

 CHANGING WEATHER
Transforming Energy

with



ENERGY TOGETHER

Connecting Community Energy Groups

formerly the Coalition for Community Energy

AEMC PRICING REVIEW – RESPONSE TO DRAFT

Heather Smith, February 2026





FUTURE



**ENERGY
TOGETHER**
Connecting Community Energy Groups

WHAT COMMUNITY ENERGY GROUPS WANT FROM ELECTRICITY PRICING

Key Message: Pricing needs to support transition

Over the past 20 years Community Energy Groups and local energy champions have emerged all over Australia. Groups have formed under many names that reflect our commitment to a better planet and a speedy energy transition. We have names like Zero Emissions, Community Energy or Totally Renewable. Some call themselves Sustainable communities or Transition Towns. More recently, many have joined the Rewiring Australia movement with names like 'Electrify 2515' or 'Electrify Canberra.'

Community is [pivotal to our capacity to change](#)¹. It is essential for a faster and fairer clean energy transition but is missing from our current reforms and much of our advocacy. Community energy shows one way that local, collective action will manifest in the energy system. Through our projects, the community energy sector repeatedly experiences electricity pricing as a barrier to change, rather than a support.

The Vision proposed by the AEMC fail to capture community motivations for reform. The key reason 55 groups from the community energy sector attracted [\\$80m](#) of value into their communities, including over \$6m of volunteer value² is the desire to see positive change. Cleaner energy, a meaningful stake in the transition, fairer sharing of costs and benefits, and support for those who lead the way. Pricing can play an important role in driving change. "A dynamic energy services market" is an insufficient goal.

The following Values ranked by community members in Venus Bay, Victoria are not well captured in the AEMC's Consumer Preference Principles:

1. Safety
2. Self-sufficiency
3. Reliability
4. Equity
5. Sustainability
6. Value for money
7. Innovation
8. More say in the energy transition
9. Other (people added community harmony, collaboration and benefits)

¹ <https://reneweconomy.com.au/eight-reasons-why-our-energy-transition-needs-community/>

² <https://c4ce.net.au/first-community-energy-impact-report-since-2015/>

COMMUNITY ENERGY GROUPS ARE TRUSTED ADVISERS

Key Message: Resources need to flow to local advisory services, especially those that can leverage volunteers and other community supports.

Consumer information is a market failure. Navigating prices and services is best done with someone who has higher energy savvy than the average householder, has the familiarity and knowledge of local considerations, products and services and can provide independent advice*.

Community energy groups often are these trusted local advisers and work hard to bring external expertise and insights into their communities.

By contrast: Government advice has retreated from the street-front over the last 30 years and is largely unknown by consumers. It is necessarily conservative and general so consumers need to make additional efforts to convert advice into practical actions. It tends to be static and without new sources of data can be out of date. Well-meaning websites are everywhere and often competing for user attention with hard-sell sites.

Energy Made Easy is a data-led form of advice that is useful but not for everyone. Victoria paid \$50/consumer to assist people to compare their bills. Some people do not engage well with the complicated calculations on their bills and within tariffs. Community Energy groups often assist people with understanding their bills and options. After bill comparison, it remains hard to explain to people why they need to change or ring their provider for a better tariff simply because the loyalty tax has turned the “undifferentiated market” into a game of catch-the-too-busy-consumer for retailers.

CSIRO’s NEAC is working on publicly available energy calculators for householders. EcoLogicApp was retired due to information market failures and lack of commerciality but this sort of energy audit tool would be very valuable to help with understanding of energy use AND subsequent bills.

The significant work of the DMO could be used to supplement Energy Made Easy advice with benchmarks about what a household’s energy costs to provide.

AEMC should demonstrate a stronger understanding of the information ecosystem, and the outcomes sought for consumers before advocating for funds only for Energy Made Easy upgrades.

*The importance of trust and independence is also demonstrated by Choice’s Bill Hero service.



