



# Climate Change and Network Resilience Commitments

Findings Presentation

8 December 2021



Nation Partners acknowledges that the Wurundjeri people are the Traditional Custodians of this Land and we pay our respect to the Elders both past, present and emerging leaders of the Kulin Nation.



# Agenda

- Introductions
- Report context
- Purpose, objectives and approach
- Themes and trends
- Key insights
- Recommendations
- Questions

# Introductions – about Nation Partners

- Strategic advisory firm that was established to work with like-minded clients to influence a better and more sustainable future for society and the planet.
- Certified B-Corporation.
- Four key service areas:



- **Rob Turk** – Senior Principal, Sustainable Development (PM)
- **Olivia Whitaker** – Senior Consultant, Sustainable Development (Assistant PM)

# Report context

- In planning for the 2026-2031 revenue setting period, CitiPower, Powercor and United Energy are currently considering the **drivers of change which may impact both their business operations and the communities which they serve.**
- **Climate change and network resilience** have been identified as key issues, which present both a physical risk to network assets as well as a transition risk in terms of what customers expect as the global economy seeks to decarbonise.
- The significance of this challenge has been **reinforced by stakeholder engagement**, through which concerns about climate change and network resilience issues have been repeatedly highlighted.
- In recognition of this, CitiPower, Powercor and United Energy engaged Nation Partners to **deliver a review of climate change and network resilience resources at the federal, state and local government level, as well as those of local sustainability groups**, in order to analyse common themes and trends both within and across these stakeholder groups, and at a geographical level.

# Purpose and objectives

## Purpose

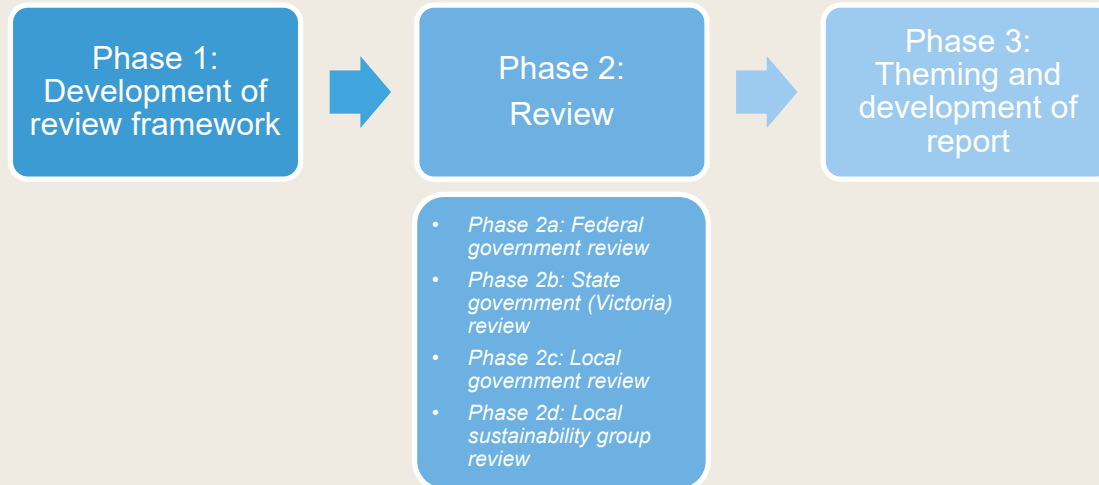
To increase understanding of the commitments, expectations, goals, aspirations and attitudes related to climate change and network resilience that are held by CitiPower, Powercor and United Energy's key stakeholders across its distribution networks. These stakeholders were categorised into four key groups; **federal government; state government (Victoria); local government; and local sustainability groups.**

## Objectives

- Document stakeholder **commitments, expectations, goals and aspirations for, and attitudes towards, climate change and network resilience;**
- Outline the **common themes and trends** relating to climate change and network resilience in the energy sector;
- Highlight **key insights** that can be drawn from the findings and identified themes;
- Provide **recommendations** for the topics which would benefit further discussion; and
- Identify **key stakeholders** who should be considered for future engagement.

