Aurizon Holdings Limited
ABN 14 146 335 622

ASX Market Announcements
ASX Limited
20 Bridge Street
Sydney NSW 2000

BY ELECTRONIC LODGEMENT

13 February 2017

Appendix 4D

Please find attached for immediate release to the market a copy of the Company's Appendix 4D for the half year ended 31 December 2016.

Kind regards

Dominic D Smith
VP & Company Secretary

Aurizon Holdings Limited

Appendix 4D
Results for announcement to the market on 13 February 2017
For the six-month period ended 31 December 2016 (1HFY2017)
Previous corresponding period (pcp) the six-month period ended 31 December 2015 (1HFY2016)

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This document should be read in conjunction with the Financial Report, including any disclaimer.

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1HFY2017 IN REVIEW

Financial Headlines

($m)	1HFY2017	1HFY2016	Variance %
Total revenue	1,781	1,758	1%
EBITDA - underlying	775	683	13%
EBIT – underlying	488	403	21%
Adjustments - Impairments	(257)	(426)	40%
- Redundancy costs	(64)	-	-
EBIT – statutory	167	(23)	-
NPAT – underlying	279	237	18%
NPAT – statutory	54	(108)	-
Free cash flow (FCF)	356	63	-
Interim dividend (cps)	13.6	11.3	20%
Earnings per share – underlying (cps)	13.6	11.2	21%
Return on invested capital (ROIC)	9.6%	8.8%	0.8ppt
EBITDA margin – underlying (%)	43.5%	38.9%	4.6ppt
Operating ratio (OR) – underlying (%)	72.6%	77.1%	4.5ppt
Total Above Rail volumes (mt)	135.4	138.9	(3%)
Operations net opex / NTK (excluding access) ($/'000 NTK)	19.7	20.9	6%
Gearing (net debt / net debt + equity)	37.1%	35.4%	(1.7ppt)

Highlights

- Underlying EBIT up 21% to $488m
  - Above Rail underlying EBIT up $34m (18%) with strong Coal earnings due to transformation benefits
  - Below Rail underlying EBIT up $50m (20%) due to the true-up from the under recovery of UT4 revenue from prior years
- Significant increase in free cash flow to $356m due to stronger cash earnings, a reduction in capex and $98m from the sale of investment in Moorebank
- Interim FY2017 dividend of 13.6cps (100% payout ratio on underlying NPAT), an increase of 20%
- Operating Ratio (OR) was 72.6% (down 4.5ppts) and Return on Invested Capital (ROIC) was 9.6% (up 0.8ppts)
- Statutory EBIT $167m includes $321m of significant items

Transformation

- $64m of benefits delivered, $195m since 1 July 2015, on track to achieve $380m three-year target
  - Labour and fleet productivity are the major transformation drivers behind benefits delivered
  - Key events include implementation of regional operating structure and locomotive heavy maintenance outsourcing
- Transformation scope to expand to include revenue and capital (including working capital) to improve long-term ROIC
- Separate Intermodal business to accelerate reform options

Outlook

- FY2017 guidance range unchanged: revenue $3.35bn - $3.55bn, underlying EBIT $900m - $950m, key assumptions as follows:
  - Above Rail:
    - Moderate growth from prior year – transformation and stronger coal offset weaker Freight
    - Volumes 255 - 275mt, including Coal 200 - 212mt
  - Below Rail:
    - EBIT expectations increased – UT4 true-up at higher end of range, additional $10m energy recovery (year earlier than expected) and GAPE and AFD true-up
  - Group:
    - 1H results include benefit of non-recurring items from prior year
    - Excludes transformation related restructuring and redundancy costs (at least $100m)
    - No major weather impacts

CONSOLIDATED RESULTS

1. Half on Half Comparison

Financial Summary

($m)		1HFY2017	1HFY2016	Variance %	2HFY2016
Total revenue		**1,781**	**1,758**	**1%**	**1,700**
Operating costs		**(1,006)**	**(1,075)**	**6%**	**(951)**
Employee benefits expense		(444)	(481)	8%	(410)
Energy and fuel		(134)	(134)	0%	(111)
Track access		(126)	(162)	22%	(153)
Consumables		(276)	(260)	(6%)	(249)
Other expenses		(26)	(38)	32%	(28)
EBITDA	**- underlying**	**775**	**683**	**13%**	**749**
	- statutory	454	257	-	647
Depreciation and amortisation expense		(287)	(280)	(3%)	(281)
EBIT	**- underlying**	**488**	**403**	**21%**	**468**
	- statutory	167	(23)	-	366
Net finance costs		(92)	(70)	(31%)	(80)
Income tax expense	**- underlying**	**(117)**	**(96)**	**(22%)**	**(115)**
	- statutory	(21)	(15)	(40%)	(106)
NPAT	**- underlying**	**279**	**237**	**18%**	**273**
	- statutory	54	(108)	-	180
Earnings per share[1]	**- underlying**	**13.6**	**11.2**	**21%**	**13.2**
	- statutory	2.6	(5.1)	-	8.7
Return on invested capital (ROIC)[2]		9.6%	8.8%	0.8ppt	8.6%
Operating ratio		**72.6%**	**77.1%**	**4.5ppt**	**72.5%**
Cash flow from operating activities		625	522	20%	696
Interim / Final dividend per share (cps)		13.6	11.3	20%	13.3
Gearing (net debt / net debt + equity)		37.1%	35.4%	(1.7ppt)	37.4%
Net tangible assets per share ($)		2.7	2.8	(4%)	2.7
People (FTE)		5,746	6,455	11%	6,287

Other Operating Metrics

	1HFY2017	1HFY2016	Variance %	2HFY2016
Revenue / NTK ($/'000 NTK)	49.2	48.2	2%	48.4
Labour costs / Revenue[3]	24.8%	25.5%	0.7ppt	23.6%
NTK / FTE (MNTK)	12.6	11.3	12%	11.2
Operations net opex / NTK ($/'000 NTK)	32.0	35.2	9%	33.0
NTK (bn)	36.2	36.5	(1%)	35.1
Tonnes (m)	135.4	138.9	(3%)	132.0

Underlying EBIT by Segment

($m)	1HFY2017	1HFY2016	Variance %	2HFY2016
Below Rail - Network	295	245	20%	261
Above Rail	219	185	18%	250
Commercial & Marketing	1,377	1,468	(6%)	1,410
Operations	(1,158)	(1,283)	10%	(1,160)
Corporate Overhead (Unallocated)	(26)	(27)	4%	(43)
Group	488	403	21%	468

[1] Calculated on weighted average number of shares on issue – 2,052m 1HFY2017 and 2,109m 1HFY2016
[2] ROIC is defined as underlying rolling twelve-month EBIT divided by the average invested capital. The average invested capital is calculated by taking the rolling twelve-month average of net property, plant and equipment including assets under construction plus investments accounted for using the equity method plus current assets less cash, less current liabilities plus net intangibles
[3] 1HFY2017 excludes $3m redundancy costs (1HFY2016 excludes $16m redundancy costs and $16m cost of employee share gift)

Group Performance Overview

Underlying EBIT increased $85m (21%). Group revenue was up 1% to $1.8bn, with increased Below Rail revenue offset by decreased Above Rail revenue due to a 3% reduction in volumes.

