

FINAL REPORT
July 2023

**Economic Report for
Venus Bay and Tarwin Lower
Community Energy Project**



Australian Government

This project received grant funding from the Australian Government



**Ethical
Fields**

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1. The Economic Story of Community Energy in Venus Bay and Tarwin Lower

This initiative is defined by the community values which have framed the project from the beginning. Those values meld safety, sustainability, and resilience with a desire for equity, cost management and innovation. While the story focused on energy, the desired outcomes are also economic ones. The community recognised that it is currently importing energy and exporting dollars. Generating energy locally reduces the need to import it; it also reduces the need to export money out of the communities. However, the community wanted to go further and explore how they could capture more of this benefit locally.

The economic analysis of the Venus Bay and Tarwin Lower Communities project is approached using a framework for economic development called community wealth building. Community Wealth building focuses on creating resilient, localised economies that are focused on people and place.

This report explores the potential economic benefits that could be created from the Venus Bay and Tarwin Lower Energy Project and outlines business cases and examples of business models for the three prioritised energy pathways; households, community facilities and businesses.

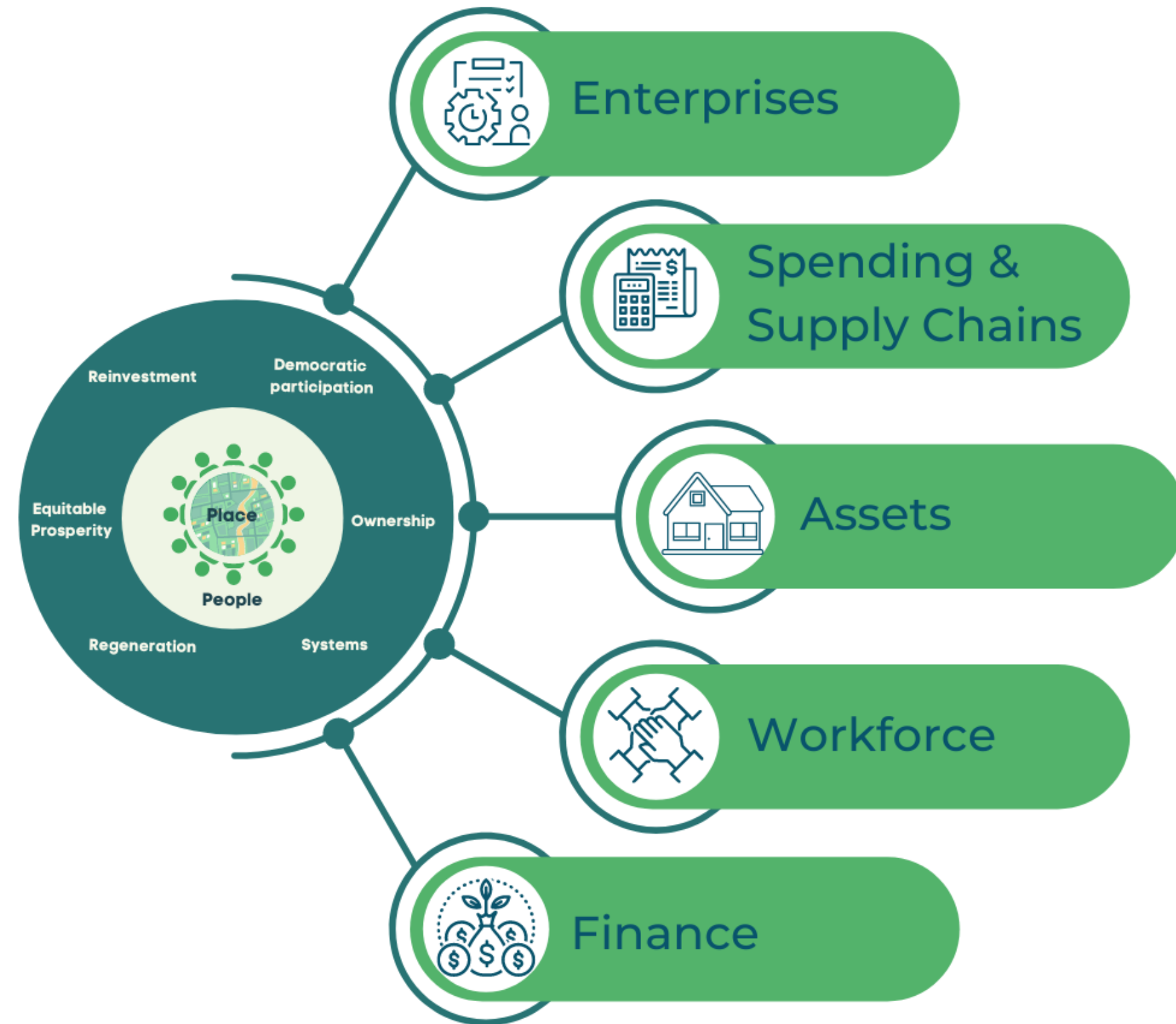


2. What is Community Wealth Building?

Community wealth building is a local economic and community development framework that lifts whole communities both economically and socially. It's a way of transforming and organising local economies to place ownership, control and benefits into the hands of local people. It delivers greater sustainability, prosperity, wellbeing, self-reliance and resilience for all.

Community Wealth Building seeks to structure and operate local economies according to eight key principles. People and place are at the center of an economy built around community wealth building. Community wealth building shifts an economy towards these principles via local intervention areas that local communities, enterprises, and government can control and influence. These pillars provide practical tools and approaches that have demonstrated impacts in the UK and the US and are growing in Australia.

Community wealth building provides the ideal framework for community energy initiatives like the Venus Bay and Tarwin Lower Community Energy Project. Community wealth building not only provides a framework for analyzing the costs and benefits of a project and can provide guidance and unlock opportunities when designing a business model.



