Community Resilience and Reliable Energy Feasibility Study for Venus Bay

Report 1

Project Startup and

Energy Options for Resilience

Australian Government

This project received grant funding from the Australian Government

Report Summary

The Venus Bay project aims to:

- Define what resilience means for full-time and part-time residents, business owners, community organisations and holiday makers.
- Explore various energy options that could support our resilience
- Test which of these options might work in Venus Bay
- Assess what the best options might cost
- Put together a plan that outlines how we could fund and build the best energy options.

The community will investigate its options across four workshops from October 2022 to June 2023

This report covers the first two milestones, project startup and defining resilience needs in the context of energy options.

Section 1. Project Startup Page 3

The first milestone involved establishing the contracts and project governance arrangements.

The inaugural advisory group meeting was held in July. It was followed by a community event to introduce the project and hear initial responses from local residents.

Section 2. Resilience Framework Page 11

A framework for understanding the relationship of resilience to local energy supplies and infrastructure was developed.

Section 3. Resilience and Energy Workshop Page 13

October 1st involved a community workshop to map community infrastructure, sites, clusters and energy requirements. The second session involved a detailed assessment of household energy requirements during power outages and emergencies.

Section 3 includes the Harvest report produced as the workshop outcome.

Section 4. Communications and Engagement Page 27

A timetable and communications plan was prepared for scheduling the four workshops and building community engagement throughout the year.

Monthly bulletins, website updates, social media and face-to-face engagement all form part of the communications strategy.

Governance

An Advisory Group has been established to connect the project with the community and regional stakeholders.

The project team meets regularly to progress the project engagement and technical analysis.

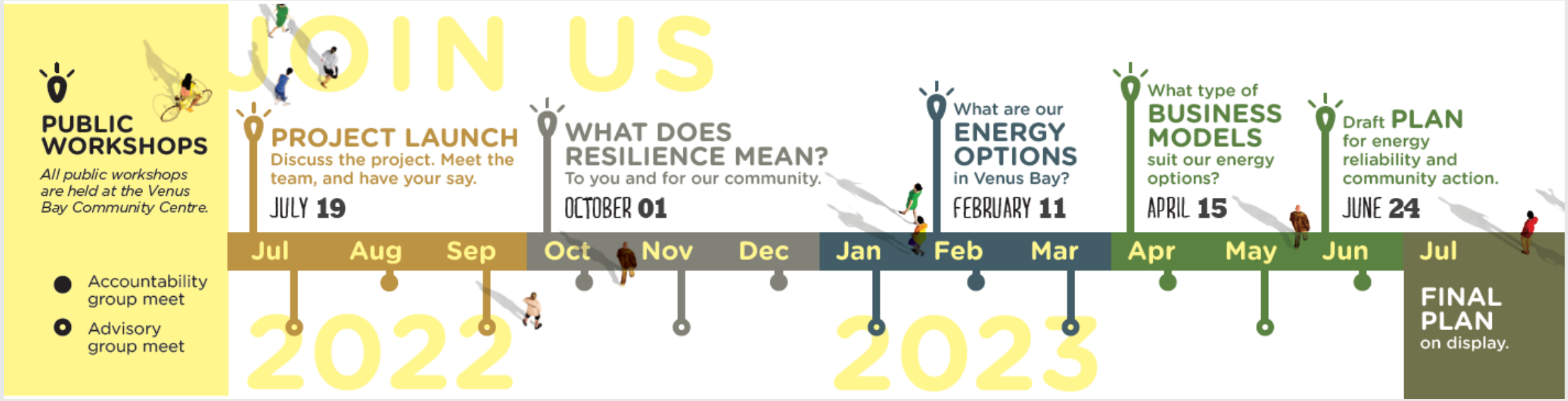
The Venus Bay Community Centre (VBCC) is the fund recipient and contract manager. Three members of the VBCC Board oversee the project progress and reporting to the Commonwealth.

While initial recruitment of the Accountability and Advisory Groups has been completed, membership of the Advisory group has been allowed to remain open. With growing awareness and engagement of the Venus Bay community, this has been an important feature to allow newcomers to the project to get involved.

Planning

The summary of the project plan with key workshop dates has been printed on bookmark sized cards and distributed widely in the community.

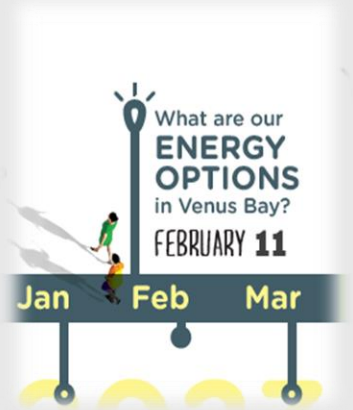
A communications plan has been prepared and remains a living document. It outlines key messages and a strategy for monthly project bulletins to be distributed alongside the community newsletter “Matter of Fact”. It includes regular social media posts. Face to Face engagement has also been planned at public events.



Project Overview

1. The first workshop focused on understanding the relationships between energy and resilience. Attendees were encouraged to ask:

- How much energy is essential?
- How much energy is enough?
- How much energy helps me have everything?



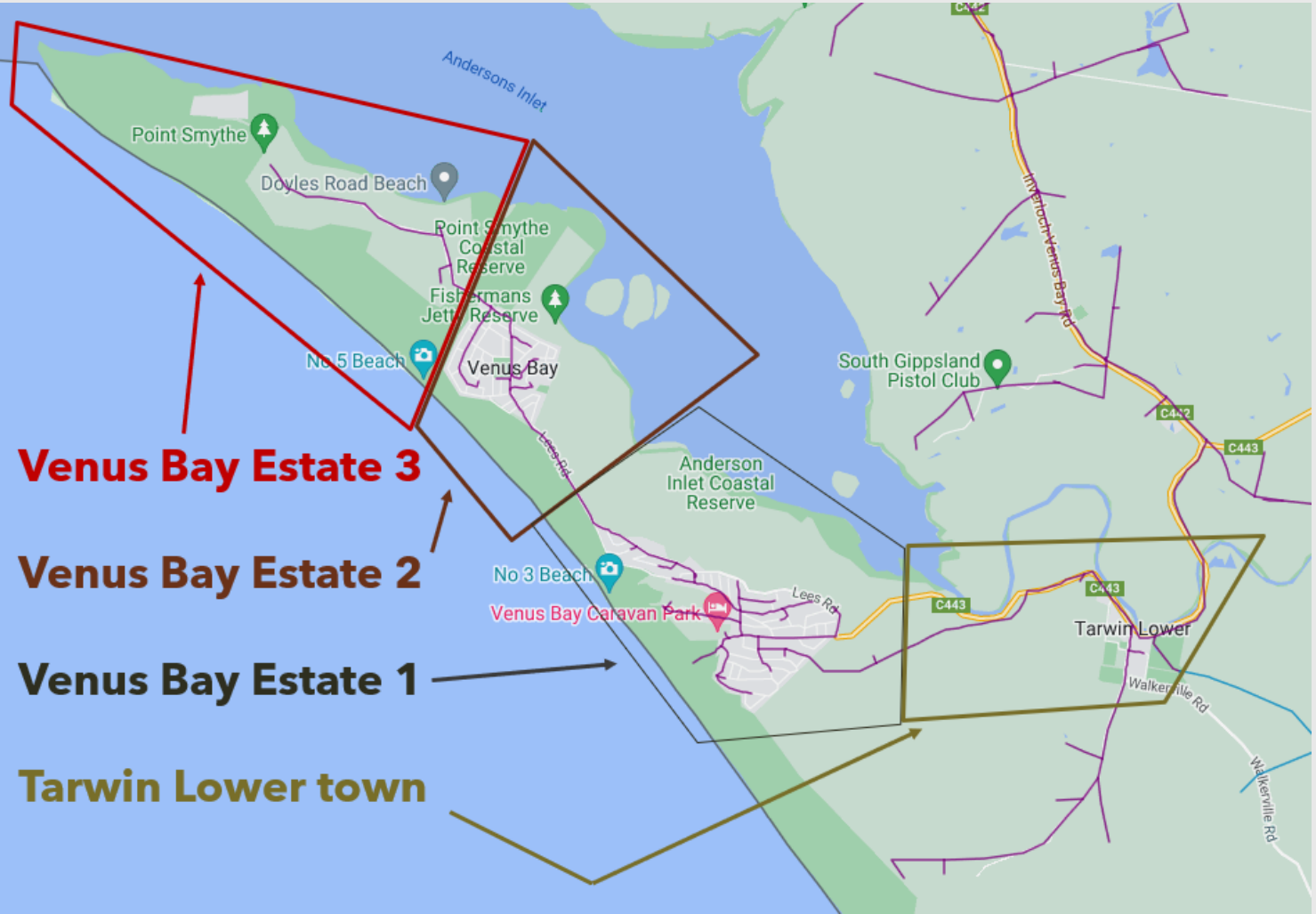
2. In the energy options workshop we will explore ideas for powering:

- Critical sites
- Clusters of sites such as the shops
- The whole Venus Bay Peninsula

3. We will look at different community energy models and the business cases for private and public value in order to understand the community options for making preferred projects affordable.

4. The final action planning will represent the start of a community energy journey toward enhanced resilience and reliability

Understanding the electricity supply



Venus Bay is supplied from the Wonthaggi Zone substation, via Inverloch. The 22kV line (marked in purple on the map) is prone to outages. The three Venus Bay estates and Tarwin Lower are clusters of load that could each be considered for a microgrid or could be supplied by a single system. The data on energy consumption in each estate has been requested from Ausnet services.

