

Electrify Everything



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Electrify Everything

Putting communities at the heart of climate solutions



Introduction



Electric cargo bike sales booming in northern Illawarra

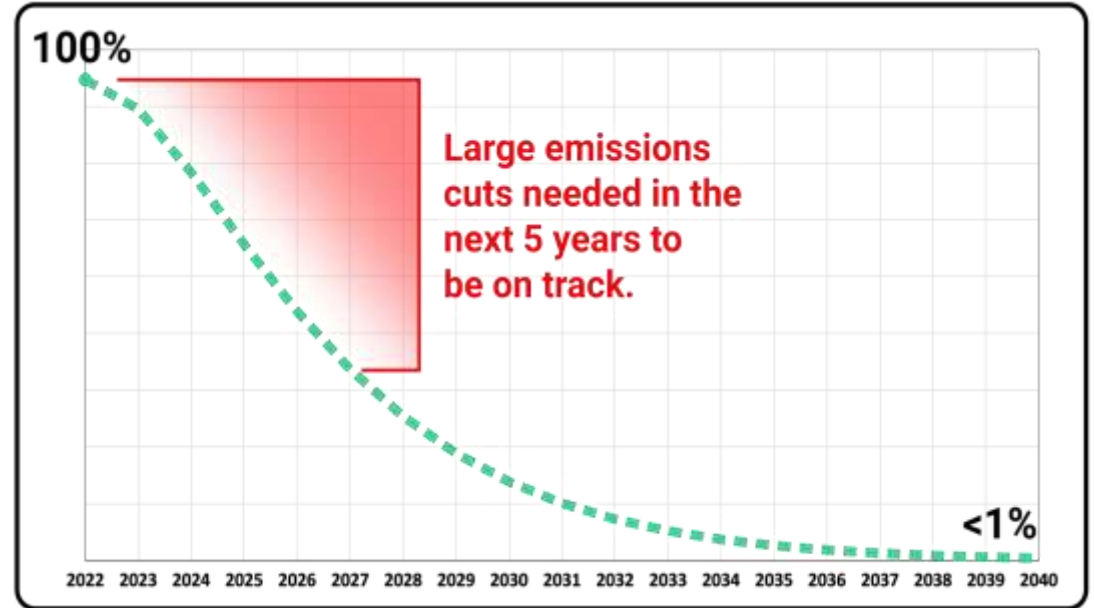
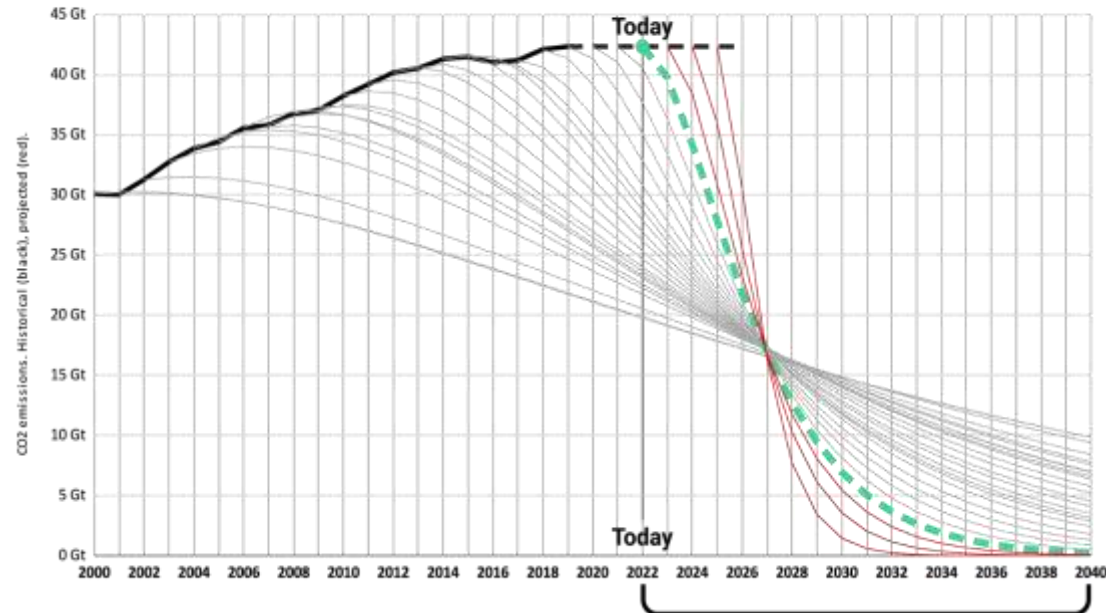
By Angela Thompson
Updated January 18 2023 - 12:40pm, first published January 17 2023 - 4:06pm



Climate action starts with proven solutions

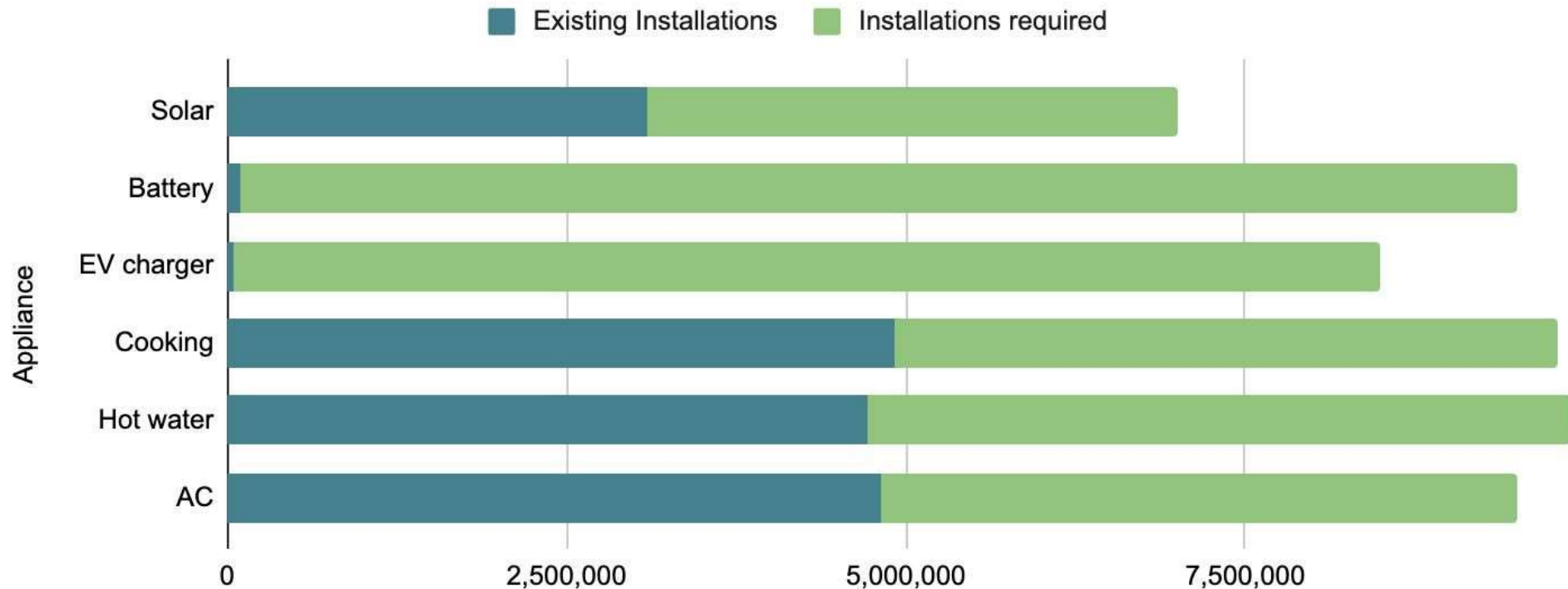
Pathways to lower emissions to stay below 1.5°C of warming.

