asciano

Senate Economics Committee

Inquiry into the exposure drafts of the legislation to implement the Carbon Pollution Reduction Scheme

25 March 2009

Summary

Asciano supports the introduction of a Carbon Pollution Reduction Scheme and congratulates the government on the broad design of the Scheme.

Australia needs price signals from a Carbon Pollution Reduction Scheme to commence now, so that long term price effects drive the necessary changes in the transport sector. Price impacts will have only a limited effect in changing transport to low emissions modes and solutions and it will the complementary policies for transport that will be successful in driving the most significant change in the shorter term. Nevertheless, the long term advantages of a carbon price can only be achieved through early implementation of the Carbon Pollution Reduction Scheme.

Policies, whether price based or otherwise, that support modal shift from road to rail will not only reduce greenhouse gases in the transport sector but will also significantly reduce the social costs from the transport sector. Social costs (for example, air pollution, accidents, and deaths) to Australia of current transport patterns are immense. The social costs arising from transport are estimated at $52 billion or 5.6% of GDP in Australia in 2005, before including congestion costs. These social costs are mainly due to road transport and rail contributes 9% of these social costs.

Investment and policies that support rail and a cost for carbon from the Carbon Pollution Reduction Scheme will provide high social returns and lower emissions. If implemented, the potential social benefits accruing over 2010 – 2020 are worth $27.4 billion.

The most effective way to reduce emissions in the transport sector is through modal shift from road to rail and sea, for both passenger and freight. The short term protection proposed for road users is not desirable, but disagreement on short term matters is no reason for delaying the Schemes commencement in July 2010.

On a business as usual case, transport emissions will be approximately 30% above their 2010 levels in 2030. Implementation of the Carbon Pollution Reduction Scheme and the introduction of complementary policies and investment in rail would reduce emissions and slow their growth so they would be just less than 5% above their 2010 level in 2030.

Climate change is impacting physically on the operations in the transport industry. In the current financial year Asciano has incurred $11.4m of damage from incidents related to extreme climate events, including flash floods in Western Australia, cyclones in Queensland and extreme heat in Victoria. Costs of damage to the rail network, roads and lost operating revenue are additional to this $11.4m. Action to reduce greenhouse gas emissions, improve infrastructure and support the use of lower emissions transport solutions is required.

Asciano urges the Senate to implement the Carbon Pollution Reduction Scheme in July 2010 to address climate change.

Background

In March 2009 the Federal Government Department of Climate Change released its exposure draft for the Carbon Pollution Reduction Scheme Legislation. Asciano has been an active participant in the inputs for the design of the Carbon Pollution Reduction Scheme. Submissions and involvement have been provided through participation in the Industry Roundtable Consultation forums, and submissions to the Garnaut Climate Change Review, the CPRS Green Paper, the Wilkins Review; the Federal Treasury, and submissions to the National Transport Commission reviews on Rail Productivity, and Freight Transport in a Carbon Constrained Economy.

Transport in Australia is the third highest contributor to national greenhouse gases, with stationary energy (electricity) and agriculture holding first and second place respectively. If the electricity used in the provision for electric rail transport is taken into account, transport is the second highest cause of emissions.

Rail transport is inherently a much less carbon intensive form of transport than other land transport modes. The short and long term benefits of switching people and freight to rail transport are immediate and significant. The availability of options to increase rail productivity through investment in the rail network will also result in reduced transport emissions. Unlike the road sector, current technology is available that allows rail to use electricity and therefore become even lower emissions as a result of reform in the electricity generation sector.

Asciano is a large transport operations company that provides road and rail transport across Australia and facilitates shipping through its port and stevedoring operations. As a large energy user, Asciano will be significantly affected by the Carbon Pollution Reduction Scheme, but nevertheless recognises the need for such a Scheme to reduce greenhouse gas emissions.

The Need for a Carbon Pollution Reduction Scheme

Asciano supports the government timeframe for the introduction of a Carbon Pollution Reduction Scheme to commence in July 2010. Ongoing debate could continue ad infinitum, on the merits of a cap and trade scheme versus a carbon tax, or other further design options of the proposed cap and trade scheme. However, Asciano believes that the broad mechanism for the design of the proposed Scheme is sound and is not a cause for further delay.

There have been significant opportunities for industries to engage with the government on the design of the Carbon Pollution Reduction Scheme. While the diabolical nature of climate change policy means that there will be winners and losers as a result of introducing such policy, the threat of climate change and the need to implement a framework for the future should not be drowned out by the complaints of

the political stakeholders and those who will have to change their businesses in response to climate change.

