

## 04. Essential Indigenous infrastructure

Mimili is an Anangu community on the Anangu Pitjantjatjara Yankunytjatjara (APY) Lands in the north west of South Australia. It lies approximately 645 kilometres south of Alice Springs. The population of Mimili ranges between 250 and 300 people, including a number of Piranpa (non-Indigenous) people who work in the community to support Anangu.



**Our goal** For remote Indigenous communities to have similar access to infrastructure as non-Indigenous communities of comparable size and location.

### Key challenges

The estimated number of people in Australia who identify as being of Aboriginal or Torres Strait Islander origin was just over 517,000 in 2006. Around 131,000 (26 per cent) of these people lived in remote and very remote areas. The remote and very remote Indigenous population is projected to grow by 13.6 per cent between 2006 and 2021.<sup>52</sup>

The *National Indigenous Reform Agreement*, endorsed by the Council of Australian Governments in 2008, commits all governments to 'Closing the Gap' between the life expectancy, infant mortality, education and employment outcomes for Indigenous and non-Indigenous Australians.<sup>53</sup>

These gaps are the result of inadequate health, housing and educational infrastructure and services. However, inadequate roads, water, power and telecommunications also play a critical role.

The provision of infrastructure for remote Indigenous communities remains one of the nation's key infrastructure-related challenges.



Supporting the efforts of small Indigenous communities in remote parts of Australia with the development of local solutions to their infrastructure challenges is a central focus of Infrastructure Australia.





*Although most remote roads are readily passable during normal weather, many communities are isolated for extended periods during the wet season.*

**“There is a serious deficiency in available infrastructure in remote regions... Poor roads and inadequate telecommunications services are impeding people from accessing services, education and training facilities and economic opportunities... The lack of infrastructure is a key risk to the success of the Council of Australian Governments’ ‘Closing the Gap’ strategy.”**

*The Strategic Review of Indigenous Expenditure by the Department of Finance and Deregulation, 2010*

### **The way forward**

Numerous programs are being delivered by the Australian, state and territory governments, supported by local government, to enhance the wellbeing of remote Indigenous communities. However, many of these programs are disconnected, ad hoc and have little reference to the priorities, desired outcomes and views of the end users.

The current arrangements mean programs often fail to meet their objectives, but even where they do, the lack of coordination means that they struggle to make a contribution to ‘Closing the Gap’.

Over the past 12 months, Infrastructure Australia has worked closely with key stakeholders on a draft policy framework for the provision of infrastructure in remote Indigenous communities.

This policy development process has confirmed that a different approach to infrastructure provision is required. Persisting with arrangements which have not delivered and are unlikely to deliver the desired outcomes is not an option.

Fundamental reform to how infrastructure is planned, prioritised, funded, delivered and managed in remote Indigenous communities is needed. Infrastructure Australia, in consultation with key stakeholders, is finalising the policy framework to do this.

The draft framework seeks to achieve greater involvement of Indigenous communities in infrastructure-related decisions and a more integrated approach to planning, prioritisation, funding and delivery. A key outcome will be a significant reduction in the dominance of government in making these decisions.



*Upgrading roads in parts of remote Australia can have a dramatic effect on improving local residents' access to services and employment.*

While a new policy framework can provide a structure for better decision making, the difficulty in its successful implementation should not be underestimated. Hundreds of extremely talented and focussed Indigenous and non-Indigenous people have wrestled with the challenges over a long time. Successive governments have allocated significant funding to help address the problems.

The new policy framework will seek to change the paradigm of what some would characterise as benevolent paternalism to one which is culturally respectful, empowered and self-determining.

Remote Indigenous communities will need to be supported in taking on significantly greater responsibilities. Governance arrangements will need to make individuals, communities, governments and other stakeholders confident that there is a strong likelihood of improved outcomes. Evaluation of the new policy's effectiveness will be part of the new framework.

## The future

Through further consultation with remote Indigenous communities, the private sector and all levels of government, Infrastructure Australia will finalise a policy framework for the planning, prioritisation, funding, delivery and management of infrastructure in remote Indigenous communities by the end of 2012.



