

# Hot Water Market Update

The Solar Victoria Team



[solar.vic.gov.au](http://solar.vic.gov.au)



# Introductions and overview

Empowering Industry and providing Victorians to access clean and affordable hot water



Session overview



Market update & hot water trends



Solar Victoria marketing campaign – *‘Put the sun to work’*



VEU hot water update



Audit and compliance update – Priorities & guidance



Industry Development Update



Q&A



# Solar Victoria – Current offers



## Solar panel rebates

\$1,400 to install solar PV for eligible homeowners, including rental providers and those building homes.

Interest-free loans are also available.

## Hot water rebate

\$1,000 rebate to install solar hot water or an energy-efficient heat pump hot water system.

## Solar battery loan

Interest-free loan of up to \$8,800, repayable over four years, to install a solar battery.

## Solar for apartments

\$2,800 per apartment to install solar PV, up to \$140,000 for buildings of up to 50 apartments.

## Solar for community housing

Solar panel rebates of up to \$1,400 are available for community housing organisations.

## Victorian Energy Upgrades

Helping Victorians reduce their energy bills and greenhouse gas emissions by providing access to discounted energy efficient product and services.



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**In our first 6 years...**

**283,000**

solar systems installed, totalling more than 2GW capacity  
(that's a quarter of the renewable capacity in Victoria!)

**17,000**

solar batteries with 200MWh of battery capacity

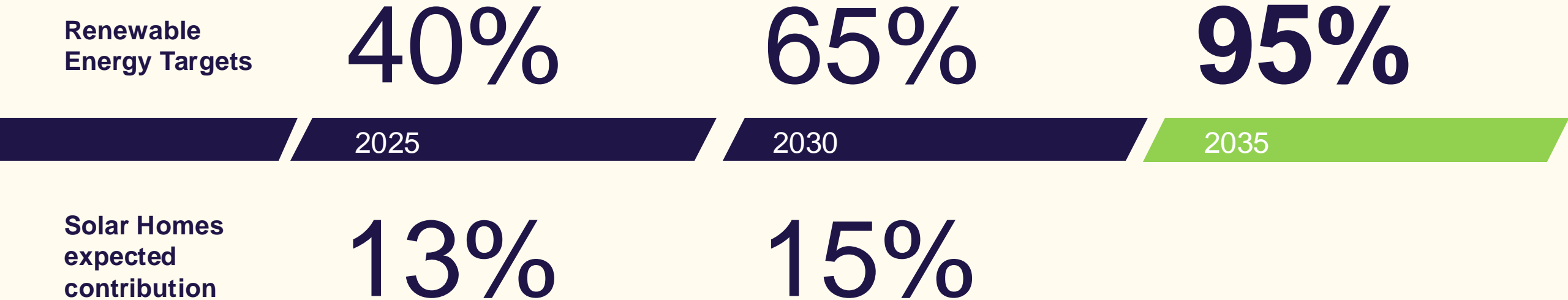
**40,000**

hot water systems installed



# Contributing to Victoria's Renewable Energy Targets

Solar Homes Program has cut Victoria's carbon emissions by more than 3 million tonnes.



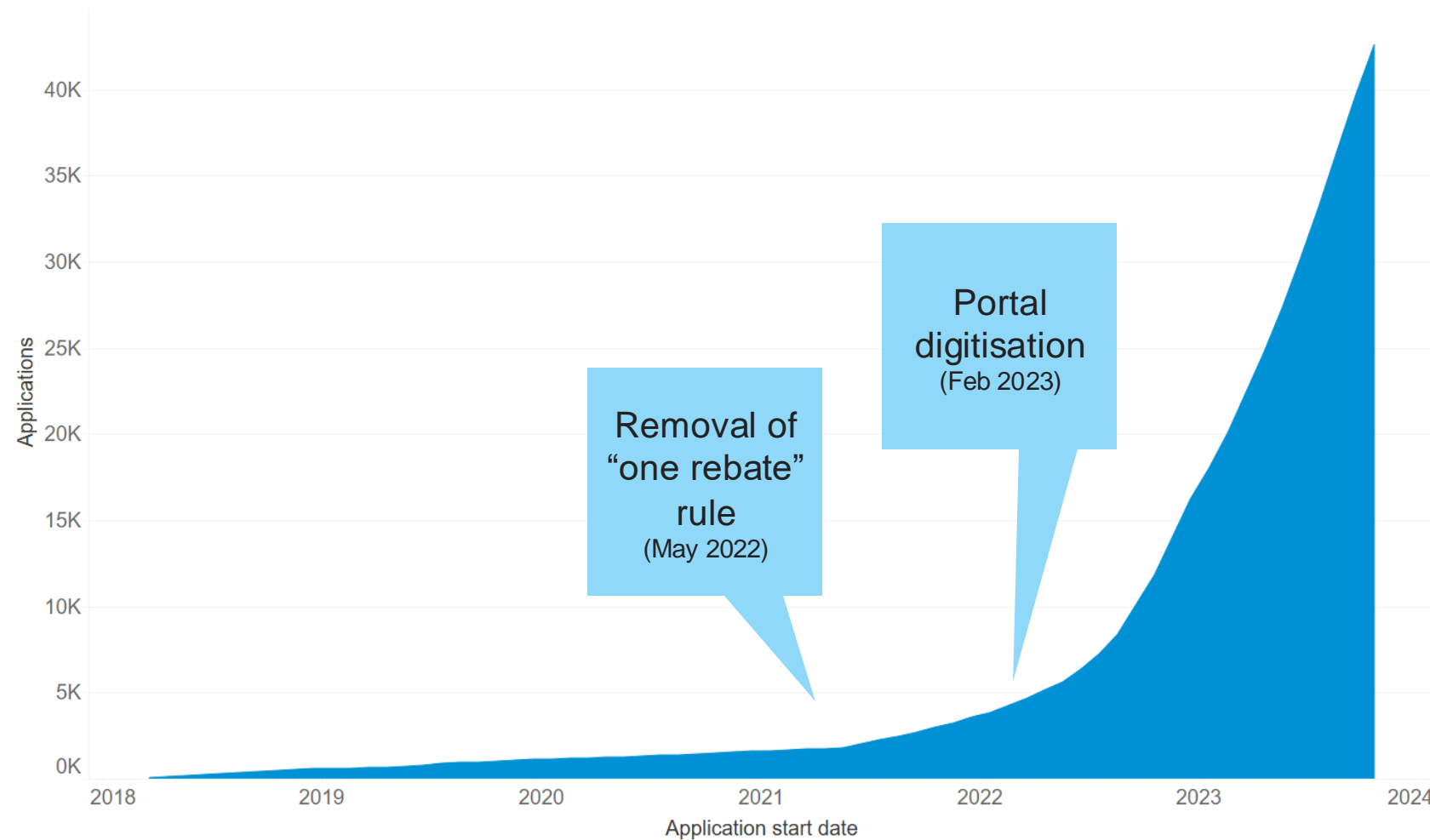
# Market Trends Update – Hot Water

Tim Renowden, Manager,  
Enterprise Insights, Data and Reporting  
Solar Victoria