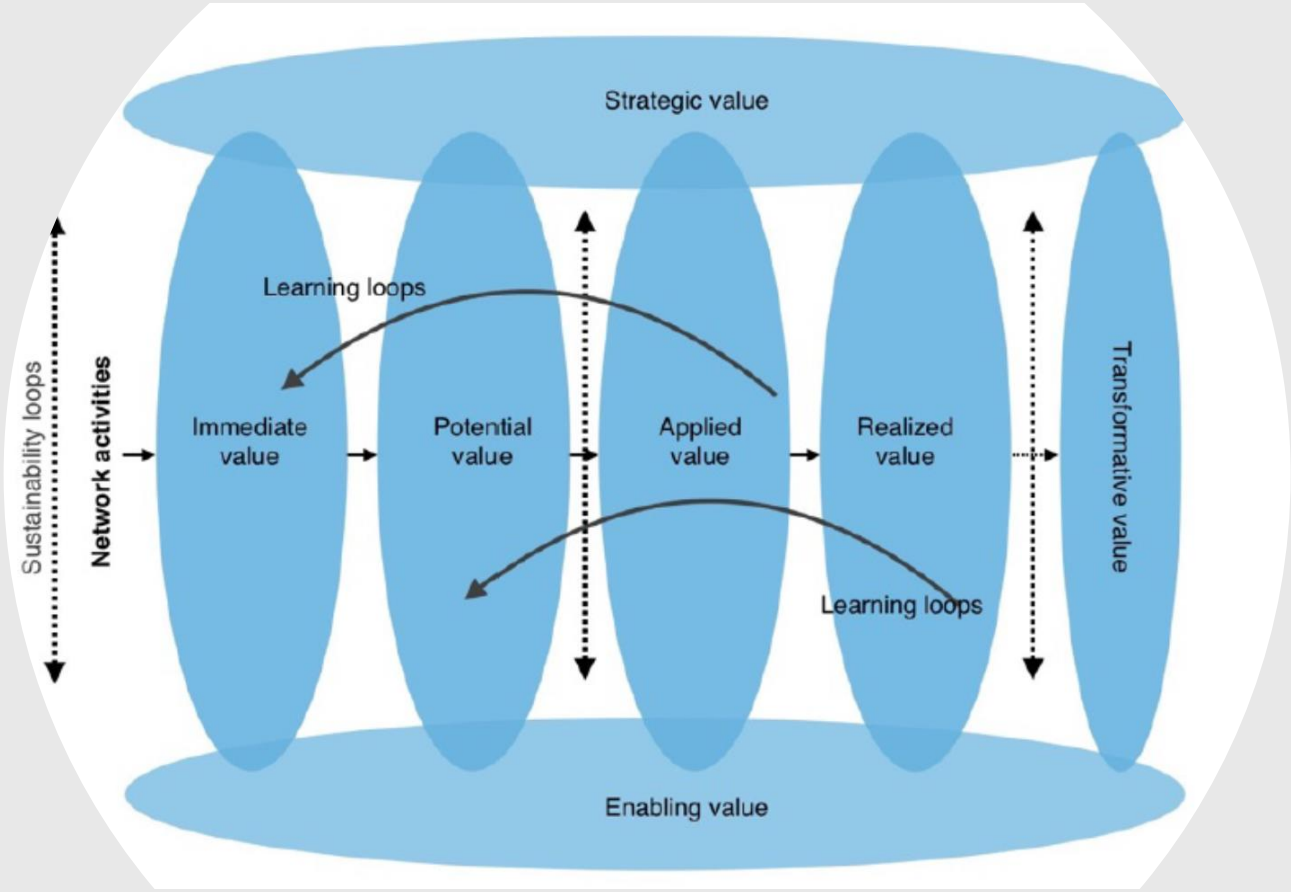
Bald Hills wind farm, along Walkerville Road is visible from Venus Bay. It provides its power directly into the 66kV system and is not connected in a way that could be made available to local residents.

Within each estate are critical sites and clusters of sites that could be powered by smaller microgrids or stand alone power systems. The map below highlights some key sites in Venus Bay first estate.

Advisory Group Startup Meeting

The group was introduced to different ways that value would be experienced and measured throughout the project. Value can be immediate, potential, applied, realised, strategic, enabling and transformative. The core operating principles of the value framework are:

- People will come along to our events and get involved if they get value from their participation
- If we understand value from participant's perspectives, we are better able to enhance it
- We propose to use a framework to help us design valuable activities and experiences and improve how we engage people as we go
- The framework understands value happens at different levels, each building on and enhancing the others

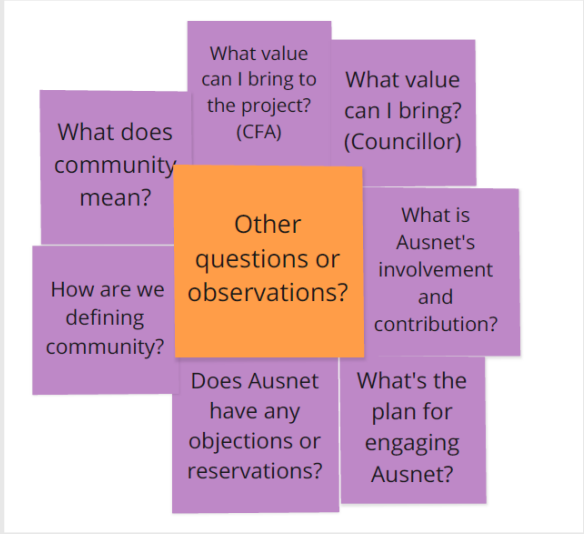


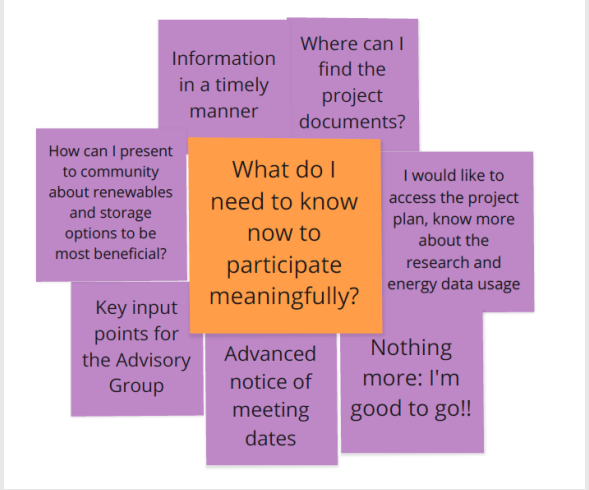
Responding to Feedback from the Advisory Group

Advisory group meetings have moved from every two months to every month and Ausnet Services has joined the group. Each meeting allows time for feedback from members. Participation in engagement and events outside of workshops and meetings has been encouraged.

All members have access to a Dropbox drive of documents and regular meetings have been set for the remainder of the project period. We continue to refine our engagement approach and experiment with reaching more community members.

An important insight has been the close connections between Venus Bay and Tarwin Lower. In response, Tarwin Lower opportunities have been clearly included in future analysis work.





What we heard when introducing the project to the community

The project team is responding in these ways:

Harvest report

Frequently asked questions

Additional information sessions

Workshop discussions

This is really important for creating shared understanding and avoiding individual opinions or hearsay to dominate

The Advisory Group accounts for numerous interactions with residents and visitors across the community

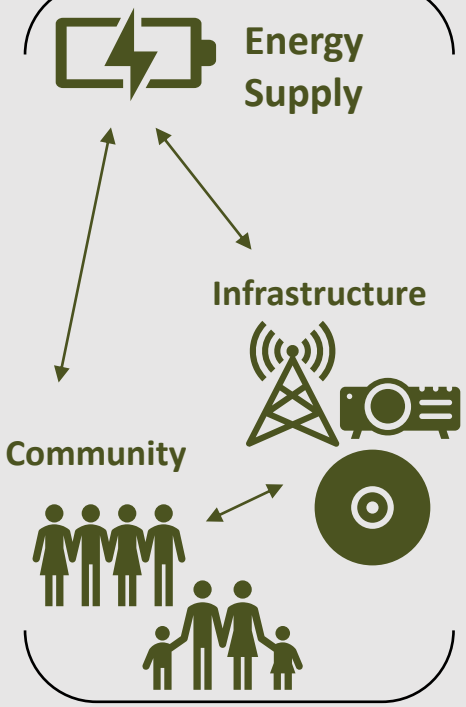
A suite of sample key messages were provided to assist the Advisory Group in talking about the project:

- The intent of this project is to engage Venus Bay residents, part-timers and holiday makers in the information sharing and design of energy systems that help us be more resilient.
- There are lots of opportunities for our community to contribute to our research and the design we are building along the way. The more voices that are heard, the stronger the plan will be.
- At the end of this project, we'll have a plan for how we can fund and construct the best energy options for Venus Bay.
- We're going to get there by using a Codesign Process. A Codesign Process is different from your usual consultation process.
- Codesign is an approach to designing with, not for, people. Codesign elevates the voices of people with lived experience. For the Venus Bay Community Energy project, codesign means sharing our stories and power in research, decision-making, and ultimately in designing a bespoke community energy system to meet our needs.
- We are telling an uncertain story – this is exactly what codesign is all about!

Resilience Framework

The resilience framework provides a stepwise approach to understanding resilience. It highlights the relationships between energy use, infrastructure and community members. It challenges everyone to think beyond emergencies and shocks and it emphasises that resilience is permanently entwined with change and learning.

1. Resilience of what?



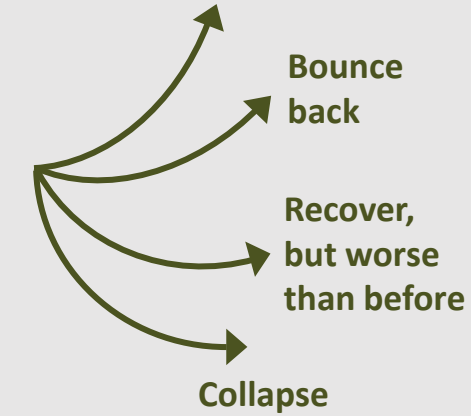
2. Disturbances - Resilience to what?

3. Capacity to deal with disturbance

What do you think?

- Being prepared
- Knowing who can help - connectivity
- Spare capacity, diversity, flexibility, alternatives / multiple options
- Adaptability
- Managing with less
- Support from authorities

4. Reaction to disturbance



5. Due to what actions?

Better = learning, adapting and transforming

Bounce Back = Preparation, monitoring, responding

Recover..ish = Coping, absorbing the shock but performance declines

Collapse = fundamentally changed by the event/s

Notes on Framework*

COMMUNITY ENERGY for Venus Bay?

