MOTT MACDONALD

Infrastructure Sustainability Council

Place based approaches to net zero

Australia & New Zealand

Produced by Mott MacDonald in partnership with the Infrastructure Sustainability Council

Contents

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Acknowledgements

We acknowledge the Traditional Custodians of the lands on which we carry out our work, acknowledge their deep connection to land, water and culture, and pay our respects to their elders past, present and emerging.

We respect the tangata whenua of Aotearoa and are committed to upholding the principles of Te Tiriti o Waitangi and to safeguarding te reo and other taonga.

Foreword

Manaaki whenua, Manaaki tangata, Haere whakamua
Care for the land, care for the people, go forward

The cities and regions in which we live, work and play are as unique and diverse as we are as individuals – no one is the same. While we are all working towards a common global goal of positive climate action, how that is delivered from place-to-place needs to be responsive to the specific context, strengths and vulnerabilities of those communities – particularly if we want to leave a lasting positive legacy.

Infrastructure has a leading role to play in delivering climate action. Infrastructure enables up to 70 per cent of emissions through the way we plan, design, build and use infrastructure assets. It is in the consideration of user needs, and the use of our assets where we have the greatest potential for impact, leveraging our influence on the lifestyles, communities and the economies we enable.

Climate change is a complex crisis that will require a systems-based solution.

We will only succeed through challenging ourselves to reach beyond the constructs, and silos, of asset class and life cycle stages. We need to listen.

Taking in and hearing what our stakeholders and our communities believe they need and what will actually work. It will require a thousand acts of bold leadership daily, to rise beyond competitive thinking and short-term goals, to work in partnership and collaboration towards a common purpose that extends beyond our lifetimes.

Together with our partners Mott MacDonald, we have reached beyond and challenged the constructs. A Place based Approach to Net Zero is shared with a spirit of collaboration to help enable and accelerate positive climate action. This is a call-to-action for the infrastructure sector to lead by example, thinking globally, acting locally in the cities and regions in which we live, work and play.

Let's work in partnership with communities, government, business and industry to bring place based practices to life for local livelihoods and global impact.

Ainsley Simpson
CEO Infrastructure
Sustainability Council.

Rapid decarbonisation is needed to meet our climate challenge and cities and regions have a critical role to play in the drive for net zero. We also need to ensure that our decarbonisation efforts are equitable and contribute to the wellbeing of communities.

Executive summary

A place based approach acknowledges that the implementation of net zero commitments and goals will be more successful if the solutions both relate to the unique context in which they are applied, and mobilise localised resources, action and engagement.

Place based solutions to net zero provide multiple benefits such as:

- Mobilising enthusiastic local investment and resources on locally applicable solutions that are not otherwise visible to the market, thus accelerating much-needed scale-up of net zero solutions.
- Accelerating community buy-in to the lifestyle changes needed, through an understanding of local concerns and motivations
- Increasing the opportunity and likelihood of success to achieve net zero mandates.

The need for local action

All branches of government have critical roles to play in the success of a net zero future in Australia and New Zealand. With mandates across government and major centres of production and consumption, an estimated 70% of Australia's carbon emissions come from the infrastructure sector. Many tiers of government are already committed to a place based approach – we need to leverage this to make sure that local governments and communities have the power to directly influence many of these emissions.

A systems approach

Implementing net zero solutions in the infrastructure sector is complex. When change is needed, especially on the scale required to achieve net zero, a systems approach that looks at the interconnectedness of infrastructure rather than at the sector and sub-sectors in isolation, has the potential to unlock barriers.

The business case

A local systems approach can derive previously untapped value by capitalising on co-benefits that are only visible or implementable at a local level, but generate resilience across the whole system. This kind of approach can reduce the overall whole-life cost. Treating a community or urban centre as a system-of-systems can help authorities understand where potential points of failure exist and highlight the best places to instil new resilience, resulting in lower long-term costs.

Place based solutions

Place based solutions engage local solutions to net zero that are based on the principles of co-design, cross-sectoral systems thinking, outcomes focus and creating new potential not previously evident from a top-down approach. Successful net zero solutions that are place based connect all urban systems; buildings, infrastructure, utilities, transport, water and waste together with digital solutions. This same approach is also applicable to climate resilience.

A new approach

A faster route to net zero through a **four-pillar** strategy

Collaboration between governments, industry, business and communities is needed in the following four areas:

1.

Powers

A remit for net zero action and mandate to facilitate low carbon interventions.

2.

Partnerships

New forms of partnerships are required across all branches of government together with the private sector and communities to plan, design, enable and fund innovative, resilient and future-focussed net zero solutions.

3.

Platform (data)

System-level data must be used to improve integrated planning, the transparency and replicability of decision-making and to track outcomes such as carbon reduction, health, and economic benefits.

4.

People

New skills and resources must be developed within all levels of government to manage these new power relationships and partnerships, and to learn how to act on new data insights.

Powers & Partnerships in action

In Australia, many branches of government are seeking place based outcomes. Key recommendations included in the 2021 Australia Infrastructure plan are the need for place based outcomes for communities with place-centric infrastructure investment, and reform and building resilience by considering systemic risks and interdependencies. The plan is underpinned with a 'focus on population growth, adaptation to climate risk, building resilience, stimulating employment, driving economic productivity, embracing a diversity of places and social equity.'