# Heat pump popularity has taken off in the Solar Homes program

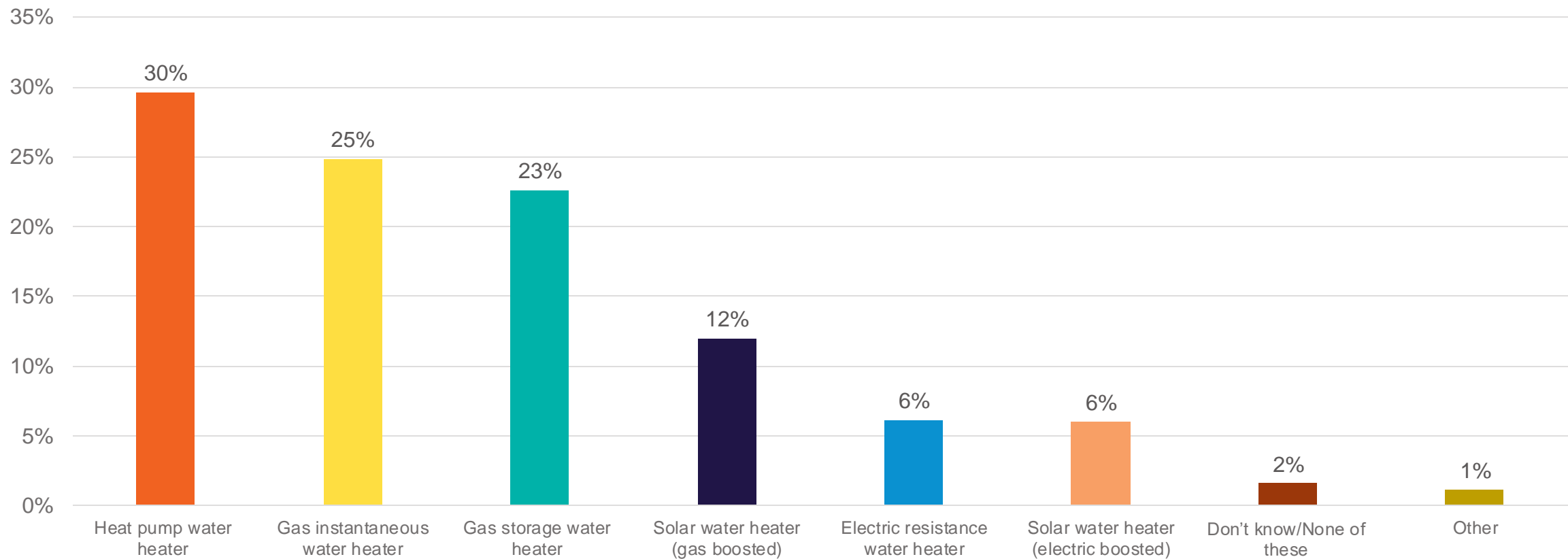
Cumulative hot water applications



- 40,000 hot water systems installed.
- Cost parity with gas systems, and significant savings in running costs.
- Changes to Solar Homes program design to enable multiple rebates.
- Significant shifts in customer, product and retailer mix.
- Exponential growth has now settled into high volume steady-state uptake.
- 99.5% heat pumps since 2023.

# Heat pumps are rapidly becoming a mainstream option for hot water systems

Which of the following types of hot water systems do you have in your home?

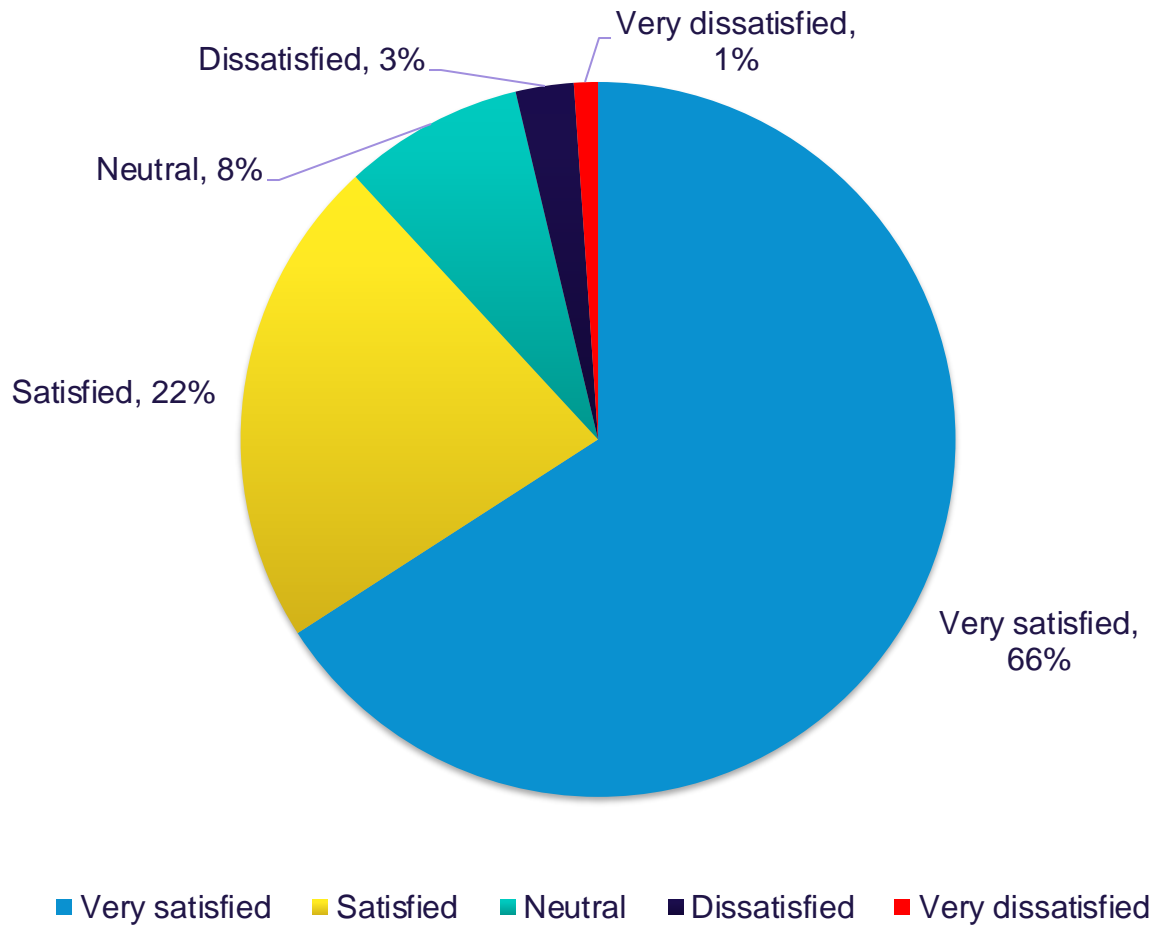


Source: Solar Victoria Home Electrification Survey, Solar Victoria customers, October 2024. n = 13,783



# 88% of heat pump owners are satisfied with their systems

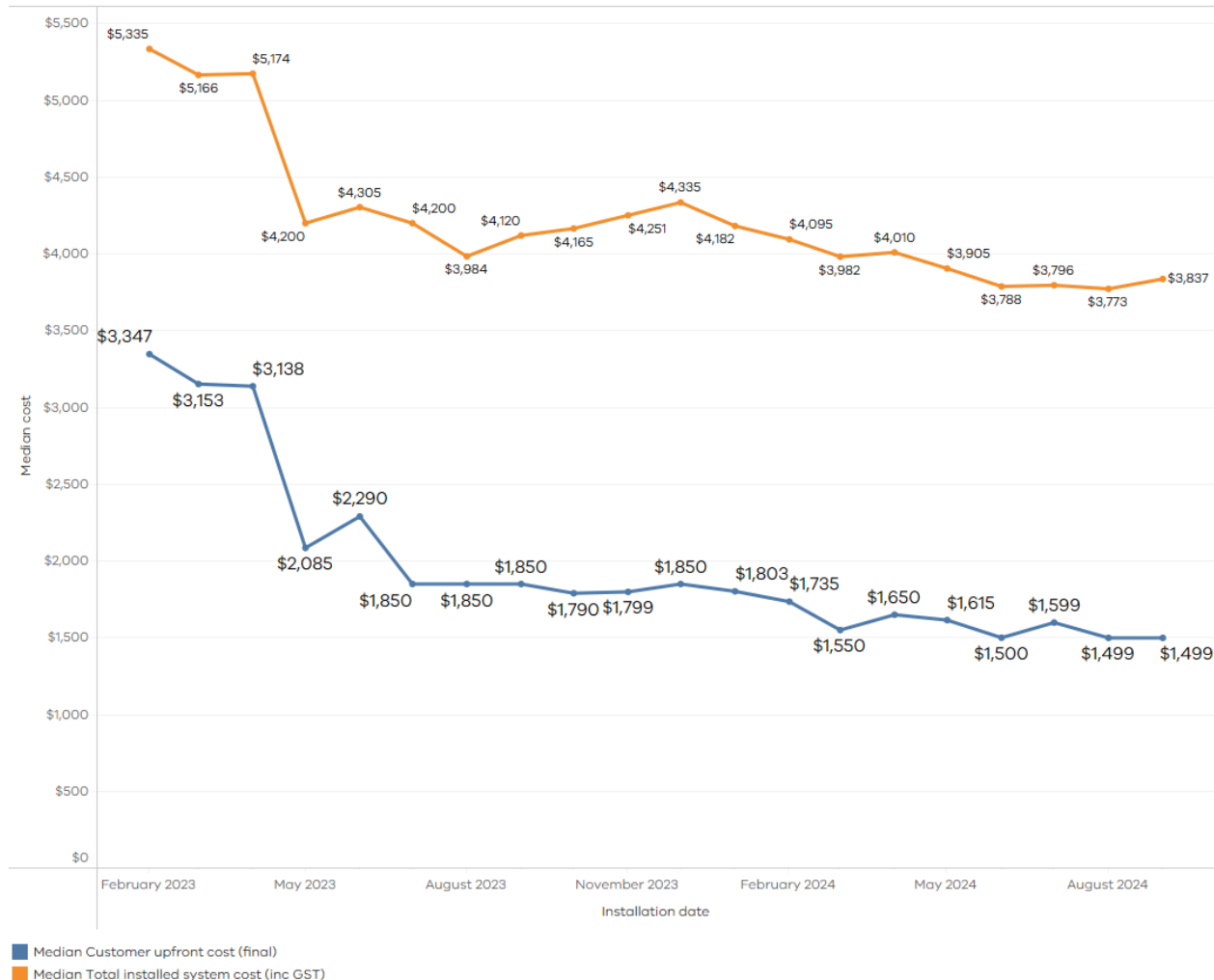
How satisfied are you with your heat pump system?