The delay in bringing some sectors into the Carbon Pollution Reduction Scheme through protection to road vehicles (on-road business users, passenger vehicles, and heavy vehicles) and delays in including the agriculture sector and deforestation, is in itself recognition that a staged implementation will soften the implementation of the Scheme on the economy.

While Asciano does not support the exclusion of road vehicles from the Carbon Pollution Reduction Scheme in its early years, these points of disagreement are no reason to delay the Scheme's commencement. The exclusion of further sectors or a delay in the introduction of the start of the Scheme will not serve to provide further significant improvement in the Scheme but instead place a greater burden on the remainder in achieving the National emissions reduction targets.

A Carbon Price and Other Measures

The Garnaut Review states that the transport sector is a market failure when it comes to the desired effect from a Carbon Pollution Reduction Scheme. The price effect of carbon will be too low in the short term, and the alternative transport choices too few due to infrastructure limitations, to drive a change to lower emissions transport solutions. The Garnaut Review recommends that complementary policies are necessary to support structural change in the transport sector to complement the price effects from a carbon price, and drive a change to lower emissions transport modes such as rail and shipping. Asciano supports this conclusion and recommendation.

Therefore, the commencement of a Carbon Pollution Reduction Scheme in Australia should not be delayed and complementary measures to support the use of lower emissions transport should be a key element of government policy to reduce transport emissions.

The Benefits of Rail from a CPRS and Policy

Recent economic research conducted by the Co-operative Research Centre for Rail Innovation identifies that the economic and social costs to Australia of current transport patterns are immense. The social costs arising from transport are estimated at $52 billion or 5.6% of GDP in Australia in 2005, before including congestion costs. These social costs are mainly due to road transport with rail contributing 9% of these social costs.

Investment, policies that support rail and a cost for carbon from the Carbon Pollution Reduction Scheme if implemented, would provide high social returns and lower

emissions. The potential social benefits accruing over 2010 – 2020 are worth $27.4 billion.

Similar carbon emissions benefits are realised through pricing and complementary policies and investment that drive modal shift from higher emissions transport modes to rail. On a business as usual case, transport emissions will be approximately 30% above their 2010 levels in 2030. Implementation of the Carbon Pollution Reduction Scheme and the introduction of complementary policies and investment in rail would reduce emissions and slow their growth so they would be just less than 5% above their 2010 level in 2030.

The benefits of structural adaptation of Australia's transport use through policy that is cognitive of greenhouse gases supported with a carbon price will provide significant benefits for Australia.

Climate Change is Hurting Business

As a national transport operator, Asciano is affected by most extreme weather events across Australia. The CSIRO *Climate Change in Australia 2007 Technical* report, proposes that significant weather events will become more extreme and/or more regular.

In the current financial year, Asciano has experienced a number of significant incidents directly attributable to extreme climate events. Significant incidents include derailments from heat buckling of track, flash flooding destroying track and extreme wind causing double stacked containers to topple. These incidents resulted in derailments that cost Asciano's rail business Pacific National, in excess $11.4m in damages. Significant lengthy obstruction of main rail corridors, lost revenue and damage to rail network infrastructure costs are additional.

'Minor' climate impacts from route diversions due to the Victorian bushfires and flooding in north Queensland blocking transport corridors, have also impacted on the costs of operating a road or rail transport company in Australia.

The Victorian Government in it publication, *Climate Change and Infrastructure – Planning* Ahead, acknowledges that infrastructure for a wide range of businesses in Australia is vulnerable to climate change impacts.

Conclusion

While the Carbon Pollution Reduction Scheme will have economic costs, Australia should not be ignoring the future increase in economic costs from inaction on climate change. While the Carbon Pollution Reduction Scheme will not address the physical impacts of climate change on transport infrastructure and operations, a start in the reduction of greenhouse gases, with the introduction of the Carbon Pollution Reduction Scheme legislation is necessary for long term sustainability.

Further support from complementary policies are also necessary to assist in minimising climate impacts on Australian businesses and support the use of lower emissions transport.

APPENDIX A – Policy Recommendations

Policies for low cost freight transport emissions

Policies to support early change to low emissions solutions are needed in the transport industry. The rail market experience is that unless it has the infrastructure to meet market service quality requirements, the price differential between road and rail will need to be quite high, before significant modal shift occurs. Conversely, it is the rail experience that when rail costs increase and the gap between road and rail pricing closes, the rail market volumes quickly transfer to road and are extremely difficult to bring back.