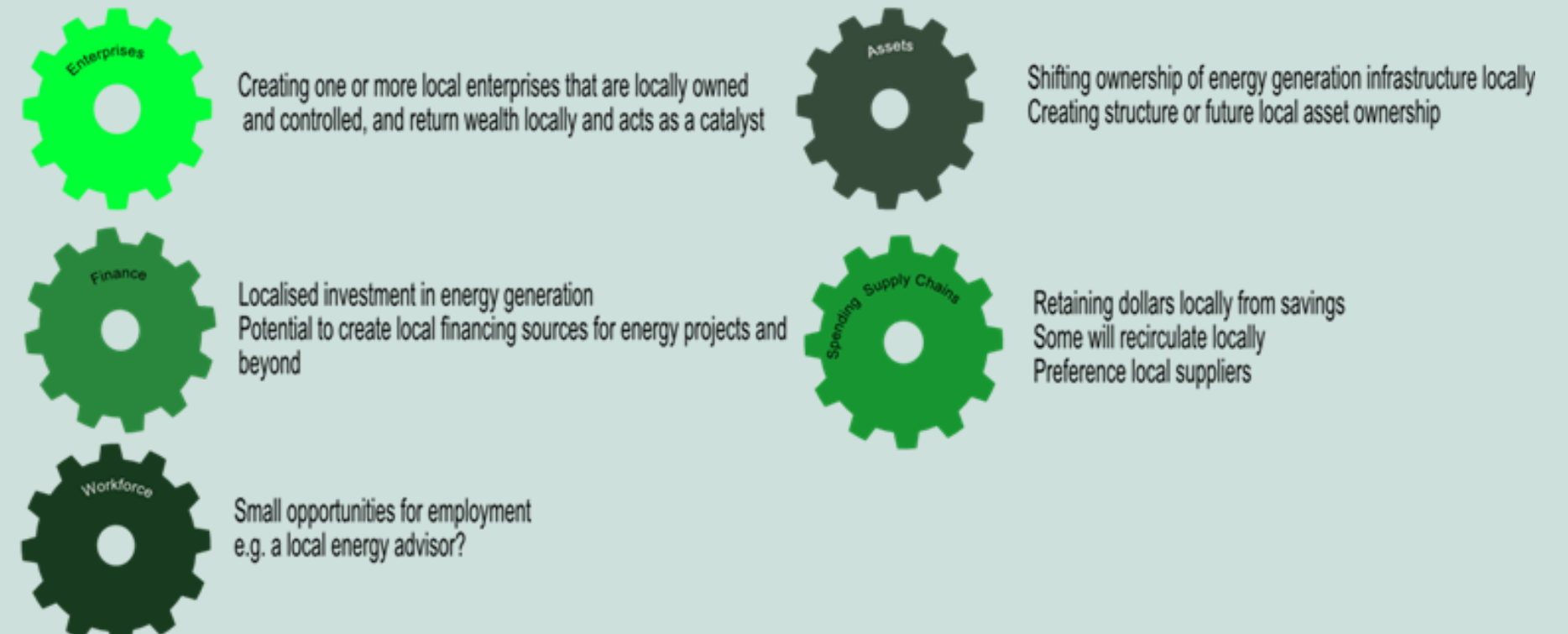
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3. Overview of the Economic Impact

In the case of traditional energy supply, energy is imported - usually from large companies, and dollars leave local economies to pay for these energy services. Local generation through solar comes at an initial cost. However, once the reduction in bills pays for this outlay (plus any financing costs), the individual, business, or community captures more money, with some of these savings being recirculated locally.

It is difficult to estimate the full extent of this capture, although local facilities and businesses are more likely to circulate savings locally, with some wealth captured by households, especially those who might otherwise be experiencing energy poverty.

The current energy transition is a one-off opportunity to create an energy system that delivers energy and wealth to communities. This can be amplified through community wealth-building approaches, such as incorporating local ownership structures, use of community assets, prioritising local suppliers, and careful construction of business ventures that create and capture more wealth locally.



4. How the Pathways Weave Together

Overview

The overall approach to achieving the Venus Bay and Tarwin Lower community's aims is through the five pathways. The pathways incorporate three key changes, in addition to installing solar and battery infrastructure - flexible energy use, energy efficiency and electrification. Introducing these complementary changes in the community reduces the infrastructure needed to increase resilience and renewable energy targets, and as such the costs. The changes weave together with the pathways to create patterns of possibility for change.

Using Energy flexibly - Using energy flexibly means matching energy use as much as possible with when energy is generated. As the initial focus is on solar installation, this means during daylight hours and mostly between 10 am and 3 pm. There are some things that are not easily turned off, for example, fridges and freezers. Some appliances can more easily be moved, for example, laundry, dishwasher and, in some cases, hot water; others rely on behaviour changes, like cooking in the middle of the day. The impact of these changes is to maximise the use of solar energy, reducing the need and cost of using imported energy later in the evening. Scaled across a community, the cumulative effect can reduce the size of community batteries and increase the benefits of micro grids.

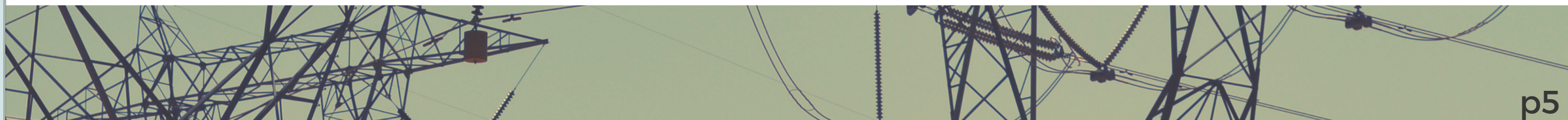
Energy Efficiency - Adopting energy efficiency measures reduces the total amount of energy used, lowering energy use in the evening and reducing the amount that needs to be produced in the day. It can also open new possibilities for energy flexibility; if a home is very well insulated, one might be able to pre-heat the home during the day for the evening. Shrinking energy use lowers costs for individuals and enables the viability of local batteries to support communities during outages.

Electrification - Electrification is about switching over from gas, wood or petrol as fuels, and using electricity. This is most aligned with sustainability values. This increases electricity use, working against the pattern of the other two changes. The two main areas are the conversion from wood and gas heating of homes and water; and petrol transport to electric vehicles. Here energy use is increasing. Oversizing solar panels on community facilities and houses can support electrification.

Other threads - Localised micro-grids or market mechanisms enable solar generators to sell excess energy within their community. This is likely to be cheaper than purchasing on the market, increasing equity. Supporting wind power through similar mechanisms or some local generation can also close the final gap in sustainability.

Summary

There is a complex interplay between these different threads. The challenge for the community is to combine future needs and current practice to minimise the overall cost and maximise the utility of the system to meet economic, safety and resilience goals. The following sections describe the pathways and potential of community wealth building initiatives. Smart use of the strategies outlined here can increase or decrease the economic viability and potential of each pathway.



