

Electrify Everything

Putting communities at the heart of climate solutions



Introduction



Electric cargo bike sales booming in northern Illawarra

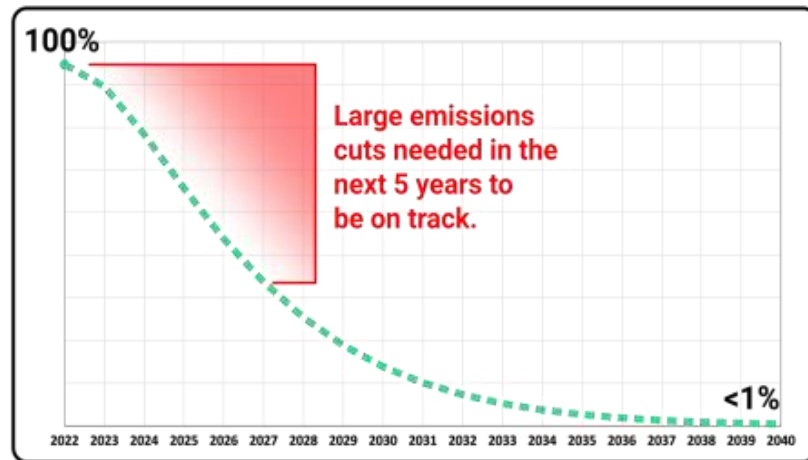
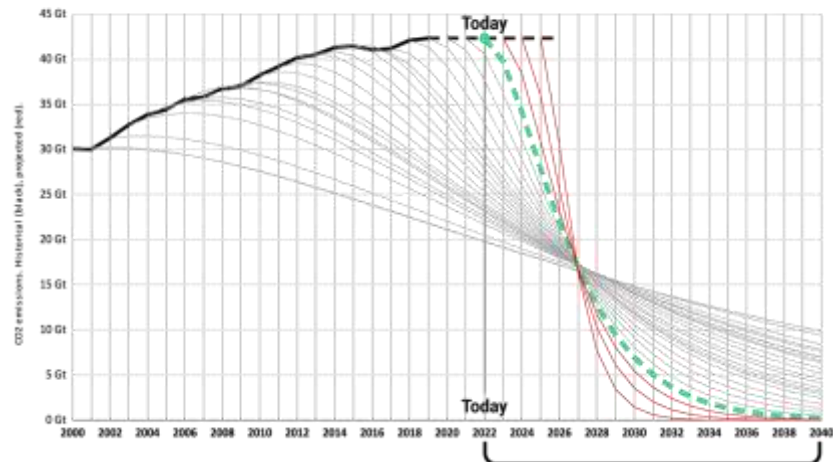
By Angela Thompson
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Climate action starts with proven solutions

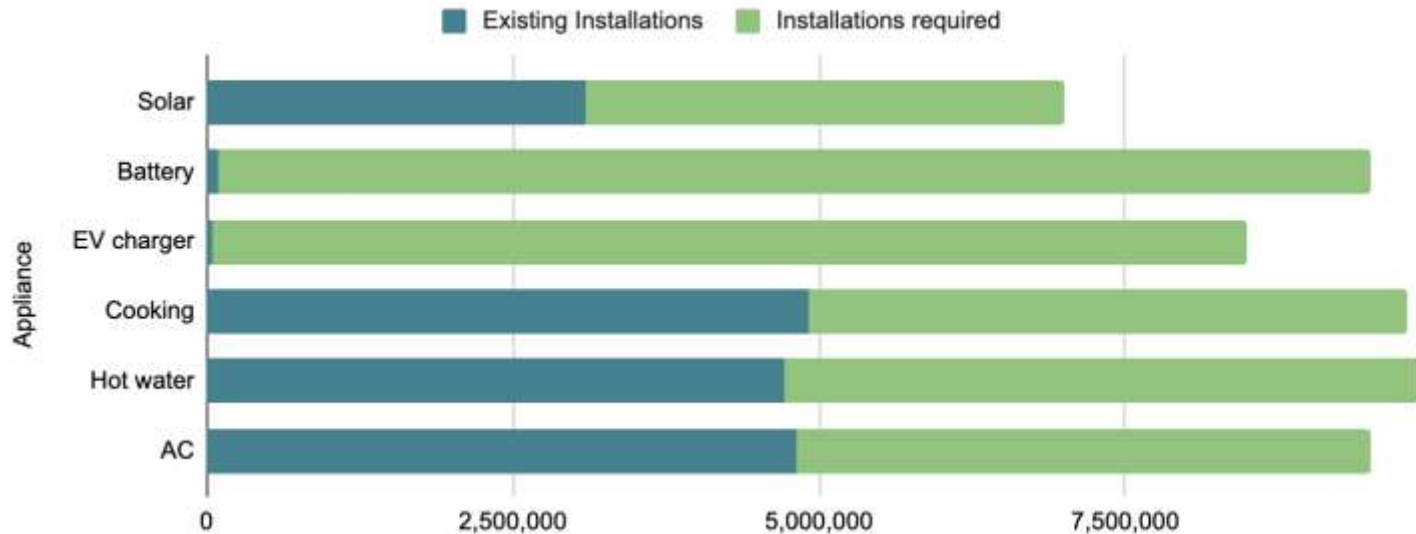
Pathways to lower emissions to stay below 1.5°C of warming.