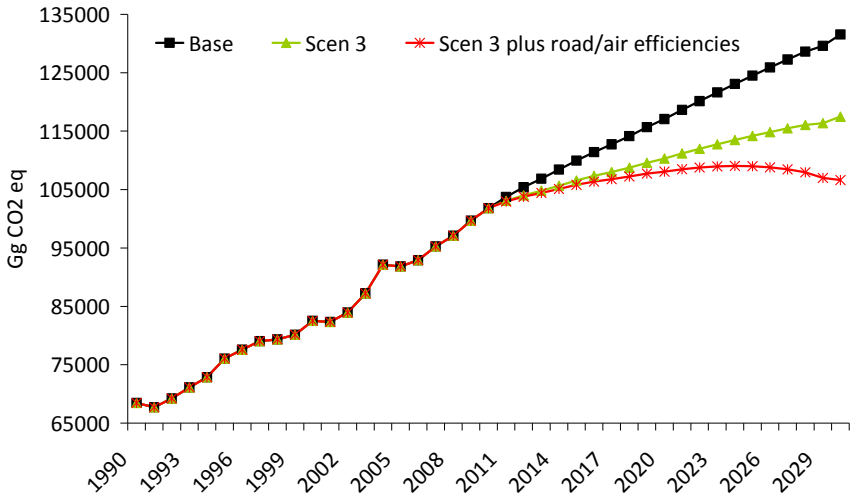
The Carbon Pollution Reduction Scheme will increase the price differential between road and rail transport over time. Delays in waiting for the price point at which significant modal shift occurs, will only serve to delay the early emissions cuts required to reduce transport sector emissions and allow the achievement of national targets. Therefore, policies to support modal shift prior to any emissions price signal are required.

The diagram below shows transport emissions at its current business as usual (BAU) trajectory, and what could be achieved through appropriate policies that encourage investment in rail.

In waiting for emissions price signals only, the ability for the transport sector to adjust in providing lower emissions solution is limited. Without clear policies on planning, or to support investment and infrastructure, there is little scope to achieve transport emissions reductions in the short and medium term. With suitable supporting policies, early action in reducing emissions will occur and allow a greater contribution in meeting reduction targets.

The example of the coal ship queues in Australia last year indicates the result when supply chains are not supported by policy, planning or investment certainty and instead rely on price signals. The lag effects in investing in supply chain infrastructure and changing processes and the lack of integrated planning have resulted in lost economic opportunity and additional cost.

Total transport emissions to 2030, base case, scenario 3 (rail policies and investment) and increased fuel efficiency in road and air transport (Gg CO_2-e)



Source: Actual data and projections to 2010, BITRE (2008c); estimates of the authors.

Infrastructure Investment

The key attributes of service quality for rail are service transit time and service reliability. Service transit time is the ability of the particular service to meet its planned transit time and for these transit times to meet market capacity requirements. Service reliability of on-time departures and arrivals through the whole supply chain are important in ensuring complex supply chains function well, and that trains are able to meet follow on transit departure windows.

Currently rail has difficulty in providing the service quality it requires to gain market share from modal shift. Transit times for the carriage of freight between capital cities in Australia are generally not competitive with road. Market requirements for freight delivery at certain times and or on certain days can condense rail traffic into peak periods, placing a strain on infrastructure capacity that can negatively affect transit times and reliability. With limited alternative route options in the event of disruption to the rail network, reliability and transit times also suffer. These issues also significantly impact on passenger's decision to use or avoid the use of rail.

The reliability in being able to provide on time freight departure and arrival in the supply chain is also critical. Rail's ability to provide reliable services that can deal with track maintenance, incidents affecting track network access, weather effects and changes to the planned operation is critical.

With significant investment earmarked for road construction and improvement versus the investment commitment for rail, the service quality competitiveness of rail is currently at a disadvantage.

The National Transport Commission's (NTC) February 2008 paper, *A New Beginning*, is an admission of the previous failings of an integrated transport planning framework in Australia. This NTC report is welcomed as it recognises the need for integrated planning on a national scale. The lack of integration between transport modes, and ineffective planning for freight corridors and whole of supply chain planning has led to a network of individual transport plans that have led to capacity constraints.