- 68% have seen lower energy bills
- 61% use energy generated from their solar PV system
- 36% feel better about using hot water
- 26% say their system performs better than their old system

# Average system costs have been gradually declining

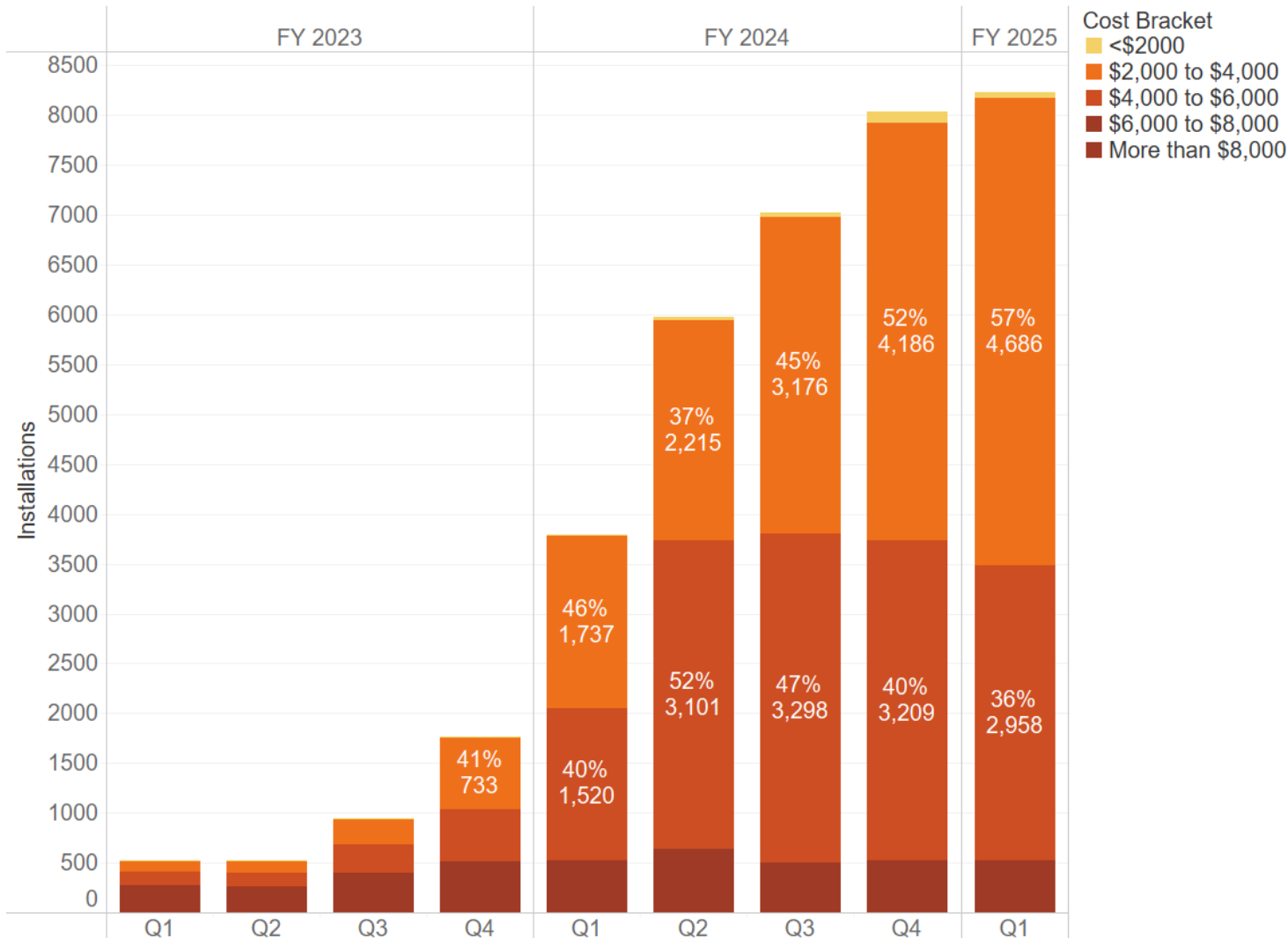
Average system costs over time



- The median heat pump customer is paying approximately \$1,500 upfront, after rebates and VEECs.
- This is driven by a combination of brand share, and pricing for the most popular heat pump brands.
- Downward pricing trend appears to have slowed, along with growth in demand. The program may be reaching an equilibrium after two years of rapid expansion.

# Market share by cost band

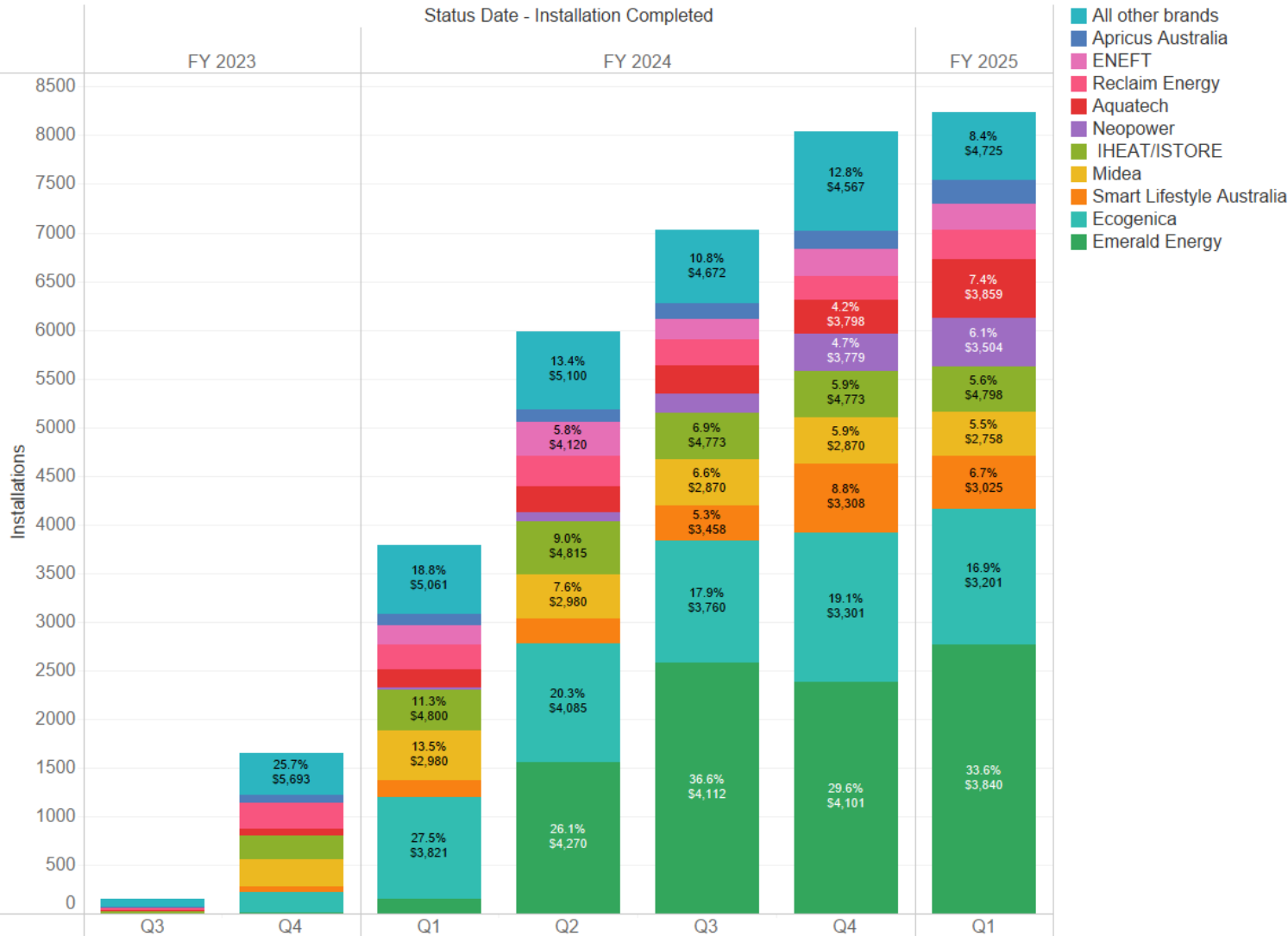
Installations by total installed system cost bracket



