Port of Melbourne

2021 – 2022

TARIFF COMPLIANCE STATEMENT

GENERAL STATEMENT

31 May 2021

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Contents

Abbreviations and acronyms

Abbreviation / acronym	Description
A	Actual
ABBM	Accrual building block methodology
ABS	Australian Bureau of Statistics
ACCC	Australian Competition and Consumer Commission
AMP	Asset Management Plans
ARR	Aggregate Revenue Requirement
BEE	Benchmark Efficient Entity
BISOE	BIS Oxford Economics
BITRE	Bureau of Infrastructure, Transport and Regional Economics
Capex	Capital expenditure
CAPM	Capital Asset Pricing Model
CCA	Cost Contribution Amount
CPI	Consumer Price Index
D	Debt
DDM	Dividend Discount Model
Deloitte	Deloitte Risk Advisory
DELWP	Victorian Department of Environment, Land, Water and Planning
E	Equity
ECR	Efficient Cost Recovery
EGM	Executive General Manager
ESC	Essential Services Commission of Victoria
F	Forecast
γ	Gamma
IRC	Investment Review Committee
ISO	International Standards Organisation
IT	Information technology
KPI	Key Performance Indicator
Opex	Operating expenses
PCD	Port Concession Deed
PCG	Project Control Group
PCP	Port Capacity Project
PDIP	Port Development Implementation Plan
PDS	Port Development Strategy
PLF	Port Licence Fee
PLT	Port Lease Transaction

Abbreviation / acronym	Description
PMA	*Port Management Act 1995* (Vic)
PoM	Port of Melbourne
PRG	Program Review Group
PWG	Project Working Group
PRTP	Port Rail Transformation Project
RAS	Rail Access Strategy
Rd	Return on debt
Re	Return on equity
Rf	Risk-free rate
RTO	Rail Terminal Operator
RTS	Reference Tariff Schedule
SAMP	Strategic Asset Management Plan
SDE	Swanson Dock East
SDW	Swanson Dock West
SL-CAPM	Sharpe-Lintner Capital Asset Pricing Model
SoRA	Statement of Regulatory Approach
TAL	Tariff Adjustment Limit
Tariffs	Tariffs for Prescribed Services
TCS	Tariff Compliance Statement
TEU	Twenty-foot Equivalent Unit
VPCM	Victorian Ports Corporation (Melbourne) Harbour Master
WACC	Weighted Average Cost of Capital
WATI	Weighted Average Tariff Increase
WSCAM	Wharf Structures' Condition Assessment Manual

Supporting documents

Table i lists the supporting documents that are incorporated within, and form a part of, Port of Melbourne's (PoM's) 2021-22 Tariff Compliance Statement (TCS).

Table i: 2021-22 TCS supporting documents

Appendix	Title
A	PoM, 2021-22 Reference Tariff Schedule (RTS)
B	PoM, Regulatory Model
C	PoM, Regulatory Model User Guide
D	PoM, Cost Allocation Model
E	PoM, Cost Allocation Model User Guide
F	PoM, Efficient Cost Bounds Model
G	PoM, Efficient Cost Bounds Model User Guide
H	KPMG, Report of factual findings to Management of the Port of Melbourne Group - Prescribed Services Revenue 30 June 2020
I	RPS Group, 2021 Stakeholder Engagement - Summary Report
J	PoM, 2021 Industry Consultation presentation
K	BIS Oxford Economics, Port of Melbourne Trade Forecasts – Detailed outlook to FY22, April 2021
L	BIS Oxford Economics, Trade Volumes Forecasting Model
M	BIS Oxford Economics, Port of Melbourne Forecast Mechanics
N	Synergies Economic Consulting, Determining a WACC estimate for Port of Melbourne, May 2021
O	PoM, Contracts with Port Users (Confidential)
P	PoM, Compliance with Pricing Order – Cross-Reference Table
Q	HoustonKemp, Cross checks to assess whether the Port's adopted return is a commensurate return, May 2021
R	Incenta Economic Consulting, Options for structuring the return of capital for the Port of Melbourne, May 2021
S	PoM, 2050 Port Development Strategy
T	PoM, 2050 Port Development Strategy Consultation Summary Report
U	PoM, PDS Delivery Program

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1. Executive summary

1.1 Overview of our 2021-22 Tariff Compliance Statement

This is our 2021-22 Tariff Compliance Statement (TCS) for its Prescribed Services' tariffs for the period 1 July 2021 to 30 June 2022 (2021-22). It demonstrates how our tariffs for Prescribed Services for 2021-22 comply with the Pricing Order and reflects the feedback we received from stakeholders through our 2021 Industry Consultation Program and from the Essential Services Commission (ESC) in its Interim Commentaries.

Our tariffs comply with the Pricing Order

In each year since the commencement of the Port Lease in 2016, we have demonstrated compliance with the Tariffs Adjustment Limit under the Pricing Order, which limits weighted price increases to CPI. At the same time, we have reduced wharfage prices for exported containers by 7.3% in nominal terms from the commencement of the Port Lease until 2019-20, before reverting to a CPI price path.

Our tariffs for Prescribed Services will increase by 1.1% on 1 July 2021 for the 2021-22 Financial Year.[1] All Prescribed Services Tariffs will change by the same percentage adjustment.

Consistent with previous years, we have adopted a one-year regulatory period for the 2021-22 financial year. While we intend to adopt a longer regulatory period in the future, we consider that a one-year regulatory period remains the best option for Port Users and PoM at this time as it will allow us to respond effectively to any feedback provided in the ESC's first five-year compliance review. Further, the weighted CPI price cap under the TAL and availability of information on our long-term plans provide certainty to Port Users.

We consulted Port Users and other stakeholders on future prices and the impacts of deferred depreciation, who expressed a clear preference for our proposed approach to continue to smooth prices after the Tariffs Adjustment Limit ends in the 2030s. We sought expert advice on depreciation methodologies and have adopted a methodology that will deliver this smoothed price outcome.

We are continuing to invest in the port for the benefit of Victorian consumers and the State

We are planning a $186 million capital investment program for 2021-22. This is the largest capital investment since the commencement of the Port Lease, and reflects our work to implement key projects that we outlined in our Port Development Strategy (PDS) and to deliver on Our Plan for Rail.

We have invested over $370 million since the commencement of the Port Lease in wharf remediation, developing rail infrastructure and enabling larger vessels to access the port. These investments enabled the largest ships ever to call at Melbourne in 2020, including ships of 10,600 TEU at Webb Dock and 9,600 TEU at Swanson Dock.

In our 2021 Industry Consultation program, Port Users emphasised the importance of competition in the stevedoring market, and our investment plans have been developed to promote this outcome.

We have achieved significant cost efficiencies

Since the commencement of the Port Lease, we have driven significant reductions in operating costs. Average controllable operating expenditure since the Port Lease (approximately $43m p.a.) is around 30% lower than the five-year average prior to the commencement of the Port Lease (approximately $63m p.a.).[2]

Our return on capital is compliant with the Pricing Order

Our tariffs are capped by the Tariffs Adjustment Limit. At the same time, we estimate our efficient costs including a return commensurate with the risks involved via a weighted average cost of capital (WACC) and Annual Revenue

[1] As provided for in the Pricing Order, the percentage change is the year on year change in the Consumer Price Index for the weighted average of the eight Australian capital cities from March 2020 to March 2021.

[2] Figures are in real $2020 terms, and includes prescribed and non-prescribed opex. Controllable opex excludes the Port Licence Fee and costs related to the Harbour Master function, which now sits with the Victorian Ports Corporation Melbourne (VPMC) and is funded by PoM via the Cost Contribution Amount.

Requirement (ARR, as set out in Table 1 on the next page). Although not binding at present due to the Tariffs Adjustment Limit, these efficient costs limit the revenue that we can expect to recover from Prescribed Services tariffs.

We have determined a WACC of 8.23% pre-tax nominal for 2021-22, reduced from 8.93% in 2020-21. Although there has been a material increase in interest rates since 2020-21, the rise has been offset by revisions to our approach (the risk free rate for the 2021-22 TCS is 1.70%, compared with 0.90% for the 2020-21 TCS). The approaches and parameters we have used to determine the WACC are:

- Consistent with the ESC's commentary on well accepted approaches as per its Interim Commentaries; and
- Comfortably within the value ranges for the Market Risk Premium (MRP), gamma and beta suggested by the ESC in the 2020-21 Interim Commentary.

Further, we have obtained independent expert advice from HoustonKemp that our WACC estimate satisfies the cross checks identified by the ESC in its Statement of Regulatory Approach to ensure that the overall estimate is commensurate with the risks of operating the port.

Forecast revenues are below the Annual Revenue Requirement (ARR) even with deferral of depreciation

The table below sets out our actual and forecast ARR, as well as the Prescribed Services revenue (subject to the TAL) for 2021-22.

In accordance with the Pricing Order, the Annual Revenue Requirement (ARR) for 2021-22 is $500.5 million. This ARR does not include any costs related to depreciation for 2021-22, which has been deferred for recovery in later years as per the depreciation methodology we have adopted to smooth prices over the lease period. The operation of the Tariffs Adjustment Limit results in forecast revenue of $410.4 million for 2021-22. The difference between the ARR of $500.5 million and forecast revenue of $410.4 million ($90.0 million, or around 18%) is unrecoverable now or in future years.

Table 1: Comparison of ARR and Prescribed Services (subject to the TAL), $ Million

	2021-22 (F)
Return on capital	411.7
Return of capital	0.0
Operating expenses (opex)	144.6
Indexation allowance	-55.8
Total ARR	**500.5**
TAL (%)	1.1%
Prescribed Services revenue (subject to the TAL) plus revenue from legacy contracts	**410.4**
Under-recovery of ARR	**90.0**

Note: numbers may not sum due to rounding

1.2 The first five-yearly review

This 2021-22 TCS is the last TCS we will submit ahead of the first five-yearly review by the ESC of our compliance with the Pricing Order. Unlike other economic regulatory regimes, this compliance review is backward looking, and instead of the regulator determining future regulated tariffs, the ESC will assess whether we have complied with the requirements of the Pricing Order in the period from 1 July 2016 to 30 June 2021.

The first 5 years of the port lease and Pricing Order application involved an establishment, interpretation, and precedent development period for administering the new regulatory regime that came into effect on 1 July 2016.

We appreciate the ESC's work during this period to:

- Articulate its interpretation of the regime in its two versions of the Statement of Regulatory Approach; and

- Iteratively provide annual feedback on our prior TCSs through its interim commentaries and in discussions.

We have continuously improved how we demonstrate compliance with the Pricing Order to respond to the ESC's feedback each year. This refinement is reflected in the inputs and methodologies underpinning our TCS submissions, the scope and forms of stakeholder engagement informing our TCSs, and in the supporting evidence accompanying our TCSs.

This process of refinement of the interpretation and application of the regulatory framework has occurred without adverse consequence for Port Users, reflecting the intent of the 'Pricing Order transition period'[3] of the Pricing Order that applies the Tariffs Adjustment Limit to 2037. For example, our approach to estimating the WACC has evolved in response to careful consideration of the ESC's interim commentaries in the prior years of the Port Lease, however, the WACC estimates adopted in previous regulatory periods have had no impact on the RAB and therefore will have no impact on future prices.

The Prescribed Service tariffs and inputs to the accrual building block methodology presented and evidenced in this TCS comply with the requirements of the Pricing Order. As in prior years, we welcome any feedback that the ESC, Port Users or other stakeholders have on our TCS and we will actively consider this when preparing future TCS submissions.

[3] Pricing Order clause 3.4.

2. About this 2021-22 TCS

2.1 Purpose of this document

We are required to submit an annual TCS to the ESC by no later than 31 May each year[4] that demonstrates how its tariffs for Prescribed Services for the upcoming financial year comply with the Pricing Order. The leasing of space and facilities on Port land are classified as non-Prescribed Services. These non-Prescribed Services are not subject to the Pricing Order and our associated charges are based on commercial agreements. Non-Prescribed Services are not covered by this TCS.[5]

Clause 7.1.2 of the Pricing Order provides that the TCS must:

- Set out our tariffs for the forthcoming financial year;
- Detail the basis of any adjustments to tariffs (i.e. re-balancing), including any new or discontinued tariffs;
- Explain and justify the building blocks included in the accrual building block methodology (ABBM) and the basis on which the rate of return has been estimated;
- Provide information on contracts with Port Users;
- Describe how we have consulted with, and had regard to feedback from, Port Users;
- Explain how our tariffs for 2021-22 comply with the Pricing Order, including the Pricing Principles and Cost Allocation Principles;
- Contain any further supporting information determined by the ESC, in accordance with clause 9 of the Pricing Order; and
- Comply with the information requirements in clause 8 of the Pricing Order.

Appendix P is a compliance checklist that cross-references to where in this TCS the requirements of clause 7 have been addressed.

2.2 Structure of this document

This document is structured as follows:

- Section 3 explains the regulatory context to this TCS;
- Section 4 describes our enhanced stakeholder engagement program;
- Section 5 nominates a one year regulatory period, being 2021-22, and notes we are working towards transitioning to a longer regulatory period;
- Section 6 provides an overview of PoM's 2021-22 trade volume forecasts;
- Section 7 discusses our performance standards;
- Section 8 compares the ARR, calculated under the ABBM, with Prescribed Services revenue (subject to the TAL);
- Section 9 details our 2021-22 Prescribed Services tariffs;
- Section 10 summarises cost recovery outcomes to-date;
- Attachment 1 sets out our 2021-22 opex forecast and provides a summary of actual and estimated opex outcomes over the period 2016-17 to 2020-21; and

[4] Under clause 7.1.1(a) of the Pricing Order

[5] The ESC undertakes periodic reviews of our rental agreements with Port tenants in accordance with section 53 of the *Port Management Act (Victoria) 1995*.

- Attachment 2 sets out our 2021-22 capex forecast and provides a summary of actual and estimated capex outcomes over the period 2016-17 to 2020-21.

There are also a number of appendices (**Appendices A** to **U**) that support, and form a part of, our 2021-22 TCS.

The ESC has not issued a Supporting Information Determination under clause 9 of the Pricing Order and has therefore not specified the form and content of information to be provided in this TCS, or in any of the prior TCSs since the Pricing Order was established.

2.3 Financial information, and use of terminology, in this document

This document contains the following financial information:

- 2019-20 – actual values to update the forecast values submitted in our 2019-20 TCS;
- 2020-21 – forecast values that were submitted in our 2020-21 TCS. These forecast values have not been updated, unless otherwise specified. Actual information will be provided in our 2022-23 TCS because, at the time of submitting this TCS, we do not have a full year of actual information for 2020-21; and
- 2021-22 – forecast values.

The 2021-22 capex, opex, revenue and trade volume forecasts reflect our current view at the time of submitting this TCS to the ESC. Our 2021-22 budget will not be finalised until June 2021. The forecasts in this TCS may differ from the final budget for 2021-22.

All financial information provided in this TCS is denominated in nominal dollars (referred to as "current price terms" in clause 8.1.1 of the Pricing Order), unless otherwise stated. The numbers in the tables may not add due to rounding. All clause references are to the Pricing Order, unless otherwise stated. Capitalised terms that are not otherwise defined have the meaning given in the Pricing Order.

In this document:

- 'Prescribed Services revenue (subject to the TAL)' means revenue from Prescribed Services in our Reference Tariff Schedule (RTS). It does not include revenue associated with contracts for Prescribed Services; and
- 'ARR' means the Aggregate Revenue Requirement calculated using the ABBM. The initial 2016 capital base included the assets associated with legacy contracts for Prescribed Services that were in place at the time of Port Lease Transaction (PLT). The "ARR" is therefore inclusive of revenue associated with these legacy contracts.

We have added Prescribed Services revenue associated with the legacy contracts to "Prescribed Services revenue (subject to the TAL)" for the purposes of comparing it with the ARR. We have agreed to this treatment of legacy contracts with the ESC.

We have also agreed with the ESC that the costs and revenues of all new Prescribed Services contracts entered into after the PLT should be excluded from the WATI calculation and all comparisons of revenue streams, albeit that we are fully disclosing the revenue earned under these Prescribed Services' contracts in the confidential **Appendix O**.

We are only submitting data for the regulatory year 2021-22. Future calculations beyond 2021-22, and any modelling input assumptions (e.g. CPI in future years), are included in the regulatory model for illustrative purposes only and will change in versions submitted in future TCSs.

3. Regulatory context

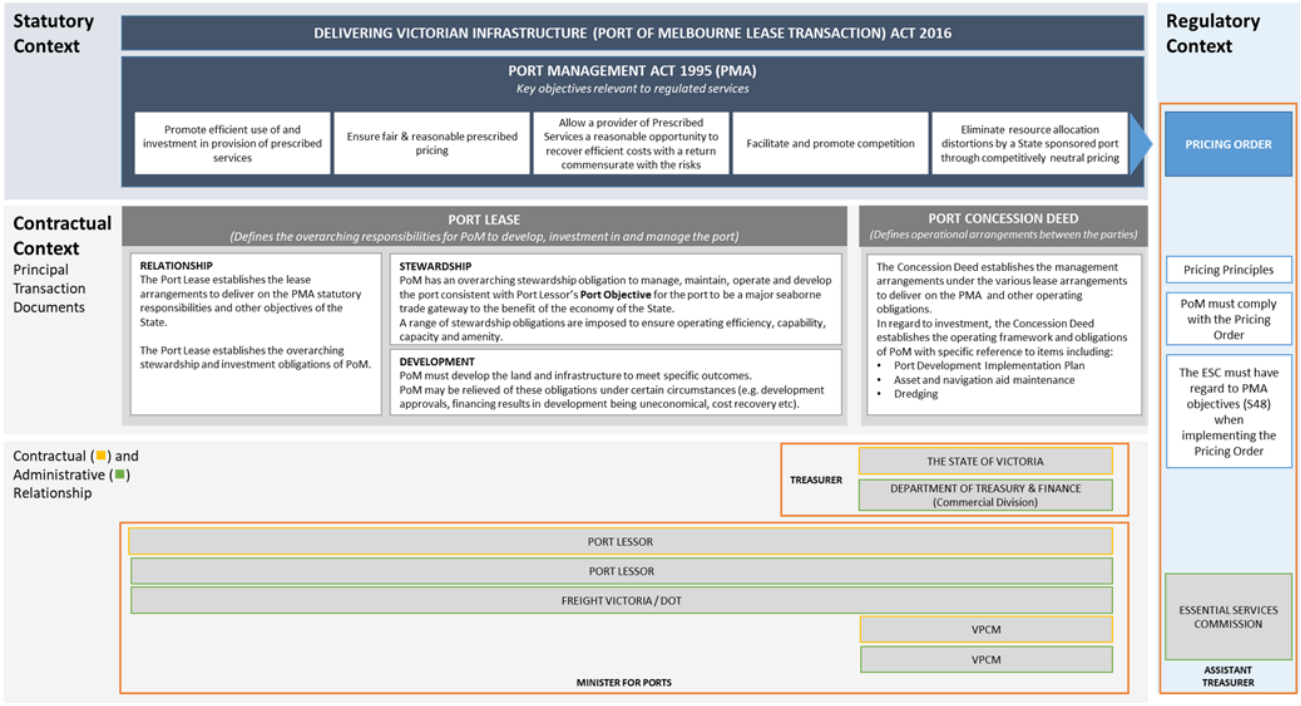
3.1 Port of Melbourne's framework of obligations

PoM operates the port within a context of statutory, regulatory and contractual commitments established under the PLT. The Port Lease Transaction delivered a number of legislative amendments to support the contractual arrangements established with the State. This included the establishment of the Pricing Order and the key elements of the delivery of prescribed services. We also deliver non-prescribed services.

Figure 1 below describes our regulatory and investment context, which exists in the form of:

- **Statutory context**, where the Port Management Act 1995 sets out the key objectives related to regulation of our services, and an inquiry function for the ESC to review our compliance with the Pricing Order;
- **Contractual context**, where the Transaction Documents, which are agreements between us and the State, define and provide oversight of our overarching obligations to develop, invest in, and manage the Port of Melbourne; and
- **Regulatory context**, where the Pricing Order under the Port Management Act sets out the Pricing Principles that we must apply when setting prices for prescribed services.

Figure 1: Scope of obligations and working relationships



The regulatory framework under the PMA and Pricing Order came into effect on 1 July 2016. The Victorian Government developed the regulatory regime to be fit-for-purpose to reflect PoM's unique circumstances. It covers:

- Prescribed Services – these include channel services, berthing services, the provision of short-term storage and cargo marshalling facilities and the provision of access to, or use of, certain places or infrastructure (including wharves, slipways, gangways, roads and rail infrastructure);[6]
- Non-Prescribed Services (e.g. rental agreements for space and facilities on port land); and
- Functions related to any second container port, should one be developed in the future.

[6] Prescribed Services are defined in section 49(1)(c) of the PMA

The regulatory framework was established as a compliance monitoring regime, where the obligation sits with PoM to apply and demonstrate compliance with the Pricing Order. The ESC plays the important oversight role in monitoring and reporting on compliance. This regulatory framework was a core component of the Victorian Government's commitment when leasing the port through the 50-year Port Lease Transaction.

This form of regulatory regime is more appropriate than full economic regulation (where the regulator makes ex ante decisions about prices) recognising the dynamic nature of port infrastructure in Victoria, the potential for a second port in the future and competition with other Australian ports. Further, in the medium to long-term, we are materially dependent on matters outside our control, in particular the quality of off-port road and rail infrastructure and to a lesser but still material degree the use of intermodal terminals, which require ongoing infrastructure funding and operational support. The 'back-ended' recovery profile imposed by the TAL exacerbates these risks.

The PMA objectives recognise that the long-term interests of Victorian consumers are paramount, and that promoting those interests requires us to have the opportunity to recover our efficient costs, and tariffs charged to users to be fair and reasonable (among other objectives).

To promote those objectives (among other compliance obligations) the Pricing Order defined a 'Pricing Order transition period' (clause 3.4) and price smoothing mechanism (clause 3) to limit the tariffs that we can charge Port Users to the lesser of two binding constraints, either:

- Weighted annual inflation (CPI) increase; or
- To recover no more than estimated efficient costs.

3.2 Pricing Order

The Pricing Order provides for an ex post compliance monitoring regime

The Pricing Order relates only to Prescribed Services. Charges for non-Prescribed Services are not subject to the Pricing Order[7] and are therefore not dealt with in this TCS.

The form of regulation applying to Prescribed Services is a compliance monitoring regime that is applied under a backward looking (ex post) approach as follows:

- We set tariffs in accordance with the Pricing Order and demonstrate to the ESC how we have complied with the Pricing Order through the annual TCS;
- The ESC monitors our compliance with the Pricing Order and reports on this after the end of each five year review period;[8] and
- The ESC Minister considers any findings of significant and sustained non-compliance made by the ESC in its five-yearly reviews, and decides whether to intervene (e.g. by making a re-regulation recommendation or requiring an enforceable undertaking).

[7] Fees and charges for some non-Prescribed Services are contained in the Other Fee Schedule of the RTS. Charges for certain other non-Prescribed Services, such as leasing of space and facilities, are based on commercial agreements.

[8] Under the Pricing Order the ESC also has certain triggered roles such as and approving any tariff rebalancing applications made by PoM or application by PoM to end the TAL period after 2032.

The Pricing Order contains a unique mix of prescription and discretion for PoM's compliance demonstration

The Pricing Order is unique as it has significantly different requirements from economic regulation regimes for other ports and other regulated industries across Australia. The Pricing Order contains certain matters of prescription and certain areas of flexibility and discretion.

The matters of prescription include requirements to:

- Apply the accrual building block model (ABBM) and Tariff Adjustment Limit (TAL), with tariffs to be no higher than either the TAL (i.e. weighted CPI increase) or our efficient costs. If cost-based tariffs are below the level of the TAL, then prices must fall to the cost-based level;
- Comply with requirements for setting individual Prescribed Service tariffs (or bundles of service revenue) to ensure tariffs are fair and reasonable and have regard to principles of economic efficiency;
- Deem opex on the Port Licence Fee (PLF) and Cost Contribution Amount (CCA) to be efficient under the Pricing Order; and
- Deem certain capital expenditure, such as on the Port Capacity Project and Port Rail Transformation Project, to be prudent (but still tested for efficiency).

The areas of flexibility and discretion relate to various inputs to the accrual building block methodology used to calculate allowed revenues. These afford us flexibility and discretion to:

- Assess efficient and prudent capex and opex — including in relation to the need for, and timing of, capex which may change to adapt to the circumstances, subject to the provisions referred to above;
- Adopt well accepted approaches to determine the return on capital;
- Use an alternative depreciation methodology to the straight-line methodology if the return of capital calculated using the straight-line methodology cannot be recovered in an applicable financial year, or if the alternative depreciation method is reasonably likely to reduce annual variance in tariffs;
- Determine the length of the regulatory control period;
- Introduce, discontinue and/or rebalance tariffs during the TAL period, subject to consulting with Port Users and approval by the ESC; and
- Choose the form of price control after the TAL period (which runs until at least 30 June 2032 and at the latest, 30 June 2037 – noting that the condition for early removal of the TAL is that weighted price changes would be below CPI).

The areas of flexibility and discretion afforded to us under the Pricing Order reflect the Victorian Government's objectives for the regulatory framework to, among other things:

- Minimise regulatory burden;
- Provide a mechanism for compliance with regulatory pricing principles without direct price control;
- Provide arrangements to ensure efficient future capacity expansion; and
- Provide flexibility to us with appropriate oversight, and mechanisms for the State to make future regulatory changes, if needed.[9]

PoM is different from regulated monopoly businesses, such as electricity, gas and water networks, that have different market dynamics and are subject to full economic regulation. The port is part of a competitive national and international transport supply chain and faces:

- Effective competition from other ports and transport modes that are unregulated; and

[9] Department of Treasury and Finance, Select Committee Inquiry Submission, September 2015 p.40

- Material countervailing power from Port Users.