Significant immediate increases in investment in rail infrastructure to improve service quality and to provide capacity for the large modal shift from road to rail is required to achieve national emissions reduction targets. Similarly, investment in rail to provide new passenger catchment areas and integrate passenger transport planning in urban development and supporting transport hubs is required.

Governments have used direct interventions, substantial investment and the National Transport Commission (NTC) to develop and implement operational reform for the road transport industry to improve productivity. The same types of improvements have potential to provide substantial benefits to the rail industry. Governments and the NTC have argued that the rail industry is in a position to make such changes, whereas the road industry has not. For a variety of reasons it is evident that such productivity improvements have not occurred in rail industry, government intervention is required in co-operation with the rail industry.

In simple terms there would be economic, environmental and social benefits if trains were bigger, faster and heavier. Some suggested areas for improvement in the rail sector could include:

- heavier axle loads;
- new styles of wagons;
- engineering requirements to enable longer trains (for example, more powerful locomotives and longer rail passing loops);
- a national rail network plan (including the future required coverage of double stacking and standard passing loops);
- removal of clearance limitations (for example, widening through tunnels to allow double stacking and/or standard USA rollingstock);
- more extensive use of double stacking containers;
- ability to purchase 'off the shelf' overseas equipment without modification to meet Australian train outline and track strength limitations, and decrease acquisition times and reduce equipment cost; and
- deployment of new ITS technology to improve reliability, increase speed and reduce times between trains.

Land Availability

To grow the capacity of freight rail and meet market growth, there is an urgent need to increase the availability of land for terminals. Identifying and zoning land for transport use would be a powerful supporting policy.

Government land releases should set aside and rezone portions of land available for transport corridors and supporting terminals. Such action would be low cost with the only cost to government being the lower revenue they may receive from leasing/selling this land for transport use than for other development use.

This single policy would contribute greatly in supporting the capacity growth and service quality of rail.

Security of Land Tenure

The security of land tenure for transport infrastructure and supporting freight terminals must be increased. Longer leases are needed to encourage the significant investment required to develop these terminals to provide capacity and improve efficiency. Security from third parties seeking access also needs to be resolved as such issues create investment uncertainty.

Companies will be reticent to invest in infrastructure if this only then supports competitor claims to its use. Clear policy to provide longer term lease options, security of tenure and access to infrastructure assets, is needed to support a national transport plan.

Asset Depreciation

The rail industry operates under very long investment periods for high cost rollingstock. Encouragement for early investment in more efficient and low emissions rollingstock prior to any pricing signal is required. Changes to reduce current depreciation times of 20 to 30 years to much shorter periods, would improve the financial justification for earlier technology change.

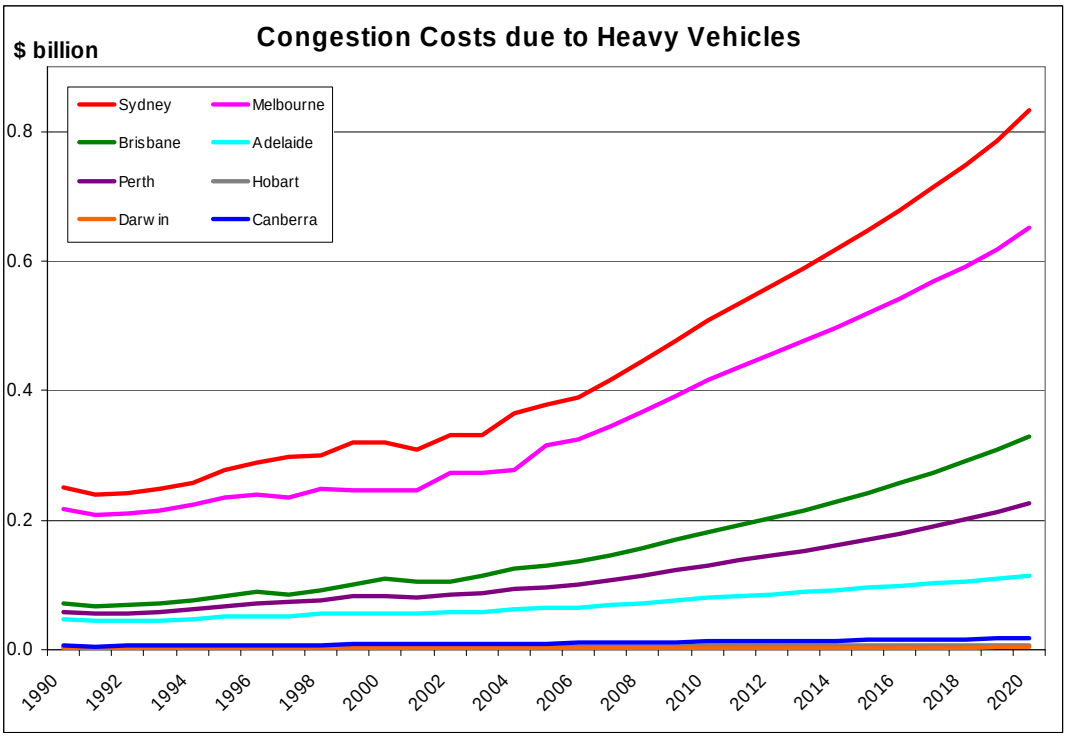
To encourage early retirement of a large locomotive fleet and its replacement with newer lower emissions locomotives, financial incentives through taxation policy are required.