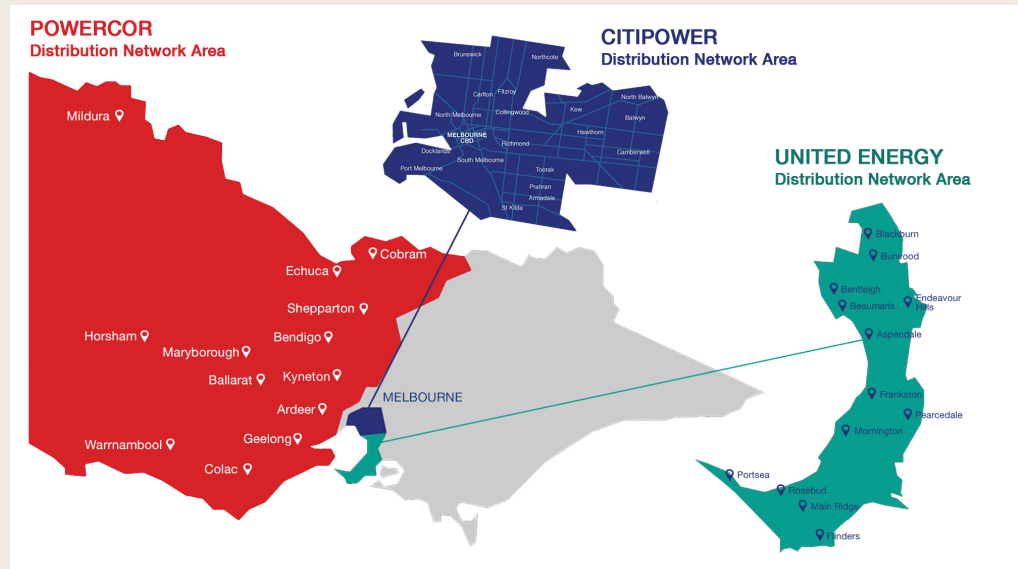
# Approach

- Report was developed using a **systematic and phased approach**.
- It was designed to initially focus on the the relevant commitments, expectations, goals, aspirations and attitudes of each target stakeholder group, by distribution network, before broadening out and taking a holistic view of the key themes and trends apparent across all stakeholder groups and networks.
- Delivery occurred across three key phases:



# Key themes and trends

- Nation Partners identified a number of **overarching themes**, based on the key findings that were consistent across all stakeholder groups and distribution areas.
- Additional themes and trends have also been identified by both **stakeholder group** and **distribution network**.
- Categorisation **enables the understanding of different viewpoints and priorities** held by each of its key stakeholder groups.
- It will also allow greater understanding of **unique characteristics and differences** of CitiPower, Powercor and United Energy's communities.





Overarching key  
themes and trends

# Overarching themes and trends



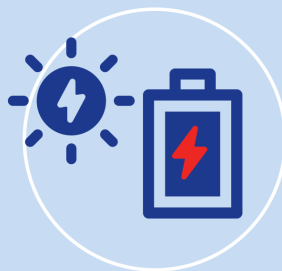
## Net zero emissions

There is a commitment across all stakeholder groups to reach net-zero emissions by 2050 at the latest, however some groups are aiming to reach that target sooner than others.



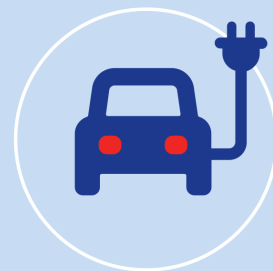
## 100% renewable

Working towards 100% renewable energy as soon as possible is a key focus of most stakeholder groups, with a strong interest in moving away from gas and towards electrification and sustainable fuel alternatives where required.



