DEVELOPING ENERGY LITERACIES FOR MEANINGFUL COMMUNITY ENGAGEMENT

Melissa A. Wheeler, Max Schleser and Justin S. Leontini

This study is supported by the Department of Industry, Science, Energy and Resources (DISER) and Centre for New Energy Technologies (C4NET).

Australian Government
Department of Industry, Science, Energy and Resources

C4NET
Centre for New Energy Technologies

Central Victorian Greenhouse Alliance

Swinburne University of Technology

Swinburne Social Innovation Research Institute

DOI https://doi.org/10.25916/c914-8s26

Authors: Melissa A. Wheeler, Max Schleser and Justin S. Leontini

Recommended citation: Wheeler, Melissa A., Schleser, Max, & Leontini, Justin S. (2023). Developing Energy Literacies for Stronger Community Engagement. Swinburne University of Technology, Melbourne. DOI: 10.25916/c914-8s26

Publishers

Swinburne University of Technology

Centre for New Energy Technologies (C4Net)

Central Victorian Green House Alliance (CVGA)

Date of publication: 05.06.2023

Image credits

Illustrations: Dr Darren C. Fisher, Adjunct Research Fellow, Swinburne University of Technology

Motion graphic: James Berrett, Swinburne University of Technology

Video stills: Associate Professor Dr Max Schleser, Swinburne University of Technology

Design: Adrian Jeffs

Project acknowledgements

Central Victorian Green House Alliance, Programs Director Rob Law and Dr David Gormley-O'Brien

Professor Jane Farmer, Director, Social Innovation Research Institute

Participants in our expert roundtables

Communities of Donald and Tarnagulla, specifically the community members who gave their time to speak with us in interviews or to attend digital literacy sessions, including Georg Filev, Cr Linda Jungwirth, Leo Tellefson, Bruce Hunt, John McConville, Andrea Ball and Brett Treneman.

Donald 2000

Initial research interviews by David McGinniss, Research Lead, AshTree Projects

Ethics approval for Human Ethics 20216087-8890 by Swinburne University Ethics Research Committee.

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ACKNOWLEDGEMENT OF COUNTRY

We respectfully acknowledge the Wurundjeri People of the Kulin Nation, who are the Traditional Owners of the land on which Swinburne's Australian campuses are located in Melbourne's east and outer east. We also acknowledge the Dja Dja Wurrung People (Donald and Tarnagulla) and the Wotjobaluk, Jaadwa, Jadawadjali, Wergaia and Jupagalk Nations (Donald), who are the Traditional Owners of the lands where Donald and Tarnagulla are located. We pay our respect to their Elders past, present and emerging.

We also acknowledge and respect the Traditional Owners of lands across Australia, their Elders, Ancestors, cultures and heritage, and recognise the continuing sovereignties of all Aboriginal and Torres Strait Islander nations.

Australian Government
Department of Industry, Science, Energy and Resources
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EXECUTIVE SUMMARY

The Donald and Tarnagulla Microgrid Feasibility Study, led by the Centre for New Energy Technology (C4NET) is a large-scale, three-year study to assess the technical, cultural, and social, elements of introducing microgrids as an alternative energy solution. The feasibility study was conducted in the rural and regional communities of Donald and Tarnagulla in Victoria, Australia. While technological advancements and reductions in cost have made microgrids more commercially viable than they once were, a feasibility study was needed to better understand the community needs (e.g., reliability, cost, self-sufficiency) to determine the suitability of these two towns.

Along with technical aspects, such as area hosting capacity assessments, recommendations to regulators, and various economic risk assessment and stakeholder impact investigations, the feasibility study aimed to also explore community engagement. Part of determining feasibility includes understanding the needs of the communities, their attitudes toward adopting emerging energy solutions, and the challenges and barriers the communities perceive. The current report will focus on the community engagement aspect of the feasibility study, led by a multi-disciplinary team of academics at Swinburne University of Technology from 2021-2023.

This report contains four sections, beginning with our learnings from talking to microgrid and community engagement experts in roundtable sessions, followed by illustrative quotes provided by members of the two communities that volunteered to be interviewed for this study. Both sections are analysed qualitatively, and emerging themes from each are presented.

In Part 3, we present three case studies of community engagement in practice; that is, the kinds of interventions we trialled to incorporate a creative process to both boosting digital literacy in the community (a need highlighted from the expert roundtables in Part 1) and increasing engagement with the community on the topic of microgrids. In the final section, we share ten tips for meaningfully engaging with communities around emerging energy solutions, based on our experiences in conducting and delivering the research and practice in Parts 1-3.

This report will be of interest to other energy practitioners and researchers conducting feasibility studies pertaining to microgrids and other emerging energy solutions (and emerging technology, more broadly), particularly those who are wishing to engage the community with more innovative ways of encouraging connection, buy in, and co-design.