3.3 The ESC's five-yearly compliance review

The ESC will undertake its first formal public compliance inquiry by the end of 2021[10] covering our compliance with the Pricing Order for the period commencing on 1 July 2016 and ending on 30 June 2021. This inquiry will publish the ESC's findings on whether there has been any non-compliance and, to the extent there has been, whether any such non-compliance was 'significant and sustained'.[11] The outcomes of the compliance inquiry must be reported to the ESC Minister within six months of the end of each five-yearly review period (by the end of December 2021, in this first review).

In undertaking its five-yearly inquiry, section 48A of the PMA requires the ESC to have regard to the regulatory objectives in section 48 of the PMA (see Figure 1 above).

The ESC has not made an information determination under the Pricing Order

The ESC's Statement of Regulatory Approach explains that:

> *We will use the port's annual tariff compliance statements as our main source of information for the [five yearly] inquiries, as well as other supporting information the port has provided during these processes.*[12]

We have submitted comprehensive TCSs in each year during the compliance review period with extensive supporting materials. Where the ESC has requested additional information in relation to TCS submissions, we been timely and comprehensive in our responses.

Clause 9 of the Pricing Order affords the ESC powers to determine the form and content of supporting documentation for a TCS. The ESC has stated that it would use this mechanism to promote predictability and transparency in how it undertakes its role:

> *The Commission intends to issue the port licence holder with specific requirements relating to the form and content of supporting information for tariff compliance statements (as provided for in clause 7.1.2(f) of the Pricing Order). The Commission considers that outlining the information it requires to assess the port licence holder's compliance will promote predictability and transparency in how we administer our compliance assessment role.*
>
> *We intend to issue a supporting information determination for tariff compliance statements in time for the port licence holder's submission of its second statement by 31 May 2018.*[13]

The ESC has not made an information determination to date. Where the ESC has indicated in its Interim commentaries it would like to see additional information or analysis, we have responded to these comments in subsequent TCSs.

The TAL has provided price certainty and stability during the first five-year review period and will continue to do so for some time

The TAL requires that weighted tariffs for Prescribed Services change by no more than the annual increase in CPI until 30 June 2037. We expect the TAL to apply until 2037 because tariffs implied by the ABBM are expected to be higher than tariffs subject to the TAL for the entirety of this period. The unique operation of the TAL and the Pricing Order provisions for deferral of depreciation during the TAL period (described in section 8.2.4) add complexity to the task of identifying whether and to what extent a perceived Pricing Order non-compliance could harm Port Users or Victorian Consumers in a significant and sustained way.

[10] The ESC must complete the inquiry no later than six months after a review period – clause 49I of the PMA
[11] Division 2A of the PMA, s.49I(1)

[12] ESC, Statement of Regulatory Approach – version 2.0, April 2020, p.7.

[13] ESC, Regulatory approach to the Port of Melbourne pricing order – a consultation paper, May 2017, pp.13-14.

In this first review period, compliance with the TAL is the only compliance requirement in the Pricing Order that has directly affected pricing outcomes for Port Users.

Noting that this is the first five-yearly review period, when considering whether a perceived non-compliance is significant and sustained, we consider that the ESC should take into account:

- Our efforts to resolve matters of regime interpretation and compliance with the ESC in each TCS over the period to 30 June 2021 (with the benefit of the ESC's Interim Commentaries); and
- Whether a potential future harm is likely to be manifested in prices, given the significant timeframe before prices will no longer be subject to the TAL, and opportunities for addressing any issues that might arise.

Our charges make up a small proportion of supply chain costs

Port charges make up a small proportion of shipping line costs and costs faced by Victorian consumers.

According to BITRE, our charges (including cargo-based wharfage fees and vessel-based channel fees) account for around 13% of port interface costs faced by vessels.[14] Further, port interface costs themselves only make up a small proportion of the costs faced by vessels (around 10%), with the most material costs being fuel bunkering costs (around 50-60%) and vessel charter costs (around 20%), and the remainder consisting of items such as labour and maintenance. Accordingly, our charges make up only a few percent of total costs faced by vessels. We also note that shipping lines typically pass through port interface costs to cargo owners, and as such, it is relevant to consider the impact on cargo owners (i.e. Victorian consumers).

Our December 2020 Tariff Rebalancing Application provided information on the materiality of our charges to Victorian consumers. With the average value of an imported TEU in excess of $80,000,[15] our Prescribed Services Tariffs, which amount to approximately $150/TEU,[16] account for around 0.2% of the value of imported goods.

[14] BITRE, Waterline 65, p.64

[15] PoM, 2021 – 2022 Tariff Rebalancing Application, December 2020, p.40

[16] Noting that differences in ship sizes and utilisation will impact the conversion of vessel-based channel fees to a per TEU amount

4. Stakeholder engagement

Effective stakeholder engagement is at the core of our business. Our engagement and partnerships with stakeholders underpin our ability to deliver on our stewardship commitments to the State and to meet our corporate vision to grow trade and create an enduring city port that drives the economy and enriches lives.

We also recognise that different stakeholders have different and sometimes conflicting interests. This is particularly relevant when it comes to our investments that relate to third party access and the promotion and facilitation of competition.

4.1 Our 2020-21 stakeholder engagement program

We strive to maintain interactive, constructive and strong relationships with all customers and stakeholders while accounting for their diverse and sometimes conflicting needs and expectations. To support this goal, we undertook an expanded program of stakeholder engagement in 2020-21. We engaged expert advisors, RPS Group to develop a stakeholder engagement strategy for the 2021-22 TCS (and beyond) based on best practice, under which a two-pronged approach has been implemented. This will improve stakeholder relations in the short term, while simultaneously positioning us for better long-term stakeholder engagement.

RPS's Summary Report on the 2021 Industry Consultations is provided as **Appendix I** to this General Statement.

Table 2: RPS Group PoM stakeholder engagement strategy

Engagement Approach	Objectives	Planned engagement outcomes
1. Short-term Stakeholder Engagement Plan to inform two aspects: a. Engagement to build understanding of key issues and for the 2021-22 Tariff Compliance Statement b. Feedback to inform the long-term Stakeholder Engagement Strategy.	▪ Understand current stakeholder relationships and state of play to identify effective engagement methods ▪ Build stakeholder understanding of key issues ▪ Provide opportunity for feedback and collaboration, where appropriate ▪ Build confidence in our engagement processes with Port Users, other stakeholders and the ESC.	▪ Meet the expectations of the ESC following the Interim Tariff Compliance Statement 2020-21 annual review ▪ Instil confidence in the ESC, that stakeholders are effectively engaged and heard through open channels of communication, transparency and suitable engagement methods
2. Long-term Stakeholder Engagement Strategy to adopt and use as a baseline for future engagement with stakeholders and the ESC five yearly review (following stage 1).	Recommend optimal methods of engagement with port users and other stakeholders, informed by the recent engagement process.	The stakeholder engagement program is tailored to suit the many and varied stakeholder groups.

Under stage 1 of the approach, the 2021 Industry Consultation program, Port Users and stakeholders received detailed information about the outlook for our capital investment program and our Prescribed Service Tariffs for 2021-22, and consulted on a range of technical matters relevant to this TCS. We also used this year's engagement program as an opportunity to review and improve our engagement practices, and seek feedback from stakeholders on their engagement preferences to inform the development of a long-term Stakeholder Engagement Strategy. The 'how', 'who' and 'what' of our engagement program are summarised below, with further detail provided in **Appendix I**.

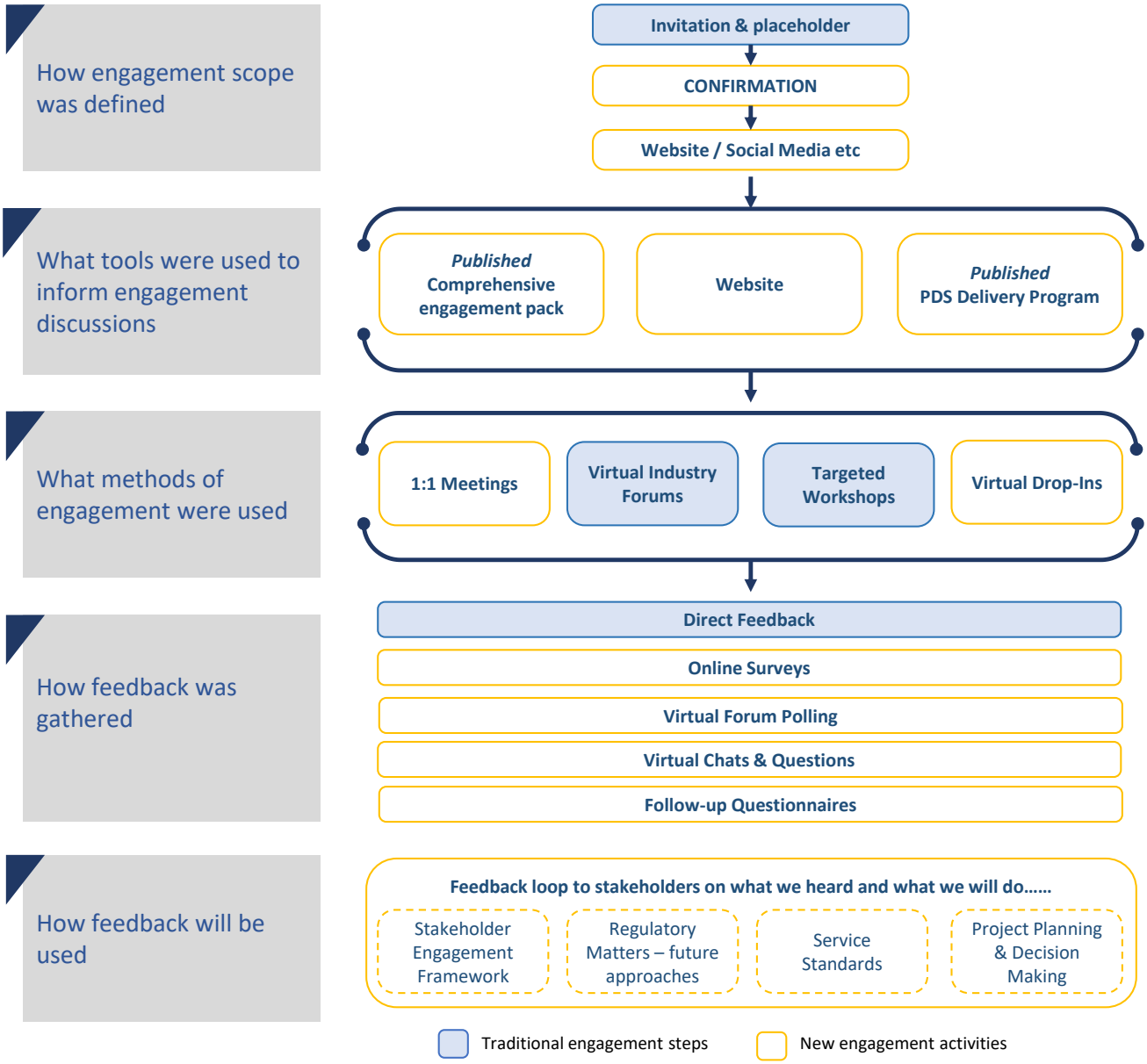
4.1.1 How we engaged

Informed by stakeholder feedback from previous engagements, a number of improvements were made to how we conducted this year's engagement program (see Figure 2). These improvements included:

- **Expanding the range of engagement methods employed** – whereas past industry engagement programs relied on workshops and industry forums alone, this year in addition to workshops and forums, key stakeholders were also invited to engage with us via structured 1:1 meetings and a virtual drop-in session. Using these additional methods provided us with further scope to tailor presentations and conversations to reflect the interests of stakeholders.
- **Improving the provision of engagement information** – to enable stakeholders to better understand the purpose and content of engagement, stakeholders were provided a comprehensive engagement pack prior to their interactions with us, including a link to our PDS Delivery Program, which is available on our public website. The PDS Delivery Program builds on the 2050 Port Development Strategy, providing greater detail on the objectives, scope, indicative timing and sequencing of major projects outlined in the PDS that are expected to be delivered in the next 15 years.[17]
- **Improving the capture of stakeholder feedback** – to better respond to the different needs of stakeholders, we adopted a more quantitative approach to the capture of stakeholder feedback. To supplement direct feedback gathered via interviews and workshops, stakeholders were provided with the opportunity to express their views via surveys and polls conducted before, during and after their engagement with us. Before interviews and workshops, stakeholders were invited to complete an online survey to help us better understand what issues were of importance to them and how they wished to be engaged. During workshops, online polls were used to capture stakeholder sentiment on topics discussed. After interviews and workshops, participants were invited to complete a follow-up questionnaire, to provide their considered views on technical topics and to indicate how they wished to be engaged in the future. Participants were also invited to request individual briefings. We also undertook to report back to stakeholders on key themes that emerged from the engagement (as set out in this General Statement and in RPS's report at **Appendix I**).

[17] Projects have been included in the PDS Delivery Program on the basis of initial planning activities conducted through the development of the 2050 PDS. Inclusion of a major project within the PDS Delivery Program does not represent an investment decision by PoM, and the scope and overall delivery of the projects remain subject to changes in planning assumptions and investment hurdles, and may change in light of future engagement with port stakeholders.

Figure 2: Our engagement approach for the 2021 Industry Consultation



4.1.2 Who we engaged

Participating stakeholders included Port Users, stevedores and other port tenants, cargo owners, transport operators, intermodal supply chain participants, industry associations, government agencies and peak bodies. These stakeholders were invited to participate because they had shown interest in issues related to the Port, or are directly or indirectly impacted by the Port's activities.

As shown in Figure 3, our engagement activities and reach were considerably broader and more targeted in the 2021 Industry Consultations than in previous years. In total, of 273 invitations, 94 stakeholders attended 10 workshops and a further 28 attended the 12 one-on-one meetings (i.e. 122 participants in total). To reflect the geographic spread of our stakeholders and provide all stakeholders a reasonable opportunity to participate, workshops and interviews were held in Melbourne, Leeton, Wagga Wagga, Hobart, Launceston and Burnie (as well as online).

Figure 3: Engagement activities and reach

4.1.3 What we engaged on

We developed a broad range of engagement topics based on our internal stakeholder assessments, feedback provided by stakeholders, and reviews of previous engagements. Invitees were informed in advance about the topics and presentation materials, and were also asked to identify the issues of imporance to them and nominate topics for consultation. The opportunity to shape the engagement process and topics for engagement was provided at a number of junctures, including:

- In the initial notifications and participation surveys;
- In the invitations to participate in engagement activities;
- During the meetings and workshops; and
- In post-workshop/meeting follow-up emails and questionnaires.

Topics discussed at interviews and workshops were tailored to participants, and participants were invited to raise their own topics for discussion that were not covered in engagement material provided in advance.

All interviews and workshops covered the key matters discussed in this TCS, as set out in the presentation materials provided as **Appendix J** to this General Statement.

A summary of the feedback we received and how we have had regard to this feedback in relation to key topics in the Industry Consultations is provided in this General Statement as follows:

- The length of the regulatory period, discussed in section 5;
- Our approach to the treatment of deferred depreciation, discussed in section 8.2.4;
- Performance standards; discussed in section 7; and
- Our capital investment program and the Webb Dock East Berth 4 & 5 extension, discussed in section 1.2 of Attachment 2.

This year's engagement also placed a particular focus on better understanding how stakeholders communicate with us now, and how they would like to engaged with us in the future. Feedback captured from stakeholders on these topics will be used to inform the ongoing development of a new Stakeholder Engagement Framework discussed below.

4.2 Long-term Stakeholder Engagement Strategy

Over the last five years, we have been on a journey to develop and enhance our engagement with stakeholders. Across this period, more than 1,400 participants have taken part in engagement activities related to the regulatory settings and compliance.

Many more participated in the two phases of consultation that took place over 2018 and 2019 during the development of the 2050 Port Development Strategy (see **Appendix T**, 2050 Port Development Strategy Consultation Summary Report), and the extensive consultation process around Our Plan for Rail and the Port Rail Transformation Project.[18] In addition to this 'set piece' engagement, we consult extensively with affected port users through our normal capital planning processes (see Attachment 2, section 1.6).

With each engagement project, we have reflected on our approach with a view to introduce improvements and we are committed to continually evolving our engagement effectiveness. To this end, we commenced the development of a new Stakeholder Engagement Strategy under the advice of RPS Group to ensure transparency and clarity of expectations, and to strengthen and improve future stakeholder engagement.

Our new strategy sees us shift to a longer-term approach to engagement so we can:

- Better engage with stakeholders early in planning and decision making;
- Share more detailed, targeted information on topics of interest;
- Engage through different methods in response to different stakeholder needs;
- Be clearer on when and how stakeholder feedback can influence decision making;
- Clarify our decision making considerations and timing;
- Provide more comprehensive feedback on engagement findings;
- Better explain our obligations and the expectations of stakeholders;
- Better understand what is important to different stakeholders; and
- Be clearer around our engagement processes, review our engagement activities and continue to improve.

5. The length of the regulatory period

Consistent with previous years, and following this year's TCS stakeholder engagement, we have determined a one-year regulatory period for the 2021-22 financial year. While we intend to adopt a longer regulatory period in the future, we consider that a one-year regulatory period remains the best option for Port Users and PoM at this time, particularly in the context of the weighted CPI price cap under the TAL and information available to Port Users on our longer-term plans, which mean benefits to Port Users of longer-regulatory period would be limited.

[18] See the PoM website for further details on Our Plan for Rail and the Port Rail Transformation Project. A summary of the rail consultation process was provided in Appendix I of the 2020-21 TCS.

In deciding to adopt a one-year regulatory period for the 2021-22, we have:

- Consulted widely with Port Users and other stakeholders, with feedback received balanced between preferences for a longer period and a preference to retain a one-year period. We have also responded to feedback from Port Users and other stakeholders by providing transparency around future development of the port through the 2050 Port Development Strategy (provided at **Appendix S**), the PDS Delivery Program (see **Appendix U**), and information on the near term capital expenditure program and vessel forecasts (see **Appendix J**);
- Addressed the matters set out for consideration in the ESC's Statement of Regulatory Approach, in particular noting that difference in benefits between longer versus shorter periods during the TAL period appear to be small. For example, Port Users have certainty that weighted prices will not increase by more than CPI out until 2037 and we have achieved material efficiencies since the commencement of the Port Lease (see Attachment 1, section 1.3); and
- Responded to feedback provided by the ESC in its 2020-21 Interim Commentary with respect to the implications for incentive properties of the regulatory regime (again, noting that the difference in incentive properties during the TAL period under different regulatory period lengths appears to be inconsequential).

Notwithstanding the above, we intend to adopt a longer regulatory period in the future, and we have identified a number of transition issues that we are seeking to resolve in this process. We have commenced consulting with the ESC to seek clarity on these issues and will continue to consult with the ESC and Port Users as we develop our plans to transition to a longer regulatory period.

5.1 Customer feedback and engagement

Our proposal to maintain a one-year regulatory period for 2021-22 was raised with Port Users and other stakeholders during the 2021 Industry Consultation. In these consultations, we:

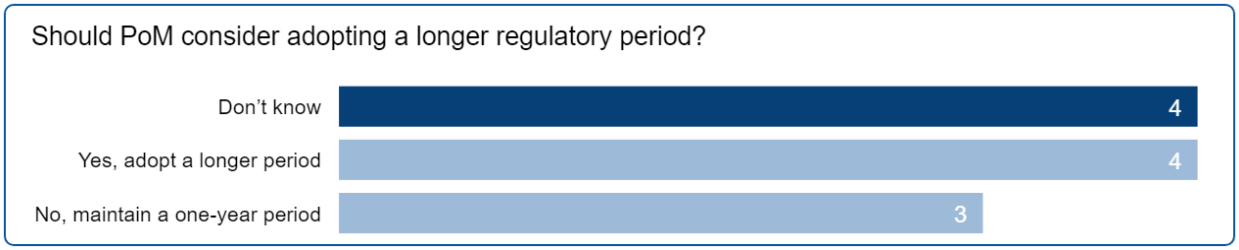
- Explained to Port Users and other stakeholders how the choice of regulatory period would impact them;
- Explained the process for setting the regulatory period under the Pricing Order;
- Described our proposal to maintain a one-year regulatory period for 2021-22 and the reasons for doing so; and
- Sought feedback from customers on their preferences for the length of regulatory period, both in discussions in the 1:1 meetings and industry workshops, and through the consultation questions provided to Port Users and other stakeholders in a follow-up questionnaire.

Feedback on regulatory period length was provided by Port Users and other stakeholders via our 1:1 meetings, stakeholder workshops, polling during the workshops and in follow-up questionnaires sent to all meeting and workshop participants.

In their feedback, Port Users and other stakeholders indicated that we should consider principles of stability, transparency and consistency in choosing the length of future regulatory periods.

Feedback received from polling of Port Users and other stakeholders during our workshops was relatively balanced between a preference for a longer period, a preference for a one-year regulatory period, and "don't know".

Figure 4: Stakeholder views on regulatory period length



Note: Polling of 94 participants in 10 stakeholder workshops

We have taken the views of Port Users and other stakeholders into account in our choice of regulatory period:

- The choice of regulatory period has no impact on price stability during the TAL. We have also provided an update to the industry on the proposed tariff rebalancing, which it intends to consult further on and revisit in calendar year 2022;
- A range of measures have been put in place to provide transparency around future development of the port through the 2050 Port Development Strategy (provided at **Appendix S**), the PDS Delivery Program (see **Appendix U**), and information on the near term capital expenditure program and vessel forecasts (see **Appendix J**); and
- We will continue to engage with Port Users, other stakeholders and the ESC on future decisions on the length of the regulatory period.

5.2 ESC guidance and basis for the choice of regulatory period

Under clause 13 of the Pricing Order, we have discretion to determine the length of the regulatory period for the purposes of calculating the ARR using the ABBM and our Prescribed Services revenue (subject to the TAL), as well as the associated tariffs. Clause 13 also confirms that we may adopt regulatory periods of different lengths over the term of the Port Lease.

The ESC's Statement of Regulatory Approach[19] sets out guidance on factors the ESC expects us to consider in choosing its regulatory period length. Table 1 explains how we have considered these factors in our choice of regulatory period.

Table 3: ESC guidance on considerations in choice of regulatory period

Factors identified in ESC guidance	Our consideration of these factors
PoM's choice of regulatory period should consider promoting stability and predictability of tariffs for port users	Port Users have certainty that prices will not increase by more than weighted CPI out until 2037, due to the operation of the TAL. The regulatory period length that we determine during the TAL period cannot affect pricing stability.
Consistency with past approaches to selecting regulatory period lengths	We have consistently adopted one-year regulatory periods since commencement of the Port Lease for common reasoning reflected in each year's TCS to date.
How PoM's chosen regulatory period length will achieve the objectives of the regulatory regime	We have adopted one-year regulatory periods for each of the first five years of the Port Lease. This approach has enabled us to refine our TCSs and inputs to these each year for ESC feedback in its interim commentaries. Adopting longer regulatory periods would have constrained our ability to be as responsive to ESC feedback as we have been, which we consider is important given the relative infancy of the framework. We consider that adopting a one-year regulatory period for 2021-22 is particularly important in this context, as it will enable us to respond more effectively to any feedback provided in the ESC's first five-year compliance review.
Comparative benefits of shorter versus longer regulatory periods	During the TAL period, benefits commonly ascribed to other regulatory regimes with longer regulatory periods will either not be present in the Pricing Order regulatory regime or not to the same extent. We discuss reasons for this below in our response to the ESC's 2020-21 TCS commentary.

[19] ESC, *Statement of Regulatory Approach – version 2.0*, April 2020, p.28.

Factors identified in ESC guidance	Our consideration of these factors
	We consider the benefits of a shorter regulatory period during this time in terms of ability to be responsive to ESC, Port User and other stakeholder feedback, are comparatively higher.
How the risks of the port making forecast errors (for example, overestimating demand forecasts) are allocated between the port and port users	Under the price cap arrangements applying to the port, the risks of forecasting errors are borne by the port.
Confidence that forecasts are efficient and robust	We are confident our forecasts for 2021-22 are efficient and robust as evidenced in Attachment 1 and Attachment 2 of this General Statement. We have also been working with Port Users, stakeholders and the State to progressively finalise our long and medium-term plans, including the Port Development Strategy (PDS), Rail Access Strategy (RAS), and PDS Delivery Program.
Service level outcomes to be delivered over the regulatory period	Our service level outcomes for the 2021-22 regulatory period and Port Users' and other stakeholders' preferences for future service standards were discussed during the TCS consultations. The outcomes of this are provided in section 7.
How to deal with the uncertainty of major unforeseen events that may affect its annual revenue requirement	The adoption of a one-year regulatory period helps reduce the risk that uncertainty or major unforeseen events lead to a material mismatch between our actual costs and our annual revenue requirement. During the period of operation of the TAL, the primary mechanism for adjustment if such uncertainty or events occur is the roll forward of the capital base provided for in clause 4.2 of the Pricing Order.
Port users' views on the proposed length of regulatory period and the reasoning for choosing the length of that period.	As noted in section 5.1 above, our proposal and reasoning to maintain a one-year regulatory period were raised with Port Users and other stakeholders during the TCS consultations. Port Users' views have been taken into account in choosing the length of the regulatory period. Details of our consultation approach are set out in section 4.

5.3 Incentive properties of the regulatory period

Regardless of the length of the regulatory period, Port Users have certainty that weighted prescribed prices will not increase by more than CPI out until 2037, due to the operation of the TAL. The regulatory period length during the TAL period cannot affect pricing stability.[20] Further, the TAL gives Port Users, Victorian consumers and other stakeholders significant certainty that our prescribed services tariffs, on average, will not increase by more than inflation over the next 15 years. That is a much longer period than the certainty offered to customers in most other regulated industries, where customers typically get 4-5 years of price certainty under price cap regimes.

[20] The Pricing Order provides the ability for some prices to increase by more or less than CPI under a tariff rebalancing application, so long as the TAL is met overall. However, this process is subject to approval by the ESC and furthermore is only able to be applied for with respect to prices in the upcoming financial year. Therefore, the choice of regulatory period has no impact on price stability in so far as rebalancing applications are concerned.

The benefits of greater incentives to outperform expenditure and demand forecasts (as suggested by the ESC in its Interim Commentary) only hold where those forecasts determine the revenues and prices of the regulated service provider during the forecasting period. This is generally the case in other regulatory regimes, but not during the TAL period until the point at which we begin to recover depreciation (which has not yet occurred). The TAL currently means our revenues are not being set by the ABBM, but by annual escalation of weighted prescribed service tariffs by CPI.