## Solar, battery storage and stand-alone power systems

The technologies with the strongest interest across all stakeholder groups are solar, battery storage and stand-alone power systems (i.e. microgrids), which have the benefit of both reducing emissions and strengthening energy system resilience.



## Electric vehicles and energy efficiency

Most stakeholder groups also see electric/low emission vehicles and energy efficiency measures as critical in supporting rapid decarbonisation, however there was not a strong focus across all groups for either mitigation.



## Private sector involvement

There is an expectation across all stakeholder groups that businesses will play a key role in responding to climate change.

# Overarching themes and trends



## Energy system resilience and adaptation planning

While there is recognition that the electricity system has the potential to be highly vulnerable to disruption, energy system resilience is not a strong focus in adaptation planning, with the exception of at the state-level.



## Protecting those who are vulnerable

Across a number of groups there was a strong focus in ensuring vulnerable and low income households are supported during delivery of climate solutions, and that energy affordability remains front of mind.



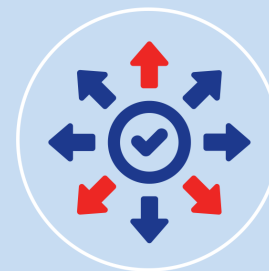
## Partnerships and collaboration

All stakeholders recognised the importance of sharing responsibility, forming strong partnerships and working collaboratively across all groups in order to affect real change, and there are a number of existing forums which can be leveraged to support enhanced coordination.



## Community mobilisation and engagement

In the absence of policy, there is a need to mobilise and engage the community to drive climate action, and build capacity to support wider emissions reductions outside an organisation's sphere of control.



## The role of distribution businesses

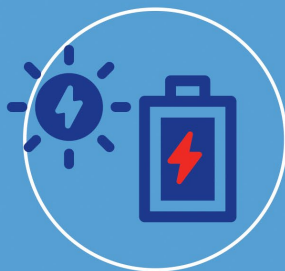
Electricity distribution businesses have the opportunity to (and are expected to at the local level) contribute to the climate change response in a myriad of ways, including through the provision of supporting infrastructure and SAPs, public lighting upgrading, demand management programs and data sharing.

Themes by  
stakeholder group  
– Federal  
government

## Federal government climate change mitigation themes



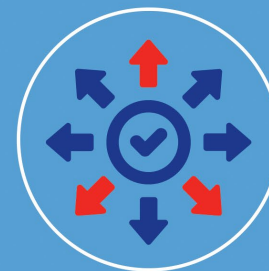
Australia will achieve net zero emissions by 2050 using a technology-led approach



Low-cost solar, hydrogen and energy storage are the Australian Government's top priorities



The private sector will be expected to lead deployment of these technologies at scale



The role of distribution businesses is not a strong policy focus, but is referenced in relation to distributed energy resources

## Federal government climate change adaptation themes



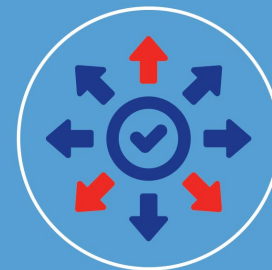
The Australian energy system has the potential to be highly vulnerable



Delivering a reliable and secure energy system is a key pillar of national energy policy, which includes a mix of both renewable energy and gas



Energy system resilience is not prominent in Australia's new adaptation approach, but there is focus on driving action through collaboration



Stand-alone power systems represent an opportunity for distribution businesses to contribute to improved network resilience

## Other federal government themes



Energy affordability is  
non-negotiable



There is a shared  
responsibility for  
climate mitigation and  
adaptation

Themes by  
stakeholder group  
– State government



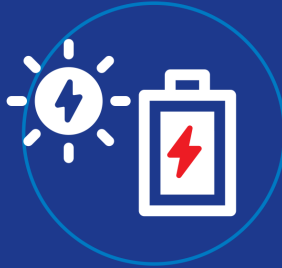
# State government climate change mitigation themes



The Victorian Government will achieve net zero emissions by 2050, and aims to half emissions by 2030



