



**Evans Area Resilience Network**  
**Energy Resilience Workshop Three:**  
***Energy Resilience: Learning from Northern Rivers***  
***Communities***

**08 November 2025**



Evans Area Resilience Network  
Invites you to

**Back-Up Energy Projects:  
Learning from Northern Rivers  
Communities**



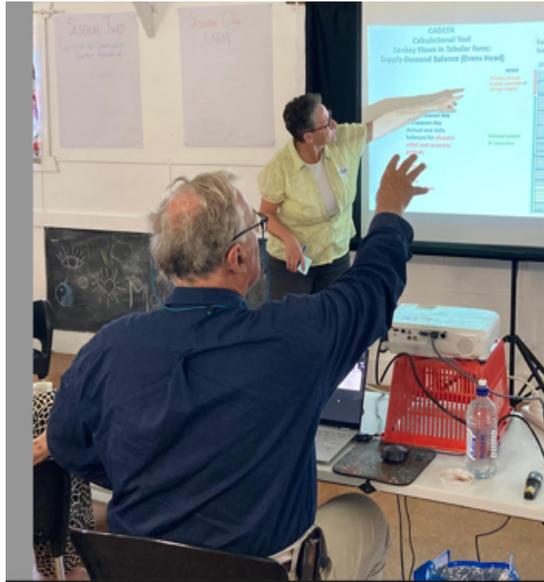
**Electrify**  
Byron Shire



RSVP by QR code  
or  
email:  
[evansarearesilience@outlook.com](mailto:evansarearesilience@outlook.com)

**Saturday November 8**  
**10am - 4 pm**  
**Scout Hall, Evans Head**  
**22 Mangrove Street**  
**Pizza at 5pm**  
**RSVPs required**





## Background

On Saturday, November 8, the [Evans Area Resilience Network \(EARN\)](#) hosted an all-day workshop to explore ways that communities and households are working to enhance energy resilience. This was EARN's third 2025 workshop focusing on how we might as a community develop stronger energy resilience and provide support to community members who want better strategies for managing blackouts (Workshop 1) and understanding electricity bills (Workshop 2).

Facilitated by EARN's Rena Frohman, the workshop drew some sixteen people from research, business and activist groups. Participants travelled from Bangalow, Nimbin, New Italy, and zoomed in from Adelaide and Portland, Oregon

The program included four presentations and lively discussions over tea, lunch and pizza-dinner hosted by EARN and organized by Jally Hawthorn and Joanne Howlett.

Each presentation, summarised below, provides the EARN community with new learnings and connections for future energy resilience projects. Read on to learn more about what's happening in the Northern Rivers.



# Presentation One

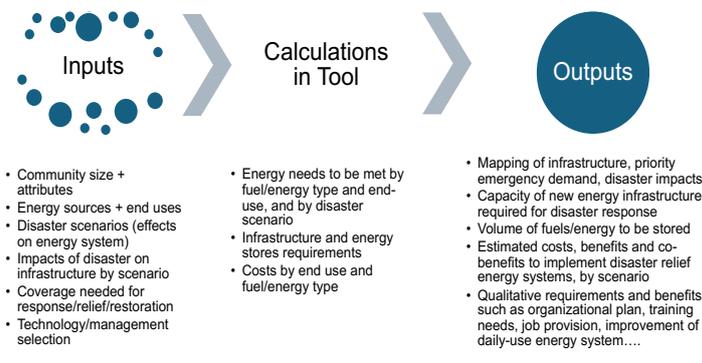
## Climate-Amplified Disaster Emergency Energy Response (CADEER): A management and planning tool

Peter Hayes (EARN and Nautilus Institute) and David von Hippel (Nautilus Institute)

Peter Hayes is an EARN member and, with David Von Hippel, works with the [Nautilus Institute](#) in Berkeley, California. Peter and David are developing an calculational tool to support communities in making decisions about how best to enhance energy resilience. The Climate-Amplified Emergency Energy Response tool (CADEER) is a way to gather and organize data about where a community’s energy comes from (supply), how it uses energy (demand) and how it could be affected by a disaster-based energy supply disruption (scenarios). Useful to any community, Peter and David are working with an EARN team to apply CADEER to the Evans Area.

Peter first provided an overview of the vulnerability of the Evans Area to climate-amplified disasters (flood, fire, storm surge) and then described the architecture of the CADEER tool. Joining by zoom from Eugene, Oregon, David next presented data from Evans about energy and electricity use and supply, as well as how disaster scenarios could be integrated to determine vulnerabilities and needs. Peter rounded up the presentation with a detailed look at Evans’ supply sources and vulnerabilities, including the lack of emergency petrol reserves.

