Local Government Workshop on electricity networks & investing for community resilience

What We Heard Summary

16 March 2022

Local Government Workshop on electricity networks & investing for community resilience

On Wednesday 16 March 2022 Ausgrid, Endeavour Energy and Resilient Sydney facilitated a workshop for NSW councils to provide views and input on resilience needs and desires across their communities including:
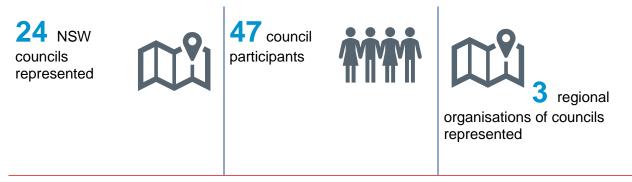
- key resilience issues facing urban communities, including shocks and stresses
- resilience issues facing networks including climate impacts, risks, and emergency management approaches
- ways to best support communities during emergencies
- ways to build resilience into long term planning to reduce the impacts of future emergencies
- opportunities for collaborating on improving community and network resilience in the short and long-term.

Findings from the forum will inform:
- the Distributed Network Service Providers' (DNSPs') 2024-2029 Regulatory Proposals to the Australian Energy Regulator; and
- ongoing discussions with government, regulators, communities, and customer advocates on the topic of resilience by Resilient Sydney, Ausgrid and Endeavour Energy.

This document summarises participants' contributions. Ausgrid and Endeavour Energy will use this information, along with information from broader consultation with stakeholders, as input for their forthcoming 2024-29 regulatory proposal submission on the topic of resilience. Feedback, issues and opportunities raised will also help shape Resilient Sydney advocacy to other levels of government and stakeholders in the emergency management and response network.

Quick Stats

24 NSW councils represented

47 council participants

3 regional organisations of councils represented

Attendees at the forum represented local councils across Greater Sydney and areas of regional NSW predominantly within the Ausgrid and Endeavour Energy network areas. A full list of attending organisations is provided at Appendix A.

Sixty-seven (67) participants attended the forum, including stakeholders from:
- Local Councils (47 participants)
- Regional Organisations of Councils (5 participants)
- Community and customer advocacy organisations (2 participants)
- Resilient Sydney, Ausgrid and Endeavour Energy (13 facilitators and participants).

Workshop Content

Presentations at the forum included:
- Resilient Sydney presentation on the key resilience issues facing urban communities, including shocks and stresses
- Update on key issues raised at Ausgrid's Council Roundtable in September 2020
- Analysis from Ausgrid and Northern Beaches Council of emergency responses to an extreme storm event in the Northern Beaches area in 2021
- Ausgrid presentation with modelling and projections for climate change impacts on electricity networks
- Endeavour Energy presentation on the challenges and opportunities for cities and a resilient electricity network.

Workshop participants provided hundreds of responses to the six questions discussed in the forum. Detailed feedback is provided in following pages. The questions asked about:

1. Trends impacting community needs during an energy emergency, and our ability to respond to emergencies
2. Community needs during a prolonged outage
3. Processes and protocols working well, or needing improvement to support communities prepare, respond to, and recover from emergencies
4. Councils, networks, and community investment already occurring for local energy, community and individual resilience
5. Current gaps in governance and collaboration for resilience planning
6. Collaboration opportunities for local government and the electricity sector to invest in resilience.

Forum facilitators from Ausgrid, Endeavour and Resilient Sydney captured input using an online tool called Groupmap, the Microsoft Teams chat function, and verbal discussions in the forum itself. The workshop collaborators reviewed, coded and analysed participant feedback and issues raised into summary responses provided in this report.

