



Transport Asset
Holding Entity

Hunter Valley Coal Network

Submission on compliance with the pricing principles in the NSW Rail Access Undertaking 2018-19 to 2019-20

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1 Introduction

The NSW Rail Access Undertaking (the Undertaking) is the framework by which a Rail Infrastructure Owner (RIO) is required to assess requests for access to the NSW Rail Network.

In relation to access pricing, the Undertaking requires RIOs to comply with the Asset Valuation Roll Forward Test, Ceiling Test and Floor Test, on an annual basis.

Table 1: Compliance tests in the NSW Rail Access Undertaking

Test	Description
Asset Valuation Roll Forward Test	<p>The Asset Valuation Roll Forward Test defines the value of the Regulatory Asset Base (RAB) for a particular network, on an annual basis:</p> <ul style="list-style-type: none">• The RAB in year t is given by: $(RAB_{t-1} \times CPI_t) + ADD_t + Capex_t - Dep_t - Disp_t$• Only capital expenditure (capex) that relates to the relevant traffic on a standalone basis is to be included.• A capital expenditure consultation process is required for the NSW Rail Network.
Ceiling Test	<p>The Ceiling Test requires that access charges set by RIOs do not exceed its Full Economic Cost (FEC) on a standalone basis:</p> <ul style="list-style-type: none">• The FEC on a standalone basis is comprised of direct costs, shared costs, depreciation and return on assets.• The RIO is obliged to maintain an unders and overs account which keeps track of deviations around the rate of return and if thus if the charges levied any access seekers breach the Ceiling Test.
Floor Test	<p>The Floor Test requires that access charges set by RIOs cover their full incremental costs on a standalone basis. Full incremental costs are defined under the Undertaking as costs that are not incurred if a sector(s) is removed from the network.</p>

Hunter Valley Coal Network – TAHE

On 1 July 2020, the Transport Asset Holding Entity of New South Wales (TAHE) was established as a State-Owned Corporation. The section of the Hunter Valley Coal Network (HVCN) previously owned by RailCorp was transferred to TAHE on 1 July 2020. This small component of the HVCN comprises the five sectors between Newstan Junction and Woodville Junction (TAHE HVCN), as shown in Table 1.

Table 2: TAHE-owned sectors of the Hunter Valley Coal Network

Sector	Name
405	Newstan Junction to Cockle Creek
406	Cockle Creek to Sulphide Junction
490	Sulphide Junction to Adamstown
407	Adamstown to Broadmeadow (via Main)
497	Broadmeadow to Woodville Junction

This submission outlines compliance with the Undertaking for the financial years 2018-19 and 2019-20 for TAHE HVCN. It focuses on three groups of Access Seekers; trains carrying coal, freight and the combined group of coal and freight. The passenger Access Seeker group has not been considered in this submission as the operational requirements and fixed costs of rail

infrastructure for passenger trains are significantly different than for coal and freight-only services and access fees are currently not charged.

This is the first compliance submission to IPART that TAHE has been involved in although the TAHE HVCN remained under the ownership of RailCorp for the nominated time period. Subsequent submissions will be made directly by TAHE as owner of the TAHE HVCN.

2 Key changes to approach since last submission

2.1 Overview

In its most recent decision in 2019, IPART determined that RailCorp's HVCN satisfied the Ceiling Test in 2015-16 but did not meet the Ceiling Test in 2016-17 and 2017-18. This was based on a number of key assumptions, including:

- Determination of the optimal configuration of rail infrastructure that is required in order to serve all Access Seekers operating in a common end market, consistent with clause 2.2(c), Schedule 3 of the Undertaking;
- Determination of the efficient benchmark maintenance costs (i.e. maintenance costs, network control costs and corporate and system overheads) based on an optimal configuration of the rail network. IPART determined these efficient benchmarks to be:
 - \$1.58 per thousand GTK for variable maintenance costs;
 - \$68,861 per km of track for fixed maintenance costs;
 - \$2.86 per train kilometre for network control costs;
 - 9.2% of maintenance and network control costs for corporate and system overheads.
- Depreciation calculated on a straight-line basis assuming a 2044 end of mine life, set by IPART from 1 July 2014.¹