The resilience framework has been developed for Venus Bay, based on "Defining disaster resilience" by the UK Department for International Development. The notes below describe the decisions for modifying each section of the framework

1. Resilience of what?

Tarnagulla[1] used a capitals approach to building resilience. It identified its low economic capital before pointing to electricity supply as a contributing factor. Many frameworks focus on the social forms – eg communities and institutions in order to highlight those ideas that can be planned and improved. A repeating theme is that people's resilience relies on the connections between people.

The Venus Bay project is only offering to explore the resilience that can be increased with alternatives to the existing electricity supply. The framework therefore explores the key issues we have identified already:

a) We want this to be about *community* resilience
b) It focuses on *energy*
c) Other *infrastructures*, notably telecommunications and water cause significant problems when power fails.

We will focus on these concepts and the connections between them

2. Disturbances - Resilience to what?

The Venus Bay project[2] started as a response to frequent power outages and the frightening black summer bushfires.

Needs during a disaster are different to needs during a more mundane power outage, as are the opportunities to service those needs. Exploring the difference is essential because safety is one of the highest priorities for a community when discussing resilience. Many frameworks are defined by emergency settings but, like Tarnagulla, Venus Bay wants to improve its everyday outlook as well.

Many resilience frameworks discuss stressors, sometimes from the perspective of long slow climate challenges. Stress as a frame provides on opportunity to discuss the changes in energy systems that could catch Venus Bay ill-prepared.

Resilience and vulnerability are linked. Vulnerability therefore provides a provocation for thinking about priorities for change.

3. Capacity to deal with disturbance

Tarnagulla's capitals approach starts with capacity. Resilient systems display many of the properties that have been offered for starting the discussion:

- **Being prepared**
- **Knowing who can help - connectivity**
- **Spare capacity, diversity, flexibility, alternatives / multiple options**
- **Adaptability**
- **Managing with less**
- **Support from authorities**

Information, connections (between people, to assets, to information), resources and assets, governance and institutions are all common themes across the literature.

Biological systems' literature emphasises attributes like redundancy and diversity.

Venus Bay has capacity to respond to outages, so it will use this discussion to identify gaps.

4. Reaction to disturbance

It is important to note that recovering from a challenge is often not the best outcome for a community.

Resilient is a word that suggests returning to normal with a minimum of fuss. Adaptable is a word that suggests ongoing change without losing some core essence. Antifragile, tolerant, adaptive, robust, stable, durable are all used and all mean slightly different things.

Exploring the way changes might change a community and the sorts of changes that a community wants to embrace allows the resilience discussion not to get stuck. Impressions of recovery and restoration might be based on current or past expectations for Venus Bay. This concept of 'what doesn't kill us makes us stronger' ensures a framing of always preparing for Venus Bay's future.

The network ability to be restored lacks this element of "bounce back better" that microgrids offer.

5. Due to what actions?

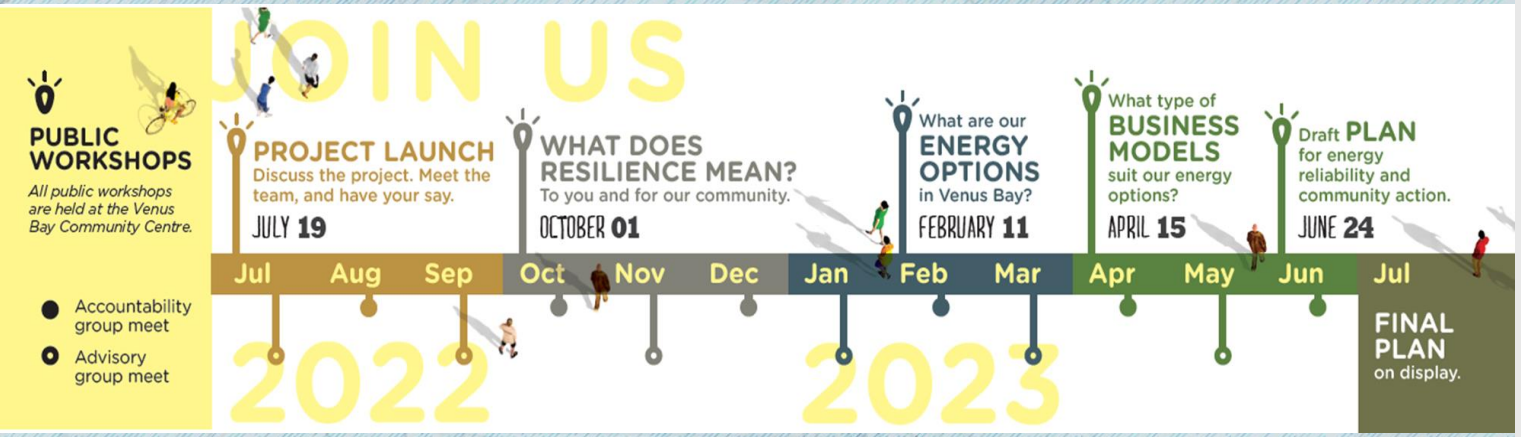
I have added this element to capture the headline lessons that the literature seems to suggest:

If a community wants to bounce back better it needs to be perpetually learning, particularly after each event. And experimenting in order to test potential adaptations. Sometimes it needs to be prepared to fail which can be a form of collapse to clear the space for transformation.

Bouncing back is often associated with preparation to minimise the impact of events, monitoring to predict events and speed response and the governance that formalises response procedures.

Coping with disruptions and simply absorbing shocks is often associated with a decline in performance.

Collapse means a system is fundamentally changed by an event and sometimes this is not always a bad thing, but rather an important dimension to explore.



Venus Bay Community Energy Study

Community Workshop #1

Harvest Report

Australian Government / This project received grant funding from the Australian Government

We started by recapping on the Venus Bay Community Energy Study

This Study will:

- Define what resilience means for full-time and part-time residents, business owners, community organisations and holiday makers.
- Explore various energy options that could support our resilience
- Test which of these options might work in Venus Bay
- Assess what the best options might cost
- Put together a plan that outlines how we could fund and build the best energy options.

What we heard when we asked you about the biggest impact when the power goes out:

- No water or toilet flushing
- Loss of mobile reception after 4-6hrs
- Isolated in an emergency which feels unsafe
- No cooking or limited cooking
- Losing perishable food
- Super inconvenient
- Need to leave if the outage is more than 24hrs
- Checking in on family and neighbours
- Heating and cooling (especially for the dogs)
- Healthcare aids

Community Workshop #1 – October 1st, 2022

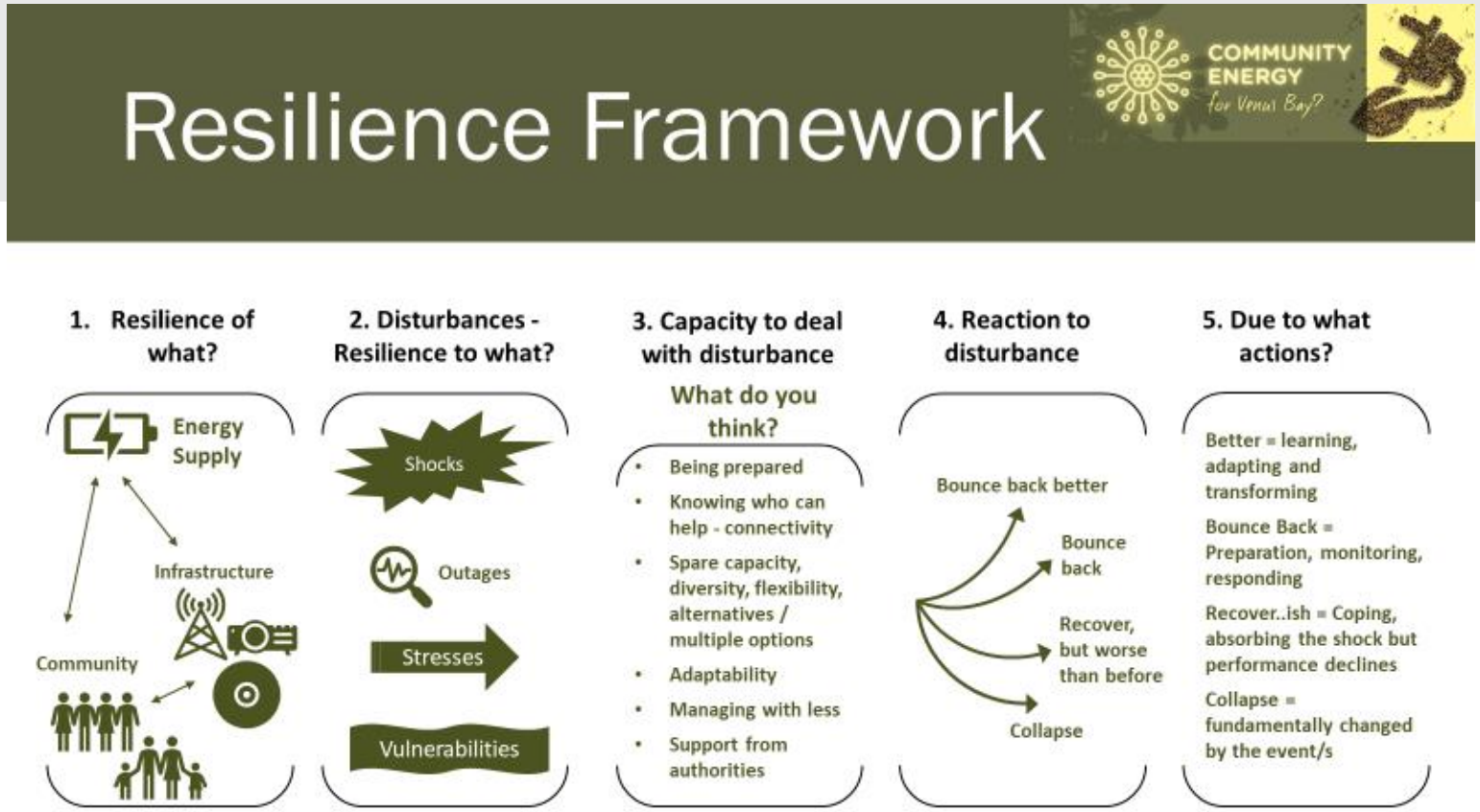
Summary

- 24 people participated in a 3 hour workshop
- Activity #1 - We mapped community networks and relationships with energy and infrastructure and identified clusters of buildings that provide important services and would be good to power independently, particularly during prolonged outages and emergencies

  This information will inform where community energy infrastructure might be sighted.
- Activity #2 – We identified our household energy needs during short and longer outages and emergencies by ranking the importance of different energy uses, e.g., phone charging and water pumping.