Image from one of Renew’s Speed Date an Energy Expert event



EQUITY AND SUSTAINABILITY

A call for the AEMC to work at delivering equity and sustainability through pricing

I have developed [a tariff calculator](https://reneweconomy.com.au/can-you-design-a-better-time-of-use-tariff-than-chris-bowens-solar-sharer/)³ which attempts to make our capital, operational and residual costs more explicit. Efficient and fair pricing cannot be proposed without shared understanding of these costs. ***AEMC should publish its version of these figures because it has access to more data than I do.*** I highlighted that much of our electricity pricing is A CHOICE. ***AEMC should calculate the distributive impacts of the choices it proposes to make when allocating residual costs, and in its method for allocating capital costs.***

My calculator highlights some ideas for building equity and sustainability into pricing which I cover below while also adding a few more. Let's remember that equity and sustainability ARE in the long-term interests of consumers so any version of efficient pricing that does not IMPROVE equity and sustainability has defined "efficiency" too narrowly.

Equity

Allocations of costs without a price signal, such as residual costs because these are not directly related to the consumer's use and energy use behaviour, ***should be progressive and not regressive.*** There are many ways this could be achieved including scales based on rates, home values, suburb level income, concessions and hardship experience.

In the Transition Together tab of the tariff calculator you can create a differential in contribution for low income consumers. For example, by allowing average prices to rise by \$50/yr, low income bills could drop by \$400 and hardship customers would pay \$550 less⁴. AEMC could implement such a scheme immediately with justification that the lowest decile earn 20% of Australia's median income of \$55k. ***The current practice of assessing the allocation of energy system and transition costs on a per household basis fails an immediate equity and NEO objective and should be rectified in this pricing review.***

³ <https://reneweconomy.com.au/can-you-design-a-better-time-of-use-tariff-than-chris-bowens-solar-sharer/> and also attached to this submission.

⁴. I assumed 10% of customers as low income with 1% falling into the Hardship category and struggling with increased indebtedness.

EQUITY CONTINUED

Equity continued:

I also argue in my treatment of Hardship customers that it is hard to justify allocating any residual costs to the small number of customers that continue to struggle with indebtedness. ***If AEMC continues to allocate any residual costs to these customers they must also identify the externalities of hardship caused by energy bills to ensure this is a warranted decision.***

In the Easing in Change tab of the tariff calculator I advance the idea that we could insure people against the shock of changes in prices, while allowing them to share in the benefits of consuming in cheap periods.

Lets be clear, if consumer behaviour reduces system costs, we all benefit even when much of the cost reduction is allocated to the consumer. This is especially so while the system is expanding due to electrification so reductions in peak load directly translate to less infrastructure built over the long term. In any change to cost-reflective pricing there will be winners and losers since our current tariffs tend to flatten everything, and my tariff calculator was designed to identify what cost-reflective tariffs would look like. In the course of developing the calculator it was clear that low volume, high peak homes such as solar homes and, to a lesser extent, gas homes would experience a Bill Shock of 20-30% rise under cost reflective tariffs.

Insuring against Bill Shock might look like this:

- If we assume 30% of homes will need a 15% transfer, everyone's bills will need to rise by 5%.
- Those with excessive bills would receive a subsidy and information about how that subsidy will decline over time.

- This would create a maximum amount that everyone would pay.
- The insurance premium could be increased slightly and used to fund interventions in a staged manner that gradually offers more information and support for change as repeat subsidies are needed.
- I offer some costs of intervention if done by community energy groups.
- Over time the premium could be reduced as all households can achieve the agreed maximum or less within their own consumption patterns.
- The 100% renewable home looks quite different to the average household today. There are cheap versions with heavy reliance on behaviour change and cheap automation. There are investment heavy options with batteries, solar and controlled, flexible loads. Both types will buy the necessary balance of renewable energy and stored renewable energy from the market.

AEMC should consider an insurance style proposal for transition.

An extra argument:

The Energy Council argues⁵ that \$100 - \$250 cross subsidy between consumers is justified on the basis that the forced extra effort on consumers to search for better offers is a genuine cost and a valid cost to keep the market operating. I offered some thoughts on information failures and how they are best funded above when pointing out that Community Energy Groups are trusted advisers. I also call for better data to understand the cross subsidies in my sections on risk and data below. Both of these exercises highlight market imperfections. ***AEMC cannot use market perfection as justification to reject my propositions for equity and sustainability based cost shifting.***

⁵ <https://www.energycouncil.com.au/analysis/beyond-the-loyalty-penalty-unlocking-cer-value-is-the-real-pathway-to-a-services-market/>

THE EQUITY IMPLICATIONS OF ENERGY, CAPACITY AND FIXED PRICING

Energy

We must not forget that energy is the main way consumers experience value from their consumption. Players across the system grumble about the energy only market and the capital intensity of the energy system, but we must remember that converting capital costs to the metric of value – energy – has always been a role of the system.