ROCHESTER
DONALD
WEDDERBURN
ST ARNAULD
BENDIGO
TARNAGULLA
AVOCA
CASTLEMAINE
KYNETON
DAYLESFORD
BALLARAT

INTRODUCTION

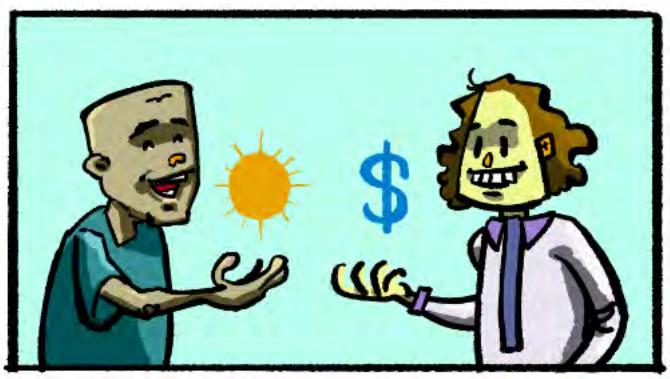
WHAT IS A MICROGRID?

Any electricity grid is a system for distributing electricity from sources of energy to where that energy will be used. In one sense this a physical system; power stations are connected to users of power by transmission lines, transformers and other components. In another sense, this system is social or economic; fuel and energy supplies used by power producers to sell electricity to retailers to sell to consumers.

The traditional social system has been governed by the current physical layout of the electricity grid. Energy has flowed one way through the grid, from large, concentrated sources of power such as coal-fired power stations to the end users. Money has flowed in the opposite direction, from the end user to the power supplier.

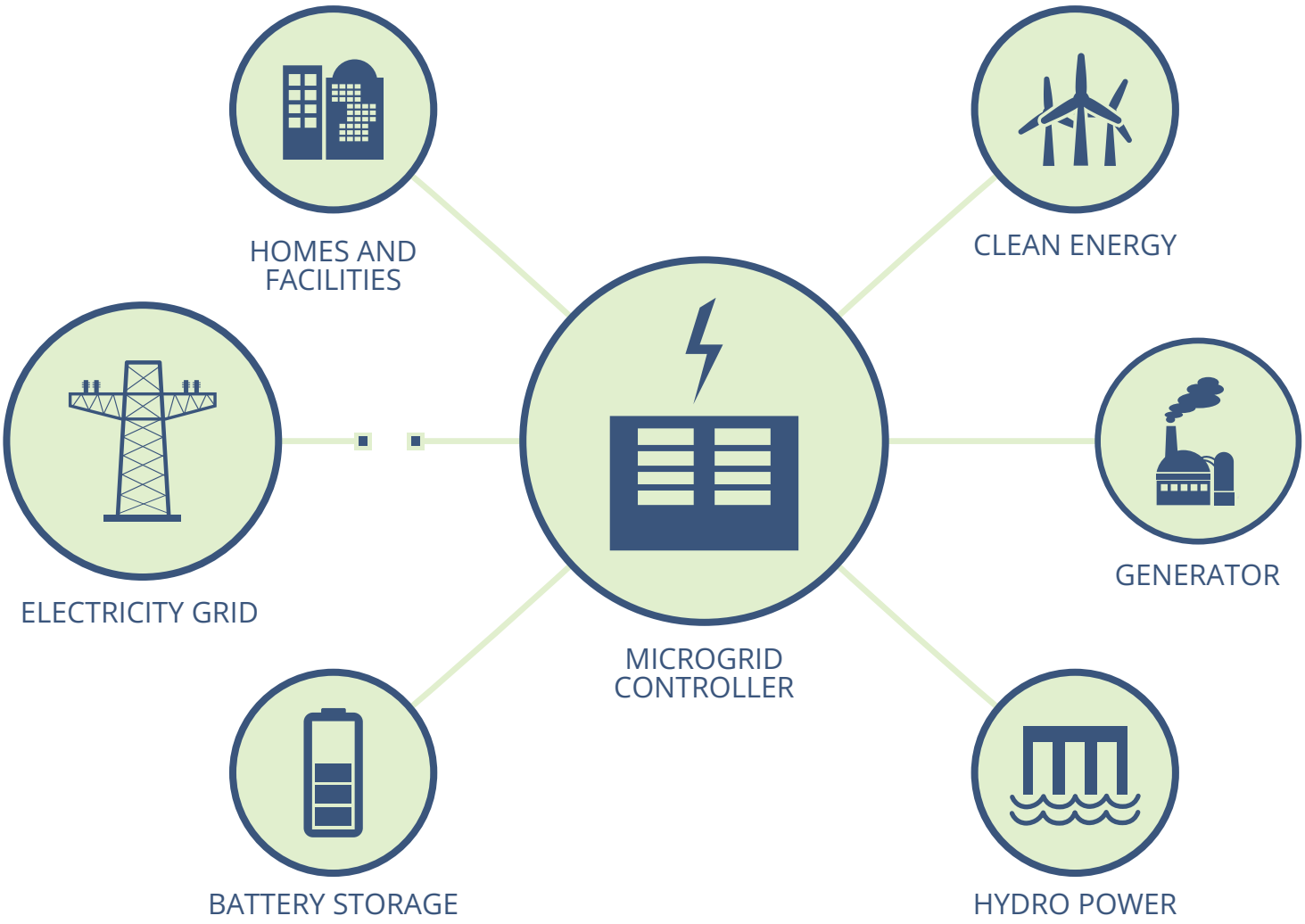
Microgrids change both the physical and social organisation of the electricity grid. Physically, a microgrid is a portion of a larger grid that typically contains both sources and users of electricity – it is a distributed network. The sources of electricity are often renewable, and so they can be sporadic in their energy production. Batteries or other energy storage systems are sometimes added to store excess production, or to smooth out the difference between energy production and energy use at a given time within the microgrid.