Key Themes for Communities and Electricity

Key themes raised were closely aligned to the resilience challenges identified by the community during the development of the [Resilient Sydney strategy (2018)](#) and included:

Themes	Resilience challenges for councils and their communities
Increasing extreme weather events, with prolonged outages **(Get ready)**	Increasing frequency and severity of extreme weather events, coupled with demographic trends such as an aging population, increasing numbers of community with English as a second language require a change in how we understand risks and prepare, plan for and respond to energy emergency events
Improve clarity of roles during emergencies **(One city)**	There is a need for better clarity during emergencies around roles and responsibilities of emergency management stakeholders and the provision of accurate consistent information to help communities and councils make decisions for life safety and local continuity
Increasing reliance on electricity networks and the energy transition **(Live with our climate)**	Communities and councils are setting climate targets and plans for community transition that increases reliance on electricity networks and renewable energy sources, including changing use of technology for mobility
Communities need support to get connected **(Connect for strength)**	Increasing social isolation and declining neighbourhood connections make it harder for neighbours and communities to support each other during crises - supporting the development and maintenance of community networks, especially for vulnerable people, will enable better preparation and response for energy emergencies
Bring lived experience into resilience and emergency planning **(People centred city)**	Equitable access to electricity is key to communities being able to manage their local risks during shock events, and the lived experience of communities and councils can inform the design of local networks and emergency planning

Figure 1: Greater Sydney resilience challenges and strategy directions from the Resilient Sydney strategy (2018)

1. Trends impacting community needs during an energy emergency, and our ability to respond to emergencies?

Participants observed several key trends that will continue to exacerbate impacts and make it harder to manage energy emergencies unless we evolve how we respond.

Key themes and noteworthy comments

1. Increasing severity of weather events The trend most strongly identified as impacting community needs was the increasing frequency and intensity of weather events such as heat, drought and flooding. It was noted that extended or recurrent periods of these shock events was exacerbating or triggering other events such as outages and increased electricity consumption to mitigate extreme heat.	**2. Aging population** Australia's older generation (those aged 65 and over) continues to grow and is projected to more than double by 2057* Workshop attendees noted that older people may be less mobile or have complex medical needs that would need to be considered during an energy emergency. *Australian Institute of Health and Welfare – Older Australians web report Nov 2021*	**3. Increasing reliance on the electricity network for electric vehicles and communication technology** As the vehicle fleet becomes increasingly electric, prolonged outages will impact people 's capacity to shop for essentials or evacuate. Concurrently the group noted increasing reliance on telecommunications such as mobile phones and to access money– which can be impacted during an outage. Some respondents noted that transition to electric vehicles will be advantageous during *short* outages, for people to use the electricity stored in their car battery to provide backup power to home appliances.
4. Increasing culturally and linguistically diverse communities Resilience planning and advisory materials are still overwhelmingly produced in English alone, a significant barrier for many of our culturally and linguistically diverse communities. Collateral produced to raise awareness and to help communities become more resilient, should be tailored for that community – in languages and culturally relevant ways.	**5. Increasing factors exacerbating vulnerability including social isolation and chronic disease rates** Systemic stressors or vulnerabilities existing within a community impact affect that community's capacity to respond to and recover from a shock event or other stressors. Many participants in the forum noted the rising prevalence of social isolation particularly within highly urbanised settings. Mental health, medical vulnerabilities were also identified as a trend.	

2. Community needs during a prolonged outage

On Sunday 19 December, communities in the Sydney suburbs of Cromer, Narrabeen, Dee Why and surrounds were hit by a storm 'microburst' which saw destructive winds of over 130km/h hit the region. The shock event was short but sharp with one observer noting that the site 'looked like a war zone. The event left over 18,000 locals without power, wreaking significant building damage and resulting in over 900 requests for assistance to Police and SES. Workshop attendees were asked to identify what assistance and support the community needed during such events.

Key themes and noteworthy comments

1. **Clarity on roles and responsibilities of emergency management stakeholders**

Participants reported a strong need for clearly defined roles and responsibilities across the emergency management system.

It is currently difficult for the community to navigate who does what across government agencies, different levels of government, and emergency service responders such as SES, Police, and community volunteers.

2. **Clear and consistent communication during the event including regular updates on restoration times**

Participants noted that to respond well in an energy emergency, people need accurate situational information, clear guidance, and well-co-ordinated welfare efforts by agencies. People and organisations need accurate information about restoration times to make good decisions about implementing their contingency plans.

3. **Alternative energy supplies, battery storage and microgrids**

Investment in equipment to keep the power on (batteries, generators and microgrids) and in ways to improve our emergency response when the power is off were nominated by a number of participants as key.

4. **Community Resource Hub**

With the increasing frequency and severity of natural hazard events, the group outlined a need for community hubs that would operate as temporary places of refuge during such events. These facilities would provide essential services such as showers and washing facilities, phone charging and shelter for communities at risk.