Submissions dealing with inequality do not dispute this. The inequalities emerge when households:

- Have higher energy needs – eg forced upon them by poor housing quality and lack of efficient equipment (eg bar radiators for heating), caused by climate and location or caused by health needs;
- Cannot afford or do not have access to generation of energy through rooftop solar;
- Receive substantially poorer access to energy – eg reliability in some locations, prepayment metering in others etc.
- Pay more for energy compared to similar households.

Demand

Household demand tariffs have generally been a flop. Some literature points to high demand households being high energy households in any case. Australia has not experimented with capacity limiting and therefore has no language about acceptable levels of capacity to be allocated to each household.

At the low voltage level capacity allocations range from under 1kW/residence in some historical locations up to 7kW/household installed for new suburbs to account for rooftop solar. This is already an investment inequality that may not be fully accounted for through larger homes and higher bills.

Fixed costs

The tariff calculator identifies some fixed costs that can legitimately be allocated to each customer account. Households vary widely in size, energy consumption and income so the same fixed costs per household for residual or capital costs will not be efficient or fair.

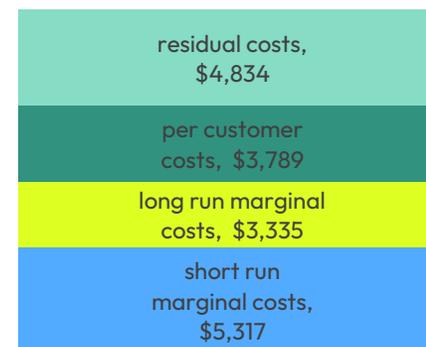
Differentiated fixed costs may be a suitable way for households to each contribute their fair share of the energy system and the energy transition in a progressive manner.

Cross – Sectoral Subsidies

The residential and small business sectors account for something like 30% of the energy consumption and 50% of the bills in the electricity system. This calculation is always premised on a judgement of a fair allocation across all sectors of residual costs, capital costs and profits. In future, the residential sector will probably use less than 10% of the energy from the centralised system and cross-sectoral subsidies will become unsustainable, highly contested and illegitimate.

\$20,000
\$18,000
\$16,000
\$14,000
\$12,000
\$10,000
\$8,000
\$6,000
\$4,000
\$2,000
\$-

Breakdown of NEM costs (\$m)



THE COST OF COMMUNITY ENERGY ADVISORY SERVICES

Key Message: Voluntary information services lower the cost of the energy transition, but a combination of funded and voluntary is needed.

The tariff calculator uses community energy experience to price the cost of information services across the typical marketing Sales Funnel - Awareness, Interest, Intention, Action, Monitor and Feedback via outcomes after Purchase. (The proposal is for an intervention that will improve the household average to peak load ratio to justify an insurance product, discussed below)



Awareness - everyone is willing to do campaigns but not all are trusted. Community energy groups backing campaigns with events and discussions may need to invest around \$20 per household

Interest - community energy volunteers often provide one-on-one Bill Surgeries, Speed Date an auditor etc. - costs around \$50/per household

Intention and Evaluation - This is where the advice becomes customised to the circumstances and it can take 5-10 hours to audit a home and work with the household to choose options - approximately \$250/household. Community energy groups often help guide householders through the variety of subsidies and market services on offer, and can help with comparisons and calculations associated with savings.

Action - The following actions all lower the cost of energy provision:

- A battery reduces peak load. Support will be needed to ensure the control and retailer settings align to discharge during peak load.
- The loads associated with peak are heating and cooling which rise as more people electrify. Cycling, pre-heating, pre-cooling and thermal mass in the building fabric are often long term building investment decisions.
- Controlled hot water, loads that operate and don't need to during dinnertime - these opportunities are discovered during energy audits.
- Dinnertime loads can be energy efficient - eg cooking and fridges
- Behaviour change is never simple but good habits can stick. Some meals use less electricity or can be prepared at different times. Some activities don't need to coincide with the dinnertime peak etc.

Information and understanding are key to many of these actions.

Monitoring and Feedback - sometimes change needs more than just the installation of an appliance. Success for the consumer and early troubleshooting will influence the actions and attitudes of friends and family.

