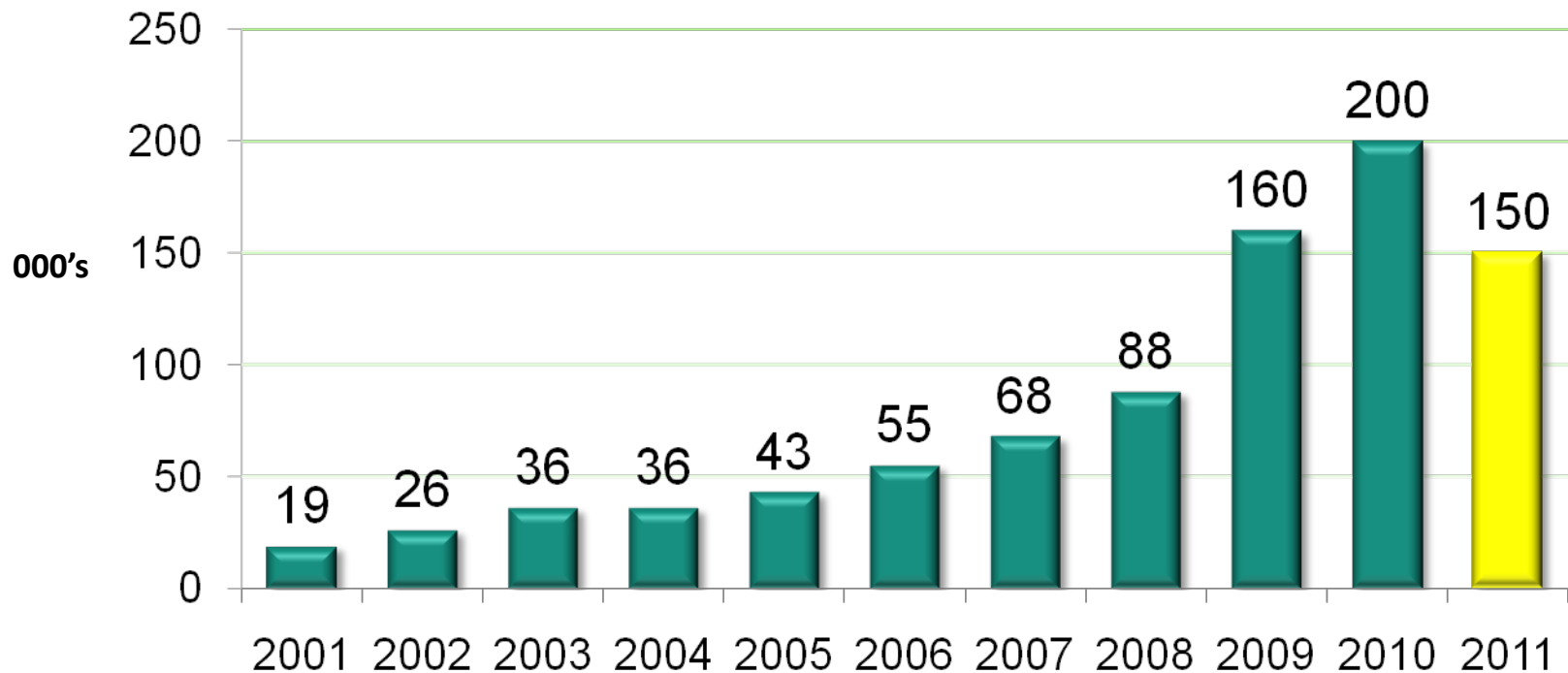
# 2009 Water Heater Sales by type



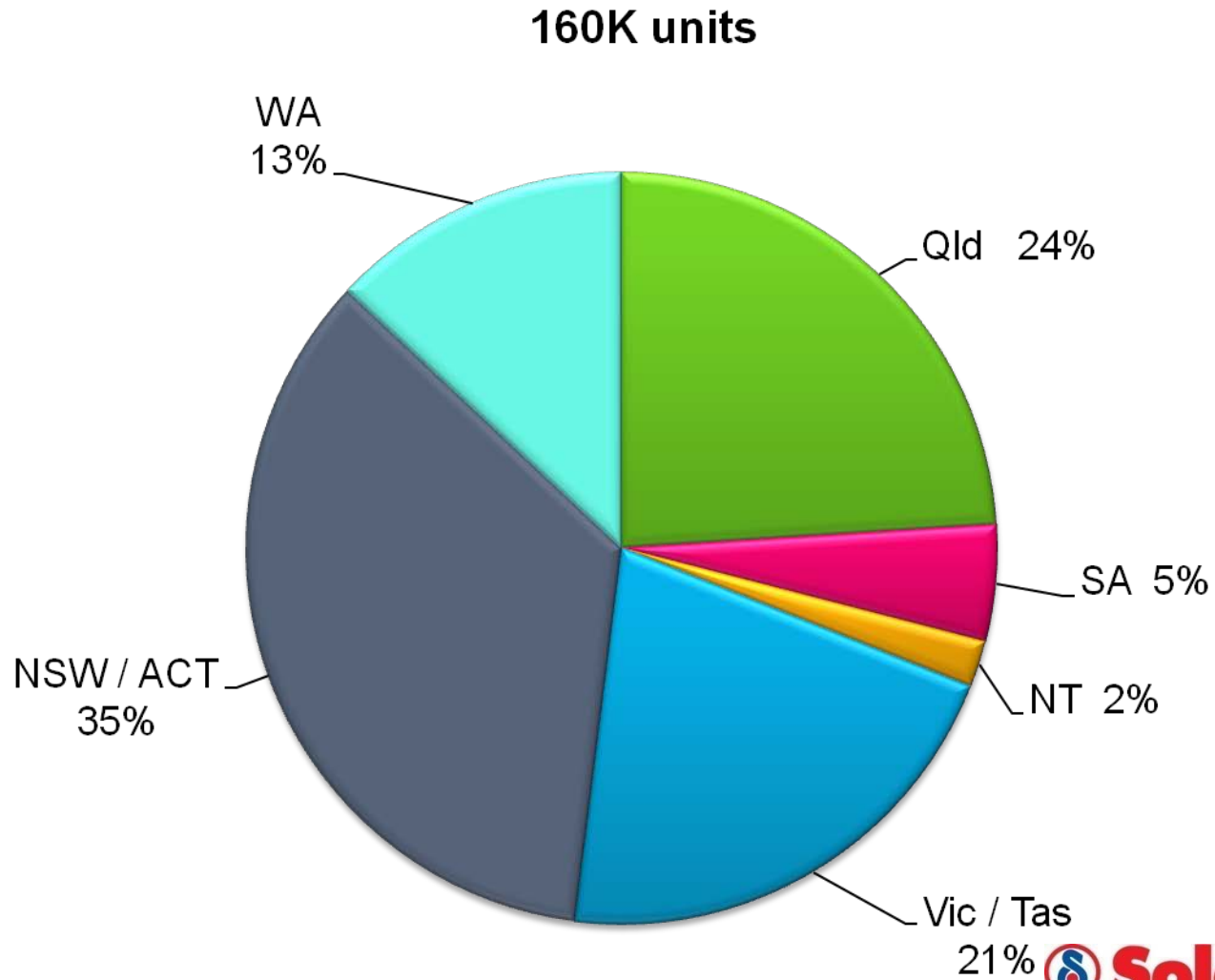


# SWH Sales Growth 2001 – 2010 (financial year)