For >66% chance at staying below 1.5°C. Based on remaining budget 420 Gt. Source: Robbie Andrew, GCP, IPCC SR1.5, Raupack et al. 2014.



The low hanging fruit is an opportunity

36 million electrification appliances to install



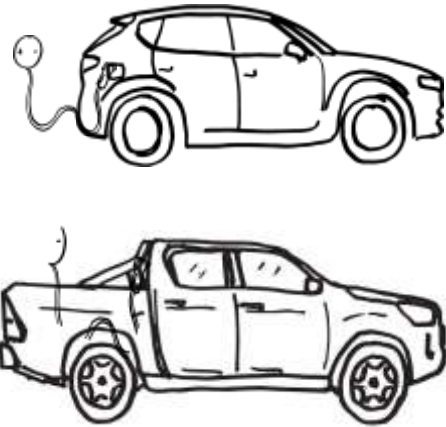
4 million solar installs + 10 million 10kW battery
= 5Gw additional (mostly firm) capacity (15% of ISP requirements)

Opportunity for communities

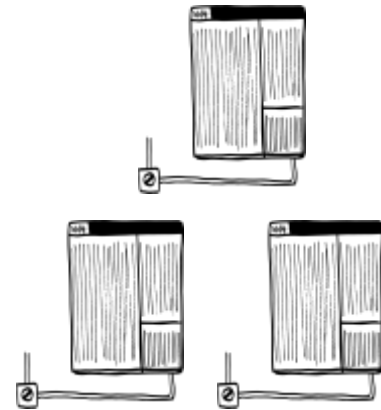
Electrified communities = resilient, secure and connected communities



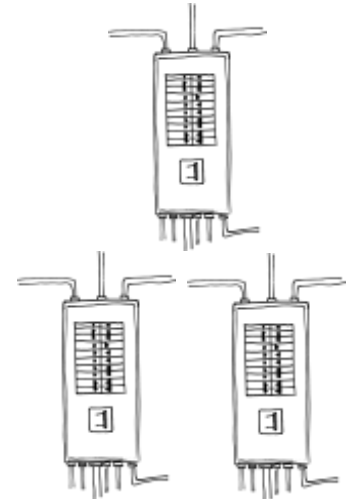
Rooftop solar provides lowest cost, high resilience energy less vulnerable to natural disasters.



1.8 electric vehicles in every driveway will give homes a weefi of emergency bacfiup power.



Home and community batteries create safe powered community spaces in emergencies.



Smart, demand responsive grid and home coordination enables preparation and response.

Opportunity for households

The bill savings well over \$1000 per household per year (up to \$5k including your car)

And it's not just Rewiring Australia that thinks this.

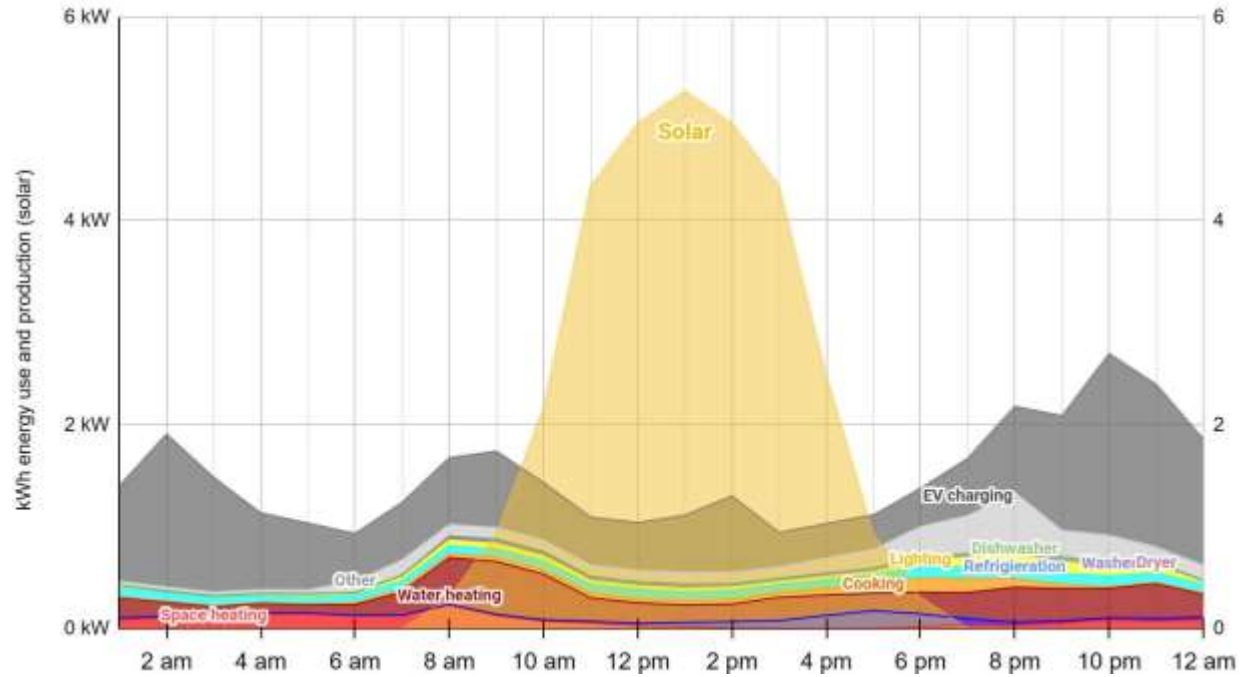
The savings vary significantly across individual households, climates and states, but the average savings on offer are large:

- **Energy Consumers Australia and CSIRO**, [Stepping Up: A smoother pathway to decarbonising homes](#): in 2030, **\$1250** savings from solar+battery, **\$1440** from EV ownership (including solar savings and cost of finance), **\$290** from home gas electrification
- **Climeworks** [Climate-ready homes: Building the case for a renovation wave in Australia - Climeworks Centre](#): in 2023, up to **\$1845** (for house) from thermal efficiency and electrification savings without solar, plus up to **\$1642** (for house) savings from solar
- **ACIL Allen for ACT** [Household energy choices in the ACT Modelling and analysis](#): Average **\$450** per year in savings (range from **\$950 to \$10pa**) from electrification of appliances and using solar across 12 scenarios analysed, not using ideal appliances
- **Victorian Govt** [Embracing electricity to cut your bills at home](#) : **\$1405** savings from going to electric appliances plus **\$385** extra if using solar energy
- **Grattan** [Getting off gas: why, how, and who should pay?](#): per state variation; appliance savings (no solar): **\$1200** savings pa in Melbourne; **\$400ish** in Sydney/Brisbane; outlier is -\$17 pa in Perth due to low gas prices.
- **Climate Council** [SWITCH AND SAVE: HOW GAS IS COSTING HOUSEHOLDS](#): per state variation: up to \$1899 in Hobart, more clustered around **\$1000** per year, no solar. Solar adds up to **\$800** savings.

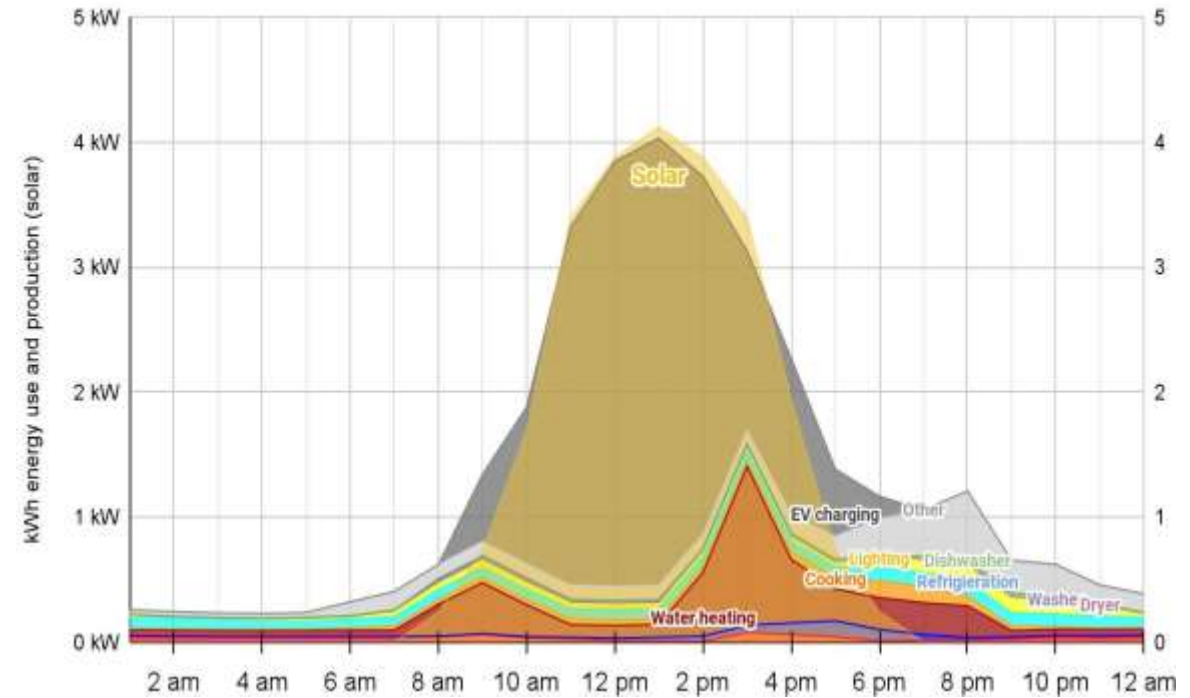
But we need to be smarter

Australia - average electrified home under standard behaviour

Rewiring Australia home energy use model, Rewiring America time of use data.



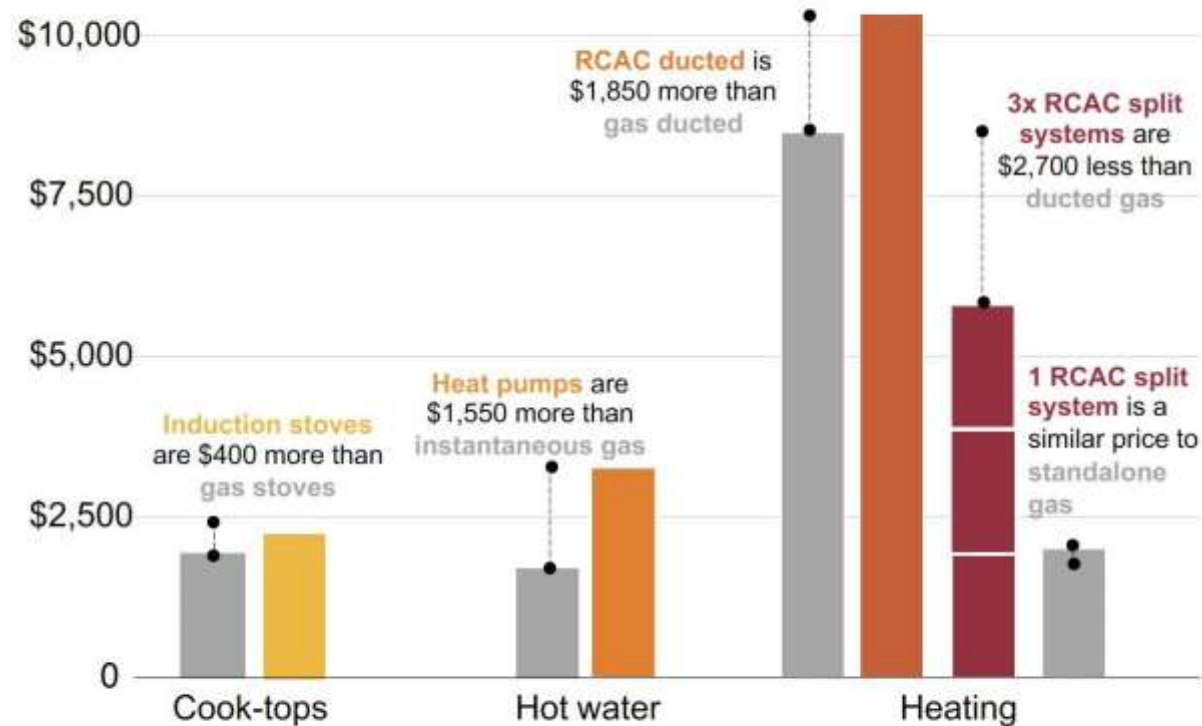
Average electric home under ideal behaviour