Operating costs decreased $69m (6%) driven primarily by $64m of transformation benefits delivered in the period ($52m in Operations and $12m from support functions).

Depreciation increased $7m (3%) reflecting an increase in Below Rail asset renewals and the impact of the completion of the Wiggins Island Rail Project (WIRP) during FY2016.

Underlying EBIT also benefited from the non-recurrence of the cost of the prior period's Queensland Nickel (QNI) doubtful debt provision ($18m) and the employee share gift ($16m). In addition, $16m of redundancy costs were incurred in the prior period, which were included in underlying EBIT. Non-transformation related redundancy costs of $3m have been included in underlying EBIT in the current period.

1HFY2017 OR was 72.6% (down 4.5ppts) and Return on Invested Capital (ROIC) was 9.6% (up 0.8ppts).

Statutory EBIT was $167m reflecting the asset impairment of $257m and redundancy costs of $64m which have been treated as a significant item due to materiality, consistent with the treatment in FY2013 and FY2014.

Reconciliation to Statutory Earnings

Underlying earnings is a non-statutory measure and is the primary reporting measure used by management and the Group's chief operating decision making bodies for the purpose of managing and assessing the financial performance of the business. Underlying earnings is derived by adjusting statutory earnings for significant items as noted in the following table:

($m)	1HFY2017	1HFY2016	FY2016
Underlying EBIT	**488**	**403**	**871**
Significant Items	**(321)**	**(426)**	**(528)**
Asset impairments	(257)	(426)	(528)
Intermodal	(162)	-	-
Freight Management Transformation project	(64)	-	-
Impairment of assets in exit of contracts	(10)	-	-
Transformation assets	(21)	-	-
Investment in Associate	-	(153)	(226)
Strategic infrastructure projects and assets under construction	-	(125)	(125)
Rollingstock	-	(148)	(177)
Redundancy costs	(64)	-	-
Statutory EBIT	**167**	**(23)**	**343**
Net finance costs	(92)	(70)	(150)
Statutory PBT	**75**	**(93)**	**193**
Taxation expense	(21)	(15)	(121)
Statutory NPAT	**54**	**(108)**	**72**

Aurizon reviewed the carrying value of its assets as at 31 December 2016 and has recognised impairments and significant items of $321m (pre-tax) as noted below. A further $9m was impaired during the period and was included in underlying earnings.

Significant asset impairments of $257m:

› Intermodal $162m due to trading performance during the first half being lower than expectations. Following the impairment, the residual carrying value of the assets of the Intermodal business is $177m
› Freight Management Transformation (FMT) project $64m - FMT was an investment that commenced in 2014 to standardise 18 separate legacy systems for logistics planning, scheduling, ordering and billing to a single platform. Following a review, it has been decided to terminate this project and as a result an impairment charge of $64m has been recorded in the 1HFY2017 accounts. An amount of $27m of the total project investment of $91m remains capitalised on the balance sheet in relation to software and licences, which are currently in use
› Freight Review Contract Exit Costs $10m - following the decision by Glencore to not renew its existing contract with Aurizon to haul mine inputs and outputs between Mt Isa and Townsville, Aurizon decided to cease to operate its daily multi-customer freight service from the contract expiry date of 31 January 2017. As a result, $10m of assets including rollingstock, plant and equipment and associated facilities have been impaired
› Other assets $21m – this includes property, plant and equipment of $15m along with a further $6m relating to various projects no longer proceeding and assets identified as surplus to requirements

Redundancy costs $64m - 494 employees were made redundant across the business. This includes $6m for redundancies associated with the exit of the Mount Isa freight service (as detailed above)

2. Other Financial Information

Balance Sheet Summary

($m)	31 December 2016	30 June 2016	31 December 2015
Total current assets	756	844	844
Property, plant & equipment (PP&E)	9,454	9,719	9,693
Other non-current assets	257	305	395
Total Assets	**10,467**	**10,868**	**10,932**
Total current liabilities	(596)	(732)	(625)
Total borrowings	(3,388)	(3,490)	(3,411)
Other non-current liabilities	(940)	(932)	(960)
Total Liabilities	**(4,924)**	**(5,154)**	**(4,996)**
Net Assets	**5,543**	**5,714**	**5,936**
Gearing (net debt / net debt plus equity)	**37.1%**	**37.4%**	**35.4%**

Balance Sheet Movements – 31 December 2016 vs. 30 June 2016

Total current assets decreased by $88m largely due to:

› Reduction in assets held for sale of $95m as a result of the completion of the sale of investment in Moorebank
› Reduction in trade and other receivables of $41m due to improved debtor collections and decreased Network receivables due to the finalisation of UT4
› Increase in cash and cash equivalents of $45m due to strong free cash flow generation

Total non-current assets decreased by $313m largely due to:

› Net decrease in PP&E of $265m largely due to impairments (as previously mentioned)
› Net decrease in other non-current assets of $48m largely due to the $64m impairment of FMT project costs

Total current liabilities decreased $136m mainly due to a decrease in tax payable of $80m on payment of FY2016 liabilities and the impact of recognising the $15m Bandanna bank guarantee as revenue.

Total borrowings decreased by $102m due to the revaluation of medium-term notes by $76m and the repayment of syndicated facilities of $25m.

Other non-current liabilities increased by $8m due to a $39m increase in derivative financial instruments (fair value movement on Euro Medium Term Note) partly offset by a decrease in deferred tax liabilities of $14m and by a decrease of income in advance provisions of $7m.

Gearing (net debt/net debt plus equity) was 37.1% as at 31 December 2016.

Cash Flow Summary

($m)	1HFY2017	2HFY2016	1HFY2016
Statutory EBITDA	**454**	**647**	**257**
Working capital and other movements	33	(38)	(47)
Non-cash adjustments – impairments[4]	266	102	426
Cash from operations	**753**	**711**	**636**
Interest received	2	1	1
Income taxes paid	(130)	(16)	(115)
Net cash inflow from operating activities	**625**	**696**	**522**
Cash flows from investing activities			
Proceeds from sale of property, plant and equipment (PP&E) and associate	105	10	28
Payments for PP&E & intangibles	(285)	(354)	(418)
Interest paid on qualifying assets	(2)	(4)	(8)
Net distributions from investment in associates	0	4	2
Net cash (outflow) from investing activities	**(182)**	**(344)**	**(396)**
Cash flows from financing activities			
Net (repayments) / proceeds from borrowings	(31)	54	388
Payment for share buy-back and share based payments	(7)	(187)	(168)
Interest paid	(87)	(75)	(63)
Dividends paid to Company shareholders	(273)	(234)	(295)
Net cash (outflow) from financing activities	**(398)**	**(442)**	**(138)**
Net increase / (decrease) in cash	**45**	**(90)**	**(12)**
Free Cash Flow (FCF)[5]	***356***	***277***	***63***

Cash Flow Movements

Net cash inflow from operating activities increased by $103m (20%) to $625m largely due to:

- $92m increase in underlying EBITDA (excludes impact of $160m movement in non-cash impairments)
- $33m reduction in working capital relating to inventories and trade receivables; partly offset by
- $15m increase in income taxes paid

Net cash outflow from investing activities decreased by $214m (54%) to $182m, largely due to:

- $133m decrease in capital expenditure due to completion of growth projects in the prior period
- $77m increase in the proceeds on sale of assets due to the sale of investment in Moorebank

Net cash outflow from financing activities increased by $260m (188%) to $398m due to:

- $419m decrease in proceeds from borrowings
- $161m decrease in share buy-back and share based payments
- $24m increase in interest paid due to refinancing of debt
- $22m decrease in dividend payments

[4] Total impairments of $266m include $257m significant items excluded from underlying EBIT and $9m of other impairments included in underlying EBIT
[5] FCF - Defined as net cash flow from operating activities less net cash outflow from investing activities less interest paid

Dividend

Taking into account first half profitability, the trading outlook and cash requirements of the business, the Board has declared an interim dividend for FY2017 of 13.6cps (70% franked) based on a payout ratio of 100% in respect of underlying NPAT (i.e. after adjusting for significant items).