SUSTAINABILITY CONTINUED

Sustainability

The community energy sector exists because governments have been too slow to incorporate consumer preferences for a future with a safe climate into policies and programs. The energy sector finally has explicit instructions to include carbon considerations into its policy making and pricing needs to be one of the instruments used.

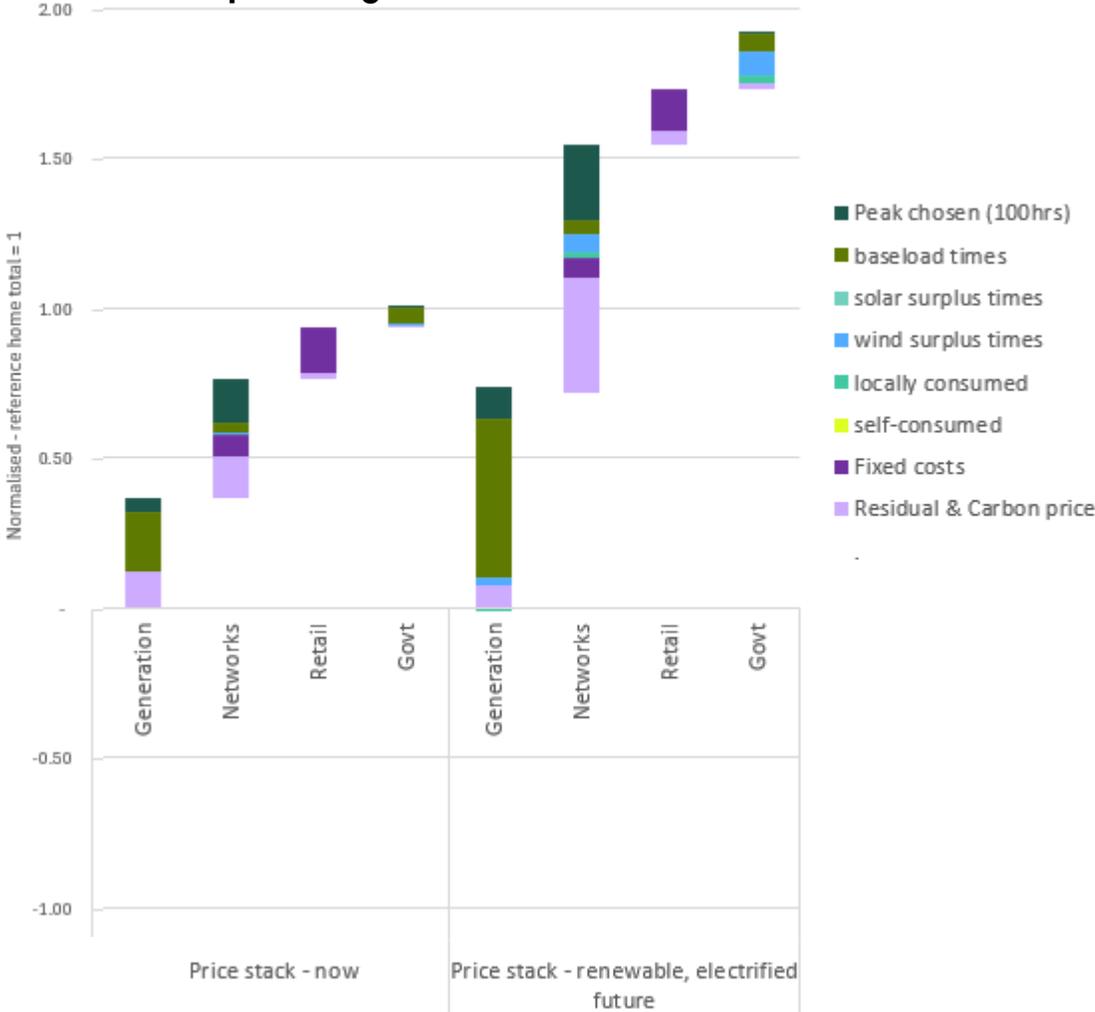
The tariff calculator shows how this can easily be achieved by placing residual costs onto fossil fuel periods and removing them from renewables periods. For example, a carbon price of \$70/tonne translates to \$66/MWh for the NEM centralised generation; price signals for periods that are not flexible energy use (surplus wind) or solar sponge for surplus renewables have this price added to their costs.