And we need it to be affordable for everyone

Figure 3.1: Efficient electric appliances cost more to buy than gas appliances

Cost including installation



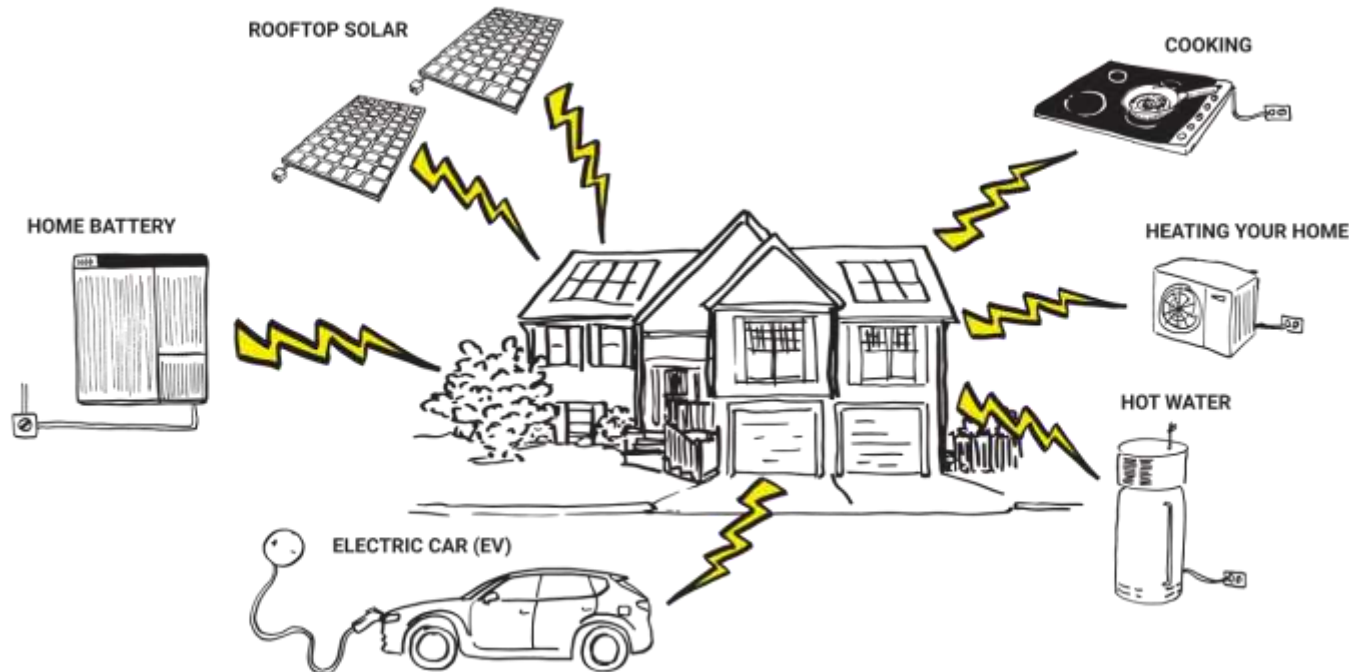
Note: RCAC is a reverse-cycle air-conditioner.

Sources: Grattan analysis of retail data, ACIL Allen (2020).

At the moment, the higher upfront costs of electrification equipment and the one-off costs of retrofit mean that only well-off homeowners are likely to invest in the longer term savings.

The challenge

How do we make retrofitting and electrifying households & community buildings faster, cheaper & fairer?



Electrify Everything Approach

Top down

Call for the big changes needed to do electrification efficiently, equitably and rapidly

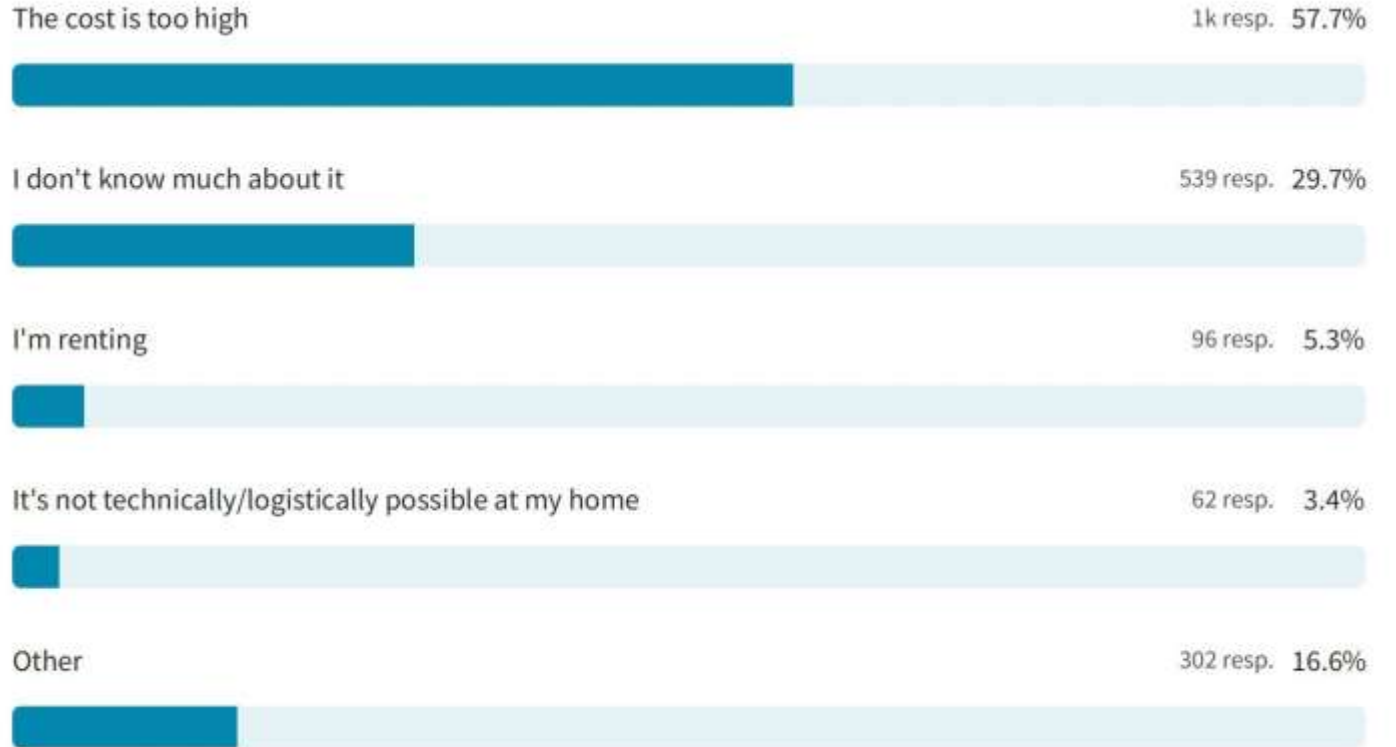


Bottom Up

Raise awareness of the benefits, show that people want it, support them to do it now, empower them to ask for more

Barriers to Electrification

1. **Upfront cost**
2. **Lack of knowledge/trust**
3. Current machine doesn't need replacing
4. Renter
5. Strata
6. Time



Goal: Australians want to electrify

Goal: Australians can easily electrify

What does it look like?

