



COMMUNITY ENERGY for Venus Bay?

Community Resilience and Reliable Energy Feasibility Study at Venus Bay

let's talk about the possibilities of community owned energy!



Keep up to date with planned community consultations via the timeline on the back. For more information scan the QR code or head to: vbcc.org.au/communityenergy

Welcome to Bulletin #7 May 2023

Biggest community workshop yet!

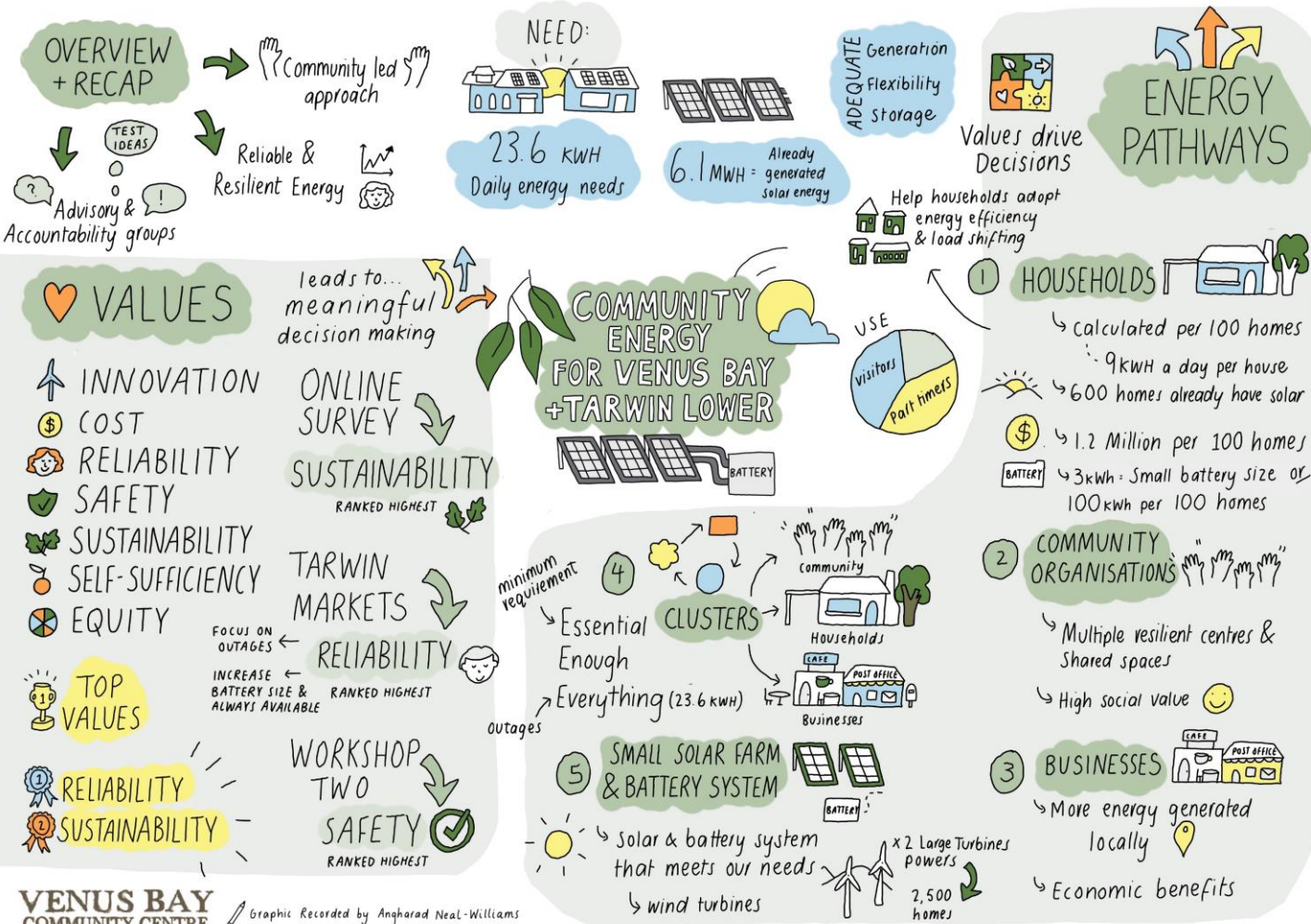
Enthusiasm for community-owned renewable energy is growing, with thirty-six people turning out for Community Energy Workshop #3 on Saturday April 15th.

At the workshop we learnt that we need 23.6 MWhs of electricity to power the daily energy needs of all households, community facilities and business across Venus Bay and Tarwin Lower. We are already producing 6.1 MWhs from rooftop solar, and we learnt that 0.5MWhs of excess solar left our community and headed down the line.