Considering the power use within the microgrid points out the change in the social organisation. A microgrid will be used to provide power to numerous users from its distributed sources in a way that is the most efficient across the whole microgrid, rather than on a user-by-user basis. It requires some level of agreement and cooperation between users to operate in a type of cooperative. The cooperative then interacts with the larger grid as a single unit, potentially selling power when its generation is greater than the microgrid's use, and buying power when the microgrid's generation is less than its use.



WHAT IS A MICROGRID?

This last point also highlights that a microgrid is not necessarily islanded (i.e., completely separated from the larger grid). While islanding may be possible, in general, microgrids will still be connected to the wider grid. Their interaction with the grid – both physical and social – will be as a single unit and in both directions.

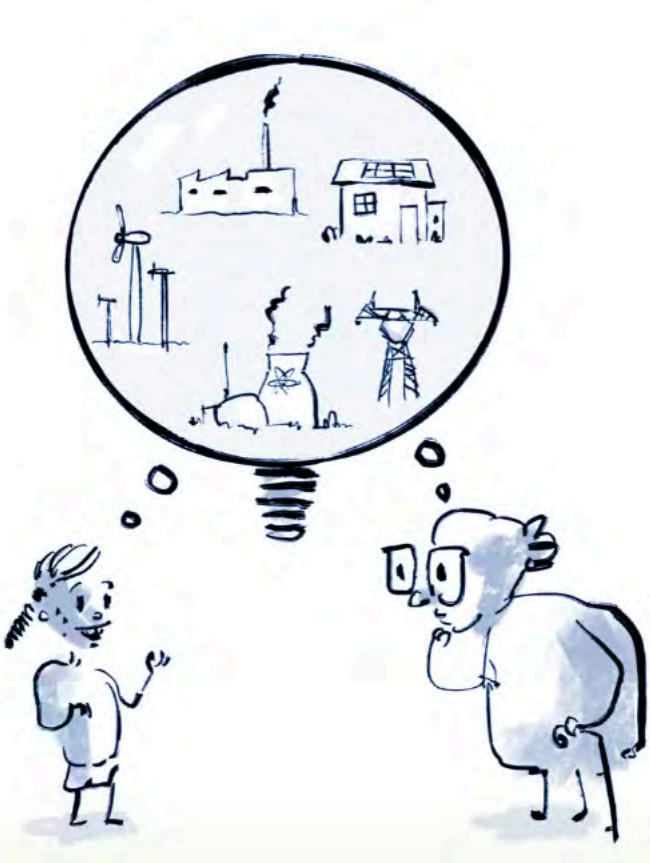


COMMUNITY ENGAGEMENT

In the past, governments, service providers and researchers (to name a few) made decisions for communities, deciding what would be best and imposing those decisions on a community with little to no consultation. Nowadays, we would see this kind of action as paternalistic and dictatorial. Making assumptions about what community members want and need without giving them a voice or allowing them to be part of the process, in an iterative collaboration known as co-design (Glackin and Dionisio 2016), is bound to backfire as community members push back on what is being imposed on them.

Modern efforts to roll out emerging energy solutions, such as microgrids, recognise the importance of speaking with community members, getting them involved, knowing their desires and fears, and asking them to participate in early stages of the design process, well before implementation. Having the community actively engaged is key to adoption, cooperation and the sustainability of any initiative.

Often, community engagement will take the form of consultation, or asking a few volunteer community members to share their opinions. This kind of community engagement will likely result in a skewed picture of what the community feels, based on what might be described as a few 'loud voices'. Moving beyond consultation, in this report we will detail community engagement in practice and showcase a creative and innovative concept for community engagement in the energy sector. We also show that an informed community that develops energy literacies can make decisions about energy supply.



