THE INSIGHT CENTRE

RESEARCH WITH IMPACT.

Prepared by The Insight Centre for Energy Consumers Australia

ENERGY CONSUMERS AUSTRALIA

The Connections that Matter

Energy Consumers Australia

East Gippsland Longitudinal Community Listening Project

August 2021

Acknowledgment

We acknowledge the impact of these devastating fires on the land of the Gunaikurnai, Bidewell and Monero (Ngarigo) people. We pay respect to the thousands of years of their ongoing custodianship of the land.

We would like to thank Alida, Alison, Amber, Dawn, Donald, Donna, Evelyn, Ewan, Howard, John, Julie, Karen, Kathy, Kelly, Lauren, Lea, Lilli, Lisa, Liza, Michelle, Milena, Rachel, Rebecca, Ronald and Terri for sharing their experiences during the bushfire crisis and recovery journey so far.

The view from the bunker after fire engulfed his home. Photo courtesy of Donald.

CEO Foreword

Resilience is having a bit of a moment right now.

In the wake of multiple destructive events – and with the knowledge that such events will occur more regularly in the future – we see governments and agencies across Australia and beyond searching for an alternative to a "building back" model based on reacting to extreme events such as bushfires, floods and storms, distributing emergency assistance and creating an ongoing cycle of dependencies.

There will always be a critical role for disaster relief to alleviate loss and suffering but history has shown these kinds of actions are not enough. Too often, they leave communities no better placed to deal with the next catastrophic event. Sometimes they leave them worse.

This report – which examines community energy experiences before, during and after the fire that swept through the East Gippsland area in late 2019 and early 2020 – is an important intervention in the growing conversation around resilience.

For Energy Consumers Australia, resilience is a foundational part of who we are. We work every day to create a shared vision for a future energy system that is modern, flexible and resilient.

But for all its omnipresence in current debates around infrastructure, essential services and the lived environment, resilience is still an idea that is often misunderstood. We know with some certainty that our future will bring increased risk of extreme weather events, as anthropomorphic climate change increasingly takes effect. In this context, we can and should build infrastructure that is more resilient in the face of disastrous events.

That is important but it is in no way the main game. True resilience – if it is to be a meaningful term – must begin with resilient people and resilient communities. Communities that are better connected to each other and to the essential services they rely upon to live their lives, work, and operate their businesses. Communities that are better placed to prepare for extreme events, respond to them in the moment and recover from them in the aftermath.

That is why we commissioned this report and from where its title – The Connections That Matter – derives. We wanted to begin and advance a national conversation about how a resilient energy system supports and engages with the communities it serves, is adaptable to the changing environment and is sustainable into the future. And we wanted that conversation to be firmly grounded in the lived experience of people who have recently been through the processes of preparedness, emergency response and community recovery.

One thing that comes through very strongly is the importance of having a plan, given the critical importance of the power supply in our lives. What happened in East Gippsland was both extreme and extremely foreseeable. It happened to small, isolated communities such as Mallacoota and Buchan, far from energy generating assets and tenuously connected to the grid through a tinderbox of dry bushland. Recently, we have again seen communities devastated by storms in June 2021, in areas of regional Victoria and outer metropolitan Melbourne, with power supply difficult to restore.

Increasingly, as the experiences in the report show, planning also needs to account for the interdependencies between critical infrastructure. There are tipping points when water and telecommunications services run out of backup power and cease to operate. We need to better understand how these interdependencies impact on people and communities.

The context for what happened to the people of the East Gippsland region starts long before the fire event that has so severely impacted their lives. Already they were frustrated by frequent and sometimes lengthy outages; already they were interested in how their energy needs could be better served; already they were thinking and talking about ways they might become more energy independent as a community.

This report makes clear that the terrible fire event that swept through these communities only exacerbated those concerns and heightened the sense that improvement – rather than a return to status quo – was needed.

Residents struggled to stay informed about the encroaching fire front, to make decisions about whether and when to stay or go and to prepare their properties for what was to come because they lost electricity – often suddenly and without warning.

This sense of vulnerability stayed with them and can be felt as a major theme of their recovery, during the 12 months after the fire.

For many of these people, the recovery process has been a frustrating one. Despite the hard work and best intentions of all involved it has not always delivered, according to community expectations.

One such source of frustration has been the tension between quickly rebuilding assets to get electricity supply back online and taking the time to make sure the rebuilding process leaves residents and business owners better prepared to withstand future crisis events.

Resilience experts often speak of the need to 'build back better' rather than 'build back the same'. Building back better requires a new conversation around planning and engagement. It requires knowing what community concerns and system limitations are, long before a crisis event happens. It requires having a plan for how the opportunities of recovery and reconstruction – an influx of goodwill, attention, and resources – can be capitalised upon to build and support a more adaptable and sustainable power supply that meets the needs of consumers and communities.

Doing this well can deliver a triple bottom line:

- It can increase trust and connection, reducing the sense of trauma, loss, and frustration among survivors of catastrophic events.
- It will deliver better preparedness and capabilities for people and communities to manage during disruptions and recover more quickly.
- It will deliver a more resilient power supply that can limit disruptions and is better able to withstand and recover from future catastrophic events.

We are excited to begin the conversation around this important shift, and to ground that conversation in the words, thoughts, and reflections of a group of people who have been through so much but still generously agreed to share their experiences in the hopes of creating a better future.

Lynne Gallagher
CEO
Energy Consumers Australia

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Executive summary

The 2019/20 Bushfires were unprecedented in scale, intensity and impact. They also reflect an increase in the incidence of natural disasters, severe weather and other crises linked to the change in climate. The COVID-19 pandemic which followed shortly after the bushfires also represents an extraordinary shock that raises a similar and very deep set of questions about the resilience of our communities, and the services and infrastructure that support them.

Engaging with energy consumers to understand how they experience these events and get their perspectives is critical not only for meeting the immediate need, but also for fully recovering and effectively planning for resilience over the longer-term.

This is why in June 2020 Energy Consumers Australia commissioned The Insight Centre to conduct a series of interviews with residential and small business energy consumers within communities impacted by the East Gippsland fires. The project adopted a longitudinal design (with each person interviewed three times) to capture learnings at critical junctures in the extended response and recovery period. A total of twenty participants were interviewed on all three occasions over a 10-month period.

These interviews, and the photos people provided us to help tell their stories, are a rich evidence base about the way households and small businesses, as energy consumers, experienced the bushfires and the rebuilding and recovery process. By speaking to people in one of the regions hit hardest by the bushfires, on their terms, to explore their interactions with government, essential service providers, community groups and non-government organisations, we gain a picture of the support they received and how their expectations were met or changed over time. In doing so, this report provides new insights about how we build the resilience of communities and the systems that support them.

For many of the people we spoke to, the loss and restoration of energy infrastructure were often, from their perspective, bookends in the crisis and the start of their recovery, underlining the critical role that energy plays in our lives and businesses.

There were many instances where the response by local authorities and service providers was effectively coordinated. Participants cited the role in re-establishing essential services of the Australian Defence Forces, Department of Environment, Water, Land and Planning, AusNet, East Gippsland Water and the Victorian State Government agency Bushfire Recovery Victoria and the work of for purpose organisations (for example, Red Cross, Lions, Rotary, Country Women's Association, Foodbank and Sikh Volunteers Australia) in their communities.

The unifying principle was that organisations that went above and beyond expectations, not only delivering the basics but lifting spirits through care and compassion, brought a sense of hope. Participants cited examples of the Australian Defence Force's offer to clean the windows of the Mallacoota school and the high quality of the food being provided by Foodbank and Sikh Volunteers Australia.

Those people who had been assigned a case manager as part of the Bushfire Case Support Program (provided by Department of Health and Human Services and Bushfire Recovery Victoria) cited the positive relationship they developed with these people and the critical role they played in their recovery.

However, the success stories are often coupled with examples where the response has (so far) fallen short of what people needed, expected, or in some cases aspired to in terms of an opportunity to rebuild better and smarter. This sense of feeling let down, or of opportunities being missed, is paired with frustrations about the practical challenge of recovery and rebuilding. Many of the people who participated in the study talked about feeling overwhelmed by seemingly endless paperwork to secure the support that was available, and under-supported or not heard by service providers engaging inconsistently or not at all.

The initial focused response to the re-establishment of critical infrastructure was welcomed. However the rebuild of the network infrastructure was also viewed as a missed opportunity to establish a new, better and ultimately more flexible and resilient energy system.

It also became apparent that the crisis experience had for many people heightened their desire to secure a self-sufficient energy source. This desire was not only an effort to safeguard the technologies (mobile phones, emergency service apps) that underpin access to critical information in the midst of an emergency but also provide a sense of security and self-sufficiency in the event of other crises, such as network infrastructure failure.

The crisis experience increased the perceived importance of energy security and meant that many people were looking for greater communication with their energy network, particularly about what is being done to minimise disruptions to the network and how communities beyond Mallacoota could benefit from new technology solutions.

There appears to be a much needed and critical role for the energy sector to help consumers, and entire communities, design the best energy solutions for them. The example of Mallacoota's stand by battery and generator system was seen as the new way to deliver energy security to people living in remote and rural communities.

A major (and perhaps not surprising) finding from this study was that resilience was as much about the individual and community relationships and networks, and trust-based engagement with local service providers, as it is about the 'hard' infrastructure or the official emergency response and recovery efforts. In many cases it was the local community that self-organised to dispose of spoiled food from fridges and freezers without power, or to open-up their own homes (particularly those with 'off-grid' power supplies) to help their neighbours charge their phones and stay connected to the outside world.

Maintaining long-term connections across the community and with service providers was seen as crucial to facilitate the recovery of these communities and there was a clear sense that in this instance recovery was hampered by the COVID-19 pandemic and the lockdowns in Victoria.

Disruptions caused by natural disasters can be catastrophic but also provide an opportunity to observe and learn about how communities and systems function under stress, revealing strengths and weaknesses, identifying where there is flexibility and where there is not. Crises are also opportunities for reinvention, a chance to reflect about 'what better looks like' and begin to think and plan about how to make it a reality.

As the Australian community experiences shocks increasingly frequently, the experiences revealed in this report point to the need to listen and engage with people and communities as the critical first step in building resilience. Investing in holistic approaches to community resilience and recovery by identifying ways to empower people individually and collectively, rather than just hardening physical infrastructure, will go some way to mediating the individual trauma and community fragmentation caused by shocks like the 2019-20 bushfires.

ENERGY SERVICE, PLANNING AND POLICY IMPLICATIONS

Crisis events are, by their very nature, extraordinarily difficult to prevent, plan for or manage at an individual household, business or community level. The expectation about what we can do to prevent and prepare for shocks like this, and what we do in the aftermath, can never be 'perfect' but we can thoughtfully and systematically reflect on what happened, learn and be better prepared for these events in the future.

Several opportunities and challenges in relation to energy emerged in our conversations with people in the East Gippsland region which warrant further research and analysis by the appropriate energy service provider, agency or other organisation, and in some cases a timely resolution.

The immediate energy sector response

Many of the people we spoke to commended the immediate response by AusNet Services to restore power to fire ravaged communities as quickly as possible. However, some people waited much longer than others, and there appears to be a need to review and reflect on whether anything could have been done to enhance the restoration process, or to provide additional support for people in areas where the power was restored last.