The original Hunter Valley Coal Network which consisted of 998 kms, which the vast majority was effectively a standalone coal network. The NSW Rail Access Undertaking (then known as the NSW Rail Access Regime) specifically addressed the standalone characteristics of the HVCN by detailing pricing principles and compliance obligations. Shortly after the NSWRAU was introduced IPART determined a Regulatory Asset Base for the full HVCN. The small component of the HVCN that is now owned by TAHE was in fact a shared network with a mix of coal, freight and passenger (long distance, intercity and urban).

In 2004 the vast majority of the HVCN was leased to the Australian Rail Track Corporation apart from the TAHE component of the HVCN as it was recognised that it was not a standalone coal network but in fact a mixed trafficked (passenger, freight including coal) component of a of the wider shared metropolitan network.

Following a review of RailCorp's previous submission and IPART's decision, it is proposed to depart from some aspects of the IPART's decision for the 2018-19 and 2019-20 compliance submission where it is considered that TAHE's proposed approach is more consistent with the underlying purpose and intent of the Undertaking.

Nevertheless, it should be highlighted TAHE has applied a 20% discount in FY21 to coal access charges that applied to the TAHE HVCN effective 1 July 2020 in addition to waiving CPI escalation in FY20 on all access charges. Effectively this resulted in a 23% reduction in coal access seeker access fees in FY21. These discounts were implemented to address the TAHE HVCN's historical Unders and Overs Account balance that had been identified by IPART.

¹ IPART, NSW Rail Access Undertaking – Review of the rate of return and remaining mine life from 1 July 2014, Final Report and Decision, 15 July 2015

2.2 Maintenance costs

2.2.1 Rationale

While the Undertaking requires the TAHE HVCN to be treated as a standalone rail network for the purposes of determining efficient maintenance costs, TAHE considers that this:

- Is not appropriate given the role and nature of the TAHE HVCN rail network as part of the Australian interstate rail network, which is a critical component of the broader national supply chain. The network effects of considering the TAHE HVCN as a standalone coal network should therefore be considered, as the constraints to the TAHE HVCN's network capacity would impact on all services nationally and regionally. In practice, the maintenance costs for the HVCN are higher than the theoretical costs of a standalone network because user groups require additional maintenance costs to be incurred so that the network can be used as part of the Australian interstate rail network. Therefore, the use of theoretical costs of a standalone network is not a reasonable comparison.
- Creates the risk that TAHE will not have an opportunity to recover its efficient maintenance costs under the regulatory regime, which is not consistent with the purpose and intent of the Undertaking. This is because:
 - The TAHE HVCN, operating efficiently as a shared network, will generally incur significantly higher operating costs than a standalone network operating efficiently (all things equal) because there are maintenance costs that are necessarily incurred for the upkeep of a shared network that would not otherwise be incurred for a standalone network;
 - The measure of efficient costs and FEC used in the Ceiling Test is on a standalone basis, which is a benchmark that it is not possible for the HVCN to attain as a shared network. This is because the relevant users require extra maintenance costs to be incurred to enable the TAHE HVCN to be a part of the Australian interstate rail network;
 - One of the main features of economic regulation is to provide regulated service operators like TAHE with an opportunity to recover its efficient costs. The treatment of the TAHE HVCN as a standalone network appears to deny TAHE the opportunity to do so.

As a result, TAHE proposes to use the network operating costs that TAHE are faced with as network owner. That is, Sydney Trains' levelised costs for the HVCN in the estimation of FEC and in the Floor Test and Ceiling Test.