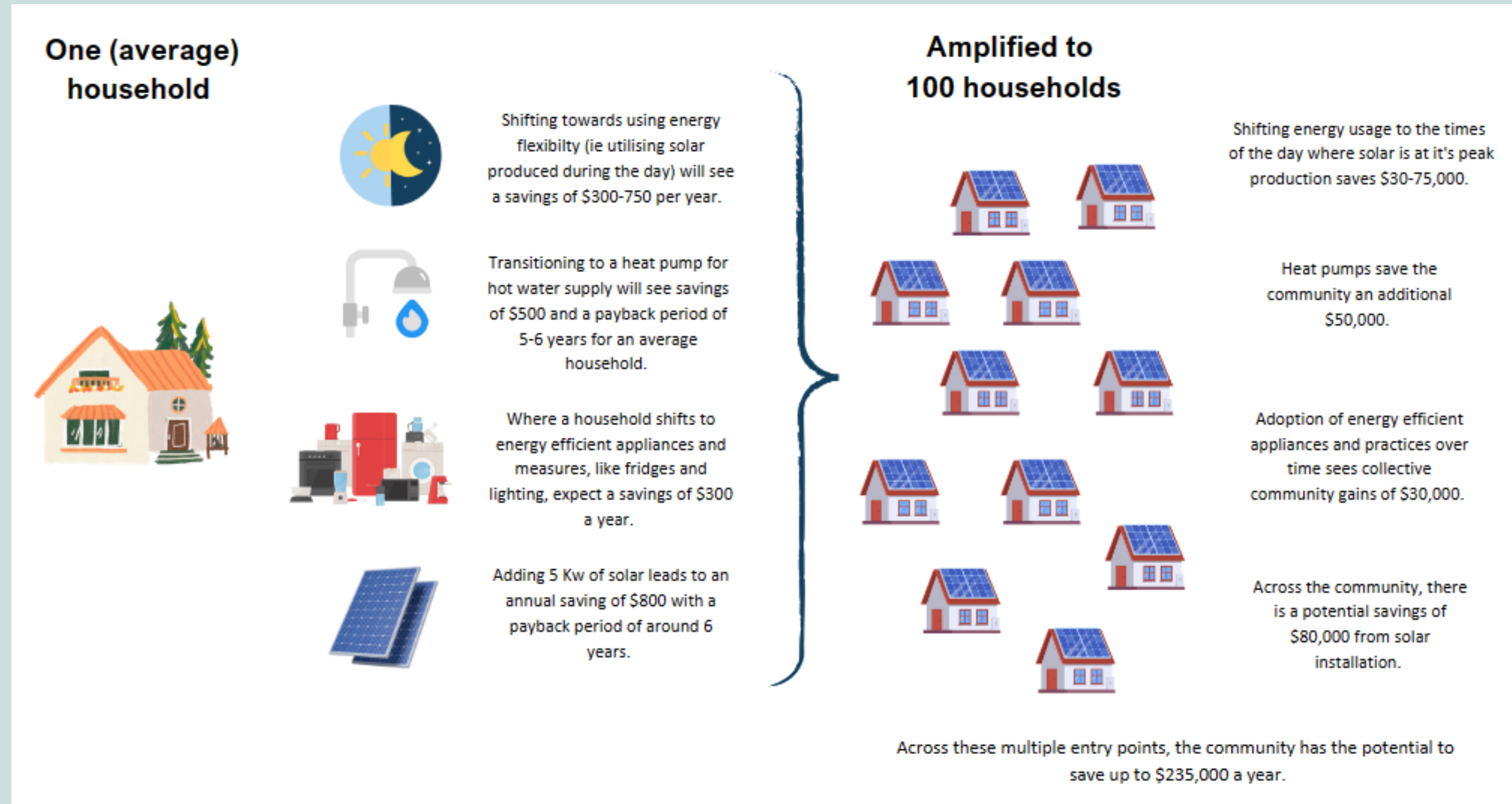
5. The Business Case for the Households Pathway

Households use 80% of the energy consumed in Venus Bay and Tarwin Lower, making this sector integral to the success of the VBTW Energy Initiative.

An average household can expect a gain of between \$900 and \$2,300 by using energy flexibility, transitioning to a heat pump for hot water, adopting energy-efficient appliances and behaviours, and adding 5 kW of solar. The capital outlay is likely to be \$5k for solar, with a payback period of 6 to 7 years. There are even further gains to be realised when households shift towards using electric vehicles and further electrification in their homes.

Amplifying these changes across 100 households would generate 500 kW of energy locally. The community collectively would see savings of \$80k with a capital investment of \$500k. Some of these savings will recirculate within the local community when they are spent in the local economy, and where local suppliers are engaged to undertake installation work. How the initiative is structured also offers opportunities for wealth to be recirculated or reinvested in the VBTW Energy Initiative (See p. 8).

Of course beyond the financial savings that are possible from adopting these different measures, the household pathway provides the greatest contribution to the community's aim of increasing their use of renewable energy and moving towards self-sufficiency.



Adopting Community Wealth Building Business Models for the Households Pathway

The community proposed many different approaches of how to realise the household pathway. These ideas ranged from providing individual advice on how to reduce electricity bills, having a permanent energy advisory service in the community, coordinating a bulk buy of solar and/or heat pumps and exploring opportunities with retailers.

With all these options, a community wealth building lens helps to consider how the initiative is structured so that wealth can be retained within the local economy.

Energy Advisory Services

The community indicated a strong interest in providing materials and advice to the broader community around the flexible use of energy, energy efficiency and solar installation. A volunteer based service offers a potentially low 'direct cost' way of changing the behaviours of the community, although it is important for the community to understand the labour hours needed to run these services. The volunteer project team at ZNet Uralla, for example, estimated that it took their team over 10 hours for each (free) home energy assessment. Using the fair value of volunteering, this equates to \$432 per assessment (Centre for Volunteering - Cost of Volunteering Calculator).

It is important to also note the toll on communities (particularly those that are small and remote) that rely on volunteerism to survive. There were many participants at workshops that felt there was an overreliance on volunteers in the Venus Bay and Tarwin Lower community.

There is a compelling argument for the financial support (via government or philanthropic funding) for a part time paid energy advisor within a community like Venus Bay and Tarwin Lower. Information around energy choices is complex and highly individualistic, and not provided by the market. Not only does this market failure justify intervention, but if 100 solar households adopt flexible use of energy, energy efficient appliances and using a heat pump for hot water, there are also potential financial savings for the community collectively of up to \$155,000.

Some of these savings will be further circulated locally, with additional benefits if local suppliers are used, further multiplying the positive economic outcomes. A part time paid role is also likely to help move the Initiative as a whole forward as 'wins' are amplified and reflected back to the community. It is important that activated communities such as Venus Bay and Tarwin Lower are supported as leaders and innovators in community energy transitions.



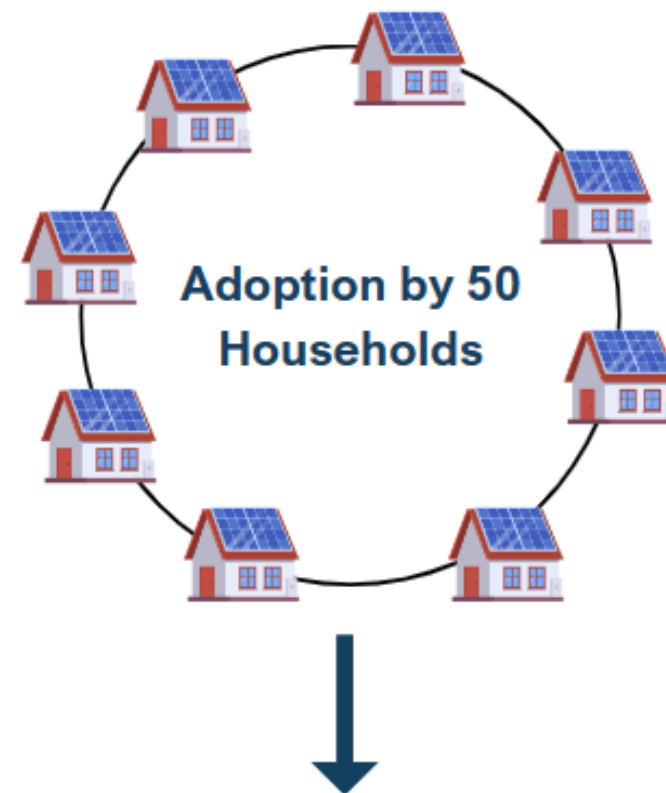
A Coordinated Bulk Buy Initiative

Another initiative discussed by participants at workshops was a coordinated bulk buy for solar, batteries or heat pumps. Bulk buys can be structured in many different ways - they can be as simple as recommending preferred suppliers and coordinating quotes, through to bulk purchasing systems.

A bulk buy initiative has the potential to return wealth to the community in many ways. Individuals who participate are likely to receive some sort of discount, offering a collective saving across the community. Part or all of this saving could be returned to the initiative or directed towards other community energy priorities. In the case of Sustainable Gippsland, additional wealth was created locally when the preferred supplier of their bulk buy initiative donated 100 kW of solar for 8 local community facilities. Using local installers also means more wealth stays local.