- The \$2,000–\$4,000 price range (total installed system cost) is the most popular and continues to gain market share, accounting for 46% in FY24 and 57% in FY25 to date.
- The most popular brands play mainly in the \$2,000 to \$4,000 space.

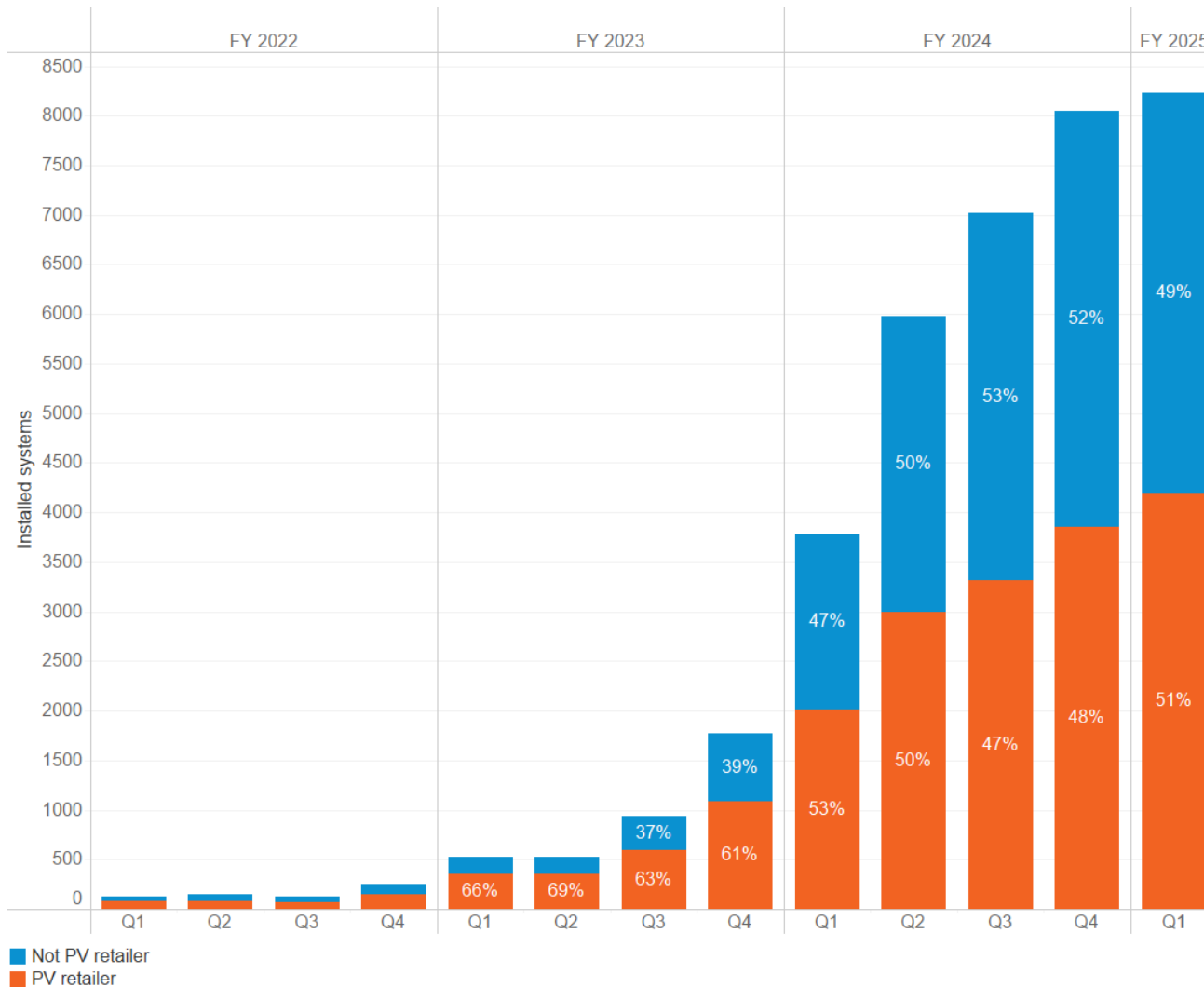
# Market share by top 10 brands

Hot Water installations by brand



- 26 brands had an installation in Q1 FY25.
- The top ten brands counted more than 90% of installations in the program in Q1 FY25.
- The top two brands had 50.5% of installations.
- Emerald Energy entered the program in Q4 of FY23 and has shown rapid growth, becoming the most popular brand, with a market share of:
  - 27% in FY24, and
  - 34% in FY25 to date.

# PV retailers account for half of hot water installations



- The Solar Homes program is a mix of hot water-focused retailers, and those who offer PV and hot water.
- In FY24, 426 retailers recorded a hot water installation, up from 233 in FY23, and 130 in FY22.
- In FY24, 49% of the installs were from hot water retailers who are also PV retailers (50% in FY25)
- In FY24, 44% of hot water customers had also accessed another rebate or loan, predominantly PV (40.7%).
- This creates a strong upsell opportunity for PV retailers and delivers additional bill savings for customers.

# Advertising campaign – Put the sun to work

**In-market:** 1 September 2024 – 30 June 2025

**Objectives:** This campaign promotes the availability of rebates and interest-free loans for installing solar panels, batteries and hot water systems to help more Victorians make the switch to solar.

**Call to action:** Put the sun to work with rebates and assistance from Solar Victoria.

**Target audience:** aligns with program eligibility requirements, based on the following criteria:

- Metro Vic (70%) / Regional Vic (30%), aged 25+
- Homeowners (or own an investment rental property)
- Household income of under \$210,000 per year

**Channels:** Broadcast video-on-demand (9Now, Foxtel, Binge), YouTube, Facebook & Instagram, SEM (Search Engine Marketing), Spotify and Radio.



# Creative examples

solar.vic.gov.au/apply

Put the sun to work

Switch on savings by upgrading to energy-efficient electric appliances powered by the sun.

Join more than 700,000 Victorian homes with solar.

**Solar panels**  
Save with the sun by installing solar panels to power electric appliances in your home. Our customers report average bill savings of \$50 per year with solar panels.

**Solar batteries**  
Add a battery to store power from your solar panels, so you can use the sun's energy when you need it. This could help you save another \$60 per year.

**Hot water systems**  
Tap into savings by upgrading to an energy-efficient hot water system. You could save around \$20 per year by replacing a gas hot water system with a quality heat pump.

Put the sun to work on your hot water

Save up to **\$1,000** when installing an energy-efficient hot water system with rebates from Solar Victoria.

Apply today [solar.vic.gov.au](http://solar.vic.gov.au)

Solar Victoria  
VICTORIA State Government

Eligibility criteria apply. Authorised by the Victorian Government, 1 Treasury Place, Melbourne.

Put the sun to work all night

Switch to solar with rebates and interest-free loans from Solar Victoria. Apply today: [solar.vic.gov.au](http://solar.vic.gov.au)

Solar Victoria  
VICTORIA State Government

Eligibility criteria apply. Authorised by the Victorian Government, 1 Treasury Place, Melbourne.

Save more than **\$1,000** every year on energy bills

Switch to solar with rebates and interest-free loans from Solar Victoria. Apply today: [solar.vic.gov.au](http://solar.vic.gov.au)

Solar Victoria  
VICTORIA State Government

Eligibility criteria apply. Authorised by the Victorian Government, 1 Treasury Place, Melbourne.