5. **Identification and consideration of vulnerable groups**

Many in the group identified a need for a better understanding across the emergency management network/system of where vulnerable communities were located and support needs for this group during an outage. These communities included those who may be culturally and linguistically different who need information in their own language, the elderly, and those living with a disability.

3. Processes and protocols working well, or needing improvement to support communities prepare, respond to, and recover from emergencies

Underpinning how we prepare, respond to, and recover from emergencies are the systems and processes for us to do this well, or to fail. Systems and processes need to support efficient coordination, deployment of action, and avoid stakeholders duplicating effort. Workshop attendees noted that while some processes and protocols are working well, many could be improved to support communities prepare, respond to, and recover from emergencies.

Key themes and noteworthy comments

1. MOUs and Agreements for resource sharing

Participants observed that while some agencies have strong partnerships –there are opportunities through formal agreements to better share, redeploy or redistribute resourcing when one 'part of the system' is impacted by an emergency. Such agreements would provide arrangements for how infrastructure or personnel might be shared across the system.

2. Strong community networks and connections

One of the strongest indicators of how well a community will respond and recover from a shock event is how well connected the community is in advance of the disaster[1]. Participants in this workshop strongly supported the suggestion that effort be put into stronger community and neighbourhood relationships.

3. Local Emergency Service Plans/Process

Participants noted a need for greater representation from utilities on the local emergency management committees; some of these committees are not seeing consistent attendance by representatives from the electricity network.

4. Community Education

Helping the community be more prepared for possible emergencies or shock events was highly rated by workshop participants as priority. Examples given included linking residents and businesses into campaigns such as Get Ready and developing shared collateral in relation to specific hazards or particular times of the year (e.g. getting ready for fire season).

5. Frameworks for collaboration

Myriad agencies and organisations work across the resilience and emergency management system, and attendees noted a need for broader and better organised collaboration, through formal and informal partnerships. It was noted that the 'trigger' and process to include additional personnel such as defence force was unclear.

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[1] Aldrich, D.P. and Meyer, M.A. *Social Capital and Community Resilience* (2015). American Behavioural Scientist: Vol 59, Issue 2.

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3a. Analysis of responses – working well or needs improvement

Participants were asked to rate the processes and protocols that were working well, or needing improvement to support communities prepare, respond to, and recover from emergencies. Figure 1 below shows that participants rated the following as the top five most important, and most needed, process improvements to support community resilience:

- Definition and delineation of responsibilities
- Agreements and MOUs between organisations
- Community hub concept
- Post event clean up and support
- Network communication – restoration information

These improvements provide an important lens for future decision making about collaborations and opportunities for investment.
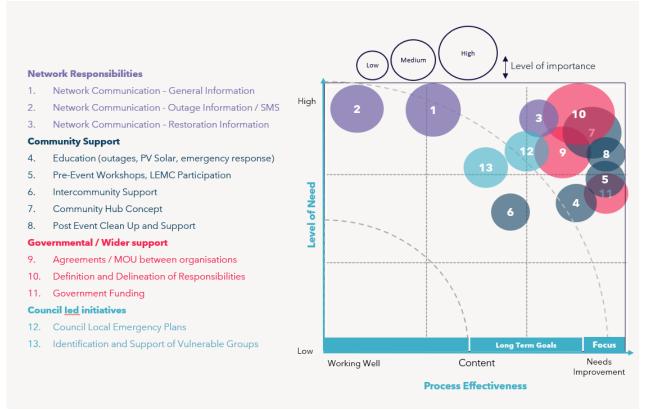

Figure 2: Graphical representation of level of importance of processes and protocols – workshop results

4. Councils, networks, and community investment already occurring for local energy, community and individual resilience

Participants noted many important ways in which investment is already underway to strengthen resilience across the system.

Key themes and noteworthy comments

1. Evolving collaboration between essential services and networks

Workshop participants acknowledged emerging forums and mechanisms such as the Resilient Sydney network, the LEMC network and Joint Organisations of Councils to bring together the various emergency management stakeholders.

Participants noted that the EMPlan and LEMCs are working well, but would like to electricity utilities more involved, and there needs to be better connections between emergency services and local communities.