Our tasks at Workshop #3 focused on five possible pathways that we could take to install, invest in or build the energy systems that could generate the remaining 17.5MWhs of energy that we need. The five possible pathways (illustrated below) included increasing

uptake of energy efficiency and rooftop solar and batteries by 1. households, 2. community facilities, 3. local businesses plus 4. creating clusters of households, community facilities and businesses that could share energy and 5. a small solar farm with batteries and possibly one small wind turbine to provide the balance of power. We discovered that through all five of these we could realise our microgrid aspirations, but we have some work to do before we land on that conclusion.

After three public workshops, many community meetings, chatting with people at the Tarwin Lower market and countless one-on-one conversations about the possibilities for renewable energy in our community we are very close to having a plan. Our last piece of the puzzle is designing how we can own and invest in the systems of each pathway. This will be the focus of Workshop #4 in June 2023.





Thank you Wendy, for the delicious sandwiches and the Venus Bay Community Centre for hosting

Highlights from Workshop #3

What happens to our surplus solar electricity?

Rooftop solar has become a large generator of electricity over the past decade. In South Australia, where 68% of households have panels, rooftop solar powers the whole state's electricity grid on one or two sunny Sunday afternoons each year. So how does rooftop solar actually achieve a feat like that?

Historically, electricity was pushed down the line from large generators (e.g., in the Latrobe Valley) to household and business connected to the grid, but this centralised system is changing. Increasingly, households and businesses are now also generating and contributing to the electricity supply, from wherever they are in the grid.

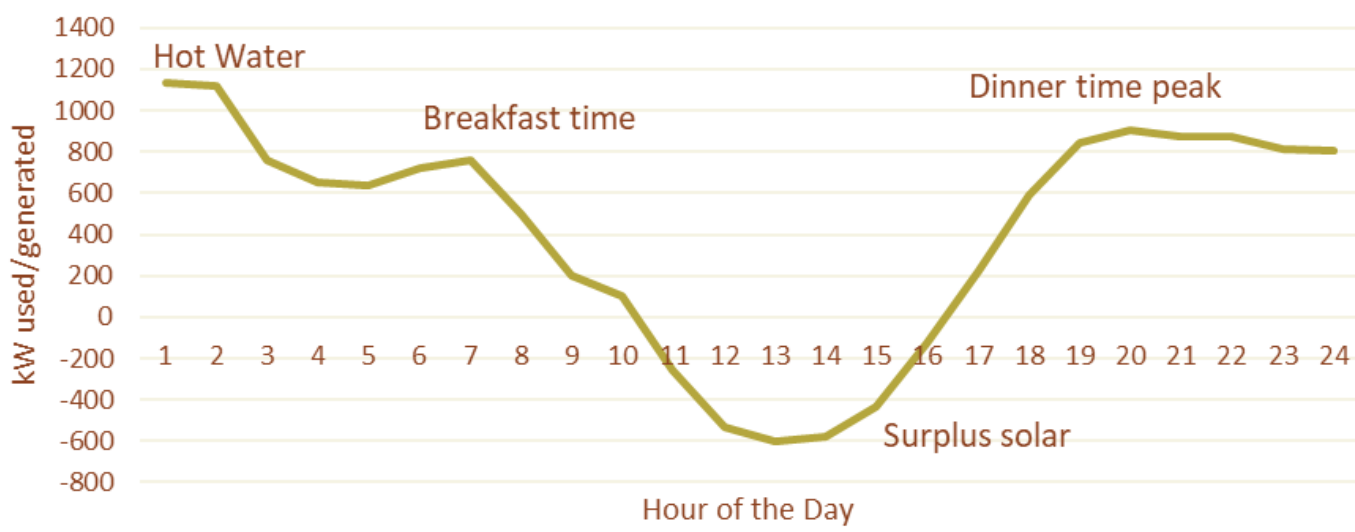
When you generate surplus solar energy, it pushes out of your house and then flows to the nearest available user, probably your next-door neighbour. In Venus Bay and Tarwin Lower the energy data tells us that there are some days when everyone's panels combined generate more electricity than is used across the community. That means every solar panel is pushing its surplus onto the grid, some is used locally, and the remainder is sent down the line. The graph below shows data from the 11th of November 2021 when 600kW of surplus solar energy flowed out of Venus Bay and Tarwin Lower toward Inverloch.

So, if your neighbour is using your surplus solar, why don't you see that on your electricity bills? Our electricity grid has been built in ways that make it difficult to identify who uses which source of energy. So, we currently pay, through our electricity bills, for a *system* of energy production where everyone's surplus solar electricity is simply absorbed into that system.

Electricity retailers offer [Green Power](#), which they buy from the wholesale energy market or sometimes directly from generators through [Power Purchasing Agreements](#). However, the source of this renewable energy is usually far from where we are and might even be generated at a different time of day than when we use it.