  This information will inform the total energy needs under different outage scenarios and help with sizing potential community energy systems.

Creating context for the workshop and Activity #1



Project Team member - Heather Smith from Changing Weather – presented this Resilience framework and outlined how would be drawing on this way of thinking as we went through the workshop activities:

- Resilience in our relationships with energy and infrastructure,
- How disturbances can come in the form of outages and emergencies, but also from vulnerabilities and stresses, such as impacts on the grid as we transition to renewable energy and;
- How we react or respond to disturbances has everything to do with how prepared and resilient we are as a community.

Activity #1 – We mapped our relationships under four scenarios

Relationship mapping under four scenarios - Venus Bay and Tarwin Lower

Instructions - Mapping the relationships between people, devices, organisations, infrastructure, businesses, sources of energy and the main electricity system

- **Social networks** - Focussing on the social / community / people connections - What connects people? What infrastructure is critical? Are there gaps or vulnerabilities?
- **Normal Outages** – Focussing on short and long-term disruptions – what changes in your life during an outage? Do you relate to energy differently? How seasonally or time of day dependent are your needs and responses?
- **Emergencies and shocks** – Focus on the possible disaster and crisis situations. What extra energy needs do you or your community have in these circumstances? How are these seasonally influenced? Think through emergency management plans.
- **Hubs and Clusters** – Focus on the services and people we rely every day. What buildings would you connect through a community energy system, to provide services for the community? Does this look different in an emergency?

Social Networks

Instructions

1. Begin by writing individually, your thoughts on the following on sticky notes.
2. Then place on the map and share thoughts.
3. Then answer the questions below, draw connections on the map and make notes about the relationships.

Mapping the relationships and connections between

- people,
- organisations - local and immediate & further afield
- infrastructure,
- businesses,

Focusing on the social / community / people connections

What relationships exist?

What connects people?

What infrastructure is critical?

Are there gaps or vulnerabilities?

What relationships would benefit from strengthening?

Hubs and Clusters

Instructions

1. Begin by writing individually, your thoughts on the following on sticky notes.
2. Then place on the map and share thoughts.
3. Then answer the questions below, draw connections on the map and make notes about the relationships.

Mapping the relationships and connections between:

- people,
- services,
- organisations
- energy-dependent infrastructure,
- businesses,
- sources of energy and the
- main electricity system

Focus on the services and people we rely on every day.

What buildings or other services would you like to see powered independently?

Are there groups of buildings that could be connected in a cluster, to provide services for the community?

Does this look different in an emergency?

If we could do clusters of houses, where could you see them operating?

Normal Outages

Instructions

1. Begin by writing individually, your thoughts on the following on sticky notes.
2. Then place on the map and share thoughts.
3. Then answer the questions below, draw connections on the map and make notes about the relationships.

Mapping the relationships and connections between:

- people,
- devices,
- energy-dependent infrastructure,
- businesses,
- sources of energy and the
- main electricity system

Focusing on short and long-term disruptions

What do you do to prepare for an outage?

What changes in your life during an outage?

How do you use energy differently?

How seasonally or time of day dependent are your needs and responses?

Has anything unforeseen happened to you during an outage?

Emergencies and shocks

Instructions

1. Begin by writing individually, your thoughts on the following on sticky notes.
2. Then place on the map and share thoughts.
3. Then answer the questions below, draw connections on the map and make notes about the relationships.

Mapping the relationships and connections between:

- people,
- devices,
- energy-dependent infrastructure,
- emergency management organisations, advice and plans
- businesses,
- sources of energy and the
- main electricity system

Focus on the possible disaster and crisis situations.

What extra energy needs do you or your community have in these circumstances?

What infrastructure have you made use of during emergencies?

What organisations have you called on?

How are these seasonally influenced?

Think through emergency management plans.

What hasn't worked well in emergencies that you would like to see addressed?

How we are connected

This map was produced from the ideas discussed at two workshop tables - Social networks and Hubs & Clusters. The map illustrates the social networks, connections and relationships that exist between people, groups, organisations and infrastructure. Overlaid on this map are the ideas people had for powering particular buildings or clusters of buildings in local hubs to meet the communities needs during power outages. Further work is needed to discuss this more widely, to test the ideas and explore which sites we might power first if we need to prioritise some before others.

Raw data from social networks and relationships group

Social network top vulnerabilities
1. Communications - power out means no phone or internet
2. Transport - we have no public or community transport
3. Medical services are limited and it is unclear which organisation is responsible for the vulnerable persons register

One road in and out of Venus Bay makes this community particularly vulnerable during emergencies

Many social groups span both townships

Landcare

Local groups and Facebook pages

CERT

Landcare connects people in Venus Bay and Tarwin Lower with common interests in the environment

CERT Team
-covers Venus Bay, Tarwin Lower & beyond.
-High value knowledge of community and individual needs

Tarwin Lower Shops
-important community services - post office, service station (fuel & bottled gas)
-hotel & cafes are meeting places
-hardware for emergency supplies
-staff have great local knowledge

Hotel
Hall
Hardware
Churches
CFA
IGA
Post Office
Service Station

Tarwin Lower CFA Brigade
-covers Tarwin Lower & Venus Bay
-emergency services
-emergency preparedness awareness & training

Churches
-lots of resources, book club, support groups, events
-knowledge of marginalised people

Hubs and Clusters - places to independently power in Tarwin Lower
-CFA particularly during emergencies
-Hall during outages or recovery
-Service station to get fuel and gas
-IGA & Mitre 10 so we can get supplies
-School has lots of facilities
-Medical Centre so can offer services all the time
-Rec Reserve as is Fire Safe Place

Install Satellite phones at specific Hub sites for emergency use.

School

Tarwin Lower Primary School
-connects families across the wider district

Health Centre
Community garden & Gardening Group
Yoga
Medical services

Tarwin Lower Community Health Centre
-provides medical services
-wellbeing support through community garden & garden

In May 2022, Tarwin Lower had 294 properties connected to the electricity grid

Pony Club
Bowls Club
Footy Club
Netball Club
Cricket Club

Sports Clubs & Rec Reserves
-connect families from across the wider district
-Recreation Reserve is a Fire Safe Place

Potential for community solar & battery

In May 2022, Venus Bay had 1950 properties connected to electricity grid

Doyles Road Beach

Doyles Beach offers access to Inlet, safe swimming, dog walking & place to

Fishing Club

Fishing Club connects people through workshops and competitions. **Facilities include** toilets, BBQs, boat launching and jetty

Venus Bay Community Centre has many connections with full-time, part-time and holiday makers through Newsletter, holiday program, Mens Shed, Op Shop, various groups & clubs

Public toilets, water tank & bore

Mens Shed
VBCC + Clubs
CFA
Op Shop

Jupiter Park
100,000 ltr Water Tank
Water tank pump needs independent powering

General Store
Chemist
VB Shops
Cavity
Estate Agents

Venus Bay Shops
-general store for supplies
Cavity is a place people meet
- Chemist has important knowledge of people in community & medicines
- Estate Agents are point of contact for holiday makers

Telstra Tower

Telstra Tower
-critical for communications across community
-doesn't support high use on weekends & holidays

Caravan Park

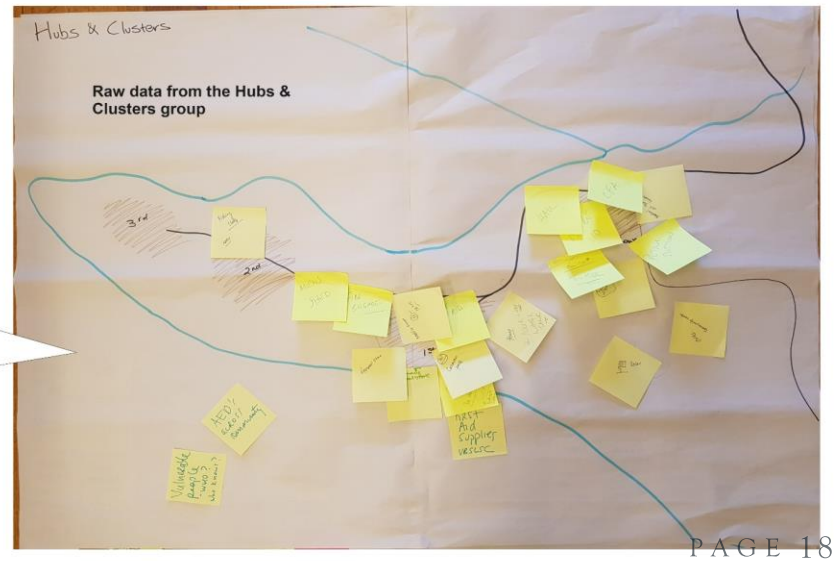
Venus Bay Caravan Park - brings economic benefit to Venus Bay **Facilities include** toilets, showers, laundry

Surf Life Saving Club

Surf Life Saving Club Has large membership, offers training, is family centred. **Facilities** - showers, toilets, cooking, beds, first aid

Hubs & Clusters - places to independently power in Venus Bay
-general store for supplies
-chemist for medical supplies
-all shops to support economy during outages
-Caravan park has toilets, showers, laundry
-Surf life saving club has toilets, showers, beds, kitchen facilities
-Telstra Tower so it last longer than 2hrs during outages & emergencies. Can the signal be boosted during periods of high visitation?
-Fishing Club due to proximity to water and jetty and has toilets and BBQ facilities
-VB Community Centre & Men's Shed already has stand-alone-power
Install Satellite phones at specific Hub sites for emergency use.