Governments are increasingly working together to plan and deliver innovative, cross-government and multi-sector solutions for places and communities. The Western Sydney City Deal is an agreement signed in 2018 between the federal and state government together with eight local councils in the Western Parkland City. The 'City Deal' is a collaborative, tri-government approach to drive and coordinate a significant place based infrastructure and investment agenda. In this context, securing place based net zero solutions is starting to be seen as a critical part of the reform agenda, and is well positioned to address growing community calls for action.

Case study

A leap forward for Bristol, UK

Bristol City Council recognised the need for partnering innovation in its City Leap initiative; bundling a series of energy and infrastructure investment opportunities into a far-sighted prospectus representing more than £1bn of investment towards Bristol becoming a zero carbon, smart energy city by 2030.

The council issued a call for potential organisations, investors and innovators with the vision and energy to join them in becoming the architects of Bristol's sustainable future – to create jobs, maintain economic competitiveness, decarbonise the city and empower people to take their future into their own hands. Three consortia have been chosen to progress through to the final stages of the procurement exercise.

Find out more.

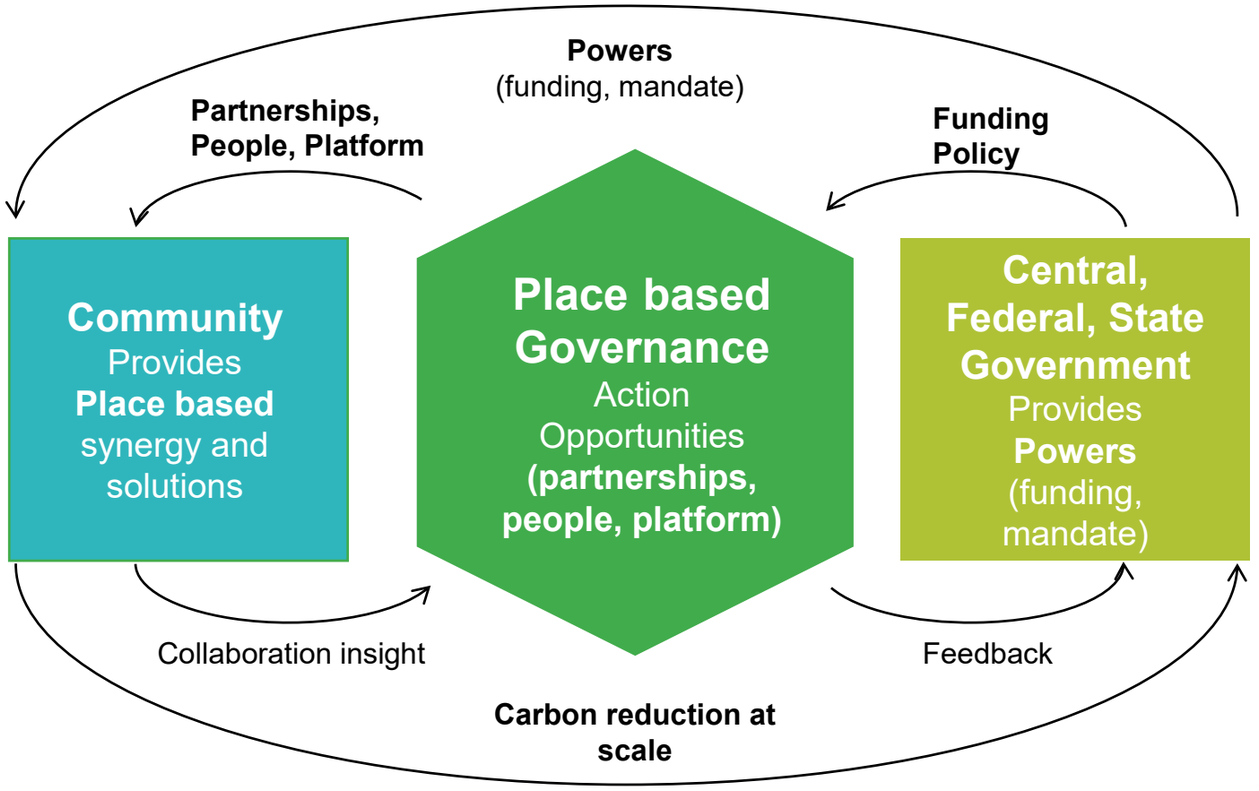
2030
deadline for a zero carbon Bristol

Place based governance

The continued and coordinated collaboration required to overcome significant systemic barriers can be fulfilled with bespoke place based governance that facilitates the individual and collective development of Partnerships, People and Platform. With representation from tiers of government, regulators, industry, and the professions, effective governance can set the vision, align key stakeholders, resolve complex interfaces, and enable expert facilitation among all parties.

This would include capability building for local government in 'systems thinking'; disseminating information through data platforms; promoting a community focused standardised net zero measurement approach; facilitating industry partnerships; monitoring and sharing of progress; and supporting management of risk for early adopters.

More work is required to establish its structure, purpose, accountability and membership, but with good governance in place, cities can confidently unlock the benefits of a place based approach to designing and delivering their net zero programmes. As such, government can confidently set up federal mandates, release powers and provide funding.