Based on current expectations, the FY2017 final dividend will be franked between 60% and 70%.

The relevant interim dividend dates are:

› 27 February 2017 – ex-dividend date
› 28 February 2017 – record date
› 27 March 2017 – payment date

Funding

The Group continues to be committed to diversifying its debt investor base and increasing average debt tenor. The debt portfolio is managed with particular regard to target credit ratings and interest rate risk inherent in the business including the Aurizon Network regulatory undertakings.

In respect of 1HFY2017:

› Weighted average debt maturity tenor was 5.3 years (1HFY2016 - 4.5 years)[6]
› Interest cost on drawn debt was 5.1% (1HFY2016 - 4.7%)
› Approximately 76% of debt is fixed or hedged to broadly align with the Below Rail regulatory period
› Group gearing was 37.1% (1HFY2016 – 35.4%)
› Aurizon's credit rating remains unchanged at BBB+/Baa1

Tax

Underlying income tax expense for 1HFY2017 was $117m. The underlying effective[7] tax rate for 1HFY2017 was 30%. The underlying cash[8] tax rate for 1HFY2017 was 13% which is less than 30% primarily due to accelerated fixed asset related adjustments.

The underlying effective tax rate for FY2017 is expected to be in the range of 28-30% and the underlying cash tax rate is expected to be less than 20% for the short to medium-term.

[6] Weighted average debt maturity profile does not include working capital facility
[7] Underlying effective tax rate = income tax expense excluding the impact of significant items / underlying consolidated profit before tax
[8] Underlying cash tax rate = cash tax payable excluding the impact of significant items / underlying consolidated profit before tax

SEGMENT REVIEW

Above Rail

'Above Rail' combines the Commercial & Marketing and Operations functions and represents the haulage operations for Aurizon's Coal, Freight and Iron Ore customers. Following the restructure, the Strategy & Business Development function is now managed within the Commercial & Marketing function however the associated costs remain within the Other segment, with attributable costs allocated to Commercial & Marketing consistent with prior years. The profit and loss statements for Operations and Commercial & Marketing are provided in the appendix.

($m)	1HFY2017	1HFY2016	Variance %	2HFY2016
Total revenue	1,495	1,612	(7%)	1,534
Coal	891	950	(6%)	931
Above Rail	586	577	2%	570
Track Access[9]	305	373	(18%)	361
Freight	364	397	(8%)	342
Iron Ore	139	163	(15%)	148
Other	101	102	(1%)	113
Operating Costs	(1,134)	(1,274)	11%	(1,139)
Employee benefits expense	(364)	(399)	9%	(340)
Energy and fuel	(61)	(71)	14%	(49)
Track access	(445)	(519)	14%	(497)
Consumables	(246)	(262)	6%	(239)
Other expenses	(18)	(23)	22%	(14)
Underlying EBITDA	361	338	7%	395
Depreciation and amortisation expense	(142)	(153)	7%	(145)
Underlying EBIT	219	185	18%	250

Above Rail Revenue Metrics

	1HFY2017	1HFY2016	Variance %	2HFY2016
Coal				
Total tonnes hauled (m)	103.5	104.4	(1%)	102.4
Queensland	79.9	82.0	(3%)	81.0
NSW	23.6	22.4	5%	21.4
% Volumes under new form contracts	97%	80%	16.8ppt	78%
Contract utilisation	93%	93%	0.3ppt	92%
Total NTK (bn)	24.8	25.0	(1%)	24.7
Queensland	20.3	20.9	(3%)	20.5
NSW	4.5	4.1	10%	4.2
Average haul length (Km)	240	240	-	241
Total revenue / NTK ($/'000 NTK)	35.9	38.0	(6%)	37.7
Above rail revenue / NTK ($/'000 NTK)	23.6	23.1	2%	23.1
Freight				
Total tonnes hauled (m)	20.5	22.0	(7%)	18.4
Total TEUs ('000s)	212.2	192.9	10%	179.7
Total NTK (bn)	6.7	6.5	3%	5.8
Total revenue / NTK ($/'000 NTK)	54.3	61.1	(11%)	59.0
Iron Ore				
Total tonnes hauled (m)	11.4	12.5	(9%)	11.2
Contract utilisation	101%	104%	(3.0ppt)	98%
Total NTK (bn)	4.7	5.0	(6%)	4.6
Total revenue / NTK ($/'000 NTK)	29.6	32.6	(9%)	32.2
Average haul length (Km)	413	399	4%	414
Total Above Rail tonnes hauled (m)	135.4	138.9	(3%)	132.0

[9] An amount equal to Track Access revenue is included in Operation's costs, reflecting the pass-through nature of tariffs

Above Rail Performance Overview

Underlying EBIT increased $34m (18%) to $219m, with lower revenue offset by a reduction in operating costs and depreciation.

Revenue declined 7% ($117m) due to lower pass-through access revenue and a 3% decline in volumes.

› Coal track access revenue declined $68m (18%) due to a major customer converting to an End User Access Arrangement (where access charges are paid direct to Aurizon Network) following the commencement of their New Form contract. In addition, a $30m credit was received from QR due to the overpayment of access charges on the West Moreton system following the finalisation of the access undertaking. As access charges are passed through to customers, there is a commensurate reduction in operating costs as noted below
› Coal Above Rail revenue was $9m (2%) higher reflecting improved revenue quality offsetting a marginal volume decline
› Freight revenue was down $33m (8%) due to a 7% reduction in volumes
› Iron Ore revenues declined $24m (15%) reflecting 9% lower volumes and the impact on average freight rates due to rate relief granted to a key customer Karara Mining Limited (KML)

Coal volumes were down 0.9mt (1%) to 103.5mt. Queensland volumes were down 2.1mt (3%) to 79.9mt reflecting the expiry of two contracts (BMA GAPE and Gladstone Power Station) and Cockatoo Coal operations being placed into care and maintenance. NSW volumes were 1.2mt (5%) higher at 23.6mt reflecting the ramp-up of the Whitehaven contract and increased spot railing. Coal volumes hauled under new form contracts increased 17ppts to 97%, reflecting the new long-term performance contract for BMA/BMC which commenced 1 July 2016 in the Goonyella corridor. Coal Above rail revenue per NTK was 2% higher due to a change in customer mix improving revenue quality.

Freight volumes declined 1.5mt (7%) to 20.5mt with Bulk Freight volumes down 7% due to the closure of QNI in March 2016 partly offset by a 10% increase in Intermodal Twenty-Foot Equivalent Units (TEUs) following the commencement of the K&S Freighters contract in August 2016. Freight revenue per NTK declined 11% due to the growth in intermodal volumes which are typically longer and lower yielding hauls.