2.2.2 Method used to estimate levelised costs

Overview

Sydney Trains is the Rail Infrastructure Manager (RIM) for the TAHE HVCN. To calculate Sydney Trains' levelised costs, maintenance cost data was provided by the Sydney Trains Asset Management Division. This is based on actual maintenance expenditure in 2018/19 and 2019/20 and the Sydney Trains Asset and Services Plan (STASP). This data is developed by Sydney Trains using the following assumptions:

- Only assets for a standalone freight network are included in this analysis, costs associated with electric traction, passenger facilities, stations and rolling stock have been excluded;
- Costs are based on the steady state maintenance program which is based on the asset life cycle;

- The maintenance data is aggregated across the total 1643km of the Sydney Trains maintained network including loops and sidings;
- It is not possible to separately allocate costs to freight lines and passenger only lines for the MRN or TAHE HVCN;
- The TAHE HVCN comprises only 3.2% of the Sydney Trains network, it is not possible to determine if major MPM works such as signal upgrades are planned for the TAHE HVCN.

Determination of Major Periodic Maintenance (MPM)

- Asset classes were selected based on rail network requirements for standalone freight rail network (track, civil & signalling);
- Alternate passenger transport costs for replacement passenger services have been excluded as a coal/freight only network would not require alternate transport;
- Sydney Trains maintenance expenditure for the TAHE HVCN in 2018/19 and 2019/20 has been derived from actual expenditure data provided by Sydney Trains;
- An annualised average based on actual costs of RailCorp and Sydney Trains asset maintenance from 2012/13 to 2019/20 has been used to determine expenditure on re-signalling, interlocking (signalling) upgrades and bridge renewals (based on the calculation provided by Sydney Trains);
- Turnout renewals and track reconstruction have been excluded as they are asset upgrading rather than normal maintenance. Normal maintenance requirements for plain line and turnouts are included in the other MPM programs;
- An MPM overhead of 13.7% applied by Sydney Trains has been applied to MPM programs;
- The following programs have been excluded as they are not required for this section of track or not required for the TAHE HVCN:
 - Turnout removals
 - Concrete slab track
 - Expansion switches
 - Station track cleaning
 - Capital fencing
 - Remove redundant equipment (civil & signals)

Determination of Routine Maintenance (RM)

- Same asset classes selected as for MPM (track, civil & signalling)
- Data for each asset class classified as per the following:
 - Inspection and preventative classified as RM fixed;
 - Corrective maintenance & emergency response classified as RM variable.
- Maintenance costs are calculated per track kilometre:
 - The TAHE network maintained and operated by Sydney Trains comprises 1643km of maintained track (Source: Sydney Trains Corporate Plan 2018/19);
 - This includes all main lines, yards, sidings, loops etc. which have varying maintenance costs, however the information is not sufficiently granular to allocate maintenance costs at this level;

- RM and MPM costs were allocated against the entire network giving an average maintenance cost per kilometre (for the selected asset classes). The total cost (with relevant exclusions²) is divided by 1,643km to estimate a cost per km across the whole network. This cost is then multiplied by 52km, to estimate a maintenance cost per km for TAHE's HVCN. The 52km in the Regulated Asset Base (RAB) includes 21km of main line in each direction and 10km of loops and sidings at Broadmeadow and Sulphide Junction Yards.

Summary of levelised costs

The levelised costs for TAHE's HVCN were \$26.27 per '000 GTK in 2018-19 and \$26.77 per '000 GTK in 2019-20, based on data provided by Sydney Trains. These levelised costs included the following fixed cost components:

- \$194,719 per track km in 2018-19; and
- \$190,539 per track km in 2019-20.

The levelised cost figures per '000 GTK represent the total fixed and variable maintenance costs for TAHE's HVCN. After accounting for the above fixed cost components, expressed per track km, a variable cost component was estimated per '000 GTK so that the total maintenance costs equated to the levelised cost figures. These variable costs are approximately \$4.08 per '000 GTK in 2018-19 and \$4.84 per '000 GTK in 2019-20.