Discovery

- People follow electrification groups/campaigns
- Downloading/using guides, calculator & materials
- Attending talks/workshops
- Media reports on case studies

Demonstrate

- Barriers & solutions identified
- Increase in installation of solar, appliances, EVs
- Increase in rebates used
- Participating in projects

Advocate

- Sharing info, talking to networks with asks
- Signing letters/MPs
- Joining groups
- Meeting MPs
- Attending rallies/public actions

Education

To raise awareness of electrification & become primary trusted source

Implementation

To encourage, support and/or coordinate installations

Activation

To build influence + political pressure



Brand Awareness	Education	Early Engagement	Mid Engagement	Deep engagement	Advanced engagement
Local Media	Website pages	Survey	Open Days	Bulk Buys	Pilot projects
Letterbox Drop	Guides	Stalls at markets/festivals/shopping centres	House tours	Business partnerships	Community energy projects eg. batteries, solar arrays
Flyering	Interviews/videos	Workshops	Demonstrations eg induction cooking	Personalised advice services	Alternative financing models
Social media ads	Using energy smartly	Online or targeted talks eg. schools, church groups	EV test drives	Council partnerships	Alliance building
Networking events			Kitchen table convos	Train the trainer	

Examples

- EV Open Days
- Zero Emissions Noosa
- Solar Ambassador Training
- Solar Alliance
- Induction cooking demo's
- Jewish Climate Alliance
- Local Media Articles
- Electrify Wagga Wagga
- VPP with local Council
- Sustainable Bayswater
- Advocating for Pilots
- Electrify Canberra



Overcoming Barriers

2. Lack of knowledge/confidence

- Be that trusted source of information (don't need to wait for one stop shops)
- Help streamline decision-making
- Clear resources relevant with local information
- Connect with vetted local tradies/suppliers/local council

1. Upfront cost

- Communicate the running costs
- Plan for replacement
- Info on subsidies/rebates
- Bulk discounts
- Coordinated installs to reduce soft costs
- Advocate for solutions



Activation - Become Political Advocates

Federal + State

1. Concessional Finance - Every household has access to no/low-cost capital (eg. via government-secured loans)
2. Renter Inclusions - Mandatory disclosures + minimum efficiency standards
3. Regulatory Reform - Consumer-focused NEM reform, Community Energy Zones
4. Plan for gas network



\$675

Energy bill estimate: \$4 / week ⓘ

1 Smith St, SUNNYTOWN NSW 2000

🚗 2 🏠 1 🚗 - • House



\$930

Energy bill estimate: \$52 / week ⓘ

3 Smith St, DRAUGHTSVILLE NSW 2001

🚗 3 🏠 2 🚗 1 • House



\$950 pw

Energy bill estimate: \$17 / week ⓘ

3/5 Smith St, WARMVALE NSW 2002

🚗 3 🏠 3 🚗 2 🏠 780m²



Electrify Council to Community

Council

- Energy efficient, electric buildings
- Use of assets/land for solar infrastructure
- EV chargers for daytime parking
- DCPs to mandate EVCI, de-gas, future electric conversions
- Electric council cars, & equipment
- Discourage new gas pipelines & infrastructure in greenfield dev sites



Community

- Education campaigns (load mgmt)
- Work with installers eg plumbers
- Bulk buys of smart machines
- Bring down soft costs through rollout programs
- Environmental levies to assist renters/landlords, low income
- Coordinate with other councils

Let's Build a National Electrification Movement!