There is a strong focus on interim targets and sectorial based action at the state government level



Renewable energy generation and storage is a key priority for the state



Energy efficiency has an important role to play



The transition to zero emissions vehicles is accelerating



There is a focus on phasing out gas, and the potential implications for electricity

# State government climate change adaptation themes



Place-based energy generation and storage is considered a key mechanism for strengthening energy resilience at the state government level



Existing energy forums and frameworks are available to be leveraged to enhance network resilience

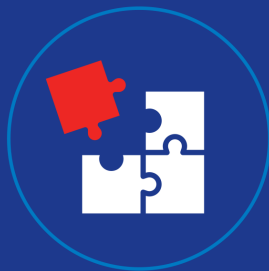


The energy sector should apply emergency management frameworks when considering climate adaptation responses

## Other state government themes



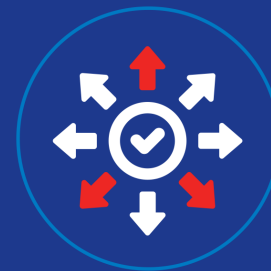
Victorians want strong climate action, and they want the private sector to play a key role



Working collaboratively is the key to effective climate mitigation and adaptation



Vulnerable Victorians must not be left behind



While not a key focus of Victoria's climate change response, distribution businesses still have an important role to play

Themes by  
stakeholder group  
– Local government

# CitiPower local government climate change mitigation themes



CitiPower's local governments are committed to net zero emissions, for both their own operations and the wider community



Renewable energy and zero/low emissions transport are both council and community priorities



Additional council priorities include phasing out gas, increasing energy efficiency and upgrading public lighting

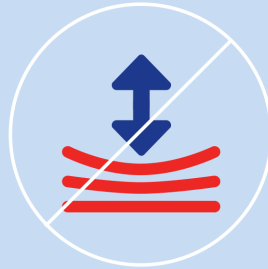


For the community, council is focused on capacity building and mobilisation to support achievement of emissions reduction goals

# CitiPower local government climate change adaptation themes



Majority of CitiPower's councils have set adaptation objectives, with a focus on resilient infrastructure, energy efficiency and capacity building



Energy system resilience is not a key focus of council adaptation approaches in CitiPower's distribution area

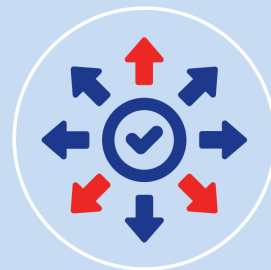


Helping vulnerable communities adapt to the changing climate is vital

## Other themes across CitiPower's local governments



Partnering with others will be critical for CitiPower's councils to achieve their climate action goals



Distribution businesses could play a role in facilitating local renewable energy projects, enabling increased renewable capacity and enhancing future precinct planning

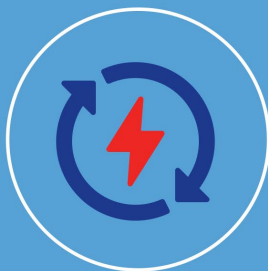
# Powercor local government climate change mitigation themes



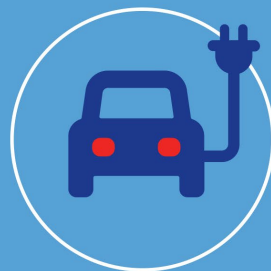
Majority of Powercor's local governments are committed to net zero emissions for their council operations



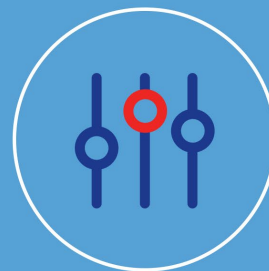
There are significantly less commitments related to community emissions reduction, when compared to corporate targets