Many people also raised concerns about electrical safety, ranging from the difficulties they encountered, knowing who was responsible and who to contact for assistance, to long wait-times to secure electrical contractors (often from outside the region) to repair and make safe their supplies. We understand that difficulties securing electrical contractors to perform checks and make rectifications are consistent with issues raised by the Customer Forum that was established for AusNet Services' 2021-26 regulatory proposal. One of the potential solutions discussed in this context was for the electricity distribution network to play a role in helping households and businesses access these important services. How this solution has progressed, or whether there are better alternatives are worthy of reflection given the feedback we had from participants.

Longstanding energy reliability issues a critical context for recovery

Many of the people we spoke to noted that the unreliability of their electricity supply was an issue that predated the bushfires. While intermittent outages were a source of frustration, and indeed additional costs for some, particularly small businesses, many people had come to see unplanned, and longer than expected outages as part and parcel of living in a region with East Gippsland's geography and physical infrastructure. This appears to have contributed to a culture of energy independence in the region, where many households and small businesses have backup generation of one kind or another (or multiple forms of backup).

At the same time though, there was a level of optimism that initiatives like the new grid scale battery that has been installed in Mallacoota would improve the reliability of their electricity supplies. Many people also saw the bushfire crisis as an opportunity to take advantage of the latest energy technologies to rebuild in a better and smarter way, that not only restored power, but solved the historical reliability issues at the same time. However, by the time of our last round of interviews, a number of people were becoming pessimistic about the prospects for their energy services to improve.

There is a risk that some consumers and parts of the community will form, or have already formed, a view that the energy service providers have failed to 'close the loop', by not meeting expectations for 'better'. Energy service providers should move quickly to address this risk to maintain trust and confidence.

Residential and small businesses want to be informed and empowered

The interaction between people and energy and other technologies was a consistent theme in our conversations over the course of the study. What was clear is that there is a strong interest in different energy technologies, and people are thinking about how the local 'system', including everything from rooftop solar PV, batteries and small portable generators, to the traditional 'grid' infrastructure, works together to provide the secure and reliable services the community needs, particularly in the advent of a crisis.

Feedback from participants indicated that they were largely relying on their own research, word of mouth and Facebook for information and advice about energy technologies and solutions. While it was beyond the scope of this study to review the information, tools and support that is available to help people make decisions about their energy supplies, there appears to be a significant gap in trusted and independent sources of information and advice.

In the immediate aftermath of the bushfires, many people said they either had, or intended to purchase small, portable petrol generators to ensure they could meet their basic needs (at least temporarily) in the event of another bushfire. For others who were in a financial position to contemplate it, the experience was a trigger for thinking about rooftop solar PV and batteries to become more energy independent on a permanent basis. Others continued to look to energy service providers to rebuild and adapt their services and infrastructure to meet their needs.

The popularity of small, portable (usually petrol) generators, raises a particular set of issues that should be explored further. While this technology might be the right solution for some households and businesses in some circumstances, it may not be optimal in terms of cost or functionality given questions about how dependable the equipment will be in the event of an emergency situation (with potential for its efficacy to be impacted by only occasional use, the requirement for regular servicing and a degree of expertise to operate)

A number of the people we spoke to were also using generators on a regular basis because of concerns about the day-to-day reliability of grid-based electricity supplies. This would seem to be less than optimal both in terms of the efficiency of the local energy system overall, and the health and environmental outcomes associated with the burning of petrol and diesel for stationary electricity generation.

Engagement and local decision-making

Many of the people we spoke to said that we were among the first people to engage with them and give them an opportunity to reflect on what had happened and tell their story. To play this role was a privilege and a responsibility for The Insight Centre on behalf of Energy Consumers Australia but does point towards a gap in the post disaster response that should be a point of reflection for government agencies, service providers and other organisations with recovery responsibilities.

The major energy retailers and the electricity distribution network that serves the East Gippsland region have standing customer and stakeholder councils that provide a formal link between consumer and communities and business planning and decision-making. While it was beyond the scope of this study, the apparent gap we observed suggests there is a need for these organisations to review how they are using their forums to engage on bushfire response and recovery, and critically, how feedback is shaping what they do and how they do it.

Importantly, the feedback we received over the course of this study also showed that consumer and community values, expectations and needs are not static, but evolve over time as circumstances change. In the case of the people we spoke to in East Gippsland, the sense of optimism about the shape of the recovery we heard in the first round of interviews, had for some people, by the final round been replaced with a more pessimistic outlook - not only for about the prospects for better energy services as discussed above, but also and wider community regeneration.

We also acknowledge that the individuals we spoke to differed in terms of their experience and perspectives on important decisions about the best way to support their communities which presents a challenge for energy service providers looking to engage effectively with diverse consumers and communities.

This underlines the need for continuity in relationships at a local level, and an ongoing dialogue about energy services to gather the intelligence and create the feedback loops needed to effectively respond to complex service issues. There is also a desire in at least some parts of the community to have a direct say, or in some cases take charge, of the shape of the local energy system and how it is operated.

In this context, one of the most interesting initiatives we encountered was the Mallacoota and District Recovery Association, which is a community-led initiative to plan and coordinate the recovery efforts in the area. The feedback we received from members of the Mallacoota community was that the Committee was providing a critical forum for their voice to be heard, and helping strengthen connections and build confidence. While it was outside the scope of this study to review the structure and role of the Committee in detail, it appears to be a model worthy of support and further study. One of the notable aspects of the Committee is that an explicit part of purpose is an ambition to secure better outcomes.

The multifaceted nature of resilience

One of the clearest insights from this study is that the informal, self-organised, local responses to the bushfire crisis was critical as the event was unfolding and as the initial crisis response moved into the recovery phase.

In the context of energy, this took the form of people sharing small portable generators and other equipment, opening their homes and businesses with independent energy supplies to others to help them charge mobile telephones, and arranging for spoiled food to be collected from verge-sides and safely disposed of. Perhaps less visible but no less important was the rich flow of information and advice through informal contacts and channels about what was happening (particularly during the bushfire itself) and how to solve the multitude of issues that emerged.

This proactive, very practical and flexible local response seen across the different East Gippsland communities is suggestive of an intrinsic community-mindedness and ability to draw closer together in a crisis that should be seen as core to the concept of energy resilience. In this light, there appears to be a need for energy service providers, governments and energy sector institutions to undertake further research, planning and policy work about the aspects of resilience which go to empowerment at an individual business, household and community level.

It is critical in our view that this dimension of resilience is considered in post disaster reviews of the 2019-20 Bushfires, and forward planning and energy system design. While it was outside the scope of this study to review the extent to which this has happened, our initial sense is that the focus of energy resilience debates has tended to be on hardening or augmenting the 'hard' infrastructure rather than looking at how households and small businesses can be empowered in other - potentially more effective – ways (for instance, undergrounding power lines). This seems to be even more important given the speed at which the National Electricity Market is decentralising, as millions of households and small businesses invest in distributed energy technologies that will need to be connected and managed in a way that is resilient to, and can play a positive role in the prevention, mitigation and recovery from disaster events.

One of the immediate priorities for the East Gippsland region is to better engage and communicate on the decisions that have already been made, and the work that has been done or is underway as part of the recovery efforts. A good example is the lack of clarity in the minds of a number of the people we talked to about the role that Mallacoota's new grid-scale battery is playing - in particular the extent to which it is being used to reduce the frequency of power outages. This should be a good news story but appears to be one where people have questions about the role it is playing, and in some cases is a source of frustration, feeding into a sense that an opportunity for better has been missed.

Of course, ensuring the hard infrastructure is resilient to what the science suggests is a new environmental context is also critical. The interdependency between electricity supply and telecommunications infrastructure was a recurring theme in our conversations. It is notable that the trigger for many people to think about borrowing or investing in a small portable generator was to ensure they could continue to receive bushfire alerts, and remain connected to neighbours, family and friends. Many people also had views about the steps that should be taken, or were being taken, to install back-up electricity generation to strengthen the local mobile telephone network.

While it is not an energy issue as such, the form and user experience of the smart-phone-based digital bushfire alerts and information - which for many remains a source and/or trigger for anxiety well after the event - is an issue that emergency management authorities and service providers should explore in more detail. The very audible (for good practical reasons) 'ping' is particularly problematic for some people given the link to such a traumatic experience and there appears to be a need to refine the interaction design of these alerts or find effective alternatives. A number of the people we talked to also spoke favourably about the way energy service providers were using SMS alerts to advise about planned and unplanned outages. The growing importance of digital communication in crisis and more day-to-day contexts - where multiple authorities and service providers are seeking to engage with people and businesses - would seem to create a risk about information overload and as such developing ways to individualise and manage what is communicated, when and how also appears to be an area requiring further consideration.

The aftermath.
Photo courtesy of Michelle.

Overview

BACKGROUND

Across the 2019/20 summer period communities across the 'East Gippsland' area experienced bushfires unprecedented in scale, intensity and impact. The land referred to as 'East Gippsland' is country that spans three indigenous nations, these are the nations of Bidwal, Gunnaikurnai and Monero (Ngarigo).

On 21 November 2019 fires broke out in East Gippsland following a series of lightning strikes and continued to burn for many weeks. By the morning of 30 December, Emergency Management Victoria issued a warning about the potential for the fires to impact communities across the region.

Overnight fires impacted a number of settlements including Sarsfield and Buchan. In Mallacoota, some 4,000 people (including approximately 3,000 tourists) were at risk as the fire approached the town, leading to the dramatic evacuation via Australian Navy vessels in the following days.

A "State of Emergency" was declared by the Victorian Premier, Daniel Andrews, on 2 January 2020. People were asked to leave many communities as the emergency services were unable to guarantee community safety.

Over the summer period, many other communities were impacted as the fires continued to burn across the area including the communities of Bruthen, Orbost and Cann River.

The fire activity threatened communities for an extended period of time – from January through to February 2020. It was only in late February that the fires were declared contained. By this time, the fires had burnt more than 1,300,000 hectares, four people had perished, hundreds of houses had been lost and livestock, agriculture, businesses and livelihoods devastated.

East Gippsland fires - Potential fire impact area 30 Dec 2019

In total, 1,000km of powerlines were affected, with 7,000 customers off supply because of the damage. The fires caused direct damage to these assets, and indirect damage from burning trees falling across power lines. AusNet did not have access to some of the affected network to restore customer supply until many weeks after initial damage due to ongoing fire activity.

Unfortunately, this crisis event is just one example of the increase in the incidence of natural disasters, severe weather and other crises across Australia.

According to the Bureau of Meteorology's "State of the Climate 2020" report, "Australia's climate has warmed on average by 1.44 ± 0.24 °C since national records began in 1910, leading to an increase in the frequency of extreme heat events." The scale of the increase in the annual frequency of dangerous fire weather days across Australia is highlighted by the mapping of the extent of the change.

In quick succession, these communities have also had to deal with the overwhelming new experience of the COVID-19 crisis and its impact on their recovery as state-wide lockdowns isolated communities across Victoria and made recovering much more difficult for fire affected residents.