Education

To raise awareness of electrification & become primary trusted source

Implementation

To encourage, support and/or coordinate installations

Activation

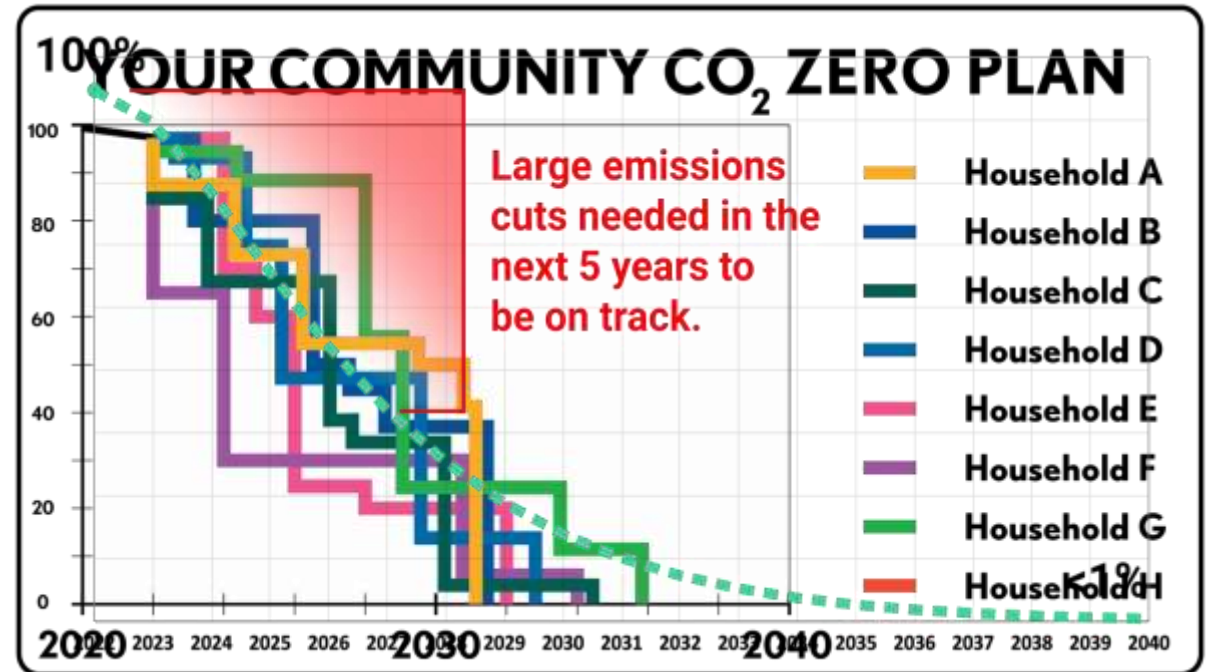
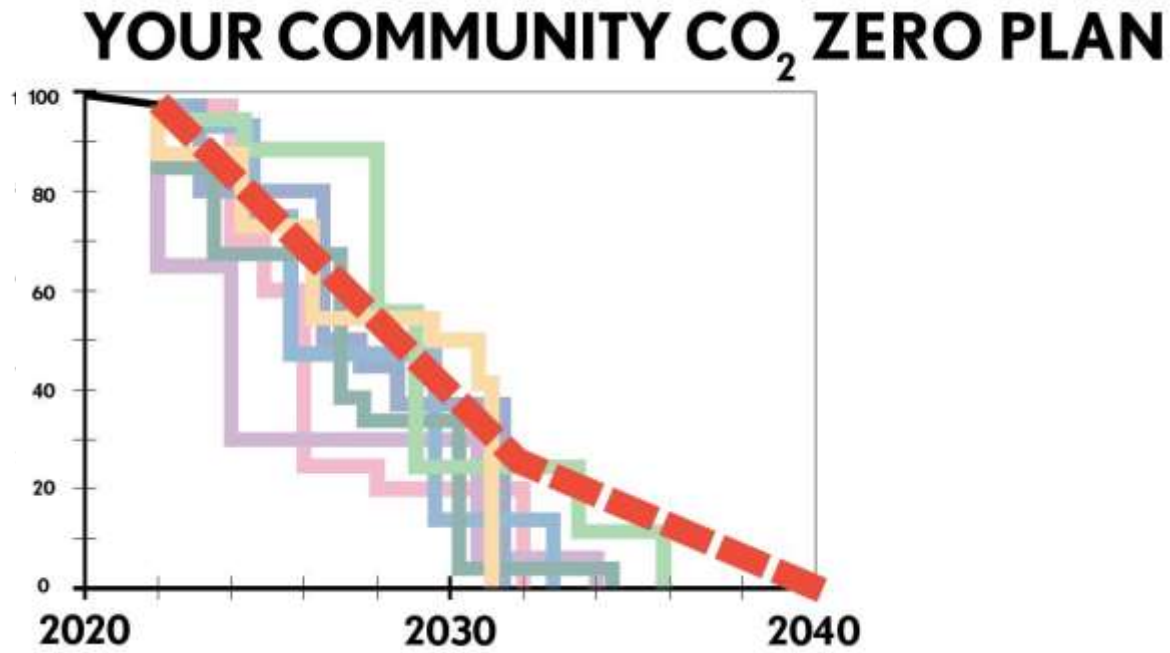
To build influence + political pressure

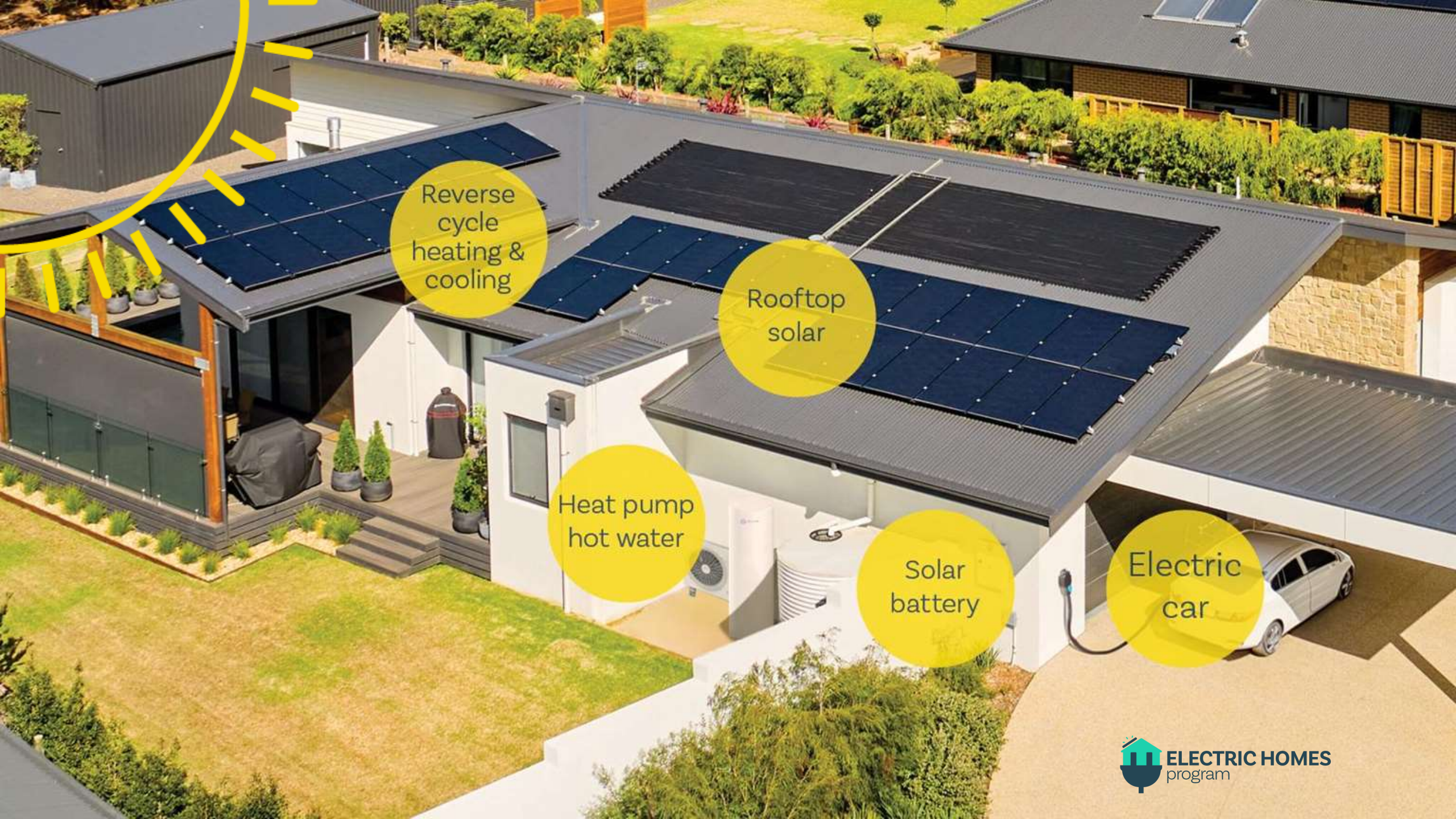
- Collaborate - Share resources & learnings
- Utilise existing networks eg. C4CE, BZE, Rewiring Aus, MEEH
- Coordinated advocacy asks