Under this framework, we have strong incentives to:

- Continue to seek out efficiencies in opex and capex regardless of the length of the regulatory period, due to the disconnect between the ABBM revenues and the binding TAL price cap; and
- Continue to grow trade and port demand regardless of the length of the regulatory period because the TAL is a price cap and not a revenue cap.

As shown in section 1.3 of Attachment 1, we have delivered significant efficiencies in expenditure since the commencement of the Port Lease. The regulatory period has no impact on incentives for achieving efficiencies in expenditure where we are not recovering any depreciation by virtue of the TAL. Any change in incentives during the TAL period where we are able to recover some depreciation through prices would be very limited, and given the efficiencies that we have already achieved we consider that any impact on incentives would be inconsequential.

A longer regulatory period would have no impact on the incentive to grow trade. Our prices have not been set based on dividing the ABBM revenue forecast by a demand forecast, and therefore do not create an incentive to outperform that forecast.

In addition, adopting one-year regulatory periods during the first five years of the Port Lease has allowed us evolve our positions (e.g. on WACC) and respond to ESC feedback in its interim commentaries.

5.4 Transition to a longer regulatory period

We consider that post the TAL period, a longer regulatory period would have the benefit of providing certainty on price outcomes and incentives to outperform expenditure and demand forecasts. There may also be some benefit in reduced administrative costs, although the extent of these is not clear given the Pricing Order requires us to submit TCSs annually for the entire term of the Port Lease regardless of regulatory period length.

There are a number of transitional considerations we are working through to enable the implementation of a longer period, including:

- How a longer regulatory period would impact annual TCS submission requirements, including:
  - Approaches to, and requirements for, annual updates to building block inputs such as expenditure, demand, and cost of capital inputs;
  - Impacts on annual consultation and submission requirements and therefore benefits in terms of reducing the regulatory burden on us, the ESC and customers of one year regulatory period;
- The use of risk sharing mechanisms and/or within-period adjustments to the building block components to account for unforeseen events. These mechanisms are a normal part of regulatory frameworks where longer regulatory periods are in place, however the Pricing Order is silent on them;
- Alignment to the five-yearly compliance reviews, noting the comment in the ESC's Interim Commentary that a five-year regulatory period would "align with [the ESC's] 5-year compliance inquiries".[21] It is not clear what the intent of the ESC is concerning this alignment. If our regulatory period was aligned with the five-year review period as defined in the Port Management Act, the ESC would be conducting its compliance inquiry after we had made our submission for the subsequent regulatory period, meaning it would be four years before we would have an opportunity to adjust its regulatory settings to respond to any commentary from the ESC (unless a re-opening

[21] ESC, 16 December 2020, Interim commentary – Port of Melbourne tariff compliance statement 2020-21, p.26.

applied). One way to address this mismatch could be to stagger a five-year regulatory period to commence one year after the start of the five-year review period; and

- Expectations (and ability) to re-open / amend prices or other regulatory settings following the ESC's five-year reviews. To the extent that we are required to make amendments to address compliance issues, the need for re-opening and amending regulatory settings would diminish the stability and certainty sought by customers and the ESC.

We have commenced consulting with the ESC to seek clarity on these issues[22] and will continue to do so as we develop our plans to transition to a longer regulatory period.

[22] Email from PoM to ESC 26 March 2021 and meeting between PoM and ESC 1 April 2021.

6. Trade volume forecasts

We engaged BIS Oxford Economics (BISOE) to forecast its trade volumes for 2021-22. We forecast vessel channel volume data internally by applying historical correlations between ship tonnage and trade volumes to the BISOE trade forecasts, in conjunction with published shipping schedules for the Bass Strait operators and cruise vessels.

The following explanatory documents are provided to describe the basis for the volume forecasts for the 2021-22 TCS:

- **Appendix K** presents BISOE's trade forecasts for 2021-22;
- **Appendix L** is the forecasting model prepared by BISOE; and
- **Appendix M** is the handbook that should be read in conjunction with the forecasting model that explains the mechanics of how the forecasts for 2021-22 have been prepared.

6.1 Overview COVID-19 impacts

COVID-19 led to unusual trade fluctuations through 2020 and 2021:

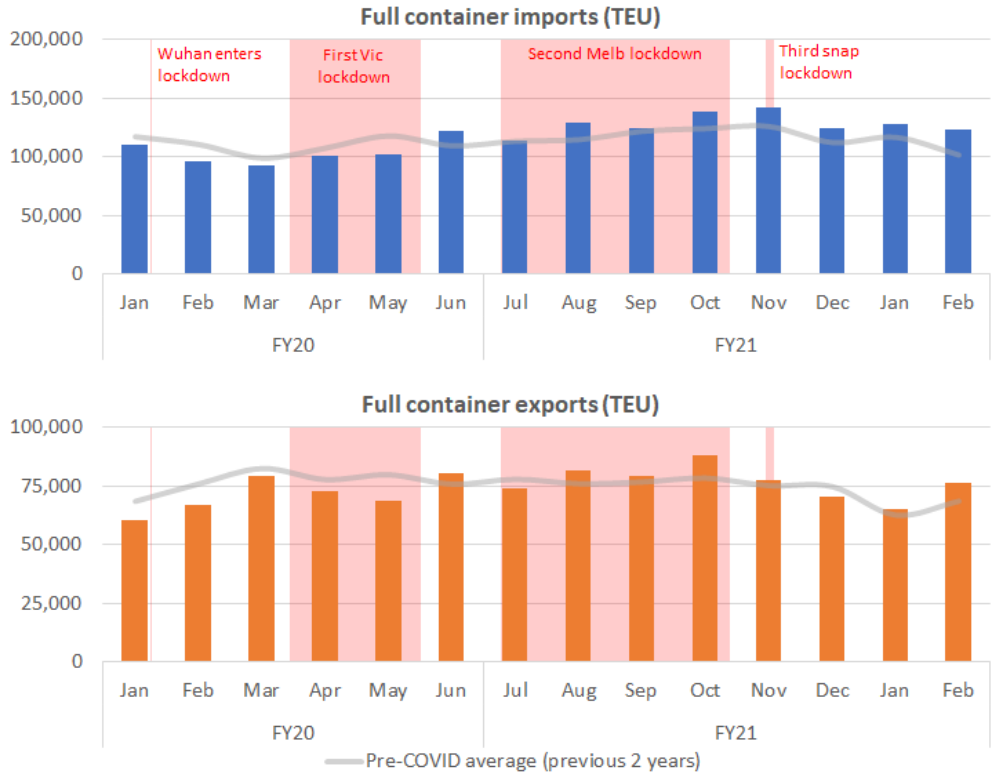
- From January 2020 to May 2020, exports and imports were down on prior years with record blank sailings from North Asia and bushfires lowering timber exports. Bad weather delayed arrivals in late May, causing vessels to 'bunch' in June;
- Industrial action at Port Botany also contributed to lower volumes in July (due to vessel delays) and shifted these into August 2020;
- From August 2020 onwards, imports were up driven by strong spending on household furnishings, domestic appliances, toys and sporting goods, and food ingredients;
- From August 2020, exports were also up driven by increased crop harvests (particularly wheat and barley); and
- From November, Chinese import suspensions on timber, meat and cotton offset growth in other exports.

Figure 5 charts the movements in trade overlayed with key events in the COVID-19 response in Victoria.

As at the end of March 2021, total container throughput was up 12.8% for the year to-date. This reflects a number of factors, with the major contributor being supply chain disruptions resulting from the onset of international COVID restrictions, which began in March 2020 resulting in weak year on year comparables.

The impact of COVID on port volumes underlines the port's exposure to systematic risks from economy wide shocks.

Figure 5: Full container imports and exports during the COVID-19 lockdowns in Victoria



Actual trade volumes for 2019-20 were below forecast due to a weaker than expected economy, exacerbated by the early negative impacts of COVID-19 described above. As a result, our actual prescribed revenue in 2019-20 was below forecast as trade volumes fell short of forecasts across most categories of trade (see Table 4, below). Actual 2019-20 revenue was $352.3m, which is $37.5m lower than the forecast of $389.7m.

Table 4: Comparison of 2019-20 forecast and actual trade volumes

Trades	Units (Million)	2019-20 (F)	2019-20 (A)	Difference (absolute)	Difference (%)
Containers – import	TEU	1.35	1.22	-0.1	-9.5%
Containers – export		0.82	0.74	-0.1	-9.2%
Containers – empty		0.65	0.58	-0.1	-10.0%
Containers – Bass Strait		0.35	0.32	0.0	-8.9%
Dry bulk	Revenue tonnes	4.00	4.05	0.1	1.4%
Liquid bulk		4.71	4.68	0.0	-0.7%
Motor vehicles		7.42	5.40	-2.0	-27.3%
Breakbulk		3.72	2.99	-0.7	-19.7%
Channel – Melbourne	Gross tonnes	125.27	112.69	-12.6	-10.0%
Channel – Shared		138.09	124.91	-13.2	-9.6%

Notes: 1. 'Containers - Bass Strait' includes empty containers.
2. 'Breakbulk' includes Wheeled Unitised cargos.

6.2 Forecast outcomes for 2021-22

For 2021-22, we have adopted forecasts prepared by BISOE as at 21 April 2021, which indicate that trade volumes are expected to dip from the current highs, but return to trajectory that is largely in line with historical trend.

On the plus side:

- The Australian economy's recovery from the COVID-19 shock has been swifter than expected. The labour market recovery has outpaced expectations; the initial shock was contained better than expected, and employment has improved steadily since;
- The level of output is expected to reach pre-crisis levels in mid-2021; overall, we expect GDP growth will bounce back to 2.9% in 2021, improving to 3.2% in 2022 (but slowing to around 2.5% thereafter); and
- Government spending remains supportive; transport infrastructure projects are continuing, while the NDIS rollout and greater education and health spending are boosting government consumption.

However, weighing on the forecast are factors such as:

- Government income support to households will be wound back further after Q1, which will provide a further headwind to discretionary spending. Household incomes were supported through the pandemic by fiscal policy. But with support programs largely scaled back, the near term may be more challenging. Income tax cuts will provide some support, but slow wage growth remains the strongest headwind for household incomes;
- Business investment remains disappointing overall; mining investment has slipped a little, with the outlook for small greenfield projects clouded by uncertainty. Non-mining investment is also very subdued; the government has put strong incentives in place to spur machinery and equipment investment, but with the focus for many firms still on survival, and city lockdowns still generating uncertainty, the near term outlook is weak; and
- Population growth, in particular net overseas migration, has been a key driver of economic growth for decades. The removal of this boost will weigh heavily on the pace of potential output growth; and
- The slow-down in potential output growth will be matched by a slowing in trend consumption growth over the medium term. The structural decline in the share of goods in consumption will continue, with health and other age-related services set to increase their proportion of spending.[23]

[23] BIS Oxford Economics, *Port of Melbourne Trade Forecasts*, April 2021, pp.3-7

7. Performance standards

Our performance standards reflect the level of service we commit to provide, and which therefore serves as an important scope consideration underpinning our expenditures. These standards increase transparency and accountability in relation to how our business performs on key matters required by our obligations and valued by our stakeholders.

We have consistently consulted on and refined our performance standards since the initial draft standards set out in our 2018-19 TCS. This year we again consulted Port Users and other stakeholders on our performance standards. These discussions covered both what the standards are and how we performed against them.

We recognise the need to develop performance standards, which:

- Are within our control – noting that we do not have an operational role at the port; and
- Reflect what Port Users and other stakeholders value, and therefore we have consulted widely to obtain input and feedback from Port Users and other stakeholders.

Many of our performance standards originate from our obligations in managing the port, which are explained in section 3. In our 2021 Industry Consultation, we did not receive feedback to suggest we should introduce new standards, and we note that the ESC has not raised any compliance concerns on this issue in its TCS commentaries to date.

In this TCS, we have retained the forecast standards published in the 2020-21 TCS, and have updated our reporting of actual outcomes against these. Below we explain the outcomes of our engagement then set out the performance standards.

7.1 Customer feedback and engagement

The role of service standards and our service obligations under the Port Lease and Port Concession Deed were raised with Port Users and other stakeholders during the 2021 Industry Consultations. In these consultations, we:

- Explained to Port Users and other stakeholders how service standards would impact them;
- Explained our service obligations under the Port Lease and Port Concession Deed (the transaction documents);
- Described our commitment to continue to provide the service standards we are obliged to deliver under the transaction documents; and
- Sought stakeholders' views on whether additional service standards would be desirable.

Feedback on service standards was provided by Port Users and other stakeholders via our 1:1 meetings, stakeholder workshops, polling during the workshops and in follow-up questionnaires sent to all meeting and workshop participants.

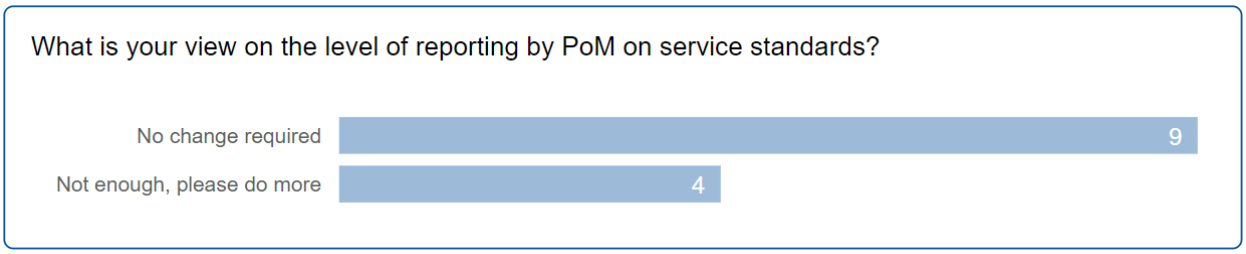
No suggestions or proposals for additional service standards or reporting on service levels were received. Most comments from stakeholders indicated satisfaction on the level of information provided, including:

> *The capacity and service standards of the port of Melbourne are well known*
>
> *Melbourne is one of the best in Australia for productivity and service levels*.

During the engagement sessions, some Port Users suggested we improve the timeliness of reporting of container and commodity trade data, which is typically released around four weeks after month end. This timing is based on data verification requirements. The request for earlier data reporting noted that providing interim data earlier in the month would be valuable to stakeholders, provided it did unduly impact accuracy (recognising that interim data would need to be updated for accuracy).

Polling of Port Users and other stakeholders during our workshops also indicated that most considered the current standards were sufficient, as set out in the figure below.

Figure 6: Stakeholder views on service standards



Note: Polling of 94 participants in 10 stakeholder workshops.

In response to the feedback provided through the consultation program, we have retained the service standards from 2020-21 in this TCS, and are exploring approaches to address the additional information requested, via:

- Providing more disaggregated data on container commodities by origin/destination and the share of empties. Initial meetings with interested stakeholders have already been undertaken to progress this initiative; and
- Investigating measures to make interim trade data available earlier each month.

7.2 Performance standards

Table 5 details the performance standards from our 2020-21 TCS which we have retained for 2021-22, and it provides actual performance outcomes against these.

Table 5: Performance standards commitments and outcomes

Category	Performance standard	2020-21 reporting against standard
Safety and Environment	1. Prepare a safety management plan and environment management plan in accordance with s.91C(1) of the PMA. 2. Prepare and maintain a Sustainability Report to determine and monitor Environmental, Social and Governance (ESG) actions and targets.	**1.** We established a Safety and Sustainability Committee (SSC) as a focused governing body to oversee responsibilities relating to Occupational Health and Safety measures, and sustainability priorities. The SSC meets quarterly and is provided updates on relevant business activities. **2.** We published our FY20 Sustainability Report in October 2020, using the Global Reporting Initiative (GRI) standards and the UN Sustainable Development Goals to report our progress against. We are also: ▪ In the final stages of developing a comprehensive Sustainability Strategy that incorporates a Sustainability Framework; Sustainability Policy; Sustainability Principles; and areas for long and short-term goals and performance targets regarding sustainability priority areas. ▪ Putting together a suite of Sustainability Statements that relate to various topics around environment, community, and corporate governance.

Category	Performance standard	2020-21 reporting against standard
Reliability / Availability / Capacity	**3.** Maintain International Organisation for Standardisation (ISO) 55001 certification achieved for asset management, to ensure infrastructure is maintained at current levels in accordance with Good Operating Practice. **4.** Maintain channel depths through maintenance dredging program. Vessel access to shipping channels 100% of the time in accordance with the declared depths as detailed in the Port Information Guide. Our channel and wharf infrastructure is based on a design container vessel of 300 metres length overall x 40 metres beam with a maximum draught of 14 metres.[24]	**3.** The next surveillance audit is scheduled for June 2021 with the next recertification application to occur in 2022. **4.** Regular dredging programs are performed to maintain the declared depth with the latest in 2020. The depths of channels and berth pockets are regularly surveyed as part of the Whole of Bay Survey Schedule. Forecast FY21 expenditure for dredging is approximately $0.5m.
Infrastructure planning and strategies	Develop medium- to long-term investment plans and strategies for the Victorian Government: **5.** Port Development Strategy (PDS) will set out our long-term (30 year) vision for the growth and development of the Port. **6.** Rail Access Strategy (RAS), will set out cost effective and sustainable on-dock rail terminal infrastructure options.	**5.** The 2020 PDS was completed in accordance with the Ministerial guidelines and was finalised after extensive community, Government and industry consultation. **6.** The RAS was completed as required in 2019 and was based on extensive industry consultation. It has led to the PRTP which presents significant opportunity for increasing rail efficiency and utilisation. We have also developed a PDS Delivery Program, which outlines the indicative timing and sequencing of each of the Major Projects outlined in the 2050 PDS over the next 15 years. The PDS Delivery program is available on our website.

[24] Ships larger than the design vessel are able to call at the Port of Melbourne upon obtaining approval from the Harbour Master. The lease of the Port of Melbourne to PoM on 1 November 2016 resulted in separation of the regulatory functions of the port, which now reside with the Victorian Ports Corporation Melbourne (VPCM) Board and the Harbour Master.

Category	Performance standard	2020-21 reporting against standard
Customer and community engagement	**7.** Port Users and other stakeholders' consulted on and considered in the development of the TCS. **8.** Port Users and other stakeholders' consulted on and considered in the development of long-term plans (e.g. PDS, RAS).	**7.** Section 4 and **Appendix I** explain our engagement process and outcomes for this TCS, undertaken as part of the 2021 Industry Consultation. We are also in the process of developing a Stakeholder Engagement Framework, drawing on the outcomes of the 2021 Industry Consultation. **8.** The RAS included significant industry consultation and technical discussion. There was also detailed tenant engagement with tenants that have or will have rail assets. A summary of stakeholder consultation activities and findings is available in Our Plan for Rail, on our website. The PDS consultation process spanned over two years, and included extensive engagement over two phases. A summary report on the PDS consultation process and outcomes is available in the 2050 PDS Consultation Summary Report, on our website.
Major project delivery	**9.** Major projects under the RAS to be delivered in the short-term (i.e. within the next 5 years) and reported on in subsequent TCSs include: ▪ Port Rail Transformation Project ▪ Former Melbourne Wholesale Market Site ▪ Container origin and destination study.	**9.** All key strategies (i.e. the PDS, RAS and PDS Delivery Program) were completed on time and are publicly available. The PRTP has transitioned to construction phase and all commencement arrangements have been put in place. The Market site being used for freight has State Policy support in the released freight plan and we have been shortlisted for the RFT process. The PDS identified the potential inclusion of the market site in the Port Lease. The origin destination (OD) study has moved into its final stages and will be published in Q4 of 2020-21.

8. 2021-22 ARR and Prescribed Services revenue (subject to the TAL)

This section of the General Statement:

- Explains how we have allocated costs to its Prescribed Services;
- Demonstrates the calculation of the 2021-22 ARR using the ABBM;
- Sets out Prescribed Services revenue (subject to the TAL) plus revenue from legacy contracts; and
- Compares the 2021-22 ARR with Prescribed Services' revenue (subject to the TAL).

8.1 Cost allocation

The Cost Allocation Model and an accompanying Cost Allocation Model User Guide (refer **Appendices D** and **E)** demonstrate how we comply with the Cost Allocation Principles to attribute and allocate costs in accordance with clause 5.2.1(a) and (b) of the Pricing Order:

- Between Prescribed Services, non-Prescribed Services and shared services; and
- Between individual Prescribed Services.

8.2 2021-22 ARR calculated using the ABBM

We have calculated the 2021-22 ARR using the ABBM in accordance with clauses 2.1.1 and 4 of the Pricing Order – as set out in the Regulatory Model at **Appendix B** and User Guide at **Appendix C**. In accordance with clause 2.2.1 of the Pricing Order, we have used the same ABBM and parameters for both Dedicated and Shared Channels.

Table 6 sets out the 2021-22 ARR calculated using the ABBM. The ABBM inputs, and the calculation of each building block comprising the ABBM are discussed in the following sections.

Table 6: ARR, $ Million

	2021-22 (F)
Return on capital	411.7
Return of capital	-
Operating expenses (Opex)	144.6
Indexation allowance	(55.8)
ARR	**500.5**

8.2.1 Capital base

The forecast rolled forward value of the capital base, at 1 July 2022, is $4,911.6 million and, at 1 July 2023, $5,153.4 million. We have calculated these values in accordance with clause 4.2.1 of the Pricing Order by:

- Adding indexation in accordance with clauses 4.2.1(b) and 4.6.1(a) of the Pricing Order. Clause 4.6.1(a) provides that the opening capital base must be indexed by the percentage change in CPI for the relevant financial year;
- Adding prudent and efficient net Capex in accordance with clauses 4.2.1(c) and 4.6.1(b) of the Pricing Order. Clause 4.6.1(b) provides that Capex is indexed by half a year's inflation (i.e. half of the percentage change in CPI) for the relevant financial year. This assumes Capex is incurred halfway through a financial year, and is net of any capital contributions or proceeds from disposing assets; and

- Deducting depreciation (i.e. the return of capital allowance). However, because our Prescribed Services revenue (subject to the TAL) is below the ARR in 2021-22, we have used an alternative depreciation methodology, which involves setting the return of capital to zero and deferring recovery of depreciation to future years.

The forecast closing 2020-21 capital base of $4,906.1 million submitted in our 2020-21 TCS has been adjusted for 2019-20 actual capex values, which were $5.4 million higher than forecast, and is therefore $4,911.6 million.[25]

Table 7 sets out our forecast closing capital base values as at 30 June for each regulatory year from 2016-17 to 2021-22. This capital base includes the costs of contracts for Prescribed Services that were in place at the time of the PLT. It does not include the costs of any new contracts that were entered into after the PLT took place. The Regulatory Model at **Appendix B** provides further details on the capital base roll forward.

Table 7: Capital Base, $ Million

	2016-17 (A)	2017-18 (A)	2018-19 (A)	2019-20 (A)	2020-21 (F)	2021-22 (F)
Opening Capital Base (1 July)	4,142.0	4,269.0	4,410.9	4,552.5	4,726.3	4,911.6
Plus Indexation Allowance	54.8	91.3	84.4	61.4	104.4	55.8
Plus Efficient Capex	72.2	50.6	57.3	112.4	80.9	186.0
Less Depreciation (see Note 1)	0.0	0.0	0.0	0.0	0.0	0.0
Closing Capital Base (30 June)	**4,269.0**	**4,410.9**	**4,552.5**	**4,726.3**	**4,911.6**	**5,153.4**

Note 1 – Our Prescribed Services' revenue (subject to the TAL) plus revenue from legacy contracts is below the ARR derived using straight line depreciation, therefore we have applied an alternative to straight-line depreciation by setting depreciation to zero (clause 4.4.2 of the Pricing Order).

8.2.2 Capex

Our forecast prescribed capex for 2021-22 is $186.0m (see Table 8). This represents a substantial increase on 2020-21 capex (forecast at $80.9m) as we progresses growth and renewal projects to deliver on its commitments to improve rail infrastructure, maintain and improve operational efficiencies, and accommodate larger vessels. Major projects driving expenditure in 2021-22 include the Port Rail Transformation Project ($67.1m), wharf rehabilitation at Swanson Dock West ($31.5m), berth extension at Webb Dock East ($28.0m) and maintenance dredging of shipping channels ($9.9m). Total forecast capex in 2021-22 inclusive of these projects is set out in Table 8, and described in further detail in Attachment 2, along with a description of the method used to prepare the forecast and why it is prudent and efficient.

Table 8: Forecast 2021-22 Capex, $ Million

Capex category	2021-22 (F)
PCP	0.0
Channel (see note 2)	14.9
Wharves	84.8
Road	0.0
Rail	73.4
Plant	3.5

[25] The indexation allowance for 2020-21 is also $0.1m above the forecast in PoM's 2020-21 TCS as a result of the higher-than-forecast opening capital base for 2020-21.

Capex category	2021-22 (F)
Other	9.3
Total (see note 1)	**186.0**

Notes:
1. Capex is gross capex (i.e. before capital contributions and asset disposals are removed).
2. The 'Channel' asset class includes channel protection assets.

8.2.3 Rate of return on capital

8.2.3.1 Pricing Order requirements

The rate of return on capital (referred to as the weighted average cost of capital, or WACC) aims to compensate debt and equity holders for the opportunity cost of either lending or investing their funds in the Port.

The key Pricing Order requirements relating to the return on capital required to calculate the ARR under the ABBM are that it must be:

- Commensurate with that required by a benchmark efficient entity (BEE) providing services with a similar degree of risk in providing the Prescribed Services (clause 4.1.1(a) of the Pricing Order);
- Estimated using one or a combination of well accepted approaches that distinguish the cost of equity and debt (clause 4.3.1(a)); and
- Calculated on a pre-tax nominal basis (clause 4.3.1(b)).

These requirements must be interpreted in the context of the objectives of the regulatory regime discussed in section 3.2. Critical to promoting the regulatory objectives is:

- The need for efficient investment in the long-term interests of users and Victorian consumers; and
- Providing a reasonable opportunity for us to recover our efficient costs of providing the Prescribed Services (i.e. the costs that would be incurred by an efficient business in a workably competitive market, providing services with a similar degree of risk as that which applies to us in the provision of the Prescribed Services).

