

Regulation & Policy

We play an active role in encouraging infrastructure investment and efficient use of Australia's supply chains.

IMPACT OF REGULATION ON AURIZON'S COMPETITIVENESS

Queensland's coal export advantage is not simply a function of its resource endowments and mining productivity. It is achieved through cost effective and reliable supply chains in infrastructure. The ability to sustain this advantage requires careful consideration by the Queensland Competition Authority (QCA) through regulation of access in the CQCN. Without appropriate and adequate return, Aurizon may not be able to continue to invest in network resilience to severe weather events such as tropical cyclones.

On 30 November 2016, Aurizon Network submitted its Draft Access Undertaking for UT5 (covering the period 1 July 2017 to 30 June 2021). Aurizon's submission proposes the following during the UT5 period:

- Increase in average CQCN tariffs (annual growth rate of 1% per annum) driven by a larger Regulated Asset Base (RAB) as a result of customer requested expansions.
- Operating expenditure, maintenance and depreciation methodology remains broadly unchanged.
- No forecast capital expansions.

- Over 90% of the forecast capital expenditure related to the renewal of life expired infrastructure.

During early 2017, Aurizon Network maximised customer engagement to limit the consideration required by the QCA to achieve agreement on key policy items. In May 2017, the QCA approved an extension to the previous Access Undertaking (UT4) to 31 December 2017.

Overall the impact of the UT5 variables on Aurizon's financial outcome are potentially significant. All things being equal, a movement of 50 basis points on WACC equates to ~\$30 million EBIT impact based on ~\$5.8 billion RAB value.

Network response to tropical cyclones

Improving our response to extreme weather events (e.g. flooding) continues to be a key priority for Aurizon Network. Over the past five years, the CQCN has been impacted by Cyclones Oswald, Marcia and Debbie with additional maintenance costs to repair damage outlined in Table 8.

While the impact of each event varied in terms of coal systems affected, Aurizon Network has a well-established operational

framework for both preparing for the wet season and coordinating the recovery effort. This has resulted in an effective means of preparation to minimise damage whilst also expediting the time taken to re-open the CQCN to traffic after any event, as discussed in the Customers chapter.

To recover the incremental costs associated with any flood recovery effort, the regulatory framework requires that Aurizon Network submits an adjustment to the existing Access Tariffs for approval to the QCA.

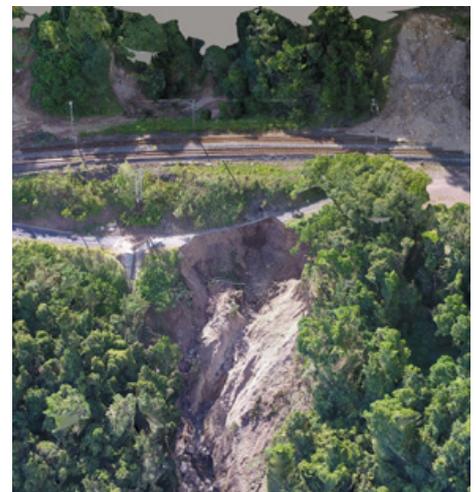


TABLE 8 — AURIZON NETWORK IMPACT FROM TROPICAL CYCLONES

TROPICAL CYCLONE	YEAR	SYSTEMS	OPERATING EXPENDITURE CLAIMED (\$M)	CAPITAL EXPENDITURE CLAIMED (\$M)	TOTAL CLAIM (\$M)	STATUS
Oswald	2013	Blackwater & Moura	16.1	2.1	18.2	Expenditure approved August 2014.
Marcia	2015	Moura	4.0	4.4	8.4	Operating expenditure approved in December 2016 and capital expenditure under review.
Debbie	2017	All Systems	16.9*	TBD	TBD	Operating expenditure submitted to QCA for approval in September 2017.

*Post-escalation amount of \$17.4m

Competition between electric and diesel locomotives

The cost of using electric locomotives relative to diesel locomotives has increased as a result of lower diesel prices and significantly higher electricity prices, as illustrated in Figure 27. This has led to a prospective H1FY2018 electric charge (EC) tariff increase by 46% above FY2017 EC rates.