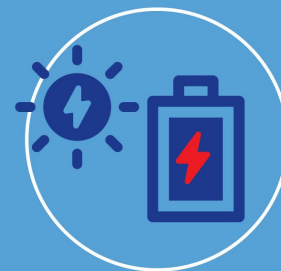
Council mitigation priorities include increasing renewable energy capacity and fleet decarbonisation, and energy efficiency measures



Community mitigation activities are primarily focused on supporting renewable energy and energy efficiency projects, and increasing the uptake of electric vehicles



There are differing levels of maturity in how local governments within Powercor's distribution area are responding to climate change



There is a strong interest in solar and battery storage technologies



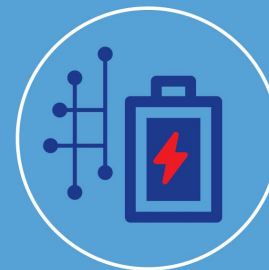
# Powercor local government climate change adaptation themes



There is significantly less focus on climate adaptation by Powercor's local councils, when compared to mitigation



Adaptation themes include a commitment to reducing climate impacts, building climate resilient infrastructure and increasing community preparedness

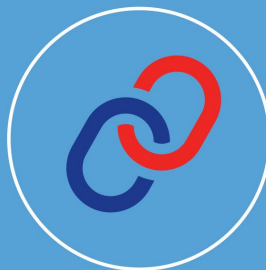


Microgrids and batteries have been identified by some councils has mechanisms for strengthening energy system resilience

## Other themes across Powercor's local governments



There is a strong focus on local and community-led projects



Many councils recognise the value of working with Powercor to achieve their climate mitigation and adaptation goals



Partnerships will be critical in support Powercor's councils to implement their climate change responses

# United Energy local government climate change mitigation themes



Majority of United Energy's councils are committed to net zero corporate emissions, and half have committed to a net zero community target



Key mitigation priorities for both council and community include increasing renewable energy and decarbonising the transport sector



Councils also have a strong focus on energy efficiency, and specifically public lighting upgrades



Technologies of most interest to United Energy's councils include solar and battery storage

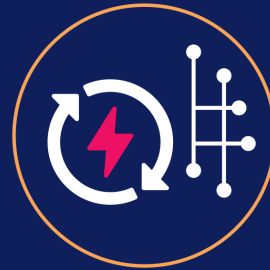
# United Energy local government climate change adaptation themes



Climate adaptation received less attention in United Energy's local government climate plans, when compared to mitigation



Majority of councils have put forward a general commitment to adaptation and resilience, as opposed to targeted action areas



Microgrids, energy efficiency and demand response programs have all been highlighted as potential mechanisms to strengthen energy system resilience

## Other themes across United Energy's local governments



Most councils have expressed interest in working with United Energy to deliver their climate change response



It is acknowledged that partnering with different stakeholder groups will enable more effective climate action

Themes by  
stakeholder group  
– Local  
sustainability group

## Key themes across CitiPower's local sustainability groups



Melbourne residents feel are concerned about climate change, and are motivated to take action



Local groups are in favour of a rapid transition to net zero emissions, and feel that some of the current targets are not up to scratch

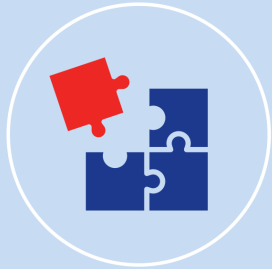


Working towards 100% renewable energy is a key focus for many of CitiPower's local sustainability groups



Local groups are committed to advocating for greater climate action

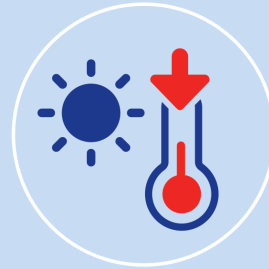
# Key themes across CitiPower's local sustainability groups



Some groups are focused on delivering practical on-the-ground climate solutions at a local level



Community mobilisation and education is a core aim of many local sustainability groups