The split of maintenance costs defined as fixed and variable is based on an analysis of the Sydney Trains Asset and Services Plan (STASP). Each program was reviewed and assessed with Sydney Trains. The percentage of fixed and variable costs is based on actual expenditure against the STASP programs for 2018/19 and 2019/20.

Corporate and system overheads

Corporate and system overheads have been applied to each program at 13.7% of maintenance and network control costs, which is the maintenance recovery rate identified by Sydney Trains for RM, MPM, Capital, External Works internal resource delivery, on the basis that most of these programs are delivered by an internal Sydney Trains resources.

This also includes regulatory compliance costs comprised of external contractor costs incurred in 2018-19 relating to modelling and analysis to support the HVCN's previous compliance submission, which avoided additional internal salary costs that would otherwise have been incurred.

2.3 Depreciation

In recognition that the TAHE HVCN is not standalone coal network but in fact a mixed trafficked (passenger, freight including coal) component of the wider shared metropolitan network, TAHE is suggesting a departure from IPART's decision to calculate depreciation based on the estimated remaining mine life established by IPART, which was set at a terminal date of 2040 (i.e. end of mine life) from 1 July 2019.³

² Exclusions include non-coal/freight costs and 50% of signalling costs on a network wide basis due to the maintenance expenditure and forward program being aggregated for the entire Sydney Trains Network

³ IPART, NSW Rail Access Undertaking – Review of the rate of return and remaining mine life from 1 July 2019, Final Report and Decision, 9 July 2019

Based on the expected future use of the TAHE HVCN by coal access seekers, TAHE considers a terminal date of 2040 presents a risk of stranding the HVCN given:

- The TAHE HVCN as a component of the wider TAHE network enables the transportation of coal for many purposes, but the most significant is to supply the Eraring and Vales Point power stations, which are currently planned to operate until 2029 and 2032
- The TAHE HVCN as a component of the wider TAHE network enables coal from Centennial Coal's mines in the west and from the Lake Macquarie region
 - The Clarence mine (Western coal fields) is expected to close in 2033 based on current export mine production of 3 million tonnes per annum
 - The Mandalong mine (Macquarie region) has an implied mine life of up until 2032 based on current production of 5 million tonnes per annum (including for the Eraring and Vales Point Power Stations)
 - There is some possibility that new coal mines could restart in the Lake Macquarie and Western coal fields that may use the TAHE HVCN (e.g. Newstan has been in care and maintenance since 2014 and Centennial Coal has stated that it will submit an Environmental Impact Statement to resume mining). However, the future of these mines and coal-fired power stations in the region depends on a number of variables, including current and likely government policies on energy and climate change.

While the lives of power stations and mines can be extended and operate beyond their intended dates of closure, on balance, TAHE considers that calculating depreciation based on a terminal date of 2040 is not consistent with the expected useful life of the TAHE HVCN.

Based on this, TAHE proposes to calculate depreciation based on an estimated terminal date of 2033. The evidence above suggests that the terminal date of the HVCN may be nearer, however TAHE has adopted a conservative estimate of 2033 which it considers reduces its risk of asset stranding, while mitigating customer price impacts.

2.4 Other observations

The compliance submission to IPART for 2015-16 to 2017-18 included benchmarking analysis to inform the estimate of efficient maintenance costs.

This benchmarking was reviewed as part of this submission process, but was not revisited as part of the compliance submission for 2018-19 and 2019-20 as TAHE considers that given there is limited publicly available information available, it is difficult to produce benchmarking analysis that is appropriate to inform the estimate of maintenance costs.

TAHE proposes to use Sydney Trains' levelised costs for the HVCN in the estimation of FEC and in the Floor Test and Ceiling Test.

