

TRANSPORT ENERGY WATER TELECOMMUNICATIONS

infrastructure report card 2010
Australian Capital Territory



ENGINEERS
AUSTRALIA

Communiqué

As the nation's capital, the ACT's infrastructure should be world-class.

In 2005, Engineers Australia released its first ACT Infrastructure Report Card, which rated the overall fitness for purpose of certain types of the ACT's economic infrastructure. That report found that the ACT's infrastructure was generally sound. However, it was noted that infrastructure was aging, funding commitments were inadequate for future needs and concerns were raised about the adequacy of long-term planning. Five years on, this 2010 Infrastructure Report Card examines the current state of the ACT's infrastructure to see whether it meets current and anticipated future needs.

The ACT has benefited from high quality infrastructure that existed prior to self government, but as was stated in 2005, much of that is reaching the end of its life or has reached its capacity.

The needs of an expanding population, and expected progressive economic growth that will increase demand by businesses and consumers for infrastructure services, must be met. Funding must be found for new capital projects to replace or refurbish aging assets and to maintain existing assets to an appropriate level.

This 2010 report card recognises that there have been some improvements in road infrastructure such as further development of the parkway system, bus priority infrastructure including bus lanes and park and ride facilities, and enhanced on-road and off-road cycle paths. But this has been accompanied by an increase in road usage and congestion. As well, maintenance funding has not kept pace with infrastructure needs. Funding, reducing congestion, managing cross-border traffic and managing demand for car parking remain major challenges.

For the first time, rail infrastructure is rated for the ACT. Since 2005, the ACT has seen the cessation of rail freight services into the ACT, the development of a proposal for a light rail network, proposals for the rationalisation and relocation of the Canberra Railway Station and rail yards and some improvement in passenger rail service frequency to Sydney. However, the future of interstate rail is not defined, nor is there any commitment for appropriate light rail or other mass transit system in the ACT.

The capacity and quality of the airport has improved over recent years. There has been a significant increase in passenger numbers and a substantial expansion of air freight. Major infrastructure works include the extension and re-strengthening of the main runway at Canberra

Airport and the commencement of the construction of two new terminals. The efficiency gain from these developments has been offset by the growth in non-aeronautical developments that are not aligned with local land use plans. Future challenges will also be protecting the curfew-free status of Canberra Airport, preventing residential development under flight paths, and provision for operation during fog.

The ACT has been experiencing drought or severe water stress for much of the last decade, which has forced the ACT Government to implement water restrictions, conservation measures and supply augmentation projects. This also accelerated the need to manage all water resources in an integrated manner.

The ACT has a good quality water reticulation system, and several major water security projects are being initiated. However, further augmentation to water supply and improved demand reduction measures may be required to prevent water shortages in the medium to long-term.

Since the last Report Card, the major sewerage and recycled water developments have been improvements in the operation of the Lower Molonglo Water Quality Control Centre, and the expansion of the Lower Molonglo and North Canberra Water Reuse Schemes. However, the wastewater network's performance has declined since 2005, and there has been a lack of progress towards achieving the target of 20% reuse of wastewater by 2013.

Since the last Report Card, significant funding for new stormwater projects has been provided, and the Water Ways: Water Sensitive Urban Design Code has been released and mandated. However, there remains inadequate funding for maintenance and upgrade of stormwater systems to meet current standards of drainage and flood protection, particularly in the older areas of Canberra. A stormwater strategic plan is needed, as are strategies for maintaining water quality in lakes and ponds.

The ACT Government's focus on energy policy has primarily been on ensuring that energy contributes to its broader policy objectives of environmental sustainability, although issues of economic and social sustainability have been important. Infrastructure projects include zone substation construction at Eastlake and Molonglo, and zone substation augmentation at Civic, as well as electricity reticulation in new residential estates. However, more work needs to be done to encourage economic, locally generated, sustainable energy supply. Future challenges will include managing the changing demand profile and funding renewals of assets.

Communiqué - *continued*

Gas networks in the ACT are of a high quality. New high-pressure facilities in Canberra's southern suburbs and Macgregor have been constructed to meet peak-demand requirements, ensure system reliability, and to cater for future load increases. Other improvements in the security of supply have also been made. However, the ACT's gas supply is still vulnerable to loss of supply due to upstream disruptions.

Telecommunications infrastructure did not fare well in the 2007 Telecommunications Infrastructure Report Card. Since then, there has been improvement in mobile and broadband infrastructure, with the construction of the ACT's first dedicated Fibre to the Premise (FTTP) gateway, which offers 100Mbps download speed services, and deployment of a FTTP network in greenfield developments in the north-east suburbs of Forde, Crace, Bonner and parts of Franklin. Unfortunately, there are still a number of blackspots where services are inadequate and challenges remain in selecting optimal technologies and addressing the lack of clarity in regulation and access arrangements.

Ratings are given below for the current and past ACT and national Report Cards.