Energy Consumers Australia wanted to ensure that energy consumers' experience of the bushfires was understood, and lessons learned about how to respond, recover and where possible, build more resilient and better services into the future. The risk that the public and institutional focus would shift from bushfires to COVID-19 before these lessons could be learned was also a motivating factor. As a result, The Insight Centre was commissioned to capture the experience of energy consumers impacted by the East Gippsland fires to inform future crisis response by energy businesses, regulators and governments.

THE RESEARCH STUDY

In June 2020, The Insight Centre commenced a series of twenty-five interviews with residential and small business energy consumers within communities impacted by the East Gippsland fires.

The project adopted a longitudinal design (with each person interviewed three times) to capture learnings at critical junctures in the extended recovery period. A total of twenty participants were interviewed on all three occasions.

RESEARCH OBJECTIVES

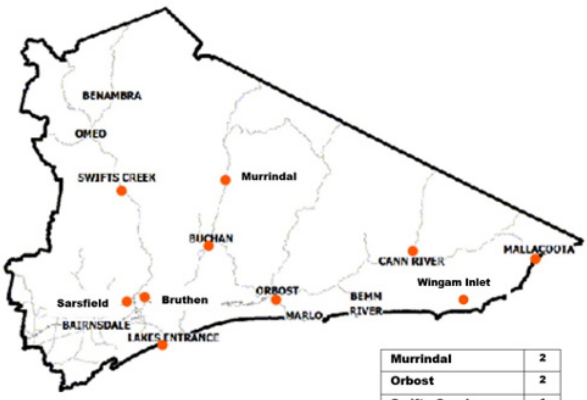
- To understand the consumer experience of the fires generally and in particular energy services with a focus on their experiences during the fires and in the recovery and rebuilding phase.
- To explore the ways in which these experiences have changed people's perceptions of energy. And if so, how has this experience changed perceptions.
- To ensure key lessons from these experiences inform the energy sector about future response to bushfires; and
- To take these lessons and apply more generally to how the energy and other sectors can respond to crises.

Methodology

ABOUT THE STUDY

The study commenced with the recruitment of twenty-five people from across the East Gippsland region of Victoria. All participants were residents in towns that experienced major impacts in the 2019/2020 bushfires.

A total of twenty people participated in all three interviews.



Murrindal	2
Orbost	2
Swifts Creek	1
Buchan	3
Mallacoota	6
Cann River	2
Sarsfield	3
Bruthen	2
Lakes Entrance	2
Wingam Inlet	1
Nowa Nowa	1

In order to capture rich pictorial as well as oral evidence, people were asked to share pictures that reflect their experience.

The map shows the extensive area covered by the research.

Participants were recruited using a variety of methods including: community organisations and citizen lead bushfire recovery Facebook groups.

All participants were people who indicated their wish to participate by providing their details at The Insight Centre website recruitment page.

Fieldwork Waves

Contact 1:
22 June – 4 August 2020

Contact 2:
6 October – 20 November 2020

Contact 3:
25 February – 23 March 2021

Interviews with participants were conducted via mobile phone and scheduled at a time that suited participants. This approach was adopted rather than using online digital platforms given the disruption to and reliability of internet coverage across the area.

Each interview took up to 1 hour.

Participants were paid $80 per session for their time.

WHO WE SPOKE TO

We spoke to people who were the main or joint decision makers about energy.

Participants were reliant on a range of energy sources. We spoke to people who were completely 'off-grid' relying on solar panels and generators for back-up, those partially reliant on the grid having installed solar panels and those who relied totally on the grid for their power.

The people we spoke to came from a broad age range (26 to 76 years of age) and a wide variety of circumstances: people living alone, young couples, single parents, families with at least one child under five years of age, families with school aged children, retired adult households.

Seven of these people also ran small businesses.

These businesses ranged from providers of tourism accommodation, mobile food services, primary producers and small retail outlets.

Many of these businesses were home-based and hence people's experience of energy security was consistent with their personal experience. What differed however was the broader impact on their lives and their capacity to recover.

"Thanks for your time on the phone the other week. I actually found it quite cathartic talking through some of the experience. Looking forward to our next chat."
BEC

"It was good to talk about these things yesterday and get up to date with my feelings. It has given me some things to talk about with neighbours as well. Thanks."
LILLI

CONNECTING WITH HEART

At the time of signing up for the study, participants provided their contact details and basic information about their experience to ensure we had some knowledge about the extent of their trauma prior to the speaking to them.

All participants had been affected by the fires in some significant way. Some people had lost their home, some were planning on rebuilding, some were unable to face rebuilding were now displaced from their community. Others spent weeks defending their home against ember attacks, were displaced to other locations for weeks or lost thousands of dollars in business revenue as tourists fled their town.

Protocols were in place to support people as they shared their stories.

The response to the research was overwhelmingly positive and for a number of people, the conversation with researchers was the first occasion where they had been asked to share their experience.

ABOUT EACH PHASE OF THE STUDY

Each phase of the project was established to explore a different topic.

The early experience (Contact 1)

Our first interview spoke to consumers about their early experience and recollection of the fires, their experience with energy services during that time and what had happened so far in the recovery effort. We explored the way the community had responded to the fires, the response of energy and other service providers and authorities.

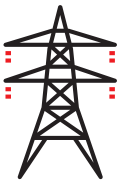
Reflections on progress so far (Contact 2)

At our second interview, we spoke to consumers about their reflections on those early experiences with greater hindsight and explored their experience since.

We explored whether networks and the values that underpinned the local effort had endured and if so, in what ways. We sought their views on both their individual and community recovery and the role of their energy network, other energy companies or service providers in supporting their recovering.

One year anniversary (Contact 3)

In this final interview, participants reflected on their journey of recovery. We explored whether their earlier reflections regarding their recovery remained. We asked them to consider whether their perception of energy had changed, how and why.



ENERGY SUPPLY ACROSS EAST GIPPSLAND

Household and small business energy consumers in Gippsland source electricity through the various retailers operating in the National Electricity Market (NEM). AusNet Services is the electricity distribution network provider in East Gippsland.

For those people who have supplemented this supply with gas, this energy is individually sourced via reliance on LPG bottles. Therefore, for most people we spoke to:

Energy = Electricity.

Before and during the crisis

At our first contact, participants were asked to reflect on their experiences in the lead up to the bushfires and during the emergency. When participants reflected on the fires, the recovery effort since then and the role of energy service providers they tended to focus on:

- Their experience of network disruptions prior to the fires and their learning about energy security during the bushfire emergency.
- The reliance on energy security in planning for emergencies and their learnings about the insecurity of the network energy supply during an emergency.
- The downside to technology after the emergency as a stress trigger following their traumatic experiences; and
- Their desire for a more secure energy supply to allow them to respond more effectively in the event of a future crisis.

Watching and waiting. Photo courtesy of Lilli.

ENERGY SECURITY PRIOR TO THE FIRES

We found a context for our study, where energy security was high on people's radars as participants reported that the East Gippsland area often experiences power outages.

In order to have a more secure supply, several participants said they had made the decision to move off-grid while others used solar panels to augment their traditional, grid-based energy supply.

By way of illustration, Mallacoota is often referred to as "the end of the line" as issues anywhere along the vast length of the power network can cause outages in the small coastal town. People we spoke to also reported the town had a high uptake of solar panels, potentially in response to the frequency of power outages.

"The further you go from Melbourne the less important you are. I think one thing Energy Australia does well and you have to give credit where credit is due, when the power does go out, you'll get a text message in a couple of minutes to say "UNEXPECTED OUTAGE" and an estimated time to return to power. They have always been very good at communicating planned outages."

EWAN, 44, small business owner who launched his business just before the fires hit

"We have been telling our politicians and Telstra for many years that 8 or 12 hours of battery or whatever the batteries are on for are not long enough. So no power, no towers, no communications – not good enough."

EVELYN, over 50, solar panels, active community member

"The power goes out a lot, but I know that they will always get it fixed."

ALIDA, 38, mother with school age children

"My property is completely off-grid, I've got solar system and generators for back-up power. I collect my own water off the roof of the shed and house and use gas for cooking for a 45kg bottle that lasts 12 months and it only costs me 150 bucks. I've also got a diesel petrol generator to back this all up."

HOWARD, 54, semi-retired, off-grid hobby farmer

LEARNINGS ABOUT ENERGY SECURITY

Most people we spoke to assumed that in the event of a fire, the fire front impact would be experienced within a relatively small timeframe and that the emergency would be over in a matter of hours or days rather than the extended period experienced in the 2019-20 bushfires.

Participants described how vulnerable they felt during the extended period where they needed to be vigilant. The holiday towns emptied as tourists were asked to leave due to the significant fire activity across the region and those that remained were often trapped in their current location unable to safely evacuate the area.

For some communities, the sound of gas bottles exploding as the fire front swept through the area became the signal to those in evacuation centres or safe havens that a home had been lost.

The electricity supply went down well ahead of the fire front reaching many parts of East Gippsland. Importantly, this impacted people's ability to follow the progress of the bushfires, given the reliance on mobile phones and the Vic Emergency App, heightening people's concern about energy security during the emergency.

As the power outages had occurred early in the crisis, almost everyone who relied on the electricity grid as their only power source had issues maintaining their mobile phone battery charge by the time the bushfire hit. This meant that word of mouth and the more personal connections within the community became critically important information sources.

"Telstra infrastructure, energy infrastructure, when you've got a fire going the way it was going, it's too unreliable. We'll be looking at getting a generator for power backup. If I had the money to go off grid I would. Unless you're fully off grid and fully self-reliant at some point there's going to be a network failure."

EWAN, 44, small business owner, just launched his business prior to the fires

"Because there was no power, we stayed at the recovery centre and then somehow they got a couple of generators into the town so then everyone comes together, charging their phones. And people were bringing food to the recovery centre to cook it up so were able to cater for everyone and they started to organise housing for people who had lost their homes. Slowly, but surely they started to get generators into the town and the local garage went around and connected them for people who needed that done so some of the homes started to get power back."

EVELYN, over 50, home owner with solar panels

"I didn't lose any power as I'm 100% off grid, my shed that houses my batteries and solar system, that all survived so I was able to come home to a fridge full of cold beer."

HOWARD, 54, home owner totally off-grid

"You just kind of sit there and wait. You think that you're prepared to a degree, but you're really not. The first night was horrifying, that was the moment that I looked at my daughter and thought, oh my god. I did a lot of soul searching. Power lines were destroyed, the landlines and mobile service were down and the power stayed off for about 20 days."

LAUREN, 33, living in rental property with her husband and 2 children

"We are totally reliant on the main energy grid apart from LPG. There was no mobile service and the radio was almost useless. People need to realise that you need to have your own power supply. People can't understand that we don't have service."

DAWN, 72, farmer, totally reliant on the main energy grid

> *"You could hear the gas bottles going off everywhere too, because our street had been saved we didn't know the extent of what happened in the town. The town relied on generators for a long time. Mallacoota was one of the last places in Victoria to go off generators."*
>
> **KAREN, 59, retired living with partner**

THE RELATIONSHIP BETWEEN ENERGY SECURITY, TECHNOLOGY AND RESPONDING IN AN EMERGENCY

Technology is the cornerstone of our official emergency response systems with official alerts (via apps or websites) providing critical guidance about crisis events and appropriate community response.