City Rail Link Project

Case study

At NZ$4.4 billion, City Rail Link (CRL) project in Auckland is the largest single transport infrastructure project undertaken in New Zealand, and the foremost transformational project in the next decade for New Zealand's largest city. CRL has been inspired to deliver construction in a way that creates lasting and positive benefits for these communities. This commitment is anchored in a long-standing and positive partnership with eight Auckland iwi represented on CRL's Mana Whenua Forum.

The Forum developed Mahi Rauora Aratohu (guidance for the work on the health of all things) – a world-first ISC infrastructure sustainability manual – which ensures that CRL's outcomes are compatible with te ao Māori (the Māori worldview).

Find out more.

1

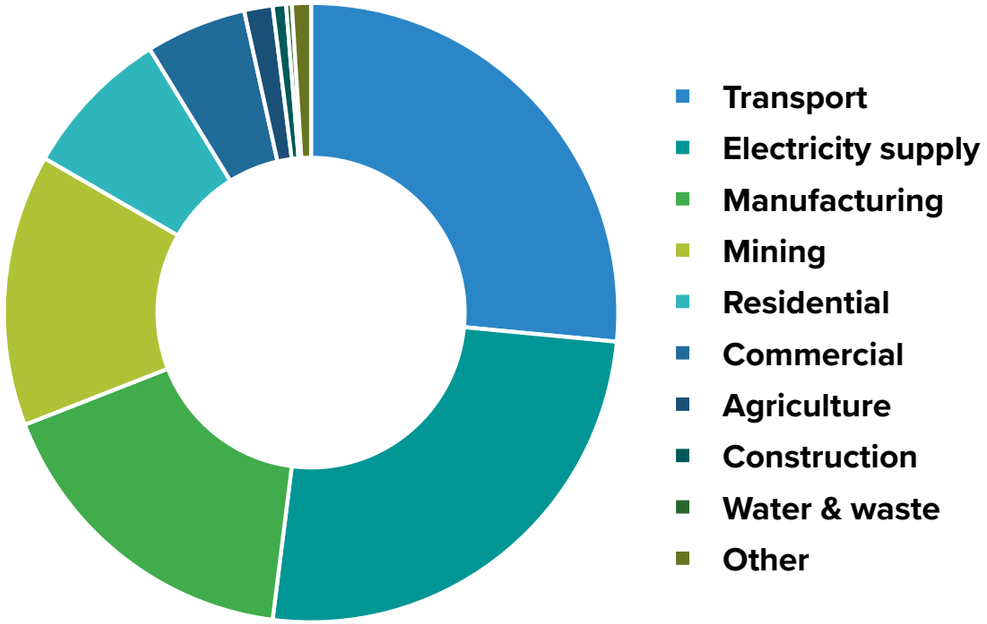
Why we need a systems approach

1.1 Barriers for achieving net zero in Australia and New Zealand

Whilst many of the solutions to the climate crisis exist today and are beginning to be implemented, particularly at the buildings and precincts scales, there are many barriers to them being implemented rapidly and at scale across infrastructure.

The barriers of power, jurisdiction and systems complexity have made it difficult for governments to bring clarity to the role of cities and regions in the net zero challenge. It is apparent that:

- Communities and urban areas currently do not have the control or power to directly influence all of the infrastructure and emissions within their boundaries
- Whilst most levels of governments have set net zero targets and ambitions, this has not translated to a unified mandate for action and change across the infrastructure sector
- The biggest reduction potential for cities and regions is in the areas of transport, energy and buildings, as they are sectors with multiple and interrelated decarbonisation components
- While some progress has been made, cities and regions may not have full knowledge of the interconnected systems within their boundaries and how place based solutions can be applied. Investment in infrastructure does not contribute to wider net zero ambitions in the context of place as well as it should.
- The layers of government often do not work together to support reduced vehicle travel kilometres and net zero transport solutions including active transport and e-mobility
- Infrastructure investment is not leveraged to enable place based solutions and city-scale net zero transitions.
- Land use planning for peri-urban and regional growth areas expanding into agricultural and/or natural land often does not take into account the negative implications on reaching net zero from biodiversity and climate impacts



Australian energy consumption, by sector (% of)
Source: Australian Energy Update 2021

Case study

Canberra net zero ambitions

With a commitment to reach net zero by 2050, Canberra is participating in the Cities Power Partnership to learn from other cities on how their efforts to reduce emissions can be applied in Canberra. As part of this transition, they have adopted 20 hydrogen vehicles and are utilising the first public hydrogen refuelling station in Australia.

Find out more here.

1.2 Cities and regions are a complex system of systems

Cities and regions are made up of an interconnected system of systems: environmental, social and economic. Our built environment is a system of buildings, utilities, transport and public domain, which operates within the wider city or regional system. As major centres of production and consumption, cities feature concentrated and complex infrastructure systems that operate within and between multiple city stakeholders across the private, public and third sectors, each with their own geographic scope and variety of functions and responsibilities. This complexity lends itself to a systems approach when change is needed.

It is only by understanding the unique context of a city or region and its systems that we can truly conceptualise the net zero solutions, opportunities and barriers.