Accelerated depreciation may also be applied to rail network infrastructure to encourage earlier upgrade to infrastructure that provides emissions reduction opportunities.

Congestion Charges

There are several forms of pricing of road capacity which can be employed, including congestion charges (including cordon pricing) and road user charges (see below). Key road transport corridors experience congestion which will increase with time. It

is estimated[1] that heavy vehicle congestion costs (including environmental effects) in Australian capital cities increased by 53% between 1990 and 2005, whereas these costs are expected to increase by an additional 234% between 2005 and 2030. This represents congestion costs of $2.19 billion per year.



Several cities around the world have introduced or are intending to introduce cordon schemes to reduce congestion in city centres, including London and Singapore. The London congestion charge has resulted in significant reductions in congestion costs, partly due to a modal shift from cars to public transport. Applying a similar congestion charge either for key road transportation routes or for large truck entry within metropolitan limits, would encourage modal shift to rail.

Appropriate Truck Sizes

It can be argued that the introduction of B-triple trucks in Australia has benefits in moving large quantities of goods with lower emissions. Nevertheless, the carriage of the type of goods most likely carried by B-triples between capital cities is such that these could equally be transported by rail with even lower emissions.

The United States has banned B-triple truck movements on federal interstate highways due to safety concerns and on the grounds that these goods can equally be carried by rail. Indeed the carriage of large quantities of goods long distances is the core strength of rail.

[1] Extracted from data provided by BTRE and Working Paper 117

In seeking low emissions modal choices, and addressing other externalities such as road congestion, air quality and safety, the most appropriate modal choice must be used for each market. In some cases larger road vehicles will provide justifiable advantages in relieving congestion in port areas or a low emissions solution in the carriage of goods in areas not supported by rail. Further investigation on a policy regarding road vehicle sizes to encourage larger vehicles in the most appropriate circumstances is required.

Mandatory Rail Use Target (MRUT)

The Federal government has introduced a key instrument to drive behaviour outside of the emissions trading scheme. The MRET (Mandatory Renewable Energy Target) as imposed on the energy generation sector with a 20% MRET by 2020, has given a clear signal to this industry well before any emissions trading price signal is available.

An MRUT is an equally viable instrument to drive road transport to rail. Currently Victoria and New South Wales state governments have MRUTs for rail to and from ports. The NSW government has set a target of 40% of freight on rail to and from Port Botany by 2010. The Victorian government has set a MRUT of 30% freight on rail to and from Victoria's ports by 2010.

These State targets are unlikely to be achieved through lack of appropriate rail infrastructure investment, terminal access and capacity, road charging mechanisms, and other policies to drive freight from road to rail. This reinforces that supporting policies on rail infrastructure transport planning, terminal land availability and security of tenure are needed.

Restrictions in road vehicle movements or costs to access ports would also assist in driving modal shift to meet the MRUT.

Extension of such a scheme to key interstate freight corridors would require similar supporting transport planning policies. Consideration is also needed on whether financial penalties or incentives would be appropriate tools to encourage accurate compliance and reporting and increase the price differential between road and rail to drive this modal shift to achieve the MRUT.

Membership inclusion to the scheme would also need to be carefully designed but could include any company that has a distribution task over a certain threshold between the capital cities.