The pre-tax nominal WACC formula is expressed in Figure 7:

Figure 7: pre-tax nominal formula

$$\frac{R_e}{\left(1-t_c\left[1-\gamma\right]\right)} * \frac{E}{E+D} + R_d \frac{D}{E+D}$$

Where:

Re = post-tax return on equity
Rd = pre-tax return on debt
D = proportion of debt within the assumed capital structure
E = proportion of equity within the assumed capital structure
t = corporate tax rate
γ = gamma (value of imputation credits)

8.2.3.2 Interpretation of return on capital requirements in the Pricing Order

Clause 4.3.1 requires that, in "determining a rate of return on capital for the purposes of clause 4.1.1(a)", we must "use one or a combination of well accepted approaches that distinguish the cost of equity and debt, and so derive a

weighted average cost of capital". The phrase "well accepted approaches" is not defined in the Pricing Order or in the PMA.

We consider that there are important differences between the Pricing Order and deterministic regulatory regimes:

- Clause 4.3.1 of the Pricing Order provides us with flexibility and discretion as to the one or more approaches it uses to calculate the rate of return, provided those approaches are well accepted; and
- Recognising there is no single correct approach or correct allowance that meets the requirements of clause 4.3.1 and 4.1.1(a). There will be a range of outcomes that are compliant with those clauses.

Since the commencement of the Port Lease and implementation of the Pricing Order, both PoM and the ESC have developed and refined their understanding and interpretation of the Pricing Order:

- In each TCS, we have responded to feedback provided by the ESC in its Interim Commentaries and made revisions to our approach to estimating the cost of capital; and
- On 28 April 2020, the ESC published version 2.0 of its Statement of Regulatory Approach (SoRA) which included amendments to the ESC's interpretation of well accepted approaches to determining the cost of capital and updated guidance on well accepted approaches.

2020-21 TCS sets out our positions concerning the ESC's interpretation of the Pricing Order as expressed in its revised SoRA. In summary, our view is that the ESC's interpretation is potentially too narrow in that the ESC's interpretation could be construed to suggest that the views and practices of practitioners in financial markets are not to be taken into account, unless they are views and practices of such practitioners "in the context" or "in the area" of economic regulation.

Notwithstanding this and the other ambiguities raised in the 2020-21 TCS, we note that in its updated Statement of Regulatory Approach the ESC now recognises that the views and practices of other professionals, such as academics and economists, may also be informative in considering whether an approach is generally recognised as being used or appropriate for use in the estimation of rates of return on capital.

8.2.3.3 ESC commentary on the 2020-21 rate of return

For the 2020-21 TCS, advised by Synergies Economic Consulting (Synergies), we adopted a pre-tax nominal WACC of 8.93%, which was lower than the adopted pre-tax nominal WACC of 10.46% in the 2019-20 TCS.

In its Interim Commentary the ESC considered that our 2020-21 WACC estimate of 8.93% (pre-tax, nominal) was 'relatively high' compared to other regulated transport businesses and raised several concerns with our approach, relating to our estimates of:

- The market risk premium (MRP), where the ESC provided commentary suggesting that it considers that the Wright approach is not well accepted, and also raised issues with Synergies' implementation of dividend discount models (DDMs);
- Gamma, where the ESC provided guidance suggesting that it considers that only the utilisation approach is well accepted; and
- Beta, where the ESC raised issues with estimation techniques it considers upwardly bias the beta estimate.

The ESC also provided guidance on its initial parameter estimates of a benchmark efficient entity with the same degree of risk as the Port of Melbourne, as follows:

Table 9: ESC initial parameter estimates of a benchmark efficient entity with the same degree of risk as the Port of Melbourne, 2020-21 TCS Interim Commentary

Parameter	ESC estimate
Market risk premium	Ibbotson range, 6% to 7.10%
Asset beta	0.60 to 0.70

Parameter	ESC estimate
Gamma	0.35 to 0.5

The ESC stated that it applied these initial parameter values to estimate the port's WACC, which produced a range of between 6.3% (pre-tax nominal) and 7.90% (pre-tax nominal) for the 2020-21 TCS.[26]

We note that the WACC can change significantly due to changes in market parameters, in particular the risk free rate, which affects the cost of equity and cost of debt, and the debt risk premium, which is updated for market data each year. For the purposes of comparison, we have updated the ESC's range for market data as at end-March 2021 as follows:

- Risk free rate updated to 1.70% (compared to 0.90% in March 2020); and
- Cost of debt updated to 4.80% (compared to 5.04% in March 2020, noting that we apply a trailing average cost of debt).

Applying these updated market parameters to the ESC's 2020-21 WACC range of 6.3% to 7.90% (pre-tax nominal) implies a WACC range of 6.93% (pre-tax nominal) to 8.49% (pre-tax nominal) for 2021-22.[27]

8.2.3.4 Rate of return estimate for 2021-22

We have adopted a pre-tax nominal WACC of 8.23% for the 2021-22 TCS, which is lower than the pre-tax nominal WACC of 8.93% adopted for the 2020-21 TCS. Noting the increase in risk free rate from 0.90% in March 2020 to 1.70% in March 2021 (which would increase the WACC, all else equal), the 2021-22 WACC is a material reduction from 2020-21.

We consider that our 2021-22 WACC estimate is compliant with the Pricing Order, on the basis that:

- Our WACC has been determined using well accepted approaches, which have been refined in successive TCS submissions in response to the ESC's Interim Commentaries. The approaches used are consistent with the ESC's preliminary views on well accepted approaches as set out in its 2020-21 Interim Commentary;
- The estimates adopted for the key parameters of the MRP, asset beta and gamma are within the value ranges suggested by the ESC in its 2020-21 Interim Commentary; and
- Independent expert advice from HoustonKemp demonstrates that our WACC satisfies the cross checks identified by the ESC in its Statement of Regulatory Approach to ensure that the overall estimate is commensurate with the risks of operating the port.

An expert report from Synergies, *Determining a WACC estimate for Port of Melbourne*, which provides the detailed reasoning for our WACC estimate for the 2021-22 TCS, is provided at **Appendix N**.

In addition, we have relied on:

- Independent expert advice from Incenta Economic Consulting (Incenta) on estimating the equity beta, which was included as part of the 2020-21 TCS submission (as Appendix Q to the 2020-21 TCS); and

[26] It is not clear how the ESC has estimated a pre-tax nominal WACC range of 6.3% to 7.90% from the initial parameter estimates provided, which (using market data as at 31 March 2020) imply a pre-tax nominal WACC range of 6.49% to 8.47%.

[27] Our update of the ESC range for the pre-tax nominal WACC is based on (1) calculating the original range of 6.3% to 7.90% (pre-tax nominal) using the ESC parameter ranges and March 2020 market data, being a risk free rate of 0.90% and cost of debt of 5.04%; (2) updating the range for March 2021 market data, being a risk free rate of 1.70% and cost of debt of 4.80%. Note that achieving a WACC estimate for 2020-21 of 6.3% (pre-tax nominal) requires the adoption of parameters that are lower than those stated by the ESC in its initial parameter estimates, hence our updated 2021-22 lower bound pre-tax nominal WACC of 6.93% also uses lower parameter estimates than those stated by the ESC.

- Independent expert advice from HoustonKemp on whether the return on capital adopted is commensurate with that required by a benchmark efficient entity with a similar degree of risk. HoustonKemp's report is provided as **Appendix Q** to this 2021-22 TCS.

Table 10 summarises our updated positions on the key parameters in the 2021-22 WACC estimate, Synergies' approach to estimating each parameter for the purposes of assisting us with our 2021-22 TCS pre-tax nominal WACC estimate, together with key findings from the independent expert reports and additional considerations.

Table 10: Summary of approaches to key parameters from 2020-21 to 2021-22

Parameter	2020-21 TCS	2021-22 TCS	Summary of approach
Market Risk Premium	7.57% based on the following weights: ▪ 70% Ibbotson (6.42%) ▪ 15% Wright (10.74%) ▪ 15% DDMs (9.76%)	6.54% based on the following weights: ▪ 85% Ibbotson (6.48%) ▪ 15% DDMs (6.90%)	The Ibbotson approach is a well accepted approach. The ESC provides an 'Ibbotson range' of 6% to 7.10% in its Interim Commentary. Our MRP estimate is in the middle of this range. DDMs are a well accepted approach and are given material weight by several Australian regulators. IPART gives DDMs 33% weighting, ERA 20% (implied weighting), and QCA 25%. DDMs are also used by the New Zealand Commerce Commission and a number of overseas regulators. Synergies has addressed implementation issues raised by the ESC in its Interim Commentary, by: ▪ Adopting an average of the Brailsford and NERA approaches to adjusting dividend yields, as recommended by the ESC[28] ▪ Updating the data source for the IPART DDM estimates to Refinitiv (Thomson Reuters) to bring it into close alignment with the IPART approach.[29]
Gamma	0.33 based on the following weights: ▪ 2/3rd Utilisation (0.50) ▪ 1/3rd Finance practitioner (zero gamma)	0.50 based on the utilisation approach, which calculates gamma as the product of a distribution rate and a utilisation rate, as follows: ▪ Distribution rate = 0.80 ▪ Utilisation rate = 0.625	The utilisation (equity ownership) approach is a well accepted approach. The utilisation (equity ownership) is used by all Australian regulators except IPART. Our gamma estimate is numerically at the top end of the range proposed by the ESC of 0.35 to 0.50, putting the return on equity at the lower end of the range for all possible values of gamma (higher gamma estimates result in a lower WACC). The build-up is also consistent with the ESC's views on the distribution rate (0.82) and utilisation rate (0.6).
Asset beta	Asset beta = 0.70 (equity beta = 1.0 based on 30% gearing) Based on a comparator set of 13 companies, consisting of 7 Marine Ports and Services firms and 6 Railroads.	Asset beta = 0.70 (equity beta = 1.0 based on 30% gearing) Based on a comparator set of 13 companies, consisting of 7 Marine Ports and Services firms (including some listed in Hong Kong) and 6 Railroads (the same set as was used 2020-21).	The approach of estimating beta with regard to systematic risks of a comparator set of firms is well accepted. Our proposed asset beta is at the top end of the range proposed by the ESC of 0.60 to 0.70. The estimate is supported by independent analysis from: ▪ Incenta, who estimated an equity beta of 1.0 from an asset beta of 0.75 and a gearing level of 25%;[30] ▪ HoustonKemp, who note that the proposed company specific parameters (i.e. equity beta, gearing and credit rating) are comparable to those adopted by regulators for comparable entities;[31] and

[28] Synergies, *Determining a WACC estimate for Port of Melbourne*, May 2021, p.25

[29] Synergies, *Determining a WACC estimate for Port of Melbourne*, May 2021, p.27

[30] Incenta, *Estimating the Port of Melbourne's equity beta*, May 2020, p.7

[31] HoustonKemp, *Cross checks to assess whether the Port's adopted return is a commensurate return*, May 2021, p.23

Parameter	2020-21 TCS	2021-22 TCS	Summary of approach
	Estimate has regard to weekly and monthly return intervals.	Estimate has regard to weekly and monthly return intervals.	▪ HoustonKemp's quantitative analysis of exposure to demand risk suggests that our risk is at least equivalent to the market overall (i.e. consistent with an equity beta of 1.0).[32] Synergies identified that the ERA, IPART and QCA place substantial reliance on firms outside the sector being regulated. We also note that the examples provided by the ESC where regulators do not place reliance on firms outside the sector are in the context of sectors where there are a suitable number of comparators available in the same sector. Synergies also noted that there is substantial Australian regulatory precedent for the comparability of railroads and ports, as shown in decisions by the ERA, QCA and ACCC.[33] Synergies also undertook first principles analysis confirming the comparability of Class I railroads with the port.[34] HoustonKemp made similar observations to Synergies on regulatory precedent and also provided first principles analysis on the comparability of freight rail with the port.[35] Analysis by Incenta also supports the use of railroads as comparators given their similar degree of risk. Incenta provided substantial evidence and analysis on the comparability of the systematic risks between ports and railroads (Incenta's estimated average 10-year asset beta for railroads is 0.86, while for ports it is 0.85).[36] Synergies has not used comparators listed in China (or other emerging / developing countries). However, it notes that the use of overseas comparators, including Hong Kong listed entities, is supported by their use by Australian regulators (IPART and the QCA), particularly in the transport sector. Independent expert analysis by Incenta also supports the use of firms listed in Hong Kong.[37] Synergies has not relied solely on monthly returns, but has had regard to both weekly and monthly returns, and noted that this is underpinned by substantial regulatory and financial practitioner precedent. Synergies identified that the QCA, ACCC and NZCC all use weekly and monthly return intervals, the most common approaches adopted by finance practitioners are monthly return intervals or a combination of weekly and monthly, and provide liquidity data to demonstrate the importance of having regard to both monthly and weekly returns (due to ports and rail tending to have relatively low trading liquidity). Synergies also noted that the beta estimates are broadly similar regardless of the return interval.[38] Incenta considers that monthly data is more accurate due to lower frequency trading of port assets, and consistent with regulatory practice.[39]

[32] HoustonKemp, *Cross checks to assess whether the Port's adopted return is a commensurate return*, May 2021, pp.29-31

[33] Synergies, *Determining a WACC estimate for Port of Melbourne*, May 2021, p.36

[34] Synergies, *Determining a WACC estimate for Port of Melbourne*, May 2021, Attachment A

[35] HoustonKemp, *Cross checks to assess whether the Port's adopted return is a commensurate return*, May 2021, pp.22-27

[36] Incenta, *Estimating the Port of Melbourne's equity beta*, May 2020, p.12

[37] Incenta, *Estimating the Port of Melbourne's equity beta*, May 2020, p.12

[38] Synergies, *Determining a WACC estimate for Port of Melbourne*, May 2021, pp.37-41

[39] Incenta, *Estimating the Port of Melbourne's equity beta*, May 2020, pp.30-31

Our adopted positions are comfortably within the ranges suggested by the ESC

The adopted positions outlined in Table 10 above are consistent with the guidance provided by the ESC on its initial parameter estimates of a benchmark efficient entity with the same degree of risk as the Port of Melbourne. As shown in Table 11, we are within the ranges provided by the ESC for the MRP, asset beta, gamma and pre-tax nominal WACC. Notably, our estimates sit at various points in the range, sometimes at the higher end (beta), sometimes at the lower end (gamma)[40] and sometimes in the middle (MRP).

Table 11: PoM parameter estimates compared to ESC initial parameter estimates in the 2020-21 TCS Interim Commentary

Parameter	ESC estimate in the 2020-21 Interim Commentary	PoM 2021-22 TCS estimate
Market risk premium	6% to 7.10%	6.54%
Asset beta	0.60 to 0.70	0.70
Gamma	0.35 to 0.5	0.5
Pre-tax nominal WACC	6.3% to 7.90% (March 2020 market data) 6.93% to 8.49% (updated by PoM for March 2021 market data)	8.23%

Note: Our update of the ESC range for the pre-tax nominal WACC is based on (1) calculating the original range with and the ESC parameter ranges and March 2020 market data, being a risk free rate of 0.90% and cost of debt of 5.04%; (2) updating the range for March 2021 market data, being a risk free rate of 1.70% and cost of debt of 4.80%.

Summary of WACC parameters

Table 12 sets out the parameter estimates calculated for each element of its 2021-22 WACC. A more detailed discussion of the parameters relevant to the WACC estimate is at **Appendix N**.

Table 12: Cost of capital parameters values underpinning PoM's 2021-22 WACC estimate

Parameter	2020-21	2021-22
Return on equity (pre-tax) (**Re**)	10.60%	9.69%
Market risk premium	7.57%	6.54%
Equity beta	1	1
Risk free rate	0.90%	1.70%
Corporate tax (t_c)	30%	30%
Gamma (γ)	0.33	0.50
Return on debt (pre-tax) (**Rd**) (see note 1)	5.04%	4.80%
Debt risk premium ('on the day')	2.42%	1.32%
Debt raising costs	0.10%	0.10%
Capital structure (gearing)		

[40] Our gamma is at the upper end of the range numerically, although this puts the return on equity at the lower end of the range for all possible values of gamma.

Parameter	2020-21	2021-22
Share of debt (D/(E+D))	30%	30%
Share of equity (E/(E+D))	70%	70%
Pre-Tax Nominal WACC	**8.93%**	**8.23%**

Note 1 – The return on debt is transitioning to a 10-year trailing average, commencing 2017-18. As such, the 2021-22 return on debt is calculated as a weighted average of the 'on the day' return on debt from 2017-18 (5.45%, with 60% weighting), 2018-19 (4.58%, with 10% weighting), 2019-20 (4.21%, with 10% weighting), 2020-21 (3.42%, with 10% weighting) and 2021-22 (3.12% with 10% weighting).

8.2.3.5 Benchmark efficient entity test

In its Statement of Regulatory Approach, the ESC provides examples of a number of cross checks that it has indicated it may use to assess whether the return on capital adopted by PoM is commensurate with that required by a benchmark efficient entity with a similar degree of risk. This is referred to as the benchmark efficient entity test. The ESC notes that:

> *If these cross-checks indicate that the return on capital used by the port is commensurate with the returns that would be required by a benchmark efficient entity, then the port is likely to be considered compliant.*[41]

We have sought independent expert advice from HoustonKemp on whether the return on capital adopted is commensurate with that required by a benchmark efficient entity with a similar degree of risk, specifically covering:

- The appropriateness of the high-level cross-checks identified by the ESC;
- Whether there are any other cross-checks to appropriately assess whether our allowance to recover a return on capital base meets the benchmark efficient entity test; and
- Whether our WACC estimate for the 2021-22 TCS satisfies the cross-checks identified.

HoustonKemp's report is provided as **Appendix Q** of this TCS submission. As set out in the report, our WACC of 8.23% satisfies the cross checks undertaken by HoustonKemp to verify that the return on capital is commensurate with that which would be required by a benchmark efficient entity providing services with a similar degree of risk.

HoustonKemp found that:

- Our estimated WACC falls within the range of Australian regulatory decisions controlling for firm-specific factors (equity beta, gearing and credit rating) and differences in timing, as per Figure 8 below; and
- Our adopted firm-specific parameters (being the asset beta, gearing and credit rating) are comparable to those adopted by regulators for comparable entities (and so are reasonable).

In undertaking the first cross-check, HoustonKemp emphasised the importance of conducting a 'like for like' comparison, with key considerations being[42]:

- The need to account for different approaches. HoustonKemp notes that the ESC's current regulatory cross check does not systematically analyse the WACC methodology adopted by PoM and whether its approach results in a rate of return that is inconsistent with what would have been allowed by other Australian economic regulators (for example, different approaches to estimating the cost of debt are a key driver of differences in WACC outcomes);
- The need to account for market conditions and the timing of decisions. HoustonKemp notes that the decisions used in the ESC's preliminary analysis were made over the previous three years, these decisions reflect the market conditions at the time of the decision and consequently are not directly comparable to PoM's WACC. While the

[41] ESC, *Statement of Regulatory Approach – version 2.0*, April 2020, p.23

[42] HoustonKemp, *Cross checks to assess whether the Port's adopted return is a commensurate return*, May 2021, pp. 9-11, 20

ESC's Interim Commentary normalised for differences in risk free rates, it does not do the same for the MRP and cost of debt, which are also affected by timing; and

- The need to control for differences in firm specific characteristics. HoustonKemp noted that if the firm specific parameters underpinning a regulatory decision are significantly different to PoM's characteristics, the resultant WACC range has limited relevance as a cross check. HoustonKemp noted that the ESC's Interim Commentary compares our WACC with several regulatory decisions with significantly different risks, including infrastructure use to provide passenger transport services, rail infrastructure use to transport iron ore, urban water and wastewater infrastructure, and rural water storage and transport infrastructure. HoustonKemp's view is that:
  - freight rail businesses are, absent a regulatory decision relating to a freight port, most comparable to PoM due to the PoM's supply chain, and their exposure to freight demand changes over time;
  - coal related port and rail businesses are likely to be weakly comparable to PoM, reflecting their exposure to a single commodity which is driven by overseas demand; and
  - natural monopoly businesses providing essential services (e.g., water and electricity) are not comparable to the PoM.

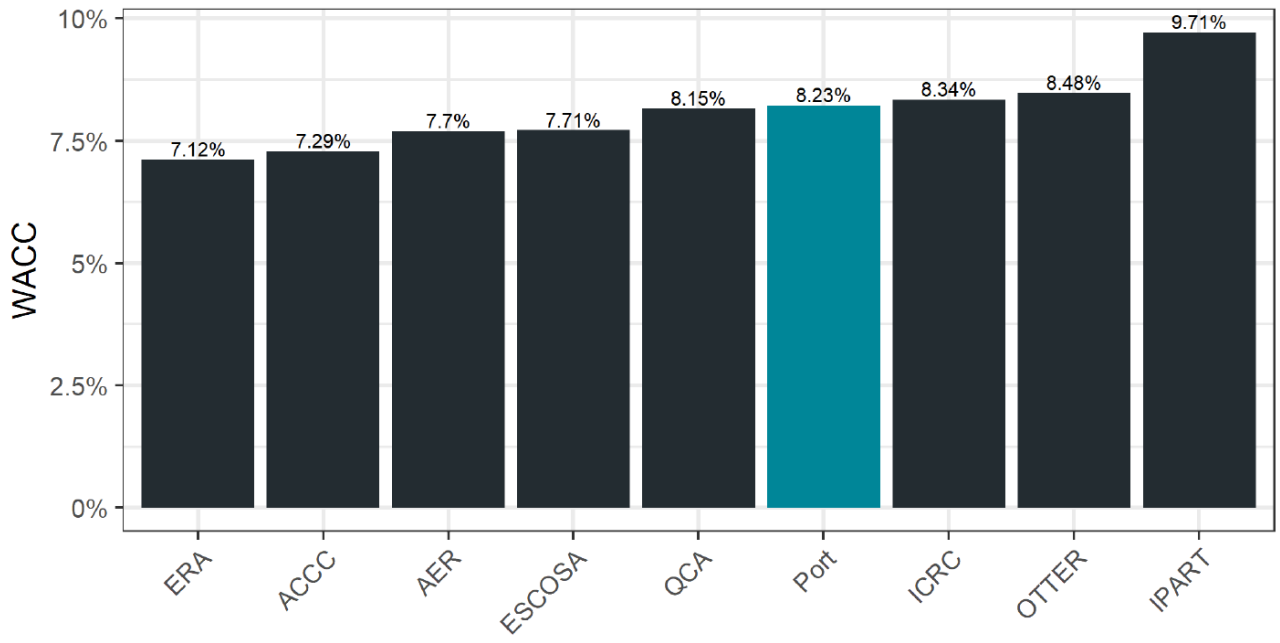
Cross check of regulatory decisions normalising for firm specific differences

HoustonKemp's view is that an appropriate cross check using regulatory decisions requires those decisions be made comparable by normalising for firm specific factors that influence the return on capital. To control for variation in the firm specific characteristics adopted in other regulatory decisions, HoustonKemp:

- Replace the firm specific parameters adopted in regulatory decisions with those adopted by PoM, an equity beta of 1.0, gearing of 30% and a BBB credit rating;
- Update regulator market parameter estimates to reflect a time period (and by consequence, market conditions) consistent with that adopted by PoM; and
- Apply the market based parameters estimated using the relevant regulator methodology.

Applying these adjustments to regulatory decisions results in a cross check range which includes the PoM's rate of return (Figure 8). In HoustonKemp's view, this is sufficient for our rate of return to be considered a commensurate return when evaluated against this cross check.

Figure 8: Comparison of WACC estimates using normalised firm-specific parameters



Source: HoustonKemp

Cross-checks of firm specific parameters

HoustonKemp note that it is important to ensure that cross-checks appropriately account for the comparability of the firm specific parameters underpinning regulatory decisions. In the absence of information from regulated Australian container ports, a cross check of PoM's firm specific parameter estimates against regulatory precedent can only be assessed against the parameters adopted by other regulators for entities that have a lesser degree of similarity. HoustonKemp have adopted the following approach:

- First, a sample of comparable regulatory decisions is derived; and
- Second, a comparison of firm specific parameters is undertaken, allowing for inherent differences in assumed benchmark entities.[43]

HoustonKemp notes that this approach is akin to first principles analysis used to determine the equity beta.

Given that the Port operates in the freight transport supply chain, HoustonKemp consider that:

- Freight rail businesses are, absent a regulatory decision relating to a freight port, most comparable to the Port due to the Port's supply chain, and their exposure to freight demand changes over time;
- Coal related port and rail businesses are likely to be weakly comparable to the Port, reflecting their exposure to a single commodity which is driven by overseas demand; and
- Natural monopoly businesses providing essential services (e.g., water and electricity) are not comparable to PoM.[44]

HoustonKemp then compared our firm-specific parameter estimates with those presented by other regulators, having regard to the relevance of the different estimates, as shown in Figure 9, observing that:

- The ACCC approved a lower asset beta for ARTC's coal related business when compared to its freight rail business, illustrating a possible beta premium for freight businesses; and
- On average, freight businesses obtain a higher asset beta than coal related businesses.[45]

Figure 9: Comparison of WACC estimates using normalised firm-specific parameters

	Arc Infrastructure	ARTC Interstate	DBCTM	Aurizon Network	Railcorp - Hunter Valley	ARTC - Hunter Valley
Industry	Freight rail network	Freight rail network	Coal terminal	Coal rail network chain	Coal rail network chain	Coal rail network chain
Regulator	ERA WA	ACCC	QCA	QCA	IPART	ACCC
Decision date	Aug-20	Dec-18	Nov-16	Dec-18	Jul-19	Apr-17
Gearing	25%	50%	60%	55%	45%	52.5%
Credit rating	BBB+	BBB	BBB	BBB+	BBB	BBB
Regulator equity beta	0.90	1.20	0.87	0.73	1.00	0.94
Implied asset beta (using Brealey Myers)	0.68	0.60	0.35	0.33	0.55	0.45

Source: HoustonKemp

Note: The implied asset beta is calculated by de-leveraging the regulator's equity beta using the Brealey Myers formulae and its gearing estimate.