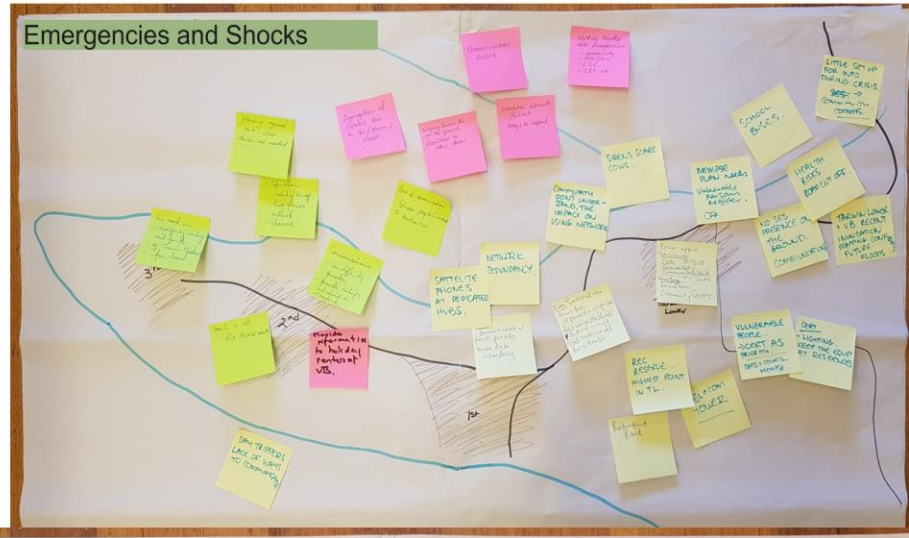
The Hubs & Clusters Group identified many potential groupings of buildings that provide important or critical services for the community and therefore would be important places/areas to consider for stand-alone power. These groupings or clusters are circled on the map



Raw data from the Hubs & Clusters group

How we need to prepare and risks we need to assess

These ideas and opportunities were identified by the groups focussing on what we do and need during normal outages and additional risks and needs that arise during emergencies and shocks. Many of these needs and risks relate to energy but are also relevant to emergency management processes. The normal outages group created the content for a 'How to guide' when preparing for normal (planned or short) outages. This will be re-produced in a form that can be shared around the community.



<u>Energy supplies in emergencies and shocks</u>

- CFA and CERT
- Venus Bay Community Centre
- Tarwin Lower Community Health Centre
- Chemist
- Tarwin Lower Recreation Reserve
- VB General Store and Tarwin Lower IGA
- Telstra Tower
- Service Station

<u>Vulnerabilities in emergencies and shocks</u>

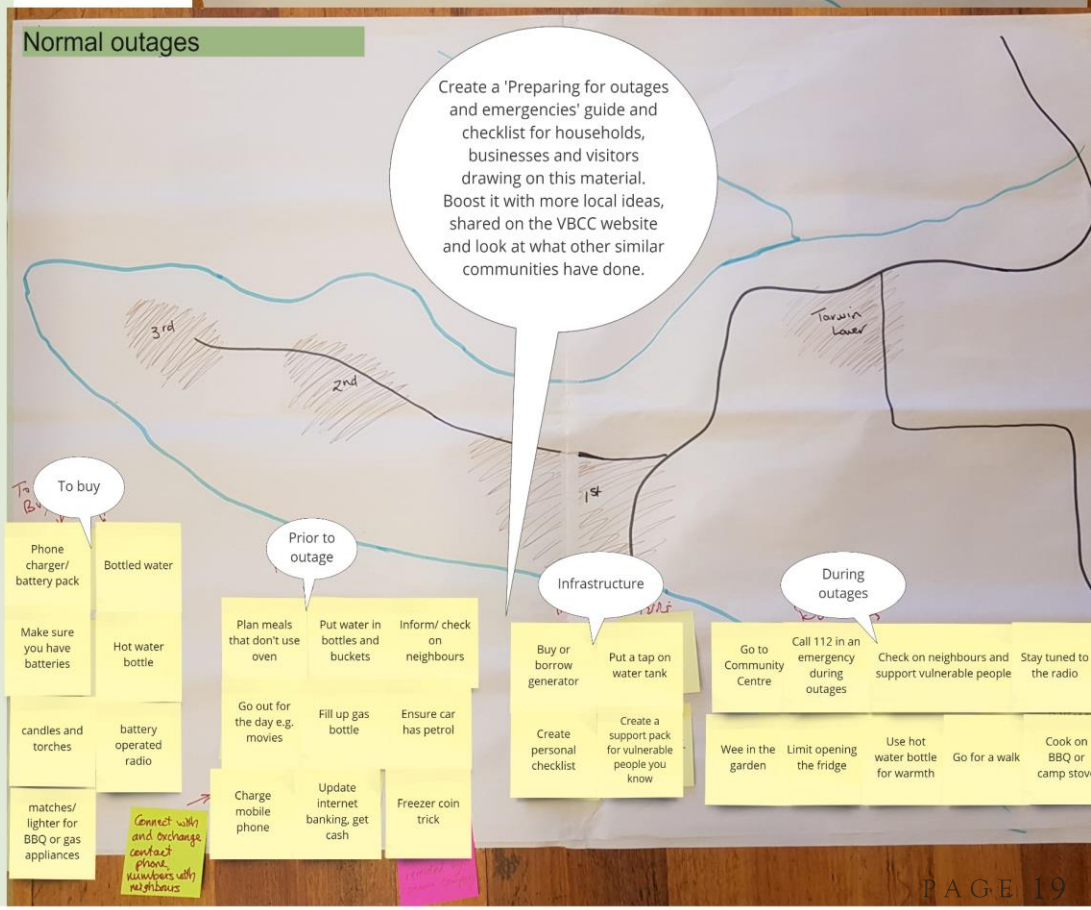
- Communications
  - Communications network down - battery doesn't last long during outages, let alone during emergencies
  - Overloaded communications network - Holiday makers and some part-timers don't necessarily understand the impact of over using the communications network, esp. during emergencies
  - Lack of communication - Visitors and some part-timers may not connect to local news or communications for important information

- Lay of the land - geographical vulnerabilities
  - One road in and out to Venus Bay makes whole community vulnerable
  - Fires, floods or storms can break connections between 1st, 2nd and 3rd estates in Venus Bay
  - Recent inundation mapping confirms risk from floods and storm surges has increased for Tarwin Lower and parts of Venus Bay
  - No public or community transport

- Health & wellbeing
  - Various medical, emergency and Council services aren't clear on joint management of Vulnerable Persons register
  - Emergency services might not get to people when they are in need. Volunteers are a bit thin on the ground and therefore impact is amplified when road access is blocked.
  - If power is down, air purifiers don't work which increases health risks during fire
  - Water pumps don't work when the power is out - for fire fighting, toilet flushing, water for drinking
  - Livestock vulnerabilities during fire and flood. Sirens scare cows.

<u>Some suggested responses and improvements</u>

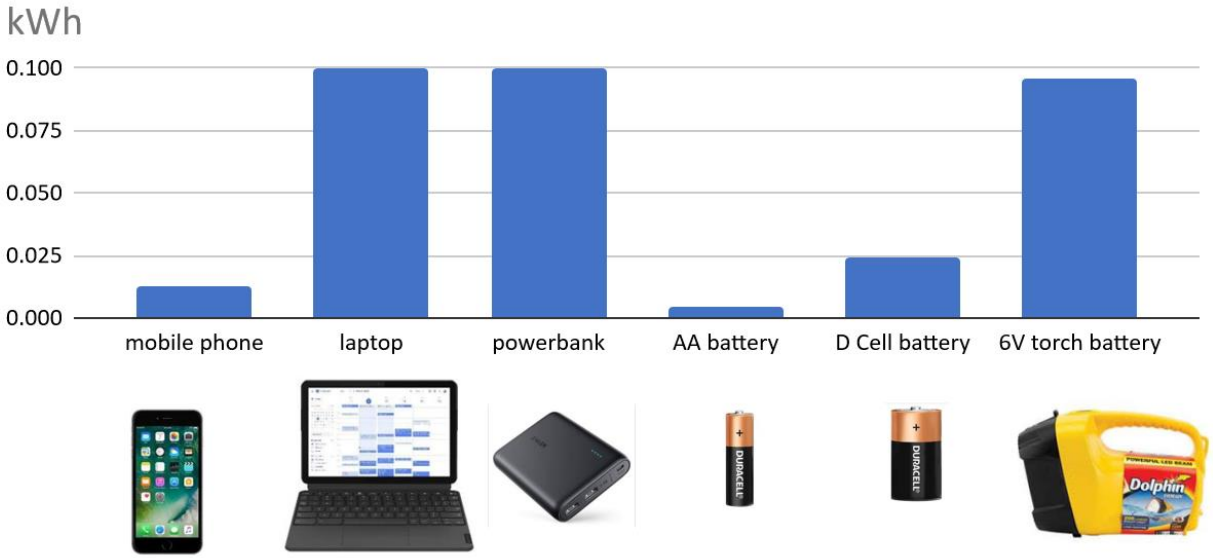
- Include islandable energy supplies for sites listed above in our Community Energy Plan as a priority
- Create a preparing for and enduring outages and emergencies checklist for households and businesses (make from Outages group work)
- Establish a way of sharing information centrally that is not dependent on electricity, at key locations across the community:
  - about outage and emergency duration
  - extent of damage and outlook, road closures, electricity supply, communications
  - needs co-ordination with emergency services, energy companies and communications companies
- Ensure emergency services are powered independently
- Explore use of school buses for transport in emergencies
- Create a support network for farmers that need help moving stock
- Work with Telstra and NBN to improve strength and longevity of communications
- Undertake risk assessments and investigate an emergency exit road across farmland for Venus Bay access in and out