Unsurprisingly, many participants assumed mobile phone and internet access as critical components in their emergency response planning given their reliance on access to the most up to date information via the Vic Emergency App. For people living in more remote locations without secure mobile or internet access, radio, local person to person networks and being alert to activity around them were their planned information sources in an emergency.

However, reflecting on their experience during the bushfires was often a moment for participants to consider the gap between their emergency plans and what actually happened during the crisis.

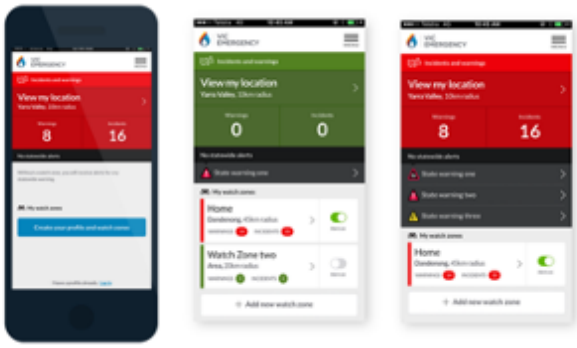
THE REALITY DURING AN EMERGENCY

Like all good plans, it is often the case that the reality is quite different. An emergency of the scale seen across East Gippsland certainly tested reliance on technology-based information sources.

The limited access to reliable power sources in the lead-up to the fires hitting these communities meant that the mobile phone battery was often low and could no longer be a reliable information source.

The mobile network coverage was also impacted by the fires and so even those with access to adequate power supply could not rely on their planned communication source.

With these challenges, more traditional communications came to the fore. Trusted information sources within these towns were people "in the know" (e.g. the Country Fire Authority (CFA) member or the neighbour with contacts in one of the first hit communities or inside knowledge about the bushfire's current activity). Watching and acting in keeping with the CFA chief's family signaling it's time to retreat to fire bunkers or head to "last resort" areas.



"We really were sitting at home with the Vic Emergency App which is on our phones, and every time we saw the lightning strike we would hear the Vic Emergency beep beep beeps come up as they were being reported and I guess in a sense that was the start of our fires on 21st of November. We had to watch the fire encroaching via the Vic Emergency App."

EVELYN, over 50, solar panels, active community member

"We have got solar panels but even they weren't working and we couldn't charge the phones that well. And there was no power to look at any TV. Even when the power did come back on, we still didn't have the TV because the tower had been burnt out. We didn't realise how bad it was for a long time."

KAREN, 59, retired living with partner, solar panels

"I was surprised at how vulnerable I actually felt. I was surprised at the level of anxiety I felt. What did I learn? That I need to be better prepared for next summer."

EWAN, 44, small business owner, just launched a new business before the fires

The fire destroyed everything! Photo courtesy of Milena.

THE DOWNSIDE TO TECHNOLOGY AFTER THE FIRES

The double edge sword of connectivity became apparent in the aftermath of the bushfire crisis.

Some people we spoke to had not been able to mentally "switch off" – despite no longer being in a state of emergency. The audible "pings" from emergency apps that continued to deliver messages about air quality and even when the interviews were conducted, for some people, the COVID-19 awareness messages were a source of continued anxiety - an unwelcome reminder of the fires.

One couple learned that their home had been destroyed when it became the "go to" vision of the bushfire devastation in the media and was replayed on the television over many days and weeks. And while the stark images of the fire's impact are of interest to many outside these communities, the personal trauma is heightened when you become the example.

"My husband couldn't concentrate on our new baby (born after evacuating from our home in East Gippsland). He was fixated on the Vic Emergency App. It was sad really."

KELLY, 35, pregnant mother, evacuated with her husband and young children to Melbourne just in time to deliver their new baby

"I still get a start when the App goes beep beep. I should turn it off, I don't know why I haven't … perhaps I'll do it when we get off this call."

ALIDA, 38, mother (with school age son) was injured in the fire

"Our home was burnt. We were in Brisbane as my husband had had a stroke. We turned on the news and there was the picture of our house burning. Gone. And it was shown repeatedly over the weeks following the fire. Devastating!"

MILENA, 55, who lives with her partner lost their home, pet parrots, everything

THE NEED FOR A MORE SECURE ENERGY SUPPLY

Restoring power was one of the most critical issues faced by these communities. In the immediate post fire period, access to an alternate energy source to power electricity became critical to resume at least basic "living".

Many people we spoke to were without power for weeks. For some, power was restored within three weeks, while others reported being without power for up to 11 weeks. Fridges and freezers without power, and packed with spoiled food and supplies for the Christmas period became a source of great distress.

The interim solution most frequently used were portable petrol "generators" and the hum became one of the evocative sounds in the post-bushfire period. However, fuel supply issues meant that there remained a high level of vulnerability around energy for many communities.

Many people we spoke to had already or planned to purchase petrol generators to secure their electricity security. Other people we spoke to mused about what should replace the existing electricity grid infrastructure. One community, Mallacoota, was actively pursuing community wide options for self-reliance.

"There was a symphony of generators throughout the entire area. People were unreasonably upset about the power being off, it was inevitable that it would happen. It's not if the power goes out, it's when. Assume the worst and hope for the best."

TERRI, 50, farmer, lives with husband and children, partially reliant on the main energy grid, with a backup generator, as well as a dam and boar for emergency water

*"Telstra infrastructure, energy infrastructure, when you've got a fire going the way it was going, it's too unreliable. We'll be looking at getting a generator for power backup. If I had the money to go off grid, I would. Unless you're fully off grid and fully self-reliant at some point there's going to be a network failure. That's one of the things that really stood out to me, Mallacoota got smashed, everyone left but when they came back the houses that were still there, all their fridges were off, all their food was f*****. I'd be keen to have something up ourselves in case that happened again. From a business point of view, you looked through town, all of the big businesses, all of our infrastructure, East Gippsland Water, sewerage systems and supermarkets, a lot of those big businesses had generators come in by truck and they hooked their whole stores up and were ready to go so they could continue to trade and not lose their stock."*

EWAN, 44, small business owner, just launched a new business before fires

"I think going forward where there's more and more green energy and less and less on demand coal and I think the problem of network security is only going to become exacerbated. The green energy is not going to necessarily be the be all and end all for everyone is it? I'm sitting in Bairnsdale now, another fire affected area but you look around and I can see the first 10 or 12 power poles, 5 of them are still timber. Spend the money, replace them with concrete ones that won't burn down. It's an essential service and it needs to be treated like one. Why not be proactive rather than reactive, use some of that money now, get in your planned burns, protect these assets?"

EWAN, 44, small business owner, just launched a new business before fires

"I think the only thing they could possibly do is put everything underground, but that is not going to happen."

KAREN, 59, retired, living with her partner, solar panels

"The experience has very much compelled us to buy a generator which we are in the process of doing. And as soon as reasonably priced storage batteries come onto the market we will go to becoming self sufficient. We are happy to feed into the grid too. I think Mallacoota has the highest uptake of solar panels of any Victorian town. However, I'd like to see Mallacoota become self-sufficient. To have the capacity to generate its own power. That's my wish for our future and I know the committee is looking into all these options for us."

LIZA, 74, semi-retired living with her husband, runs tourist accommodation when things are normal

Wires and polls under threat. Photo courtesy of Lilli.

Immediately after the crisis

Having explored their experience during the crisis, participants were asked to consider the recovery effort in the period immediately after the bushfire impact. People reflected on how they and their communities were fairing; what was working well and what could be improved.

While our conversations focused on the energy sector response, they also sought to understand their recovery experience across a range of different sectors including: government, other critical service delivery organisations (such as telecommunications and water) and for purpose organisations' work to support communities.

Memories and wishes on the facemasks from first responders and the community serve as a poignant reminder of the bushfire crisis.

Photo courtesy of Alida.

COMMUNITY AND INDIVIDUAL RESPONSE AND RECOVERY

Community Spirit

All the people we spoke to had been affected by the fires in some significant way. Some participants had lost their home, some were planning on rebuilding, some unable to face rebuilding were now displaced from their community. Others spent weeks defending their home against ember attacks, were displaced to other locations for weeks or lost thousands of dollars in business revenue as tourists left and were evacuated from their towns.

However, despite being victims of a natural disaster themselves, most people expressed a view that 'not much happened to them' and that other people had it far worse. What was apparent was that participants were often thinking of those who were worse off than them and that those who lost their home or loved ones were in their thoughts.

The sense of community spirit was strong in the aftermath with many participants reporting people in their communities looking for ways they could help others. We heard inspiring stories of people who had made a difference, such as the local woman who worked 10 hours a day for weeks feeding volunteers and then collapsed from exhaustion, the man who stepped up to assist others by using his tractor to pick up and remove the spoiled food removed from fridges that was rotting in the streets. There were also those who opened their properties to others who had lost their home and who lent their off-grid energy sources as a temporary mobile phone charging point for their community.

"I felt a bit of guilt like going oh god, people don't need my problems as well…We (the community) lost around 26 homes and an awful lot of farmland, fencing and our forest. It should probably not surprise me but the way that the town worked together, the way that the natural leaders came to light, the fact that they organised themselves so well and the fact that they supported each other. Extremely resilient."

EVELYN, over 50, solar panels, active community member, Evelyn's partner was extremely unwell at the time

"There's been overwhelming support locally, a lot of local people have dug deep."

HOWARD, 54, semi-retired, off-grid hobby farmer, who opened his property to others in the community

Individual Recovery

The people we spoke to differed in their individual circumstances and capacity to recover. Those participants who were less impacted, were generally more connected to the community in which they lived and who had a wider range of outside contacts they could rely on expressed greater capacity to recover effectively. Participants were thankful for the wide variety of organisations that were contributing to their recovery. Note: These organisations have been discussed in detail in a separate section of this report.

However, one person we spoke to who lost their home and decided they were not in a position to rebuild felt lost in a "no man's land" as they decision to relocate to another state meant they were dislocated from the community support networks and recovery-focused services.

> *"The sad thing for me was the animals, because there were none left. There were a few kangaroos jumping around but they had vets come into town to shoot them because they were just burnt". The animals were burnt to nothing. No bird noises, nothing!" It's sad just very, very, sad. You were just numb. It was like "hello, how'd you go?' "Okay you've lost your house?" There wasn't much talking."*
>
> **KAREN, 59, retired living with partner, solar panels**

Peace, tranquillity and water.
Photo courtesy of Lilli.

> *"Communication was the biggest challenge. The General Store was the saving grace of the town. We were cut off with no relief in sight. Heightened by the sense of insecurity about our water supply, the Tambo River is our main source and it was filled with debris. There was also the constant challenge driving on the road because of the fragility of the eco-system. The town became like a ghost town at the end of the world."*
>
> **LILLI, 60, business owner living by herself, both her house and business are totally reliant on the main energy grid. Her house was completely cut off from both power and phone service, as well as road access for long period of time**

A stark reminder of the devastating impact of the fires.
Photo courtesy of Lilli.