2. More resilient infrastructure and information systems

There was strong acknowledgment that climate change was already impacting infrastructure design, and investment in durable and resilient critical infrastructure able to sustain extreme weather and natural hazard events was occurring. Participants noted that councils have been investing heavily in digital platforms that enable them to better communicate with residents. These improve service delivery under normal operating conditions and in a crisis.

3. Climate resilience policy

There were strong levels of agreement across the group that councils and regional areas are already progressing work in their climate resilience plans and strategies including climate adaptation, floodplain management, communications, and transport strategies.

Specific examples raised included Resilience Hazard Assessments, and an attempt to embed responses within council processes in an integrated way for example through the Integrated Planning and Reporting documentation

4. Local investment in resilience

Local communities and councils are already investing in backup power to their homes. Councils are investing in backup power for emergency facilities, creating community refuges, improving planning controls, and engaging the community on preparedness, including engaging CALD communities.

5. Researching the needs of vulnerable places and groups

Some participants reported that investment is emerging to better plan and prepare by better understanding areas and communities particularly at risk. Councils and community groups are researching which people are most at risk during heatwaves or when electricity networks are under strain.

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5. Current gaps in governance and collaboration for resilience planning

Workshop participants expressed concerns about the governance framework to enable resilience and emergency management professionals to reach across their 'silos' more to achieve constructive collaboration and a shared understanding of effective planning for improved community and system resilience.

Common themes and noteworthy comments

1. **Lack of strong governance framework and clear roles and responsibilities**

The primary barrier to resilience planning raised by workshop participants is lack of clarity about roles and responsibilities which impacts effective collaboration across different levels of government, utilities, and other emergency management stakeholders.

Participants articulated a need for Federal and State government leadership and strategic direction to build strong governance and accountability.

2. **Improved collaboration**

Attendees noted that resilience and emergency management professionals need to reach across their 'silos' more to achieve constructive collaboration and a shared understanding of effective planning for improved community and system resilience.

Stakeholders are grappling with how to work across different 'governance streams'. While acknowledging that resilience planning involves a very broad range of management, the "ability to get the right people in a room" continues to be a barrier.

3. **Inadequate sharing of information and resources**

It was noted that there is still a need for better and more strategic resourcing to address the inherent complexity and systematic nature of resilience planning to unlock opportunities to pool effort in defining and capturing key data and scenario modelling and co-design solutions. Investment and focus on improved governance referenced in this session would improve the sharing of efforts and accelerate improved outcomes.

4. **Preparation and planning**

Some participants noted that there is not enough focus on event preparation and proactive strategic planning that acknowledges the heightening and future risk profiles; specific examples included updates to standards to accommodate increasing climate risk and identification of current and emerging communities at risk.

5. **Adequate resourcing and capacity of emergency management**

Local council attendees reported that with escalating frequency and severity of shock events, more dedicated resourcing is required within local government emergency management operations. This will support councils to support communities to better prepare and respond.

6. Collaboration opportunities for local government and the electricity sector to invest in resilience

As the emergency preparedness and response network continues to evolve, efficiencies and improved outcomes could be achieved through several suggestions from workshop participants.

Key themes and noteworthy comments

1. Alternative energy supplies, battery storage and microgrids The most strongly supported collaboration idea raised in the workshop was the opportunity to increase local renewable energy generation, storage, and distribution such as community batteries and microgrids.	**2. Formalised and strategic proactive collaboration, beyond just reactive; shared definitions and frameworks for resilience planning and response** More strategic, pre-emptive, and formalised collaboration with utilities, LEMCs, councils and other key stakeholders proactively engaging on resilience planning (and not just reactively at the time of a disaster) would drive a shared understanding of community risks and planned responses. Improving governance structures in this way would also support greater sharing of modelling and datasets to inform collective decisions and responses.	**3. Clear and co-designed education, information and advice for communities on 'one-stop shop' portal** Utilities could provide clear, consistent, and timely information for local councils to disseminate to their communities to better understand the role of various agencies and how best residents and businesses should respond to emergency situations or outages.
4. Shared data and modelling Council, utilities, and other agencies can strengthen relationships through initiatives such as joint infrastructure planning, data sharing, emergency simulation, education, and preparation. We should try to strengthen different kinds of relationships, between organisations (Councils, DNSPs, Emergency services), between organisations and the community, and between members of the community, to improve emergency response.	**5. Identification and consideration of vulnerable or specific communities** Identifying vulnerable energy customers in advance requires collaboration between agencies, governments and electricity networks.	