The carbon price reduces as the NEM emissions impact reduces, but the price signal to use cheap surplus renewable energy remains unencumbered by residual costs. The Solar Sharer Offer (3 hour free solar window) which will be made available to DMO customers will provide our first indication of whether we can get the price signals and behaviours to match well. ***AEMC should publish data and fund additional research in relation to the roll out of the SSO.***

The technique I propose converts ~\$2.5bn per year into a carbon price signal across the NEM and reduces the overall residual costs to be recovered from householders.

AEMC should ensure a shadow carbon price is incorporated into NEM pricing reforms.

The Tariff Calculator imagines a renewable future where an electrified home without a battery uses 2.5 x today's reference home, contributes only 1.5 x extra to the peak and spends less than twice on purchased energy. \$/kWh are reduced while \$/kW are increased modestly and \$/home are drastically reduced without petrol or gas bills.



COST REFLECTIVE PRICING – MY THESIS

Operating Costs

There are good ways to allocate operating costs, particularly fuel, to the consumers of electricity. If costs are avoidable when electricity is not used, then this short run marginal cost becomes the minimum contribution a consumer should make for using electricity at a particular time.

Capital Costs

Allocation of capital costs is more of a choice. Once it is built, capital investments are used by many, during times of scarcity and plenty over a whole lifetime. VOLL and VCR represent the amount it would cost a consumer to not use the grid and provide a maximum value to ensure that no single consumer is charged too much. The figure also demonstrates the collective value we all gain from a well functioning electricity system.

In the wholesale spot market Boituex pricing aims at short run marginal costs of the most expensive generator in each dispatch interval. The theory allows cheap (fuel cost basis) generation to slowly recover its capital costs as the spot price rises, working its way up the merit stack. At the peak load for the year (or decade) we try to recover all the capital costs via high prices.

Network costs (mostly capital!) are typically allocated across all periods although attempts to use Long Run Marginal Costs (LRMC) and peak demand tariffs exist. Some larger users pay for transformer investments and when a site is built. This is a different approach – not right or wrong, just different.

It makes sense to allocate capital costs heavily to times when there is no spare capacity. But this causes high, volatile, risky prices which most customers don't want to be exposed to.

My tariff calculator allows the user to define the sharpness of the capital cost signal.

Residual Costs

Allocation of residual costs is definitely a choice and one we can make in ways that:

- a) helps the main price signals flow through – cheap and surplus is very cheap, scarce capacity is the time to pay for capital.
- b) is fairer. We might not actually agree that everyone pays on the basis of their kWh consumption is a good metric for residual costs. Solar creates haves and have-nots, residual could be used to tip the balance back toward equity.
- c) recognises the public good involved in bringing everyone along in the energy transition and not leaving folk behind with high costs and dirty options.
- d) help us achieve the postage stamp pricing concept (same cost in country vs city despite different network build requirements) but allow a richer sense of the underlying marginal cost for network construction in different locations.

The AEMC needs to be explicit in its assessment of costs for the purposes of cost-reflective pricing and in the choices it makes about the best ways to allocate capital costs and residual costs.

RISK – VOLUME, SHAPE AND PRICE

I wonder if the retail sector has become so adept at managing risk for customers that it prefers to operate as the insurer who charges for risk management rather than the guide who helps consumers reduce their risk.

Technology brings the opportunity for volume, shape and price risks to be managed differently and we have been slow to adjust.

- Low cost energy efficiency and demand management opportunities exist in every household
- Solar panels and batteries are accessible and cost-effective for the household sector
- Flexible loads like electric vehicles and hot water can be deployed in ways that everyone can benefit.

The agency for risk management has therefore shifted, and there will be a temptation to maintain control rather than allow consumers to be empowered.

As stated before, I believe consumers want the benefits of reduced bills without taking on risk of bill spikes that are difficult to control. Pricing needs to move toward the type of risk management consumers want, not the type retailers might want.

The learning needed – at the societal level, for new behaviours and practices and within the sector for changing internal systems and habits is an investment we all need to make.

Regardless of how they pay for risk management, consumers always pay in the end. The AEMCs role is to ensure they aren't paying excessive amounts, we are managing costs in the most cost-effective manner across the whole economy and the allocation of costs and risks is not causing inequity outcomes.

Volume risk

Consumers have always been at risk from rising bills caused by unexpected or unmanageable energy consumption. Some consumers struggle with the difference in bills across the seasons. Some consumers go without energy for fear of bills they can't pay. It is rare that consumers can or want to monitor energy use in real time.