Building Resilience

For many people we spoke to, a big part of their recovery was exploring ways to 'future proof' their energy supply. While most people we spoke to were looking at individual self-sufficiency via generators as the way to secure their service in the event of future bushfires, Mallacoota has taken a community self-determination approach.

In Mallacoota, a combination of factors including remote location, active and engaged community members and a history of seeking a solution to electricity power disruptions galvanised the community to seek to lead their own recovery.

To facilitate this process, the Victorian Electoral Commission has overseen the election of community members to a recovery council. A highly engaged community, we heard of 48 local candidates standing for 12 positions and 88% of the community voting. This community response is designed to ensure that they drive the decision-making and is suggestive of a new model of empowering communities to lead their post-crisis recovery. Note: More information about this community led initiative is provided later in the report.

However, communities differed in their capacity to negotiate and manage their recovery. Two things are clear, not all communities have the capacity to step up in this way. And the often competing views on how best to move forward make community cohesion and building resilience more difficult.

ENERGY SECTOR RESPONSE

What Worked?

The communities across East Gippsland are used to electricity outages and are in most part see interruptions as a reality for people living in regional and rural areas. This experience, coupled with the extensive fire devastation across the East Gippsland area, meant that in most instances participants understood and accepted that restoring energy supplies and rebuilding the infrastructure takes time.

Most participants spoke of AusNet as being very helpful and proactive in the period immediately following the fires. What became apparent during our conversations with participants, was that it was the instances where AusNet proactively reached out to their customers that were the most successful at assisting personal recovery.

AusNet installed large mobile generators at Mallacoota, Newmerella, Omeo and Corryong throughout January and February and a fleet of 100 small generators was deployed to support individual customers without power.

"The apocalypse, wasteland, it was burnt out, eery, and there was no power."
Photo courtesy of Michelle.

"I think they responded well because poles were burnt from Wingan to Eden. Lines were down everywhere, as soon as they could get in they were here. They were here as soon as they could be, they were working all the time. I rate them as 10 out of 10 as they had so much to do. They fixed it up as best they could, they got the people power in."

KAREN, 59, retired living with partner, solar panels

"The grant really helped because I had to pay rent even though I had evacuated and wasn't in the house at all. Celebrities were donating money but our town didn't see any of it at all. AusNet were good with communication but it wasn't individualised. The community was the biggest support network."

LAUREN, 33, living in rental property with her husband and 2 children, totally reliant on the main energy grid apart from LPG

"More contact from AusNet during and after the fires would have been great."

LEA, 50, full-time carer for her husband (who has a rare autoimmune disease) and young son, partially reliant on the main energy grid

"It was traumatic and stressful, we couldn't get in contact with any family or friends because there was no mobile phone reception for a long time. We received a letter from AusNet but a phone call would have felt more personalised."

ALISON, 29, lives with her husband, recovering from surgery due to a chronic illness, evacuated 2 times during the fire emergency

What Could Be Improved?

There were however examples of where the system didn't work effectively.

Lack of proactivity:

The need for the householder to contact the service provider rather than be proactively contacted with information about the support available.

Significant amount of paperwork:

Others expressed being overwhelmed at the amount of paperwork they were required to complete.

Inconsistent application of financial support:

The geographic nature of much of the decision regarding financial support created difficulties within communities where neighbours living on one side of the street would be eligible for financial support, the other side ineligible.

Insufficient rebates:

Mallacoota was without power for many weeks and relied on a large-scale generator to provide power to the community. Those with solar panels were unable to feed into the grid, and the offset allowance did not cover their increased electricity costs.

Safety issues:

We heard from one person whose electricity supply was reconnected to their home only to discover that the main cable from the street to their house had been significantly damaged by the fires causing significant outage following re-connection.

OTHER SECTOR RESPONSES

What Worked?

People we spoke to mentioned a broad range of organisations that had facilitated their recovery.

Re-establishing essential services:

- The Australian Defence Forces
- Department of Environment, Water, Land and Planning
- East Gippsland Water
- State Government Recovery Agency

For Purpose:

- Red Cross, Lions, Rotary
- Country Women's Association
- Foodbank
- Sikh Volunteer' Australia

The unifying principle was that going above and beyond expectations to not only deliver the basics but lift spirits through care and compassion brought a sense of hope. Participants mentioned examples of the Australian Defence Force's offer to clean the windows of the Mallacoota school and the high quality of the food being provided by Foodbank and Sikh volunteers.

"The Rapid Recovery Team came in very early which the community was very appreciative of. They provided brilliant service and quality food. I think they just felt really cared for."

"The Rec became the central point for that and there was a big tanker of water there and they said if anyone needs water we'll get it out so there were just logistical things like that happening."

EVELYN, over 50, solar panels, active community member

"The food was got from Foodbank was better than you could buy in town before the fires. It made me feel a bit teary really … it showed that someone cared."

JULIE, 65, lives with her husband

"Red Cross were fantastic to deal with, I know they got a lot of bad press on social media and I don't know why because they were fantastic. My insurance company APIA were fantastic, they paid out in 3 weeks."

HOWARD, 54, home owner totally off-grid

Grocon has been in here, they've got the job of cleaning the town. They have done all the houses and the asbestos and have done a fantastic job."

KAREN, 59, retired living with partner, solar panels

What Could Be Improved?

There were however examples of where the system didn't work effectively – particularly in the early days of the recovery response.

Lack of co-ordination amongst organisations:

The large number of organisations working in these communities sometimes gave the sense that "people were falling over each other". Examples were given of small community centres being inundated with donations and people representing well-meaning organisations flooding into town.

Lack of engagement with the community:

The desire to act quickly meant that some participants felt that there was a lack of understanding regarding their specific needs and how best to assist.

One participant gave the example of the first material assistance for Mallacoota was beer being delivered via private boats. As a tourist town prepared for the influx of huge numbers of holiday makers suffice to say "beer wasn't on the top of our list". We also heard of large numbers of donations from well-meaning people overwhelming local support services with donations that were not needed facilitating a sense of despair that fundamentals were missing (e.g. donations of clothes that didn't meet the basic hygiene requirements or were unnecessary such as evening gowns).

"Constant donations, people coming up even though there was signs saying 'no more donations', agencies, Rotaries, Lions, church groups, other organisations, people wanting to start Go Fund Me's, it was just go, go, go, for everyone. The hay was still coming in [from charities delivering hay to drought affected communities], then Blaze Aid was coming in so we had to work out where to put them. There were lots of groups that were coming in, for instance I think there was even a Police or emergency services motorbike group [helping out]. Groups would come to do a farmers morning tea, East Gippsland Water would put a BBQ on for people, Save the Children would do an activity with the kids, it was just constant. Offers of volunteering by high school groups, men's sheds and tools and bottles of water being delivered. It was just full on. People just constantly coming through the Neighbourhood House. And Ministers, politicians, bushfire recovery. It was constant.

The Red Cross makes these teddy bears. It's like, we've got 20 kids, we've got a hundred teddy bears. I can't imagine that unless we keep them for the next 20 years, that we'll get rid of them."

EVELYN, over 50, solar panels, active community member

THE DESIRE FOR A SECURE ENERGY SUPPLY

The challenge faced by service providers to maintain critical infrastructure across a wide geographic area was largely understood and accepted by the people we spoke to. The participants also understood that restoring power supply after such a major event would take time. However, the bushfire experience had heightened people's concerns about energy security. In response to their experience, many people looked to secure their energy supply rather than rely on the network in the event of future outages.

While the plan at an individual household level was often to purchase a portable petrol generator (with any potential issues regarding access to fuel supply during a crisis less prominent in their decision making), community-wide decisions were more complex and fraught given the competing views on how communities could best move forward. The sheer number of decisions that needed to be made, including the most appropriate ways to build energy resilience, made building cohesion within communities more difficult. These differences of opinion can create discord and hostility within already fractured and distressed communities. There was also a recognition amongst participants living in smaller communities that not all communities have the capacity to step up in the way Mallacoota has either because of the size of the population or lack the desire to establish an independently elected "community council".

The first wave of research raised questions rather than definite solutions for the sector to consider:

Short-term:

Should individuals be responsible for purchasing the means to maintain access to vital services? Should generators be delivered to high risk and vulnerable communities prior to the bushfire season to provide back-up support?

Longer term:

What ways can the sector facilitate community cohesion and self-determination? How do we engage with these communities to facilitate decision-making, take the individual personalities out of the equation and bring cohesion and rigour to outcomes? What are the new ways to deliver self-sufficiency across the breadth of the communities we cover? How could the sector work with communities to develop a new model of community decision making?

The lone tree a sign of hope. Photo courtesy of Dawn.

The long, long, long road to recovery

Following such a significant and widespread event, at our second contact interview, we found that for many of our participants the road to recovery had been characterised by stress, disappointment and complexity.

Stress:

The enormity of the recovery task (both in size and length of time) all amid the normal stressors of life. People spoke of difficulties in their personal relationship and their close friends dying. Two of our participants were caring for a family member with a major health crisis.

Disappointment:

That the key reasons for choosing their place to live are no longer apparent with daily reminders of the devastation around them and that the community that they were part of is a shell of its former self.

Complexity:

The sheer number of decisions that they are faced with. And for some of those who lost their homes, they are still undecided on whether they will return or where they will re-establish their lives.

But for others, it hadn't been as fraught as they imagined. Often due to the positive relationship they had developed with their case managers (provided by Victorian Government recovery services), who were seen as the most helpful resource in assisting their recovery.

The road to Mallacoota – 250 kms of burnt bush. Photo courtesy of Kelly.

THE WORST OF TIMES

"I'm someone that stays positive but I'm struggling to see the light at the end of the tunnel. The process of clearing and rebuilding houses has been a really long process that is dragging on. Only one house has been rebuilt."

LAUREN, 33, childcare worker and mother of two young children

"It's been an incredibly long year, physically and mentally. Its just a matter of keeping on going everyday. Everyone in the community are tired and are over it. We're in the no mans land, you miss out on a lot of communication. The recovery and rebuilding process is a lot more difficult and complicated then it should be."

DAWN, 72, farmer

"43 weeks and we still don't have a shed. 13 weeks just to get a piece of paper. And the shire is taking too long to replace things that were once there."

KATHY, 54, living with her husband and now her elderly parents

Flowers by the sea.
Photo courtesy of Kelly.

THE SHINING LIGHTS

"We don't have any complaints about the services. I'm gobsmacked by the amount of support shown towards our community. We're alive, the house is standing, there's a lot of people worse off than us."

FRED, 77, small business owner whose crops were burnt

"It's been a journey all right! But its turned out better than I expected."

LISA, 55, rebuilding after losing her home of 30 years

"We have a good caseworker, but we're capable of fighting our own battles."

DONALD, 69, currently working on plans to rebuild after losing his home but unsure whether will return to live there again

"We wouldn't have survived without our case worker. They were fantastic. Called us every week to see how we were going, where the roadblocks were and how they could help."

MILENA, 55, and her husband will not return after losing their home

"The community was our biggest support network."

LAUREN, 33, totally reliant on the network

"We came together as human beings."

LEA, 50, partially reliant on the grid

COMMUNITY RECOVERY

Personal recovery does not necessarily translate to thriving communities. To coin a phrase, community is greater than the sum of its parts. When asked to consider how their community or others impacted by the fires were recovering, participants expressed concern for the recovery of small communities or gave examples where their community was struggling to recover.