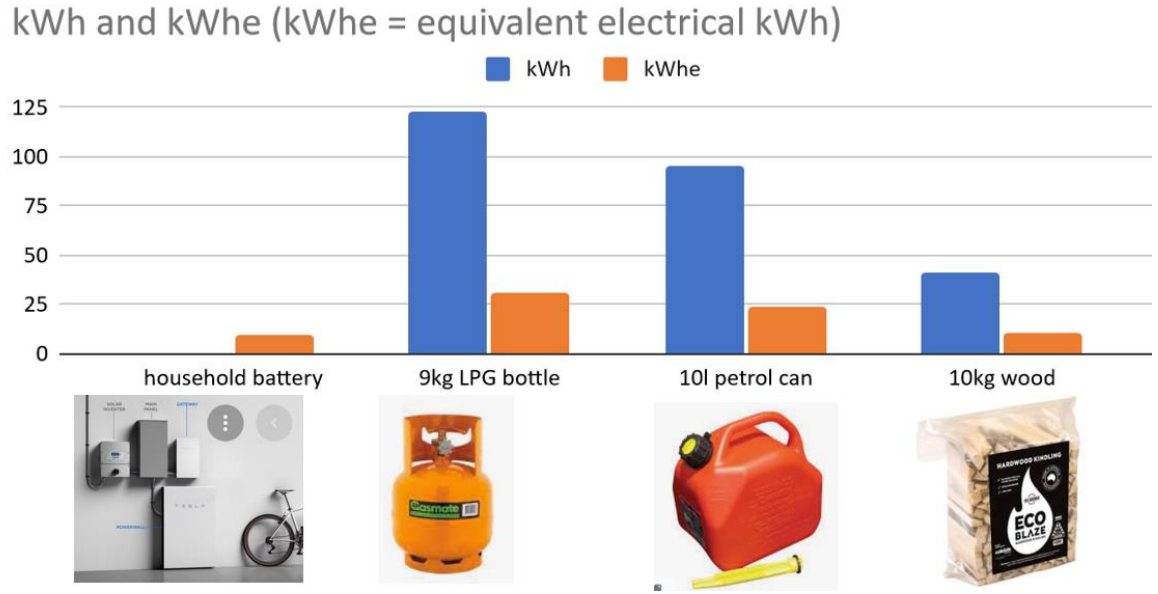
Activity #2 – Understanding energy criticality

The second activity we did was to assess how important energy supplies were, based on the criticality of the device we wanted to use. Before undertaking this exercise Heather Smith illustrated the energy use of different types of electrical appliances and devices.

Understanding Size – small, useful batteries



Understanding Size – other energy storage



Activity #2 – Key concepts when thinking about energy criticality and the assessment criteria used

Workshop participants ranked the importance of different devices under three different lengths of outage, and during emergencies, where this gave rise to different needs.

Understanding energy criticality

Level	Category	Consequence
0	Everything	Future proof, enhancing community well-being
1	Everything	No impact to minor annoyance
2	Enough	Annoyance but alternatives exist
3	Enough	Annoyance but no alternatives exist
4	Essential	Major annoyance or monetary loss
5	Essential	Health / Safety risk, Major loss

Instructions

Think through your needs for electricity and please indicate how important different appliances and uses are under the four different scenarios – outages less than 8hours, outages 1 - 2 days, outages of greater than 3 days and emergencies (where these cause you to act differently). Rank each energy use according to the guide above – is it essential? (4 or 5), better to have than go without? (2 or 3) or discretionary? (0 or 1). Use your instincts to make a quick judgement and make notes in the last column to help us understand the situation and alternatives you were thinking about.

Energy uses	Outages <8hrs	Outages 1-2days	Outages >3 days	Emergencies	Alternative strategies and comments
Example Mobile phone charging	*2*	*2*	*3*	*5*	*I can charge in my car for short outages. In an emergency if I had no phone, I would leave Venus Bay*
Light					
Torch					
1-2 lights					
2-3 rooms					

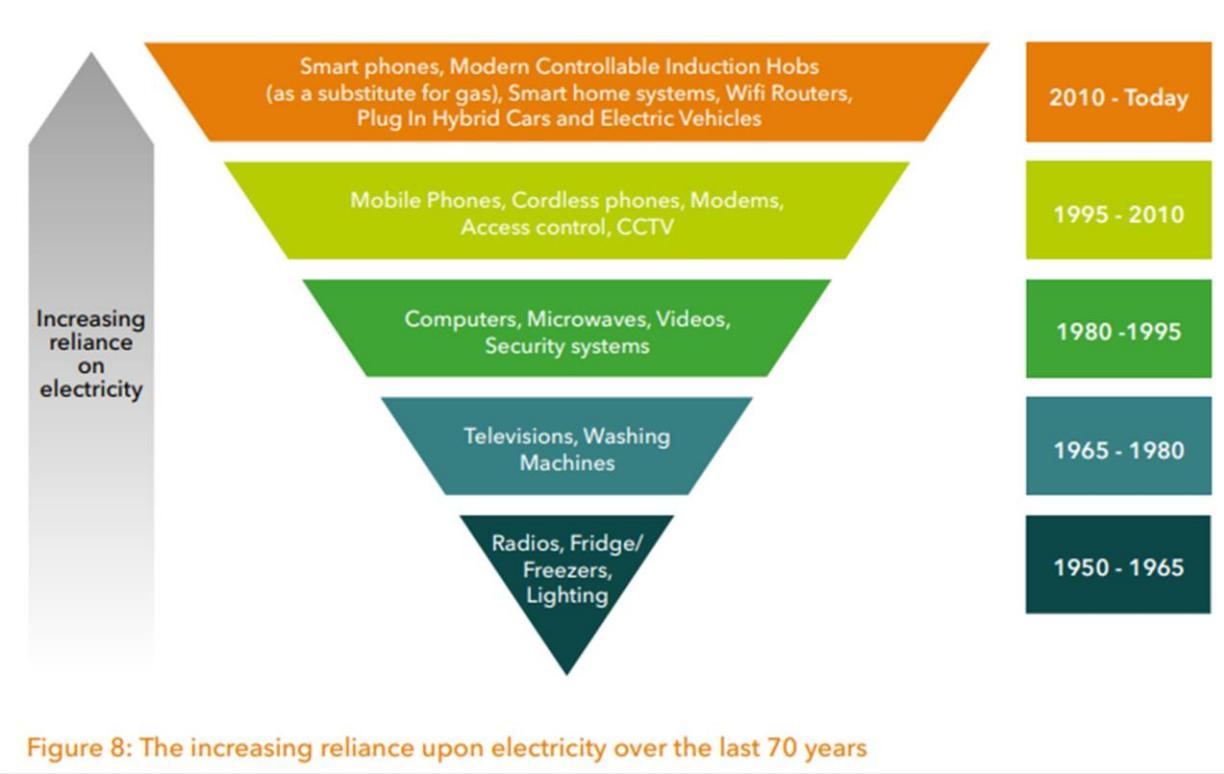


Figure 8: The increasing reliance upon electricity over the last 70 years

Activity #2 – key takeaways

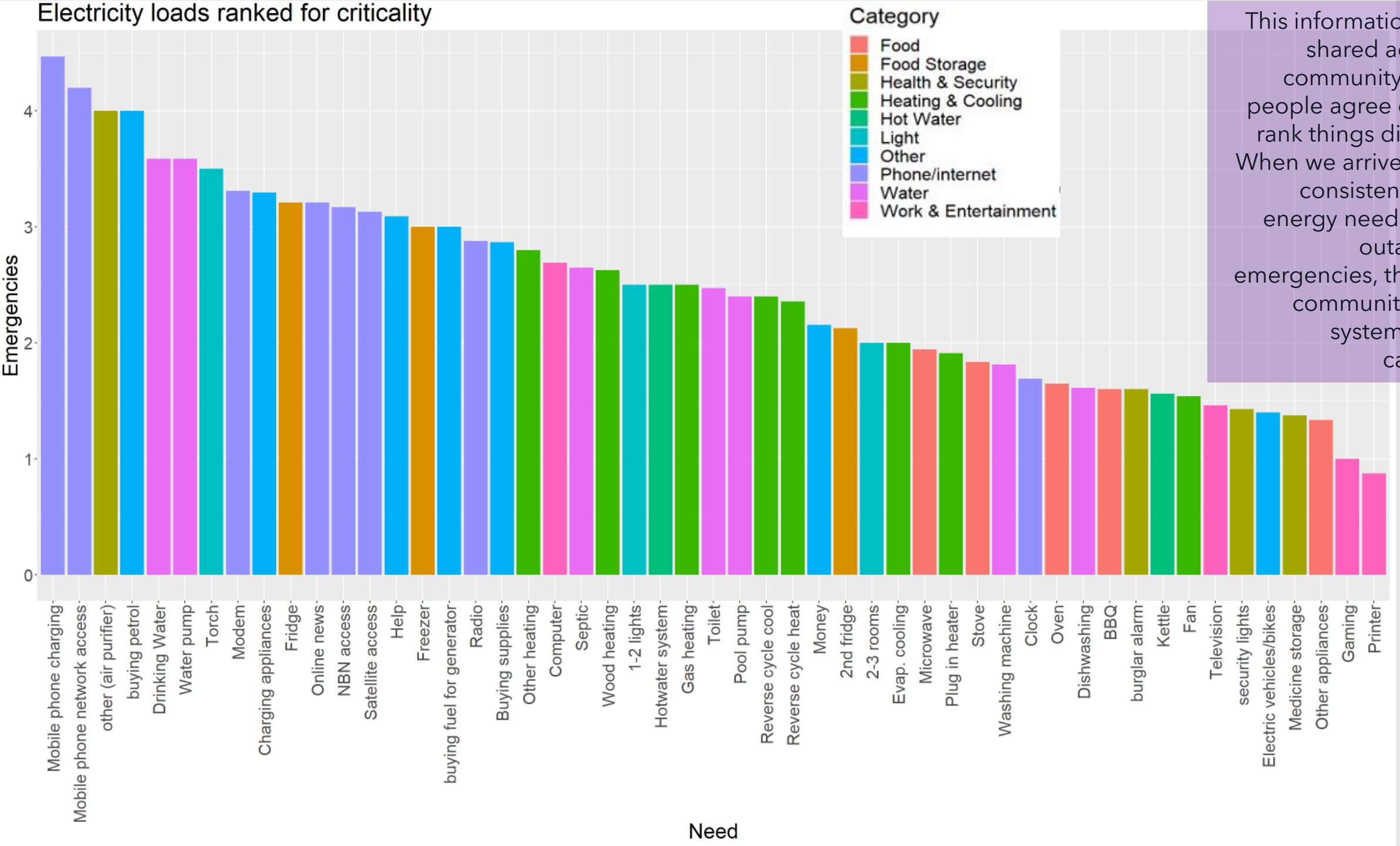
People rely on stored energy in many ways - car batteries for charging our phones, gas and wood for cooking.

