What Is Community Electricity Resilience?

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Resilience of Electricity Services for Community Resilience

Currently there is no definition of electricity resilience for the Australian electricity system, nor is there an approach for ensuring it exists. This study is focused on the meaning of electricity resilience as a cornerstone of community resilience. A key premise of this study is that a community resilience is very much interlinked with its continuity of access to essential services – some of which rely on electricity.

To explore the meaning of community electricity resilience, thirteen interviews were conducted with various electricity stakeholders. Interview participants held a diversity of roles and backgrounds including electrical engineering, local government, and community members. Here I present the preliminary research findings starting with the premise that in order to understand community electricity resilience, we must first gain an understanding of the meaning of community resilience.

What does community resilience mean?

Four key themes emerged from the interviews with respect to the meaning of community resilience.
- **Official definitions** from the United Nations (UN) to federal agencies provide a useful starting point.
- With direct or indirect experience of disaster, communities and individuals **understanding of resilience is refined and redefined**.
- Community resilience is **context dependant**.
- Resilience is **intertwined with community development**.

"So it's withstanding hazards, continuing to function and being able to return to function as soon as possible after a hazard. It's not, it's not a good definition, right? You know it's far more complex than that." (#7)

"It's a question that kind of needs to be asked everywhere it's done. I think, it's very place based. It's very local and contextual." (#1)

"And the resilience that we need is going to have to be around where our markets lie." (#3)
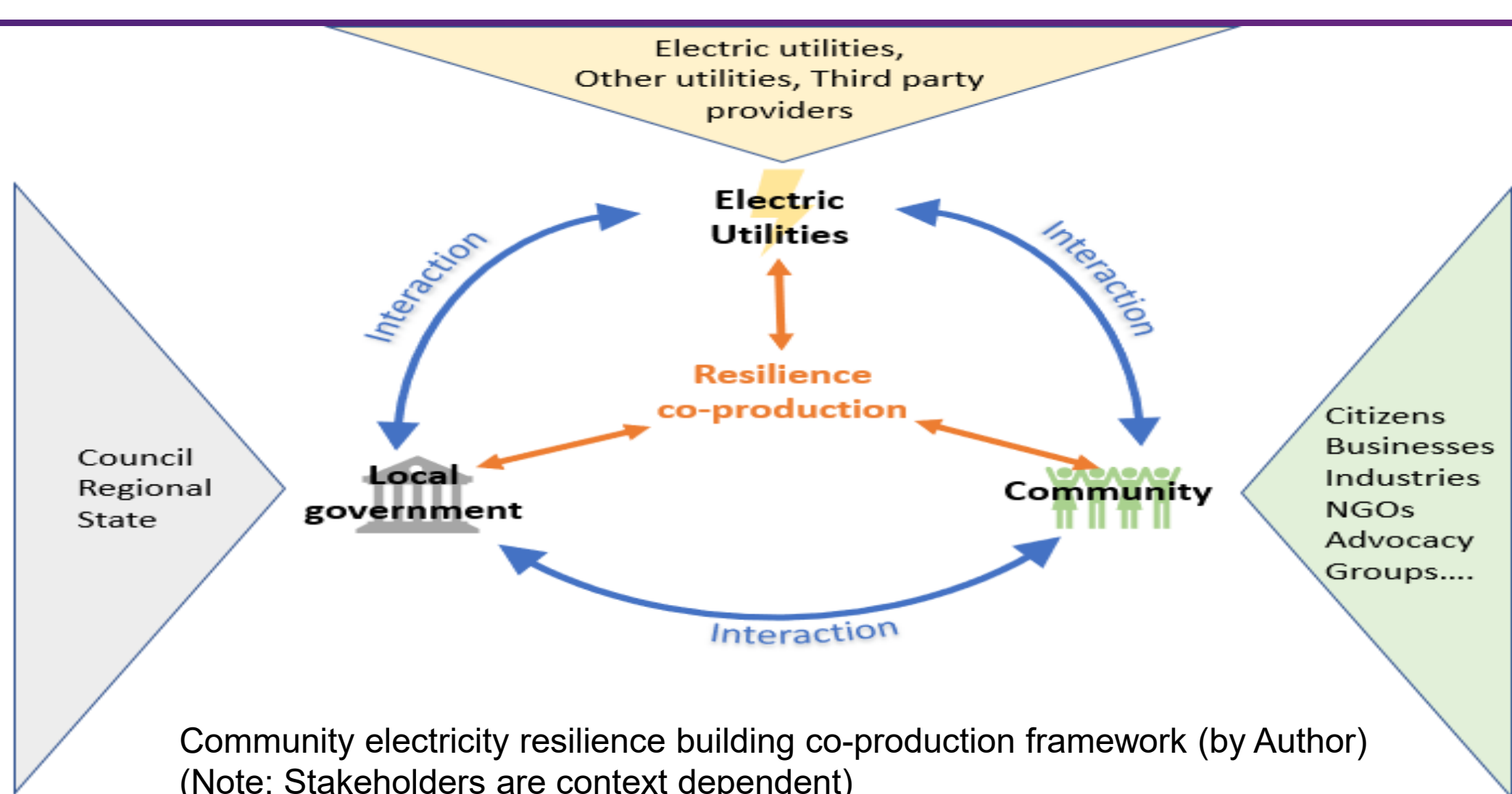
Implications for defining community resilience

- Community resilience definition is **context dependent and dynamic**.
- Community resilience definition and understanding requires **exploratory processes** with the community to **emerge**.
- Disaster organisations are in fact **community development organisations**.

Community electricity resilience building

The stakeholders

Both the literature and interviewees recommend the engagement of all stakeholders throughout the resilience building process, with methods such as co-production often preferred. The graphic below presents the **co-production framework** developed for this project to build community electricity resilience.

Community electricity resilience building co-production framework (by Author)
(Note: Stakeholders are context dependent)

The challenges

What is missing for community electricity resilience building?
In most organisations from electric utilities to government agencies, the main issues interviewees mentioned included a **lack of leadership, capacity, and diversity.**

"Whether it's any type of infrastructure provider or even government, I've seen their ability to build resilience wax and wane with the political leadership…" (#7)

"So in terms of building a common resilience, I think that is the challenge. Everyone has a different idea of what our strengths should be and where our weaknesses lie. And it's complicated even further by the different outcomes or intentions of the various different government departments as well and different levels of government." (#3)

Implications for building community electricity resilience

Interview data highlight that community electricity resilience building requires:
- Leaders to **prioritise resilience** and embrace the **engagement processes** which allow for emergence between all stakeholders.
- Urgent **electricity market reforms** to include and promote resilience and remove barriers.
- To **think laterally**, beyond relying solely on energy technical solutions (e.g. solar and battery) or the energy market.
- **Resourcing to improve capacity**, with the creation of roles such as resilience officer a potential solution.
- **Increased diversity** within organisations and engagement processes to enhance **representation of backgrounds and views.**
- All stakeholders to have the ability and capacity to **listen, and empathise**.

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