If electric locomotives remain uncompetitive it is likely their use in future customer contracts will decline. As a consequence, the AT5 tariff which reflects the fixed cost of the overhead electrified network spread over all electric traction users, would also increase and may drive unsustainable AT5 tariff increases over time. Ultimately this could lead to potential asset stranding of both electric fleet and overhead electrified networks and reduce the current GHG emissions benefit achieved through operation of electric compared to diesel locomotives.

Recognising this risk, Aurizon Network is seeking to change the current access pricing for electric locomotives to avoid potential asset stranding. Aurizon Network will submit an Electric Traction Pricing Draft Amending Access Undertaking (2017 Electric Traction DAAU) in October 2017 and seek industry consultation with the QCA.

The 2017 Electric Traction DAAU seeks minimal socialisation of any under recovered electric revenue, which arises where electric utilisation declines relative to forecast. This proposal will help prevent an escalating AT5 price and provide for appropriate payments from all users.

DID YOU KNOW?

\$1.7 BILLION

- Approximately \$1.7 billion is invested in electric locomotives (all rail operators) and overhead track infrastructure (Aurizon Network).

13% LOWER GHG EMISSIONS

- Electric locomotives have 13% lower GHG emissions relative to diesel locomotives (per gross tonne kilometre travelled) and this margin is likely to improve as the GHG intensity of Queensland electricity generation declines with increased renewable energy use.

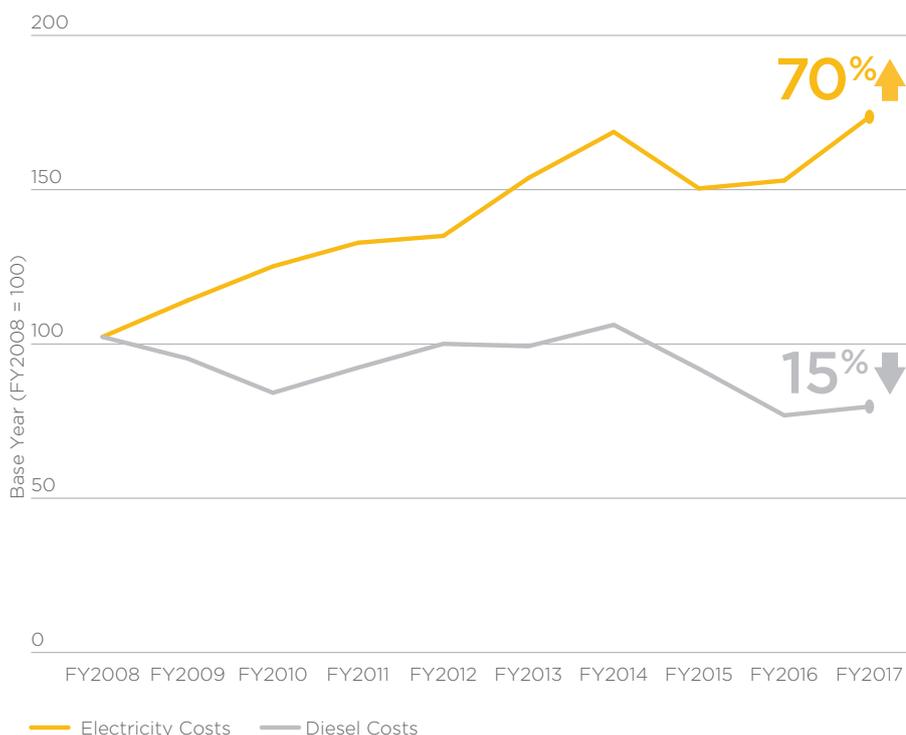
↓100 MILLION LITRES OF DIESEL

- There are more than 170 active electric locomotives operating on the CQCN consuming the equivalent electricity demand of 500,000 electric vehicles and displacing the need for approximately 100 million litres of diesel annually.

170 ELECTRIC LOCOMOTIVES = 500,000 ELECTRIC VEHICLES

- To reduce the same amount of GHG emissions with 500,000 Tesla 3 electric vehicles it would cost twice as much (\$3.4 billion). Based on 500,000 Tesla 3s at \$62,000 each and a public network of 1,500 (8 stall) Tesla superchargers at \$200,000 each.