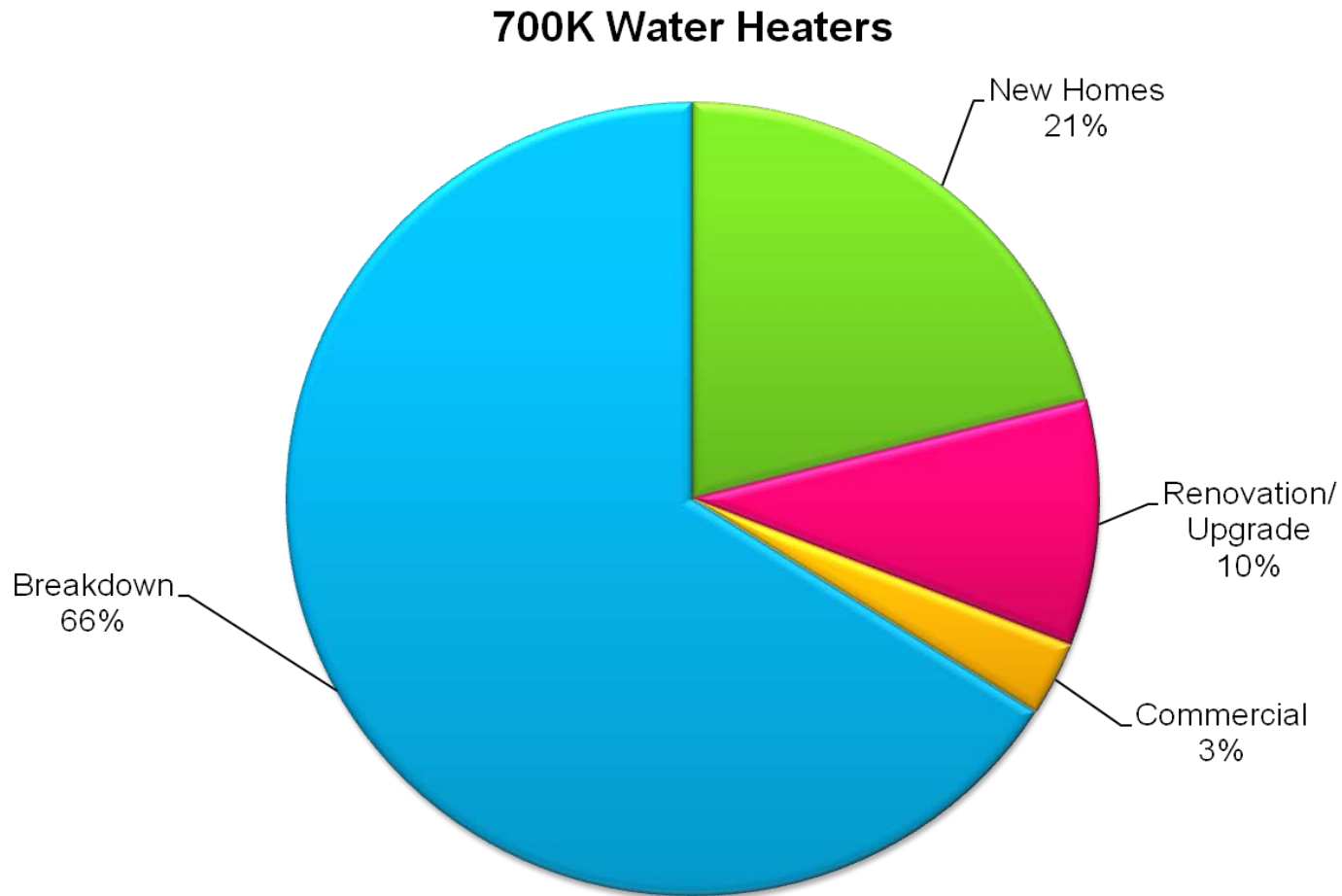
- 30% New Homes 70% Replacement / Upgrade
- 60% SWH, **40% Heat Pump** in 2009
- Market in decline due to policy changes – mainly Heat Pump driven