Information and support for these circumstances has always been a market failure, and more recently rooftop solar has been out of reach for those who would benefit the most. The Solar Sharer Offer will support some of these issues – as would pricing surplus renewables at very low prices as suggested in the tariff calculator.

Shape risk

New tariffs and pricing to share the benefits of appliance control are needed if the benefits of managing shape of consumption is to be shared with consumers. Where possible, the price signals should be sharp enough to truly convey the shape changes needed to genuinely change investment patterns.

Price risk

It is worth articulating the incentives that face retailers from the products they purchase to hedge their price risk. The Nelson Review identified some changes but consumer level alternatives were out of scope for that review. Some of the blunt approaches to handling price risk may need to be innovated if the consumer and wholesale pricing structures are to work well together.

DATA

The Lookup Tab in the Tariff calculator highlights the information needed to truly understand cost-reflective pricing.

In many cases I was forced to lookup 10+ spreadsheets from the AER across the NEM, compile them and adjust for inconsistencies.

In some cases, I was required to judge the best approach as no data was available.

It would be prudent for the AEMC to ensure this data is more readily available and it is explicit about the data it is using.

Many questions were raised and inconsistencies spotted.

I am happy to go through them in detail.

LOCAL AND FUTURE ENERGY

% Renewable energy use

Now



24%

**Triple
the solar**



37%

**Using Energy
Flexibly**



60%

**Add Electric
Vehicles**



80%



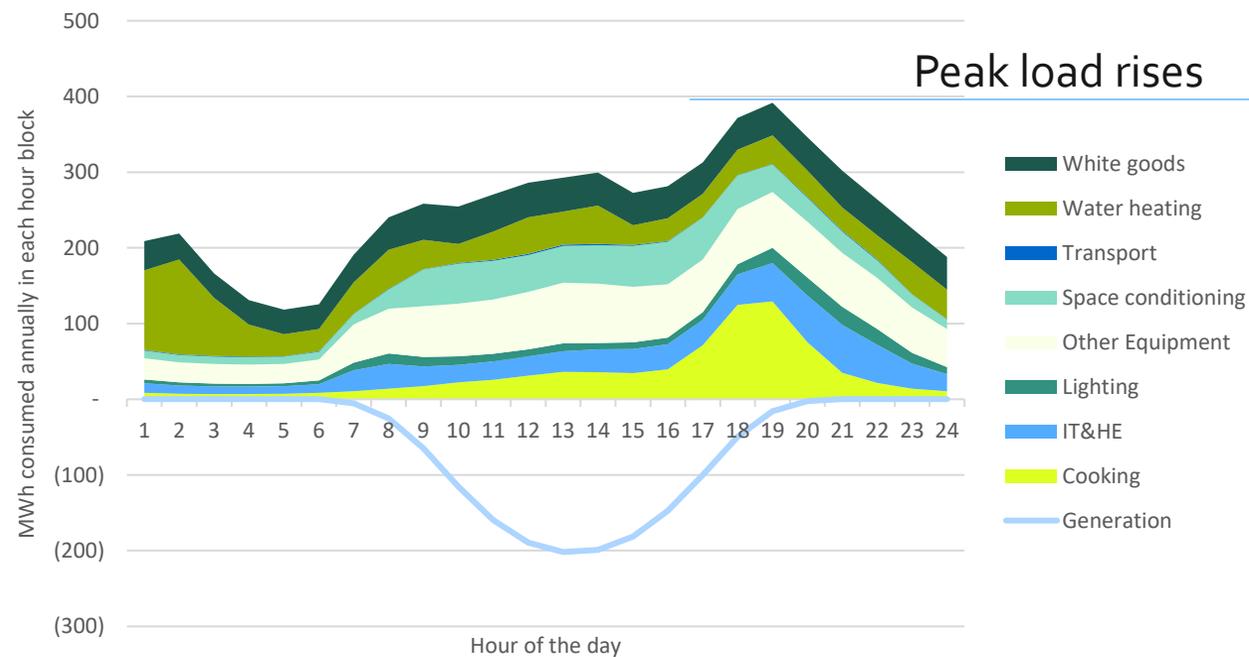
In Venus Bay we showed that the community could become 80% self-sufficient for energy with solar alone. It could triple its solar from 1.6MW to 4MW which is still cheaper than grid power despite 60% surplus/zero value. It wasn't until the modelling started using batteries, hot water systems and electric vehicles flexibly that self-sufficiency became a reality.