PART ONE

EXPERT ROUNDTABLES

WHAT MAKES FOR GOOD COMMUNITY ENGAGEMENT AROUND EMERGING ENERGY SOLUTIONS?

METHOD

We conducted focus groups with nine experts who had previously or currently work with microgrids and other renewable energies, most of whom had community engagement experience as well. Experts who participated in the roundtable are depicted in the illustration.

We asked participants about the origins of the projects they had worked on, any surprising experiences, success with community involvement strategies, what community members wanted to know before engaging and how they wanted to be informed. This helped to identify any barriers or facilitators to community uptake, and if, looking back, there was anything they might have done differently.

Focus group discussions were qualitatively analysed for emerging themes.

RESULTS

Findings revealed three main themes from the expert roundtables. When it comes to community engagement, experts prioritise trust, energy literacies and resilience.

TRUST IS THE BASIS FOR COMMUNITY ENGAGEMENT.

Using the voice of the people.

Energy companies are perceived to not act in a community's best interest.

Giving back to the community.

Knowing the community.

SUMMARY

Key takeaways from our expert roundtable sessions included:

- The importance of a bottom-up community approach – building support and engagement for ongoing maintenance, reduction of vandalism, shared and appropriate energy usage, and a sense of control and ownership.
- A lack of trust can sometimes be present when community members do not perceive that the energy companies are acting in their interests. Recommended ways to build trust include giving back to the community, knowing the community, establishing a community liaison, acting with authenticity, importance of engaging with established and influential local groups.
- Acknowledging tensions between regulation and innovation – regulators need to allow technology to flourish but, of course, to also ensure safety and reliable energy.
- Understanding consumer behaviour – expect gaps between people's expected or estimated and actual energy use.

ENERGY LITERACIES ARE NEEDED FOR COMMUNITY MEMBERS TO MAKE WELL-INFORMED DECISIONS.

- Use co-created workshop model. Specific information disseminated through the community.
- Find a way to communicate.
- There is a difference between bringing energy in and replacing existing infrastructure.

It all comes down to a fundamental question:

What does the community need?

PART TWO

COMMUNITY INTERVIEWS

DONALD AND TARNAGULLA

Donald is a town in regional Victoria in the shire of Buloke. According to the 2021 Census, Donald has a population of 1472 with a median age of 52. Nearby Tarnagulla, in Loddon Shire, is known as a goldrush town and currently has a population of below 200.

These towns were included in C4Net's Microgrid Feasibility Study due to their location and energy needs. "Rural and regional communities tend to be at the end of the grid or have long distribution lines, leading to quality deterioration of the electricity supply. These communities and their businesses are seeking a balance of reliable, sustainable, and low-cost electricity tailored to their needs." (C4Net 2022).

METHOD

We first conducted nine in-depth, semi-structured interviews with community members from Donald and Tarnagulla who volunteered to participate in the study, either by phone or videoconference (MS-Teams) in September-October 2021.

A further eleven in-depth, semi-structured interviews were collected with community members in-person from Donald (7) and Tarnagulla (4) who volunteered to participate in the study, either by phone or videoconference (MS-Teams) in April 2022.

We asked community members about their current needs in relation to power supply, what they value when it comes to energy solutions, their perceived risks and rewards, future envisioning, community barriers and strengths, energy literacy, including their basic understanding of energy use and consumption, and their thoughts on emerging energy sources, such as microgrids, and how they would like to be informed of emerging energy technology.

Responses for each question theme are presented in the Results section below.

RESULTS

From the first set of interviews, four themes emerged: current power needs and energy literacies, values, risks, and envisioning the future. Presented below are a selection of quotes by theme. Some have been paraphrased for brevity.

Current needs and issues in relation to power supply and energy literacies.

Most people had some awareness of where their power came from and that being **"at the end the line"** meant they might be the first to suffer blackouts.

The supply of power was not in itself a major problem for most of those interviewed. However, there was an awareness and concern for other people who had different capacities to withstand power fluctuations. Respondents were concerned about older populations and, to a lesser extent, farmers:

"We might have one or two blackouts a year, and that's not a big problem. But for some – such as the hospital, or aged care homes, or older people who rely on equipment at home – that is more of an issue."

Many respondents already had solar power, and it appeared that previous projects and initiatives had built a strong awareness and take-up of renewable energy production. Most were well familiar with methods and practice of energy sharing back into "the grid", but some expressed mild frustration that that excess energy was benefiting a corporation rather than fellow community members, or that the benefits of sharing could not be felt more directly. This could be a motivating factor in selling the concept more broadly.

VALUES

Among most of those interviewed, respondents expressed three major priorities when it came to energy supply:

- environmental sustainability
- reliability
- cost.