Iron Ore volumes declined 1.1mt (9%) to 11.4mt, due to lower production from KML and Mt Gibson. Iron ore revenue per NTK declined 9% due to the impact of customer rate relief.

Operating costs reduced $140m (11%) driven primarily by $61m of transformation benefits ($52m in Operations and $9m allocated from support functions), and a $74m net reduction in access costs as noted above. Depreciation reduced $11m due to the lower fleet value following the impairment in FY2016. Operating costs compared to 2HFY2016 were flat with increased labour and fuel costs due to an increase in the fuel price offsetting the benefit of transformation and reduced access charges. Labour costs increased primarily due to the impact of the 4% Enterprise Agreement uplift.

Underlying EBIT also includes the benefit of the non-recurrence of the cost of the prior period's QNI doubtful debt provision ($18m), the employee share gift ($12m) and redundancy provision ($8m).

The operational transformation program continues to drive efficiencies, with improvements in most key operating metrics including a 6% improvement in net operating costs per NTK (excluding access) and a 13% improvement in labour productivity. A detailed analysis of operating metrics is provided on page 11.

Market update

Coal

Coal prices increased during the half with metallurgical coal prices trading above US$300 per tonne in November, triple the July price and the highest level in over five years. It was a similar result for thermal coal with trades above US$100 per tonne also in November, almost double the July price and the highest in over five years. The price escalation was primarily due to policy that limited domestic coal production in China. With the longevity of higher coal prices uncertain, the improved trading conditions for coal producers only resulted in short-term opportunities for additional railings. Australian export volume for the half was flat compared to the previous year. Spot prices for metallurgical and thermal coal have retreated from the higher prices seen during the half, trading at sub-US$200 and sub-US$90 respectively in January.

Aurizon's coal business remains resilient with investment grade counterparties comprising 63% of Above Rail 1HFY2017 volumes and a weighted average remaining contract length as at 31 December 2016 of 10.1 years. No material haulage contracts are due to expire until FY2022.

Contract update

› A new agreement was secured with AGL Macquarie for the haulage of coal to the Bayswater and Liddell Power Stations in the Hunter Valley for a period of 8.5 years. Volumes of up to 8.7mtpa will be hauled during the term, which is due to commence on 1 July 2017
› Wollongong Coal operation commenced on 29 August 2016 for up to 0.84mtpa for two years
› In December, Aurizon received expansion volume notification from Whitehaven to 9.6mt, which is in addition to the 1.0mt uplift to 8.6mt commencing 1 January 2017

Iron Ore

The iron ore price increased during the half with spot prices closing at US$79.5 per tonne, which represents a 47% increase from 1 July 2016. The increase was primarily driven by the demand for higher grade ores, allowing steel mills to limit their coke usage, which means a lower exposure to increasingly high coking coal costs. Although current spot prices remain at ~ US$79 per tonne in January, additional supply from the Pilbara and Brazil is expected to put downwards pressure on prices.

Aurizon continues to support the long-term viability of customers by driving efficiencies in the supply chain to optimise throughput. Aurizon hauled 11.4mt in 1HFY2017, 9% lower than the previous comparable period primarily due to production issues at KML which have recently been addressed. Mt Gibson volumes are expected to continue through to contract end of December 2018, as Iron Hill volumes replace Extension Hill volumes. As at 31 December 2016, weighted average contract life is 8.1 years after executing an extension with KML to April 2027.

Freight

Aurizon's Freight business includes haulage of bulk commodities including base metals, minerals, grains and livestock in Queensland, New South Wales (East) and Western Australia (West) and Intermodal containerised freight and logistical solutions across Australia.

Freight Review

A strategic Freight Review commenced in 1HFY2017 aimed at exploring the role and strategic options for Aurizon's underperforming Intermodal and Bulk Freight businesses. The Freight Review is well progressed and has been based on analysing the following:

Bulk

- Detailed analysis of each Bulk haul to understand key financial data including haul margins and returns
- Data reveals mixed performance depending on service type (unit versus manifest trains), commodity types and contract age. Three decisions have emerged:
  - Retain – hauls either already achieving target returns or reform options available to achieve targets
  - Transform – hauls can be reformed but will require some third party decisions
  - Exit – hauls fail to achieve acceptable returns regardless of management action
- Now in execution phase, timing of exit decisions may be impacted by individual contracts
- Mt Isa freighter service termination already implemented

Intermodal

- Detailed analysis of markets and competitive dynamics of Intermodal and IMEX
- Review of current performance has determined the need to restructure the Intermodal business as a standalone function with full P&L accountability, reporting directly to the CEO, effective January 2017
- Separation to increase focus on improvements in customer service, operational and financial performance
- Further work required including consideration of all available options
- Conclusions expected by mid-year

Contract update - Bulk

- Trial of export Bauxite for Alcoa commenced in Western Australia (WA)
- Both BP (0.15mtpa) and Caltex (0.1mtpa) extended their fuel haulage agreements in WA for 3 years
- Louis Dreyfus (NSW) extended its 0.3mtpa grain haulage contract for a further 12 months to December 2017

Contract update - Intermodal

- Following the establishment of a new intermodal terminal at Enfield in Sydney in June 2016, Aurizon secured a new agreement with leading freight forwarder K&S Freighters worth approximately $20-25m in revenue per annum for five years. K&S is a foundation customer of Aurizon's Port Botany rail shuttle service which commenced in August 2016

Operations transformation update

Operating Metrics

	1HFY2017	1HFY2016	Variance %	2HFY2016
Operations				
Net opex[10] / NTK ($/'000 NTK)	32.0	35.2	9%	33.0
Net opex[11] / NTK (excluding access) ($/'000 NTK)	19.7	20.9	6%	18.9
Total tonnes hauled (m)	135.4	138.9	(3%)	132.0
Net tonne kilometres - NTK (bn)	36.2	36.5	(1%)	35.1
FTE (monthly average)	4,523	5,104	11%	4,921
Labour productivity (NTK / FTE)	16.0	14.2	13%	14.3
Locomotive productivity ('000 NTK / Active locomotive day)	387.7	370.7	5%	381.6
Active locomotives (as at 31 December / 30 June)	510	514	1%	508
Wagon productivity ('000 NTK / Active wagon day)	14.8	14.6	1%	14.7
Active wagons (as at 31 December / 30 June)	13,438	13,082	(3%)	13,008
National Payload (tonnes)	4,611	4,538	2%	4,798
Velocity (km/hr)	29.6	29.7	0%	29.8
Fuel consumption (l/d GTK)	3.12	3.13	0%	3.08

Transformation initiatives

Aurizon delivered $52m in gross operational transformation benefits for 1HFY2017 with technology enabled and labour productivity initiatives driving the benefits. Despite a 3% reduction in volumes, productivity metrics continued to trend positively, delivering a 9% improvement to Net Opex /NTK.