**The Myuma Group represents the Indjalandji-Dhidhanu Traditional Owners from the Camooweal region in north-western Queensland**

The Myuma Group consists of Myuma Proprietary Limited (Myuma) and its sister organisation, Dugalunji Aboriginal Corporation. Myuma operates a successful road construction and maintenance business which employs and trains Indigenous people from northwestern Queensland and other regions. The Myuma Group employs 60 staff, of whom 70 per cent are Indigenous.

The Myuma Group's vision is to sustain people and country through Aboriginal enterprise. The philosophy of the group is that Aboriginal people need a commercial working base on country, which is the best way to provide and maintain Aboriginal employment and to create sustainable Aboriginal enterprises.

In 2000, the Indjalandji-Dhidhanu Traditional Owners negotiated an agreement with the Queensland Department of Main Roads for the planned major upgrade of the Barkly Highway between Mount Isa and Camooweal. These works, financed by the Australian Government and state governments, took place over a seven year period between 2001 and 2008, with a total value in excess of \$120 million. The agreement protected native title and Aboriginal cultural heritage

interests within the planned road corridor, and delivered meaningful training, employment and business development opportunities to local Aboriginal people.

Since 2008, Myuma has continued to perform annual road construction and maintenance work programs in the broader Camooweal region for RoadTek and the Queensland Department of Main Roads. In addition, the Myuma Group delivers two 13 week residential training programs annually. The *Dugalunji Prevocational Training Program* commenced in 2006 and currently trains 68 Indigenous job seekers per year from across Queensland for employment in the civil construction, general construction, mining, and rail sectors.

**“The Myuma Group’s vision is to sustain people and country through Aboriginal enterprise.**

**Autonomy gives us freedom to develop in ways that best meet the needs of our owners and the communities they serve.”**

**Colin Saltmere,  
Managing Director, Myuma**



**Connecting the Dots**

*A conference shaping the future of infrastructure in remote Indigenous communities*

In February 2012, the Myuma Group's Managing Director Colin Saltmere participated as a speaker and panel member at the national *Connecting the Dots* Infrastructure Australia conference in Alice Springs.

The conference focussed on the need for an improved method of engagement between the Australian, state and territory governments and Indigenous communities in the delivery of key infrastructure in remote areas. The conference recognised the need to engage Indigenous communities in all stages of infrastructure design, construction and maintenance programs in order to enhance sustainable Indigenous enterprise development and ongoing employment opportunities.

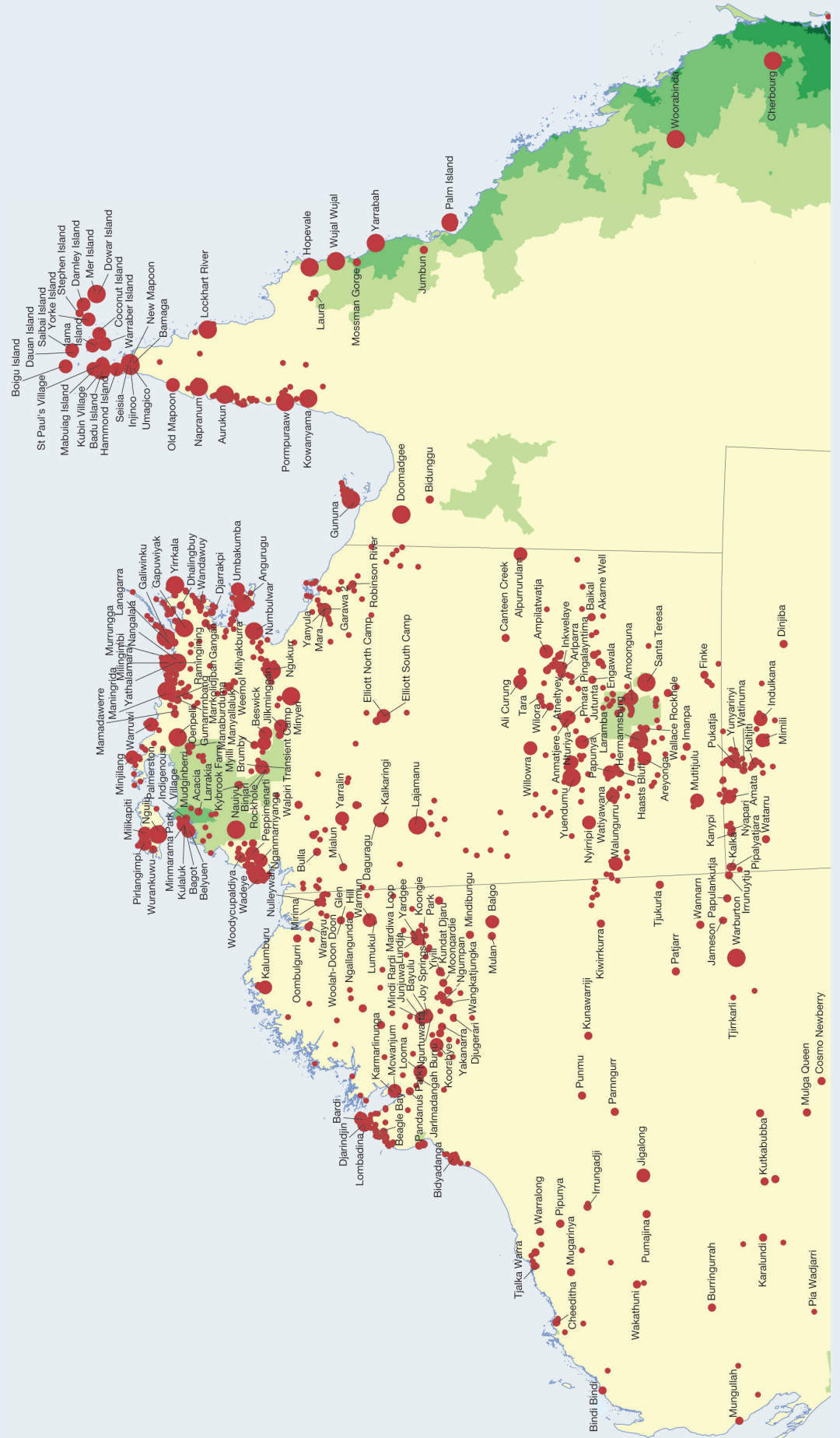
Colin delivered a well-received presentation on Aboriginal enterprise utilising the Myuma Group's not-for profit construction and training businesses as a case study.