The following model shows one way of how a coordinated bulk buy initiative could operate and be structured to recirculate some or all of the gains that might be realised.

Example: A CWB business model approach for a coordinated bulk buy initiative

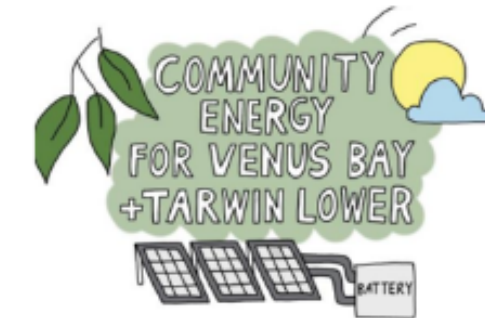


50 houses joining a bulk buy of 5 Kw systems could save up to \$25,000 collectively on the purchase of the solar infrastructure, and \$40,000 a year in reduced energy bills. It is reasonable to expect that a portion of this will be spent and recirculated in the community.

Using local suppliers also means more money is recirculated locally.

VBW Community Energy initiative coordinates a bulk buy for the community, providing advice on suitable systems and preferred installers.

At 100 hours of coordination time this would cost \$4,300 (volunteer or paid labour hours)



Experience from other coordinated bulk buys sees savings per installation of between \$300-\$500.

These savings could be returned to the Initiative, creating \$15,000-\$25,000, and funding a part time paid energy advisory role for a year or the installation of solar on community facilities.

A bulk buy initiative could be run effectively using a variety of organisational structures, including an incorporated association, a cooperative or a company limited by guarantee. An existing local community organisation could also auspice the initiative.

6. The Business Case for the Community Facilities Pathway

The community facilities of Venus Bay and Tarwin Lower were identified, and estimates made about solar capacity and current electricity use. Installing or upgrading solar on key community facilities would require an investment of \$200,000. These facilities can expect an annual savings of approx. \$15,000 collectively, though most of these facilities would not generate sufficient savings to be able to borrow the full costs for installation or justify using their own (limited) funds exclusively. Community facilities typically see a higher multiplier effect; they recirculate a high portion of funds locally. Local installers once again also provide some opportunity for wealth to be retained locally.

Community facilities can also explore the potential to offer other community services, some of which could generate revenue - such as electric vehicle charging stations, or test new and innovative community solutions.

Whilst the community will collectively benefit from the potential savings that will come from the proposed installations and any multiplier effect of these savings, their key contribution lies in the contribution these installations make to the community's values of safety and resilience. With the addition of battery storage to key community sites, the community would have access to eight spaces in a time of outage or emergency. These spaces can potentially offer phone charging, running water, flushing toilets, cooking facilities and communications. We estimate that battery and solar systems on key facilities would create a space for up to 800 people across the Venus Bay and Tarwin Lower community.

Creating safe and resilient community facilities for times of outages and emergencies goes beyond simply ensuring there is sufficient physical space. In an outage or emergency, people are likely to go to local community hubs where they have an attachment or connection. Creating resilience hubs that reach a broad variety of community members is important. The connections mapping undertaken in Workshop 1 illustrates this strong and complex web within the Venus Bay and Tarwin Lower community.

Adoption of solar, energy efficiency measures and flexible use of energy by community facilities

Adding or upgrading solar to key community sites



Incorporating battery storage for key facilities as part of Pathway 4



Adoption of flexible use of energy by community facilities



Financial value

An investment of \$200,000 to install or upgrade solar infrastructure on key community facilities would cost \$200,000, with a potential collective savings of \$15,000 a year.

Financial flows of batteries forms part of Pathway 4.

Non-financial value

Solar and storage upgrades for the key community facilities delivers highly against the community's values of safety and resilience.

Community's access to a space that has power, flushing toilets and emergency communication in the event of an outage or emergency would increase, and provide space for 800 people to access power, flushing toilets and emergency communications.

Case Study - Benefits flowing from the Community Energy Resilience Project at the Venus Bay Community Centre

In 2022, the Venus Bay Community Centre had an additional solar array added to its existing solar system and a significant lithium battery, costing \$65,000. The Community Centre funded \$15,000 of the project, with the remaining contribution from the Gippsland Community Power Hub and the Victorian Government. The upgrade allows the Centre to act as a mini Microgrid - offering a resilient energy supply for community members when the grid goes down.

The installation of the solar and battery system has meant that the Community Centre is expected to remove all their energy costs - approximately \$2,500 a year in savings - above the savings already realised from the original solar installation. These savings have been redirected back into the community, allowing them to fund projects such as this Feasibility Study.

Beyond the financial gains, there are a host of broader benefits for the community. Importantly, the microgrid at the Community Centre has created a hub for those in the community connected to the Centre to seek refuge, cook, charge their phones or access communications during an outage or emergency, with space for potentially 100 people. The Centre's community has the comfort of knowing that the facility is there when they need it.

The Community Energy Resilience Project demonstrated the Centre's commitment and capability to deliver community driven energy projects, and has been the impetus for further community energy projects in Venus Bay including the electrification of the Centre building, this Feasibility Study and the Gippsland Community E Bus Pilot. With these pilots, the Community Centre is testing ideas around energy resilience and demonstrating how activated communities can become vital hubs for future learning and experimentation. Although difficult to quantify, such learnings are essential to understand energy transitions more broadly.