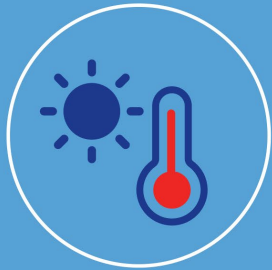
Majority of groups are focused on climate mitigation, as opposed to adaptation



The groups acknowledge that working together is the best way to effect change



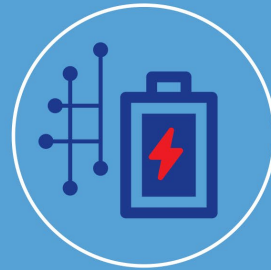
# Key themes across Powercor's local sustainability groups



Most communities within Powercor's distribution area have expressed high levels of concern about climate change, and are willing to act to address it



Local groups are highly supportive of net zero emissions, and have ambitious aspirational targets



There is a strong focus on local and community-led renewable energy projects, and in particular solar, batteries and microgrids



Some groups apply a social justice lens to their work, ensuring a just energy transition for all

## Key themes across Powercor's local sustainability groups



Energy efficiency projects are another key priority of many local sustainability groups



Adaptation is not the primary focus of most groups operating in Powercor's distribution area



Most local groups exist to facilitate community mobilisation, education and capacity building



Partnering and working closely with others is seen as highly important to delivering effective climate action

# Key themes across United Energy's local sustainability groups



Advocating for strong climate action and decarbonisation is the key focus of most local groups in United Energy's distribution area



There is a strong focus on community education in relation to climate issues



The groups are starting to explore opportunities for local renewable energy projects



There is a commitment to working together to drive change

Themes by  
distribution network

# Key themes across CitiPower's distribution network



Councils and local groups are strongly in favour of a rapid transition to net zero emissions



Being powered by 100% renewable energy, as soon as possible, is important



There is an opportunity to increase local community energy initiatives, particularly solar projects which have been explored at both the council and local sustainability group level

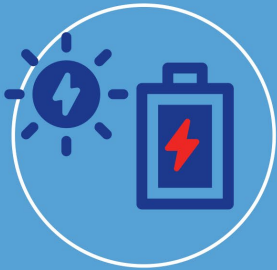


Community mobilisation, education and capacity building is critical to driving effective climate action



Councils and local groups recognise that working together and forming strong partnerships will support achievement of the communities' climate change goals

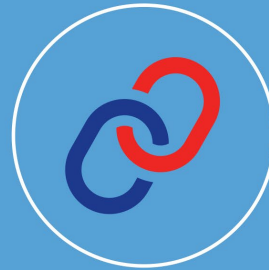
# Key themes across Powercor's distribution network



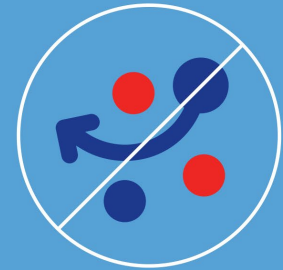
Facilitating local and community-led renewable energy projects is a top priority across Powercor's communities, with a focus on solar, batteries and microgrid technologies



Local councils and sustainability groups are committed to supporting communities to be more energy efficient as part of their climate change response



Developing close partnerships and working relationships across Powercor's communities, including with business, will help unlock the potential of the wider region and enable delivery of effective climate action on a regional scale



Climate change adaptation is not a strong focus of the local councils or sustainability groups operating across Powercor's distribution area

# Key themes across United Energy's distribution network



Decarbonisation is a key focus of both local councils and sustainability groups within United Energy's distribution area



Exploring opportunities for local clean energy projects aligns with both council and community aspirations



More work could be done on building climate resilience, which is not the primary of most councils or any local groups



United Energy's councils and communities recognise that partnering with different stakeholder groups will enable more effective climate action across the local area