# 2009 Australian SWH Market by region



# Water Heater Market Segments

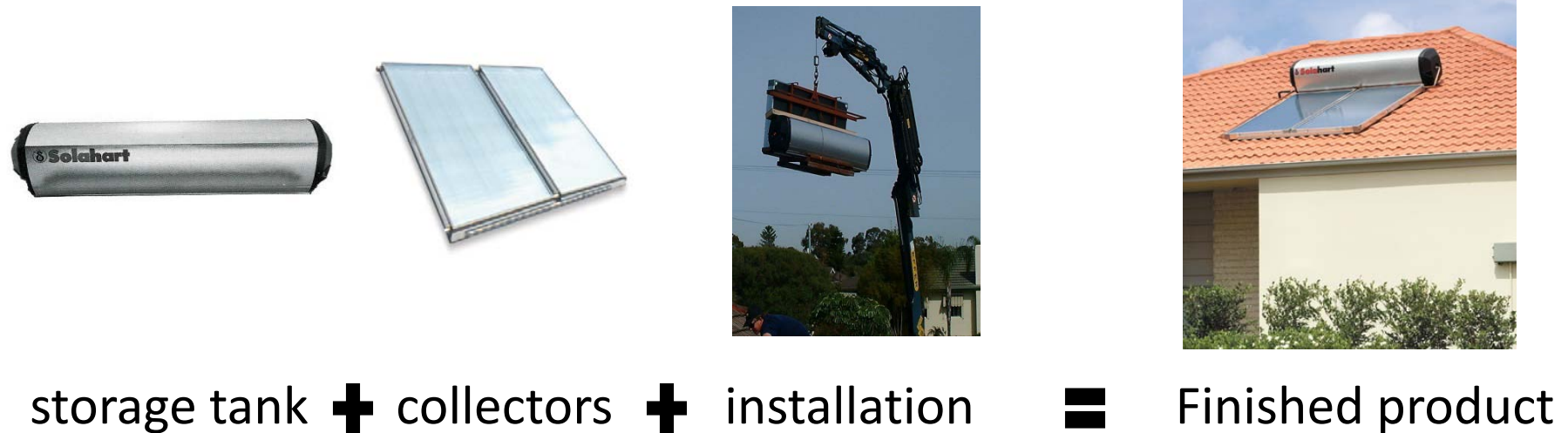


---

# Current pricing and efficiency analysis

# Complexity of solar water heating

- SWH approx \$5,000 fully installed (before rebates)
- Mature Technology
- Authorised installers
- Extremely difficult industry