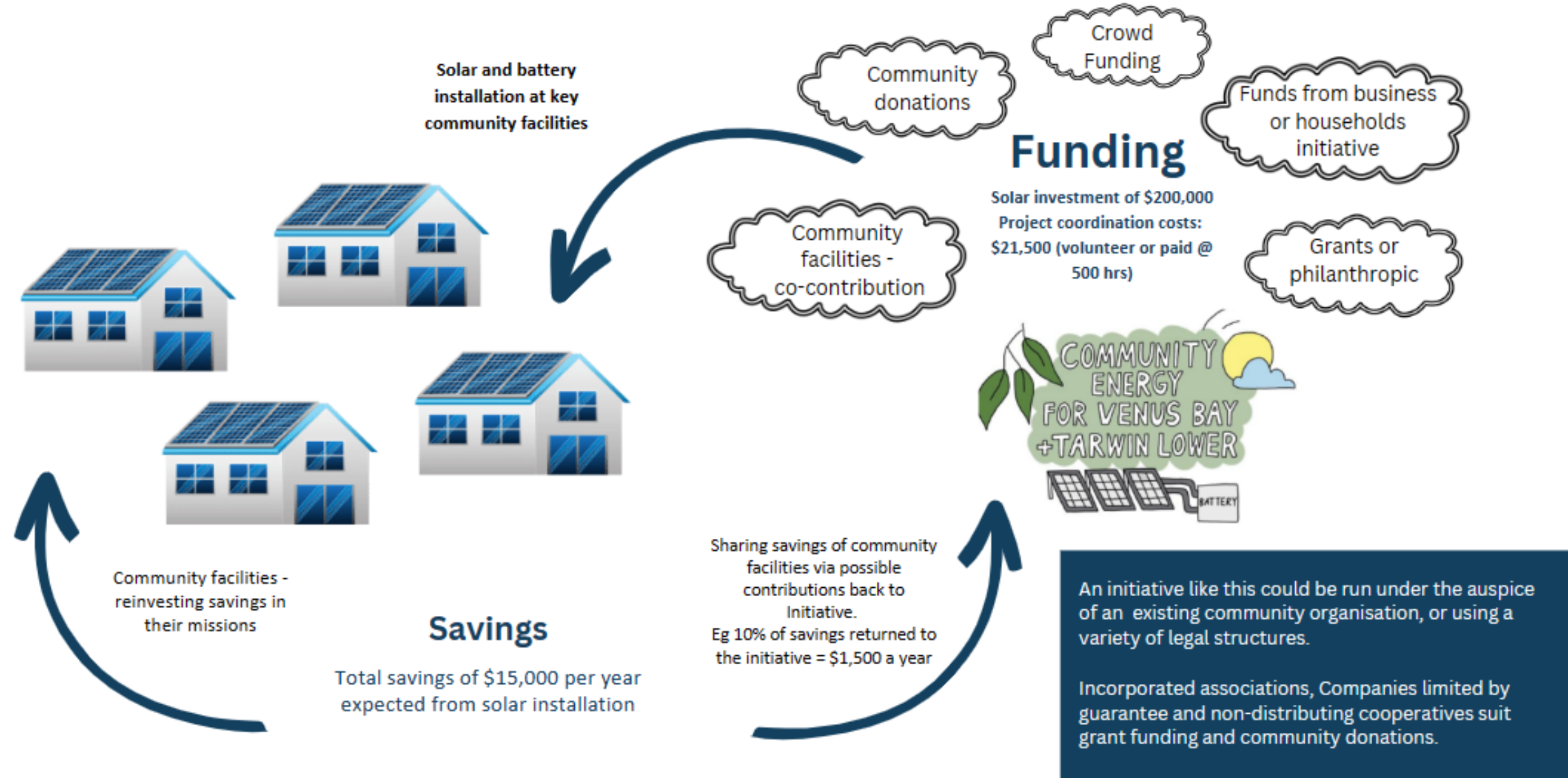


A Community Wealth Building Approach for Community Facilities

Participants at the workshops discussed different options for the funding of the community facilities pathway. Given that many of the community facilities would not realise sufficient energy savings to recuperate the costs of solar installation (the shortfall being even greater for the batteries case), grants, crowdfunding or philanthropic capital is an obvious choice. There is also a strong argument for grant or philanthropic support to create these community resilience hubs within an isolated community like Venus Bay and Tarwin Lower where power outages are not uncommon.

With a community wealth building lens, designing a funding system that can recirculate even a portion of any original grant or philanthropic funding will help to progress the overall objectives of the initiative and amplify its impact. For example, a community facility receiving funding could agree to pay a percentage of their energy savings back to the initiative to fund other installations or an advisory service. The following diagram provides an example of a semi circular funding model for the community facilities pathway, and the feedback loops of wealth circulating back to the community. A variety of entity structures could run an initiative like this.

Example: A CWB business model approach for community facilities



7. The Business Case for the Business Pathway

Businesses make up 15% of energy usage in the Venus Bay and Tarwin Lower community and currently spend around \$400,000 on electricity costs per year. With a \$1 million investment in solar for businesses, they can collectively expect a savings of \$200,000 a year, with a payback period of 5 years. With this financially viable payback period, there is a business case for businesses themselves to invest in this infrastructure. As well as potential positive multiplier effects of preferencing local installers, local business reinvestment further amplifies the potential local economic benefits.

It is often financial viable for a business to install solar. There are also tax incentives, subsidies and grants offered by the Government to encourage solar uptake. However in Venus Bay and Tarwin Lower, there is only two businesses that have solar. This could be due to factors such as cashflow, uncertainty about business longevity or complexities around not owning the building. Energy Consumers Australia also cited the lack the knowledge, expertise or time it takes to research or put into practice the actions needed to manage energy usage and costs facedd by small business. These constraints need to be considered when approaching how businesses might be a part of this initiative.

Batteries

Adding batteries to businesses has the potential to generate a small amount of revenue, but is unlikely to be a cost effective investment for businesses to invest in themselves. The Tarwin Lower IGA supermarket is currently the only business with solar and battery installation.

Businesses can also potentially avoid the large costs of outages - from loss of revenue and loss of stock. Typical outages for this type of feeder are just over 3 hours a year. In 2020-21 VBTLC experienced 45 hours worth of outages, with outages in prior years varying between 2-20 hours. As these are average across the community some connections would have had longer outages. This is significant, particularly if outages are during peak summer tourism times when businesses rely on high turnover (and in the case of food businesses, there is greater potential for food spoilage).



Case Study: Power Outages and the Venus Bay Fish and Chips Shop

In a community forum with Venus Bay and Tarwin Lower businesses, the owners of the local fish and chip shop described the impact of a three day outage on their business. The first and most obvious impact was the spoilage of food that could no longer be kept cold or frozen. The shop continued paying permanent staff even though the shop was closed or they had to let casual employees go without work. And of course, the business lost revenue from being closed in peak season.

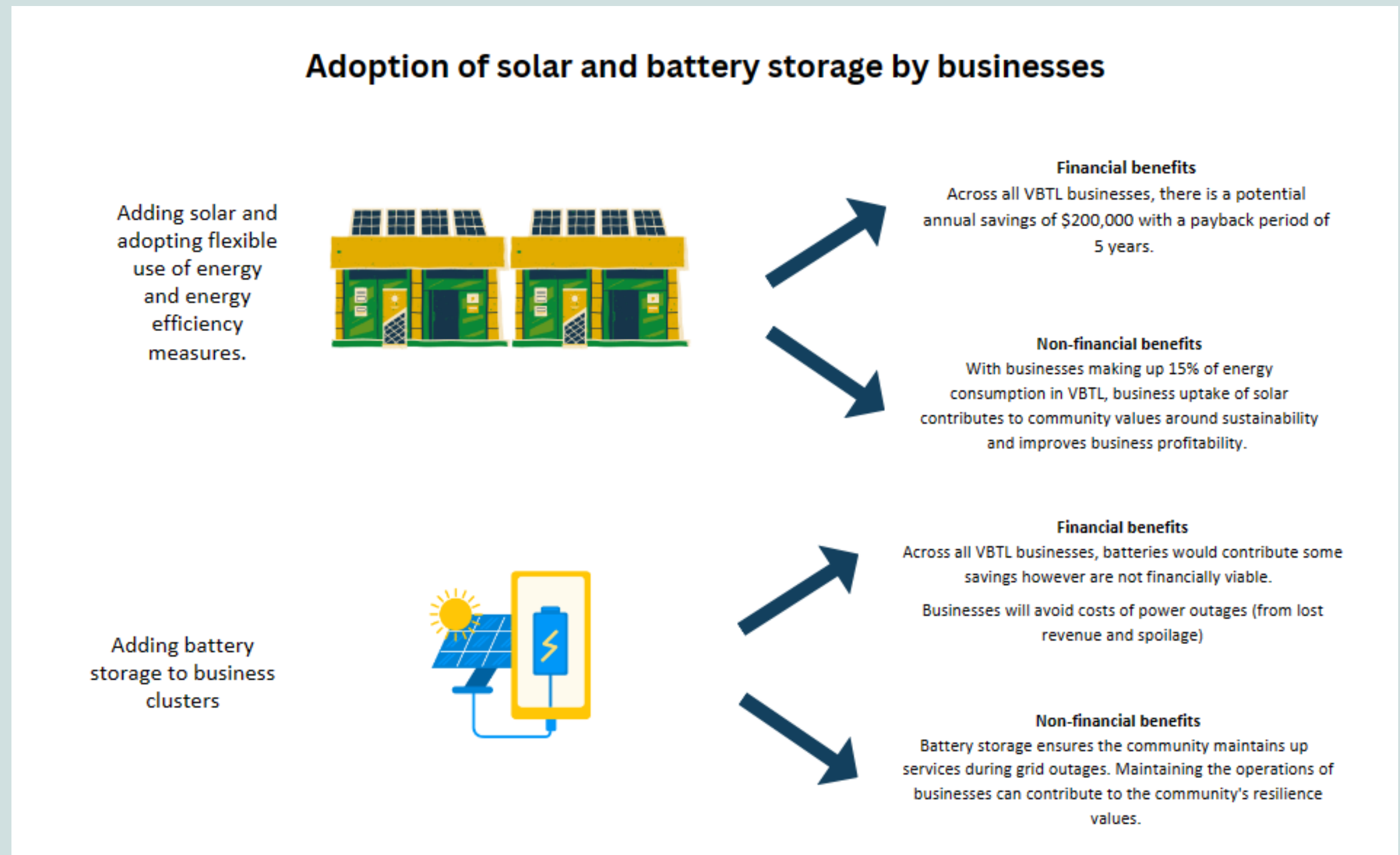
Once the power was restored the owners had to source placement items which owing to supply chain constraints were hard to find and more expensive. As the shop was shut for several days there seemed an expectation from the community that it might remain closed. This resulted in low sales volume for some time after the power outage until the business re-established itself.

