

TRANSPORT ENERGY WATER TELECOMMUNICATIONS

infrastructure report card 2010

Victoria



ENGINEERS
AUSTRALIA

Communiqué

The adequacy of Victoria's infrastructure continues to underpin the delivery of essential services, drive economic growth, support social needs and remains crucial to the economic performance and development of our State.

In 2005, Engineers Australia took the initiative to raise community awareness of the importance of infrastructure and to encourage governments and the private sector to use best practice in its provision and management. That initiative delivered the first Victorian Infrastructure Report Card.

The 2005 Report Card provided a long overdue strategic overview of various infrastructure sectors and an independent assessment of the fitness for purpose of Victoria's key assets. It put some complex issues well on the agenda of government, industry and the media, and generated much community discussion about the priorities, purpose and quality of infrastructure in Victoria.

Five years on, it is timely to review progress on the adequacy of Victoria's most recent infrastructure outcomes and strategies for the future.

The 2010 Report Card recognises that some large infrastructure projects have been initiated in Victoria over the last five years. Examples include:

- Eastlink, Geelong Bypass and M1 Upgrade within the roads sector
- Regional Rail Link and rolling stock purchases within the rail sector
- The channel dredging in Port Phillip Bay
- The Sugarloaf Interconnector and the Wonthaggi Desalination Plant (early stages) in the potable water sector
- The Wimmera Mallee Pipeline in the irrigation sector
- Upgrading of the Eastern Treatment Plant (in progress) in the wastewater sector.

These and many others are recognised within the Report Card.

Despite this progress, Engineers Australia remains concerned that:

- Critical aspects of Victoria's infrastructure are barely adequate for current needs, let alone future needs.
- Funding commitments are largely inadequate to support the substantial costs of renewal and replacement given ongoing population growth and future challenges of climate change.
- There is inadequate investment of time in the planning, consultation and preparation for delivery to ensure infrastructure projects are "ready to go".
- Current planning and political processes create a short term focus in an area where a very long term focus is required.

- There is a lack of long term infrastructure plans for Victoria's electricity, gas, and telecommunications infrastructure.
- The rail system does not meet the needs of the current population, let alone provide for future growth.

Both the 2005 and 2010 Report Cards examine key infrastructure sectors in Victoria, evaluate the status of assets and planning processes and assigns a rating that can range from A (very good) to F (inadequate). In Victoria, all ratings are between B (good) to D (poor).

Ratings are given below for the current and past Victorian and National Report Cards.

Infrastructure Type	Victoria 2010	Victoria 2005	National 2005	National 2001
Roads overall	C+	Not rated	C	Not rated
National roads	C+	C	C+	C
State roads	C+	C-	C	C-
Local roads	C-	C-	C-	D
Rail	D	C- Overall D Freight	C-	D-
Ports	C+	C	C+	B
Airports	B	Not rated	B	B
Potable water	C	B Metropolitan B- Non-metropolitan	B-	C
Wastewater	B-	B Metropolitan B- Non-metropolitan	C+	C-
Stormwater	C-	C-	C-	D
Irrigation	C-	D	C-	D-
Electricity	C-	C	C+	B-
Gas	C	C	C+	C
Telecommunications	C	Not rated	Not rated	B

Ratings Summary

Infrastructure Type	Grade	Comment
Roads overall	C+	This rating recognises that the metropolitan road infrastructure is increasingly under stress due to demand rising faster than supply. Without introducing methods to significantly reduce the gap between supply and demand, congestion will continue to rise even further. Roads in regional areas are mostly just maintaining their existing quality, but will decline unless investment increases.
National roads	C+	
State roads	C+	
Local roads	C-	
Rail	D	This rating recognises that that there has been no fundamental improvement to the metropolitan rail network since 2005, although there are a number of projects underway that should deliver improvements. Over the long-term, a complete modernisation of metropolitan rail is required to meet the significant increase in demand expected from rising population and public transport use. While important regional rail segments have improved, quality is still below what is needed for rail freight to increase its market share. Less used elements of the regional rail network remain inadequate. The quality of the tram network is improving but is still inadequate in terms of average speed and capacity.
Ports	C+	This rating recognises that while infrastructure upgrades have occurred, and port land-use and strategic plans have been developed, there are many significant access and congestion problems remaining at and around ports.
Airports	B	This rating recognises the considerable improvement in capacity and quality of infrastructure at Melbourne Airport, and the maintenance of Melbourne Airport's curfew-free status. Integration of commercial/industrial developments pursued by Melbourne, Essendon and Moorabbin airports with those developed by nearby local governments is unsatisfactory as is access by public transport to all airports. The ongoing viability of smaller regional airports is a concern.