To meet our climate challenge we need to leverage change within all of these systems and at all levels.

We need to not only decarbonise our city and regional systems, we need to leverage efficiencies within systems to do more with less and support the transition within systems and places.

An integrated systems approach is required to transition city and regional systems to net zero. Through digitalisation, community challenges and opportunities can be better understood and system efficiencies can be identified and implemented.

Collaboration and new innovative models of governance and partnerships should be introduced to overcome barriers and enable transition at pace.

70%
of the Australian population and,

86%
of the New Zealand population live in cities or urban areas

40%
of Australian GDP comes from regional areas

Case study

Watercare carbon reduction program

Watercare recently developed the first programme-wide capital carbon baseline in Australasia for their 9-year infrastructure, NZD 2.4 billion programmes of works. Through identifying the capital carbon hotspots across their portfolio, they took their first steps in their carbon reduction journey through embedding low-carbon thinking with an emphasis on challenging project requirements, innovative design, and efficient construction.

Watercare were able to use this knowledge to set a point of reference as well as identify key hot spots to achieve their enterprise goal of 40% capital carbon reduction and associated 20% reduction in capital expenditure by 2024 (as well as a 20% improvement in healthy, safety and well being outcomes annually). The baseline provided a detailed breakdown of their delivery programmes carbon footprint to target effort where the greatest reduction opportunities lay using the PAS 2080 Carbon management in infrastructure standard principles.

To ensure that Watercare attained their carbon reduction target, key partners such as design consultants were provided with Moata Carbon Portal, a digital tool that enables effective and efficient calculation of carbon and identification of carbon hotspots throughout the design process, encouraging low-carbon optioneering even at very early stages. The Moata Carbon Portal continues to be used on a regular basis by their enterprise team, covering suppliers, designers, contractors and Watercare staff.

“Thank you for bringing your skills and expertise to the table to support our desired carbon reduction outcomes at Watercare and the flow on effect this can have in the industry. The opportunities are enormous and as they always say, what gets measured gets managed, so your support in baselining and tools for optioneering has been critical. This is new information for us and it gives us the opportunity to make better, future focused decisions. We look forward to reduced carbon emissions being normalised as a currency in providing value through infrastructure.”
–Chris Thurston, Head of Sustainability, Watercare Services Limited

Find out more here.

2

The business case for local action

2.1 Making the business case

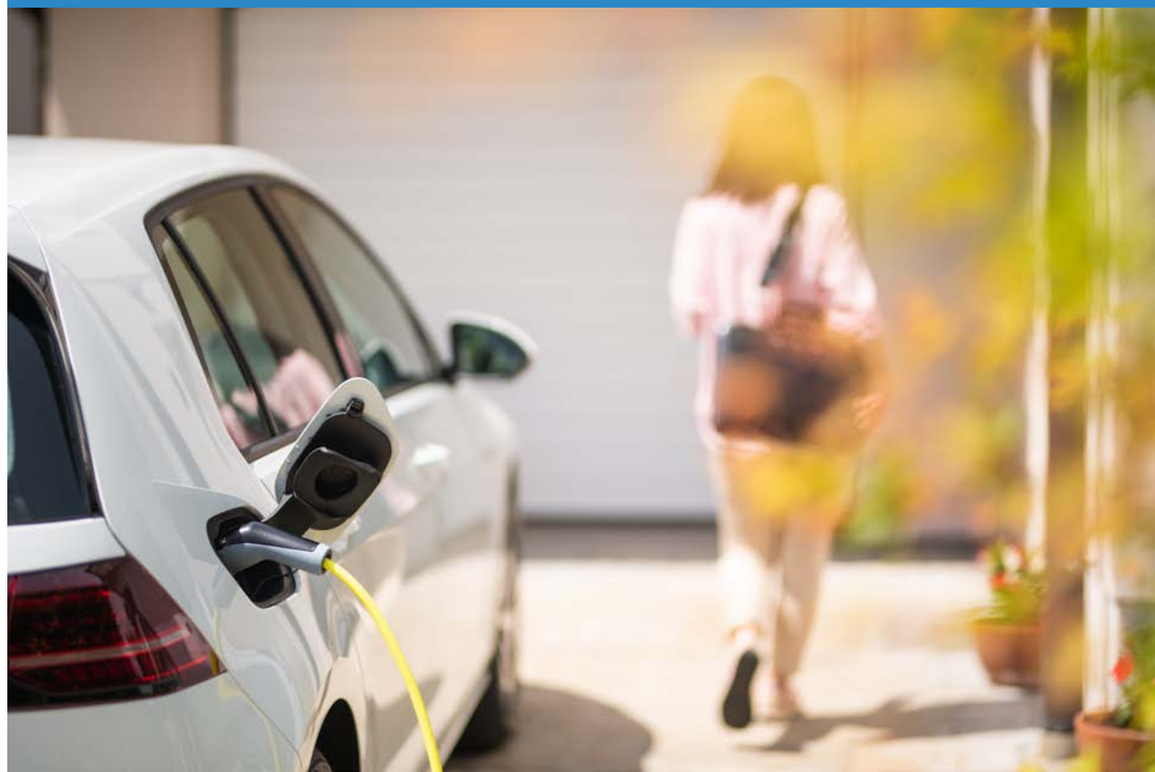
Over the next decade, $20 billion has been allocated to be invested in low emissions technology to support the transition to net zero in Australia. In turn this is expected to unlock $80 billion of total private and public investment (Department of Industry, Science, Energy & Resources 2021).