The community is next door to a wind farm – how could the NEM help it have a relationship with that wind farm and use wind whenever it is in surplus?

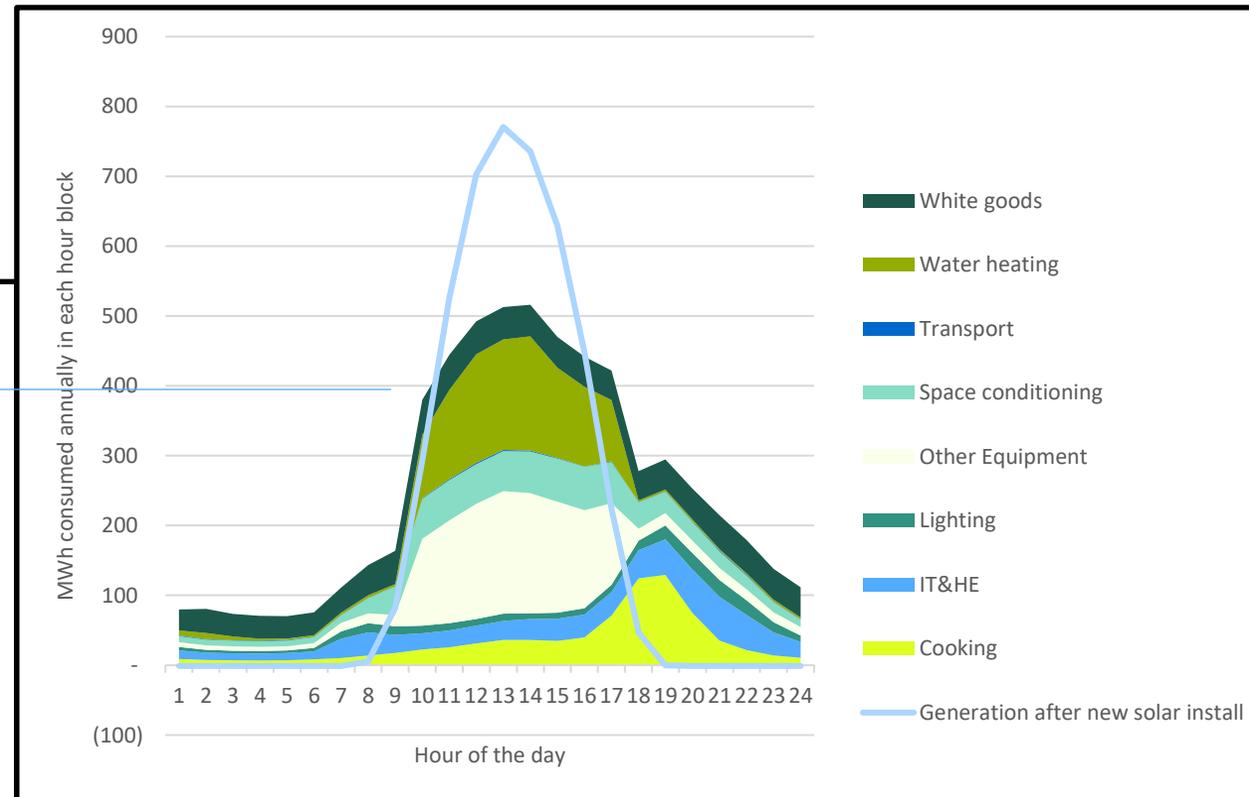
The value of the investment in flexibility and control comes when the community suffers an outage (on average 72 hours per year). The stored energy can then be eked out for as long as possible, providing mainly for essential needs.

Even though peak load rises, the co-incident peak at the zone substation and in the wholesale market falls. But social practices don't change by technology alone and retailers, DNSPs and regulators do not operate at the level of community where cultural changes will take place.

Today



Tomorrow



 **CHANGING WEATHER**
Transforming Energy

with



ENERGY TOGETHER

Connecting Community Energy Groups

formerly the Coalition for Community Energy

**THANK YOU FOR
CONSIDERING MY
SUBMISSION**

Contact: heather@changingweather.com.au



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for Venus Bay?



MyTown
MICROGRID