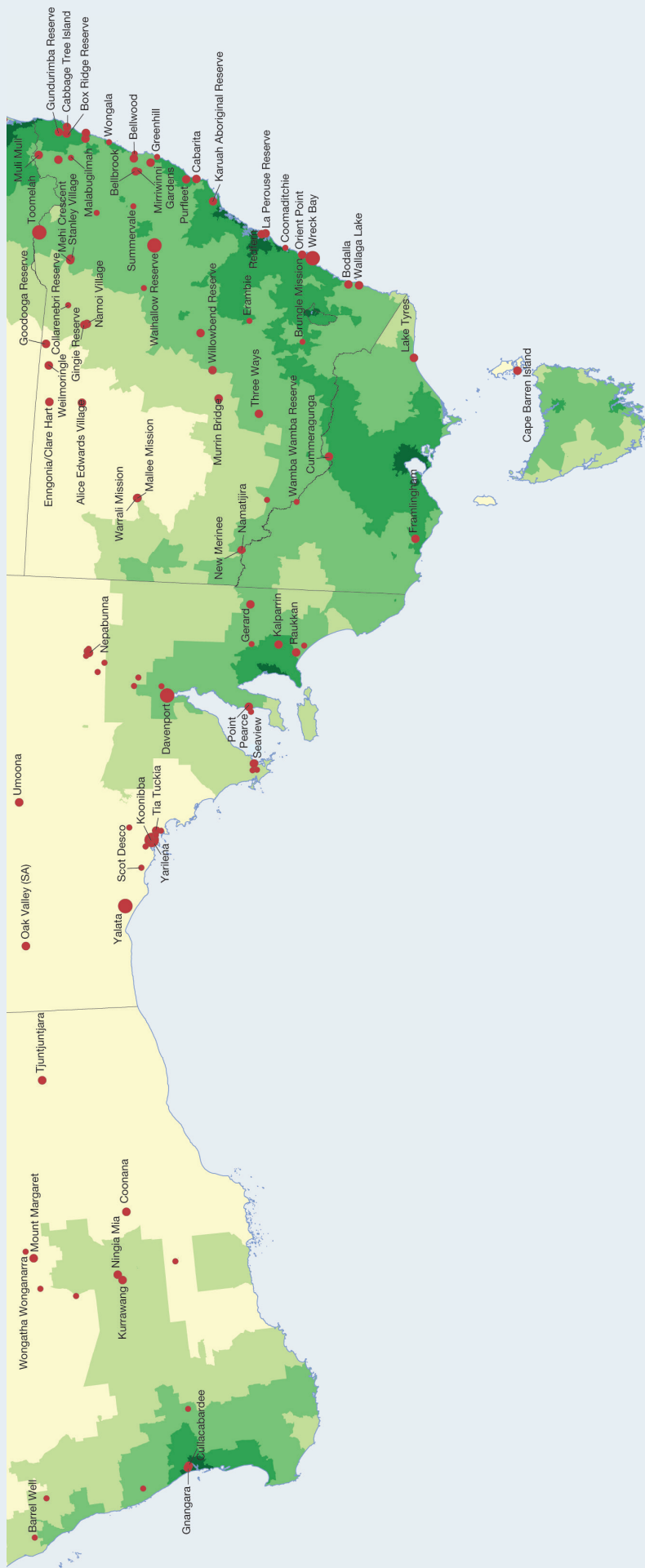


*Myuma's training program participants come from a range of regional and remote locations across central, north and north west Queensland.*

**Figure 10 – Indigenous communities across Australia**

Remote Indigenous communities are found across Australia. Over 130,000 people live in these typically small communities. Many are poorly served by limited and unreliable infrastructure networks.





Reported Population of discrete Indigenous communities

- 500 people or more
- 200 – 499 people
- 50 – 199 people
- Less than 50 people

Remoteness Areas

- Very remote Australia
- Remote Australia
- Outer Regional Australia
- Inner Regional Australia
- Major Cities of Australia

Source: Australian Bureau of Statistics: ABS Indigenous communities – Australian standard geographical classification remoteness structure







# 05. Adaptable and secure water supplies



The Tasmanian *Focus on Food Bowl* initiative is an economic development strategy with an accompanying infrastructure program, largely comprising irrigation schemes. The schemes aim to provide greater certainty in water supply. This increased water security has seen many farms shifting from low value to high value produce, such as poppies and pyrethrum, and transformed land use patterns in rural Tasmania. This image is of vegetable crops in Kindred, Tasmania.



# Our goal Secure, safe and sustainable water supplies for all Australians.

## Key challenges

In contrast to the energy sector, progress with important reform in water policy and regulation is patchy at best, and in some cases backward steps are being taken. This is not because the goals are disputed or the directions unclear.

In many of our major cities there is continuing government interference in the application of already agreed reforms.

In regional Australia, where small water utilities often struggle to provide reliably safe drinking water, reforms pose a significant challenge to both elected officials and to water managers. As a result, reform in regional areas has been very slow.

Reports from the National Water Commission and the Productivity Commission have supported the substance of Infrastructure Australia's earlier conclusions and recommendations on urban and regional towns' water (see below).<sup>54</sup>

Governments have introduced a range of measures aimed at 'drought proofing' urban water supplies. Although the cost of these measures is in effect an 'insurance premium' associated with maintaining supply in adverse conditions, parts of the community do not see rising water costs in that light.

**Infrastructure investment does not always mean big projects – meaningful small scale improvements can bring substantial benefits to our communities.**



*The broken curb and plants together form a stormwater biofiltration solution, retrofitted into a main street shopping area in Busselton, in the south of Western Australia. This is a good example of water sensitive urban design.*



## The way forward

### Major cities' water security

As Infrastructure Australia maintained in its 2011 report, reform in the major cities' water sector needs to be focussed on three broad areas:

1. improvements in supply and demand planning;
2. jurisdictions being prepared to consider and apply the full range of supply and demand management options; and
3. broadening the application of fully cost-reflective water pricing.

There has been very little progress in any of these areas, with instances of backward steps on cost reflective pricing, for example in south east Queensland.

Without reform in these areas, prices are likely to increase more than they need to because effective options are not being considered.

### Regional towns' water quality and security

An October 2010 report for Infrastructure Australia on regional towns' water quality and security highlighted that many small water utilities struggle to ensure reliably safe drinking water.<sup>55</sup> This was not news to anyone who lives in regional communities.