# Key insights

- **Despite there being consensus across all stakeholder groups about reaching net-zero emissions by 2050, there are different plans on when and how this target will be reached.**
  - Australian Government → long-term view, interim target not considered ambitious.
  - Victorian Government → strong focus on 2025 and 2030 interim targets, more ambitious actions to be committed to as capacity and technology develops.
  - Many local councils and groups are committed to net zero before or by 2050, but there is recognition of the little control they have over community emission sources.
- **Developing Australia's clean hydrogen market is a top priority of the federal and state governments, however this is little focus on this at the local level.**
  - Clear strategies set by both the Australian and Victorian governments
  - The role that could be played by local councils or sustainability groups is not yet clear



# Key insights

- **There is significantly less focus on climate adaptation, when compared to mitigation, except for at the state government level.**
  - The adaptation strategies and plans included in this review were mostly high-level (or non-existent).
  - Victorian Government → only stakeholder group to provide an in-depth adaptation plan response via overarching strategy and sectorial action plans.
  - Indication from some local councils that there could be an increased focus on this in the coming years.



# Key insights

- **There are differing levels of maturity in how local governments are responding to climate change, both across distribution areas and within specific networks.**
  - All councils relatively on par from a corporate target perspective → those within Powercor and United Energy's distribution areas generally had limited plans for reducing community emissions.
  - Powercor → vastness of distribution area, and the different scale, size and resources of the communities within, have contributed to the differing maturity levels in responses.
  - Presents an opportunity for distribution businesses to help fill these gaps.
- **There appeared to be more recognition of the role that distribution businesses could play in addressing climate change by Powercor and United Energy's local councils, when compared to CitiPower.**
  - Recognition of Powercor and United Energy's ability to help local councils achieve their climate change goals → role of businesses highlighted in a number of plans.

# Recommendations

1. Use the existing **local government / distribution business collaboration work** undertaken by the Victorian Greenhouse Alliances to understand action take to date and inform future engagement with the alliances.
2. Use the **greenhouse alliances as key mechanism for engaging with local government** and coordinating regional climate and network resilience solutions.
3. Focus **attention at the local council and community level** as much as possible in order to make the greatest impact from their investment.



## Local Government & Distribution Network Service Provider (DNSP) Engagement Framework

The overall purpose of this framework is to assist Local Governments and (Electricity/Gas) DNSPs to establish a shared vision for an intelligent sustainable energy network.

Local Governments have developed five statements of intent to guide engagement activities with DNSPs in the areas of:

- Demand Management (Page 2)
- Public Lighting (Page 3)
- New Technologies (Page 4)
- Data Exchange (Page 5)
- Climate Change Adaptation (Page 6)

### Goals

The goals for the period 2017-21 are to:

- Work collaboratively on initiatives that reduce energy consumption, generate significant reductions in greenhouse gas emissions and save Victorians money
- Fast track the roll out of sustainable public lighting across the State
- Facilitate trials and assist in scaling up the deployment of new technologies and distributed energy generation
- Share data between sectors to deliver more efficient infrastructure planning and improve reporting and communication capabilities
- Increase the physical resilience of infrastructure and proactively address climate change risks