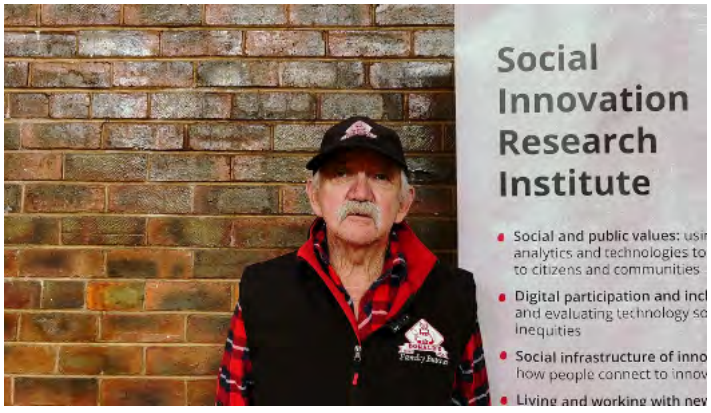
“Carbon neutral is the biggest driver,” said one interviewee, “but it needs to be cheap and reliable to enable growth and jobs.”

Although almost all indicated that environmental sustainability was either the biggest or a significant factor in their desire for a microgrid, a number were wary that perceptions of being too ‘green’ could hinder public support. There was general caution about politicising this issue.

Mostly there was a perception that independence and community control would be best for the communities, but often it was difficult to express why exactly. A sense of pride in self-sufficiency motivated some, while others indicated that they thought their fellow community members might be motivated by a sense of local achievement. While not universal, there was also a strong sense of wanting to be leaders in regional development and innovation.

“It would be good for this place to be seen as a leader and trailblazer,” said one interviewee, **“for this region to not just go with the flow.”**

At least one respondent highlighted that until the 1960s energy was indeed produced locally. In some ways perhaps, this concept is not necessarily a ‘new’ or ‘radical’ idea but could tap into deeper experiences and self-perceptions of self-sufficiency, independence and rural ingenuity.



RISKS

Some risks were identified across the interviews.

- **Cost:** from one perspective, some were concerned that it might cost more than was feasible and were curious as to the findings of the feasibility study that was ongoing in their towns. From another perspective, there was an understanding that it most likely would be expensive, but that this should not deter the communities from pursuing it.
  "We don't want to do half the job," said one interviewee, suggesting that concerns about cost should not be seen as an encouragement to seek cheaper options.

- **Infrastructure:** respondents queried whether the equipment and upfront investment required might be out of proportion to the size of the communities.

- **False hope:** there was a concern that even the process of performing a feasibility study and participating in these interviews would raise expectations that this project would proceed, and potential disappointment and disillusionment would result if it did not proceed.

- **Take-up:** if the feasibility study showed that there would need to be a critical-mass of customers required to make the proposition viable, then in such small communities this would require near-universal buy-in.

- **Isolation and responsibility:** if either community was to go down a path of energy independence, it could leave them isolated and exposed if anything were to go wrong. At present, they have the infrastructure, expertise and labour force of energy retailers to fix problems. If they were independent, these would have to be provided locally.
  As one interviewee put it, **"If something goes terribly wrong, there's no one to turn to"** in this potential energy-independent future.

Underpinning these risks is the need to articulate the benefits of a microgrid in a simple, clear and compelling way. Not only must a feasibility study consider and address the technical elements of a microgrid but, critically, it must prioritise a very effective marketing campaign that pursues multiple avenues and formats.

"It needs a blanket campaign, whatever it takes," said one. **"Simple and clear, so that people understand it and want to be involved."**

ENVISIONING THE FUTURE

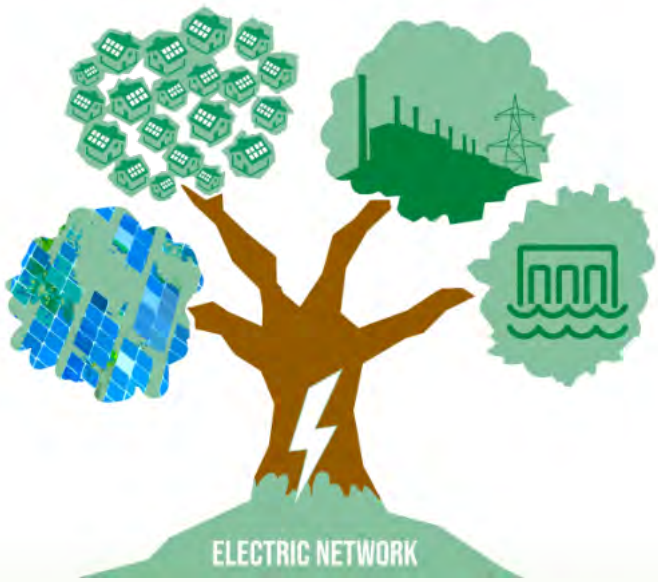
Many interviewees saw a brighter future for their communities with a microgrid, although some felt it was more a simple, practical matter of increasing reliability.