The report illustrated the limitations of the governance and institutional structures in New South Wales and Queensland in sustainably managing small towns' drinking water supplies. Reports from the National Water Commission and the Productivity Commission point to similar limitations, as did the 2008 Armstrong/Gellatly inquiry into non-metropolitan water services.<sup>56</sup>

## Reforms can provide communities with greater confidence in the reliability of their drinking water.

### Reform in regional water utilities

Infrastructure Australia is encouraging institutional reform of regional towns' water utilities in New South Wales and Queensland in order to provide consumers with greater confidence in their drinking water. There is a level of concern in some areas over the potential impact these reforms may have on the viability of some communities.

It is more than reasonable for communities to be sensitive to reforms that may threaten their ongoing viability, however, these concerns should be informed by evidence. And there is evidence that such concerns may not be warranted.

Victoria and Tasmania have moved from a model of local government provided water services to a much smaller number of regional water corporations. In both cases, the reforms have not resulted in the negative impacts on regional communities' viability that were feared before implementation.

The reforms have, however, provided communities with greater confidence in their drinking water, and they have resulted in better career opportunities for members of the community working in the water sector.



The proposal for reform of governance and institutional arrangements continues to face resistance from local government in New South Wales.

In an important development, the New South Wales Government has recently passed legislation and is developing regulations to improve the reliability of drinking water quality. Victoria, Tasmania and Queensland already have such regulations. Once smaller council and water utility managers begin to understand their personal accountability under the new law, there is likely to be an increased appetite to look at new arrangements.

In its 2011 report to the Council of Australian Governments, Infrastructure Australia recognised

that the weight of evidence and expert opinion was substantially aligned in relation to what needs to be done to assure city and regional communities that they will have a secure water supply that delivers drinking water of an acceptable standard. This is still the case.

### Murray Darling Basin

At this time, Infrastructure Australia has not been involved in debates about the Murray Darling Basin. We do not wish to duplicate the efforts of significant other bodies working in this area, and our current efforts are focussed on the areas mentioned above.

Progress with the development of water management plans for the Murray Darling Basin will be kept under review.

**The use of information technology can deliver cost efficiencies and improved sustainability of our water supplies.**



*The \$290 million FutureFlow alliance was established in northern Victoria in 2008 to modernise the existing irrigation infrastructure of over 6,300 kilometres of open channels. Using a world leading information technology based system, the modernisation has led to savings of over 30 per cent of water previously lost through leakage, seepage or evaporation. This represents a saving of, on average, 94 gigalitres (billion litres) per year, an amount equivalent to over 40,000 Olympic-sized swimming pools.*



## The future

Infrastructure Australia retains its view that there is a clear and strong case for reform in the management of major cities' and regional towns' water, and strongly endorses the reform proposals in the 2011 National Water Commission and Productivity Commission reports.