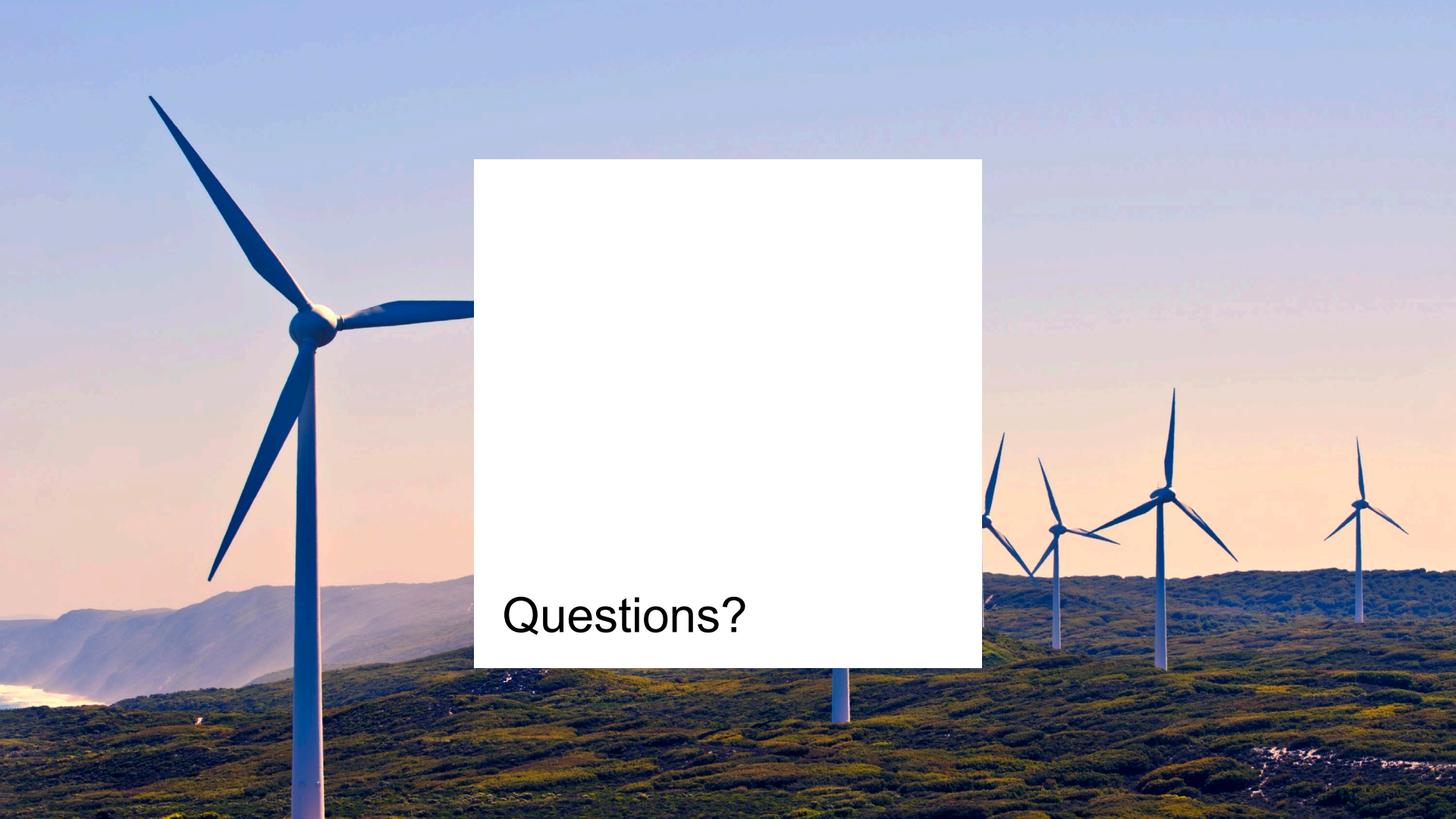
### Principles

Councils will seek to work under the following principles:

- Work collaboratively with DNSPs to deliver measurable best value financial, social and environmental outcomes for Victorians
- Leverage DNSP investment to support the delivery of key projects within Victorian communities
- Facilitate information exchange between DNSP regions to reduce inefficiencies of parallel or isolated programs
- Establish formal and coordinated engagement channels between the sectors

# Recommendations

4. Explore **involvement in existing forums** as a means to increasing understanding of stakeholder needs and driving more effective climate action.
5. Undertake **regular engagement with state and local government entities** (or representatives) to ensure the businesses are kept informed of any key policy changes.
6. Finalise a list of **key sustainability groups** to engage with, and start doing this on a regular basis.
7. **Powercor to support its local governments** (who lack resources) in developing robust plans to address climate change and network resilience.
8. Consider directing effort to **supporting (and helping to shape) the adaptation responses of key stakeholders** within CitiPower, Powercor and United Energy's sphere of influence.



Questions?