Thank you

kristen@rewiringaustralia.org

Individuals Acting Collectively





Reverse cycle heating & cooling

Rooftop solar

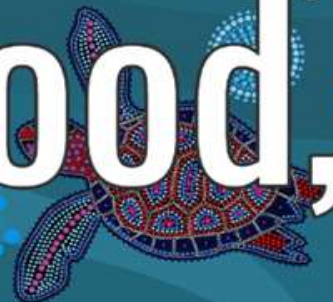
Heat pump hot water

Solar battery

Electric car



Let's make Country good, together



About Geelong Sustainability

Not-for-profit Community Organisation & Registered Charity

- Our Vision: 'For people and our planet to thrive within sustainable limits'
- Established in 2007
- Regional leader and change agent
- Positive solutions focus

geelongsustainability.org.au



Electric Homes Program

The Electric Homes program can help you with:

- Solar panels and battery storage
- Heat pump hot water systems
- Split system heating and cooling
- Electric vehicle charging

Region wide program supported by local councils and community groups



Quality products



Local suppliers



Community donation





ELECTRIC HOMES

program

Led by:



Delivered by:



Major supporter:



Supported by:



Our why....

- Transition the region away from fossil fuels
- Supporting the community to navigate this complex environment and overcome barriers
- Education and empower our community
- Expanding previous programs including the Geelong+ Community Solar Program concluded in late 2021
 - 276 households and businesses installed solar and battery systems saving 54,740 Tons CO₂e emission reduction over 25 years



The process

- Expression of Interest for Key Delivery Partners
- Shortlist of EOI, interviews & selection of key delivery partners
- Develop packaged offerings
- Community donation
- Website, marketing and messaging
- Council partnerships & community partnerships
- Launch program
- Event roadshow
- Media & Marketing approach implemented
- EOI closing final push
- Rolling installations



Results

- 927 Expressions of Interest
- 1,500 Event Registrations
- Over 300 installations so far
- Installations still in process

Led by:



Delivered by:



Some things to consider

- Start with one/two interest areas
- Allow time to engage partners and do the selection process
- Simple website with automations
- Coordinator capacity if possible
- Partner as much as possible
- Simplify prices, packages and messages
- Trust and information
- Case studies and personal stories
- Timeframe and special prices



Questions?

SCAN TO GET STARTED



Thank you

Visit ElectricHomes.com.au.

karina@geelongsustainability.org.au

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Led by:



Delivered by:



Gavin Gilchrist



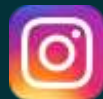
Project Manager
Inner West Community Energy

YARRA ENERGY FOUNDATION



Community Energy Congress – Electrify Everything Panel

Follow us



information@yef.org.au | 03 7037 6040

Who are we?

The Yarra Energy Foundation (YEF) are a small not-for-profit organisation working towards a zero-carbon future.

We work with governments and communities to reduce energy expenses and emissions across Australia.



Photo of our [*Fitzroy North community battery*](#), the first inner-urban community battery in Australia.

Council funded programs

- These programs aim to break down common obstacles the community faces:
 - **Confusion/lack of knowledge**
 - **Upfront costs**
 - **Uncertainty about installers**
- **Education is vital** – energy consulting, web content, information sessions
- Call back to residents that installed through the programs (and those who didn't) to continually **improve program offerings and processes.**

**YARRA
ENERGY
FOUNDATION**

Electrify Everything

(City of Bayside)

In partnership with and funded by Bayside City Council in FY23-24 (and likely to continue).

Through this program, Bayside residents are offered **high quality products** with **leading warranties** installed by a **pre-vetted one-stop-shop** installer.

- **Hot Water Heat Pumps - Reclaim & Apricus**
- **Split System Air Conditioners**
- **Induction Cooktops**

So far...

- 205 registrations
- 100 quotes sent
- 33 installations (including some full electrification)
- Over \$175,000 invested into clean technologies

**YARRA
ENERGY
FOUNDATION**

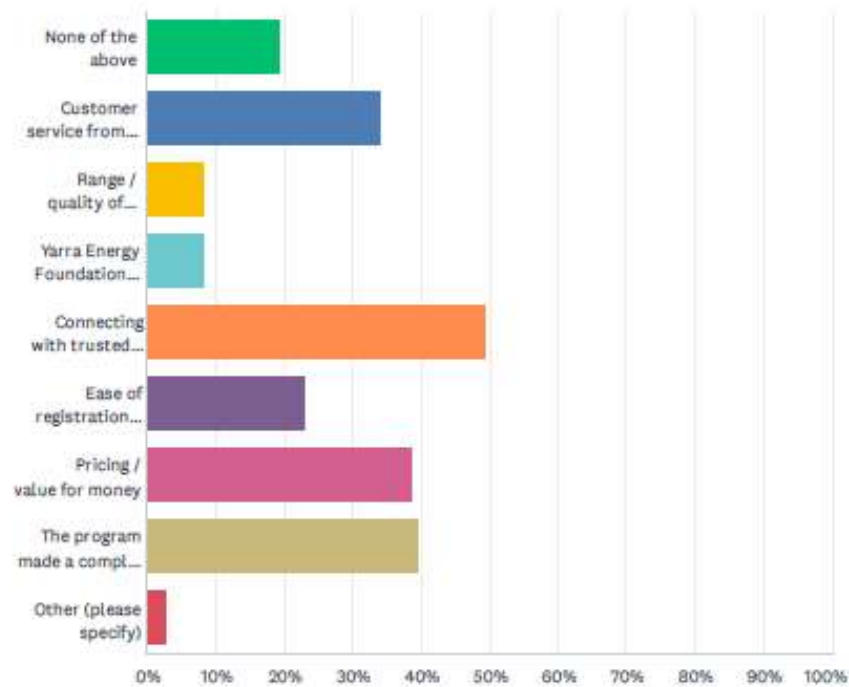
Hume Solar Rollout

(City of Hume)

Community survey

Q3 Please select up to three aspects of your experience with the Hume Solar Rollout that you consider the most positive.