This has played out at different scales across the community. When there was an outage in conjunction with a local bushfire during the tourist summer season many left not to return later in the holidays, draining the local economy of an estimated million plus dollars.

Businesses in small communities like Venus Bay and Tarwin Lower can play an important role by providing essential services like food, fuel and telecommunications. In a tourist town like Venus Bay, businesses like the caravan park also provide shelter. These services can be particularly important during an outage or emergency event. These businesses are vital for the local economy and for local industries like tourism.

Businesses also play a role in meeting the initiative’s sustainability goals and increasing the production and use of renewable energy locally. Stronger businesses, with lower costs and a greater connection to place, can only strengthen the local economy and community. Small businesses are more likely to reinvest in the local community - both directly via their spend and hiring of local people and via their support of the local community more generally. [Insert stat here re impact of small business on local economy].

Based on these non-financial contributions, there is a case for supporting or subsidising businesses for these initiatives, particularly in the case of batteries (which are not financially cost effective for businesses to install), hence sharing the risk between businesses and community. However, unlike the community facilities pathway, the businesses pathway is more complex - businesses are privately owned entities who could potentially profit from these initiatives. This is challenging both from an equity perspective and from the expectations or ‘social contracts’ that may come from community if businesses do receive these financial advantages.



Adopting Community Wealth Building Models for the Businesses Pathway

The workshop participants identified several opportunities for advancing the business pathway.

Advisory Service

The first opportunity identified by participants focused on education and advising businesses - offering information on any Government subsidies and grants for businesses, providing advice about solar installation and electrification, increasing their understanding of flexible energy use and energy audits. For many businesses, installing solar can be a worthwhile investment. An advisory service may help with these decisions. There is also potential savings for businesses with solar of \$100,000 annually from using energy flexibility and adopting energy efficient appliances.

Like the households pathway, these services could be offered by volunteers, although the reliance on volunteers is already significant in this community. As discussed (p 7), a part time energy advisory service could cost \$30,000 a year (utilising an existing space), could serve both businesses and households, and would help to progress the initiative overall. An advisory service could help to realise these potential savings within the community.

Providing funding solutions for businesses

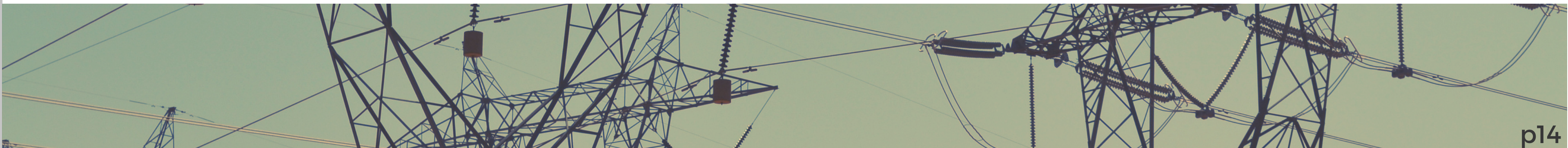
Given the high daytime energy usage of many businesses in Venus Bay and Tarwin Lower, installation or upgrade of solar for many of these businesses makes financial sense. An investment of \$1 million of solar and energy efficiency measures across many businesses is likely to have a 5 year payback period. This potential for a financial return opens up many more funding options than the community facilities pathway, including community investors.

Any funding solutions would need to consider and evaluate possible risks and complexities such as who owns the asset, who owns the property, who owns the business and what happens if these things change during the lease or project period. There are also potential risks, such as the business being unable to repay debt or meet leasing conditions. A range of small businesses may diversify these risks.

Community investors

The potential to earn a return creates the opportunity to source some or all of the capital needed from community members who would like to invest some of their money locally. Many economic and social benefits flow from local sources of capital. Financing costs incurred by an entity that is borrowing or entering into a leasing arrangement usually leave a local economy. Where local capital is used, this financing cost (the return that is earned by investors) remains in the hands of local people. Some of this money will further multiply within the local economy if it is spent locally. This also creates stronger economic ties between the community and its businesses. Where the community is 'invested' in those businesses, they have an even greater motivation to see them succeed.

Local ownership and investment in local assets gives local people some degree of control and connection to the initiative. It gives people a stake and a voice within their local economy. It creates a stronger, diversified local economy, greater social connections and in this case, a greater swell of support for the VBTL community energy project overall.



