## BRIEFING ON EVANS AREA RESILIENCE NETWORK (EARN) CLIMATE-AMPLIFIED DISASTER EMERGENCY ENERGY PROJECT

## April 13 2025

**The Goal:** to create a tool that enables local communities to anticipate and prepare for climateamplified disasters by planning relief, recovery, response, and resilience-building strategies that are tailored to local circumstances. The proof-of-concept is underway in the Northern Rivers NSW region after the cataclysmic flood in 2022, starting with Evans Head. The goal is to make the tool universally available to millions of climate-affected communities via an Open Source website <u>here</u>. The project is a partnership of Nautilus Institute, Evans Area Resilience Network, and Coalition for Community Energy Australia. The project also demonstrates that one adapts to mitigate greenhouse emissions.

**The project:** the Evans Area Resilience Network (EARN) energy project aims to identify immediate relief, interim response, and long-term resilience/vulnerability reduction measures that the community may consider and/or adopt in response to climate-amplified disasters such as floods, fire, pandemics, heat waves, etc. (see attached project overview). The impact on households and businesses of recent unplanned power outages underscored the urgency of tackling this task ahead of the next disaster. The EARN energy task force is implementing this project.<sup>[1]</sup>

**Progress to Date**: In 2024, the task force created a computational tool to develop a reference energy supply-demand model for the EH area defined by postcode 2473 (in order to align with census data). The task force collated substantial data to generate estimated energy supplied to EH and energy use by consuming sectors. In particular, the task force obtained 10 years of power supply data (half hour datums) for the two feeder lines that supply EH that provides the data needed for seasonal and weekday/weekend power load curves, plus outage data over time. We also drew on many different survey-based estimates for energy uses such as commercial buildings, vehicles, appliances etc. in NSW, some of which is regionally and climate-specific; some based on sales (for example, installed solar is recorded annually for each postcode).

**Implementation:** In 2025, we intend to conduct energy audits in each sector, but especially businesses and organizations related to medical, food security, communications, and service provision in Evans head. The data collected will be used to refine the baseline model of EH energy supply and demand. This work entails task force auditors contacting and meeting with key EH businesses and organizations to request insight into their energy supply and demand, and to understand their urgent needs to reduce impacts of energy loss on their business or service delivery.

Concurrently, we plan use this refined picture to inform a community consultative process, and to guide stakeholders and decision makers as to best practice steps to reduce Evans Head's existing vulnerability to routine and disaster-driven energy deficits.

In 2026, we will explore the scenario-specific impacts on EH energy supply and demand, critical energy needs during and after a climate-amplified disaster, and develop longer-term infrastructure and policy measures to reduce EH vulnerability and to increase resilience, and pathways to finance such measures, both federal, state and local; and public and private funding; and will post our results on the open source website here for access to other community groups.

<sup>[1]</sup> Core members of the EARN energy task force are Convenors, Rena Frohman & Peter Hayes (Prof); climateamplified disaster and data specialists: Flood, Heatwaves--Steve Posselt (Dr), Lyuba Zarsky (Prof); Water, Sewage--Stuart Bunn (Prof); Medical, Pandemics--Kelli MacDonald (Dr); Tsunami--Kira Hartlund (Dr); Warinduced Scarcity—Peter Hayes. Plus David von Hippel (Dr) of <u>Nautilus Institute</u> in Oregon, and Heather Smith (Dr), <u>Coalition for Community Energy</u> (C4CE) in Adelaide.