Answered: 109 Skipped: 0



ANSWER CHOICES	RESPONSES
None of the above	19.27% 21
Customer service from Green Home Green Planet	33.94% 37
Range / quality of products available	8.26% 9
Yarra Energy Foundation consultation and support	8.26% 9
Connecting with trusted providers through a Council program	49.54% 54
Ease of registration and available information	22.94% 25
Pricing / value for money	38.53% 42
The program made a complex purchase easier	39.45% 43
Other (please specify)	2.75% 3
Total Respondents: 109	

Helping vulnerable residents

- Worked with Council to integrate a **concession card rebate**
- Those most vulnerable can install a small solar system (3.08kW) through the program for as little as **\$100 out-of-pocket**.
 - *This is including the \$1,400 NIL*

STANDARD SYSTEM (GOODWE)

SYSTEM SIZE IN KILOWATTS (KW)	STANDARD SYSTEM PRICE	PRICE AFTER VIC GOV REBATE AND LOAN	CONCESSION CARD HOLDER PRICE
3.08	\$3,820	\$1,020	\$100
4.4	\$4,725	\$1,925	\$1,075
5.28	\$5,430	\$2,630	\$1,780
6.6	\$6,385	\$3,585	\$2,735

So far...

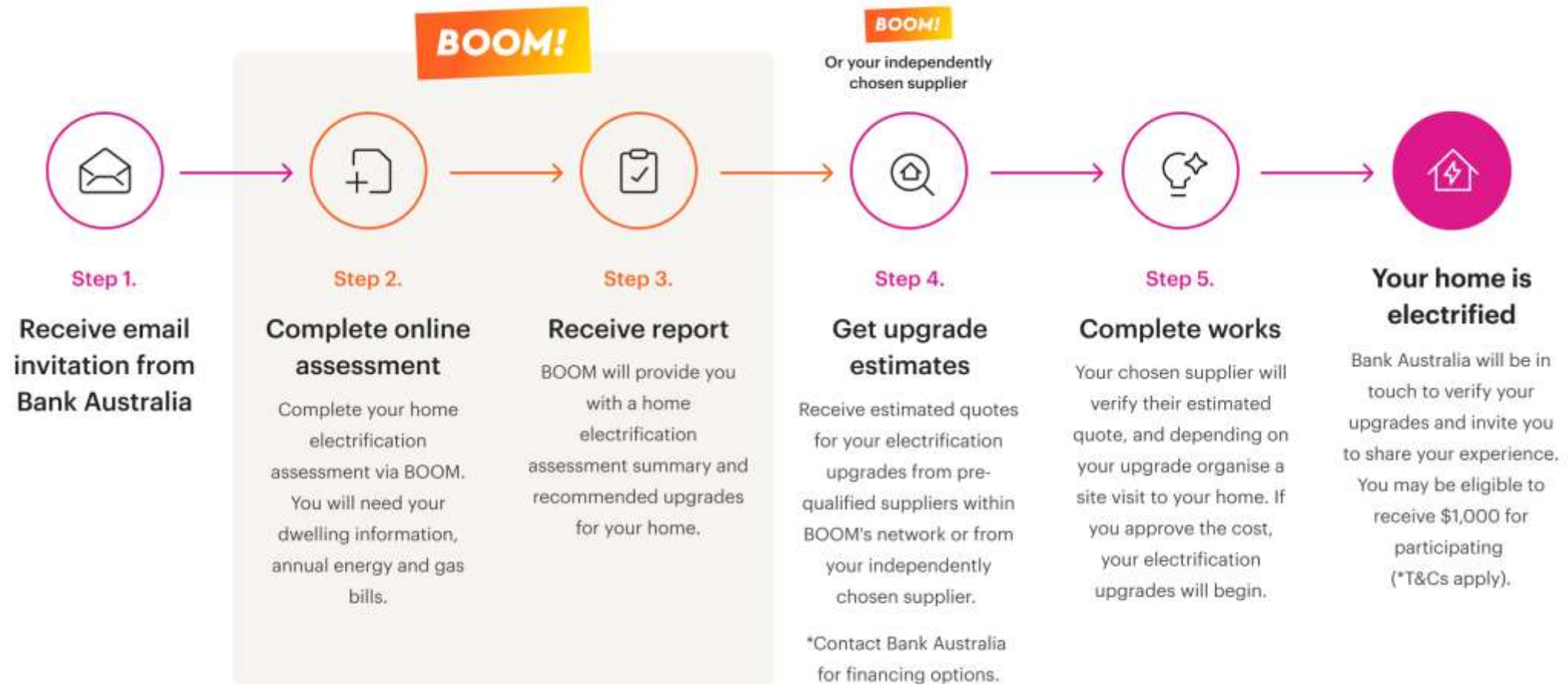
- 981 registrations
- 278 solar systems installed
- 1.3MW installed solar capacity
- Nearly \$2 million total renewable energy investment
- Over 1,300 tonnes (CO₂e) of annual greenhouse gas emissions reductions by the Hume community.
- Estimated annual \$270,000 in cost savings to Hume community members.

**YARRA
ENERGY
FOUNDATION**

Bank Australia: Electrify Your Home Pilot



Customer Journey



So far....

- *Largest driver to go electric is reducing carbon footprint (46%) followed by reducing bills (37%).*
- *The biggest barrier is the upfront cost of new appliances and installation (66%).*
- Over 270 customers used BOOMPower to receive a household energy assessment.
- 98 customers have explored quotes in the BOOMPower marketplace
- Over 60 have requested quotes from suppliers.

**YARRA
ENERGY
FOUNDATION**

Wired for Tomorrow

A Glimpse into the Future of an All-Electric Precinct in
the City of Yarra

Funded by Yarra City Council

Project context

- Council has net-zero target - looking for ways to achieve **100% renewable energy usage** (electrification).
- We need widespread increase of **localised, community energy systems** and distributed energy resources.
- Develop and deliver knowledge to **guide future work in accelerating and replicating all-electric precincts.**
 - *Vision & roadmap for community + stakeholders*
 - *Report of recommendations to Council to fast track this vision*
- **The community is at the heart of the transition!**

YEF has/is...

- Selected a **geographically bound precinct** to create this all-electric vision.
- Engaging with the **community** in and around this precinct to:
 - Work with and mobilise the existing community group Electrify3068
 - Gain local insights and test assumptions
 - Present an example of what working toward an all-electric future looks like in a *real* area of Yarra.
- Working with industry experts via industry reference group
- Inspire communities across Yarra with an **accessible, replicable, and inspiring** vision of an electrified future.

The impact of this project...

Yarra City Council will have a compelling vision to **inspire communities** and **internal stakeholders** to take steps towards electrification.

Outputs can be used to **guide community climate action** and **advocacy** to further enable electrification.



▶ The Earthworker ecosystem



Socially and
environmentally
useful work

Energy as a service



EARTHWORKER
SMART ENERGY
COOPERATIVE





One-stop-shop

- Safety
- Customer-focus
- Social benefits
- Taking household energy to scale
- Energy and workplace democracy
- Good jobs
- Maximising the benefits of BTM energy



QUESTIONS

Afternoon Tea

please be back at 3:45pm
sharp

Thank you to all of our **sponsors and supporters**



ARENA



Trinasolar