Many spoke of the opportunity to grow the population by attracting new residents and businesses. Business would be attracted – or at least not repelled – by reliable energy, while residents might be drawn to living in an innovative, forward-looking and connected community that looks out for each other. It is a concept that could combine both modern and traditional values at once.

"It's not what we see," reflected one interviewee, ***"it'll be more of a background thing. A sense of feeling more connected in terms of community... sharing with each other, looking out for each other... [We] want to create a sense that this is a special place, that change and innovation comes from this place."***

"Where the past meets the future," suggested one potential sloganeer.

The second set of interviews strongly corroborated the ideas expressed by community members in in the previous interviews. These are summarised more succintly in the following table.



IDENTIFIED COMMUNITY STRENGTHS

Historically, great momentum with solar panel uptake and initiatives to get more installed in communities.

An interest for new solutions (due to need and reliability issues).

"And we have a severe shortage of power just for the state. Little alone, the town. We're the end of the line. So, we have brown outs, and we have blackouts and unstable supply."

A desire for reliable and sustainable options for now and the future.

"So now we're thinking batteries. We want to go batteries so that we're virtually off the grid. And that's good. Fantastic. Love that. But a bit unrealistic to say that we can just snip the coal just yet."

Passionate community members/informal leaders ready to get involved, advocate and be hands on.

IDENTIFIED COMMUNITY BARRIERS

Infrastructure: desire to grow population, but lack of housing to staff hospitality and facilitate innovation and growth.

"This is serious. We want housing, we want a microgrid. This is all for the benefit of our community."

Ageing communities and lack of young and able people to volunteer and engage in community action.

"An ageing population: the demographics from 50 to say 75 are very high. The high school might be 110 kids, when it used to be 220."

Indifference/apathy from the majority, lack of knowledge and literacy but also a lack of care; some strong, respected elders.

"...our own apathy. And they won't do anything".

Cynicism/frustration – perceptions that communities are competing for limited resources and even division within communities.

"But there's only one pot of money and everyone's trying to dip into that. So, we've got to be better prepared."

HOW COMMUNITY MEMBERS WOULD LIKE TO BE INFORMED

- One channel or approach will not be enough. Information needs to be communicated in print, on noticeboards, in person, and online via emails and social media groups.

- A majority of those interviewed expressed interest and approval of using short videos as a tool to boost energy literacy and to communicate facts and information.

- Community-inspired ideas:

    - Get school children involved.
        - To work with researchers/experts to record energy literacy videos.
        - To work with older generations to create content together for digital stories (a snapshot of community thoughts and perspectives) – matching digital skills and experience/expertise.

    - Get community involved and visible – seeing a short video filled with people you know is exciting and invigorating – makes you want to share with others.

    - Make use of local knowledge and skills.
        - Work with local people to save costs, minimise the middle person, and support local communities for better engagement.
        - Stop consulting and start doing.

    - Innovative and technological approaches could be created, such as an augmented reality or virtual tour of your city and its history, to boost engagement.

    - Rely on existing informal community leaders to share information.

PART THREE
CASE STUDIES
COMMUNITY ENGAGEMENT IN PRACTICE

In October 2022, we ran a mobile storytelling workshop with a regional primary school in Victoria, Australia. Pupils learned digital storytelling and rookie smartphone filmmaking basics to engage in a discussion about energy. The co-created (Auguiste 2020) mobile stories are part of the development of an Energy Literacy Community Toolkit.

TARNAGULLA PRIMARY SCHOOL 2022

The Energy Literacy Community Toolkit is developed by the Social Innovation Research Institute at Swinburne University of Technology for Central Victorian Greenhouse Alliance in connection with the Donald & Tarnagulla Microgrid Feasibility & Demonstration study. This study is generously supported by C4NET and the Department of Industry, Science, Energy and Resources.

Energy Literacy in the curriculum

In October 2022 A/P Justin S. Leontini, Department of Mechanical and Product Design Engineering, Swinburne University of Technology, and A/P Max Schleser, Department of Film, Games and Animation, Swinburne University of Technology ran a mobile storytelling workshop with a regional primary school in Victoria, Australia. Pupils learned digital storytelling and rookie smartphone filmmaking basics to engage in a discussion about energy.

Where does power come from?

In this mobile story students from Tarnagulla Primary School explain how their school gets and uses electricity. The video is part of an Energy Community Toolkit, which provides a community perspective in the development of Energy Literacies

We are Tarnagulla Primary School

In this mobile story students from Tarnagulla Primary School explain how their school gets and uses electricity. The video is part of an Energy Community Toolkit, which provides a community perspective in the development of Energy Literacies.