[43] HoustonKemp, *Cross checks to assess whether the Port's adopted return is a commensurate return*, May 2021, p. 22

[44] HoustonKemp, *Cross checks to assess whether the Port's adopted return is a commensurate return*, May 2021, pp. 22-23

[45] HoustonKemp, *Cross checks to assess whether the Port's adopted return is a commensurate return*, May 2021, pp. 22-23

HoustonKemp's findings were:

- PoM's credit rating is consistent with those utilised in other relevant regulatory decisions;
- PoM's equity beta is within the range produced by recent freight and coal rail decisions; and
- PoM's asset beta is close to those implied by recent freight rail decisions.

On this basis, HoustonKemp considers that our proposed firm-specific parameters are comparable to those adopted by regulators for comparable entities, and therefore that our firm specific parameter estimates satisfy this cross check, which provides evidence that the adopted rate of return is a commensurate return. [46]

8.2.3.6 Impact of WACC estimates during the review period

Our approach to estimating the rate of return has evolved in response to careful consideration of the ESC's interim commentaries in the prior years of the Port Lease.

The 2021-22 WACC estimate uses different approaches, and is lower, than the WACC estimates prepared in previous years. However, it is important to note that:

- Changes to our approach to estimating the WACC over the first five years of the Port Lease have had no impact on tariffs during the review period due to the operation of the TAL; and
- The WACC estimates adopted in previous regulatory periods have had no impact on the RAB and therefore will have no impact on future prices.

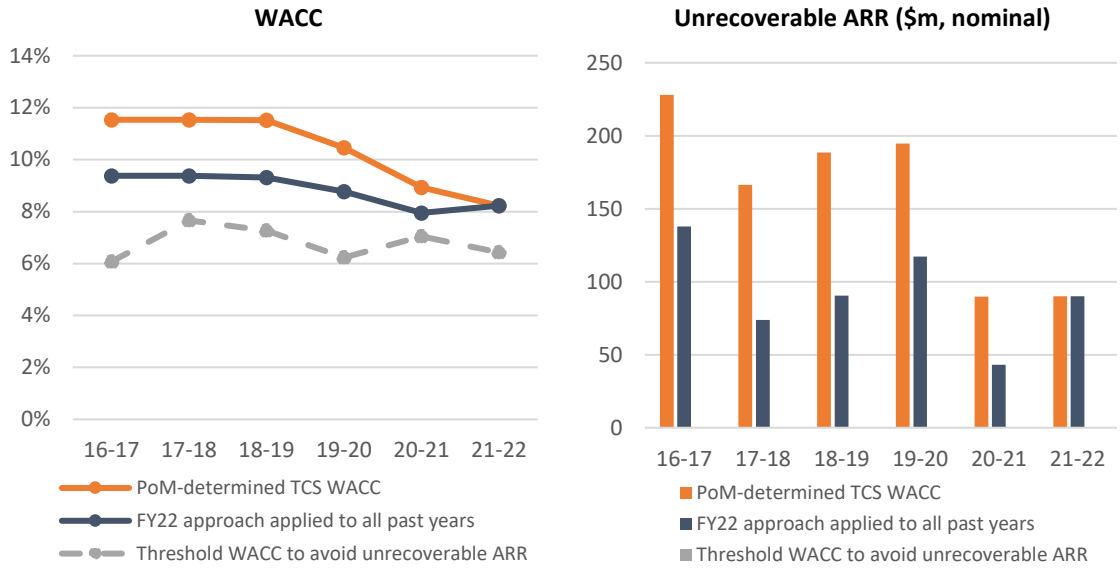
To demonstrate that this is the case, we have recalculated the ARR for previous regulatory periods using the same approach as for the 2021-22 WACC to identify whether doing so would have had any impact on the RAB (see Figure 10). If applying the lower WACC reduced the ARR to a level where some depreciation could be recovered under the TAL revenues, then prices in future regulatory periods could be expected to be lower (all else being equal, and barring any other changes between now and 2037).

The operation of the TAL has meant that in each of the first five years of the Port Lease some share of our ARR has been unrecoverable, despite fully deferring the return of capital. If our approach to determining the WACC in 2021-22 had been applied in all prior years of the Port Lease, the calculated return on capital would have been lower, but in no year would it have lowered the ARR sufficiently to allow the recovery of any depreciation (and hence would still result in shortfall creating unrecoverable ARR).

As illustrated by the grey dotted line, the threshold WACC required to avoid any unrecoverable ARR is well below this level in each of the first five years of the Port Lease. This means that if we had applied the current approach to estimating the required rate of return in all prior years, the closing capital base in 2021-22 would be no different.

[46] HoustonKemp, *Cross checks to assess whether the Port's adopted return is a commensurate return*, May 2021, pp. 23

Figure 10: Pre-tax nominal WACC and associated unrecoverable ARR under alternative scenarios, 2016-17 to 2021-22



Note: The 'FY22 approach' involved recalculating the WACC for all prior years as if the gamma value, market risk premium weightings and cost of equity model weightings adopted in this 2021-22 TCS had also applied in all prior years. This approach implies a 15% weighting on a market risk premium (MRP) calculated using Dividend Discount Models (DDMs). Since DDM estimates are not available for the years prior to 2019-20, we have used the DDM MRP for 2021-22 for 2016-17 to 2018-19 instead. This is a conservative estimate as the 2021-22 DDM MRP is the lowest of the three years for which data are available (2019-20, 2020-21 and 2021-22). For years prior to 2020-21, the threshold WACC and unrecoverable ARR are calculated based on actual values rather than forecast values.

8.2.4 Depreciation

Our core principle for the recovery of depreciation is that we will recover depreciation in a way that seeks to reduce price shocks (i.e. pursue price stability). This principle has been tested with Port Users and other stakeholders and received strong support.

To achieve this principle, we have drawn on advice from independent experts Incenta Economic Consulting (Incenta) (see **Appendix R**) and guidance from the ESC in its Interim Commentaries and Statement of Regulatory Approach, to adopt the following depreciation methodology:

- For the next regulatory period (and for the remainder of the TAL period) we will apply straight-line depreciation with an unrecovered depreciation account, with uncharged depreciation recorded as a separate asset with a life equal to the remaining lease term;
- After the TAL period ends a tilted annuity depreciation method will be applied, with the tilt factor designed to reduce the variance in the expected annual percentage change in the level of tariffs until the end of the Port Lease.

Incenta has advised that this approach would "result in a preferable trajectory in prices than the application of the standard straight line depreciation"[47] in so far as achieving the objective of reducing the variance in annual price changes. That is, the approach is consistent with clause 4.4.2 of the Pricing Order, which provides that we may use an alternative depreciation methodology to the straight-line depreciation methodology to be applied under clause 4.4.1 if:

> *a) the application of clause 3.1.1 [the Tariff Adjustment Limit] means that the return of capital derived using a straight-line depreciation methodology is not capable of being recovered in the applicable Financial Year; or*

[47] Incenta, *Options for structuring the return of capital for the Port of Melbourne*, May 2021, p.16

b) the alternative depreciation methodology is reasonably likely to reduce the variance in the expected annual percentage changes in the level of Prescribed Services Tariffs through to the end of the Port Lease.

Customer feedback and engagement

In the 2020-21 TCS (and in the previous years), we set the return of capital to zero and deferred recovery of straight-line depreciation to future years, on the basis that the return of capital was not capable of being recovered due to the application of the TAL. We also set out a number of principles for the recovery of depreciation, including that[48]:

> *deferred depreciation will be recovered in a manner that is consistent with clause 4.4.2(b). That is, where the depreciation method would be reasonably likely to reduce the variance in the expected annual percentage changes in the tariffs through to the end of the Port Lease.*

In the 2020-21 Interim Commentary, the ESC stated that we should provide more clarity on how it will unwind deferred depreciation and manage tariff shock on port users post the TAL period.[49]

In the 2021 Industry Consultation, we sought feedback from Port Users and other stakeholders on the approach to recovering deferred depreciation. In these consultations, we:

- Explained to Port Users and other stakeholders how treatment of deferred deprecation would affect them – specifically, that recovery of deferred depreciation would have an impact on prices for prescribed services from the end of the TAL period (earliest 2032, likely 2037) until the end of the Port Lease;
- Described alternative approaches to depreciation recovery and provided illustrative depreciation profiles and price paths to demonstrate how Port Users and other stakeholders would be affected;
- Described our proposed approach to recovering depreciation during the TAL (when forecast revenue is sufficient to do so) and after the end of the TAL period (in a manner that minimises price shocks and achieves price stability); and
- Sought feedback from customers on the importance of post 2037 prices on their businesses, their views on our proposed objectives and approach to recovering deferred depreciation. This topic was covered both in discussions in the 1:1 meetings and industry workshops, and through the consultation questions provided to Port Users and other stakeholders in a follow-up questionnaire.

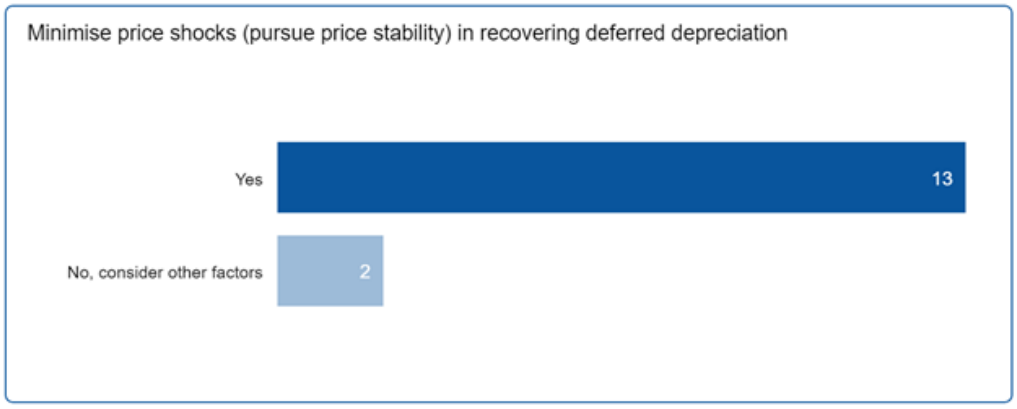
Feedback on future prices (via depreciation methodologies) was provided by Port Users and other stakeholders via our 1:1 meetings, stakeholder workshops, polling during the workshops and in follow-up questionnaires sent to all meeting and workshop participants.

Feedback received from Port Users and other stakeholders indicated a clear preference for our proposed approach to minimise price shocks (pursue price stability) in recovering deferred depreciation. This was also reflected in responses to polling during our workshops, as set out in the figure below.

[48] PoM, 2020 – 2021 Tariff Compliance Statement General Statement, 31 May 2020, p.49

[49] ESC, *Interim commentary – Port of Melbourne tariff compliance statement 2020-21*, December 2020, p.22

Figure 11: Stakeholder views on principles for recovering deferred depreciation



Note: Polling of 94 participants in 10 stakeholder workshops.

Prices post 2037 (deferred depreciation) was considered by respondents to be one of the topic of lesser importance covered in our 2021 Industry Consultation. However, written responses from, and comments made by, Port Users and other stakeholders on the topic of depreciation indicated some interest in generally being informed and also how pricing might impact the competitiveness of the Port.

Expert advice from Incenta on depreciation approaches

We engaged Incenta to provide independent advice on:

- Depreciation methodologies we have adopted since the commencement of the Pricing Order (in particular, setting the building block allowance to zero and carrying forward undepreciated capital, as described above); and
- Alternative depreciation methodologies (i.e. alternatives to straight-line depreciation) that are reasonably likely to reduce the variance in the expected annual percentage changes in the level of tariffs through to the end of the Port Lease.

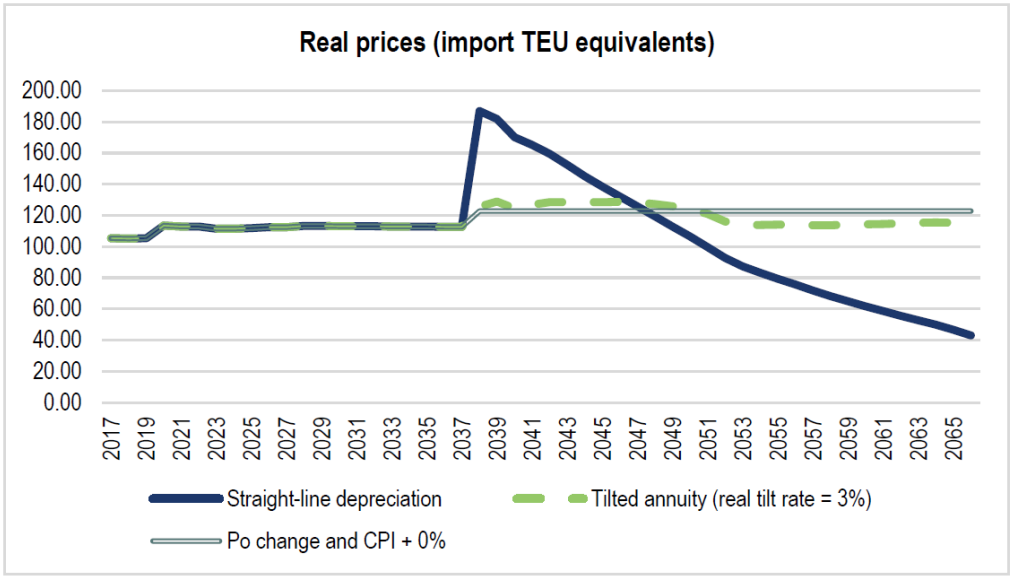
Incenta's report is provided in **Appendix R**.

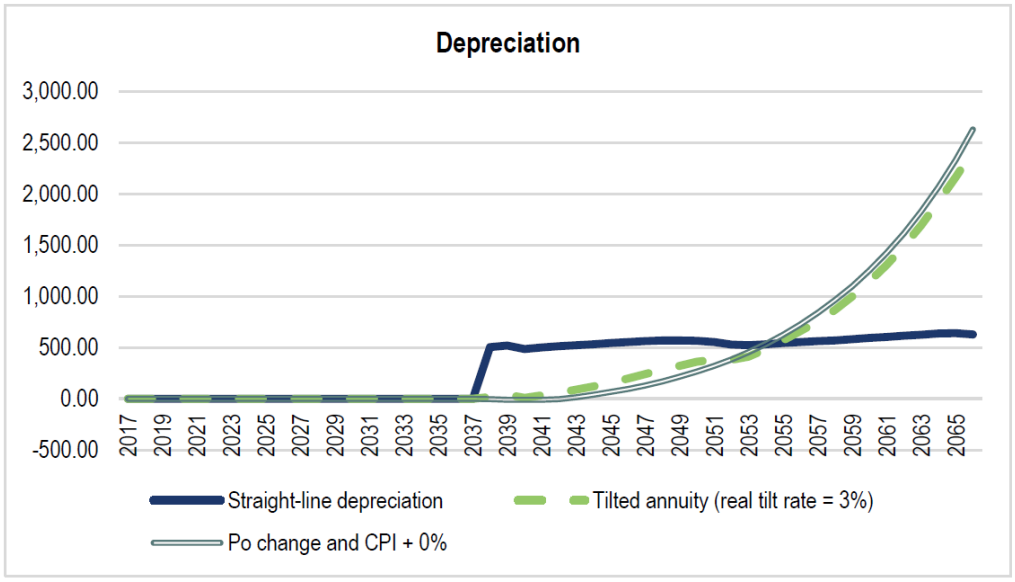
Incenta considered the following options for depreciation methodologies:

- 'Straight-line depreciation', the default depreciation method under the Pricing Order – under which straight- line depreciation is simply applied to the 'physical' port assets, over their economic asset lives;
- 'Straight-line depreciation with an unrecovered depreciation account' – where a financial asset representing the accumulated unrecovered depreciation would also be depreciated on a straight-line basis, over the remaining term of the lease. Each year of unrecovered depreciation during the TAL period is treated as a separate asset, and starts to depreciate immediately, with a remaining life equal to the remaining term of the lease;
- A 'tilted annuity' depreciation method, which can be used to moderate price changes by adjusting the depreciation profile with a 'tilt factor', which is a pre-set rate at which the depreciation component for each asset grows; and
- A 'back-solved' depreciation method, where a CPI (adjusted) price path is pre-determined and depreciation is calculated as the residual between tariff revenue and the other building block components. Under this method, the depreciation allowance in each period is a function of forecasts of demand, expenditure and the WACC over the remainder of the lease.

Figure 12 illustrates the effect on the depreciation profile and price path of straight-line depreciation and tilted annuity depreciation in the period after the TAL expires, where both options entail straight-line depreciation with an unrecovered depreciation account applied during the TAL period. Back-solved depreciation is presented as 'P0 change and CPI + 0%'.

Figure 12: Trajectory of prices and depreciation under different post TAL options, Incenta





Note: Straight-line depreciation with an unrecovered depreciation asset applied in all options prior to 2038

Incenta's key finding was that applying Straight-line depreciation with an unrecovered depreciation account during the TAL period, and a tilted annuity post the TAL period, would "result in a preferable trajectory in prices than the application of the standard straight line depreciation"[50], in so far as the objective of reducing the variance in annual price changes is concerned.

In addition, Incenta found that:

- During the TAL period, the choice of depreciation method has no impact on the amount of depreciation recovered or the RAB. However, applying straight-line depreciation during the TAL period shifts more of the RAB into the separate, 'uncharged depreciation' asset category (relative to adopting a tilted annuity in during the TAL period), which facilitates greater price smoothing post TAL;

[50] Incenta, *Options for structuring the return of capital for the Port of Melbourne*, May 2021, p.16

- The application of straight-line depreciation after the end of the TAL period would result in a large initial price increase when the TAL is removed, and then declining real prices;
- The application of tilted annuity depreciation after the end of the TAL period would result in a much smaller initial price increase when the TAL is removed, but higher prices in the long-term, relative to straight-line depreciation. By adopting a tilt factor broadly in line with the expected growth in demand, prices for the remainder of the TAL would be similar to what is achieved under a constant real price path; and
- In terms of the defined criteria for selecting depreciation methods, while straight-line depreciation would imply a standard deviation of annual price changes over the period until the end of the port lease of 13 per cent, tilted annuity would imply a standard deviation of 3 per cent, and so is far preferable against the metric.[51]

Incenta also undertook sensitivity analysis to test the robustness of the results to alternative WACC scenarios. Under all scenarios, the tilted annuity approach was found to reduce the variation in changes in tariffs through to the end of the Port Lease (relative to applying the Pricing Order default approach of straight-line depreciation).

Our principles for depreciation and adopted depreciation methodology

Based on consultations with Port Users and other stakeholders, our core principle for the recovery of depreciation is that we will recover depreciation in a way that seeks to minimise price shocks (i.e. pursue price stability).

To achieve this principle, and drawing on the work by Incenta and guidance from the ESC, we have adopted the following depreciation methodology:

- For the next regulatory period, we will apply straight-line depreciation with an unrecovered depreciation account, with uncharged depreciation recorded as a separate asset with a life equal to the remaining lease term. We intend to maintain this approach for the remainder of the TAL period, and have updated the Regulatory Model to reflect this approach; and
- After the TAL period ends, a tilted annuity depreciation method will be applied, with the tilt factor designed to minimise the variance in the expected annual percentage change in the level of tariffs until the end of the Port Lease.

The tilted annuity method is based on the following formula, where depreciation for a particular year is derived by multiplying the depreciation rate by the opening written down RAB for that year, as advised by Incenta:

$$Dep_i = \left(1 - \left(\frac{(1+r)^{L-1} - (1+t)^{L-1}}{(1+r)^{L} - (1+t)^{L}}\right) \times (1+r) \times (1+t)\right) \times (1 + CPI_i)$$

Where:

Dep is the depreciation rate;

r is the real discount rate;

t is the tilt rate;

L is the remaining life of the asset as at the beginning of year i; and

and CPI_i is CPI inflation (forecast or actual) for year i.

At the commencement of each regulatory period the depreciation approach will be assessed to confirm ongoing compliance with the Pricing Order requirements for the return of capital. The design of the tilted annuity (specifically, the tilt factor used) depends on forecasts of demand growth. Therefore, we will review (and consult on) the recovery of deferred depreciation and implementation of the tilted annuity depreciation methodology and as the end of the TAL period approaches.

[51] Incenta, *Options for structuring the return of capital for the Port of Melbourne*, May 2021, p.16

ESC guidance on return of capital

The ESC's Statement of Regulatory Approach[52] sets out guidance on the information that the ESC expects us to provide in relation to the return of capital (depreciation) building block of the Aggregate Revenue Requirement. Table 13 summarises how we have addressed the ESC's guidance.

Table 13: ESC guidance on return of capital

Information requirements	How we have addressed the requirements
Straight-line depreciation requirements	
If PoM is using straight line depreciation, the ESC expects PoM will provide information on: ▪ the remaining economic asset lives of existing assets and the economic lives for new assets, how these compare to the accounting lives the port has adopted for the same assets, and an explanation for any divergence ▪ the value attributable to assets (from which depreciation is calculated) ▪ the amount of depreciation applicable to each type of asset on a straight-line basis ▪ all forecast depreciation payments over the entire lives of its assets.	All of these information requirements are provided in the Regulatory Model at **Appendix B**. As noted by the ESC in its 2019-20 Interim Commentary (p.33): *…the port's regulatory model demonstrates that its methods for calculating deferred and straight-line depreciation only recover depreciation once over their economic lives*.
Different depreciation methods	
PoM should show how the method is consistent with the Pricing Order and objectives of the regulatory regime.	Our adopted depreciation methodology: ▪ Meets the requirements of the Pricing Order, as it is reasonably likely to reduce the variance in the expected annual percentage changes in the level of prices through to the end of the Port Lease (relative to a straight-line depreciation methodology of the sort described in clause 4.1.1 of the Pricing Order) ▪ Is consistent with the objectives of the Port Management Act, and in particular promotes efficient use of the infrastructure, by targeting a long-term price path that is approximately constant in CPI-adjusted terms, rather than one that is steeply upwards or downwards sloping. While the actual price outcome post the TAL period is subject to uncertainty, it is clear that our chosen depreciation methodology is far more likely to achieve such an outcome than straight-line depreciation of the sort described in clause 4.1.1 of the Pricing Order.
PoM should show how it consulted with port users on its proposed depreciation method.	As set out above, and in **Appendix I** (the RPS Stakeholder Engagement – Summary Report), we consulted extensively with Port Users and other stakeholders on the proposed approach to depreciation. In particular, in the 2021 Industry Consultations, we explained customer impacts and sought the views of Port Users and other stakeholders on the preferred principles to be adopted for depreciation and prices.

[52] ESC, *Statement of Regulatory Approach – version 2.0*, April 2020, p.28.

Information requirements	How we have addressed the requirements
In the case that the port's different depreciation method defers depreciation, the port should show how it will recover the deferred depreciation.	Section 8.2.4 describes how deprecation will be recovered in the next regulatory period and over the term of the Port Lease.
If the port uses a different depreciation method to defer depreciation because the Tariff Adjustment Limit constrains its revenues, we expect the port will demonstrate that it cannot recover straight line depreciation in the applicable years	The Regulatory Model demonstrates that the TAL constrained revenues are insufficient to recover straight-line depreciation in next regulatory period. We do not expect to be able to recover straight-line depreciation in any year during the TAL period (i.e. depreciation will need to be deferred and the TAL will be binding).

8.2.5 Opex

Table 14 sets out our 2021-22 forecast opex for Prescribed Services. Nearly three quarters of our 2021-22 forecast opex relates to two items – the PLF and the CCA. These items are non-controllable opex required by, and calculated in accordance with, the relevant requirements in the PMA[53] and PCD[54]. The PLF and CCA are deemed to be prudent and efficient under clause 4.5 of the Pricing Order. The remaining 27 per cent, or $40 million, of our 2021-22 forecast opex is controllable.

Attachment 1 to this General Statement explains the method that has been used to prepare the 2021-22 opex forecast and why the forecast is prudent and efficient. It also explains the basis on which opex has been allocated between Prescribed Services, non-Prescribed Services and shared services.

Table 14: Forecast 2021-22 Opex, $ Million

Opex categories	2021-22 (F)
Port Licence Fee	88.7
Cost Contribution Amount	16.4
Labour	16.3
Repairs and Maintenance	4.2
Other	19.0
Total	**144.6**

8.2.6 Indexation allowance

The indexation building block, as required under clause 4.1.1(d) of the Pricing Order, impacts the overall ABBM by its inclusion as a negative amount. This deduction from the ABBM is made to maintain a real rate of return given that a nominal rate of return, discussed in section 8.2.3, is applied to an inflation-adjusted capital base[55], discussed in section 8.2.1. The indexation building block is the sum of the following:

[53] The Port Licence Fee has been calculated in accordance with sections 44K and 44J of the PMA
[54] The Cost Contribution Amount has been calculated in accordance with clause 27.1 of the PCD
[55] The capital base includes an allowance for indexation

- The indexation of the opening capital base (clause 4.6.1(a) of the Pricing Order); and
- Half a year's inflation on Capex (clause 4.6.1(b) of the Pricing Order).

We have has used the annual March all capital cities CPI (with a one year lag) in accordance with clause 4.6 of the Pricing Order to calculate the indexation allowance. The detailed calculations are contained in the Regulatory Model provided at **Appendix B**.

Table 15: Indexation allowance, $ Million

	2021-22 (F)
Indexation Allowance	-55.8

8.3 Prescribed Services revenue (subject to the TAL)

The TAL is defined by the Pricing Order as "…the percentage change in CPI between the March quarter immediately preceding the relevant Financial Year and the March quarter in the Financial Year two years preceding the relevant Financial Year".

The 2021-22 TAL is based on the percentage change between the 2020 March quarter and 2021 March quarter CPI (All Groups Index Number, weighted average of eight capital cities published by the Australian Bureau of Statistics) and is 1.1 per cent.

The 2021-22 Prescribed Services revenue (subject to the TAL) is derived by:

- Applying the TAL of 1.1 per cent to the tariffs set out in our 2020-21 RTS; and
- Multiplying these tariffs by the 2021-22 forecast trade volumes prepared by BISOE and PoM (discussed in section 6 and **Appendix K).**

As agreed with the ESC, the calculation of the WATI excludes revenue from contracts with Port Users for Prescribed Services. The WATI is the weighted average rate of change in all tariffs, excluding tariffs for full outbound container wharfage services.