### Calculation Tool 1: CADEER

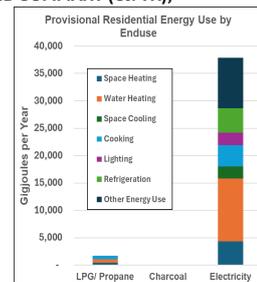


### How much energy do households use in Evans Area?

#### REFERENCE CASE ENERGY DEMAND SUMMARY (GJ/YR), RESIDENTIAL USE BY ENDUSE

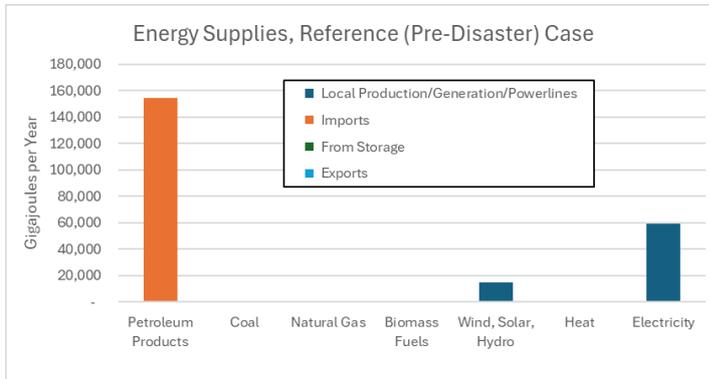
END USE	LPG/ Propane	Charcoal	Electricity	TOTAL
Space Heating	442	-	4,369	4,811
Water Heating	614	-	11,437	12,051
Space Cooling	-	-	2,210	2,210
Cooking	854	71	3,869	4,595
Lighting	-	-	2,311	2,311
Refrigeration	-	-	4,475	4,475
Other Energy Use	-	-	9,186	9,186
<b>TOTAL HOUSEHOLDS</b>	<b>1,710</b>	<b>71</b>	<b>37,857</b>	<b>39,638</b>

Electricity is about 18 kWh per day per non-transient HH



## Where are we getting our energy from?

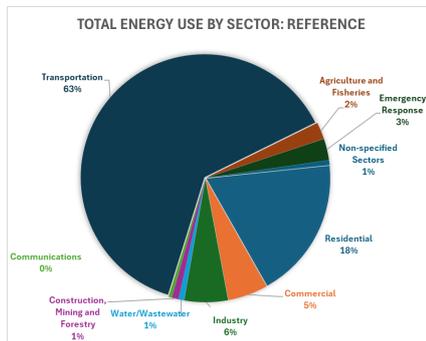
### Calculational Tool: Initial Evans Area Summary Results



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## How do we use energy ?

### Calculational Tool: Initial Evans Area Summary Results



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In the Q and A that followed, questions were raised about missing data, including how much energy is being provided by household solar PV batteries, how the intro of EVs would impact energy use (and supply), and how population growth and fluctuations affect energy resilience in Evans.

## Presentation Two

### Community Energy Profile Tool Applications

Heather Smith, Chair, Coalition for Community Energy Australia

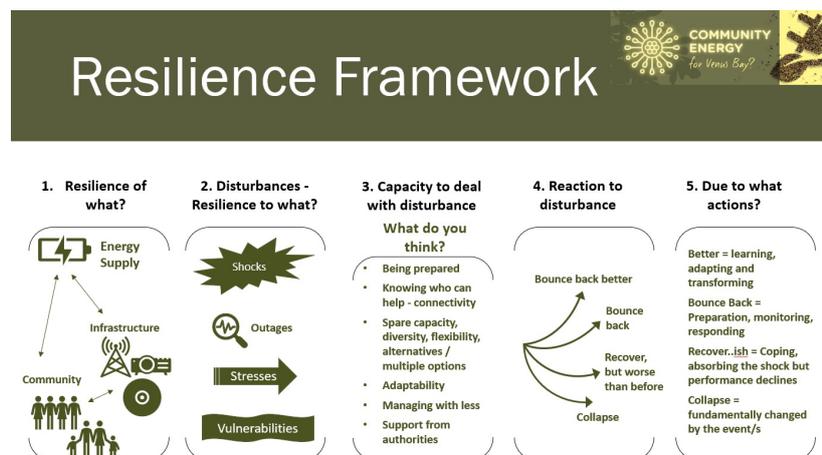


Heather Smith, a Churchill Fellow, is Chair of the Coalition for Community Energy Australia and is doing a PhD on redesigning electricity grids with local energy.