Infrastructure Type	Grade	Comment
Wastewater	B-	This rating recognises that Melbourne's sewerage and treatment infrastructure is efficiently managed and effective, and the upgrading of the Eastern Treatment Plant will produce much better environmental outcomes. However, failure to use its recycled water is a waste of a valuable resource. Insufficient attention is being given to biosolid management and to changing the centralised model of wastewater collection and treatment to allow for more local treatment and reuse. Wastewater treatment infrastructure in some regional areas is considered inadequate.
Potable water	C	This rating recognises that Victoria's water supply has been directly impacted by the significant decline in rainfall and growing population. The construction of the desalination plant will future-proof Melbourne's water supply for the next decade, although at high energy and financial costs. This plant may not have been needed had other sources of water supply been pursued seriously since the 1990s. Planning is still not evident to achieve major changes in water supply and use, which means that additional desalination plants may be needed due to population growth and climate change. Ensuring water sustainability will also be a challenge in a number of regional areas.
Stormwater	C-	This rating recognises that there has been slow improvement in the quality of stormwater flow due to the installation of gross litter traps and other devices. However, there has been no substantial improvement in the widespread exploitation of the stormwater resource.
Irrigation	C-	This rating recognises the increased investment in irrigation modernisation and efficiency. Projects like the Wimmera Mallee Pipeline and the Northern Victoria Irrigation Renewal Project will lead to dramatically improved irrigation efficiency, however, much of this infrastructure is yet to be delivered. Substantial irrigation planning and investment is required across the rest of the State.

Ratings Summary - *continued*

Infrastructure Type	Grade	Comment
Electricity	C-	This rating recognises that investment in gas and renewable generation has increased, and transmission and distribution assets are in a reasonable condition. However, the demand-supply balance remains tight, and the future of coal-fired generation is uncertain due to both the future carbon price and the practicality of clean coal technology. The transmission and distribution system is also vulnerable to extreme weather events that are predicted to become more frequent due to climate change. Insufficient attention has been given to demand management as a way to reduce peak demand.
Gas	C	This rating recognises that improvements are being made to the operation of the gas market and the quality of gas planning information. However, asset quality has not significantly improved and the Principal Transmission System remains vulnerable to single points of failure. Significant expansion in gas-fired generation will require additional investment in gas transmission pipelines.
Telecommunications	C	This rating recognises that telecommunications have become an essential service for business and the community, and while voice and mobile phone services are almost universally available, this is not the case for fast, affordable broadband across the State. Specifically, there is under-provision of fixed broadband infrastructure at exchanges in Melbourne and across Victoria, as well as under-provision of backhaul fibre in regional Victoria. Overall, there is a lack of an integrated strategic plan for telecommunications.

Recommendations

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

1. The quantum of funding for infrastructure must be increased to ensure that Victoria's economic strength will be maintained.
2. Governments must lead the development of long term, integrated infrastructure plans and ensure successful implementation through increased investment in the project planning and consultation phase.
3. The planning and provision of infrastructure must recognise the challenges of a growing population and the impacts that a changing climate will require.
4. A new body should be established to advise the Victorian Government on strategic planning and provide a direct interface with Infrastructure Australia. This will assist Victoria to maintain a coordinated and integrated critical list of "business case ready" projects for Australian Government funding. By studying the issues early, a set of advanced project plans and corresponding business cases could be maintained at a high state of readiness to proceed at short notice.
5. Governments must embrace appropriate opportunities to partner with the private sector to fund infrastructure development and develop alternative delivery models to ensure the risk profile delivers the best overall project outcome for the Victorian Infrastructure Report Card 2010

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 the 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/ircvic



ENGINEERS
AUSTRALIA

Engineers Australia
Victoria Division
Engineering House
Level 2, 21 Bedford St
North Melbourne VIC 3051
Tel: 03 9329 8188
Fax: 03 9326 6515
www.engineersaustralia.org.au/victoria