The WATI for 2021-22 was calculated using weightings based on 2019-20 audited revenue. The 2021-22 WATI is 1.1 per cent. Audited revenues are contained in **Appendix H**, which provides KPMG's "Report of factual findings to Management of the Port of Melbourne Group Prescribed Services Revenue 30 June 2020".

We have added Prescribed Services revenue associated with the legacy contracts to 'Prescribed Services revenue (subject to the TAL)' for the purposes of comparing it with the ARR. We have agreed to this treatment of legacy contracts with the ESC.

For the avoidance of doubt, our total Prescribed Services revenue comprises:

- Prescribed Services revenue (subject to the TAL); and
- Revenue from both legacy and new contracts for Prescribed Services. This contract revenue is confidential and is separately reported to the ESC in **Appendix D** and **Appendix O**.

8.4 Comparison of ARR and Prescribed Services revenue (subject to the TAL)

Table 16 sets out our actual and forecast Aggregate Revenue Requirement (ARR), as well as the Prescribed Services revenue (subject to the TAL) plus revenue from legacy contracts[56] for 2016-17 to 2021-22. It shows that, in all years, Prescribed Services revenue plus revenue from legacy contracts is lower than the ARR. For 2021-22, we forecast that its Prescribed Services revenue plus revenue from legacy contracts will be $90.0 million below the ARR, despite the

[56] "Legacy contracts" are for contracts for Prescribed Services that were in place at the time of Port Lease Transaction (PLT).

approach to depreciation, which sets depreciation to zero and defers the recovery of the return of capital building block component until future regulatory periods.

Table 16: Comparison of ARR and Prescribed Services (subject to the TAL) plus revenue from legacy contracts, $ Million

	2016-17 (A)	2017-18 (A)	2018-19 (A)	2019-20 (A)	2020-21 (F)	2021-22 (F)
ARR						
Return on capital	481.9	495.3	511.3	481.9	425.6	411.7
Return of capital – see Note 1	0.0	0.0	0.0	0.0	0.0	0.0
Operating expenses (opex)	134.0	126.4	124.5	126.6	133.9	144.6
Indexation allowance	-54.8	-91.3	-84.4	-61.4	-104.4	-55.8
Total ARR	**561.1**	**530.5**	**551.4**	**547.1**	**455.1**	**500.5**
Prescribed Services revenue (subject to the TAL) plus revenue from legacy contracts						
WATI excluding Export Pricing Decision tariffs (%) – see Note 2	n.a.	n.a.	n.a.	1.3%	2.2%	1.1%
WATI including Export Pricing Decision tariffs (%) – see Note 2	n.a.	1.1%	0.9%	0.5%	2.2%	1.1%
TAL (%)	n.a.	2.1%	1.9%	1.3%	2.2%	1.1%
Prescribed Services revenue (subject to the TAL) plus revenue from legacy contracts	333.1	364.1	362.8	352.3	365.3	410.4
Under-recovery of ARR	**228.1**	**166.4**	**188.6**	**194.8**	**89.8**	**90.0**

Note 1 – We have adopted an alternative approach to straight-line depreciation on the basis that the return of capital derived using a straight-line depreciation methodology is not capable of being recovered in the applicable Financial Year (clause 4.4.2 of the Pricing Order). See section 8.2.4 for an overview of our alternative depreciation methodology

Note 2 – We have used audited revenues for 2019-20 to calculate the WATI for 2021-22. For 2017-18 and 2018-19, we have used audited volumes from two years prior to calculate the WATI (because audited revenues at a service level are not available)

9. 2021-22 tariffs

As outlined in section 8.3, the forecast 2021-22 Prescribed Services revenue (subject to the TAL) plus revenue from legacy contracts is lower than the ARR (calculated under the ABBM). Our 2021-22 tariffs are therefore subject to the TAL.

We also confirm that:

- The WATI (excluding tariffs for full outbound container wharfage services) for Prescribed Services is 1.1 per cent;
- All tariffs will increase by the TAL of 1.1 per cent, being the annual change in the Consumer Price Index (CPI) to March 2021; and
- All tariffs have been adjusted by the same percentage adjustment consistent with clause 3.2.1 of the Pricing Order. There are no new or discontinued tariffs from 2020-21.

Our 2021-22 tariffs are set out in the RTS provided at **Appendix A** and are effective from 1 July 2021.

As agreed with the ESC, we have calculated its 2021-22 tariffs by applying the cumulative CPI index to the Initial Prescribed Services Tariffs, rather than by applying the annual CPI to the previous year's tariffs.[57] This results in minor aggregate rounding differences that are self-correcting over time, as demonstrated in the Regulatory Model in **Appendix B**.

9.1 Upper and lower bounds

Clause 2.1.1 of the Pricing Order requires that revenue for each Prescribed Service Bundle should be on, or between, the upper bound (clause 2.1.1(b)(i)), which represents the standalone cost of providing each Prescribed Service Bundle, and the lower bound (clause 2.1.1(b)(ii)), which represents the avoidable cost of not providing the Prescribed Service Bundle. This is commonly known as the "efficient pricing band".

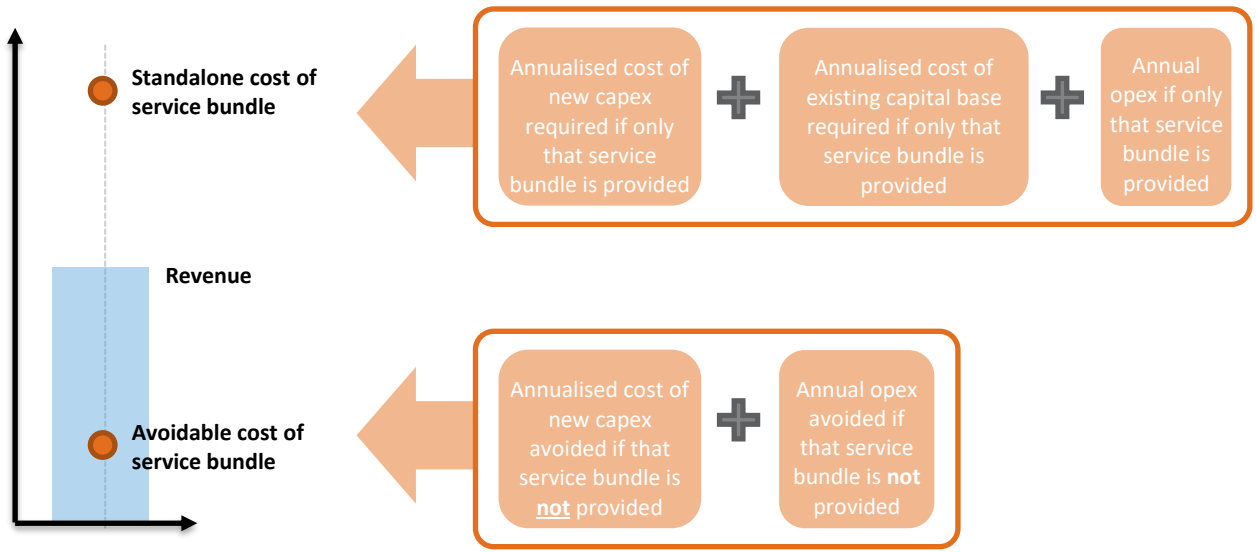
Consistent with prior years, we have prepared an Efficient Cost Bounds Model and an accompanying Efficient Cost Bounds User Guide (see **Appendix F** and **Appendix G**, respectively). The Efficient Cost Bounds Model demonstrates our compliance with clause 2.1.1(b) of the Pricing Order by:

- Estimating the indicative standalone and avoidable costs of supplying each Prescribed Services Bundle, based on the most recent available data; and
- Demonstrating that forecast revenue for each Prescribed Services Bundle falls within those efficient pricing bounds in accordance with the Pricing Principles in the Pricing Order.

Figure 13 shows the conceptual approach that is used in the model. The blue bar represents the revenue from a given Prescribed Services Bundle, while the two orange circles represent the standalone and avoidable costs for that bundle. The two boxes to the right illustrate what components are used in the efficient cost bounds model to make up the two cost measures respectively.

[57] With the exception of wharfage fees for inward full containerised cargo. Given that this tariff was amended during 2019-20, the CPI adjustment is applied to the 2019-20 tariff applicable from 1 June 2020.

Figure 13: Illustrative representation of the efficient cost bounds



10. Efficient cost recovery

Efficient cost recovery (ECR) is required to promote the objectives in section 48(1)(a) of the PMA:

- PoM should have a reasonable opportunity to recover its efficient costs of providing Prescribed Services, including a return commensurate with the risks involved; and
- To promote efficient investment for the long-term interests of Port Users and Victorian consumers.

Clause 2.1.1(a) of the Pricing Order reinforces these requirements through the efficient cost recovery principle, which requires:

> *Prescribed Service Tariffs must be set so as:*
>
> *(a) to allow the Port Licence Holder a reasonable opportunity to recover the efficient cost of providing all Prescribed Services determined by application of an accrual building block methodology of the type described in clause 4 (Aggregate Revenue Requirement)*

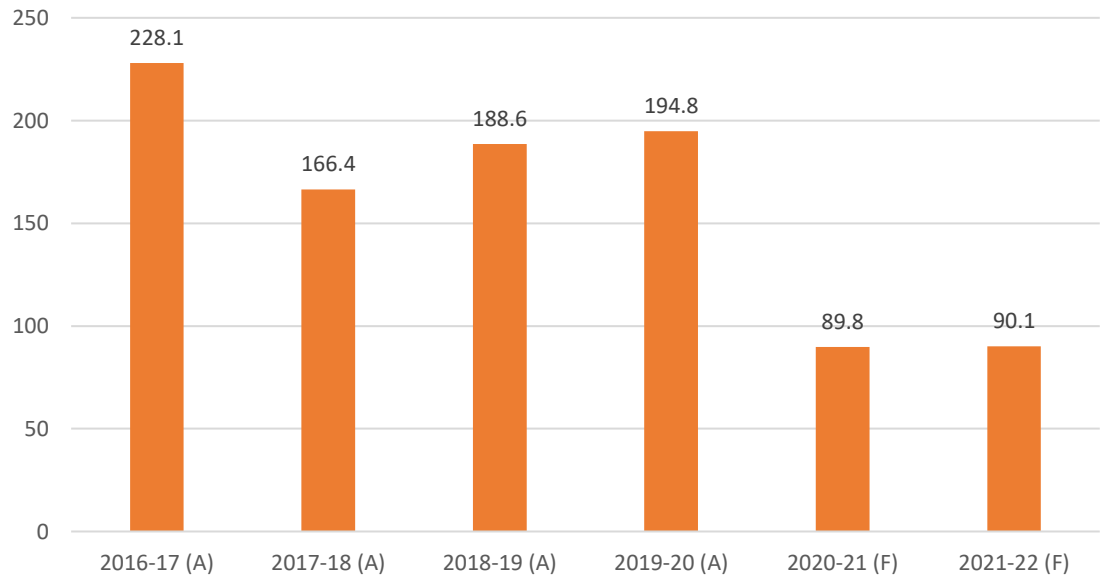
Importantly, there is no express qualifier on this principle in relation to the application of the TAL. This means that the principle that PoM should have a "reasonable opportunity" to recover its efficient costs and commensurate return is independent of the obligation to apply the TAL during the period until at least 2037.

Allowing PoM to recover efficient costs of, and commensurate return on, investment is important to avoid compounding under-recovery of efficient costs and having a higher capital base and tariffs at the end of the TAL period. These matters are particularly important because the Pricing Order constrains the depreciation period to the end of the lease.

We are also required to promote efficient investment. It is not reasonable to expect that any port operator (whether regulated or unregulated) would undertake investment where it is not commercially sustainable, due to an inability to recover efficient costs and commensurate return.

For each of the first five years of the Port Lease, the operation of the TAL has meant that we have not been able to recover our efficient and prudent costs of providing Prescribed Services as calculated by the ABBM, even after accounting for the deferral of the return of capital. This is under-recovery forecast to continue in 2021-22.

Figure 14: Under-recovery of prudent and efficient costs ($m), 2016-17 to 2021-22



Attachment 1 – 2021-22 forecast opex for Prescribed Services

1.1. Opex actuals and forecast

Opex is the operating, maintenance and other non-capital expenditure that we incur to provide Prescribed Services. Table 17 shows our opex from 2016-17 to 2021-22 by category.

Table 17: 2017-18 to 2021-22 Prescribed Services Opex by category ($, Million)

Opex categories	2016-17 (A)	2017-18 (A)	2018-19 (A)	2019-20 (A)	2020-21 (F)	2021-22 (F)
Port Licence Fee	81.3	82.5	84.4	86.3	87.6	88.7
Cost Contribution Amount	15.0	15.3	15.6	15.9	16.2	16.4
Insurance, Rates & Taxes	1.1	1.1	1.1	1.3	2.0	2.2
Labour Costs	13.2	10.6	8.2	9.1	11.3	16.3
Repairs & Maintenance	6.6	3.5	4.1	3.2	3.4	4.2
Construction	3.3	-	-	-	-	-
Professional Services	2.7	3.6	4.6	4.0	4.3	6.3
Security	2.3	2.1	1.7	1.6	1.7	1.8
Utilities, Admin, Rental & IT	5.9	5.0	4.5	4.6	7.5	7.7
Transition	2.5	2.8	0.3	0.7	-	1.0
Total	**134.0**	**126.4**	**124.5**	**126.6**	**133.9**	**144.6**

Given the 31 May 2021 submission deadline for the TCS, we do not have a full year of actual information for 2020-21 at the time of submitting this TCS to the ESC. We will provide this information in next year's 2022-23 TCS. We can only therefore provide actual information for 2019-20. Table 18 compares our 2019-20 forecast opex for Prescribed Services with actual outcomes.

Table 18: Comparison of 2019-20 forecast and actual Opex, $ Million

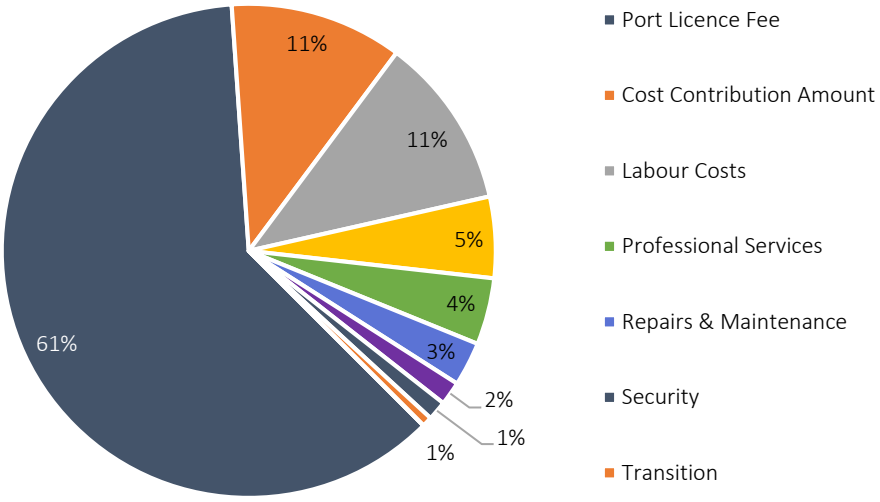
	2019-20 (F)	2019-20 (A)	Difference (%)	Difference ($)
Opex	128.6	126.6	-1.5%	-2.0

Despite the economic disruption and operational challenges engendered by COVID-19, we maintained actual prescribed operating expenditure and capital expenditure close to forecast through 2019-20. Actual operating expenditure was $2.0m (1.5%) below forecast, reflecting lower than expected controllable spending on labour, maintenance and transition costs.

1.2. Drivers of the 2021-22 forecast

Figure 15 shows each opex category as a proportion of total annual opex for 2021-22.

Figure 15: Forecast opex category shares, 2021-22



Nearly three quarters of 2021-22 forecast opex relates to two items – the PLF and the CCA. These items are non-controllable opex required by, and calculated in accordance with, the relevant requirements in the PMA[58] and PCD[59]. The PLF and CCA are deemed to be prudent and efficient under clause 4.5 of the Pricing Order. The remaining 27 per cent, or $40 million, of 2021-22 forecast opex is controllable.

1.3. Prudency and efficiency of opex

The Pricing Order requires opex to reflect efficient expenditure incurred by a prudent service provider. Our 2021-22 controllable opex is efficient and prudent because it:

- Is based on our most recent actual opex which provides the best available information or outcomes from competitively tendered contracts;
- Reflects business as usual expenditure requirements, which are prepared as part of its annual budget process. The annual opex forecasts going into the TCS are prepared as part of our annual budget process, which is subject to detailed review by Finance, the Executive, Shareholders and Board. The 2021-22 opex forecast reflects our current view of the budget at the time submitting this TCS to the ESC. Given that the 2021-22 opex budget will not be finalised until June, the forecasts in this TCS may therefore not reflect our final opex budget for 2021-22; and
- Reflects the application of our asset management system, which has been certified to International Standards Organisation (ISO) 55001:2014 - Asset Management. This is discussed further in section 1.7 of Attachment 2.

Further, the following controls, practices and procedures apply to ensure all aspects of our opex are prudent, efficient and deliver value for money:

- Procurement policy and approach – we reviewed and updated our Procurement Policy in 2017 following an internal audit administered by Deloitte Risk Advisory (Deloitte). Our Procurement and Contract Management Policy drives commercial outcomes through competitive tendering (appropriate to the value of the contract

[58] The Port Licence Fee has been calculated in accordance with sections 44K and 44J of the PMA
[59] The Cost Contribution Amount has been calculated in accordance with clause 27.1 of the PCD

engagement) to identify preferred suppliers. This competitive pressure on suppliers will ensure that we only incur efficient costs for all outsourced arrangements through market-based pricing;

- Internal audit – we have an ongoing internal audit function in order to assess whether the necessary controls and processes are in place, and are being followed, and to identify areas for improvement. The guiding themes underpinning these internal audits are: safety and security of all who use the Port; the need to enhance and streamline operations to ensure sustainable business performance; compliance with the concession deed and legislative and regulatory requirements; infrastructure forward planning; sound financial management to support decision making; and corporate social responsibility;
- Contract structure – our repairs and maintenance contracts are structured based on fixed and variable cost components to ensure only necessary works are undertaken with all additional works subject to inspections or reviews and different rate schedules. This is discussed in section 1.4 of this Attachment, below; and
- We have appropriate HR management policies and practices in place to ensure labour costs remain efficient and prudent and reflect current market conditions.

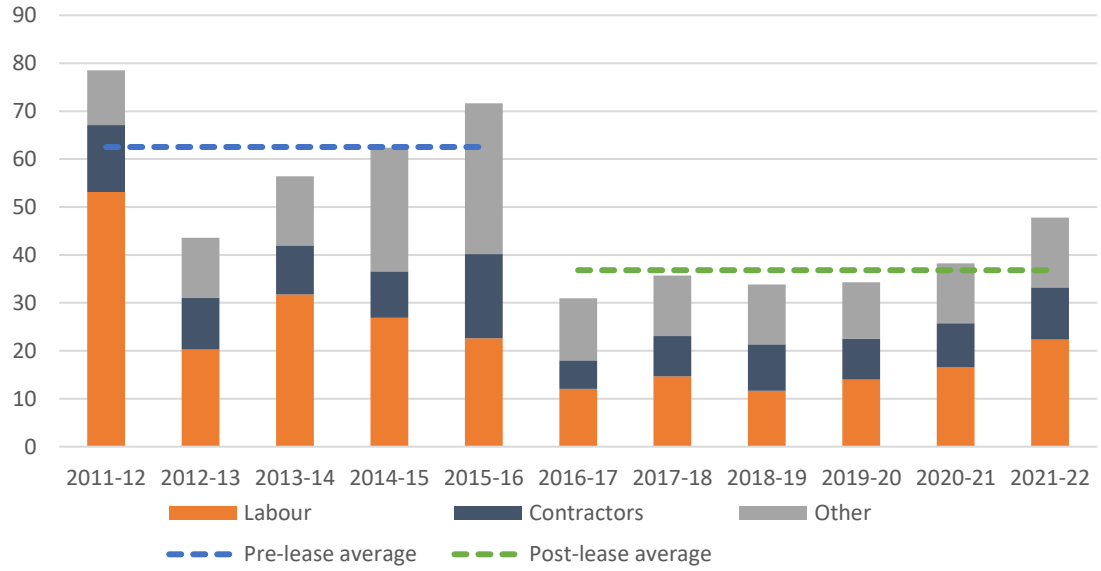
We also face strong incentives to achieve cost efficiencies during the TAL period. The shortfall between forecast 2021-22 Prescribed Services revenue (subject to the TAL) and the ARR provides a strong incentive to constrain opex to prudent and efficient levels. This is because with depreciation set to zero, we do not recover any revenue shortfall relating to opex during the TAL period, and cannot defer opex recovery until future periods.

Our emphasis on cost efficiency is borne out by a comparison of operating expenditure in the years immediately before and after the Port Lease Transaction. To ensure a reasonable comparison, we have excluded once off costs (e.g. Port Lease Transaction), uncontrollable costs (e.g. the Port Licence Fee) and costs related to the Harbour Master function which now sits with the Victorian Ports Corporation Melbourne.[60]

As shown in Figure 16, controllable operating expenditure in the six years since the Port Lease commenced has been, on average, around $20m per year lower (in real, December 2020 terms) than operating expenditure in the five years prior. Reductions in labour and contractor costs account for most of this difference.

[60] For optimal comparability, several categories of operating expenditure are excluded from pre and post-lease figures. These include costs associated with the functions of the Victorian Ports Corporation Melbourne, Port Licence Fees, Cost Contribution Amounts, and costs associated with the Port Lease transaction and transition. In the post-lease period, forgone rent, council rates and taxes included in operating expenditure under the Port Rail Transformation Agreement have also been excluded. Capitalised operating costs are only present in the post-lease accounts, so these are included as operating costs here. Operating expenditure is expressed in real December 2020 terms, inflated by CPI. FY22 values assume inflation of 1.5% to December 2021.

Figure 16: Total comparable opex (includes prescribed and non-prescribed costs), pre and post-Port Lease (real $2020, $m)



Note: 'Other' includes insurance, rates, taxes, repairs and maintenance, utilities, admin, rental and IT.

1.4. Opex forecasting method

Our 2021-22 opex forecast was initially developed using a bottom-up forecasting methodology, which is subsequently subject to a detailed top-down review by the Finance group, Executive, Directors, Shareholders and Board to identify opportunities for efficiency. The individual opex categories are explained below together with an explanation of how we have forecast 2021-22 opex.

Table 19: Description of opex categories and approach to forecast Capex by category

Opex category	Description and forecasting methodology
Port Licence Fee and Cost Contribution Amount	The PLF has been calculated in accordance with sections 44K and 44J of the PMA. The CCA has been calculated based on clause 27.1 of the PCD. In accordance with clause 4.5 of the Pricing Order, costs associated with the PLF and CCA payable under the PCD are deemed prudent and efficient.
Insurance Costs	The largest component of this expenditure category is insurance costs. Our 2021-22 insurance forecast is based on the actual invoiced premiums for 2020-21, which relate to coverage for: ▪ industrial special risks (property) ▪ port operators liability ▪ environmental impairment liability ▪ directors' and officers' liability ▪ crime ▪ motor vehicle ▪ marine hull and protection and indemnity ▪ marine cargo ▪ business travel ▪ cyber liability ▪ Tasmanian workers compensation ▪ contract works ▪ public and products (construction) liability

Opex category	Description and forecasting methodology
	These actual invoiced premiums for 2020-21 are then adjusted based on discussions with our insurance broker. The adjustments accommodate expected changes in premiums related to, for instance, market trends and increases in values of commissioned assets (following the completion of projects or expected revaluation increases on Property Plant and Equipment). We typically pay insurance on an annual basis. Forecast expenditure relating to rates and taxes is also based on prior year actual expenditure.
Labour	We operate under a landlord port model and therefore the majority of its operational activities relate to the management of port infrastructure and related assets. As such, employee time is typically related to the business as a whole, apart from certain specific responsibility / cost centres that attribute all of their time to a particular business segment. Labour costs relate to employee labour and on-costs. These costs are based on prior year actual expenditure adjusted for known and expected changes in required resources.
Repairs and Maintenance	Repairs and Maintenance opex relates to repairs and maintenance on electrical infrastructure, roads and civil, hazardous berths, navigational aids and wharves, buildings and other repairs and maintenance. The 2021-22 Repairs and Maintenance forecast is based on competitively tendered fixed and variable contracts with our suppliers. As in previous years, the majority of the contract costs are fixed (upwards of 80%) and relate primarily to routine testing, inspection and maintenance of assets. Routine inspection, testing and maintenance is driven by legislative and regulatory compliance (such as the *Building Regulations 2006*), asset criticality and implications of failure associated with these assets. The variable component comprises less than 20% of the total forecast and relates primarily to operation and repairs. The works program is largely driven by the asset condition reports arising from the inspection regime undertaken as part of the fixed component of the contract. This ensures that expenditure on these assets is only undertaken as and when required to maintain asset operability and condition.
Other – Utility and Administration (including security)	Other support costs include security, utilities and administration and IT, which are necessary to support the management function. In relation to: ▪ security – This ongoing contract comprises a fixed and a variable component. Our security requirements are primarily driven by regulatory compliance obligations under the *Maritime Transport and Offshore Facilities Security Act 2003* (Cth) (MTOFSA) and *Maritime Transport and Offshore Facilities Security Regulations 2003* (Cth) (MTOFSR)) ▪ utility and administration – this relates to costs for advertising and promotions, professional memberships and corporate subscriptions, electricity and water charges, communication costs and training and conferences. These costs are based on actual costs in the prior year and are adjusted for known and expected changes. ▪ IT – these costs are based on actual software licencing costs in the prior year (with the major licences being for Microsoft, TechnologyOne and Objective) and are adjusted for known and expected changes.
Other – Professional and Advisory	This relates to the engagement of professional services including legal, accounting, tax and audit, environmental, as well as engineering condition inspections. Our 2021-22 forecast is based on average actual costs in earlier years and adjusted for known and expected additional engagements.