Summary of Opportunities

Councils and Distribution Network Service Providers (DNSPs or 'electricity networks') are well placed to partner to support community resilience in Greater Sydney and NSW. A range of potential actions were identified during the workshop to make a tangible difference to the understanding and management of risks and future planning for community resilience in an increasingly electricity dependent world.

The following opportunities for action were identified:

Themes	Opportunities for action – Councils and DNSPs
Increasing extreme weather events, with prolonged outages **(Get ready)**	Provide consistent, easy to find information for communities on: • Local disaster and emergency dashboards, including risk information specifically relevant to local areas • Community education materials and apps on disaster preparedness, including in multiple community languages • How to access existing council or other provided community refuges and resilience hubs • Councils to provide information on planning controls they have implemented to increase community resilience
Improve clarity of roles during emergencies **(One city)**	• Create a joint advocacy agenda to the NSW and Federal Governments, including a specific request to outline the roles and responsibilities of different organisations in different types of emergencies, and in resilience planning Improve the quality and context of local emergency management plans (LEMPs) in NSW whereby: • DNSPs are engaged and available to attend Local Emergency Management Committees (LEMCs) and/or Regional Emergency Management Committees (REMCs) • DNSPs provide feedback into the local emergency management plan updates • Councils and DNSPs undertake joint planning and emergency simulations
Increasing reliance on electricity networks and the energy transition **(Live with our climate)**	• Identify opportunities to grow the network of community refuges and resilience hubs with opportunities for DNSP and council to share infrastructure (design & implementation considerations, learnings) • Councils and DNSPs to share information on EV charging infrastructure planning and microgrid priority zones DNSPs could: • share data on asset locations (bare wire and aerial bundled cabling) to inform street tree masterplans • update the critical supply sites register • Install smart enabled streetlights that could accommodate heat and air quality sensors (medium to long term)
Communities need support to get connected **(Connect for strength)**	Councils and DNSPs to work together to: • agree on shared messaging templates for use during energy emergencies, especially for vulnerable customers • identify vulnerable customers, outside of Life Support Customers

Bring lived experience into resilience and emergency planning **(People centred city)**	Councils and DNSPs could work together to: • Conduct proactive joint future planning and reactive emergency simulations • Consider wider engagement with the community to capture their needs in planning decisions

Next steps

Resilient Sydney, Ausgrid and Endeavour Energy are committed to continuing the discussions from this forum and will continue to explore relevant solutions to build resilience within communities they serve including:

Based on the discussion, DNSPs should consider including the following items to improve community and network resilience in their 2024-29 regulatory submissions:
- Co-funding for community resilience hubs
- Co-funding for aerial bundled cabling and undergrounding to protect the urban canopy
- Funding for improvements to the power restoration time estimate processes
- Funding for Stand Alone Power Systems, microgrids and community batteries
- Funding vehicle to grid infrastructure for EV transition
- Funding to ensure that DNSPs are staffed to:
  - be available for all LEMC and REMCs
  - provide feedback into the local emergency management plan updates
  - undertake joint planning and emergency simulation.

Councils and DNSPs are encouraged to review and consider the key resilience challenges and opportunities for action arising from this workshop.

Appendix A
List of attending organisations

Ausgrid
Bayside Council
Blacktown City Council
Camden Council
Campbelltown Council
Canada Bay Council
Canterbury Bankstown City Council
City of Parramatta Council
City of Sydney Council
City of Sydney
City of Ryde Council
Central Coast Council
Cumberland City Council
Endeavour Energy
Hawkesbury City Council
Illawarra Shoalhaven Joint Organisation
Kiama Municipal Council
Lane Cove Council
Liverpool City Council
Northern Beaches Council
North Sydney Council
Penrith City Council
Port Stephens Council
Resilient Sydney
Southern Sydney Regional Organisation of Councils
Sutherland Shire Council
The Hills Council
Willoughby City Council
Wollongong City Council
Wollondilly Council
Western Sydney Regional Organisation of Councils