2.5 Overall approach

To estimate the FEC for each year between 2018-19 and 2019-20, TAHE has:

- Used the Closing RAB as at 30 June 2018 from IPART's Final Decision in 2019
- Rolled forward the value of the RAB for major periodic maintenance capital expenditure, depreciation, disposals and increases in the Consumer Price Index (CPI) each year, consistent with clause 3, Schedule 3 of the Undertaking

- Calculated depreciation and return on assets and adopted the same values for each of the coal, general freight and combined access seeker groups, consistent with IPART's Final Decision
- Maintained the assumed optimal configuration of rail infrastructure required to serve all Access Seekers operating in the market for coal and general freight, consistent with clause 2.2(c), Schedule 3 of the Undertaking. This is consistent with IPART's 2019 decision⁴
- Identified the levelised costs faces by Sydney Trains as the basis for operating and maintenance, network control and corporate and system overheads to be adopted in the estimate of the FEC
- Modelled the FEC for each of the coal, general freight and combined coal and general freight Access Seekers on a standalone basis, including consideration of an appropriate rate of return and depreciation.

Table 3 summarises the key assumptions underpinning TAHE's compliance submission for the HVCN for 2018-19 and 2019-20.

⁴ For details of the assumption on the optimal configuration of rail infrastructure, refer to *RailCorp, Hunter Valley Coal Network: Submission on compliance with the pricing principles in the NSW Rail Access Undertaking 2015-16 to 2017-18 (17 May 2019)*

Table 3 Key assumptions underpinning TAHE's compliance submission 2018-19 and 2019-20

Component	Inputs
Opening RAB	<p>The Opening RAB for each year from 2018-19 to 2019-20 has been estimated based on:</p> <ul style="list-style-type: none"> • The Closing RAB as at 30 June 2018 of \$14,338,286 (as determined by IPART in its Final Decision published in September 2019) • Major periodic maintenance capital expenditure, depreciation and disposals in 2018-19 and 2019-20 • Increases for CPI.
Optimal configuration of rail network	<p>Optimal configuration of the HVCN for Access Seeker operating in a common end market (i.e. the market for the supply and transportation of coal and non-coal freight) on a standalone basis is the current network with:</p> <ul style="list-style-type: none"> • 50% reduction in signalling assets • Removal of all electrification, depots and platforms.
Operating and maintenance costs	<p>Determined a levelised cost of \$26.27 per '000 GTK in 2018-19 and \$26.77 in 2019-20. This was used to estimate fixed and variable costs. These levelised costs included the following fixed cost components:</p> <ul style="list-style-type: none"> • \$194,719 per track km in 2018-19; and • \$190,539 per track km in 2019-20. <p>The levelised cost figures per '000 GTK represent the total fixed and variable maintenance costs for TAHE's HVCN. After accounting for the above fixed cost components, expressed per track km, a variable cost component was estimated per '000 GTK so that the total maintenance costs equated to the levelised cost figures. These variable costs are approximately \$4.08 per '000 GTK in 2018-19 and \$4.84 per '000 GTK in 2019-20.</p> <ul style="list-style-type: none"> • Overheads have been applied to each program at 13.7% this is the maintenance recovery rate provided by Sydney Trains for RM, MPM, Capital, External Works internal resource delivery, on the basis that most of these programs are delivered by an internal Sydney Trains resources.
Network control costs	<p>Determined an efficient level of network control costs based on the \$2.86 per train kilometre used in the previous submission.</p> <p>These costs are considered reasonable given that, if the separate network control centre were to be established to operate trains over the RailCorp HVCN, it would need to be staffed on a 24/7 basis which would require six network control staff on rotating shifts. The costs were escalated by CPI to be in nominal terms for 2018-19 and 2019-20.</p>