Infrastructure Type	ACT 2010	ACT 2005	National 2005	National 2001
Roads overall	B	B	C	Not rated
Rail	F	Not rated	C-	D-
Airports	B-	B	B	B
Potable water	B-	C	B-	C
Wastewater	C+	B	C+	C-
Stormwater	C+	C	C-	D
Electricity	B+	B	C+	B-
Gas	A-	A-	C+	C
Telecommunications	B-	Not rated	Not rated	B

Recommendations

Engineers Australia recommends the following to ensure that the ACT's infrastructure will, in time, meet the needs and expectations of the business and government sectors, and the wider community.

1. Provide timely infrastructure to meet population growth.
2. Increase attention on maintaining existing assets, through adequate funding to implement asset management plans.
3. Implement and further develop the 2010 ACT Government Infrastructure Plan.
4. Integrate climate change mitigation and adaptation into the plans of infrastructure owners and operators.
5. Transform the ACT's transport systems over the long-term by better coordination between the ACT Government and National Capital Authority on complementary demand management measures, encouraging urban infill and development along transport corridors, and setting aside corridors for mass transport routes and intercity high speed rail.
6. Prevent the simultaneous implementation of multiple projects that cause significant disruption to users through better coordination of major road and other infrastructure projects.
7. Place a higher priority on flood prevention when upgrading stormwater systems.
8. Develop a long-term rail vision for both within Canberra and between Canberra and other Australian cities.
9. Address broadband blackspots to ensure quality broadband services are universally available.
10. The Australian Government to provide a level of planning attention and infrastructure funding for Canberra that recognises its national significance.

Ratings Summary

Infrastructure Type	Grade	Comment
Roads overall	B	This rating recognises that while improvements in road infrastructure have occurred, road usage has increased at a faster rate. More work is needed to manage demand. Without this, sustainable transport outcomes cannot be achieved.
Rail	F	This rating recognises that there is a lack of definition on the rationale and future of rail – heavy rail, light rail and high speed rail services – in the ACT and the existing infrastructure, including its connections into the NSW system, is inadequate for competitive passenger and freight services.
Airports	B-	This rating recognises that the capacity and quality of the airport has improved as there has been significant development, much of which is not related to the core purpose of the airport. However, there is a range of matters that remain to be addressed, notably operations during fog, and land planning issues.
Potable water	B-	This rating recognises the good quality of the water reticulation system, and that significant planning has occurred resulting in several major water security projects being initiated. The rating also recognises the advances made in water demand management. However, given the uncertainty of rainfall and the ACT's growing population, further augmentation to water supply and improved demand reduction measures may be required to prevent water shortages in the medium to long-term.
Wastewater	C+	This rating recognises that there has been a decline in the network's performance and lack of progress towards achieving the ACT Government's target of 20% reuse of wastewater by 2013. There has also been a decline in effluent discharge quality from the treatment plant, however, a program of works is addressing this.

Infrastructure Type	Grade	Comment
Stormwater	C+	This rating recognises the increased attention given to stormwater use and water quality improvement and the increased allocation of funding for stormwater upgrades. However, this is offset by the fact that there still remains inadequate funding for maintenance and upgrades of stormwater systems to meet current standards of drainage and flood protection, particularly in the older areas of Canberra. It is also of concern that the current service standards for stormwater assets, as specified by Roads ACT, indicate that the target service standards are not being met. There is a need to establish a more rigorous asset management approach to the maintenance of stormwater assets, based on asset life and condition assessment.
Electricity	B+	This rating recognises that there has been an improvement in the security of supply and infrastructure asset management. However, continual funding for maintenance and renewals is essential to prevent bulk obsolescence of infrastructure over the next decade. More work needs to be done in encouraging an economic, locally generated, sustainable energy supply.
Gas	A-	This rating recognises the high quality of the relatively young gas network and significant improvements in the security of supply. However, the ACT's gas supply is still vulnerable to loss of supply due to upstream disruptions.
Telecommunications	B-	This rating recognises that there has been improvement in mobile and broadband infrastructure, but there are still a number of blackspots where services are inadequate.

Rating Details

The objective of the Report Card is to rate the quality of economic infrastructure at a State level. Ratings have been based on an assessment of asset condition, asset availability and reliability, asset management, sustainability (including economic, environmental and social issues) and resilience. The rating assesses infrastructure policy, regulation, planning, provision, operation and maintenance.

Ratings are defined in terms of meeting the needs of community, economy and environment in terms of sustainability, effectiveness, efficiency and equity.

Ratings used are comparable with those of past Report Cards and are below.

Grade	Description	Definition
A	Very good	Infrastructure is fit for its current and anticipated future purposes
B	Good	Minor changes required to enable infrastructure to be fit for its current and anticipated future purposes
C	Adequate	Major changes required to enable infrastructure to be fit for its current and anticipated future purposes
D	Poor	Critical changes required to enable infrastructure to be fit for its current and anticipated future purposes
F	Inadequate	Inadequate for current and anticipated future purposes

Full report at
www.engineersaustralia.org.au/ircact



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