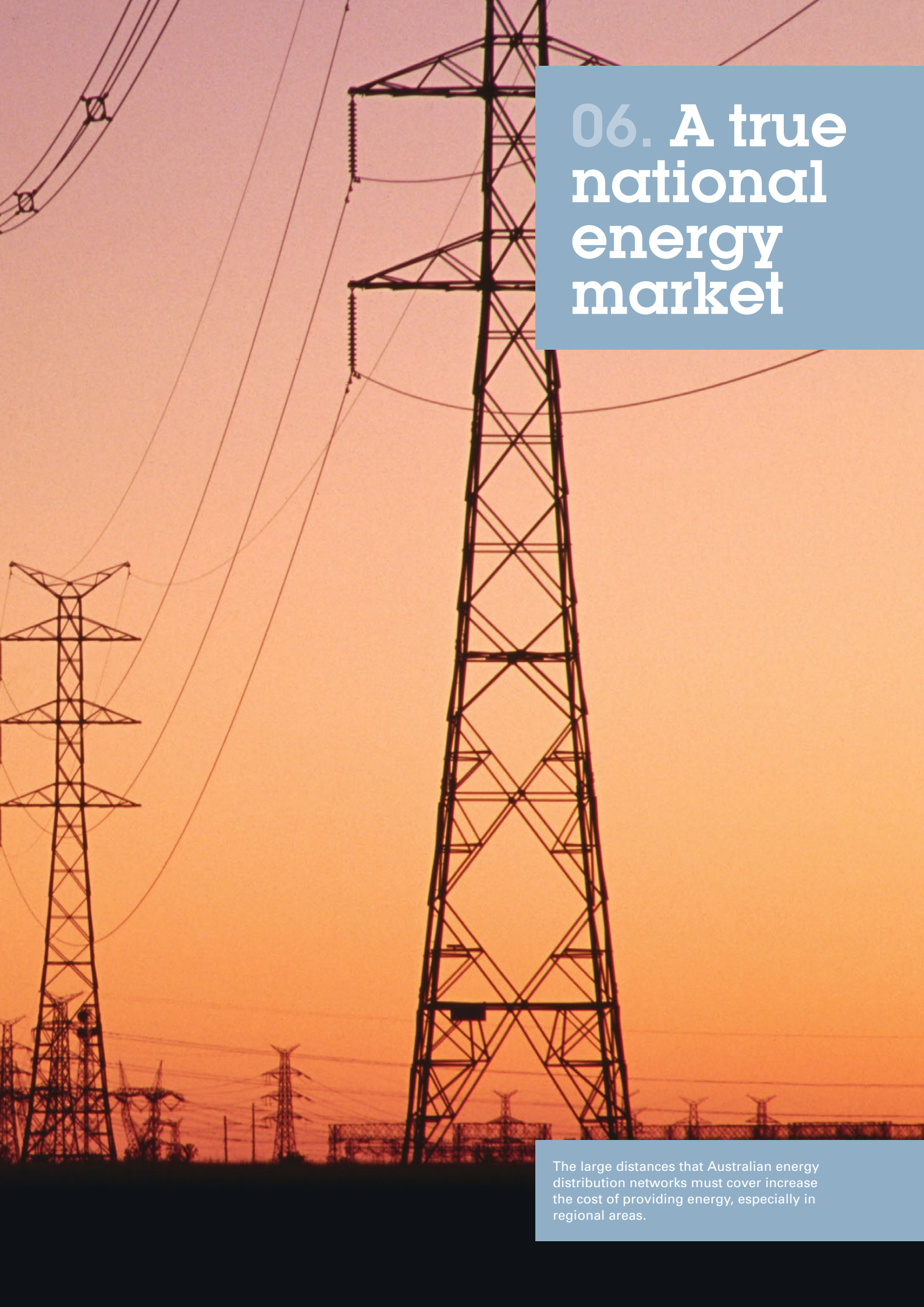
The weight of evidence and expert opinion is substantially aligned in relation to what needs to be done to assure city and regional communities that they will have a secure water supply that delivers drinking water of an acceptable standard.

There has, however, been very little progress in the implementation of reform. It is becoming increasingly apparent that unless effective incentive mechanisms are in place, reform rarely happens. Reform of major cities and regional water governance should be made a precondition for water infrastructure grants to states and territories.









## 06. A true national energy market

The large distances that Australian energy distribution networks must cover increase the cost of providing energy, especially in regional areas.



# Our goal

Reliable, safe and cost-efficient energy supplies for our homes, communities and industries.

## Key challenges

The key challenges in the energy sector in the short and medium-term are to respond to:

- climate change, including:
  - addressing greenhouse gas emissions reduction targets;
  - understanding the regulatory and commercial impacts of carbon pricing;
  - assessing the impact of changed weather patterns on infrastructure; and
- growing demand for energy, particularly at peak times.

Growing demand for energy is driving new investment and higher prices in order to maintain high levels of supply reliability. Retail energy prices have increased by 40 per cent in the last three years.<sup>57</sup>

### Peak period demand is driving up energy costs

“[Energy generation and network] capacity is being built and capital spent that may be used only a handful of times each year.

It is estimated that 25 per cent of retail electricity costs are derived from peak events that occur over a period of less than 40 hours per year – clearly this is an inefficient utilisation of capital with resulting consequences for energy bills.”

*Draft Energy White Paper, 2011*

## The way forward

It is important that infrastructure investment decisions reflect the best option for industry and communities in the medium to long-term.

As a nation, increasing our focus on energy efficiency and better use of existing infrastructure through smart grids offers opportunities to maintain Australia’s low cost energy advantage.

The need to provide capacity to meet demand spikes in peak periods weakens Australia’s low cost energy advantage and is driving up the cost of energy.

Responses to the challenge of peak period energy demand should include smart meters to inform users about their energy consumption, and pricing that reflects the cost of energy use in peak periods.