FIGURE 27 – ELECTRIC AND DIESEL BENCHMARK COSTS



Source: Diesel Terminal Gate Price based on Brisbane AIP data.
Electricity Costs: Queensland Productivity Commission (QPC) Electricity Pricing Inquiry electricity pricing

AUSTRALIAN POLICY IMPERATIVES

Government policy should promote the global competitiveness of Australia's export supply chains and efficient domestic freight networks. Policy decisions have a significant impact on the economic sustainability of company operations.

In addition to the specific priorities for our regulated Network business, there are a number of current policy issues that have substantial commercial and economic implications for Aurizon, our customers and for the communities in which we operate, including employment impacts.

We engage with Federal and State Governments on these priorities with a focus on improving supply chain outcomes. This includes preparing submissions and position papers and meeting with elected representatives and departmental officials to advocate our views.



Facilitating infrastructure investment

Private sector investment in new infrastructure is hampered by complex planning and approval processes, which results in substantial costs.

Our view is that there would be greater investment in new resource projects and the associated supply chain infrastructure if reasonable time limits were clearly set and adhered to.

In addition, we believe that greenfield investment policies should maximise the use of existing infrastructure when this offers improved supply chain efficiency and wider community benefits, including improved safety and environmental outcomes. Aurizon's Galilee Basin rail infrastructure proposal is an example of how this could be achieved.

Public sector funding of infrastructure also has an important role in developing supply chains for Australia's exporting and domestic industries where the investment required to construct the infrastructure would not generate a commercial return.

Currently the Melbourne to Brisbane Inland Rail Project has the potential to generate significant economic, environmental and community benefits. However, to enable rail to compete equally with road operations, major land transport policy reform is required and should include:

- cost-reflective heavy vehicle pricing reform; and
- complementary infrastructure to link the Inland Rail with other rail and road networks.



Improving existing supply chains

Bulk freight operations generate vital investment and jobs in many regional and remote towns and communities. The competitiveness of bulk rail freight services on regional networks is currently impeded by:

- Declining infrastructure performance; and
- Different pricing for rail freight compared to road, which results in trucks paying substantially less for access.

Our view is that industry and governments should work together to identify and allocate infrastructure program funding to improve the standard of regional infrastructure.

Priority projects include improvements in the capacity and efficiency of freight connections to the Port of Brisbane and Port of Newcastle, and improving the Mt Isa to Townsville corridor. We note in particular the lack of coordinated investment on the Mt Isa to Townsville line, which has contributed to significant volumes moving to road transport.

Land transport policy reform, including the introduction of consistent heavy vehicle and rail access charging, are equally important to existing supply chain networks and should be accelerated. Reform priorities should also include:

- Introducing the independent price regulation of heavy vehicle charges; and
- Prioritising short-term actions to remove the differences in access charges between road and rail on key long-haul corridors.



Energy and emissions policies

We are **one of the largest energy consumers in Queensland**, operating a 2,000km heavy haulage electric traction rail network. Reliable and affordable electricity is not only important for us, it is critical for our customers who compete globally. Agriculture, mining and minerals processing sectors in Australia accounted for more than 15% of total energy use in FY2015¹.

We support the principles outlined in the **Finkel Blueprint**² for the national electricity market, including:

- Improving the reliability and security of supply;
- Making electricity more affordable; and
- Providing greater certainty to industry with a clear and consistent long-term emissions reduction target.

In addition, energy policy solutions should facilitate the use of all technology options, including high efficiency low emission coal technology. Therefore, we also propose **a technology-neutral approach**, including for emissions reduction measures.

In relation to diesel emissions, there is a risk that future changes to regulation could impose additional costs on the rail freight industry. With this in mind, we are working with other rail freight operators to develop and introduce **industry-led solutions to managing emissions**, while ensuring that the environmental benefits of using rail freight compared to road can be realised.

¹Department of Industry, Innovation and Science (2016), Australian energy update 2016, Canberra. Tables 3.3, 3.5 and 3.6.

²Independent Review into the Future Security of the National Electricity Market: Blueprint for the Future, June 2017, Expert Panel Chaired by Chief Scientist, Dr Alan Finkel AO