Consolidate and Reduce Regulation

Rail is one of the most regulated industries in Australia. A national rail operator may potentially have to deal with: seven rail safety regulators with nine different pieces of legislation; three transport accident investigators; fifteen pieces of legislation covering occupational health and safety of rail operations; six access regulators; and seventy-five pieces of legislation with powers over environmental management.

Excessive regulation clearly places an extra cost and resource burden on rail operators which can only detract from competitiveness. Rail requires a streamlined approach under which operators can move quickly to single national regimes.

Rail Access Pricing

Rail access prices add significant costs to rail operations and make up approximately a third of operating costs for rail freight companies. Rail network providers in Australia seek a positive return on their rail network investment, and this situation leads to high costs for rail operators in using rail infrastructure and or underinvestment in the rail network.

The road industry is in an enviable position where it does not have to pay to access roads at a rate that covers the full cost and also provide a positive return to the road owner.

This pricing disparity between the two transport modes has served to protect the road industry and reduce the price differential between road and rail. Either government support to relieve the burden from access providers in seeking revenue from access fees to recover costs and provide a return on investment, or increased road user charges for road freight transport would provide an immediate price incentive to encourage modal shift and a low freight transport emissions trajectory.

Intermodal Transport Improvement

Efficient transport is generally contingent on the efficiency of integrated movement across more than one mode of transport. A 'supply chain' approach yields efficiencies which cannot be achieved by improving individual transport modes in isolation. Improvements to intermodal transport have been identified[2] as:

- Develop the rail network that is needed to serve a rapidly growing resources sector.
- Improve the service standards on the main North - South rail corridor to permit it to operate at a level at which rail will become the predominant mode for Melbourne – Brisbane traffic.
- Expand the capacity of the East – West rail network to ensure that future growth can be accommodated without a deterioration of service standards.
- Clearly define the role of rail in the future carriage of grain exports and upgrade the grain network to ensure that this role can be performed efficiently.
- Identify the sites for strategic IMT development in all major cities and ensure that these sites are protected for future development.
- Define and protect the road and rail access corridors to all significant ports and strategic intermodal terminals.

[2] *Infrastructure Programs for Addressing Supply Chain Blockages* (Draft), Meyrick & Assoc. February 2008 for the Australian Logistics Council

- Develop short haul rail routes linking urban intermodal terminals and container ports to allow efficient rail operation, including where possible freight only tracks and provision for double-stacking.
- Build on and integrate the AusLink corridor strategies to provide a clear and comprehensive plan for transport infrastructure of national importance, including port access links.
- Develop comprehensive freight and logistics strategies covering both rural and urban freight movements in all states.
- Effectively implement in each State fast-track planning processes for transport infrastructure of strategic economic significance.
- Undertake a comprehensive national assessment of the effect of climate change on transport infrastructure and develop strategies for managing this effect to minimise the impact on infrastructure cost and reliability.
- Ensure that, wherever practical, all significant new transport infrastructure is subject to an open access regime, and develop improved regulatory processes to reduce the delays and costs to both access seekers and access providers.
- Develop streamlined PPP approval processes to facilitate private investment in transport infrastructure.
- Implement nationally uniform technical, safety and communications standards for rail operations.
- Reform road pricing to facilitate the efficient use of road vehicles and appropriate allocation of the freight task between road and rail.

Research and Development

Significant improvements to the transport system to reduce climate change and its impacts can occur by applying existing knowledge. However it is certain that research and development (R&D) can provide new inventions which can be deployed and new information which can be applied. Therefore R&D should be aligned to the challenge of climate change and further investment in R&D be facilitated through incentives and other initiatives

Infrastructure Susceptibility to Climate Change

There have been substantial amounts of work investigating the effects of climate change and expectation of the future consequences. However, there is very little understanding about the effects of climate change on rail transport systems, particularly the infrastructure.

The following examples identify some possible consequences of climate change:

- higher temperatures may cause more rail track buckling,
- greater rainfall in tropical areas may cause more track flooding,

- more frequent extreme weather events may cause catastrophic track failures, closing tracks for extended periods of time.

All of these consequences would result in reduced speeds and lower service reliability. If current levels of performance and service are to be maintained there will need to be higher levels of investment, and maintenance leading to higher transport prices. Unfortunately more definitive information is not available on this issue.

Therefore the following actions are likely to be required:

- identify consequences of climate change of the transport system;
- develop managed responses, such as additional investment, mitigation measures, maintenance regimes, etc; and
- implement required measures, monitor and review results.

For further information, please contact Craig Wilson.

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