**A smart grid is an electricity network that gathers, distributes, and acts on information about the behaviour of electricity suppliers and consumers in order to improve the efficiency, reliability and sustainability of electricity services.**

**Smart grids help network managers better utilise existing infrastructure, potentially reducing the pressure to invest in costly new distribution networks.**



# The future

While the outlook for the energy sector is challenging, the policy and regulatory regimes and the approaches to reform are strategically focussed, dynamic and effective.

Infrastructure Australia will continue to monitor the progress of the *Energy White Paper*, and the impact of reforms to policy and regulation in the energy sector.

## Progressing reform in the energy sector

Infrastructure Australia is confident that the evolving market-based framework and regulatory arrangements for energy generation, trading, network operation and investment are appropriate for the Australian environment. Most importantly for infrastructure provision, the introduction of a price on carbon from July 2012 is likely to provide greater certainty for investors in the energy sector.

Infrastructure Australia's June 2011 report to the Council of Australian Governments indicated that we were confident that reforms to the energy policy and regulatory regimes that were under way would promote the connection of and investment in new renewable energy generation and the progressive expansion and strengthening of the National Electricity Market. Rule changes to give effect to these reforms are now in place and others are being pursued.

Because the energy sector is in a period of significant change, regulation needs to be dynamic. At the same time it needs to provide a clear, long-term path for participants in the market. While regulatory changes may appear to take a long time to implement, the implications of change are complex and consultation processes are critical to ensuring optimal policy outcomes.

The Government released a draft *Energy White Paper* in December 2011 in order to promote debate on its long-term strategic policy framework for the sector. This process provides a real opportunity for the broader community as well as sector participants to understand the underlying and emerging challenges facing the sector and to have input into policy making.



*Peaking power stations, like this 640 megawatt gas-fired facility at Uranquinty, New South Wales, are designed to generate power at times of high demand. These times include summer, when air conditioners tend to be extensively used, and winter, when there is high demand for heating. The need to provide generation and network capacity to meet the spikes in demand at peak times is driving up energy prices. This weakens Australia's low cost energy advantage whilst increasing the cost of living.*









# 07. Digital infrastructure

Karratha in north Western Australia and smaller communities in the region are expected to benefit from improved communications as a result of investment in the National Broadband Network. Improved services based on this digital infrastructure will assist in delivering the Western Australian Government's Pilbara Cities vision.



**Our goal** To support and encourage the provision of high speed digital infrastructure across Australia, to sustain improvements in service delivery and encourage productivity gains in our cities and regions.

### Key challenges

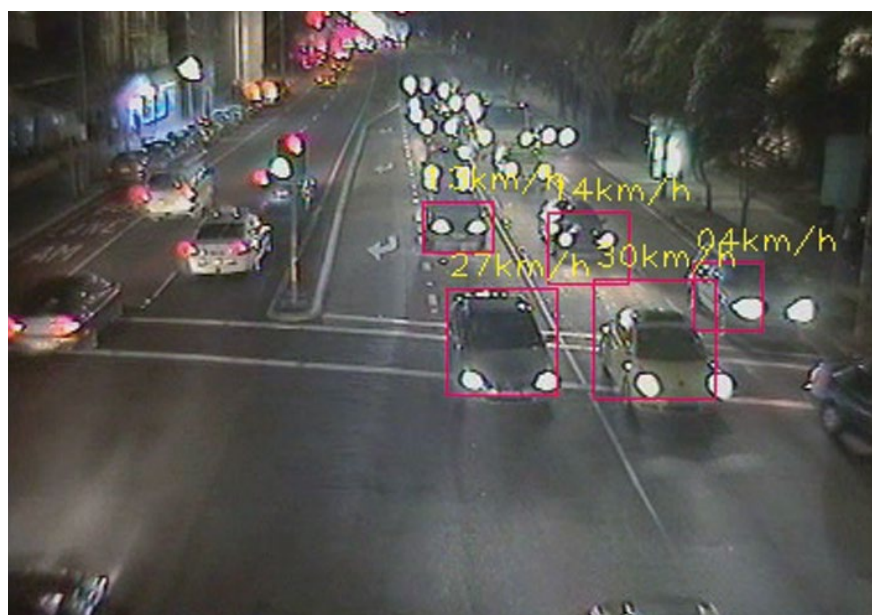
Advanced economies globally are looking to improve their telecommunications systems in order to strengthen national productivity and quality of life for their residents. In this context, Australia faces a number of challenges, including:

- keeping pace with leading countries in the take up and use of improved telecommunications – in June 2011 we ranked 21st out of 34 Organisation for Economic Co-operation and Development (OECD) member countries for take-up rates of fixed broadband;
- improving internet speed – on a number of indicators, Australia's digital infrastructure is relatively slow in comparison to other countries; and
- reducing the cost of telecommunications – Australia is relatively expensive for broadband access.<sup>58</sup>

The Australian Government is committed to rolling out a national broadband network. Although there are differences of opinion about the advantages and costs of different means of developing our digital infrastructure – for example developing a 'fibre to the premise' network versus a 'fibre to the node' network or making improvements to the 'backhaul' network – there is broad support for improving our digital infrastructure.

All major political parties are committed to encouraging private investment in telecommunications. The rollout of high-speed broadband is, in Infrastructure Australia's view, important in improving productivity growth and the day-to-day lives of Australians.

The key challenge is to make the most of the investments in digital infrastructure, public and private, that will be made over the next decade.



Research bodies around Australia are focussing on how to reduce congestion and improve road safety through the use of digital infrastructure. The National Information and Communication Technology Australia research centre (NICTA) has identified transport engineering as a priority for the next five years.



**Telemedicine programs are now tackling issues ranging from detection of breast cancer to at-home monitoring of chronically ill patients.**



*Telemedicine is expected to be one of the principal benefits of the National Broadband Network.*

## The way forward

Infrastructure Australia believes that a strengthened digital infrastructure network has the potential to alleviate many of the current strains on our physical infrastructure. For example, encouraging Australians to work away from the traditional workplace will change the demand for transport. Improving the way households and businesses manage energy usage will minimise the need to invest in expensive infrastructure catering for peak loads.

### Telehealth

In the area of telehealth, improved telecommunications infrastructure is creating the conditions for a radical revamp of the way that health care is delivered. A range of initiatives has commenced, including:

- Ambulance Mobile Connect SA, which will roll out high-speed mobile broadband to ambulances across regional, rural and remote South Australia. This initiative will enable paramedics to respond to incidents more quickly through real-time access to incident and patient data;
- the National Broadband Network Diabetes Telehealth Trial in Townsville, which will enable people to receive diabetes treatment from home; and
- the Health eTowns project, which will deliver improvements in health and education for predominantly Indigenous populations in 47 remote towns in the Northern Territory and six east Kimberley towns in Western Australia.<sup>59</sup>

### Telework

Telework – or working from home on a regular basis using telecommunications – is an important way digital infrastructure can contribute to improving Australians' quality of life.

The uptake of teleworking is lower in Australia than in several other countries. In 2006, around six per cent of Australian workers reported having a telework arrangement with their employer.

Australia's first 'telework week' – to be held on 12-16 November 2012 – will be an opportunity to showcase of the benefits of telework. Infrastructure Australia has agreed to be a partner in telework week.

## Indigenous infrastructure

Improving access to effective, reliable information and communications technologies in remote Indigenous communities is a major initiative of the Australian Government under the Indigenous Communications Program. The \$31 million program will provide essential telephone services, basic public internet access facilities and computer training for many people in remote Indigenous communities.

The program commenced in 2009-10 and is well advanced, delivering the following initiatives:

- a fixed or mobile satellite community telephone to around 300 remote Indigenous communities that do not currently have access to a public telephone;
- installation and ongoing maintenance of around 550 Indigenous community telephones, for remote Indigenous communities with a population of less than 50 people that do not have reasonable access to a public payphone; and
- in collaboration with state and territory governments, expanded public internet access and delivery of computer training in up to 120 remote Indigenous communities that have limited or no public access to internet facilities.<sup>59</sup>



## The future

Infrastructure Australia will monitor developments in the digital infrastructure area and encourage:

- those involved in digital infrastructure initiatives to monitor and report on their successes and lessons learnt; and
- the development of initiatives to make greater use of the country's investment in telecommunications infrastructure, in particular telework arrangements, which we believe have the potential to realise significant productivity and quality of life benefits for Australians.



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Note: websites accessed 4 June 2012