Workforce

Operations reduced FTEs by 581 and improved labour productivity (NTK / FTE) by 13% from productivity initiatives enabled by the more flexible Enterprise Agreements (EAs) and the implementation of a new management structure. These include:

› Commencement of a new regional management structure in September 2016 which has resulted in a reduction of 143 positions including leadership and frontline staff, with most operational areas reducing at least one management layer
› More efficient work practices enabled by technology, process improvements and a geographical deployment approach delivered a further reduction of 167 frontline FTEs, including the consolidation of daily rostering activities and initiating the implementation of train crew self-sign on
› The commencement of the consolidation of the five national operations centres into one, which will be completed during 2HFY2017
› Introduction of 9-hour single driver operations in two key areas of WA reducing 20 frontline FTEs
› Asset Maintenance initiatives resulted in a reduction of 150 FTEs including the commencement of the Progress Rail Services contract (see Asset Maintenance commentary below)

Fleet productivity

Locomotive and wagon productivity improved 5% and 1% respectively, despite lower volumes. This has been accomplished through improvements in national payloads of 2% and despite slower than expected system velocity.

National payloads improvements were driven by key initiatives including:

› Continuing to trial and implement longer or over-length trains in the major coal corridors, with longer trains implemented in Goonyella
› New export tonnes in Western Australia which have been accommodated within existing train services

System velocity during the period was impacted by increased delays in the major coal corridor (see Below Rail commentary), volatility in short-term customer orders and a number of significant third party network outages in the North-West, Newlands and North Coast Line regions.

[10] Net opex / NTK is calculated as Operations Underlying EBIT / NTK (i.e. this metric represents operational expenditure net of revenue). Net expenditure is used to measure above rail productivity, as Operations revenue includes intercompany revenue for services provided (and therefore costs incurred) for Network. In addition, Operations also incurs expenditure in generating revenue on commercial rollingstock and infrastructure maintenance contracts

[11] Net opex / NTK (excluding access) excludes track access costs in order to measure productivity net of access costs which are generally passed through to above rail customers (and shown in Commercial & Marketing revenue)

Energy and Fuel Efficiency

No significant improvement in fuel consumption was achieved during the period. Work is continuing to focus on the rollout of fuel efficiency programs including Driver Advisory System (DAS) and Trip Optimiser as well as the train management scorecard which monitors driver behaviour.

Assets Maintenance

Focus on labour productivity, technology investment, outsourcing of non-core work and supply chain management continued during the period.

› Technology investment including Wayside Condition Monitoring (WCM), On Train Repair (OTR) and the development of predictive maintenance technologies continued to lower maintenance costs, including a reduction in yard shunting operations and wheel consumption, whilst improving asset availability and safety. Further rollout of WCM is forecast to take place in the Hunter Valley during early 1HFY2018
› The commencement of the heavy maintenance and parts-supply agreement with Progress Rail Services (PRS) for non-core maintenance work which runs until October 2024. This initiative is expected to deliver significant maintenance cost savings and productivity improvements through:
    › Direct sourcing of inventory and key components, removing third party margins
    › Transfer of 76 Asset Maintenance FTEs to PRS
    › Improvement in working capital with a reduction in inventory holdings
    › Direct interface to an Original Equipment Manufacturer (OEM) to support locomotive reliability, component availability and technology enhancements
    › Once fully imbedded it is anticipated that full year run rate cash benefit will be in the order of ~$20m. This will be across both the operating and capital maintenance programs
› Ongoing focus on reform in the Asset Maintenance function through standardising and centralising planning, supply chain and reliability functions to improve the efficiency of the supply chain and reduce the total cost of maintenance activities of the fleet which will result in:
    › Increased asset availability through optimising and standardising programs of work and procedures across depots
    › Improved depot and workshop performance through integrated demand planning
    › Reduced level of working capital held through optimising inventory holdings
    › Improved component warranty and supplier contract management
    › Reduced average cost of inventory through direct supply arrangements with OEMs

Below Rail

Below Rail refers to Aurizon's Network business which operates the 2,670km Central Queensland Coal Network (CQCN). The open access network is the largest coal rail network in Australia and one of the country's most complex, connecting multiple customers from more than 40 mines to three ports. The CQCN includes four major coal systems (Moura, Blackwater, Goonyella and Newlands) and a connecting link Goonyella to Abbot Point Expansion (GAPE).

Below Rail Financial Summary

($m) Year on Year	1HFY2017	1HFY2016	Variance %	2HFY2016
Total revenue	671	581	15%	598
Access	629	560	12%	576
Services and other	42	21	100%	22
Operating costs	(234)	(211)	(11%)	(204)
Employee benefits expense	(62)	(63)	2%	(54)
Energy and fuel	(73)	(63)	(16%)	(62)
Consumables	(91)	(66)	(38%)	(81)
Other expenses	(8)	(19)	58%	(7)
Underlying EBITDA	437	370	18%	394
EBITDA margin	65.1%	63.7%	1.4ppt	65.9%
Depreciation and amortisation expense	(142)	(125)	(14%)	(133)
Underlying EBIT	295	245	20%	261

Below Rail Revenue Metrics

	1HFY2017	1HFY2016	Variance %	2HFY2016
Tonnes (m)	112.9	114.0	(1%)	111.9
NTK (bn)	28.3	28.9	(2%)	28.2
Access revenue / NTK ($/'000 NTK)	22.2	19.4	14%	20.4
Maintenance / NTK ($/'000 NTK)	2.1	2.1	-	2.2
Operating costs / NTK ($/'000 NTK)	13.3	11.6	(15%)	12.0
Average haul length (Km)	251	253	(1%)	252

Below Rail Performance Overview

Underlying EBIT increased $50m (20%) to $295m, with increased revenues partly offset by higher operating costs and depreciation.

Revenue increased $90m (15%) due to a $69m (12%) increase in access revenue and a $21m (100%) increase in services and other revenue. Access revenue includes a $45m true-up for the under recovery of UT4 regulatory revenues from prior years, a $12m true-up in relation to GAPE (non-regulated revenue) and AFD[12] rebates, and higher revenues attributable to electric traction.

Regulatory revenues are being recognised in alignment with the UT4 Final Decision approved by the Queensland Competition Authority (QCA) on 11 October 2016. FY2017 tariffs include a true-up of ~$89m relating to the under-recoveries in revenue over FY2014 and FY2015 of which $45m has been recognised in 1HFY2017.

Services and other revenue increased $21m due to the recognition of the Bandanna Group's $15m bank guarantee held as security following the termination for insolvency of their WIRP Deed and a $6m insurance claim recovery.

Volumes decreased 1.1mt to 112.9mt, principally due to weaker Blackwater and Moura system railings due to the closure of two mines, with the other systems consistent with the record volumes in 1HFY2016. The decrease in NTKs (2%) primarily reflects the decrease in volumes from mines with longer average haul lengths.

Operating costs increased $23m (11%) due to $10m higher fuel and energy costs from an increase in electricity prices and $13m alignment of the corporate cost allocation ($26m full year adjustment) to the UT4 Final Decision (FY2014 and FY2015 true-up). Employee benefits expense increased by $8m (15%) from 2HFY2016 due to an increase in employee bonus provisions and on-costs.

Depreciation increased $17m (14%) reflecting asset and rail renewals, increased ballast undercutting and completion of the Wiggins Island Rail Project (WIRP) during FY2016.

The Regulated Asset Base (RAB) roll-forward value is estimated to be $5.8bn[13] (excluding AFDs of $0.4bn) by 30 June FY2017, including all deferred capital.