Energy Literacy Community Toolkit: https://www.cvga.org.au/energy-literacy.html

"I'm so impressed with the final product and how it has all come together. Congratulations to you and your team for giving the students voice on this subject."

– *Leigh Mellberg, Principal, Tarnagulla Primary School*

The toolkit item shown in the image, Where does power come from?, illustrates the Community Engagement: Donald and Tarnagulla Microgrid Feasibility Study project's process and the co-created understanding for the next generation of power end-users. The research objective was to develop a community voice in the microgrid feasibility study. The co-created mobile stories were developed with an interest-based model (McCosker et al. 2018). Through understanding the communities' perspectives and perceptions, this research worked with micro, horizontal hierarchies and 'open space' storytelling approaches (Zimmermann and De Michiel 2018, 2, 33 and 31). The theoretical underpinning draws upon a legacy of community arts (Dunn and Leeson 1997) and the activism notion of 'nothing about us without us' (Charlton 2000). The co-created method enabled us to develop an understanding about themes through applying a community point of view or language to develop a resource for the community.

Mobile story making (Schleser 2018) is a conversation starter. The pupils, their parents, neighbours and other community members will 'like' these videos because their friends and family are featured in these stories (Gondry 2008). The project shifts the conversation to the heart of the community and provides new community engagement touch points. Understanding local community needs such as reliability, cost and self-sufficiency is a key element in setting up a community microgrid.

Our interdisciplinary research project developed a community engagement concept around energy supply specific to the needs of regional communities. Through combining a screen and digital media approach within the context of engineering practice, education, climate change impacts and adaptation, new insights and novel understandings were developed relating to the technical, cultural and social elements of the feasibility of microgrids with a focus on a community perspective. In particular, the research design encompassed a creative way of generating an innovative concept for community engagement in the energy sector, which was not in place prior to this research project.

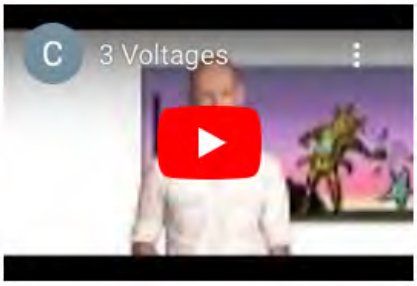
The objective of this research was to assess the current understanding and knowledge in regional communities, scholarship and industry. Following interviews and focus groups with community members (Donald and Tarnagulla), stakeholders (CVGA, Powercor) and a specific national expert panel, the community engagement concept in the form of an energy literacy program was developed.

Our research applied creative arts methods with a focus on storytelling for community engagement. The research output was a concept for community engagement, which included a community intervention as a case study with Donald Primary School. In addition, the toolkit shapes Central Victorian Greenhouse Alliance's energy literacy program and is publicly available on its website.

The research presented here has been disseminated at the peer-reviewed international #IFM conference and, upon invitation, at government research forums via the Department of Environment, Land, Water and Planning.

1. What is a microgrid?

2. Islands or Islanding

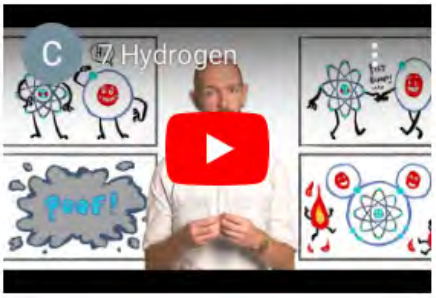


3. Voltages

4. Reliabilty

5. Distributed Networks

6. Costs



7. Hydrogen

8. Energy Storage

9. Dams

Community Project on YouTube

https://www.youtube.com/@centralvictoriangreenhouse5700

Central Victorian Greenhouse Alliance Energy Literacy Community Toolkit

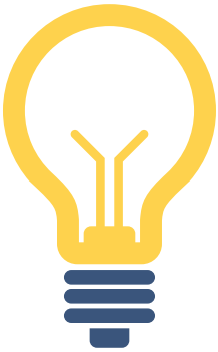
https://www.cvga.org.au/energy-literacy.html

PART FOUR
TEN TIPS
FOR INCREASING COMMUNITY ENGAGEMENT WITH EMERGING TECHNOLOGY

Following the focus groups we conducted in Part 1, the community interviews detailed in Part 2, and our community engagement in practice in Part 3, we have developed a community engagement concept around enhancing energy literacies in communities via creative engagement. Our experience in putting this style of community engagement into practice yielded 10 community engagement tips that we would like to share with others who are trying to engage meaningfully with communities around emerging energy solutions.

TIP ONE:
Identify community champions.
Any change or adoption of new technology is likely to be met with uncertainty and resistance. Building a collation of early adopters is a great way to reduce uncertainty and bring those resisters on board (Kotter 1996). Tapping into well-respected clubs, informal community leaders, well-known local business owners and established community social media groups is a great place to look for champions.