The net zero transformation will undoubtedly involve costs that are not reflected in our current markets. But that is also true of value; a local systems approach can derive previously untapped value by capitalising on co-benefits that are only visible or implementable at a local level, and can reduce the overall whole-life cost. It can also reveal potential risks in the system, which if unmitigated would manifest as cost.

The interdependency of the systems operating within cities – the roads and railways, the hospitals and schools, the energy, water and data networks – means that they can be disrupted by an escalating breakdown of service. In many instances of system failure, it falls to the state and local governments to bear the costs of system failures and finding their solutions.

The inter-connections and vulnerabilities of systems mean that there is a strong case for governments to look holistically at the services operating within their boundaries. Treating the city and regions as a system-of-systems can help governments understand where potential vulnerabilities exist, and highlight the best places to instil new resilience, resulting in lower long-term costs for the city and regions.

In 2016 in South Australia a regional 'black system event" was triggered by tornadoes with wind speeds in the range of 190–260 km/h causing damage to electricity infrastructure. Some 850,000 South Australian customers lost electricity supply, affecting households, businesses, transport and community services, and major industries. Whilst the first customers had power restored on the same day, it was 11 days before all customers were finally reconnected (AEMEO 2017). Business SA reported that direct costs to businesses in South Australia as a result of the event totalled $367 million, not including follow-on costs to implement the recommended measures to mitigate the risk of similar major supply disruptions occurring in South Australia.



2.2 Empowering local communities

Local communities are intrinsic to the net zero conversation, given that they are part of delivering the solution. Their behaviours, perceptions and priorities may have been derived through decades of precedent, but in this current time of disruption when there is a need for significant change, it is appropriate to delve deep into the motivations that drive behaviour, to release new funding and resources, enable new operating models and reduce resistance to change.

Case study

Hobsonville Point Modal Shift Project

Great opportunities exist to influence the travel behaviour of residents and visitors as part of the ongoing development of the Hobsonville Point community. Kāinga Ora have set overarching sustainable transport targets for all of their developments. They are currently reviewing how relevant these are for the Hobsonville Point community and how these targets will be measured. The safe and convenient movement of people on foot or on bikes within the community has been made a priority. The coastal walkway also allows residents to walk or bike ‘off road’ between their homes and the schools, parks, shops and ferry wharf. Living in a walkable neighbourhood reduces the need for families to own more than one car.

Potential targets may include the percentage of children who walk to school; or the number of adults who ride a bike to work; or how often people walk or ride a bike to get to local shops and services.

A range of measures are being investigated to assist in meeting these targets, and a key focus is around behaviour change by working with the community to build their skills using non-car forms of transport. Improvements to cycling facilities in the area are expected to occur, and their construction would make it safer and easier for people to ride a bike.

Find out more here.

2.3 Digitalisation

Digitalisation is key to better identifying and understanding city and regional systems, system efficiencies and their solutions.

The increasing availability of data will assist in understanding how these systems interact. It will enable better decision-making, more effective use of assets, and improved predictions of cause and effect. System resilience to climate change and other potential future shocks can be improved as a result.

Governments have considerable convening power to mobilise relevant partners and promote collaboration. They can use their position as the democratically elected main provider of public services in a city or region, and as a land and asset owner, to catalyse local innovation that can be scaled and to encourage partners to add value in order to accelerate learning, knowledge and implementation.

The socio-technical systems transformation also requires change at the community level. The availability of data can help with messaging and providing information to the community to leverage behaviour change. People who may not understand or be motivated by the climate change agenda can be inspired by issues that have a more direct and local impact, for example in improved health. Making visible the consequences of different decision-making pathways through data-driven solutions can play a huge part in understanding what society values and what concessions people are willing to make for a resilient future. With the insights that can direct the conversation to local issues, cities and regions are well placed to create this dialogue.

Case study

Wellington makes strides on carbon footprint

Wellington, New Zealand, has been tracking its carbon footprint since 2001, achieving a reduction in total gross emissions during this time of 7% against successful economic growth (24% population growth and 59% GDP growth) and showing that the city has been successfully decoupling emissions from economic growth.

With the data collected, the city has been able to create a robust plan to make Wellington a zero carbon capital by 2050. It has also developed New Zealand's first gamified carbon calculator, FutureFit, to help its people to make choices to reduce their impact on climate change. FutureFit lets people in Wellington work out the carbon impact of their lifestyle and choose positive changes in the way they live to help reduce it.

Find out more here.