Put the sun to work

Campaign Stakeholder Pack

Solar Victoria  
VICTORIA State Government

September 2024

Solar Victoria Campaign Stakeholder Pack

Social assets

**Post copy #1:**  
Switch to solar with rebates and interest-free loans from @solarvic.gov.au, and save on the cost of heating, cooling and powering appliances in your home every single day. Put the sun to work. Learn more: [www.solar.vic.gov.au/apply](http://www.solar.vic.gov.au/apply)

**Post copy #2:**  
Save on energy bills by powering your appliances with clean energy from the sun! Join more than 700,000 Victorian homes who have made the switch to solar. Put the sun to work with rebates and assistance from @SolarVictoriaAU. [www.solar.vic.gov.au/apply](http://www.solar.vic.gov.au/apply)

Download social tiles

Download your free guide to a solar-powered, all-electric home

DOWNLOAD

Put the sun to work

Put the sun to work on your power bill

Claim your solar rebate [solar.vic.gov.au](http://solar.vic.gov.au)

Solar Victoria  
VICTORIA State Government

Eligibility criteria apply. Authorised by the Victorian Government, 1 Treasury Place, Melbourne.

# Victorian Energy Upgrades (VEU)

Water Heating Activities Updated



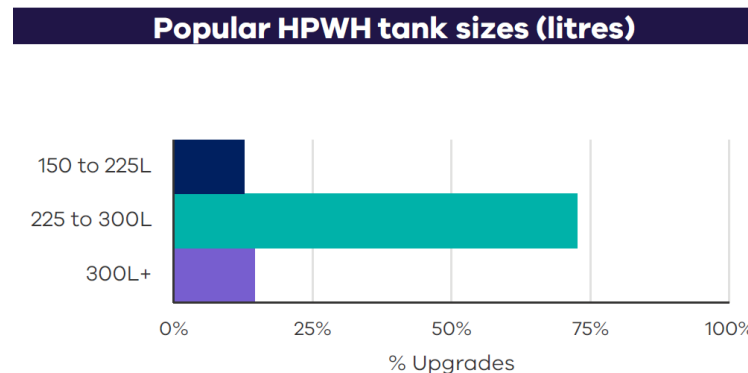
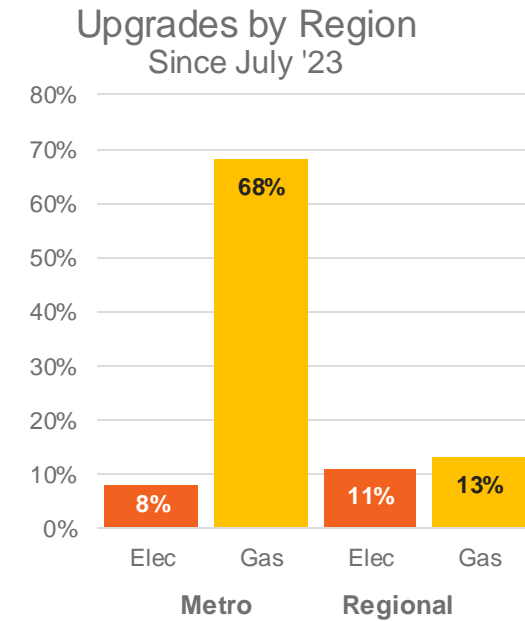
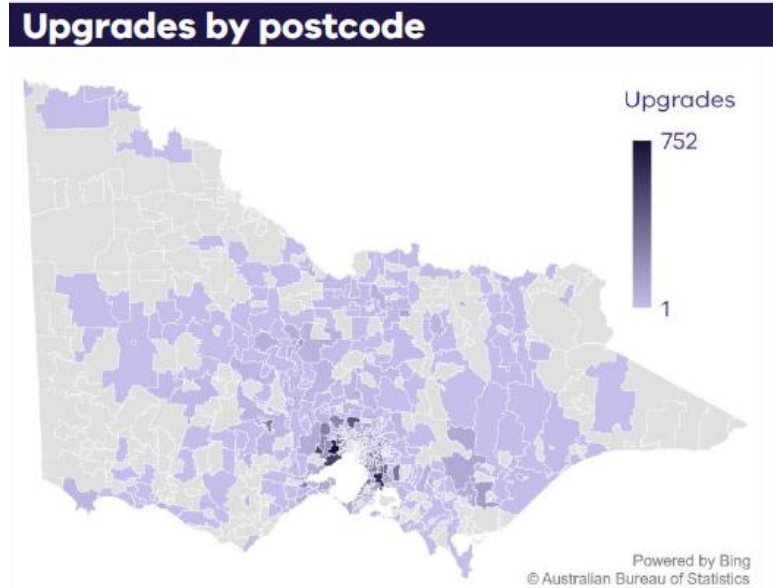
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# Water Heating activities in the VEU – at a glance

- VEU has incentivised the installation of over 110,000 heat pump water heaters (HPWH). Over 95,000 of these are residential HPWH.
- Over 26,000 residential gas water heaters replaced with HPWH since July 2023.
- 60 per cent of upgrades have been in regional areas. This is now changing as upgrades from gas become more popular.
- 92 per cent of installations within recommended sizing guidance.



RECOMMENDED TANK SIZE FOR HOT WATER SYSTEMS	
Number of bedrooms	Recommended tank size
1-2	150-225 litres
3	225-300 litres
4 or more	More than 300 litres

# Recent changes to water heating in VEU

## Refrigerant threshold

Since 1 July 2024, only products with a global warming potential (GWP) below 700 are eligible for incentives under the VEU program.

This resulted in a significant change to the product register (Solar Homes rebates have mirrored this requirement).

## Upgrades from non-functional solar water heaters

From 1 August 2024, consumers can upgrade a solar water heater to an efficient electric water heater, provided the existing unit was more than 5-years old and was non-functional (i.e. operating as a conventional water heater).

## HPWH products

- 137 models
- 34 brands
- All using low GWP refrigerant
- All but one product achieve the minimum 60% savings required to be installed in cold climates (climate zone 5)



# Proposed upcoming changes to water heating in VEU

In April this year, the department released a co-payments and warranties consultation paper on Engage Victoria.

The consultation paper proposed the following changes to come into effect from **1 February 2025**:

- Minimum co-payments of \$200 including GST for all water heating upgrades. Excludes C&I activity upgrades >700L.
- Minimum product and installation warranty requirements of 5-years for HPWH. Excludes C&I activity upgrades >700L.

The department's response to consultation will be published late 2024.

The department has committed to reviews of the VEU program water and space heating activities in 2025. These reviews will consider:

- recommendations made in the EEC HPWH Roadmap
- alignment with the Solar Homes Program
- changes that can be made to encourage uptake of quality HPWH and electrify Victorian households and businesses.



# Solar Homes Program

Audit and compliance update



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# Solar Victoria audit and compliance update

Pre 2022 compliance rate:

**81.4%**

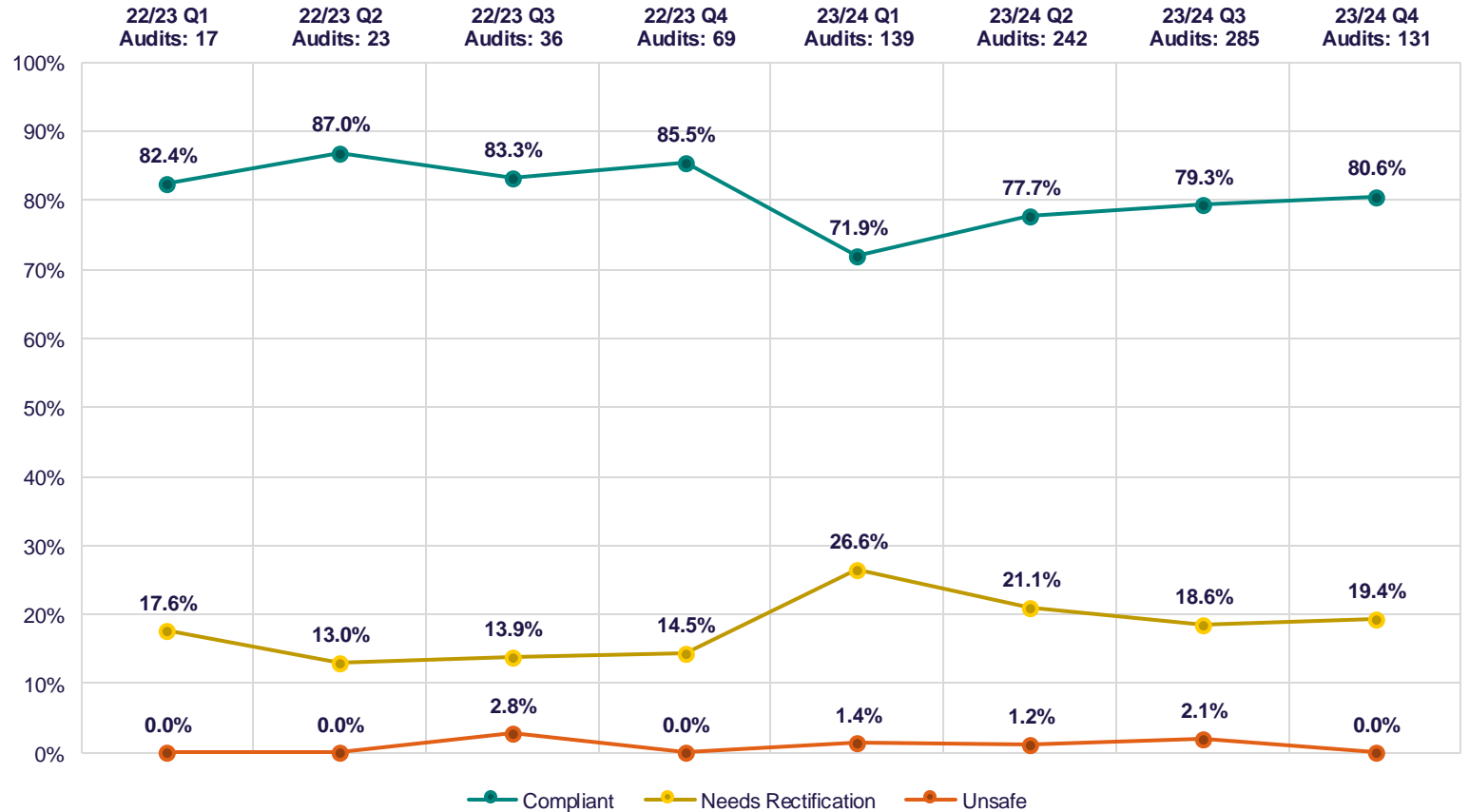
Q4 2023-24 compliance rate:

**80.6%**

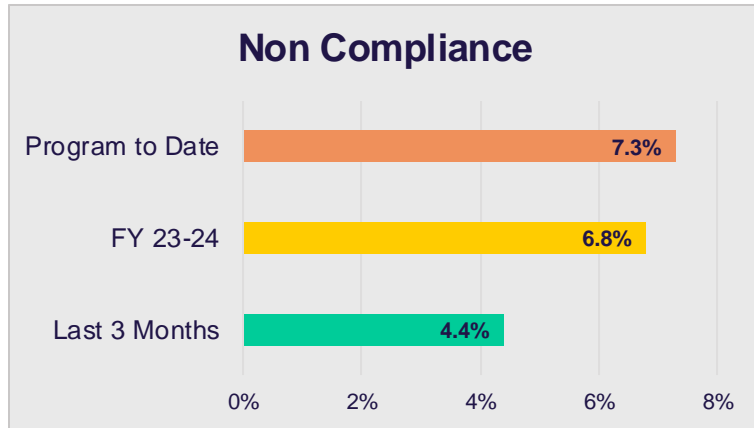
**2023/24:**

- 11 unsafe
- Key areas of non-compliance:
  - Thermal insulation
  - TPR valve drainage
  - Switchboards and wiring

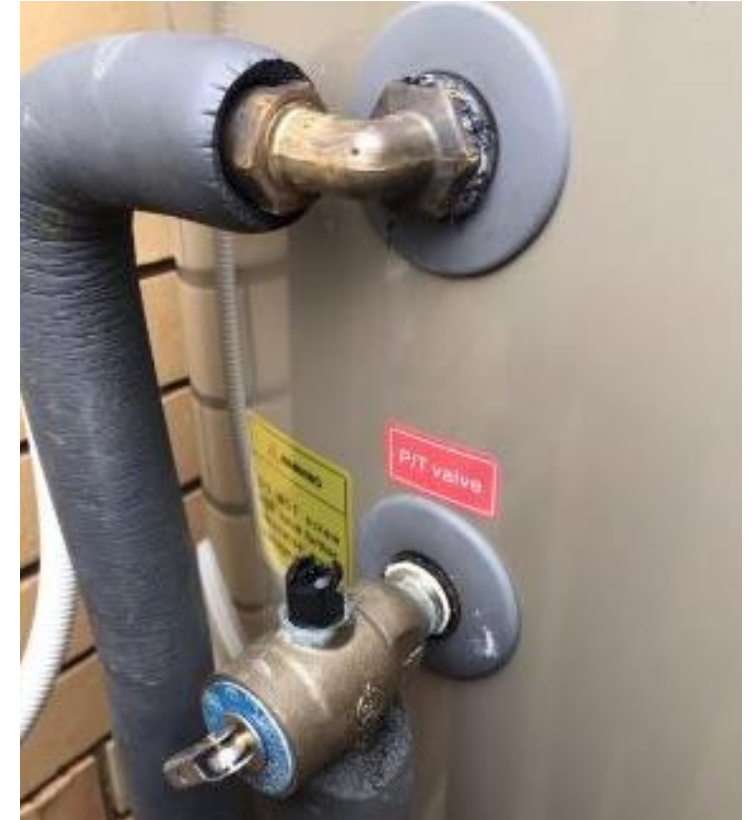
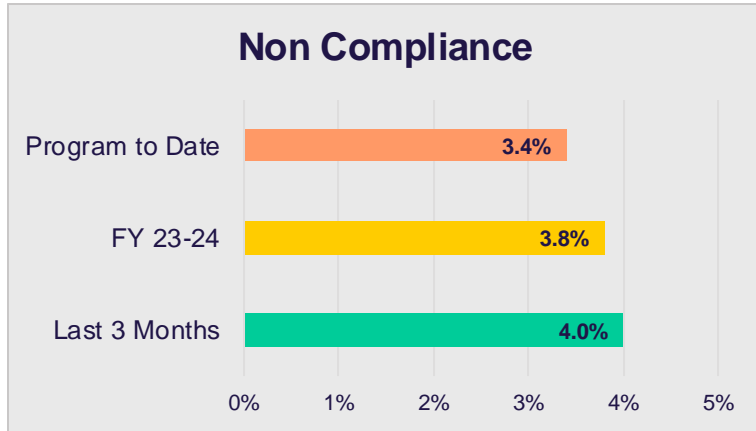
Compliance trend since 2022 - 24



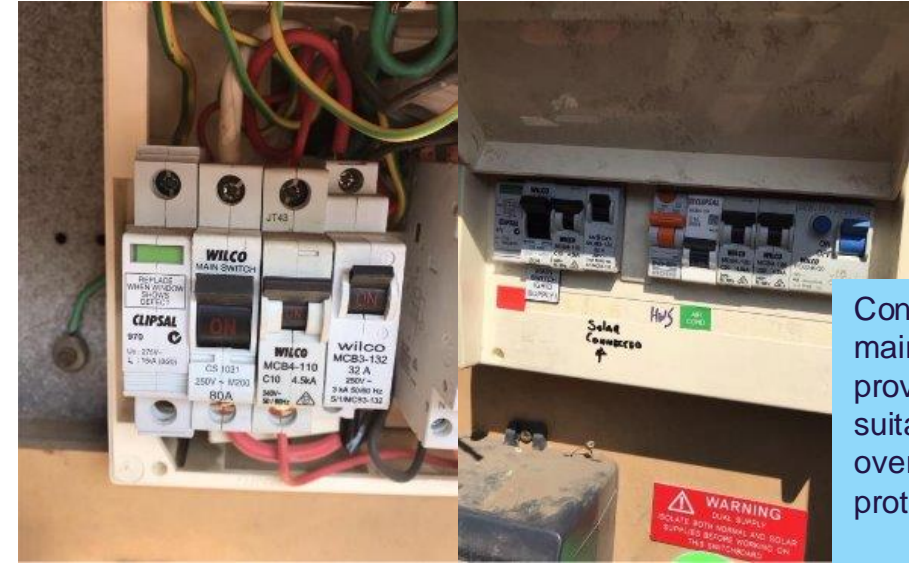
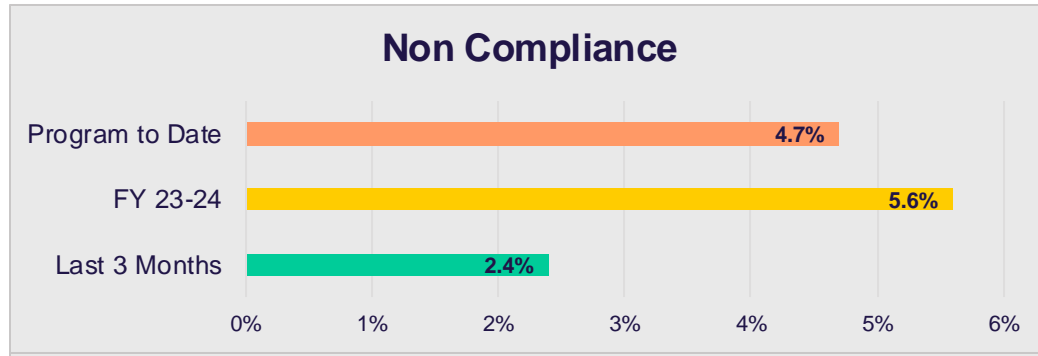
# TPR Valve Drainage