For a number of East Gippsland's smaller communities the ability to recover is uncertain, driven by factors such as the size of the community, the age of residents, lack of services coupled with financial insecurity of the few small businesses operating in the town.

One participant described the dire situation in her small town. Before the bushfires, the town had around 50 people including children. In her street of 8 houses, she is the only one rebuilding. 3 people have died (1 just before the fires, 2 after the fires) escalating the area's decline.

Footprints on the river banks embedded in the soot that washed down from the bushfire areas during heaving rains and flooding.
Photo courtesy of John.

"Our community is not the same, people aren't the same as before. People have moved on because of the trauma of it all. The bushfires highlighted the lack of services in our community. No doctor, no physiotherapists, it really just adds to the sense that its time to move on."

JULIE, 65, lives with her husband

"It's going to be interesting to see whether some of the smaller towns are going to be able to survive. And if they don't we won't have anything left."

KELLY, 35, pregnant mother, evacuated to Melbourne with her husband and their young children arriving just in time to deliver their new baby at the hospital

"The recovery process is really long. There is no capacity to relax these days, everything is just a lot right now. I worry about our community, it was booming after the fires but its sad to think of how disconnected we all are now."

MICHELLE, 41, welfare worker living with her partner and 3 kids aged 11-14

"We are alright here (Mallacoota), but its all the little towns that get forgotten."

ALIDA, 38, mother (with school age son)

THE IMPACT OF COVID-19 ON RECOVERY

The COVID-19 pandemic complicated recovery within these communities. Government mandated travel restrictions and lockdowns meant face to face community engagement had to cease except for work to address immediate supply restoration needs.

People talked about the isolation, citing the lack of tourists traveling to these communities and the additional economic impact as Victoria endured periods of lockdown. The potential for local health crisis also loomed when a COVID positive traveller visited a number of East Gippsland towns.

The lack of in-person community connection during this time was frequently raised as the major issue. In the immediate recovery period, the connections that mattered most were local and these networks were now fraught and fractured.

Moreover, some of the person-to-person support established to guide individual recovery paused which was distressing for those people who relied on that personal contact. While many services had been transferred to online platforms, not everyone can use these platforms nor has access to a fast and reliable internet service nor up-to-date computer technology.

In many ways, the rest of Victoria and the country's shift to the health emergency only heightened participants sense that "we have all moved on". These uncertainties amplified their heightened sense of anxiety as well as slowed the recovery progress and return to normality.

"The community gatherings and food delivery were still happening and of course with COVID coming along, it really changed the dynamics of that. It's really quite seriously missing now, because we can't get together."

EVELYN, over 50, solar panels, active community member

"Our community is failing. The town is not what it used to be. Before COVID there was a swell of support and then everything just stopped. Our journey is now a solitary one. The recovery process has ground to a halt, and no more progress has been made on the road going out of our town."

LILLI, 60, business owner living by herself, both her house and business are totally reliant on the main energy grid. Her house was completely cut off from both power and phone service, as well as road access for long period of time

"There is not really a support network within the community, it all stopped because of COVID. It feels as if it's every man for themselves, don't expect anyone to help you."

TERRI, 50, farmer, lives with husband and children, partially reliant on the main energy grid, with a backup generator, as well as a dam and boar for emergency water

"COVID on top of the bushfires, its really affecting everyone's mental health. The roads are still being cleared of debris and damage, it's a constant reminder every time I leave the house."

ALISON, 29 and her husband had to evacuate 2 times due to the fires

"We didn't want people here. After the fires we needed the space. And then we didn't want COVID to come here."

KAREN, 59, retired living with partner, solar panels

Taking the long view

In the period following the 12 months anniversary of the bushfires, we found participants were by and large in a much better place. People who had lost homes had relocated interstate, were awaiting final approval of their plans or still deciding whether to rebuild. All participants expressed a sense that with the anniversary they were able to look back and see how far they had come.

For those participants who had returned to their homes, the importance of energy security remained a common theme. Those people who had purchased a portable petrol generator expressed a desire and a need to feel secure and have a back-up plan in the event the power goes out.

> *"I learned that you need to have a good generator. The power will go out in a crisis and you can't rely on anyone but you!"*
>
> **ALIDA, 38, mother (with school age son).**

Mallacoota.
Photo courtesy of Kelly.

ENERGY SECTOR RESPONSE & COMMUNITY ENGAGEMENT

Learnings About Energy Response

In the race to reconnect essential services, the electricity grid infrastructure appeared to participants to have been rebuilt as it was, following traditional designs. The largest change to the network has been rebuilding the network with concrete rather than wooden poles. From a user experience point of view, many participants felt the "new" electricity network was no better or worse than before the fires.

Given their experience, many people we spoke to were both surprised that they had not heard more from AusNet and that there had not been more community engagement in decisions about how to build a new and better system. A desire to not just revert back to usual service levels, appears heightened by their pre-bushfire experience of a network experiencing significant service disruptions and the significant impact of the network disruption during and after the crisis.

Many participants felt there had been a missed opportunity to engage with communities about what they value and how best to deliver against these needs or the role of new and emerging energy technologies to deliver better energy outcomes. The unprecedented extensive damage to the network across such a vast area was considered a lost opportunity to create a "new and better" system.

> *"If it rains and we have thunderstorms, we know the powers going to go out, you just bear with it, they'll get it back when they can. The big change is that all the poles are now concrete, which is wise."*
>
> **KAREN, 59, retired living with partner, solar panels**

> *"We still have regular outages here. They're doing constant work. Our network down here, we still have a lot of timber poles, but they're replacing those all the time. We've got another planned outrage coming up from 11 o'clock at night until 6 in the morning, they've doing it so it doesn't disrupt business while they've running, but for us we've got fridges full of milk and freezers full of product, what do we do with that for the night?"*
>
> **EWAN, 44, small business owner, just launched a new business before fires**

> *"I have no confidence or trust that we can rely on the power to be there when we need it. We are absolutely trying to be less reliant on the main energy grid."*
>
> **MICHELLE, 41, previously totally reliant on the grid**

> *"I'd like to hear from AusNet about what upgrades they've made to the system and publicly acknowledge it so everyone is aware of what is going on."*
>
> **LILLI, 60, business owner living by herself, both her house and business are totally reliant on the main energy grid.**

> *"We need someone to hear what we all have to say."*
>
> **LEA, 50, partially reliant on the energy grid**

> *"AusNet offered a grant of $5,000 to get the power to our house underground. But the infrastructure hasn't been dug in so I'm not sure what's the point."*
>
> **LISA, 55, rebuilding after losing her home of 30 years**

Customer Versus Community Engagement

Clearly, engagement and dialogue between energy consumers and service providers about how best to meet their needs, expectations and values needs to happen in a systematic, well organised, and patient way, and not in the heat of a crisis situation, when re-establishing essential services overtakes a focus on “what could be”. The opportunity exists for energy service providers to increase their focus on engaging with entire communities about the best way to design, plan and deliver services that are resilient to shocks like bushfires, and in line with consumer and community expectations.

Customer engagement drives a sharp focus on individual household and business needs particularly in the area of pricing, service delivery minimum standards and communicating service outages and price and tariff changes.

Community engagement brings a greater focus on creating opportunities to engage with entire towns about their specific needs and the way service providers can deliver greater community benefit (whether via technology to create a more stable network or ways to support self-sufficiency for those who choose to live in some of our more isolated regions).

Watching and waiting. Photo courtesy of Lilli.

CASE STUDY: COMMUNITY LED RECOVERY THE MALLACOOTA EXPERIMENT

Mallacoota, although not without its challenges, is fairing better twelve months on from the bushfires.

The town-led recovery committee was described as having "lighten the load on the rest of the town" and provided a sense of autonomy and structure about how members of the community can engage with the decisions.

The committee is focused on how best to rebuild and create a "new and better" future.

While there is a strong community focus on recovery, projects and initiatives are nevertheless taking time to plan, organise and deliver.

Active community engagement on energy security and stand-alone power generation has been a decade-long journey for Mallacoota. The quest for energy security largely driven by a number of active, highly engaged community members.

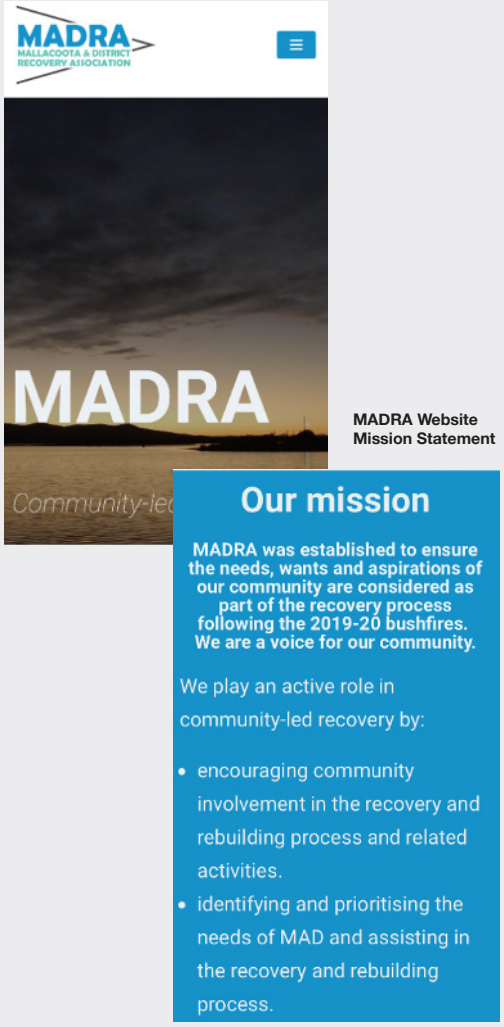
A well-informed community which is able to have a dialogue and understand what it needs is the foundation for community engagement and effective decision making – including by energy service providers.

Engagement of this nature requires more deliberative engagement based on education, transparency and active listening, going well beyond traditional one-way or 'broadcast' approaches.

This type of sophisticated, local engagement requires long-term commitment from service providers and community that builds connections and trust needed to make decisions which will often involve costs and difficult trade-offs.

For Mallacoota, this has culminated in AusNet Services building a large battery system and generator that will back up the main line to provide continuous supply during unexpected disruption.

AusNet Services to Install Gippsland's First Big Battery at Mallacoota



MADRA Website Mission Statement

Mallacoota Emergency Power Supply Photo: ABC 7.30 report

"AusNet was working around the clock (in Mallacoota). We still get monthly power outages but they have built a battery station near town so we can store some power near town."

ALIDA, 38, mother (with school age son)

"People feel like as a town we have control over our rebuilding. It's given us a structure so its clear how you get your views to them so that everyone can have a voice."

REBECCA, 43, totally reliant on main energy network

A THIRST FOR NEW SOLUTIONS TO DELIVER BETTER OUTCOMES

When participants were asked what energy companies could do better in terms of energy provision, participants were often looking for new solutions whether community-wide backup battery programs or other stand-alone systems that would, in their minds, deliver greater reliability. However, perhaps unsurprisingly, participants had limited knowledge about how stand-alone systems work or the extent to which they could deliver a more secure energy supply. Within this knowledge gap, participants wondered about the constraints or limitations of these systems and what changes if any the householder would need to do if such a system was implemented in their community.