Joining by zoom from Adelaide, Heather described the detailed data available on line about community energy use. The [Australian PV Institute](#) has data by zip code about household energy use broken down by types of appliances, cooking, lighting, heating and cooling and water heating. She presented data for Lismore and Byron Bay and then outlined resilience and reliability factors for the Evans area, including causes and types of power outages.

In the final part of her presentation, Heather talked about her work with the Community Energy Project at Venus Bay in southern Victoria. The Project brought together community members over many months to consider what they meant by energy resilience and what they most valued in their energy systems.

## What we understood – Resilience



## What we understood - Community Values

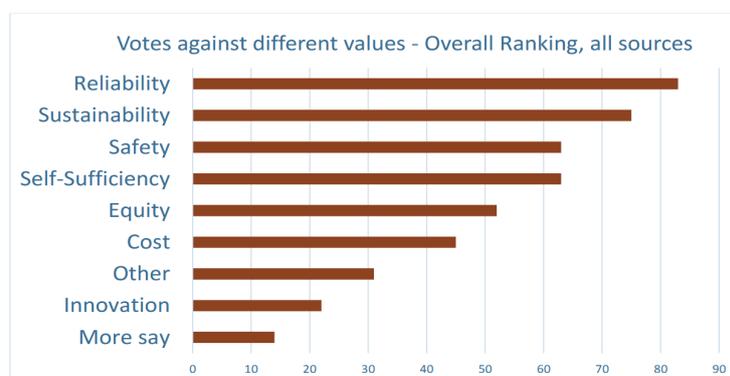


Figure 2 Community Values for local energy solutions

## Presentation Three

### Empowering Resilient Communities Through Sustainable Energy

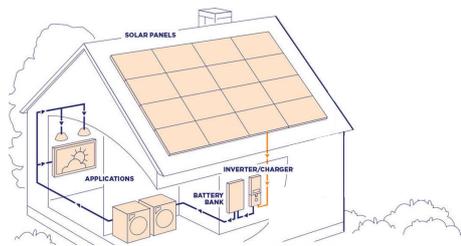
Matthew Wittemeier, CEO, Rainbow Power



Matthew is the CEO of the 38-year-old Nimbin-based [Rainbow Power](#) company. His talk zeroed in on the key role of solar energy in promoting energy resilience on both household and community levels.

Matthew first described how solar works and then outlined three types of solar systems: grid-tied (PV only); hybrid (grid plus battery); and off grid (PV+battery). With the price of batteries falling rapidly, in part due to government subsidies, Rainbow Power has seen soaring demand for hybrid and off-grid systems in the last four months. Increasingly, consumers are shifting their solar goals from “what is the biggest system I can afford?” to “how can I become energy independent?”

#### 02 Types of Systems



Off-grid System

Matthew then turned to energy resilience and described how solar systems allow critical infrastructure such as fire trucks to continue operating during a power outage. Solar-powered community hubs such as local halls, showgrounds and SES bases are critical assets for disaster response. Rainbow Power’s own fully-solar-powered HQ in Nimbin acts as an SES hub during emergencies.

Matthew’s final point was “Resilient power = Resilient communities.”

#### 07 Rainbow Power’s Role



Rainbow Power acts as an emergency hub for the SES during local disasters

#### 06 Energy Resilience



“These systems ensure our fire trucks remains operational during extended power outages”  
Ken Wallis  
Blue Knob RFS

## Presentation Four

### Can I persuade you? Transitioning to renewable energy

Graham Truswell, Electrify Byron

Graham Truswell is the lead organizer of the community group, [Electrify Byron](#), which aims to inform community households and businesses about the benefits of solar electricity and battery storage.

Graham described the door-knocking campaign that Electrify Byron undertook in Bangalow. They spoke to hundreds of people about the dangers of climate change and the benefits of solar-powered electricity. As a result, thirty-eight households for the first time sent enquiries to companies about solar power installation.



Janelle, a participant, raised the issue of renters. A key barrier to greater household uptake of solar power is that many people are renters and landlords do not benefit from reduced energy costs. Tim, a participant, also described the problem of getting all the members of a strata-managed building to agree to invest in the capital cost of a shared solar system.



## Wrap-up

Rena wrapped up the workshop with a synopsis of some of the key themes that emerged through the day: the need for good data to clarify options and make wise decisions about energy resilience; the central importance of informing communities about climate change and the benefits of solar power; the potential for partnerships between local community institutions, including business, to enhance energy resilience through solar-powered community disaster hubs. She also emphasized the many good ideas for projects and partnerships that had emerged through energetic discussions throughout the day—and which continued over pizza.



Report written by Lyuba Zarsky

Photos: Shavari Flint