[12] AFD (Access Facilitation Deeds) in relation to mine specific infrastructure paid for by customers
[13] Estimate subject to QCA Approval of RAB roll-forward and approval of the FY2016 and FY2017 Capital Claims

Regulation update

Access Undertaking 2013 (UT4)

- On 11 October 2016, the QCA approved the UT4 Access Undertaking
- The approval covers all elements of UT4 including:
  - Aurizon Network's Maximum Allowable Revenue (MAR) over the UT4 period (1 July 2013 to 30 June 2017) totalling $3.9bn
  - The way in which Aurizon Network must provide and manage access to the CQCN

Access Undertaking 2017 (UT5)

- On 30 November 2016 Aurizon Network submitted the 2017 Draft Access Undertaking (UT5), covering the period 1 July 2017 to 30 June 2021 to the QCA for approval
- The QCA has invited interested stakeholders to make submissions by 17 February 2017, which will then be duly considered by the QCA in making its draft decision on UT5 (no date has been set by the QCA for release of the UT5 draft decision)
- Aurizon Network's UT5 draft proposed a MAR of $4.9bn over the four-year regulatory period applying a 6.78% WACC to the RAB value of $5.8bn. Primary MAR drivers are:
  - Inflation methodology reflects the current low inflation expectations for the UT5 regulatory period (forecast at 1.22% compared to 2.5% in UT4)
  - Change in equity beta from 0.8 in UT4 to 1.0 affecting the return on capital building block
  - Change in gamma from 0.47 in UT4 to 0.25 affecting the tax building block
  - UT5 RAB now includes the majority of the WIRP capital expenditure with ~$235m of the ~$260m in capital deferred during UT4 included in the UT5 RAB for pricing purposes
- Aurizon Network has adopted a revised approach to calculating its efficient cost of capital to properly reflect the Pricing Principles of the QCA Act. The inherent risks faced by Aurizon Network are higher than what the QCA has determined in previous Access Undertakings due to:
  - Increasingly volatile operating environment of the coal industry;
  - Fragmentation of the RAB by system which increases the risk of asset stranding; and
  - Revenue deferrals which have resulted in ~$260m of expansion capital excluded from the RAB for pricing purposes in UT4 as part of WIRP

Below Rail Operational Update

Performance

- Effective Below Rail planning and scheduling and maintenance programs resulted in a 20% reduction in system closure hours and a 1.5% increase in average payloads
- Performance to plan achieved a strong result of 91.5%, however this represents a 1.2ppt reduction compared with the record result of 92.7% achieved in 1HFY2016 due to a 17% increase in the number of services cancelled, with mine cancellations being the largest contributor. Below Rail cancellations remained at less than 1% of total cancellations
- Below Rail delays were impacted (17% increase) due to the wetter winter experienced in Central Queensland, with over 700mm in additional rainfall, and extreme heat in November/December, resulting in increased speed restrictions and cycle velocity decreasing 0.8% to average 23.8km/h

Asset Management

Technology has enabled the understanding of asset condition and network performance over time and sustaining capital has been targeted to positively affect asset performance and network availability. Examples include:

- Implementation of innovative condition monitoring solutions including:
  - Locomotive mounted object recognition technology which detects overhead alignment issues enabling defects to be identified and fixed before failure; and
  - Wagon mounted accelerometers, providing real time data on track alignment, enabling a more tailored, mechanised maintenance program. This facilitates prioritising maintenance work based on asset condition, rather than the previous time-based approach
- Management focus and improved work methods on in-field rail weld quality and rail stressing has resulted in improvements in rail health metrics, including an 84% reduction in failed welds and reductions in broken rails, track misalignment and track buckles
- Targeted data analytics of overhead high voltage faults identified problem sections which lead to infrastructure changes to strengthen affected sections, delivering an 800% improvement in overhead performance in the worst performing section
- The first phase of the Network Asset Management System (NAMS) project, which deploys improved asset management and maintenance capabilities to the CQCN civil assets, will be completed by February 2017. NAMS will improve maintenance efficiency and increase asset reliability. Phase 1 of the deployment includes an integrated mobile solution for field engineers and maintenance practitioners. Phase 2, which is planned for late CY2017, will deploy NAMS to the electrical and telecommunication assets supporting the CQCN
- During 1HFY2017, 42kms of rail was replaced in the Goonyella and Blackwater systems as part of the rail renewal program to replace the rail installed in the 1980s which is coming to the end of its operating life

Wiggins Island Rail Project (WIRP)

- The QCA in its UT4 Final Decision applied a revenue deferral for WIRP customers who were not expected to rail during the UT4 period resulting in ~$260m of WIRP capital expenditure being excluded for pricing purposes from the UT4 MAR, on a NPV neutral basis
- In the UT5 submission Aurizon Network proposes that ~$235m of the deferred WIRP capital expenditure be included in the UT5 RAB for pricing purposes
- Aurizon Network is confident that railings in the Moura system will increase in the medium-term to enable the remaining deferred WIRP capital expenditure to be included in the RAB for pricing purposes
- Aurizon Network maintains its position that the notices issued by the WIRP customers in relation to the commercial fee (WIRP fee) are not valid. As discussions with the customers failed to deliver a resolution, Aurizon Network issued proceedings in the Supreme Court of Queensland on 17 March 2016 to assert its rights under the Project Deed. The proceedings have been admitted to the Commercial List of the Supreme Court of Queensland, and the Court has made orders to prepare the matter for trial
- Due to the ongoing dispute, no WIRP commercial fee revenue has been recognised during the period

Other

Other includes miscellaneous activities such as non-rollingstock asset sales and corporate overheads that have not been allocated to the Below Rail or the Above Rail businesses. Corporate support functions include Finance, Enterprise Services, Human Resources and Strategy. The percentage of corporate support costs allocated to these functions in 1HFY2017 was 76% (1HFY2016 75%).

Other Summary

($m)	1HFY2017	1HFY2016	Variance %	2HFY2016
Total revenue	2	13	(85%)	2
Operating costs	(25)	(38)	34%	(42)
Employee benefits expense	(18)	(19)	5%	(16)
Consumables	(4)	(19)	79%	(16)
Other expenses	(3)	-	-	(10)
Underlying EBITDA	(23)	(25)	8%	(40)
Depreciation and amortisation expense	(3)	(2)	(50%)	(3)
Underlying EBIT	(26)	(27)	4%	(43)

Performance Overview

Underlying EBIT increased $1m (4%) to ($26m) in 1HFY2017 due to:

- $11m decrease in revenue, from lower asset sales with the Forrestfield facility in Western Australia sale completed in 1HFY2016
- $13m net decrease in operating costs principally due to:
  - $9m net benefit from land rehabilitation and employee provision adjustments due to higher bond rates
  - $13m one-off overhead recovery from Aurizon Network to reflect the final UT4 decision in relation to the corporate cost allocation FY2014 and FY2015 true-up (refer Below Rail commentary on page 13); partly offset by
  - $7m net impact in relation to the property portfolio with $10m asset impairments partly offset by $3m from the finalisation of the sale of investment in Moorebank

Corporate support functions continue to deliver transformation initiatives, with a further $12m in savings achieved in 1HFY2017:

- $7m in labour productivity following a corporate support function consolidation and redesign resulting in a reduction of 52 FTE (11%) to 419 FTE since 1HFY2016
- $5m reduction in discretionary spend including professional services

Note: $9m of the support transformation benefits above have been allocated to Above Rail, consistent with the allocation of corporate overheads

The support functions remain focussed on achieving transformation targets by continuing efforts in the following activities:

- Ongoing consolidation and rationalisation of the property portfolio. This included the donation to the Salvation Army of 37 houses in Central Queensland and the closure of the South Townsville Yard during the period
- Outsourcing of the property maintenance facilities help desk and contract management activities with an expected reduction of ~10 FTEs in FY2017
- Procurement led initiatives to rationalise the supplier base and strengthen strategic partnerships with key suppliers to reduce spend and improve innovation
- Focus on governance and disciplined spend with a significant reduction in delegations for expenditure on both capital projects and consultancy

ADDITIONAL INFORMATION

Senior Management Changes

On 2 September 2016, following a global recruitment search, Aurizon announced the appointment of Andrew Harding to the role of Managing Director and CEO. Andrew commenced in the role on 1 December 2016 replacing Lance Hockridge who had served in the role for nine years. Andrew has worked for more than twenty-four years at Rio Tinto, most recently as Chief Executive Iron Ore. Prior to his most recent role he held various executive management, operating and functional roles both domestically and globally across the Rio Tinto business.

On 15 December 2016, Mr Harding announced the appointment of Pam Bains to the role of the Executive Vice President and Chief Financial Officer replacing Keith Neate. Pam has been with Aurizon for the past six years most recently as the Vice President Network Finance. In her various senior management roles at Aurizon, Pam has led or played a key role in a number of major projects including transition of reporting requirements at IPO to meet external reporting requirements for a listed entity, capital restructuring in the Network business as well as support for various regulatory reforms which have improved the financial performance of the Network Business.

The recruitment process for two senior management roles, Executive Vice President Operations and Executive Vice President Human Resources and Enterprise Services remains underway.

- Michael Carter continues to act as EVP Operations while a global recruitment process, including internal candidates, is undertaken to fill this role
- A recruitment process is also underway to fill a merged role of Executive Vice President Human Resources and Enterprise Services. The merging of these roles was announced on 4 July 2016 to streamline management roles as part of the transformation program and was followed by the subsequent departure of the Executive Vice President Enterprise Services Jennifer Purdie in July and the Executive Vice President Human Resources John Stephens in December

Risk

Aurizon operates a mature system of risk management that is focussed on delivering objectives and is aligned to international standards. Aurizon's Board is actively engaged in setting the tone and direction of risk management, with a clear articulation of risk appetite aligned to the company strategy and risk management practices that support consistent delivery of expected outcomes.

The Board has full confidence in the management of Aurizon's key risks and acknowledges that internal and external factors can influence financial results.

The most significant factors relating to future financial performance are:

- Product Demand, Commodity Prices and General Economic Conditions

Aurizon's customers in core markets are reliant on demand from large export markets such as Japan, China, South Korea and India. Fluctuations in demand in turn impact commodity prices, product volumes and investment in growth projects. Aurizon references credible sources such as the International Energy Agency (IEA) in evaluating long-term demand for the key commodities of coal and iron ore. Whilst long-term demand is predicted to increase, in the short-term there may be variances in volumes, contract profitability and growth that impact on Aurizon's financial results.

- Customer Credit Risk

Aurizon's earnings are concentrated in commodity markets across a relatively small number of customers. The following factors may have a material adverse impact on Aurizon's financial performance:

  - Deterioration in counterparty credit quality due to a weakening in their financial position, mine sale to a lower tier party, and/or mine profitability
  - Contract renewals
  - Supply chain disruptions
  - Macro-industry issues

- Competition Risk

Capacity to compete at reduced margins as a result of the acquisitions of significant competitors by financial investors who have the benefit of a lower cost of capital and appear to accept lower returns and greater risk positions than Aurizon. This may potentially negatively impact Aurizon's comparative competitiveness.

- Strategic Risk

Aurizon may adopt a strategy that does not deliver optimal performance outcomes for shareholders. Whilst Aurizon is confident in its strategic planning practices, the nature of planning for strategy in uncertainty leads to a possibility of sub-optimal strategic settings.

- Retention of Customer Contracts

Aurizon's most significant customer contracts are secured on long-dated terms however failure to win or retain customer contracts will always be a risk to future financial performance.

› Capital Investment Plans

When deciding which opportunities for expansion and improvement to pursue, Aurizon must predict the rate of return associated with each project. Calculations are based on certain estimates and assumptions that may not be realised. Accordingly, the calculation of a potential rate of return may not be reflective of the actual returns.

› Strategic Freight Review

Decisions on the outcomes of the Freight Review may lead to further negative short-term financial outcomes through financial impacts such as asset impairments and/or losses under various potential scenarios.

› Asset Impairment

Aurizon's assets are subject to impairment testing each year. With a large portfolio of fixed assets, there is the potential that reduced haulage volumes or continued improvements to asset productivity may require some assets to be impaired.

› WIRP Non-Regulated Revenue Dispute

Aurizon has received notices from seven (of eight) WIRP customers purporting to exercise a right under the relevant agreements to reduce their financial exposure in respect to the non-regulated revenue component. Aurizon issued proceedings in the Supreme Court of Queensland to assert its contractual rights under the Project Deeds.

› Aurizon Credit Rating

Aurizon's credit rating metrics are forecast to continue to meet current tolerance levels. However, Aurizon's business risk profile, which has been impacted by its significant exposure to coal and iron ore and related weakening of the customer credit risk profile, could adversely impact Aurizon's credit rating. Rating agencies have not revised their long-term outlook on these commodities despite recent price improvements. The implications of a lower credit rating are increased cost of borrowing and in addition it may impact on the ability to borrow additional debt or refinance existing debt.

› Delivery of Technology Transformation Projects

Aurizon is investing in important operational and information technology programs that are expected to deliver step change improvements in efficiency leading to reduced costs. Continued focus is required on these projects to ensure benefits are delivered and flow through to support cost-out targets.

› Regulatory Risk of the Access Undertaking (UT5)

Aurizon continues to work with the QCA and industry stakeholders to secure acceptable and sustainable regulatory outcomes for the CQCN in accordance with the processes set out in the relevant legislation. Not attaining appropriate pricing and policy regulatory settings may negatively impact revenue, operational complexity, capital investment and administrative overhead. In particular Aurizon Network's Maximum Allowable Revenue (MAR) and the nominal (vanilla) weighted average cost of capital (WACC) used in deriving Aurizon Network's MAR is typically reset every four years as part of the access undertaking approval process with the QCA and the reference tariffs are reset annually based on projected system volumes and other variables. The WACC decided by the QCA may not adequately compensate Aurizon Network for its business and operational risks which could lead to a material adverse impact on the Aurizon Network business, operational performance and financial results.

› Adverse Weather Events

Aurizon's business is exposed to extreme weather events, which may potentially increase in regularity and/or severity as a result of climate change. These events, if experienced, could have a material impact in core markets on customers, supply chains and Aurizon's operational performance. Each of these factors in turn may impact Aurizon's financial performance. Weather can also have an impact on bulk haulage volumes for agricultural commodities such as grain, sugar and fertiliser.