Attachment 2 – 2021-22 forecast capex for Prescribed Services

Capex is typically associated with the creation of new assets, many of which have long asset lives, or the renewal or rehabilitation of existing assets. Capex tends to be lumpy and variable over time and recovery of these costs is therefore spread over the life of the asset via the return on and of capital.

This attachment sets out:

- Capex actuals and forecast, including the expenditure amounts, trends and drivers, the forecasting methods for each capex category, capitalisation policies and category mapping into the regulatory model;
- Capex governance, including the hierarchy of our investment planning and engagement processes, asset management systems and certifications, and arrangements for works delivery and oversight;
- Efficiency and prudence of capex, why our actual and forecast capex is prudent and efficient;
- Capex forecasting method
- Capex planning and sequencing
- Governance for planning and delivery
- Asset management system

1.1. Capex actuals and forecast

Table 20 sets out our capex from 2016-17 to 2021-22 by category.

Table 20: 2016-17 to 2021-22 Prescribed Services Capex by category ($, Million)

Capex category	2016-17(A)	2017-18 (A)	2018-19 (A)	2019-20 (A)	2020-21 (F)	2021-22(F)
PCP	42.9	1.7	-	-	-	-
Channel	8.3	7.2	5.0	33.8	2.4	14.9
Wharves	18.4	35.1	42.6	36.3	30.5	84.8
Road	0.1	1.5	0.2	1.5	8.1	-
Rail	0.1	2.3	3.4	34.3	30.2	73.4
Plant	1.0	0.8	1.2	1.0	3.3	3.5
Other	1.5	2.5	4.8	5.4	6.4	9.3
Total	**72.4**	**51.2**	**57.3**	**112.4**	**80.9**	**186.0**

Actual capital expenditure in 2019-20 was $5.4m (5.1%) above forecast (see Table 21). The difference between actual and forecast capex reflects the inclusion of $27.3m in capital expenditure for the Port Rail Transformation Project, which was mostly offset by lower than forecast capex on Swanson Dock East. Lower than forecast capex on this project was mainly the result of the re-phasing of construction into 2021-22 to minimise impacts on stevedore operations.

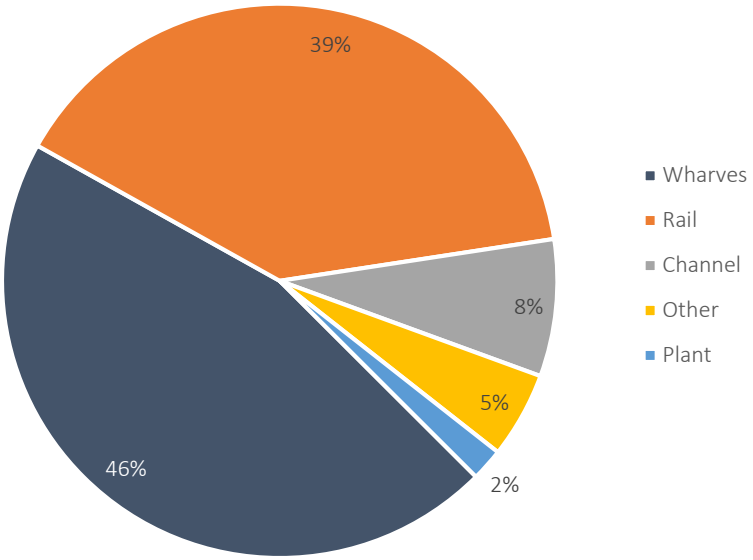
Table 21: Comparison of 2019-20 forecast and actual capex, $ Million

	2019-20 (F)	2019-20 (A)	Difference (%)	Difference ($)
Capex	107.0	112.4	5.1%	5.4

1.2. Drivers of the 2021-22 forecast

Figure 17 shows each capex category as a proportion of total annual capex for 2021-22.

Figure 17: Forecast capex category shares, 2021-22



Overall, capex is forecast to increase substantially from $80.9m in 2020-21 to $186.0m in 2021-22. This main driver of the increase in capex is the growth expenditure under the Port Rail Transformation Project and Webb Dock East Berth 4 & 5 Extension, plus the commencement of Wharf Rehabilitation works at Swanson Dock West:

- The Port Rail Transformation Project — this project involves investments to increase rail terminal capacity and improve rail terminal operations to assist the State to achieve rail mode shift targets. Commenced in 2019-20 and due for completion in 2022-23, construction work is projected to peak in 2021-22 with capex forecast at $67.1m;
- Wharf rehabilitation at Swanson Dock West — Commenced in 2019-20, this project is part of a suite of work under the PDS to extend the operational lives of the existing Swanson Dock wharf structures and ensure they are capable of handling vessel requirements now and in the future;
- Berth extension at Webb Dock East — the proposed Webb Dock East Berth 4 & 5 Extension Project will extend the current quay line by 71m to the north and the additional Southern Mooring Dolphin provides a further 15m of usable quay line. The project is intended to address the artificial and unintended capacity constraint being caused by larger vessels, with insufficient quay line to service two vessels concurrently; and
- Maintenance of dredging shipping channels — to continue to meets its obligation to maintain under keel clearance for ships to navigate safely within shipping channels, we will commence a maintenance dredging program in 2021-22.

1.3. The proposed Webb Dock East Berth 4 & 5 extension

Project context

At the time of the Port Lease Transaction, the Port of Melbourne's channel and berth infrastructure was based on a design vessel of 300 metres LOA x 40 metres beam x 14 metres maximum draught and a maximum displacement of 98,000 tonnes.

At that time, it was forecast that in 2025 there would be one weekly service to Melbourne by vessels in the 8,000-8,500 TEU range and two weekly services by 2035. Vessels above 8,500 TEU were not expected to visit the Port during the

Port Lease concession period. Accordingly, plans to accommodate these vessels did not anticipate significant capital expenditure until the mid-2030s.

However, the transition to larger vessels has occurred much faster than anticipated. In 2019-20 there were 54 visits from vessels in the 8,000-8,500 TEU range, and 56 visits from vessels >8,500 TEU. Operational initiatives and investments made by PoM to-date have enabled a revised and optimised approach to meeting this service need. In responding to industry change, our strategy focusses on first maximising the use of the existing infrastructure through new technology and operational controls, and then targeted, incremental capital investments to accommodate larger vessels. Work done to-date includes:

- Vessel simulations program, hydrodynamic modelling, vessel interaction studies and berth structural assessment;
- Yarra River channel and Swanson Dock Swing Basin selected deepening;
- Swanson Dock Berths 3 (East and West) Mooring Bollards upgrade;
- Detailed designs for Swanson Dock East and Swanson Dock West Berths 2 Mooring Bollards upgrade (scheduled for completion in 2021);
- Rehabilitation of Swanson Dock East Berths 1 and 2 (completed December 2020);
- Detailed planning and design for Swanson Dock West rehabilitation underway (works scheduled to commence in 2021);
- Commencement of Webb Dock East – Southern Mooring Dolphin (complete); and
- Detailed design and planning for Webb Dock East Berths 4 & 5 Extension.

This approach has enabled more cost effective investments than options under consideration at the time of the Port Lease Transaction, such as extending the Swanson Dock Swing Basin.

Background to the proposed WDE project

The WDE extension forms a component of our planned investment program to provide services to larger vessels, and was first consulted on in 2018 as part of our consultations on the PDS. We subsequently discussed the project with industry in 2020 during consultations on our tariff rebalancing application.

In our 2021 Industry Consultation, we set out our view that construction of the proposed WDE extension should proceed and provided our forecast expenditure for 2021-22, which included the project. We sought feedback from Port Users and other stakeholders on the WDE extension project on the need, timing and funding of the investment.

Our 2021 Industry Consultation involved providing a range of information to Port Users and other stakeholders on the WDE extension, including:

- How the project fits into our long-term strategy to accommodate larger vessels and meet the capacity needs of the port;
- Operational considerations driving the need for the project, with larger vessels materially reducing available berths and capacity at WDE;
- Competition considerations driving the need for the project, including the basis for our view that the project promotes and facilitates competition by restoring the ability of WDE to effectively compete for growth in trade;
- Evidence of the pace of larger vessels cascading into Australian routes;
- An overview of our port-wide response to larger vessels, which includes work at Swanson Dock and Webb Dock;
- An overview of the options analysis and preferred investment solution with respect to the length of the extension to WDE (71m) and increase in terminal area for VICT (approximately 2%), noting that this solution differs from VICT's preferred option;
- Our views on the appropriate timing of the investment, which we considered should commence as soon as possible, noting the timeframes for construction would be 18-24 months from commencement; and

- Our proposal to recover the investment in Webb Dock East from Prescribed Services Tariffs, and the reasons for doing so.

This information is set out in detail in our 2021 Industry Consultation presentation materials (**Appendix J**) and the PDS Delivery Program (**Appendix U**).

As a brief summary, Figure 18 below provides an overview of WDE and the impact of vessels in excess of the design vessel on berth availability. Operational considerations driving the investment include:

- WDE was designed as a two berth operation to accommodate two design vessels – Port of Melbourne's design vessel is 300m length overall (LOA) x 40m beam x 14m draught;
- With vessels of greater than 300m LOA already regularly calling at WDE (and in advance of expectations, as noted above), this change in vessel size results in a misalignment between the required services and the existing berth design. This regularly limits it to being operated as a single berth terminal instead of a two berth terminal as it was designed for;
- The impact of this artificial berth constraint is that vessels calling at WDE experience queueing and delays. With vessel charter costs of up to USD42,000 per day for a 8,500 TEU vessel (excluding fuel), these delays can see significant costs passed through to consumers via freight rates or congestion surcharges; and
- Designed as a 1.2 million TEU/year terminal, the reduced vessel serviceability results in the capacity of WDE being artificially limited to 840,000 TEU. With the terminal already meeting this capacity, this will reduce competition between stevedores (in addition to reducing the overall capacity of the port).

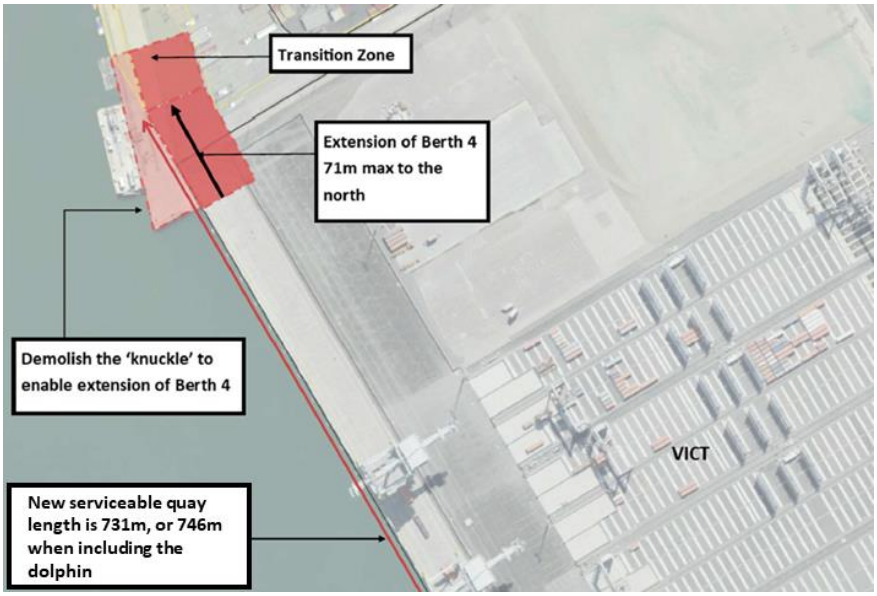
Figure 18: WDE overview with 300m design vessels vs actual 336m vessels resulting in the terminal becoming a one berth terminal

We considered a range of options for addressing efficiency issues at WDE, the preferred option was arrived at in consultation with VICT. While lower cost and with less additional quay line than VICT's preferred approach, it addresses immediate operational issues, while retaining flexibility around future development of Webb Dock North, as follows:

- Demolish the WDE berth 3 structure the 'knuckle', and extend WDE Berth 4 by 71m to the north, supported by a mooring dolphin to the south to provide an operational berth length of 746m (with vessel warping).
- Increased terminal area for VICT of approximately 2%, to enable the safe operation of cranes (including safe service vehicle access) behind the extended berth.

The preferred option is shown in Figure 19, below.

Figure 19: WDE investment solution



Feedback from stakeholders

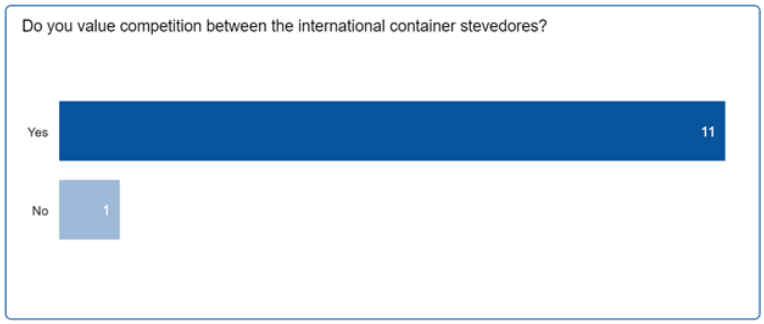
As set out in **Appendix J**, in consulting on the proposed project we sought to:

- Provide detailed information to Port Users and other stakeholders about the scope of the project, arrived at through consultation with VICT (as the infrastructure relates to VICT's licence area);
- Explain the rationale supporting the project and seek the views of Port Users and other stakeholders on their perspective on the need for the investment;
- Set out our views on the timing of the project and seek the views of Port Users and other stakeholders on when it should occur; and
- Set out our proposed approach to recovering the costs of the investment and seek the views of Port Users and other stakeholders on this approach.

A number of specific questions were also raised with Port Users and other stakeholders through the methods and communication channels described in Figure 2 in section 4. These methods and channels included 1:1 meetings, industry forums, targeted workshops and virtual drop ins, where Port Users and other stakeholders could provide direct feedback, respond to online surveys and follow-up questionnaires, and participate in virtual chats and polls. We also received written submissions.

Engagement topics and questions related to the WDE extension and a summary of feedback and responses from Port Users and other stakeholders, are provided in Table 22, below.

Table 22: Feedback received on the proposed WDE extension project

Area of feedback	Feedback from Port Users and other stakeholders
Operational issues	Port Users and other stakeholders identifed the operational issues being experienced at WDE as a concern, with comments including: *It is very important to be able to work two large vessels simultaneously at Webb Dock East* *Webb Dock is regularly constrained to a single berth terminal and this is causing delays* *Current berthing constraints at Webb Dock East mean that there is no reason for the terminal operator to invest in further quayside or landside capacity* As noted above, we have recognised the operational issues being faced at WDE and have designed this project to address the issues.
Impacts on, and benefits of, competition	The majority of Port Users and other stakeholders placed value on competition between the container stevedores. Comments included: *The addition of a third stevedore had resulted in price reductions [i.e. terminal handling charges levied by stevedores on shipping lines] and an increase in customer focus* *We are for increased competition but it also has to result in lower costs and economic benefit* *The importance of Swanson Dock also being able to handle large vessels so one terminal operator can't dominate; and* *Broad recognition of the benefits of competition – having VICT has created healthy competition and pricing pressure [for terminal handling charges]* Polling of Port Users and other stakeholders during our workshops also indicated that most respondents value competition between the stevedores, as set out in the figure below. **Figure 20: Stakeholder views on competition**  Note: Polling of 94 participants in 10 stakeholder workshops. We recognise the concerns of stakeholders and the importance of promoting and facilitating competition at the port.
Impacts on Victorian consumers of the investment	A number of Port Users and other stakeholders identified the broader benefits of investing, with comments including: *WDE is good for Victoria, good for importers and exporters. We need to consider this greater good not just what stevedores want* *Upgrading to larger ships has a flow-on benefit to the economy* *Delays in channel deepening meant importers and exporters paid for delays, concern that the same could happen with WDE.* We note the feedback from stakeholders and the broader economic benefits of investing.
Timing of the investment	Port Users and stakeholders who commented on the timing of the investment emphasised the urgency of investing soon, and suggested that current delays had caused frustration and were

Area of feedback	Feedback from Port Users and other stakeholders
	restricting Port Users from achieving efficiencies. Comments from Port Users covered issues such as the following: *We need a timeline for this project, because it is holding us back* *It is strange that stevedores get to say when they think big ships are coming, given they don't book them, [shipping lines] do* Consistent with these comments, our view is that construction of the WDE extension should proceed and accordingly we have included it in our forecast expenditure for 2021-22.

We also met individually with the three international container terminal operators to provide personalised briefings on the project and receive feedback and commentary on their views on the project. The WDE stevedore, VICT, advocated for the project proceeding, while the Swanson Dock stevedores, Patrick and DP World Australia (DPWA), advocated against the project proceeding.

A summary of the key positions put forward by the stevedores and our initial consideration of those positions is provided in Table 23 below. In making decisions on the project, we will have regard to the feedback provided by all stakeholders and undertake our own analysis, including the use of expert advice as required.

Table 23: PoM consideration of stevedore positions on the Webb Dock East Berth 4 & 5 extension project

Topic and stevedore positions	PoM initial considerations
Operational and capacity issues Stevedore comments included: ▪ WDE is constrained to around 800,000 TEU per annum, which is less than the intended capacity of WDE ▪ WDE is not constrained and could achieve its original design capacity (at least 1.2m TEU per annum) with more efficient operations, in particular by investing in more cranes	We consider that: ▪ WDE is regularly constrained to a single berth operation and this compromises the efficient use of port infrastructure, imposing costs on Port Users and Victorian Consumers. This constraint, and these costs, have been verified by Port Users and other stakeholders; ▪ Due to the arrival of larger vessels sooner than expected, WDE is constrained to around 840,000 TEU per annum (confirmed by independent expert advice), which is materially less than the intended capacity under the Port Capacity Project (PCP); and ▪ This capacity constraint arises due to increased vessel length, which reduces the effective number of berths, and is therefore not able to be efficiently overcome through improvements in stevedoring productivity. Our expectation is that all stevedores are able to achieve broadly equivalent levels of productivity. We also note the comments from Port Users that current berthing constraints at WDE mean that incentives for the terminal operator to invest in further quayside or landside capacity, including additional cranes, are diminished (as it is the berth that is the constraining factor). We have validated these comments with our own analysis. Therefore, we do not agree that WDE could achieve its original design capacity while the current berth constraint is in place.

Topic and stevedore positions	PoM initial considerations
Competition issues Stevedore comments included: ▪ WDE has met its constrained capacity and will not be able to service additional volumes, diminishing competition ▪ With the WDE extension project, WDE will have the ability to materially increase capacity beyond the original design capacity of the Port Capacity Project (PCP), which will give WDE an unfair competitive advantage and risks stranding investments at Swanson Dock	We have considered the positions of the stevedores and consider that: ▪ The artificial constraint at WDE is likely to diminish competition in the stevedoring market by constraining the capacity of WDE to below its intended design capacity; ▪ The WDE extension will not provide WDE with materially more capacity than was originally intended in the PCP, and hence known to the industry. The WDE extension will not provide WDE with more capacity than SDE or SDW – both SDE and SDW will continue to have more capacity than WDE. We also note that: ▪ There is strong support for maintaining a competitive international container stevedoring market among Port Users and other stakeholders; ▪ Port Users and other stakeholders recognised the importance of Swanson Dock also being able to handle large vessels. Due to investments we have made in recent years, the Swanson Dock stevedores have the capability to handle the vast majority of vessels that visit the Port, and so are unlikely to be at a material competitive disadvantage on the basis of vessel handling capabilities; and ▪ In the longer-term, our Port Development Strategy will continue to promote competition in the international container stevedoring market through the development of Webb Dock North.

Project timing

We have considered the feedback provided by Port Users and other stakeholders, including the international container terminal operators. Our current view is that the proposed investment is prudent and efficient, and is consistent with our obligations to develop, invest in, and manage the Port. Therefore, we have included the project in our forecast expenditure for 2021-22. With the construction phase expected to run for 18-24 months, this timing would result in commissioning of the project in 2023-24.

At the time of writing, PoM has not yet approved the project to move into construction phase. Like all major capital projects, a decision on the project will be subject to the governance processes outlined in section 1.7 of this Attachment 2. This will include a detailed review of the outcomes of the consultation process, feedback provided by stakeholders and any additional supporting evidence and analysis required to enable it to make a decision. The timing of the decision for the WDE extension project is expected in June/July 2021, and will be communicated to Port Users and other stakeholders following a decision.

Project funding

Given the operation of the TAL, there will be no change in the overall level of prices for this investment, which will be included in our RAB and covered in existing Prescribed Services Tariffs.

We consulted industry on the proposed funding for the project. As set out in our consultation materials, we consider that Prescribed Services Tariffs are the appropriate mechanism for recovery for this investment, on the basis that:

- Prescribed Services Tariffs treats Port Users (and stevedores) equally with respect to funding investments in marine infrastructure;
- The Swanson Dock stevedores have previously opposed direct contributions for investments at Swanson Dock; and
- Linking investment to the ability to achieve a direct contribution from Port Users or individual stevedores might jeopardise PoM's ability to deliver on its port stewardship obligations.

No objections or alternatives to this approach were raised in our stakeholder engagement.

1.4. Prudency and efficiency of capex

The Compass – Integrated Management System

The Pricing Order requires capex to reflect efficient expenditure incurred by PoM, acting prudently. We are confident that our capex meets these requirements because we employ prudent capex governance, planning and stakeholder engagement arrangements as explained in this Attachment 2, including asset management systems that have been independently audited for ISO55001 certification.

The Port Concession Deed (PCD) with the Victorian Government contains specific obligations that we develop a Port Development Implementation Plan (PDIP) and maintain ISO accreditation of its asset management system to ISO 55001-Asset Management.

To achieve this outcome, we have taken the opportunity to achieve broader and sustainable business efficiencies through the implementation of an internal Integrated Management System (the Compass) that encompasses quality, safety, environmental and asset management systems. The Compass is designed to meet the requirements of four ISO standards: ISO 55001:2014 – Asset Management, ISO-9001:2015 - Quality Management Systems, ISO 14001:2015 - Environmental Management and ISO 45001:2018 – Occupational Health and Safety.

The intent of the Compass is to ensure we:

- Identify and systematically meet customer, stakeholder and interested party needs, expectations and compliance requirements;
- Operate in a manner that minimises potential harm to staff, sub-contractors, the community and the environment;
- Manage our assets as a prudent port operator in accordance with compliance obligations and strategic objectives and considering stakeholder requirements and expectations; and
- Continuously improves performance in the above areas.

We maintains a range of policies and process flows to support its integrated management framework. Collectively they provide a framework to enable us to meet our responsibilities and goals.

Breakdown of prudent and efficient capex by driver

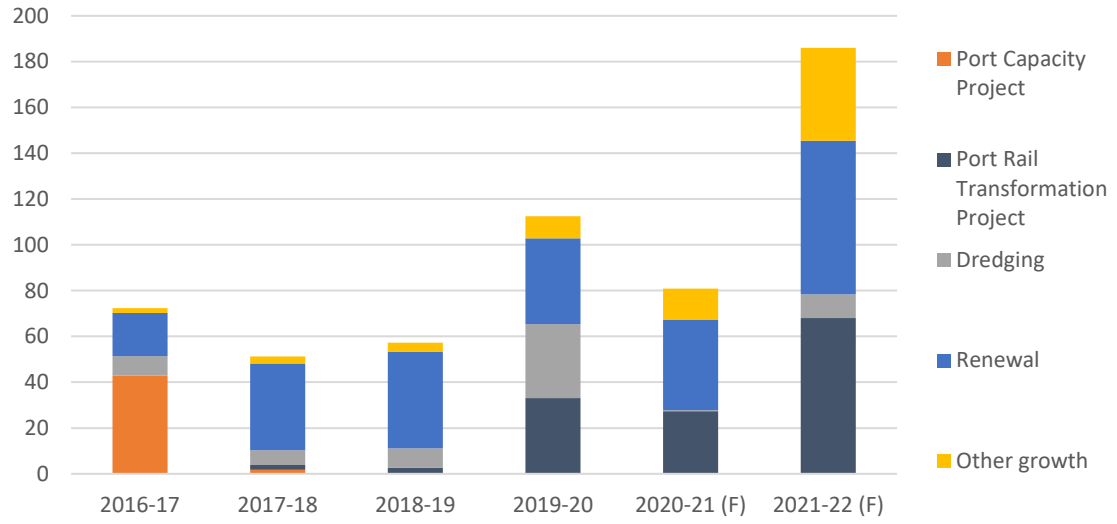
With respect to the prudency and efficiency of actual and forecast capex for the review period and 2021-22, we note that:

- Much of our expenditure on renewals and maintenance reflects contractual, compliance and regulatory obligations (for example, obligations under the Port Concession Deed to maintain minimum remaining service lives for each class of port asset);
- Road expenditure is targeted towards improving operational efficiencies, and the Port Capacity Project (PCP) and Port Rail Transformation Project (PRTP) are deemed prudent under the Pricing Order (see Figure 21);
- Other growth expenditure not already deemed prudent the Pricing Order amounts to only a small proportion of the total expenditure over the 5-year review period (see Figure 21);
- Annual capex forecasts going into the TCS follow the fit-for-purpose category forecasting methods set out below in Table 24 and are prepared as part of our annual budget process, which is subject to detailed review by Finance, the Executive and Board. The 2021-22 capex forecast reflects our current view of the budget at the time we are submitting this TCS. Given that the 2021-22 capex budget will not be finalised until June, the forecasts in this TCS may therefore not reflect our final capex budget for 2021-22; and
- We face strong incentives to achieve cost efficiencies during the TAL period. The shortfall between Prescribed Services revenue (subject to the TAL) plus revenue from legacy contracts and the ARR means that we have an incentive to constrain its capex to prudent and efficient levels. This is because with depreciation set to zero, we do not recover any shortfall relating to the return on capex during the TAL period, and cannot defer its recovery until

future periods. Further, the period in which we can recover deferred depreciation is limited to the period between the end of the TAL and the end of the lease.