7%

reduction in Wellington's carbon footprint since 2001

3

Place based solutions for net zero

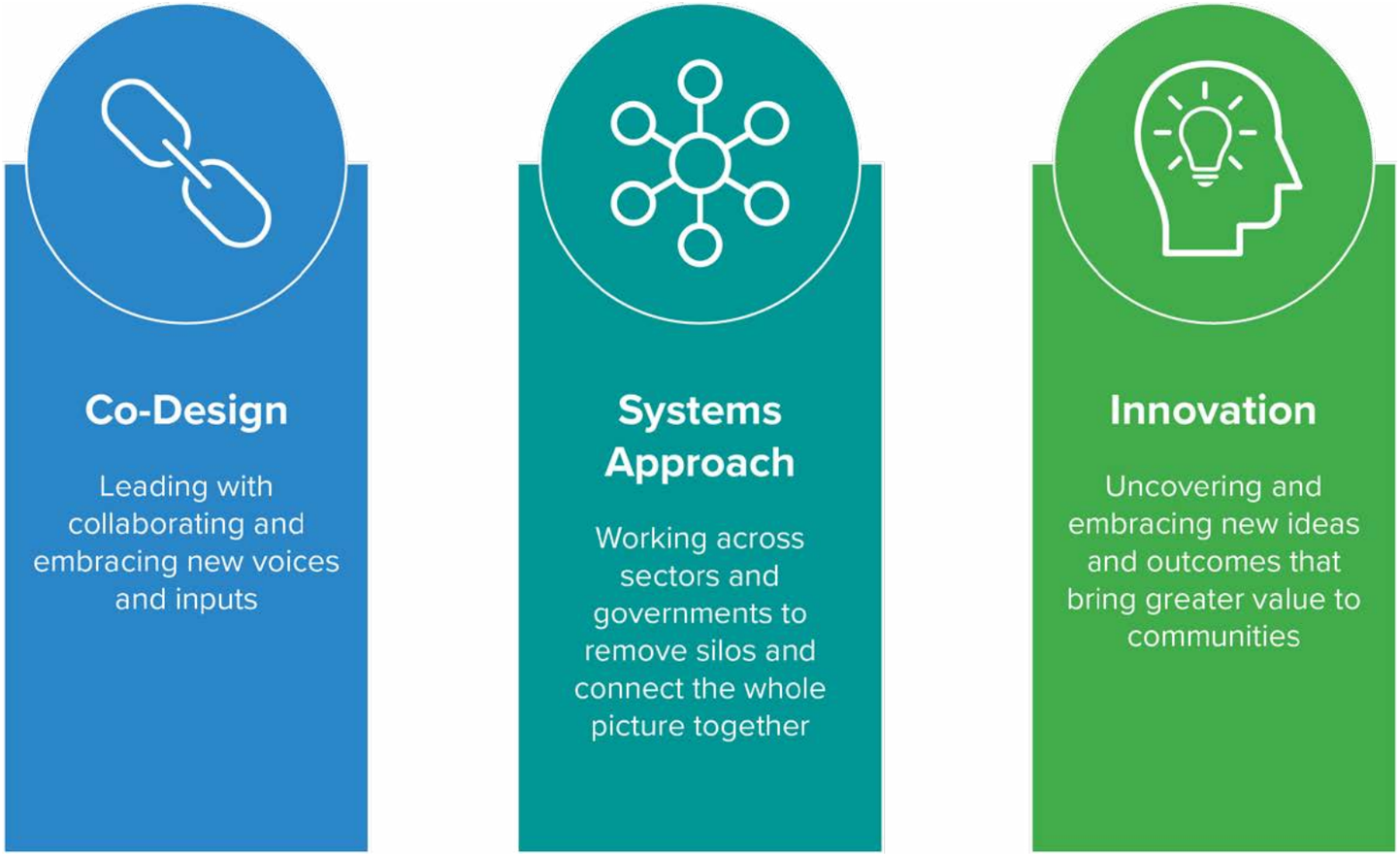
3.1 The principles of a place based approach

To build on the momentum emerging around a place based approach, the principles of how we conceive of, plan for, implement and operate our city and regional systems must change to embrace a different cross-sectoral governance structure.

Co-design with communities and with a nature-positive approach at the inception of a project is key to a place based solution. It allows community benefits to be realised, ensures positive environmental outcomes and provides the foundation for a systems approach to be achieved.

A **systems approach** to infrastructure as part of an interconnected system ensures that net zero solutions can last and survive the test of time. A systems approach is not easy, it requires bringing interdisciplinary thinking to the table at the start of business cases so that projects are not conceived in isolation from communities and the diverse ecologies they are part of.

Innovation allows new opportunities to be realised that could not have been conceived without a co-design and systems approach, bringing greater value to communities.



3.2 Place based solutions for transport

In transport, a place based approach to net zero would also uncover the co-benefits to solve other pressing social issues such as health, wellbeing and safety. With a place based approach, decarbonisation is not achieved in isolation to solving critical community or social issues.

For example, improved air quality due to a reduction in use of fossil fuel vehicles will lead to a reduction in non-communicable disease such as asthma. Cities and regions can enhance the uptake of decarbonised road vehicles: for example, through preferential treatment of electric vehicle users. Restraint-based parking standards can reduce the attractiveness of the car for short trips. Greening transport corridors can enhance urban cooling. By improving alternative choices, through spatial proximity and provision of digital infrastructure, communities can increase social and economic resilience and influence society's reliance on motorised transport. There are multiple benefits to such a modal shift, from improved local high street trade, due to increased footfall, and dwell time to the health and wellbeing benefits of active travel.