Communications and information were ranked as the highest need for energy

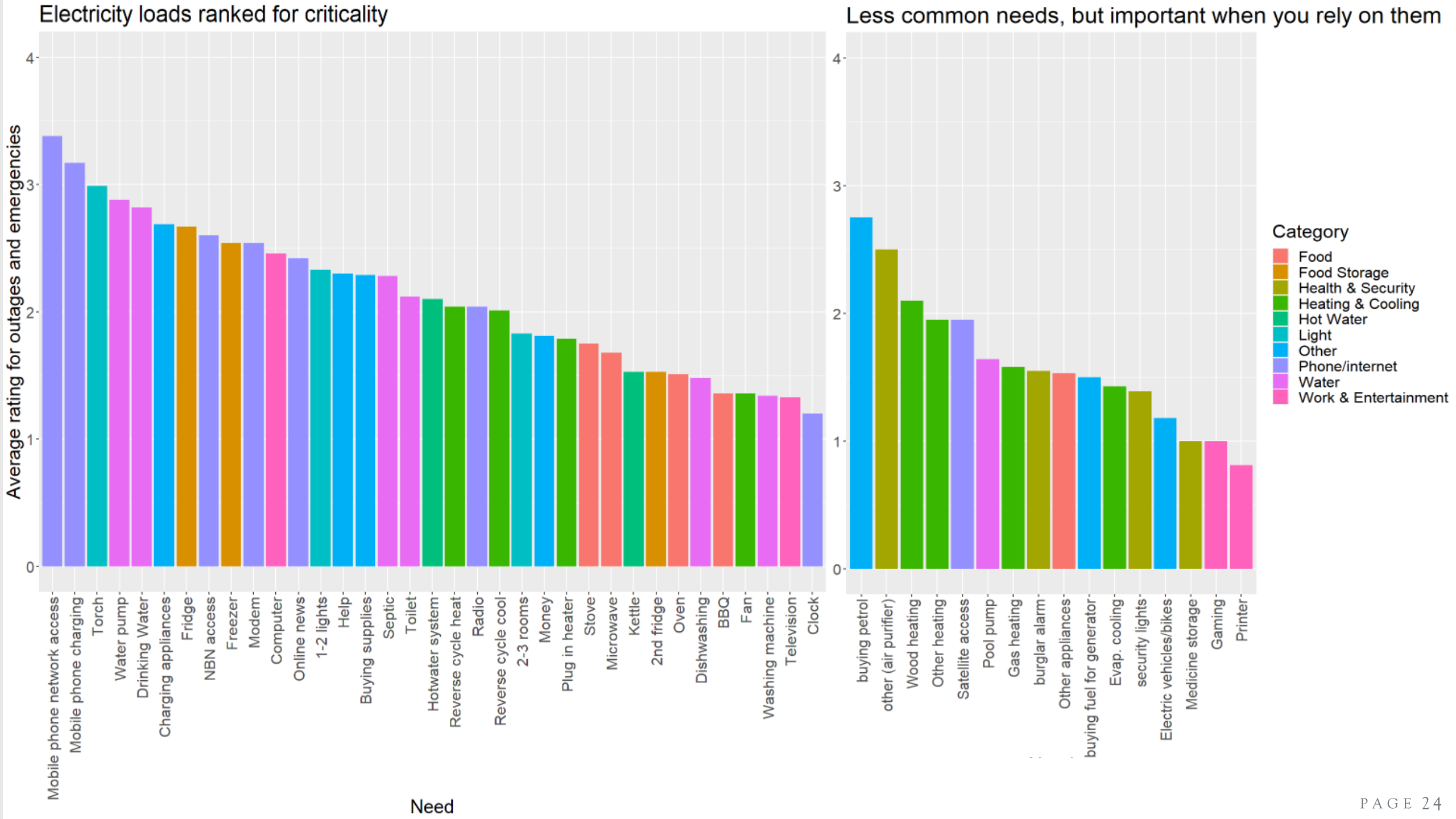
Light was ranked lower because most people have torches or candles on hand

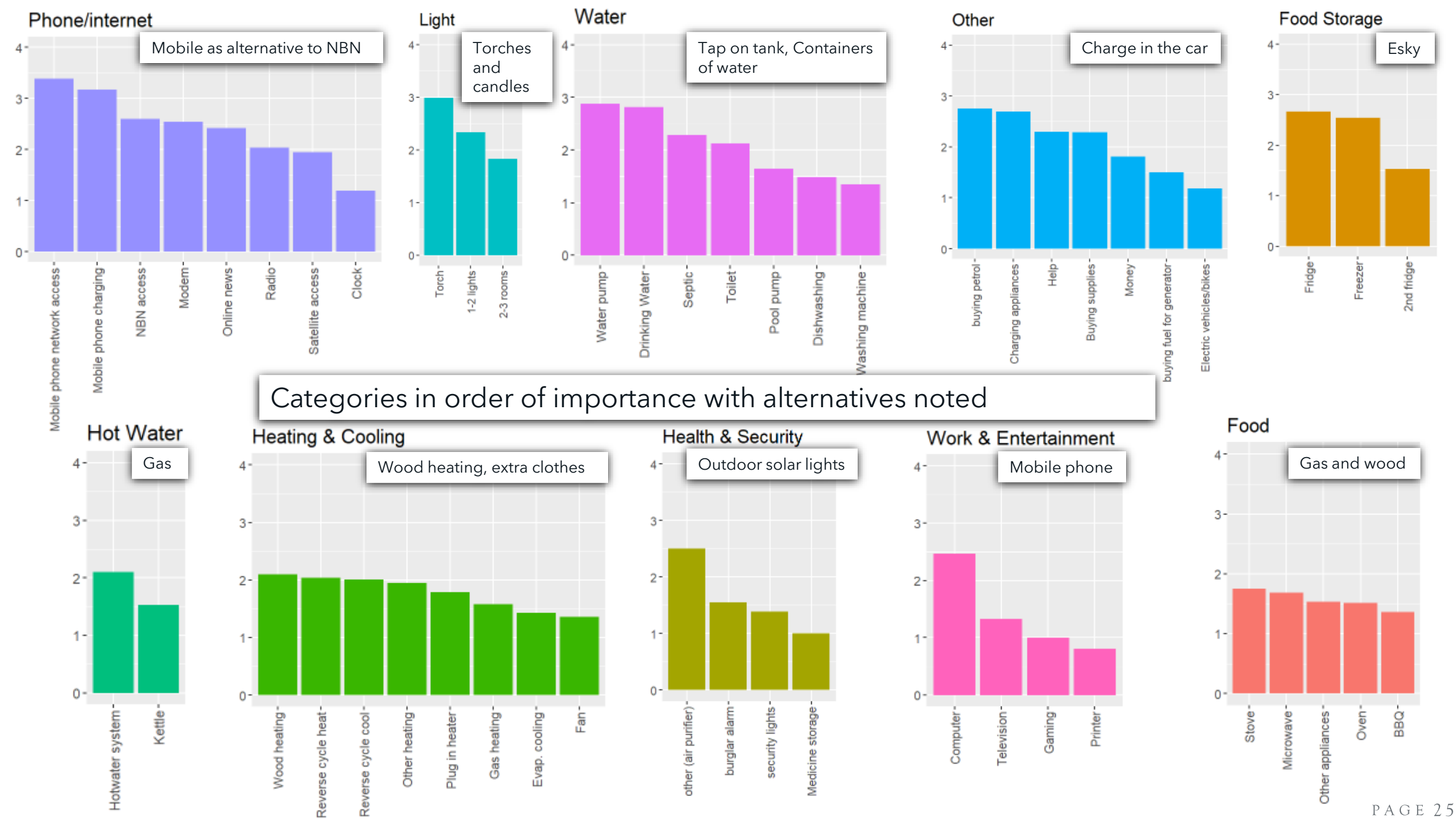
Everyone was concerned about the contents of fridges and freezers during long outages

Being able to buy petrol in an emergency and drinking water and water pumping were next most important.