Inflation	As required by clause 3 of the Undertaking, inflation has been calculated as the percentage change in the CPI from the year t-2 to the year t-1 using the average of the ABS Sydney All Groups Consumer Price Index for the four quarters to June in the year t-1 when compared to the average for the four quarters to June in the year t-2.
Rate of return	<p>The Return on RAB has been calculated based on:</p> <ul style="list-style-type: none"> • 5.9% post-tax real WACC in 2018-19, consistent with IPART's Final Decision on its Review of the rate of return and remaining mine life from 1 July 2014; and • 5.3% post-tax real WACC in 2019-20, consistent with IPART's Final Decision on its Review of the rate of return and remaining mine life from 1 July 2019. <p>Tax allowance has been estimated consistent with IPART's building block model template (note: for simplicity, straight-line depreciation has been used instead of tax depreciation as a deduction in the calculation of taxable income. Tax depreciation would require the development of a separate tax asset base and maintenance of tax asset lives which are not available for the HVCN).</p>
Depreciation	<p>Depreciation of:</p> <ul style="list-style-type: none"> • The 'Rail infrastructure' asset class has been estimated based on a terminal date of 2033, based on TAHE analysis on estimated end of mine lives • All other asset classes have been estimated based on remaining technical life.
Capital expenditure	Only major periodic maintenance capital expenditure has been included in the calculation of the Ceiling Test, as this relates to traffic on a standalone basis, all other capital expenditure has not been included.
Underlying internal costs and volumes data	Sourced from Sydney Trains databases and Transport for NSW traffic data.

3 Asset Valuation Roll Forward

The following table shows the Asset Valuation Roll Forward Tests for the HVCN for the combined coal and general freight Access Seeker group. The Asset Valuation Roll Forward Test is the same for the coal and general freight Access Seeker groups, consistent with IPART's previous Final Decision that these values should be the same for these groups as the combined group.⁵

3.1 Asset Valuation Roll Forward – all Access Seeker groups

Table 4 Asset Valuation Roll Forward Test - all Access Seeker groups (\$)

RAB Component	2018-19	2019-20
Opening RAB	14,338,266	13,673,335
Opening RAB x CPI	293,671	226,180
Add CAPEX	-	-
Add Additions	-	-
Less Depreciation	(955,694)	(954,918)
Less Disposals	-	-
Closing RAB	13,673,335	12,933,305

⁵ IPART, Rail Access: Compliance statement RailCorp HVCN 2015-16 to 2017-18, page 10.

4 Ceiling Test

The following tables show the Ceiling Tests for the HVCN for each Access Seeker group.

4.1 Combined coal and general freight Access Seeker

Table 5 Ceiling Test - Combined coal and general freight Access Seeker (\$)

Component	2018-19	2019-20
Revenue	8,557,097	8,299,575
Variable maintenance costs	1,860,037	2,185,364
Fixed maintenance costs	10,125,388	9,908,028
Network control costs	564,403	571,250
Variable corporate & system overheads	332,148	377,656
Fixed corporate & system overheads	1,387,178	1,357,400
Regulatory compliance	1,305,700	-
Depreciation	955,694	954,918
Return on RAB	826,342	705,076
Full Economic Cost	17,356,892	16,059,692
<i>Recovery (negative indicates over recovery)</i>	<i>8,799,795</i>	<i>7,760,118</i>

4.2 Coal Access Seeker

Table 6 Ceiling Test - Coal Access Seeker (\$)

Component	2018-19	2019-20
Revenue	6,739,329	6,655,238
Variable maintenance costs	854,610	1,019,698
Fixed maintenance costs	10,125,388	9,908,028
Network control costs	219,324	221,813
Variable corporate & system overheads	147,129	170,087
Fixed corporate & system overheads	1,387,178	1,357,400
Regulatory compliance	666,811	-
Depreciation	955,694	954,918
Return on RAB	826,342	705,076
Full Economic Cost	15,182,477	14,337,020
<i>Recovery (negative indicates over recovery)</i>	<i>8,443,148</i>	<i>7,681,782</i>

4.3 General freight Access Seeker

Table 7 Ceiling Test - General freight Access Seeker (\$)