# Thermal Insulation



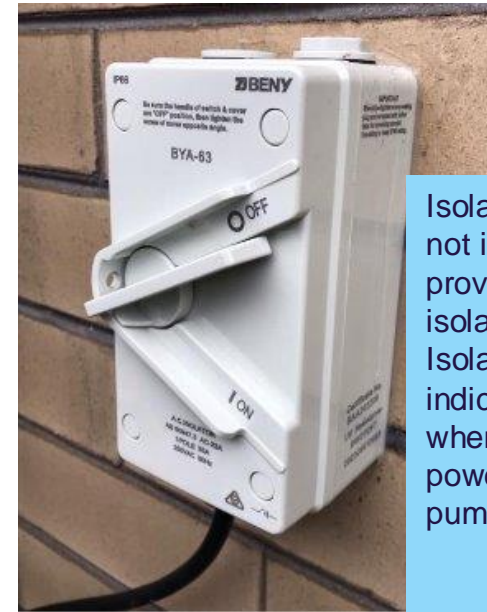
# Switchboards & Wiring



Consumer mains not provided with suitable overload protection



Socket outlet installed for purpose of heat pump supply not protected by an RCD.



Isolation device not installed to provide adequate isolation. Isolation device indicating off when supplying power to heat pump system



# Industry Development Update



[solar.vic.gov.au](http://solar.vic.gov.au)



# Heat Pump Hot Water Roadmap

- Building consumer confidence through:
  - MEPS and GEMS for HPHWS
  - Revision to Australian Standards
  - Enhance consumer protections
- Ensuring quality of the Australian HPHWS industry
- Unlocking a trusted and highly skilled workforce
- Empowering Australians to access the benefits of HPHWS
- Creating a sustainable industry



## HEAT PUMP HOT WATER SYSTEMS IN AUSTRALIA

Building quality,  
confidence,  
and the market

# Solar Victoria is supporting the hot water industry through training and guidance

Solar Victoria provides solar industry guidance, training and mentoring to help keep workers and customers safe and put industry leading standards into practice.

## Audit checklists and guidance

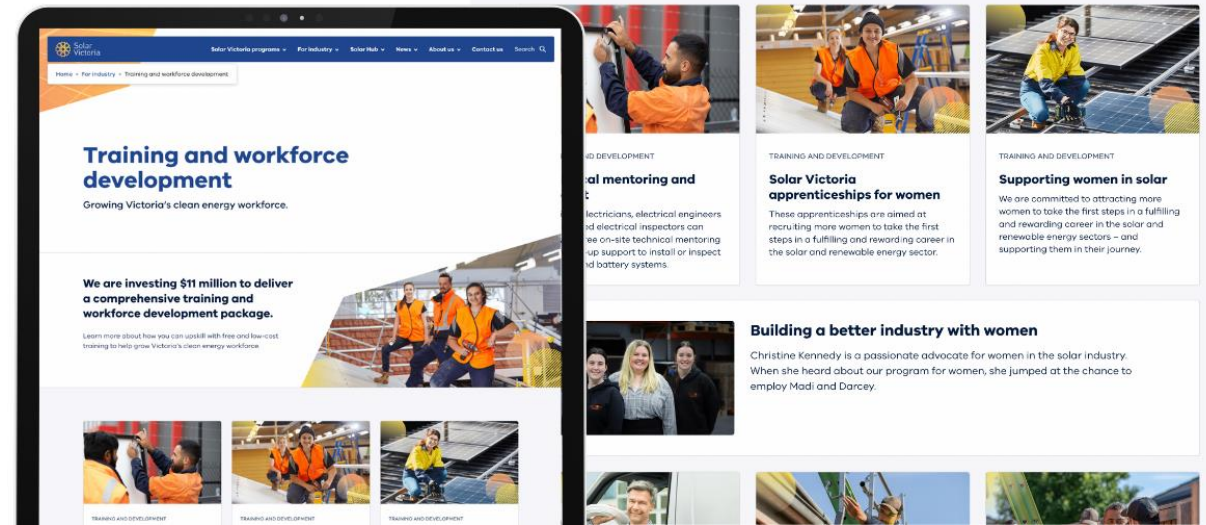
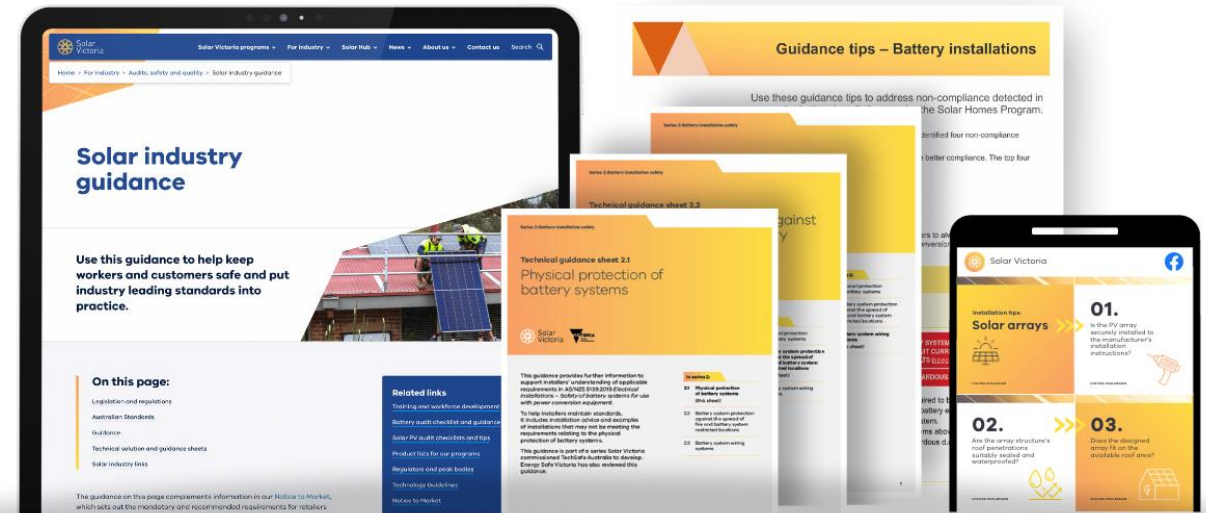
- Solar PV audit checklist and guidance
- Battery audit checklist and guidance
- Hot water audit checklist and guidance

## Technical solution and guidance sheets

- Series 1: Working safely at height
- Series 2: Battery installation safety
- Series 3: Solar PV installation safety
- Series 4: Hot water installation safety
- Series 5: Electrical safety (in development)

## Training and workforce development

- Technical mentoring and support
- Solar Victoria apprenticeships for women
- Supporting women in solar
- Upskilling for plumbers
- Work safely in the solar industry
- Solar energy and construction industry training