Recently, some new electricity retailers have been experimenting with power purchasing arrangements that can link your surplus solar energy to others in your community, often called peer-to-peer electricity trading. Demand exists for this approach – people are buying renewable energy through their retailer and many people in Venus Bay and Tarwin Lower have expressed through the Community Energy study that they want to be able to generate and use locally produced renewable energy. Working with an innovative retailer could help make this happen and it could be an important steppingstone on the path towards the long-term goal of a microgrid.

Energy Use in Venus Bay and Tarwin Lower 11th November 2021

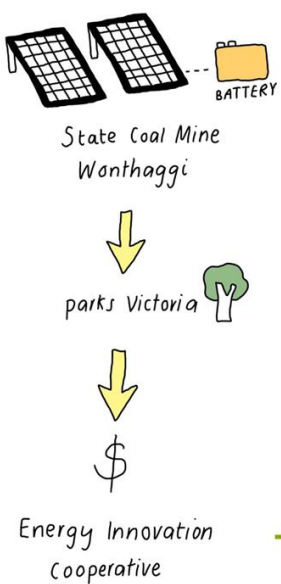


Community Power

The Venus Bay and Tarwin Lower Community Energy Study is about far more than solar panels, micro grids and batteries; it is about how we can use these to generate wider value and benefit for the community both economically and socially. Community Wealth Building is a local economic and community development framework that can help us achieve these broader aims.

In workshop three, Ethical Fields, walked us through some examples of similar community initiatives and how their business models were designed to meet different local needs to create local ownership, control and benefits for people and place.

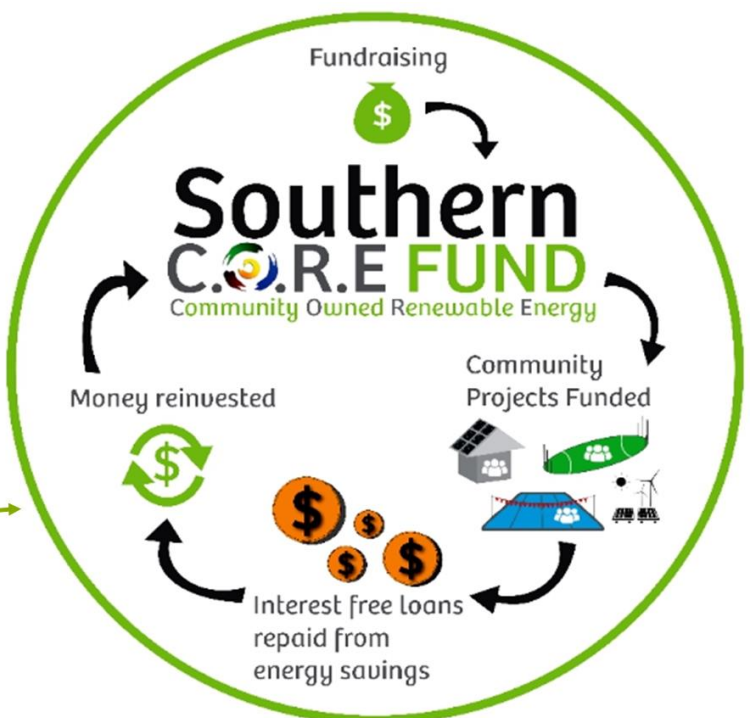
One of these examples was the Southern Core Fund. The Southern Core Fund raised community and grant money to fund the installation of solar panels at the State Coal Mine, Wonthaggi. Parks Victoria, the owner of the site, pays for the electricity it uses from the panels back into the Fund. This money is then used to provide interest free loans to community groups for renewable energy initiatives, such as solar panels on a local bowling club. The community organisation benefits from lower power bills and pays off the loan over time. The Fund can then reuse these repayments for the next community initiative.



Another example that created a lot of discussion and interest at workshop 3 was the Yackandandah Community Development Company (YCDC). In 2002, the Yackandandah community learnt that their only petrol station was closing. The community felt that this was an essential service in their town, and together created a public company. Over 600 local people invested in the company and, together with some initial government funding, the YCDC built and now operates a petrol station in the town. The YCDC also runs a rural supplies business, the local newspaper and owns an electric vehicle charging station. Profits are split between the local shareholders and the broader community, in the form of grants for local initiatives.



There are many different business model options for the Venus Bay and Tarwin Lower Community Energy Initiative that could potentially create these community wealth building benefits. Led by the values of our community, we hope to explore these further in Workshop 4.



Look out for the Harvest Report from Workshop #3 – available online from May 17th.
And please put Workshop #4 – Saturday June 24th, 2023 in your diaries.