Component	2018-19	2019-20
Revenue	1,817,768	1,644,337
Variable maintenance costs	1,005,427	1,165,666
Fixed maintenance costs	10,125,388	9,908,028
Network control costs	345,080	349,437
Variable corporate & system overheads	185,019	207,569
Fixed corporate & system overheads	1,387,178	1,357,400
Regulatory compliance	638,889	-
Depreciation	955,694	954,918
Return on RAB	826,342	705,076
Full Economic Cost	15,469,018	14,648,095
<i>Recovery (negative indicates over recovery)</i>	<i>13,651,250</i>	<i>13,003,758</i>

5 Unders and Overs Account

The following table shows the Unders and Overs Account for the HVCN from 2018-19 to 2019-20 for the combined coal and general freight Access Seeker. The Unders and Overs account balance has been added to the balance as at 30 June 2018 as determined by IPART in its most recent compliance decision.

The variations between the previous IPART determined Unders and Overs balance and the balance that flows from this submission have been acknowledged. TAHE understands that the position taken in this submission is inconsistent with the existing literal interpretation of the NSW Rail Access Undertaking. However, as previously mentioned, TAHE believes that such a literal interpretation of the Undertaking creates a risk that TAHE will not have an opportunity to recover its costs under the current regulatory regime. For this reason, amongst others, TAHE would support a review of the NSW Rail Access Undertaking.

However, in recognition of that any such review will by necessity take place in the future and not address the current particular issue of the Unders and Overs balance a 20% discount was applied in FY21 access charges effective 1 July 2020 in addition to waiving CPI escalation on FY20 access charges, effectively resulting in a 23% reduction in their access fees in FY21. These discounts were implemented by TAHE to address the HVCN's historical Unders and Overs Account balance determined by IPART and to recognise the historical price impacts for freight operators. While the FY21 will be the subject of the compliance report due in October TAHE can advise that initial analysis is revealing a substantial decline in revenue from coal access seekers on the HVCN.

5.1 Combined coal and general freight Access Seeker

Table 8 Unders and Overs Account - Combined coal and general freight Access Seeker (\$)

Item	\$
IPART determined: as at 2017-18	
Balance at 30 June 2018	7,956,471
TAHE modelled: 2018-19 to 2019-20	
2018-19 – TAHE estimated under-recovery	-8,799,795
Balance at 30 June 2019	-843,324
2019-20 – TAHE estimated under -recovery	-7,760,118
Balance at 30 June 2020 (under-recovery)	-8,603,442

Note: negative amounts indicate under-recoveries

The following tables show the Unders and Overs balance for the coal and general freight access seeker group from 2018-19 and 2019-20.

5.2 Coal Access Seeker

Table 9 Unders and Overs account - Coal Access Seeker (\$)

Item	\$
TAHE calculated 2018-19 to 2019-20	
2018-19 – TAHE estimated under-recovery	-8,443,148
2019-20 – TAHE estimated under-recovery	-7,681,782

Note: negative amounts indicate under-recoveries, figures are not cumulative

5.3 General freight Access Seeker

Table 10 Unders and Overs account - General freight Access Seeker (\$)

Item	\$
TAHE calculated 2018-19 to 2019-20	
2018-19 – TAHE estimated under-recovery	-13,651,250
2019-20 – TAHE estimated under-recovery	-13,003,758

Note: negative amounts indicate under-recoveries, figures are not cumulative

5.4 Further considerations

Unders and Overs Accounts

In their 2019 determination, IPART made the following recommendations with respect to the Unders and Overs Account:

- Presentation of annual under/over recoveries and the Unders and Overs Account balance on a per gross tonne kilometre, per train kilometre and a per net tonnes shipped basis;
- It was recommended that the above be presented separately for each group of access seekers – coal, general freight and the combined group.

TAHE is open to IPART's further advice and guidance on an appropriate method for setting starting balances for each user group to enable this presentation in future submissions and particularly in any review of the current regulatory framework.