› General Regulatory Risk

Aurizon's operations and financial performance are subject to legislative and regulatory oversight. Unfavourable changes may be experienced with respect to access regimes, safety accreditation, taxation, carbon reduction, environmental and industrial (including occupational health and safety) regulation government policy and approval processes. These changes may have a material adverse impact on project investment, Aurizon's profitability and business in general as well as Aurizon's customers.

› Climate Change Risk

The long-term implications of climate change may have impacts on Aurizon such as increased regularity or severity of weather events, reduced demand for certain commodities we transport, reduced appetite for funding either for Aurizon and/or for Aurizon's customers, increased regulation and/or reduced 'license to operate' in the community making various approvals and licenses more cumbersome to achieve. These considerations are explicitly evaluated both in strategic planning and in the general management of risk within Aurizon.

Sustainability

On 10 October 2016, Aurizon released its third sustainability report. The report details how Aurizon takes into account social, environmental and economic considerations related to its operations. While the material priority areas have not changed over the past three years, two themes have emerged that continue to remain relevant to our stakeholders:

› Innovation through technology: like most asset intensive businesses, access to technology is a key capability that defines how Aurizon innovates and operates. Implementing innovative technology solutions provides better customer outcomes, enhanced productivity and enables future growth

› Climate Change: since our inaugural sustainability report we have sought to provide stakeholders with information about our position on climate change and how we are managing associated risks. These risks relate to future demand for the thermal coal we haul, regulation of our direct GHG emissions and physical impacts on our assets and people

Please refer to www.aurizon.com.au/sustainability/overview for more detailed information within Aurizon's 2016 sustainability report.

For consistency with prior reporting, a brief summary of Aurizon's performance in connection with safety, environmental management and organisational capability is outlined below:

› Safety

Aurizon's commitment to ZEROHarm has resulted in improved performance for the 2016 calendar year. At 31 December 2016, the Total Recordable Injury Frequency Rate (TRIFR) was 2.47, an 18% improvement on December 2015. This rate is the lowest six months on record and outperforms the North American Class 1 railways. This safety improvement has been driven by a sustained focus of management visibility through Safety Pauses, Safety Interactions, Efficiency Testing, High Consequence Activity monitoring, and intensifying the “STOP, Take Time & Switch On” Safety initiative.

Aurizon’s use of predictive technology to detect and pre-emptively correct track and rollingstock issues that cause safety incidents e.g. the Wayside Condition Monitoring (WCM) equipment has contributed to a greater than 80% reduction in serious operational incidents such as train partings and derailments. Aurizon now has a record low running line derailment rate of 0.14 per million train kilometres, which is a 72% improvement for the 2016 calendar year.

› Environmental Management

Aurizon delivers environmental value through superior environmental performance including participation in the development of a draft industry Standard and Code of Practice (CoP) to reduce locomotive diesel emissions and the associated impact on air quality. The draft Standard and CoP are currently being reviewed by the Rail Industry Safety and Standards Board (RISSB) and should come into effect mid-2017.

Aurizon’s Environment Community of Competence continues to govern the management of key environmental issues including coal dust, noise and diesel emissions.

In December 2016, Aurizon received a score of ‘Management B’ for its response to the CDP Climate Change Program questionnaire. This score reflects Aurizon’s continuing focus on developing our strategy on climate change to ensure both risks and opportunities are being managed effectively.

› Organisational Capability

Aurizon believes its greatest asset is the collective capability of its people to safely and efficiently operate complex supply chains. To support our transformation opportunities, Aurizon is growing the capability of its people through programs focused on leadership, people-centred change and diversity and inclusion. For detailed information on Aurizon’s organisational capability please refer to Aurizon’s 2016 sustainability report http://www.aurizon.com.au/sustainability published in October 2016.

Entities over which control was gained during the period

Not applicable.

Entities over which control was lost during the period

Entity	Date
Aurizon Moorebank Pty Ltd	22 December 2016
Aurizon Moorebank Holding Pty Ltd	22 December 2016
Aurizon Moorebank Investment Pty Ltd	22 December 2016
Aurizon Moorebank Terminal Operations Hold Trust	22 December 2016
Aurizon Moorebank Terminals Assets Hold Trust	22 December 2016
Aurizon Moorebank Unit Trust	22 December 2016
Aurizon Moorebank Intermodal Hold Trust	22 December 2016
Aurizon Moorebank Warehouse Hold Trust	22 December 2016
Aurizon Moorebank Warehouse Lot Hold Trust	22 December 2016
Aurizon Moorebank Terminals Operations Trust	22 December 2016
Aurizon Moorebank Terminals Assets Trust	22 December 2016
Aurizon Moorebank Intermodal Trust	22 December 2016
Aurizon Moorebank Warehouse Trust	22 December 2016

Details of associate and joint venture entities

Entity	Country of incorporation	Ownership Interest	
		31 December 2016 %	31 December 2015 %
Investment in associates			
Moorebank Industrial Property Trust	Australia	-	33
Aquila Resources Limited	Australia	15	15
Moorebank Industrial Terminals Operations Hold Trust	Australia	-	33
Moorebank Industrial Terminals Assets Hold Trust	Australia	-	33
Moorebank Industrial Warehouse Hold Trust	Australia	-	33
Moorebank Industrial Hold Trust	Australia	-	33
Joint Ventures			
CHCQ	Hong Kong	15	15
Chun Wo/CRGL	Hong Kong	17	17
KMQR Sdn Bhd	Malaysia	30	30
ARG Risk Management Limited	Bermuda	50	50
Integrated Logistics Company Pty Ltd	Australia	14	14
ACN 169 052 288	Australia	15	15

The profit contribution from any one of these associate or joint venture entities is not material to the Group's profit.

APPENDIX

Commercial & Marketing P&L

($m)	1HFY2017	1HFY2016	Variance %	2HFY2016
Total revenue	1,394	1,510	(8%)	1,421
Coal	891	950	(6%)	931
Above Rail	586	577	2%	570
Track access	305	373	(18%)	361
Freight	364	397	(8%)	342
Iron Ore	139	163	(15%)	148
Operating Costs	(15)	(39)	62%	(10)
Employee benefits expense	(12)	(17)	29%	(12)
Energy and fuel	-	-	-	-
Consumables	(5)	(5)	0%	(1)
Other expenses	2	(17)	-	3
Underlying EBITDA	1,379	1,471	(6%)	1,411
Depreciation and amortisation expense	(2)	(3)	33%	(1)
Underlying EBIT	1,377	1,468	(6%)	1,410

Operations P&L

($m)	1HFY2017	1HFY2016	Variance %	2HFY2016
Total revenue	101	102	(1%)	113
Total operating costs	(1,119)	(1,235)	9%	(1,129)
Employee benefits expense	(352)	(382)	8%	(328)
Energy and fuel	(61)	(71)	14%	(49)
Track access	(445)	(519)	14%	(497)
Consumables	(241)	(257)	6%	(238)
Other expenses	(20)	(6)	-	(17)
Underlying EBITDA	(1,018)	(1,133)	10%	(1,016)
Depreciation and amortisation expense	(140)	(150)	7%	(144)
Underlying EBIT	(1,158)	(1,283)	10%	(1,160)
Underlying EBIT (excluding access)	(713)	(764)	7%	(663)