"[Community-wide battery storage solutions] That's definitely something that should be considered for other places [not just Mallacoota]. A lot of people have backup generators but a lot of people don't. A lot of people in the bigger towns like Bairnsdale or Lakes Entrance, the more urban areas, there is no way they'll have generators. It would be an awesome idea."

RONALD, 50, lives with wife and young child

"Here's an idea that would greatly benefit the community. On your phone and on your social media, you get a lot of stuff promoting solar, 'you qualify this deal' and they're not run by AusNet or power providers. I don't know who runs these ads. It would be awesome if power companies give out advice on solar and subsidies and what you qualify for, not from these third party shysters, but from the horse's mouth on what could be done on your house or property.

We really need a trusted voice on what solar panels are good, what system should I have, what subsidies can I get access to, what works with our electricity system and the trusted source would be from your energy provider."

RONALD, 50, lives with wife and young child

"I like the idea of a stand-alone system for isolated communities. I'd like to know:
- When would it kick in? How long would it last for?
- What interruptions to my services would occur?
- Will everything operate the same?
- What do I need to do to prepare?"

KELLY, 35, mother with young children

"A [stand alone system is] a good thing but it needs to be maintained and how is going to look after it? What is the cost of maintaining the system? Who is responsible?"

JULIE, 65, lives with her husband

ENERGY SECTOR COMMUNICATIONS AND THE INFORMATION VOID

We also found that there appeared to be a gap in terms of the level of communication from service providers about the network compared to customer expectations. People were looking for information about the network rebuild – was the 'new' network going to be more reliable than the one it replaced? This gap appears to be due to a number of factors. Firstly, having experienced the bushfire crisis, participants were more concerned, even "on edge" about the security of their power supply so were looking for information about the network rebuild being more secure. This seemed logical given the number of outages experienced across the network and the extent of the rebuild required following the bushfires. Secondly, having experienced a higher level of contact in the immediate aftermath, there was an expectation that this would continue and that having started the dialogue, the conversation would continue.

"People always want to know why the power is going out. Now more than every after what we have been through.

The power supply isn't anymore secure than before. In February for 3 weeks in a row, we had 3 or 4 power outages (midnight to 5.00am) and lost power on 24th February in Lakes Entrance.

Power outages during the day make it really hard as the toilets at the school are on an old sewerage system and you can't flush them. There is no water either – so the kids can't drink from the bubblers. There is no backup generators to tied us through."

KELLY, 35, pregnant mother, evacuated to Melbourne with her husband and their young children arriving just in time to deliver their new baby at the hospital

The strong desire for a more secure energy source and their experience of frequent planned and unplanned network disruptions also translates to an interest in understanding more about what is going on with the electricity services and the network and what improvements are being made to improve the reliability.

"More contact from AusNet during and after the fires would have been great."

LEA, 50, partially reliant on the energy grid

"If they're load testing the network, like they are at the moment, that's fantastic, obviously they've got to test these things to find out what's wrong so they can fix it but give a bit of notice and say 'this is what we're doing' – like, this is all hearsay, it's just circulating on social media and the town gossips, but put it out there, say 'this is what we're doing', this is what we're trying to achieve' and 'we hope it doesn't happen but this may go on, if it does we want to minimise the impact to you guys."

"Like at the moment, the power goes off and we get told 'the power might be put back on at 5 o'clock in the afternoon, like that shuts schools, it's a pretty big ripple effect."

When asked what the communications approach was for unplanned outages, Ewan replied:

"Zero. Planned outages have been really good, they send you a couple of letters. Unplanned outages which is a result of their load testing the network. There's zero." "I don't think that's acceptable."

EWAN, 44, small business owner, just launched a new business before fires

MYTHS AND MISCONCEPTIONS?

The timing of our third interviews with participants in Mallacoota followed major rain events across the east coast of Victoria.

> *There were isolated showers and thunderstorms in East Gippsland on 11 March followed by a cold front crossing the state on 13 March, bringing widespread rainfall with daily totals in southern Victoria of generally between 10 and 20 mm, but locally higher. And later in the month, rainfall of more than 100mm in parts of Gippsland on 23 March. Some sites had their highest March daily rainfall on record to 9am on 24 and 25 March and minor flood warnings were issued for catchments in eastern Victoria.*

Victoria in March 2021 (bom.gov.au)

During this period, the town experienced a number of power outages.

Flash Flooding, Power Outages In Victoria As Severe Weather Moves (stormassist.com.au)

Mallacoota hit by heavy rain, power outage | The West Australian

> *"More than 1000 Mallacoota residents are without power as the Victorian country town weathers heavy rain and strong winds. A year after the East Gippsland town became one of the symbols of that summer's bushfire crisis, Mallacoota was deluged with more than 100mm of rain on Tuesday night. A low-pressure system is moving south from NSW, prompting the Bureau of Meteorology to issue severe weather warnings for coastal areas in Gippsland and the Otways. According to the AusNet website, 1067 residents in Mallacoota were affected by a downed power line and it's not expected to be fixed until 3pm on Wednesday."*

During our conversations, it became apparent that there is a lack of knowledge about what the system is designed to do and in the absence of official information, myths and misconceptions can fill the void. For example, some participants expressed surprise that there had been a major power outage (given the battery system), others were confused about what the system was designed to do. What was clear was that participants had more questions than answers:

- Wasn't the battery system meant to mean we didn't have these types of power outages?
- Was the system working yet – maybe it hasn't been turned on yet?
- Was it to reduce the number of major outages and allow for a more stable system?
- Was it only designed to reduce the number of minor outages?
- Will I be financially worse off as I used to get a discount on my bill due to the number of power outages?

> *"The power went out the other day and triggered a lot of memories of having power outages at the bushfire time. And everyone is talking about us having this big giant battery and storage system that is supposed to be connected to power us up but apparently it isn't connected yet? So a bit of frustration there.*
>
> *I can say whole heartedly I haven't seen or heard anything about it. I want to know where they are up to and an estimated timeline for when it will be up and running and what it will provide. If it kicks into use because we have a power outage, does that mean solar panels won't feed into it? I think we'd want to know that too."*
>
> **MALLACOOTA RESIDENT 1**

Protocol of Resident 1 used to protect participant privacy.

"We have a battery system, but it doesn't work. The batteries are apparently second hand, and don't work. The system is supposed to take care of the little outages which happen all the time. In fact, I am not sure if the battery is still working. The power goes out for six hours in a storm at times. My understanding is that the battery can only take the load for the little outages not the big ones."

"When you have outages, you get money back on your bill. When the power goes out for the little ones, I'd rather get the money back than have a battery system. I think it's more about AusNet saving money than helping people."

MALLACOOTA RESIDENT 2

DETAIL ON MALLACOOTA COMMUNITY BATTERY PROJECT

After 3 months of trials and testing, AusNet's community battery in Mallacoota became operational in May 2021, making the town one of the first in Australia to have a grid-connected energy storage system included in its local network.

The Mallacoota large scale power storage facility includes a lithium-ion battery with a total storage capacity of 1MWh and is designed as a hybrid system with a diesel generator. This can power 1,000 average homes for approximately two hours, and up to one day when combined with the generator. The battery will be charged from the grid and will feed power back into the town during local outages, to lessen the impact of these outages on the Mallacoota community. The aim is to keep the power running for the town while crews restore problems that occur along the incoming line.

Protocol of Resident 2 used to protect participant privacy.

Energy consumer case studies

HOWARD: THE LIMITATIONS OF OFF-GRID ELECTRICITY

Howard, 54, is a semi-retired, off-grid hobby farmer. He is completely off grid as network power is not connected to his location. He has a solar panel array with batteries and a back-up generator.

> *"My property is completely off grid. I've got solar system and generators for power. I collect my own water off the roof of the shed and house, and use gas for cooking for a 45kg bottle that last 12 months and it only costs me 150 bucks. I've also got a diesel and petrol generator to back all this up."*

Howard opened his property to others in the community and became a vital resource for those who had lost homes allowing people to who had lost their home to relocate a campervan to Howard's property. His secure energy supply also meant that his property became the "go to" place for those who needed to re-charge mobile phones.

While he enjoys the cost effectiveness of his off-grid arrangement, he also spoke of the considerable limitations.

> *"My solar system will last me for 5 days of cloud, and then I run the generators for a few hours to charge the batteries back up.*
>
> *"In that respect, even with a battery bank you can't run your high energy consuming appliances. You buy a good energy efficient fridge and washing machine. But it rules out electric hot water systems. You can't really afford to run anything with an element, like a hair dryer."*
>
> *"I've got solar hot water, but in winter, that's pretty useless because the days are so short".*
>
> *"But It's a great system, I haven't had an electricity bill in 13 years. Its minimal maintenance, I only check the water in the batteries every three months."*
>
> *"I would like to add more panels, that would make it more efficient."*

He also mentioned off-grid solutions to electricity consumption were becoming extremely popular.

> *"I'm a member of an off grid Facebook group and its becoming extremely popular. A lot of people are a little overwhelmed by it, but its fairly easy if you're not afraid of a little bit of hard work. It's a great lifestyle."*

RONALD: A STORY OF RESILIENCE AND INGENUITY

Ronald, 50, and his wife have a four year-old son and live in a small town in East Gippsland.

Prior to the fires, Roland had developed a business teaching indigenous culture to school children through food and song, but the bushfires and subsequent pandemic wiped out the contracts he had with several schools.

In a wonderful story of resilience, Ronald has now developed an organic food business using wild mushrooms to make food seasoning. At his first food market several weeks ago, he completely sold-out.

As part of his emergency planning, Ronald has purchased a shipping container to store and protect their important items and "sentimentals". In order to minimise high temperatures within the container, they've built a roof over the container, shaded the walls with cloth and installed a solar powered venting fan.

> *"I've got one of those battery charger kits you use to jump start your car, that's got two 9 volt outputs on it. So it wasn't an issue, I could just charge off that until the power came back"*
>
> *"That main loss of power, four days straight was the big one."*

Like many participants, in response to energy outages and to operate fire protection systems, he intended to purchase a small petrol generator but financial constraints meant that this was not possible for him to do so at the time.

> *"We need a generator but can't afford at the moment. In our plan, we have a water tank and that will connect to a sprinkler system on top of the container, and then connect the pump and a hose to protect the container if we have to evacuate again."*

Ronald and his four year-old son.
Photo courtesy of Ronald.

Ronald had some ideas about how remote communities could be better protected via off-grid solutions to ensure power supply during an emergency.

> *"I personally think there should be a strong subsidised plan for introducing an emergency solar charge area, or in each house, something small for emergencies, something independent of the grid"*
>
> *"An emergency kit or something small where it's on everyone's house and you can't run anything off it but you can charge your phone. In case of emergency 'break glass' sort of fit out."*
>
> *"Talking to people the amount of money they get when they feed back to the grid is ridiculous. You pay so much for them to give it to you, but when you feed it back you get such a rate on it. To me that already is unfair so unless they overhaul that philosophy on how to do that, I'd probably never go solar to feed back into the system. I'd go solar to run my workshop."*

EWAN: IMPACT OF OUTAGES ON SMES AND THEIR INFORMATION

Ewan, 44, operates a small truck-based donut and coffee business and which requires him to refrigerate large quantities of milk and produce. As such, he's very sensitive to energy outages and believe energy companies must do better to communicate planned and unplanned outages.