Reinvestment in the initiative

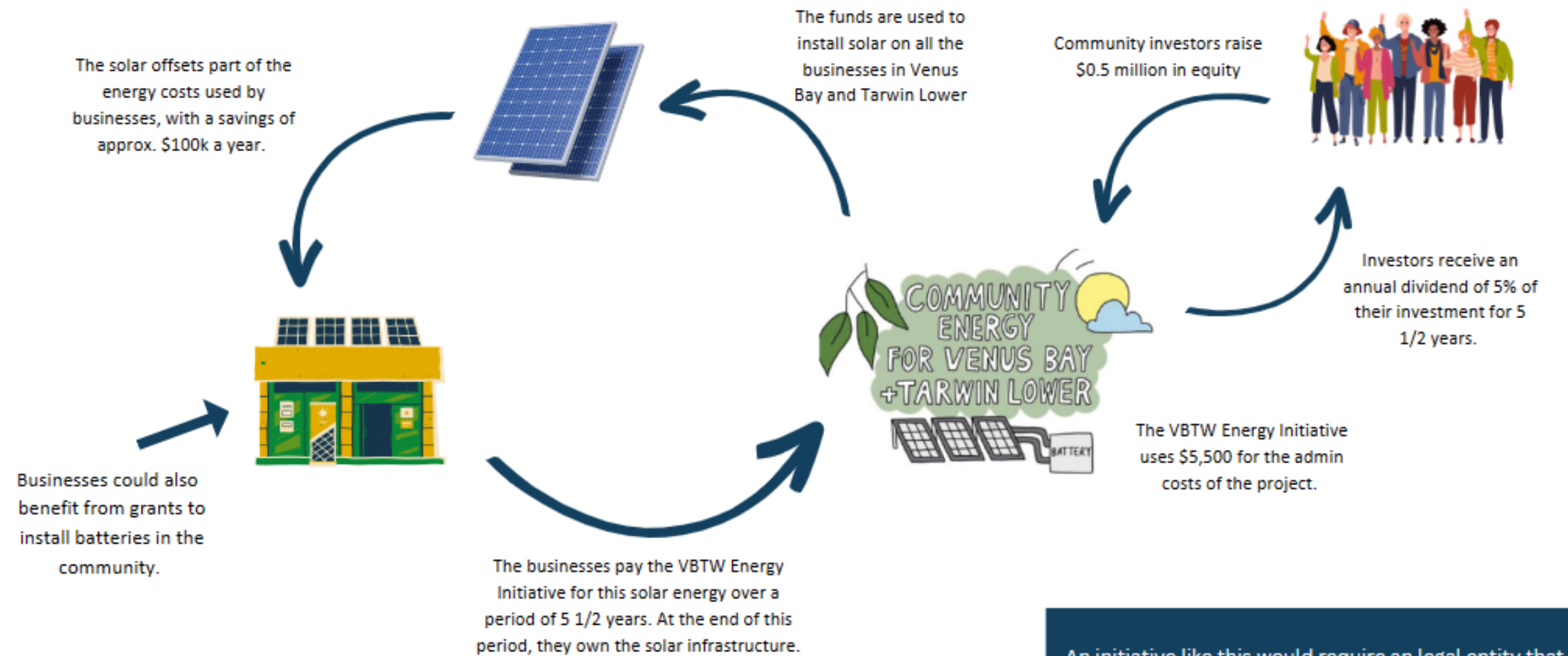
Where a business model can be created that generates a profit, an alternative (or an addition) to returning this profit to local investors is a return to the initiative itself. This could potentially operate as a 'revolving fund' to finance other solar installations, help to pay for other energy related initiatives such as an advisory service, or potentially help to fund the installation of a battery for a business cluster.

The following diagram provides an example of a business model that could incorporate local capital sources to invest in solar for businesses, and/or that takes potential profits and reinvests them back into the initiative. Only certain entity structures will suit an initiative that has equity contributions, such as a distributing cooperative, a public or a private company. The creation of this type of funding model would require detailed financial modelling and analysis, particularly around risks.

Grant or philanthropic funding

Grant and philanthropic funding could be a source of funding for this pathway, though as discussed, there are complexities both with equity and social expectations where businesses can potentially profit from an initiative. There is a stronger case for grant or philanthropic support for a battery, particularly as part of a cluster. This is discussed further in Section 8.

Example: A CWB business model approach for businesses



An initiative like this would require an legal entity that can have equity investors - such as a non-distributive cooperative or a (private or public) company.

8. The Small Clusters Pathway

Transformers act as a choke point in the system, limiting the amount of energy that can be exported from excess solar and the load that can be drawn from the grid. About 2,100 homes are serviced by 42 transformers. The 50 or so houses connected to these are called small clusters. This grouping provides the potential for community batteries to be used to store excess solar and improve reliability. These batteries are likely cheaper and provide more capacity than each individual household, business or community investing individually. However, details of battery economics are complex and best understood through the Local Battery Feasibility Study for Venus Bay and Tarwin Lower Communities. Here we highlight three core battery drivers (capital expenditure, lifespan and revenue generation), three community values (resilience, equity and innovation) and the three key behaviour changes (using energy flexibly, efficiency, electrification), and the interplay with community wealth building.

Capital Expenditure and Lifespan - Batteries are expensive and most recent studies of community batteries have not found ways to make them economically viable given the current energy market. Higher battery capacity increases potential resilience and self-sufficiency but at a higher initial outlay. High capital costs mean high repayments and longer payback periods. There is little certainty over the length of time the batteries can usefully operate with warranties being relatively short lived. The greater the lifespan the more opportunities to generate income and use batteries for resilience.

Income - Batteries can generate income by taking up energy when the market has excess supply and sell energy when there is low generation or high demand and the market price is high. The local community is also likely to want to use the energy when demand is high. This draws down on battery reserves. This also drains the community of its resilience capacity, potentially at times when they are most likely to need a localised supply; for example, high demand during high temperature events are also times when the grid might fail. Income generation runs against resilience and equity measures.

The community may also choose through retail or other mechanisms to sell excess energy from solar or batteries more cheaply to local people, in line with the desire to promote local equity measures.

In the current energy market the driving criteria for the operators is having the most reliable network for most people. This favours towns and cities where it is easier to maintain the network at the expense of regional and remote areas, who suffer higher rates and longer time of outages. Although

the expense to the community is estimated to be \$21/ kWh lost (see feasibility Study), there is no way for the community to recoup this.

Innovation - is the final community value that is relevant to the consideration of batteries. Battery size is influenced by the amount of excess solar energy that can be generated; there's no point in a larger battery if it can't be charged. The use of energy from the battery by the community is influenced by efficiency measures and the use of energy flexibly reducing the need for a battery. Electrification increases the need, but in the cases of vehicles, may also provide other sources of energy. Bringing these threads together the community innovation taking into account these factors can drive innovation in battery requirements to meet resilience and self sufficiency measures. Initial measures may include to oversize solar generation on community facilities, focus on efficiency and flexible use.

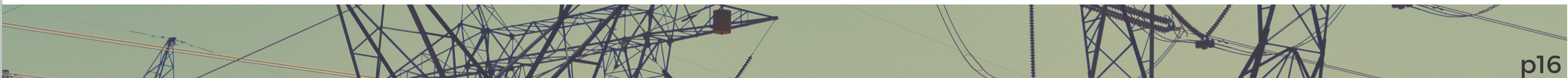
The estimated cost for the four proposed battery studies is \$1.5m. To capture wealth locally Venus Bay and Tarwin Lower communities need government funding to support battery implementation and resources, including support for a local employee, to drive efficiency, flexible use and solar uptake. Using the approaches outlined above more of that initial outlay can be captured and reinvested in these communities.

These combined approaches also potentiate the implementation of different retail offerings that can support the community. The People's Grid and Mycelia are examples of Retail providers that enable producers and consumers to connect and sell to each other, and in the latter case supports the implementation and management of a community fund.

9. Large Clusters Pathway (Whole Community)

The small clusters provide the potential for greater stability, and maximising locally generated renewable energy through the use of community batteries. However, this does not provide the community with the reliability needed in times of blackouts or crises like a bushfire that cuts off one or more of the communities. For this a micro grid, and possibly additional non-solar sources of generation are needed. A micro-grid allows the local grid to continue by disconnecting from the main grid in times of crisis.

This is a more expensive project estimated at \$1m, but probably less than upgrading the existing infrastructure to provide these communities with the same reliability that larger towns receive. This would still not provide the community with energy in times of crisis. During these times lack of energy has a cascading effect reducing services, safe spaces and even communications if the telecommunications tower is without energy.