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

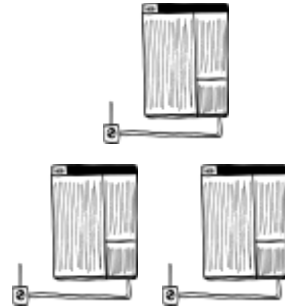
Electrified communities = resilient, secure and connected communities



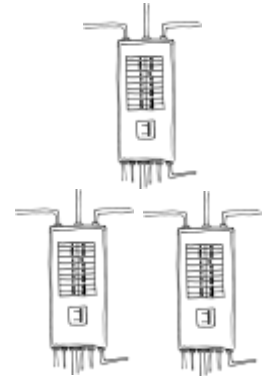
Rooftop solar provides lowest cost, high resilience energy less vulnerable to natural disasters.



1.8 electric vehicles in every driveway will give homes a week of emergency backup 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.

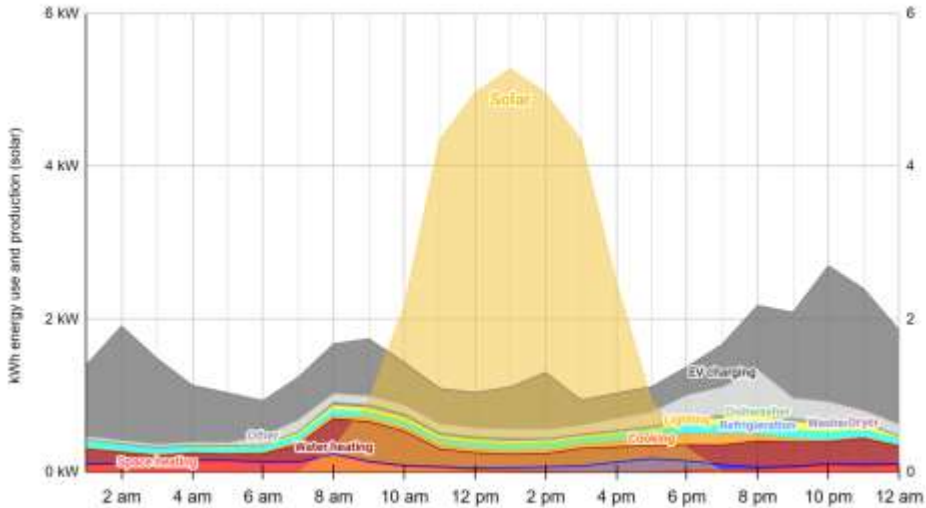
The savings vary significantly across individual households, climates and states, but the average savings on offer are large:

- **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 - Climateworks 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.