Figure 21 provides a breakdown of capex of capex by driver since the commencement of the Port Lease.

Figure 21: Breakdown of capex by capex driver ($m, nominal)



1.5. Capex forecasting method

Our 2021-22 capex forecast was initially developed using a bottom-up forecasting methodology, which is subsequently subject to a detailed top-down review by the Finance group, Executive, Directors, Shareholders and Board to identify opportunities for efficiency. Table 24 explains each capex category and the method that has been used to prepare 2021-22 capex forecasts for each capex category.

We have prepared the 2021-22 Prescribed Services capex forecasts using the same capitalisation approach used in previous years for Prescribed Services capex.

Table 24: Description of Capex categories and approach to forecast capex by category

Capex category	Forecasting method
Channels	Channels provide port access for commercial vessels visiting the Port. Dredging is a routine part of port operations to remove a build-up of sediment to allow the safe navigation of vessels throughout port waters. Dredging activities including dredging, sweeping, water injection, material transport and placement, bunding, capping and associated environmental testing and monitoring functions. We maintain our channels in accordance with the declared depths as detailed in the Port Information Guide. The primary legislative instrument that controls our dredging activities is the *Coastal Management Act 1995* (Vic). We have 10-year (2012-2022) approvals, for the performance of maintenance dredging activities, from the Victorian Department of Environment, Land, Water and Planning (DELWP) and the Commonwealth Department of the Environment and Energy. The compliance requirements of the maintenance dredging activities are set out in our Safety and Environmental Management Plan (SEMP), approved by DELWP. We annually review the volumes to be dredged using the most effective and appropriate dredging methodology having regard for historical dredged volumes, the results of the most recent hydrographic surveys of port waters and the requirements of the SEMP. Our whole of bay survey program developed, in conjunction with the Victorian Ports Corporation (Melbourne) Harbour Master (VPCM), sets out the frequency and other details of the hydrographic surveys of port waters that we undertake to inform dredging requirements and needs. The survey results are also provided to VPCM. This annual review process ensures that the volumes of dredging work undertaken are efficient.

Capex category	Forecasting method
	Our dredging program is performed by an external contractor under a Collaborative Framework Agreement (CFA). The CFA was executed in February 2013 following a global tender process and was reviewed and renewed for a second four year term in February 2017. The review found that the scope of works for each dredging program had consistently delivered works that were conducted within the CFA, budgets, agreed schedules and in accordance with the requirements and obligations of the EMP.
Wharves	Wharves are the common user area for loading and unloading cargo. We maintain the condition of our wharves in accordance with the Wharf Structures' Condition Assessment Manual (WSCAM). Each asset has a modelling strategy, which determines the basis on which we assesses whether rehabilitation capex is required. In particular, the strategy sets out for each asset: ▪ maximum potential life; ▪ effective life; and ▪ maximum number of rehabilitations (to maintain its condition). For instance, an asset classification is assigned a maximum life of, say, 100 years and may require rehabilitation every 20 years. Our asset system maintains these dates which inform our Five Year Capex program and long-term capex forecast (which forms the basis of its Five Year Capex Program). We provides preliminary concept scope and requirements for its capex renewal and rehabilitation projects to an external quantity surveyor to ensure its expenditure forecast for the upcoming financial year is robust. These cost estimates are also tested and verified based on internal knowledge and expertise. All renewal / rehabilitation capex is undertaken by external contractors selected via a select or public tender process in accordance with our Procurement and Contract Management Policy. Rehabilitation / renewal capex is undertaken to meet the service lives determined based on the lowest life cycle cost taking into consideration operational levels, business drivers and compliance requirements (obligations to maintain and repair and handback conditions under the PCD) and is therefore efficient and prudent.
Rail	We own and maintain on-port common user rail tracks, which connect to on-port private sidings as well as off-port rail networks, which are generally used for grain distribution and containerised trade. Our contract with Australian Rail Track Corporation (ARTC) provides that ARTC is responsible for undertaking condition inspections, developing the forward works program and undertaking the required work at agreed rates. We tests and verifies ARTC's renewal strategy, works program and rates through external quantity surveyors. Going forward, under the PRTP we will own, develop and expand the existing on-dock rail terminals at Swanson Dock to provide direct connections to the Swanson Dock container terminals. Over time, we will develop a new Port Rail Access System which is designed to provide open port rail access, streamline the transport of import and export containers by rail and maximise the overall capacity and efficiency of the System.
Road	We have common user roads on the Port which are essential for the movement of road transport, including heavy trucks, through the Port. Road rehabilitation work is determined via ongoing risk based optimised asset condition assessments, where asset utilisation is a key factor. Our roads are designed to facilitate truck usage in accordance with the National Heavy Vehicle accreditation scheme and we also have regard for VicRoads standards in designing and rehabilitating its roads. The majority of work is subject to competitive tender under our Procurement and Contract Management Policy given the value of this work.
Plant	Plant capex largely relates to Information Technology (IT) capex and miscellaneous rehabilitation capex relating to fire systems, mechanical and electrical systems (generators), gangways, equipment for contaminated waters (pumps and traps) and gates. IT capex relates to business applications (generally software) and IT infrastructure (generally hardware) which is required to replace or refresh assets that have reached the end of their useful life. We bases our forecast IT costs on indicative pricing from its support partners or in some cases the manufacturer. PoM IT continues to operate with a hybrid on-premise / SaaS approach to infrastructure; has made significant progress towards centralising business system governance; and is further consolidating its focus on cybersecurity with a comprehensive two-year security program. Rehabilitation of miscellaneous capex is based on age or in-service failure and is undertaken via our ongoing maintenance contracts.

Capex category	Forecasting method
Other	Other rehabilitation capex relating to navigation aids (beacon lights) and utility assets (water, electricity and gas) is based on age (rather than condition), albeit that performance targets and asset criticality are also key considerations. These assets are replaced at end of their life (where this is defined by the expected number of years of service). Other rehabilitation capex is undertaken via our ongoing maintenance contracts.

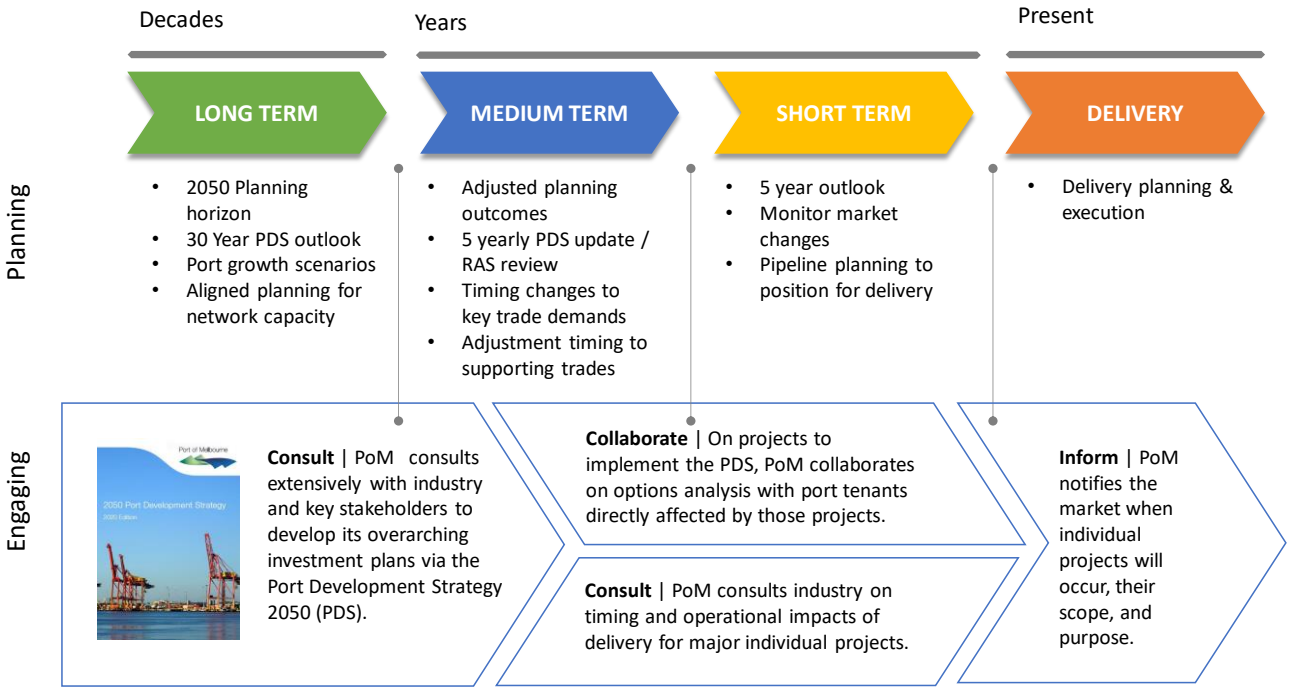
1.6. Capex planning and sequencing

Our capex planning framework comprises a number of components which enable us to be confident that it is making soundly based, prudent and efficient investment decisions that will deliver outcomes that support the long-term interests of Port Users and Victorian consumers, and deliver on our obligations as set out in section 3.1.

The planning processes to deliver on our obligations necessarily need to span long time horizons. We employs fit for purpose engagement with stakeholders as well as internal governance processes consistent with each of these planning, scoping and works delivery horizons. We aim to be an industry leader in the Australian ports sector with respect to the extent of consultation on planning processes and the quality and level of detail available to stakeholders.

Figure 22 illustrates the planning and engagement horizons and associated activities. The following sections then further explain each horizon.

Figure 22: Planning horizons and stakeholder engagement



Long and medium-term planning

Our long term planning is primarily administered through the Port Development Strategy (PDS). It outlines the high-level plans and approach for developing the capacity and efficiency of the Port for the next 30 years, while also providing a planning framework which is adaptable and responsive to changing needs over time. It outlines ten key projects that will improve capacity at the Port and respond to the needs of a growing Victoria. The 2050 PDS is available on our website and is provided as **Appendix S** to this TCS.[61]

[61] https://www.portofmelbourne.com/facilities-development/port-development-strategy/

The 2050 PDS was shaped by extensive industry, government and community consultation, and will be reviewed every five years. The PDS Consultation Summary Report outlines key feedback and where it is reflected in the PDS, where appropriate. The PDS Consultation Summary Report is available on our website and is provided as **Appendix T** to this TCS.[62]

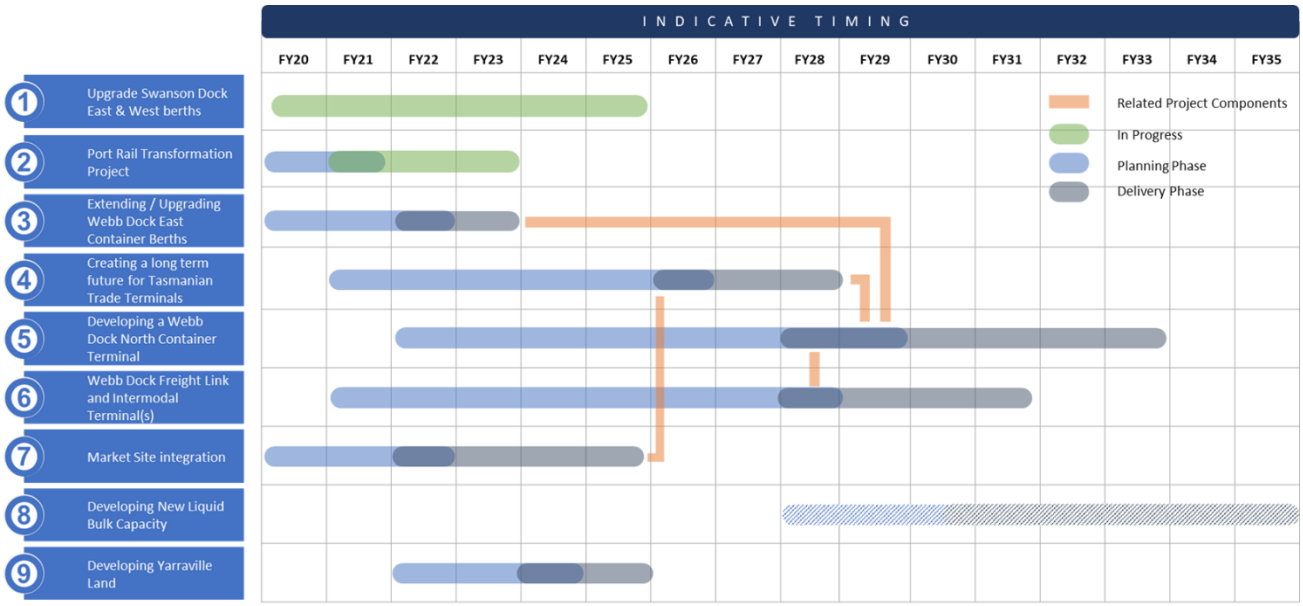
Medium and short term planning

We administers our next level of planning by establishing the PDS Delivery Program,[63] which outlines the indicative timing and sequencing of each of the major projects outlined in the 2050 PDS over the next 15 years. The PDS Delivery Program reflects our detailed internal planning to ensure that the port is developed in a logically sequenced manner and to meet our obligations to develop the port as outlined in section 3.1. The PDS Delivery Program is a public document developed in response to feedback from port stakeholders and the ESC during engagement on the 2020 Tariff Rebalancing Application. The PDS Delivery Program is available on our website and is provided as **Appendix U** of this TCS.[64]

These projects have been determined on the basis of the initial planning activities conducted through the development of the 2050 PDS and Our Plan for Rail, and have been further refined based on feedback received through consultation and engagement with industry, community and government stakeholders.

Figure 23 shows the current outcome of this stage of planning.

Figure 23: 2050 PDS Projects to be delivered between 2020 – 2035



Source: PDS Delivery Program.

Note: Timing of developing new liquid bulk capacity is being reassessed in the context of the announcement of the Altona closure.

Sequencing and delivery

The scope, sequencing and delivery of projects must balance a broad range of needs to deliver the port's capacity and competition objectives whilst optimising the overall outcome for the Port and its stakeholders.

Recognising that our capex projects are lumpy, can have long lead times and also cause disruption to port operations during their delivery and commissioning, we are continuously reviewing the planning assumptions underpinning future

[62] https://www.portofmelbourne.com/wp-content/uploads/POM-PDS-Stakeholder-Engagement-Report-Final-for-Publication.pdf

[63] The public PDS Delivery Program is supported by a confidential Port Development Implementation Plan (PDIP) that PoM is required to provide to the State.

[64] https://www.portofmelbourne.com/wp-content/uploads/2050-PDS-Delivery-Program-13-April-2021.pdf

investment decisions in collaboration with port stakeholders. As planning progresses, each project will be further defined and assessed in response to the changing needs of the Port.

In our 2021-22 Industry Consultation we engaged with Port Users and other stakeholders on the considerations that we accounts for as it seeks to manage and sequence its program of works:

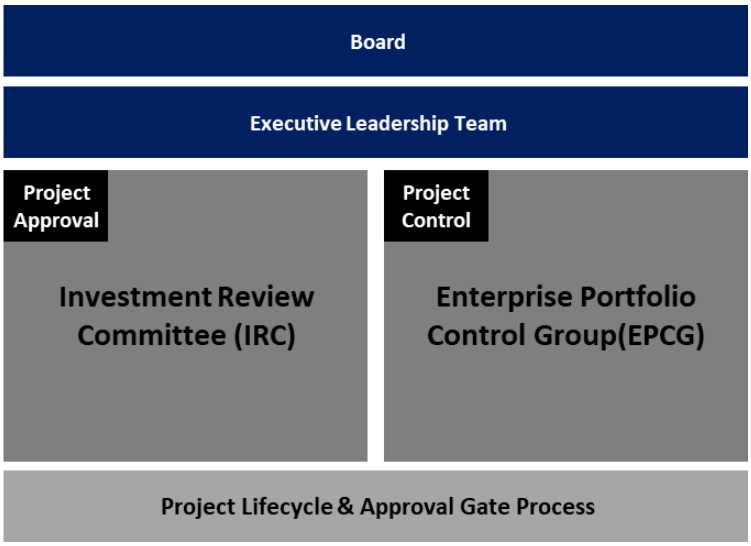
- To ensure sufficient redundant capacity is available in the port to accommodate the disruptions caused during major works; and
- So that major tranches of port capacity are commissioned with sufficient lead time to accommodate the forecast growth in trade volumes and vessel sizes.

1.7. Governance for planning and delivery

The overarching governance structure consists of two discrete, executive level committees: Investment Review Committee (IRC); and the Enterprise Project Control Group (EPCG), with the latter supported by specially formed Project Control Groups (PCGs) in the case of key projects.

The two committees are supported by the project lifecycle and approval gate process which defines the path that a project will take within our business; key minimum deliverables and key decision points and approvals required. Both committees operate within predefined terms of reference. These specify membership obligations, regularity of meetings, decision-making powers, dealing with issues out of session and the escalation of issues.

Figure 24 – Capex Project Governance Framework



Investment Review Committee (IRC)

The IRC is chaired by the CEO and is the executive committee that evaluates and endorses projects for CEO and/or Board approval of capex projects. The IRC ensures that project investments are aligned with the Compass objectives, budgetary constraints, support business requirements, have the capability to deliver, comply with delegations of authority (DoA), and demonstrate a positive and prudent return on investment.

Once projects are approved, the monitoring and control of projects is governed through the Enterprise Portfolio Control Group (EPCG) and the relevant Project Control Groups (PCG).

Key accountabilities of the IRC are:

- Strategic direction, development, changes and endorsement of our capital investment program;
- Capital expenditure planning, scheduling, cash flow management, program and project budget expenditure approvals (including project allowance and contingency);

- Endorsement of capex projects for CEO and/or Board approval (within DoA limits); and
- Approves/disapproves any project at key gate stages within the project lifecycle and approval gate process.

The IRC typically meets monthly or otherwise as required.

Enterprise Portfolio Control Group (EPCG)

The EPCG is chaired by the CEO and provides executive management oversight of the whole project portfolio across PoM ensuring projects within the portfolio are being delivered in accordance with their project plan to time, cost, quality and risk.

Key accountabilities of the EPCG are:

- Ensure overall alignment of the project portfolio with The Compass objectives and strategies;
- Review and resolve conflicting goals and objectives;
- Review tracking against project performance indicators (safety, cost, risk, schedule and scope/quality), and where an unfavourable status is reported, ensure these are appropriately addressed and the impact on other projects is assessed and actioned;
- Review and address escalated issues and risks in a timely manner;
- Assess forward business activity for potential change or impact from external forces, and take appropriate mitigating actions;
- Ensure there is the current and future resource capacity for the required project across the project portfolio and other business activities;
- Provide leadership in making, enforcing, carrying out, and communicating decisions;
- Consider and balance the degree of organisational change required to achieve outcomes across the portfolio;
- Ensure there is consistency of key messages to be communicated to external stakeholders;
- The Portfolio Governance Framework is reviewed and updated to reflect learnings and is fit for purpose. Includes approval of project governance related policies and processes; and
- Ensure a consistent and transparent reporting process is implemented.

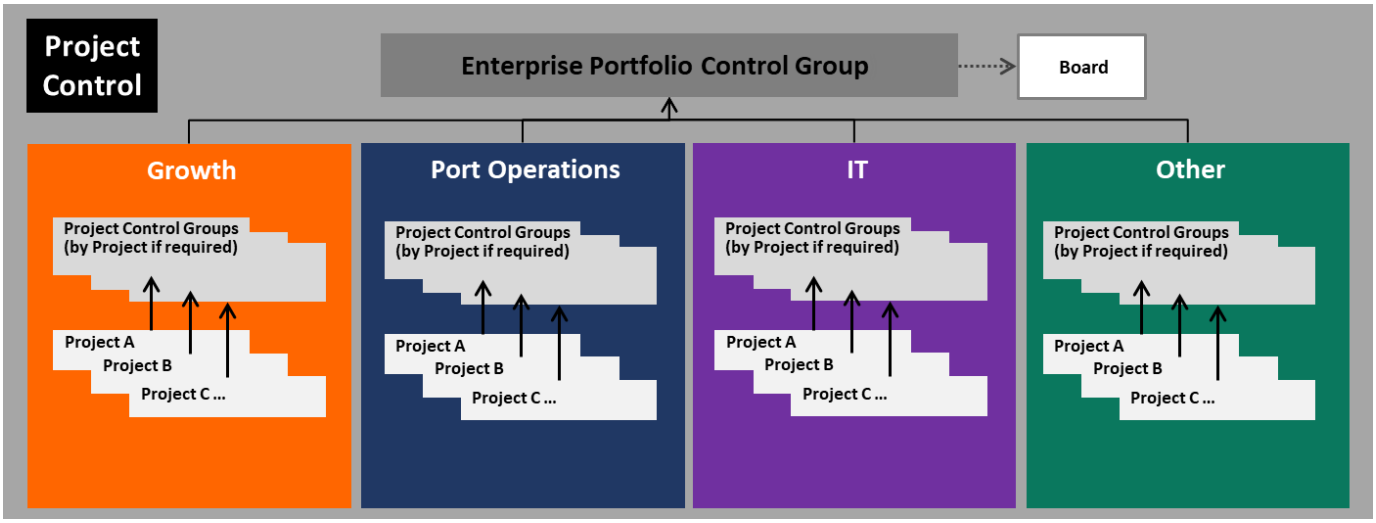
The EPCG typically meets monthly or otherwise as required.

Project Control Groups

The Enterprise Portfolio Control Group (EPCG); is supported by a number of Project Control Groups (PCGs) across PoM.

As shown in Figure 25, projects are grouped by growth, remediation, IT and other.

Figure 25 – PCG Structure



PCGs are formed for individual high risk and/or high complexity projects and/or large value projects, when a high level of detailed project governance is required to manage risks and support the relevant project manager/project team to deliver the desired project outcomes. The PCG is also responsible for ensuring appropriate management of project components outlined in the project management plan.

The PCG is typically chaired by an executive or a senior leader and consists of key senior management of major business units who are able to influence the project. Each PCG will operate within a predefined terms of reference.

The key functions of the PCG typically include:

- Exercise appropriate oversight of all project elements, including safety, quality, scope, timeline, risks and financials;
- Maintain alignment with overall Compass Objectives and its relationship to other business activities/projects;
- Approve decisions within delegation and/or recommend decisions to the CEO, and/or the Investment Review Committee, and/ or the Board consistent with PoM's Delegations of Authority (DoA);
- Ensure timely availability of appropriate project and business resources;
- Resolve emerging issues and escalations in a timely manner;
- Ensure stakeholder management (internal and external) is appropriate, including timely publication of project updates/ communication;
- Review and hold Sponsor and Business Owners accountable for benefits realisation; and
- Ensure Organisational change management practices are effectively applied.

PCGs typically report monthly to the EPCG to provide updates on key project decisions and direction.

1.8. Asset management system

All phases of investment planning and delivery are supported by our asset management system.

Under the PCD between PoM and the State of Victoria, we are required to achieve certification of its asset management system to ISO 55001:2014 - Asset Management by 2021. We were certified to ISO55001 on 11 April 2019. The certification lasts for 3 years, so we will need to apply for recertification in April 2022. In the interim, there is a requirement to conduct surveillance audits, which investigate targeted areas of the overall system, in the years in between. The most recent service audit was conducted (and passed) in April 2020.

This certification has involved the development of a Strategic Asset Management Plan (SAMP), which provides a framework to define our asset management objectives in line with current organisational goals and aligns these with its operational processes accordingly.

Alignment of our asset management system with ISO 55001 ensures our asset investment decision-making processes are systematic, repeatable and take into account matters such as risk and stakeholder needs and expectations. It also promotes alignment between investment decisions and other matters including environment, quality, and safety practices.

As part of the asset management system certification project, we were externally certified to the ISO 14001:2015 Environment, ISO 45001:2018 OHS and ISO 9001:2015 Quality standards under an Integrated Management System.

Figure 26 – PoM's ISO certified asset management system

The key elements of our ISO certified asset management system are discussed below.

Strategic Asset Management Plan (SAMP)

The SAMP, developed in accordance with ISO 55001 sets out our overarching approach to achieving its asset management objectives in line with its business objectives and asset management policy setting. The SAMP is a governance document and is not classified as a public document.

The SAMP sets out the:

- Scope of the asset management system;
- Needs and expectations of key stakeholders impacted by the asset management system;
- Asset management objectives; and
- Document hierarchy, decision-making criteria and business processes required to achieve our asset management objectives.

Long-term asset management strategies

Our PDS and Port Development Implementation Plan (PDIP) set out our strategic planning and development framework:

- The 2050 PDS is our 30-year roadmap for the growth and development of the port (through to 2050). The PDS outlines our development objectives and details 10 key projects that we forecast will need to be developed by 2035 and 2050 to meet demand and support ongoing efficiency and productivity improvements. The PDS has been developed in consultation with industry, key stakeholders and the community, with 190 stakeholders participating in the development of the 2050 PDS, and will be finalised in mid-2020. Subsequently, the PDS will be updated and provided to the Victorian Government every five years.

- The PDIP is a sub-set of the PDS and includes a more detailed 15 year view of planned development activities within the Port to support port capacity and growth in trade demand. The PDIP provides a high-level plan for implementing the 2050 PDS and the Rail Access Strategy (RAS) over a 15-year time horizon, including an overview of the major projects that are intend to be delivered over the next 15-years (to 2035). It also sets out how we will work collaboratively with Port Users and other stakeholders to ensure sustainable growth. We submitted our first PDIP to the Victorian Government on 31 October 2017 and are currently in the process of updating the PDIP in conjunction with the PDS. The PDIP is not a public document and is intended to only be used by PoM and the Victorian Government. The PDS Delivery Program provides a public version of the PDIP to provide Port Users and other stakeholders with additional information about the scope and timing of projects in the PDS.

Asset Management Plans (AMP)

In accordance with the requirements of the PCD, we have developed and is maintaining a suite of AMPs which document our approach to managing Port assets.

The AMPs serve a dual compliance purpose as they are also a fundamental requirement for the ISO 55001 certification. Operationally, the AMPs support the delivery of the strategic objectives in the SAMP and focus on the ongoing management of Port assets including capital renewal, maintenance, and operational requirements.