Case study

Parramatta Light Rail Green Track

Hosting Australia's longest stretch of green track, the new Parramatta Light Rail has designed integrated grass as a sustainable alternative to concrete.

Reduced carbon was a key goal for this project, with 81 percent less concrete used than expected during the construction phase. Long-term, the green line will provide critical support in urban cooling, improving health and wellbeing amongst residents for a city affected greatly by the urban heat island affect.

Find out more here.

3.3 Place based solutions for utilities

Achieving net zero will involve a transformation in how energy is produced, transmitted and consumed. The impacts and costs of this challenge will be reduced if we make the energy we have go further through place based energy reductions and distribution efficiencies.

The benefits of a localised and place based energy transformation could be even more profound. Energy storage is a prime example of systems thinking in action. Currently, flexibility within our energy system is provided predominantly by adjusting generation to suit demand, but this will need to change as we rely more on inflexible renewable generation. Digitalised, decentralised energy systems create an opportunity to access the flexibility that exists in the end-user part of the system, that is in the thermal mass of buildings, the heating and cooling systems, or the batteries within electric vehicles. This means that cities and regions represent a huge dormant flexible asset. Not only can they spearhead local area energy planning to create visibility of opportunities for flexibility, but they can also catalyse the development of business models to mobilise local interests and support local employment.

Many of the solutions to decarbonising community energy use will require collaboration between the public and private sector on joint local low-carbon energy schemes, whereby communities bring the opportunity and the energy utility companies and their backers bring both the investment and the delivery know-how. However, local governments are not currently equipped with sufficient knowledge of the complexity of the energy system to successfully facilitate such arrangements.

Case study

Tesla Virtual Power Plant

South Australia VPP is designed to provide more affordable, reliable and secure electricity for all South Australians, while increasing homeowners' visibility of their energy use, and supporting South Australia's transition to a renewables-based economy. The VPP operator uses WiFi technology and sophisticated software to charge or discharge energy from the batteries and trade it on the National Energy Market (NEM).

Find out more here.

3.4 Place based solutions in land use and urban planning

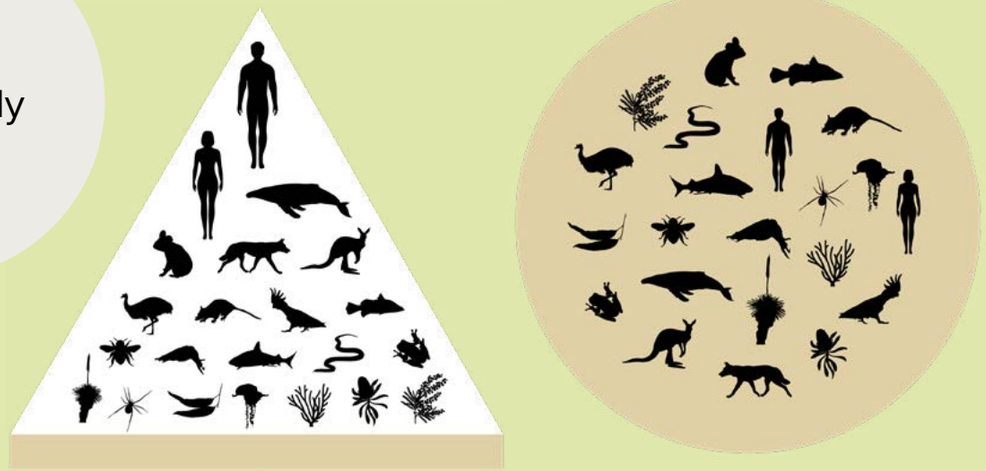
Looking at land use and urban planning through a place based net zero lens is likely to stimulate an appreciation of wider benefits. Our planning solutions have historically been based on maximising benefits for people in terms of gross floor area, efficiency in travel and having a healthy mix of uses and facilities. However, there are recent moves towards acknowledging that the cities and regional centres that we create will be more beneficial for people if they also create positive impacts for ecologies and the other species that co-habitat with people. Valuing nature for its natural carbon sequestration benefits will lead to consideration of nature based solutions in the urban context such as green and living infrastructure.

A ‘Connecting with Country’ approach builds on and strengthens emerging place based initiatives. It provides a framework for urban planning to be influenced by indigenous leadership and cultural history and ensures that all species can thrive together with people.

Steps towards this approach involve nature based solutions, green and living infrastructure, mini urban forests and living walls and roofs. Community gardens nestled into our urban fabric provide places for social cohesion, joy and interaction. The movement to re-wild our cities has emerged in acknowledgment that when the majority of a countries population lives in urban areas, such as in Australia and New Zealand, a strong connection to nature can increase happiness, cognitive function, productivity and focus.

Australia has lost significant amounts of biodiversity over the last 50 years. Increasing biodiversity brings benefits such as reduced heat, improved air quality, lower energy use in buildings, and more resilience to flooding. These benefits need to be incorporated into business cases as having significant monetary value.