TIP TWO:
Develop an understanding about what community knows.
By talking with community members, you can get a sense of how they perceive the current versus proposed solutions and a feel for what kinds of discussions are prevalent within the community. Current trends will point to negative and positive evaluations and where the community may be divided.



TIP THREE:
Cast a wider net.
When asking community members to volunteer to share their thoughts, it is often the vocal minority that comes forward. Without making efforts to speak to more reticent members, you will only hear part of the story. For a true community voice, a polyphony of perspectives is required.

TIP FOUR:
Work with the community to create a shared vision.
Engage in co-design. With the community, by the community, for the community.

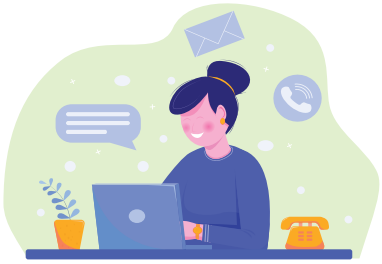
TIP FIVE:
Lead activities that support community groups.
Instead of traditional methods, such as town hall information sessions, creatively engage with the community in novel and interesting ways to capture their attention. You will uncover more people willing to share their thoughts once you have sparked their interest.

TIP SIX:
Share success stories.
When people are feeling uncertain, hearing a success story from a town or group of people who went through a similar process can reduce anxieties and build a sense of anticipation.

TIP SEVEN:
Develop resources and toolkits.
Such as the Energy Literacy Community Toolkit detailed in Part 3. Further development comes from sharing these through identified community groups and supporting community champions with training and education to boost their confidence and knowledge on the subject.

TIP EIGHT:
Host an event to share community outcomes.
After creating a toolkit, spread the news by hosting an event and allowing opportunities for further engagement with community members who attend. Get schoolchildren involved, as they are the generation who will likely be most affected. Also, they will talk to their parents, grandparents and friends about their experiences.

TIP NINE:
Keep in contact.
Check in with your champions and key contacts. Arrange subsequent visits and keep the conversations going throughout the life of the initiative and beyond. Provide support to champions as needed and use community forums to deliver updates and keep the community informed.



TIP TEN:
Put trust at the forefront.
Encourage transparency and respect from the start. Be open to feedback and adaptable to the ever-changing landscape.

CONCLUSION

This report focused on the community engagement arm of the Donald and Tarnagulla Microgrid Feasibility Study, led by Swinburne University of Technology. In four parts, we present a scaffolded and innovative approach to community engagement. We first collected ideas, experiences and suggestions from experts. We built on those findings through interviews with community members in the towns included in the feasibility study. To put our research into practice, we spent time in the communities and created digital literacy workshops to spark creative engagement from community members and to augment their knowledge about energy. We ended with a series of tips based on our research findings and community engagement sessions to share with other energy practitioners and researchers embarking on community engagement projects.

REFERENCES

Auguiste, Reece, Helen De Michiel, Brenda Longfellow, Dorit Naaman and Patricia R. Zimmermann. 2020. Fifty Speculations and Fifteen Unresolved Questions on Co-creation in Documentary. Afterimage, Vol. 47(1): 67–71.

C4Net. 2022. Retrieved on 21 April 2023 from **https://c4net.com.au/projects/donald-and-tarnagulla-microgrid-feasibility-study/**

Charlton, James. 2000. Nothing About Us Without US: Disability Oppression and Empowerment. Berkeley, US: University of California Press.

CVGA. 2022. Retrieved on 21 April 2023 from **https://www.cvga.org.au/energy-literacy.html**

Dunn, Peter, and Lorainne Leeson. 1997. The Aesthetics of Collaboration. Art Journal, 56: 26–37.

Glackin, Stephen, and Maria Rita Dionisio. 2016. 'Deep engagement' and urban regeneration: tea, trust, and the quest for co-design at precinct scale. Land Use Policy, 52: 363–73.

Gondry, Michel. 2008. You'll like this film because you're in it: The Be Kind Rewind Protocol. Brooklyn, US: A Picture Box Book.

Kotter, John P. 1996. Leading change. Boston, Mass: Harvard Business School Press.

McCosker, Anthony, Diana Bossio, Indigo Holcombe-James, et al. 2018. 60+ online: Engaging seniors through social media and digital stories. Report. Swinburne University of Technology, Australia. Analysis and Policy Observatory. **https://apo.org.au/node/139831**

Schleser, Max, and Marsha Berry. 2018. Mobile Story Making in an Age of Smartphones. Cham: Springer International Publishing.

Zimmermann, Patricia R., and Helen De Michiel. 2018. Open Space New Media Documentary: A Toolkit for Theory and Practice. Milton Park, UK: Routledge.

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