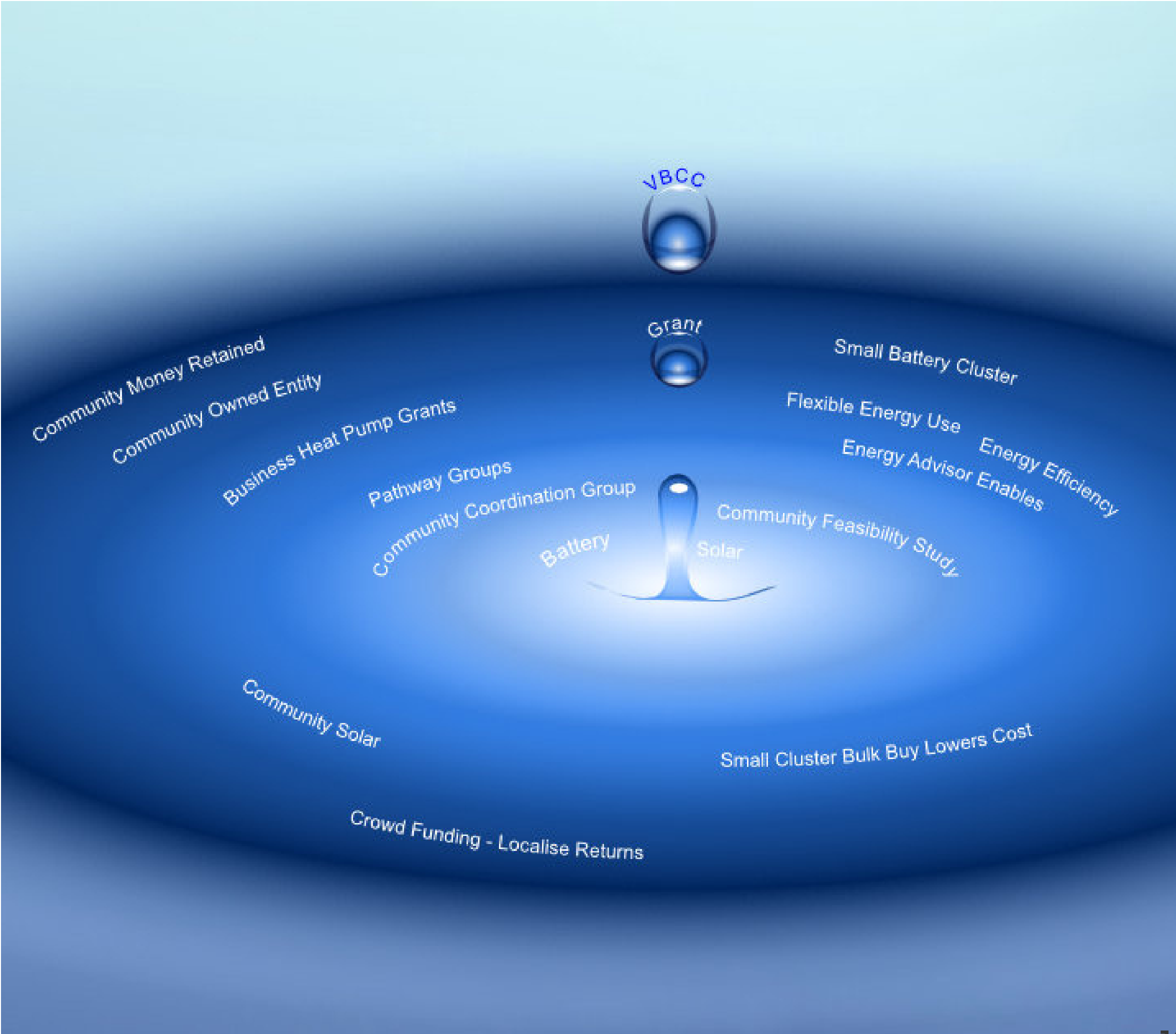


11. The Venus Bay and Tarwin Lower Communities

This is a point in time of a story that started when the VBCC decided to become more sustainable and install solar panels on its roof top. VBCC has continued this journey by becoming a microgrid with battery storage, and soon will support a battery powered bus and complete its electrification by installing induction cooking facilities.

From this beginning, a community galvanised into action to consider what it wants from the energy transition has emerged. The broader energy transition that is upon us does not necessarily mean an economic one. People may have more to spend if they realise gains from installing solar, but those people won't necessarily do this collectively or in a way that could bring energy equity in their community. Community facilities may receive grants that allow them to install solar panels or batteries and have a little more to reinvest in their cause, but they won't necessarily consider how to share or recirculate this benefit with the broader community. Businesses might raise capital from banks for efficiency measures or solar, without considering or creating options to source capital locally. In the absence of a community articulating its values, for energy and for its economy, the default is for the economic benefit to mostly leave the community; any local benefit is by chance.

The VBCC activation of these two communities has provided a focal point to think differently, and build experience, capability and a sense of ownership about their local economy. Without community activation, any economic transition is piecemeal, uncoordinated and isolated from each other; there is no systemic interaction that captures more of the economy locally to create a resilient, local economy that nurtures the people in it. Community wealth building provides a framework and strategies to guide this parallel economic transition.



A grant for Solar installation on the community facility could be extended to include funding or 1-2 people as an energy advisor or community coordinator. This could lead to the adoption of energy use and efficiency measures that lower household costs and make batteries more financially feasible by reducing the size of the battery needed. The advisory facilitates a bulk-buy that lowers costs to households and businesses, and increases solar uptake. They target a small cluster that includes business and households. The savings that these businesses and households could realise could be split with the community, into a community fund. This fund might support an initial battery installation for the small cluster that the community facility is part of. This reduces the need for outside support and increases safety and reliability for the whole community.

Oriented towards its goals, the community set up a locally owned entity to support the crowd funding for solar on key businesses. The savings are split between the business, and paying back the loan, plus modest interest to the community member who supported the crowdfunding. Local suppliers are used for all installations keeping more of the money circulating locally. The battery and solar help businesses manage through outages and, as they are more financially viable, they are more able to keep people employed.

The learning from these approaches enables the community not only to carry forward other energy initiatives, but to explore and apply this knowledge and empowerment to other economic opportunities, such as using their community ownership model to run a local business when the owners retire.

This is illustrative, and a true path is likely to be much messier. There are many examples, including those above, that illustrate community ownership as an economic path to energy transition (Yackandandah) or vice versa such as Geelong. This is case the community's intention is to think about the transition in a way that weaves together energy, economy and social equity transitions.

The energy transition is increasingly urgent; global heat waves, fires and floods also demonstrate the need for resilient economies and systems. This relies on communities building capacity which can only be achieved through communities engaging and implementing solutions to real problems. The Venus Bay and Tarwin Lower community is a model of how to achieve this, and can potentially be reproduced and scaled. Leading initiatives, like the Venus Bay and Tarwin Lower Energy Project, can provide Government with the learnings of how best to support communities more broadly to implement transition and resilience strategies, acknowledging that communities themselves hold the knowledge of how these transitions can play out in their own place. Well targeted support of communities can lead to:

- A reduction in post event resilience and rebuilding measures,
- Decarbonisation
- Capturing more wealth locally
- Increasing equity

Funding leading initiatives reduce the costs and barriers to those who follow.