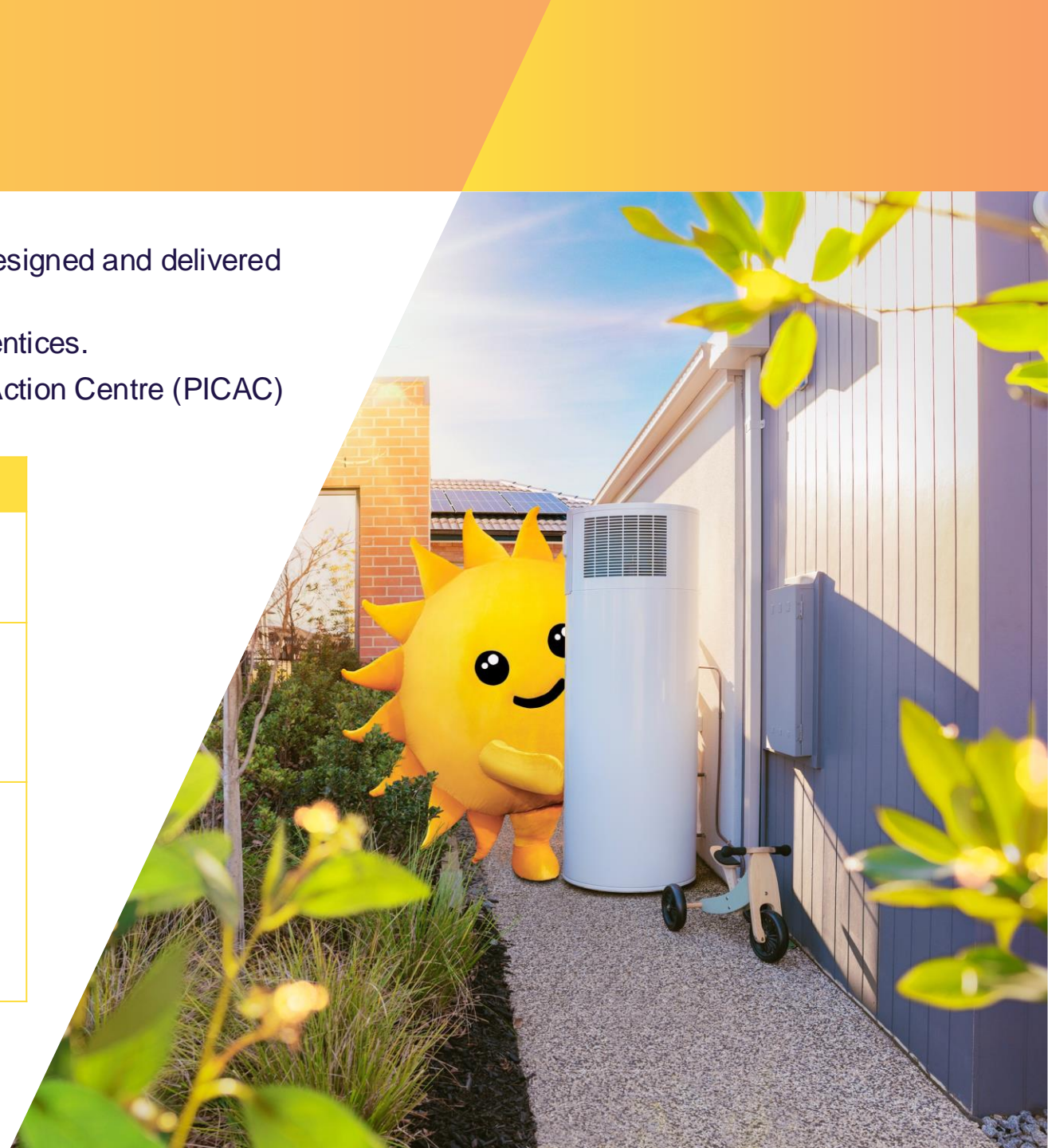
# Hot water heat pump training

Solar Victoria is supporting the hot water industry through industry designed and delivered hot water heat pump training.

- Free heat pump training available for plumbers and 4<sup>th</sup> year apprentices.
- Various training options available via Plumbing Industry Climate Action Centre (PICAC)

Mode	Content	Dates
Online, self-paced	Topics include: <ul style="list-style-type: none"><li>• How Does a Heat Pump Work</li><li>• Types of Heat Pumps</li><li>• Components and Functionality</li></ul>	Enrol any time and complete at your own pace (2-3 hours)
In-person theory and practical (metro and regional locations)	<ul style="list-style-type: none"><li>• Factors That Can Affect Performance</li><li>• Getting the Best Performance from the Heat Pump</li><li>• Energy Efficiency in Heat Pumps</li><li>• Sizing and Capacity</li></ul>	Dates available now (4-5 hours)
Webinars	Topics include: <ul style="list-style-type: none"><li>• Correct decommissioning of gas</li><li>• Heat pump installation issues including unsafe, non-compliant or poor-quality installs</li><li>• Other new and emerging energy efficient hot water technologies.</li></ul>	Dates coming soon. See our website for updates.

For more information visit: [solar.vic.gov.au/upskilling-plumbers](https://solar.vic.gov.au/upskilling-plumbers)



# Notice to Market

## Mandatory Requirements:

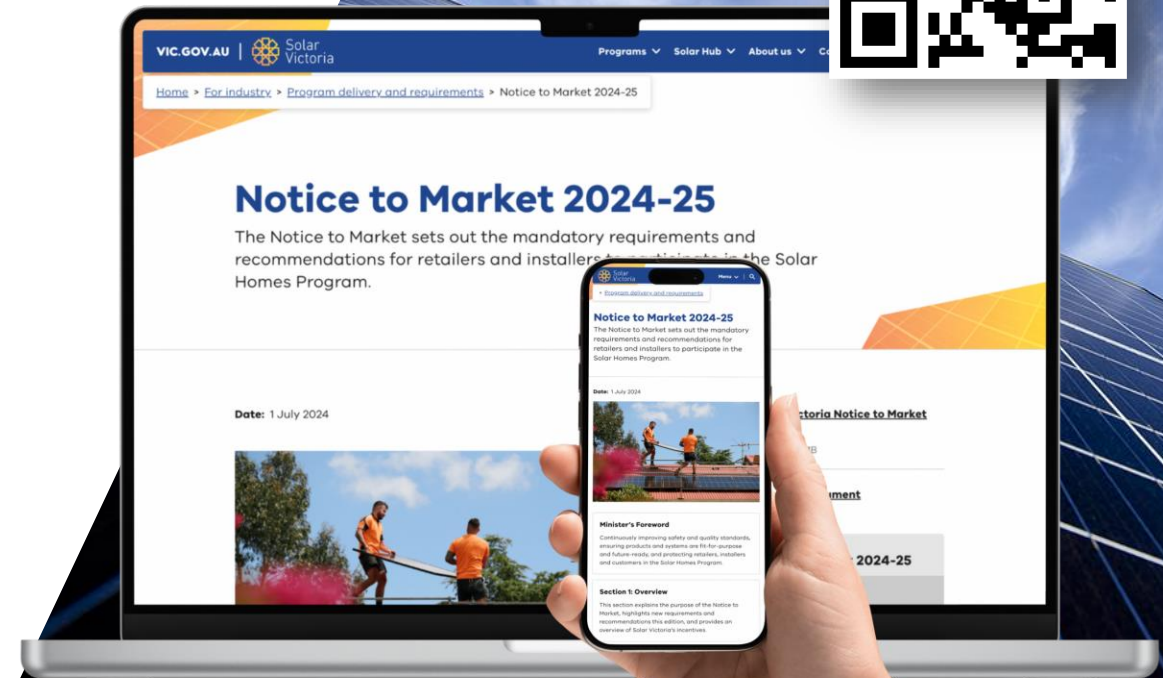
- \*NEW\* Telemarketing and door-to-door sales ban
- \*NEW\* End-user configurable timer for heat pump hot water systems
- \*NEW\* Heat pumps restricted to products containing low GWP refrigerants
- \*NEW\* Hold the appropriate Australian Refrigeration Council license
- \*UPDATE\* VBA plumbing accreditation for split systems
- \*UPDATE\* Installation in accordance with AS/NZS 5149 and OEM's specifications

## Recommendations:

- \*NEW\* Completion of Australian Refrigeration Council training accreditation
- \*NEW\* Electrical installation requirements for hot water heat pumps
- \*NEW\* Access to hot water during a power outage

## Emerging policy considerations:

- Inverter-driven variable capacity compressors, MEPS
- User-controls, integration, orchestration, big data
- Increasing use of R-290 => advanced refrigerants
- 'Whole-of-system' approach to design, flexible demand, hot water as a service
- Design & manufacture, product safety, warranties
- Circular economy, stewardship



**Thank you**



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