# Price certainty

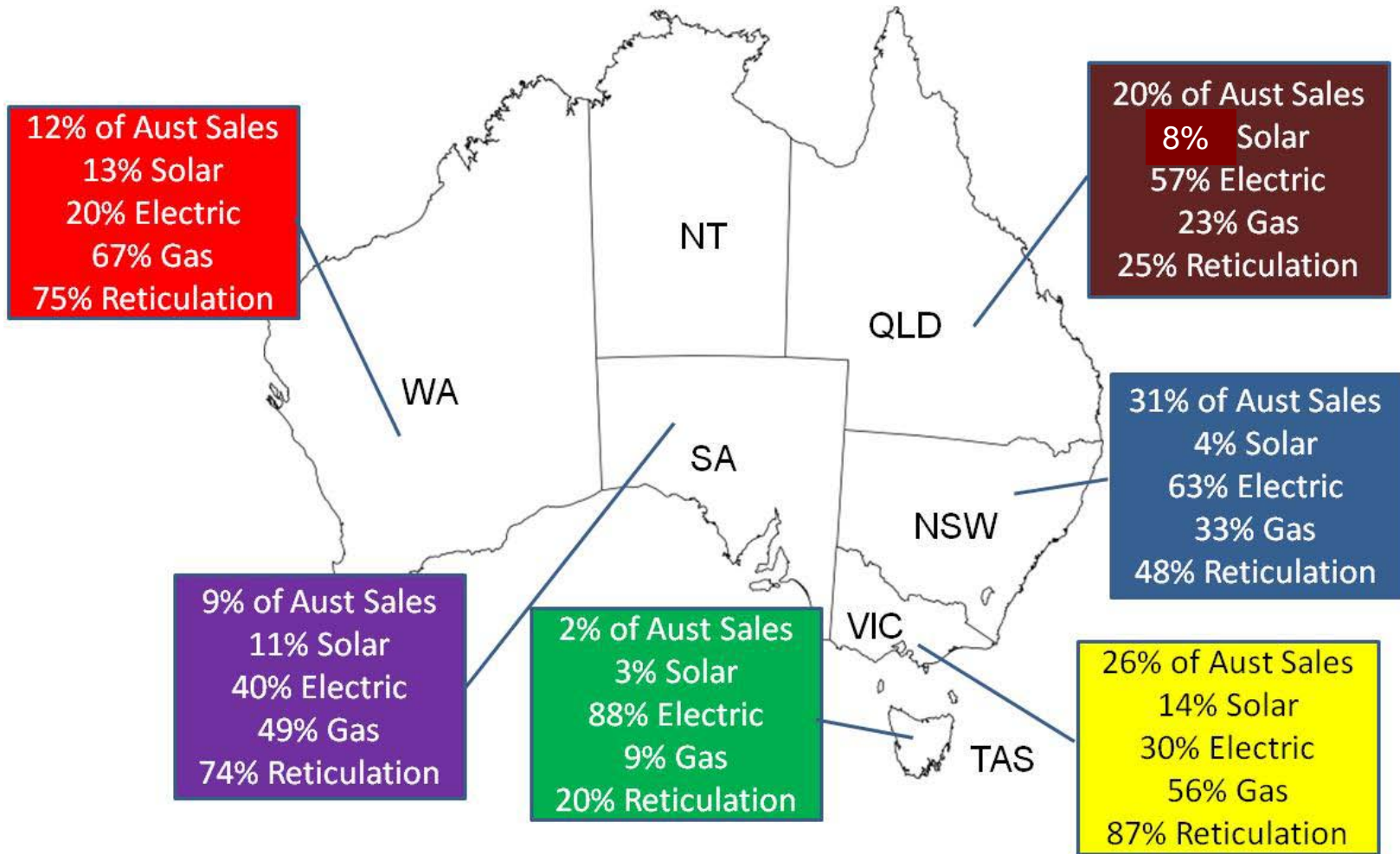
---

- Due to complexity of installations, there is no room for economies of scale – no two jobs are the same.
- Tank substitution – electric water heater volumes replaced with solar water heaters so no overall increase in tank volumes – collectors are a relatively minor part of overall cost.
- Rebates are necessary to help this technology go mainstream and to insulate consumers from escalating energy prices.
- What's needed is price certainty eg in Jan SWH cost around \$2,000 installed for typical system (NSW), then;
  - NSW rebate reduced to \$300
  - Federal Government rebate reduced from \$1,600 to \$1,000
  - Now price for same system has increased to around \$3,000.

---

# Regulations and the impact on solar hot water market

# The Market





# No two states the same

## QLD

### New homes

hot water systems with low greenhouse gas emissions impact  
solar / heat pump - 3 or more bedrooms – min 22 RECs  
Gas 5 star  
solar / heat pump - 1, 2 bedrooms – min 14 RECs  
Gas 5 star

### Existing homes – from Jan 1 2010

hot water systems with low greenhouse gas emissions impact if in gas reticulated area  
solar / heat pump – no REC minimum,  
Gas 5 star

## NSW

### New homes / Renovations

BASIX certificate required  
Selecting a solar / heat pump assists with points to achieve minimum energy rating target

### Existing homes

No set date for phasing out electric water heaters other than date set by Federal Government

## NT

Majority of new home market in Northern Territory has been installing solar for some time.

**New homes** – 5 star from 1<sup>st</sup> May 2010

**Existing homes** – large replacement market for solar

## WA

### New homes

Solar / heat pump - 60% energy savings when modelled to AS 4234 zone 3  
Gas 5 star

### Existing homes

No set date for phasing out electric water heaters other than date set by Federal Government

## Vic

### New homes

5 star requirement – either solar / heat pump or rain water tank  