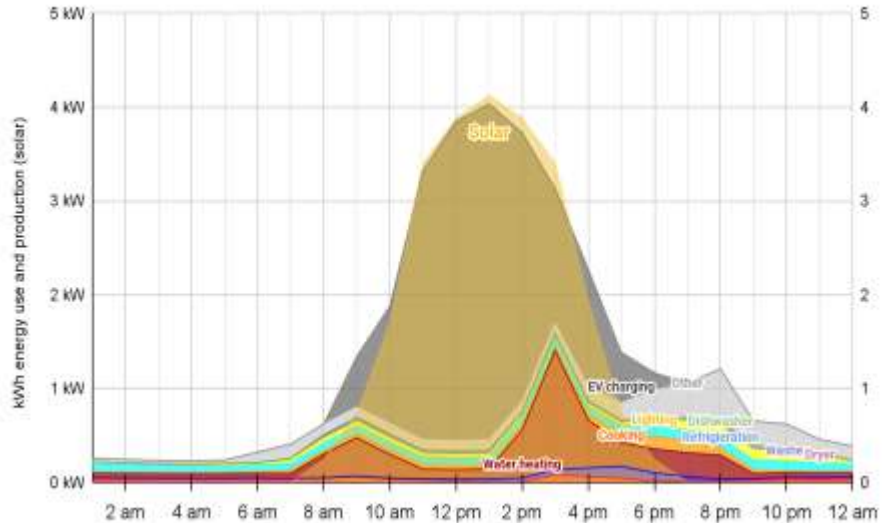
But we need to be smarter

Australia - average electrified home under standard behaviour

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



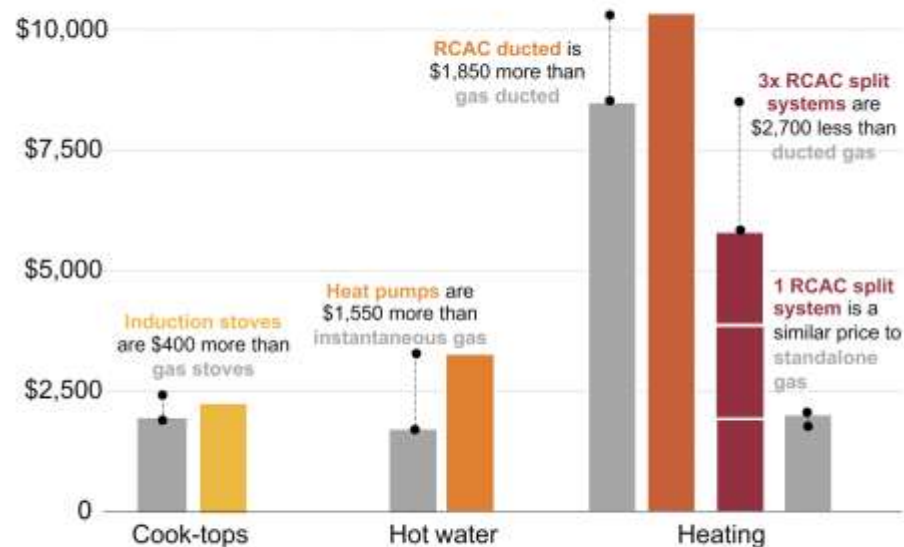
Average electric home under ideal behaviour



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



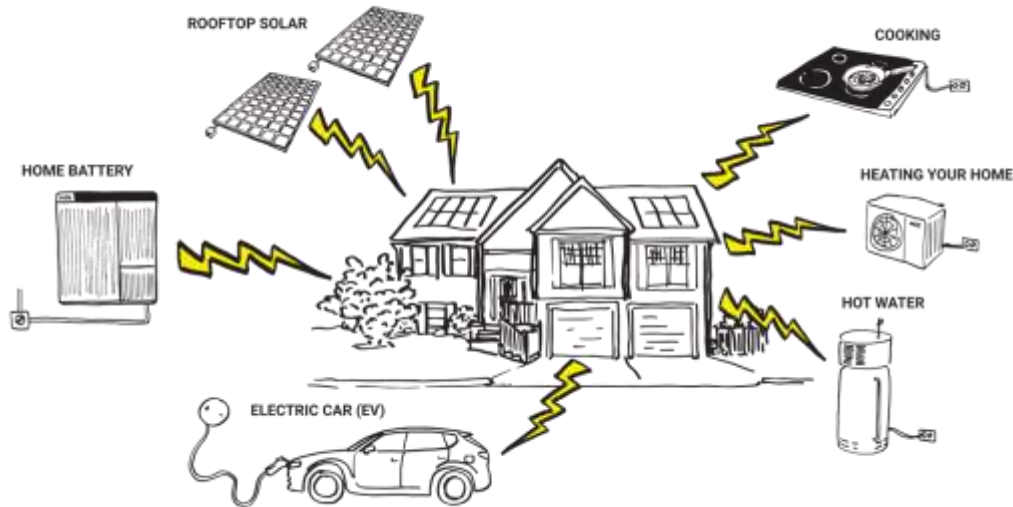
Note: RCAC is a reverse-cycle air-conditioner.

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

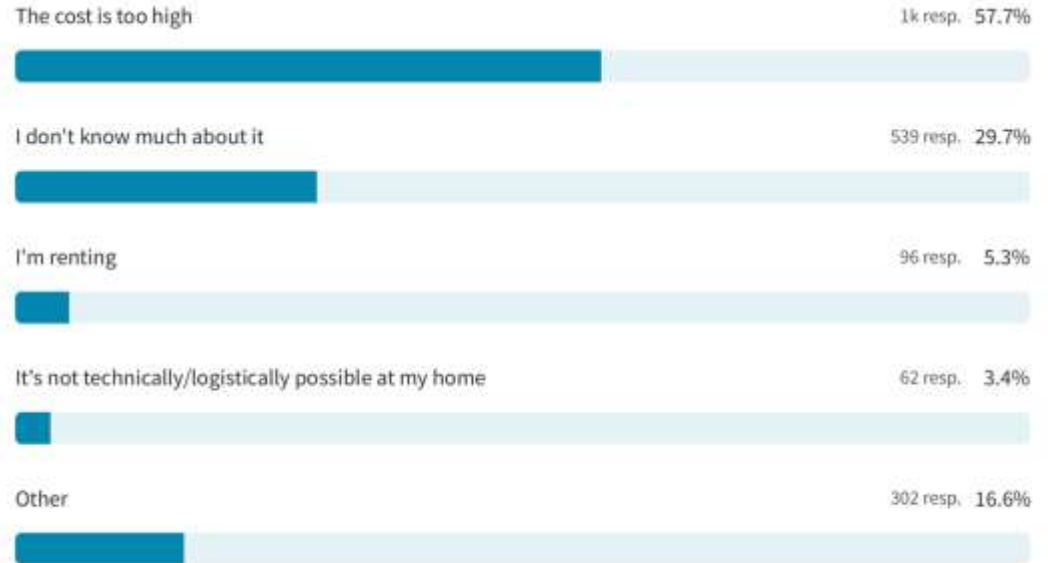


Bottom Up

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

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Individuals Acting Collectively