> *"At the moment there's been a lot of unplanned electricity outages. Down here, I believe they're load testing the network. And every time they load test the network it blows all this sh** up and they spend three quarters of a day fixing it, if that makes sense.*
>
> *The planned outage becomes an unplanned outage. There's time we don't have electricity for three hours, another time it was 7 hours, up the road lost it for three quarters of a day. We've had 3 big outages and half a dozen small ones, and then we've had a couple of planned outages. It's really, really hard to manage those sorts of things.*
>
> *In one case, they informed they planned to have a major outage one weekend, and then it didn't go ahead and was rescheduled to another weekend. People were geared up and then, the power didn't go out. That was a bit sh** as well.*
>
> *Currently I hook my fridges up to my vehicle generator and food trailer but I'm looking to lease a shop at the moment and one of the things I'll do for that is too have my switch board set up so that I can plug my generator straight in and run my whole shop off my generator."*
>
> *"But for example we had the unplanned outage in Lakes Entrance and the town just shut, like they're halfway through service, the cafes just closed in the middle of lunch. There's not power for the coffee machine. You've got gas for your ovens but no power for the cash register of Eftpos machine. Just a massive kick in the guts for them.*
>
> *And you see the photos on Facebook, people have catering events booked in and the kitchen running on torchlight, they're running on gas so you can keep cooking but your post mix machines and beer taps are out."*
>
> *"It a bit of a pain in the arse at the moment, the electricity network. I think its probably only going to get worse. For them to be load testing the network and finding so many faults, they've either set themselves up to a much higher standard or the networks got to a spot where it needs a sh**-load of work done to it."*
>
> *"One complaint that circulated fairly widely around here was that you could claim against your household losses against the company, but it was capped at $80. It was a token gesture. It's nothing all."*

Ewan's response and intended plans in response to the unreliability of the energy network was to aim to become energy self-reliant.

> *"For me, all of my stuff I'm setting generators up so I can be independent because I think it's something that's going to continue to happen whether we like it or not. For me to be able to continue in business and continue at home, I can't wait for the electricity company to build something in 10 years time, I need something now."*

On what energy providers could do better, Ewan said:

> *"If they're load testing the network, like they are at the moment, that's fantastic, obviously they've got to test these things to find out what's wrong so they can fix it but give a bit of notice and say 'this is what we're doing' – like, this is all hearsay, it's just circulating on social media and the town gossips, but put it out there, say 'this is what we're doing', this is what we're trying to achieve' and 'we hope it doesn't happen but this may go on, if it does we want to minimise the impact to you guys."*

> *"Like at the moment, the power goes off and we get told 'the power might be put back on at 5 o'clock in the afternoon, like that shuts schools, it's a pretty big ripple effect."*

When asked what the communications approach was for unplanned outages, Ewan replied:

> *"Zero. Planned outages have been really good, they send you a couple of letters. Unplanned outages which is a result of their load testing the network. There's zero. I don't think that's acceptable."*

ALIDA: SELF-SUFFICIENCY TO ENSURE SECURITY

Alida, 38, lives with her teenage son. After initially being told that their home had been destroyed she was relieved to discover that the report was incorrect.

Fire damaged connections to home.
Photos courtesy of Alida.

Following the bushfire, Alida's power was out for approximately 20 days.

During the extended period without power, she managed to borrow a generator to ensure access to power to charge mobile phones (she had taken to not answering incoming calls to save her battery). She felt securing power was important in that it allowed her and her son to return to some level of normality. The period following the fires people in her area were advised to stay inside due to high smoke levels.

> *"In the morning I made it back to my house. The house was still there but the garden was on fire. My woodshed had gone, his trampoline had melted, the chook-shed had burnt down, the veggie patch had gone. There were still bits on fire, cause I had a lot of mulch and that mulch kept burning. And then it was smoky, we couldn't see, we got warning we couldn't drink the water. They had used up all the supply in the garden. There was no power, so you couldn't cook, or do anything.*
>
> *It was about 4 days after that the second wave hit. And then they put power on in the town. They got that big generator in… a diesel generator. And they had that out at the golf course. The army came in and they had a few army men man the generator 24/7. That slowly supplied the town [with power] and then they slowly started getting the supplies in and bit by bit parts of the town came back on. My friend gave me a generator a small 750W generator that ran the smaller things. We couldn't run the fridge on it and had to clean out the fridge and the freezer.*
>
> *A month later, I woke up and the power was gone. I went down to the meter. I got to the box at the front of the house near the road. I try to flick this and that and I turn it back on, then I hear this crackling, sizzling sound and smoke starts coming out from under the meter box. I turned it off and called my electrician and he came out and we found out no one had checked it. It was pretty serious.*
>
> *There was no power for 19-20 days. No one did safety checks. My cable was damaged, I didn't expect that. I had called the electrician to tell him it was caused by fire damage. It's on my property but it's fire damage. I was one of the last people to get on the [town's larger] generator.*
>
> *AusNet didn't check my house was safe. I had a melted pit around the road but no one you could ask about it."*

The short-term solutions to secure power for the town cost Alida money.

> *"We kept hearing the power will be coming back on. It took about 19-20 days. They had to fix the pit which had melted and had to fly parts in. I got a $700 cashback but still a bill for over $200 as I couldn't offset using my solar panels. I was actually worse off.*
>
> *We had power back on, but it was from the generator in town. There were mains which were melted on the road and they had people out there fixing it. We had to turn off all our solar panels, so we didn't feed back into the system. I remember it was a few weeks before I could turn it back on.*
>
> *There was no petrol, they had a $10 limit a day to put in the generator. The fuel stations were open and kept with the rationing even when people were being greedy and wanted more."*

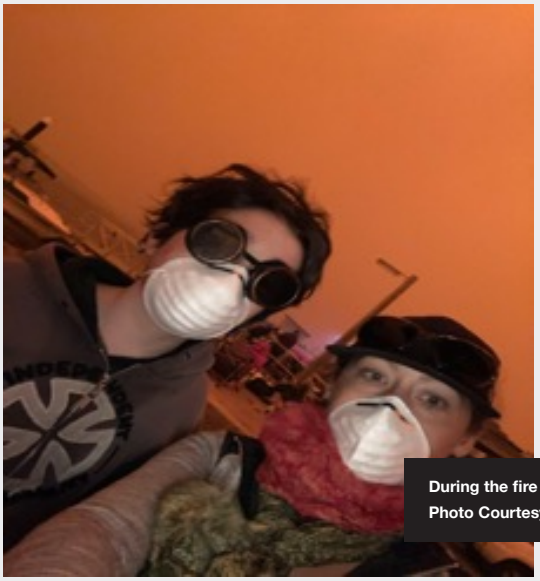
Alida's experience prompted her to seek a more secure energy source and to be self-sufficient in the event of a disruption.

> *"I had a solar charger for the phones, but the smoke covered the sun. That was frustrating as my back up wasn't working."*
>
> *"I have since bought a generator. As soon as I could I bought a generator off ebay. Now that I have got it, I feel better."*
>
> *"I am a bit of a survivalist and make sure I have enough supplies for three months. The power goes out here a lot. But never that long and it went on for too long. I am not confident about the energy supply since the cables to my house were fried. I want to be self-reliant."*

Alida is looking for solutions that allow community self sufficiency.

> *"Why can't we have a wind turbine, or some sort of other power here. It seems ridiculous that we have to rely on power from so far away."*

Fire damaged connections to home.
Photos courtesy of Alida.



During the fire emergency.
Photo Courtesy of Alida.

DONALD: SELF SUFFICIENCY KEY TO EMERGENCY RESPONSE

Donald, 69, was living with his wife in a remote part of East Gippsland. They were totally self-reliant for their power source having established an off-grid energy solution. They were well prepared for the bushfires as they expected it to happen eventually so they had built two fire bunkers. Before they lost their house, they had been watching the bushfires for six weeks, waiting for the bushfire front to reach them.

> *"We were very well looked after, nobody could complain in that sense. We had power up until the house caught alight."*
>
> *"I only knew as much as I did because I could see it, coming from all around us."*
>
> *"You need to make sure you're responsible for yourself."*

After losing their home, Donald and his wife relocated to a small coastal town. When we last spoke to Donald, he was unsure whether they would rebuild.

The fire approaches.

Watching from the bunker.

Photos courtesy of Donald.

Once a home.

Once a shed.

Watching my home burn down.

CATHY: WHERE THE NETWORK STOPS AND HOUSEHOLDERS TAKE RESPONSIBILITY

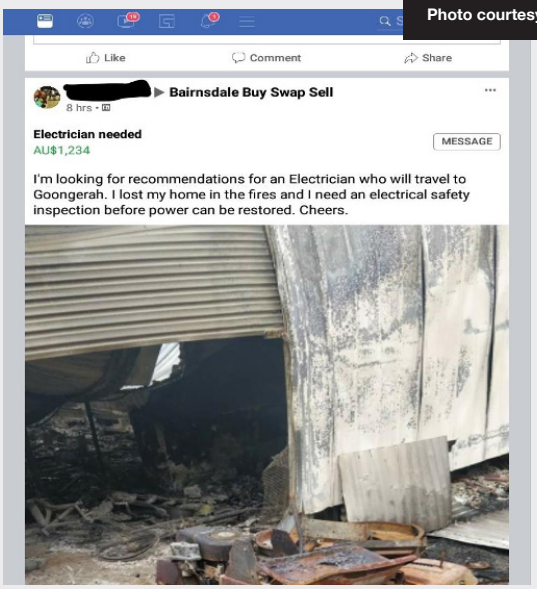
Cathy, 54, lives in a small regional town with her husband. They are partially reliant on the main energy gird, with some alternative sources (rooftop solar PV and a small petrol generator). Their home was lost in the fires and in the aftermath they struggled to find an electrician to secure the power on her property before power could be restored by the network.

> *"We were living the dream, and then the droughts started, followed by the fires. We had $300,000 worth of damage, everyone's loss is different. My husband still has nightmares. The fear of not knowing whether you've lost everything (was the worst part)."*

The support she received from her local community was critical to her initial recovery.

> *"One neighbour in our street needs to be made Victorian of the Year."*

The trouble finding someone who would travel to her remote location to undertake the electrical safety inspection added to her distress. In an effort to secure an electrician she resorted to local Facebook groups. In her mind, this was something that should have been co-ordinated by the network provider to facilitate the restoration of power to those customers who had lost everything as a result of the fires.



Damaged meter box and call for Electrician.
Photo courtesy of Cathy.

The inferno approaches. Photo courtesy of Terri.

Evacuating. Photo courtesy of Dawn.

Evacuating. Photo courtesy of Kelly.

Evacuating. Photo courtesy of Lauren.

Closer and closer it comes. Photo courtesy of Terri.

North East Gippsland. Photo courtesy of SBS.