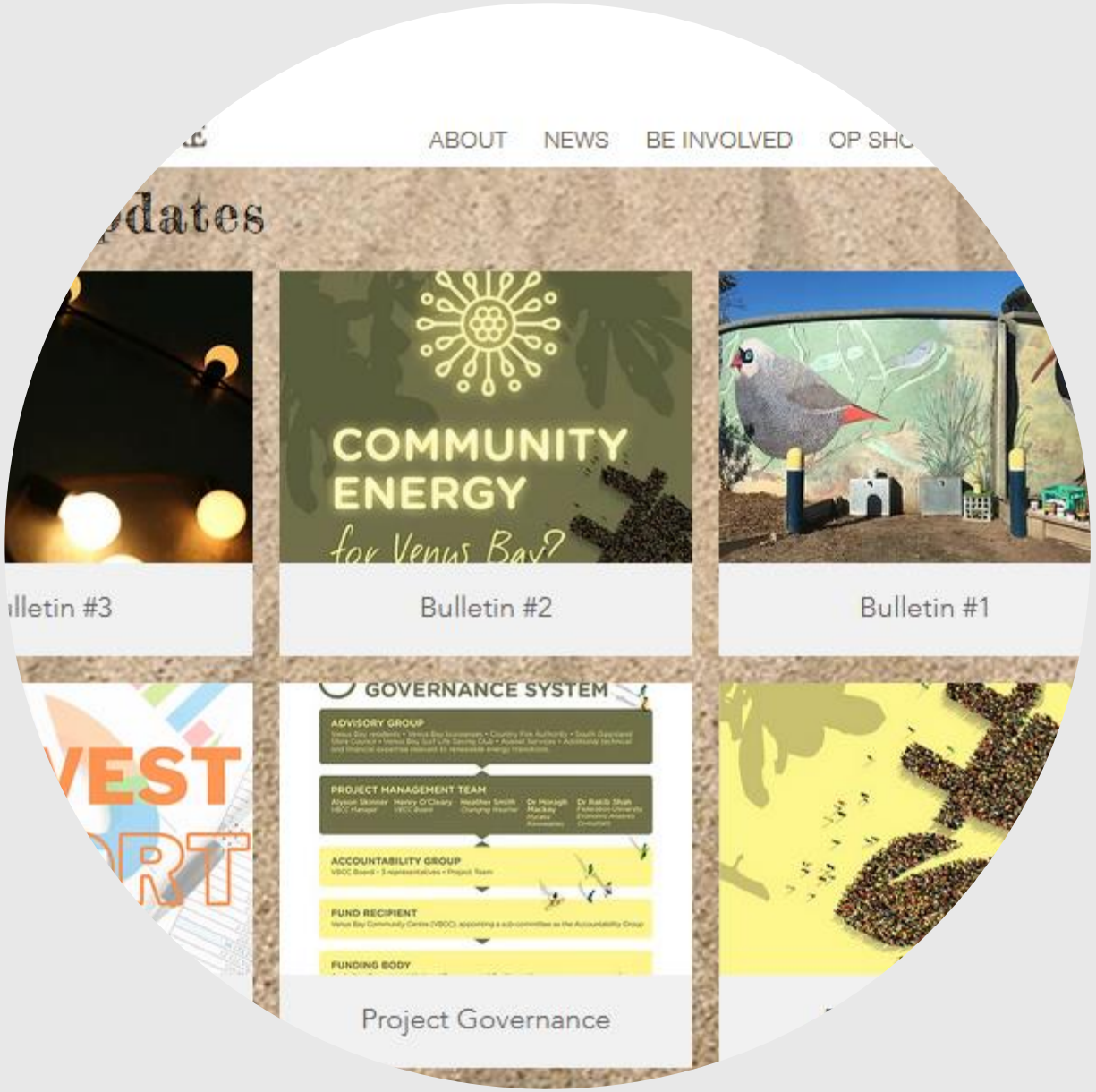
This information will be shared across the community to see if people agree or would rank things differently. When we arrive at some consistency about energy needs, during outages and emergencies, the size of community energy systems can be calculated


Electricity loads ranked for criticality
Less common needs, but important when you rely on them
Average rating for outages and emergencies
0
1
2
3
4
Mobile phone network access
Mobile phone charging
Torch
Water pump
Drinking Water
Charging appliances
Fridge
NBN access
Freezer
Modem
Computer
Online news
1-2 lights
Help
Buying supplies
Septic
Toilet
Hotwater system
Reverse cycle heat
Radio
Reverse cycle cool
2-3 rooms
Money
Plug in heater
Stove
Microwave
Kettle
2nd fridge
Oven
Dishwashing
BBQ
Fan
Washing machine
Television
Clock
buying petrol
other (air purifier)
Wood heating
Other heating
Satellite access
Pool pump
Gas heating
burglar alarm
Other appliances
buying fuel for generator
Evap. cooling
security lights
Electric vehicles/bikes
Medicine storage
Gaming
Printer
Need
Category
Food
Food Storage
Health & Security
Heating & Cooling
Hot Water
Light
Other
Phone/internet
Water
Work & Entertainment


Phone/internet
Mobile as alternative to NBN
Mobile phone network access
Mobile phone charging
NBN access
Modem
Online news
Radio
Satellite access
Clock
Light
Torches and candles
Torch
1-2 lights
2-3 rooms
Water
Tap on tank, Containers of water
Water pump
Drinking Water
Septic
Toilet
Pool pump
Dishwashing
Washing machine
Other
Charge in the car
buying petrol
Charging appliances
Help
Buying supplies
Money
buying fuel for generator
Electric vehicles/bikes
Food Storage
Esky
Fridge
Freezer
2nd fridge
Categories in order of importance with alternatives noted
Hot Water
Gas
Hotwater system
Kettle
Heating & Cooling
Wood heating, extra clothes
Wood heating
Reverse cycle heat
Reverse cycle cool
Other heating
Plug in heater
Gas heating
Evap. cooling
Fan
Health & Security
Outdoor solar lights
other (air purifier)
burglar alarm
security lights
Medicine storage
Work & Entertainment
Mobile phone
Computer
Television
Gaming
Printer
Food
Gas and wood
Stove
Microwave
Other appliances
Oven
BBQ

Next steps towards a Community Energy solution for Venus Bay and Tarwin Lower

1. This Harvest Report will be shared across the community and people invited to comment on and contribute information about any aspect
2. Please fill in the Community survey, which provides an opportunity for people to add to the energy criticality ranking: https://www.vbcc.org.au/communitysurvey
3. Project Team members and volunteers will be attending local markets and street stalls to engage people in the Community Energy Study – look out for us at the Tarwin Lower Market on October 31st and around town over the summer
4. Remember to look out for project information and updates in the Monthly Community Energy Bulletins by visiting www.vbcc.org.au/communityenergy
5. Workshop #2 is on Saturday February 11th, 2023 – this will be a great session on working through how different types of community energy options in different locations around the community might best meet community needs

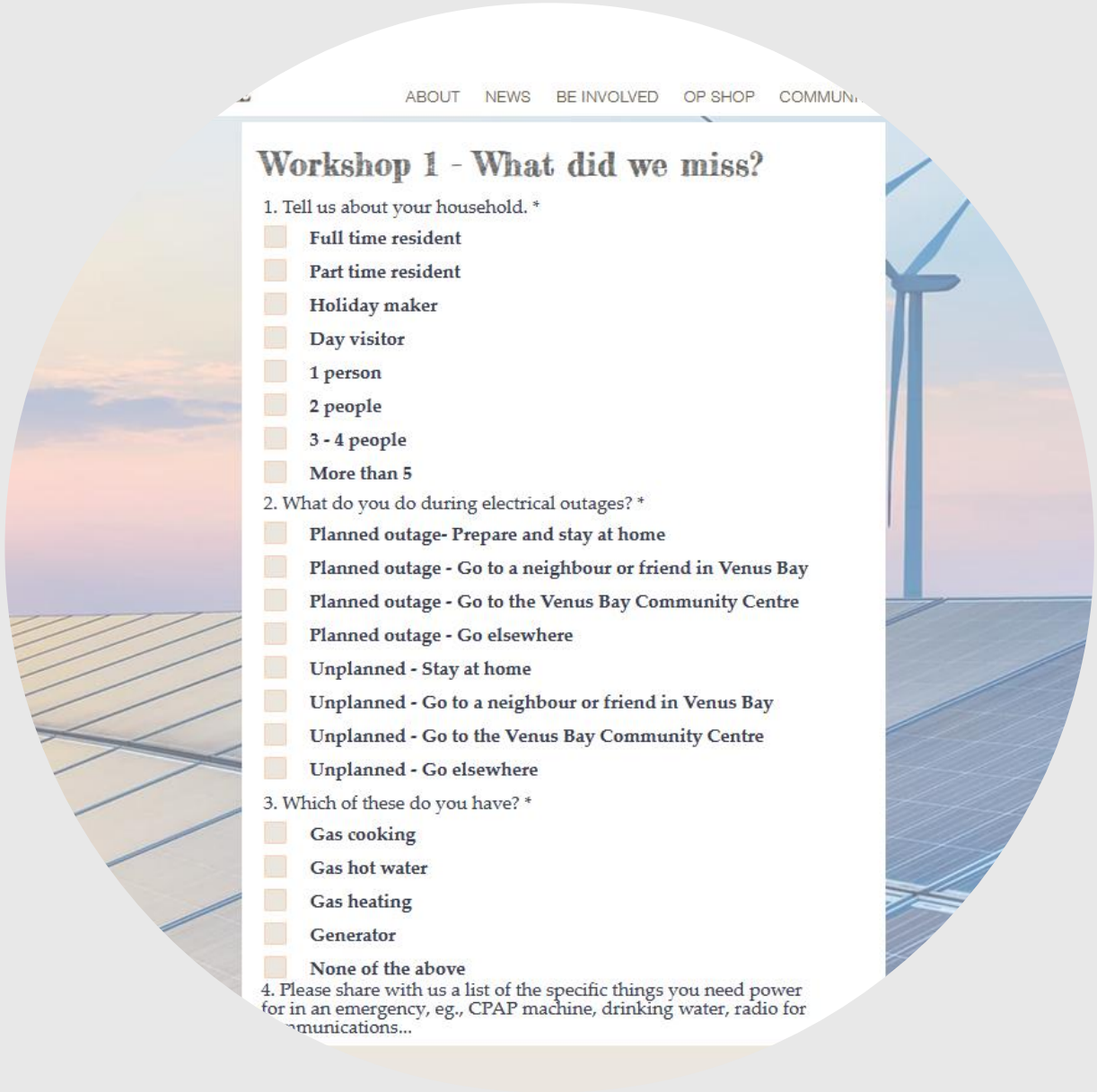


Key communications

The communications plan was developed at the start of the project. It is a living document and continues to be updated in response to engagement, feedback and insights from our excellent advisory committee.

Since commencement, the project has developed monthly bulletins which are included in the monthly community newsletter, Matter of Fact. Each bulletin inspires two social media posts per week.

The community energy page on the website was updated at project commencement and for a second time after Workshop 1.



Surveying the Community

A simple survey was presented to initially engage residents, part timers and visitors to offer suggestions about critical energy needs.

The survey was updated after Workshop 1 to build on the insights already gained. A stall at the Tarwin Lower markets was used to help people understand the project and invite them to fill in the survey.

A recent flood where the community was largely cut-off from normal journeys to Inverloch or beyond provided an opportunity to ask for instant reflections on energy needs and resilience in response to unforeseen events

Additional Engagement and Collaboration

A threat of a day long outage (although power was resumed by lunchtime) meant the Venus Bay Community Centre was able to actively promote its stand alone power system which allows it to provide services to residents during outages.

We have added film making, information events and focus groups to our suite of engagement activities.

Conversations with the Victorian Government, Telstra and NBN have also been held and are expected to be ongoing throughout the term of the project.