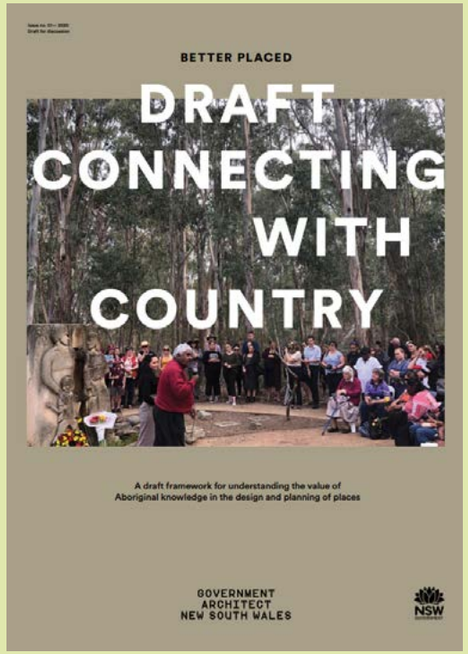
Case study



Human-centred or Country-centre:
Image Diagram adapted from German architect Steffen Lehmann, Eco v Ego

The Government Architect New South Wales ‘Connecting with Country Framework’ provides guidance on how to incorporate and prioritize a country-centred approach.

Find out more here.



Landscapes and places also carry strong cultural meaning – in particular to Aboriginal, Torres Straight Islander and Māori people. Connection to a place is intrinsic to the identity of a person, their connection to their ancestors and their community, and the world more widely. It also is directly linked to deep and ancient knowledge of those cultures. When poor planning is undertaken damage may be done to Whenua (land) or Country that transcends the physical. As well as affecting landscapes and the natural environment, it can impact sacred and cultural assets like marae (ancestral homes and meeting places), Urupā (burial grounds), Songlines and Sacred Sites. Space must be created to have First Nations and Māori voices heard and included in co-design processes from the earliest possible opportunity and ideally in co-governance as a project is delivered to ensure these issues remain to the fore.

4

Applying a place based approach to net zero in Australia and New Zealand

4.1 A call to action

It's time to do climate action differently. As a sector, our approach needs to be accelerated and results driven. This is going to require moving beyond traditional ways of working. Competition needs to shift to collaboration; our focus needs to shift to be additive, beyond profits and productivity, to include purpose and people. We need to bring global and local thinking together to deliver the rapid transition our towns, cities and regions need.

This paper highlights three clear actions that can be taken by all people in the infrastructure sector today:

1) Bring people around the table.

At all levels, infrastructure needs to be leading the convening and collaboration of cross sector stakeholders to co-design solutions to deliver net zero and positive climate action. Water operators need to be talking to transport designers; local government to investors; engineers with community.

The Infrastructure Sustainability Council will do its part by:

- Convening an ISC Member Coalition of committed infrastructure leaders to drive this approach forward by piloting placed-based practices across Australia and New Zealand.
- Being an active, inclusive community member and collaborator who partners across industry to help every person and organisation find their voice and role in delivering positive climate action and net zero places.

How to make it happen:

- Join the ISC Member Coalition, or in an act of collaborative leadership, start your own conversation. To be successful we need to join the dots, involving towns, cities and regions across planning, policy, practice and procurement.
- Start saying yes. Daily. Share knowledge readily, empower people and fairly allocate risk so co-design and co-ownership of outcomes delivers for people and organisations.

2) Rapidly invest to build our capability.

We need a bigger, better, more accessible toolbox. Climate action needs to be embedded in our systems, policies and culture so people are empowered to act.

The Infrastructure Sustainability Council will do its part by:

- Supporting the rapid rise of capability across our multi-disciplinary sector so that we have many hands lightening the load.
- Collaborating with members to develop common sector-wide tools, resources and systems that will support collective climate action for all.
- Making the IS Rating Scheme more accessible and scalable and through partnerships that embed sustainability in the digital-by-default agenda.

How to make it happen:

- Make sustainability and climate change the core objective of your digital agenda.
- Invest in your people by building their skills and capability, but more importantly empower them to challenge norms, think creatively and experiment with new ideas that have the potential to create positive change.
- Collaborate to develop common industry-wide tools, knowledge and systems that reduce the learning curve and normalise climate action.

3) Reconnect and realign with purpose.

Infrastructure is an enabler. Infrastructure is here to serve people, communities and the environment. This must be firmly in our sights as we deliver our once-in-a-generation infrastructure pipeline – people are why we do what we do. Profitability and productivity are supportive; solving the people problems that matter most is primary.

The Infrastructure Sustainability Council will do its part by:

- Advocating for sustainability and climate action to be a core objective of the infrastructure reform agenda.
- Creating opportunities for the sector to collaborate and develop ways of working that embed quadruple bottom line outcomes in infrastructure planning from earliest possible opportunity.
- Working with members to leverage, improve and invest in the IS Rating Scheme so assets serve and solve people problems and sustainability becomes our sectors culture.

How to make it happen:

Cement sustainability and climate action as a key objective of infrastructure sector reform agenda.

- Scale and leverage the IS Rating Scheme as our common ESG benchmark driving shared value for all infrastructure beneficiaries.
- Accelerate our transition to more collaborative ways of working through both contracts and culture and commit to putting people and places at the heart of what we do.

This report has been prepared by Mott MacDonald, Australia in partnership with the Infrastructure Sustainability Council.

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