Solar / heat pump – 60% energy savings when modelled to AS 4234 zone 4

### Existing homes

No set date for phasing out electric water heaters other than date set by Federal Government

## SA

### New homes / Alterations / Additions

•full standard;  
Solar / heat pump – zones 3 / 4 small (at least 17 / 16 RECs), medium (at least 27 / 26 RECs), large (at least 38 / 36 RECs)  
Gas 5 star

• reduced standard;

Solar / heat pump – any system eligible for RECs

Gas 2.5 star

### Existing homes

•full standard;

Solar / heat pump – zones 3 / 4 small (at least 17 / 16 RECs), medium (at least 27 / 26 RECs), large (at least 38 / 36 RECs)  
Gas 5 star

• reduced standard;

Solar / heat pump – zones 3 / 4 small (at least 17 / 16 RECs), medium (at least 27 / 26 RECs), large (at least 38 / 36 RECs)  
Gas 2.5 star

Electric




hot water free from the sun™

---

# Sector projections



# Some of the influences over last 4 years

---

- Gore
- Stern
- Flannery Australian of the year
- Rudd v Howard – Howard introduces means tested \$1,000 SHW rebate in 2007, REC values 
- Rudd wins
- Australia ratifies Kyoto

# Some of the influences over last 12 months

---

- GFC - stimulus package – SHW rebate increased to \$1,600 (or free insulation) means testing removed
- RET - 20% Renewables by 2020
- REC values 
- Copenhagen
- CPRS blocked in Senate ends Turnbull, enter Abbott
- Garrett insulation debacle – SHW part of same scheme (stimulus package) – SHW rebate reduced to \$1,000
- Renewable energy target broken down into small scale and large scale technologies
- REC values 

# Australia's time in the sun – or is it?

---

- 3<sup>rd</sup> wave SWH growth – behind energy crisis in 70's and green movement in 80's, SWH moving to mainstream
- 50% of consumers WANT to switch to SWH (source Newspoll 2009)
- State and Territory differences
- Complements PV but competes with share of wallet
- 2012 phase out of electric water heaters
- Rebate changes makes investment in this industry difficult
- Expect the unexpected (from Government)