



Decision

Dalrymple Bay Coal Terminal Short Gain Expansion

June 2007

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PREAMBLE

This Preamble should not be read as a substitute for the detail contained in the body of this decision.

On 10 May 2007, BBI (DBCT) Management Pty Ltd (DBCT Management) submitted a draft amending access undertaking (DAAU) to amend its revenue requirement and tariff to recognise the capital expenditure associated with the short gain expansion of the Dalrymple Bay Coal Terminal (DBCT).

The DAAU was submitted to the Authority under section 142 of the *Queensland Competition Authority Act 1997* (QCA Act) and in accordance with sections 11.3(d), 12.5(m) and (o) and schedule C, part A, sections 4(b) and 4(g) of the DBCT 2006 access undertaking (the undertaking).

The Short Gain Draft Amending Access Undertaking

In August 2006, DBCT Management commissioned the short gain expansion, which increased the capacity of DBCT from 54.5 to 59.0 million tonnes per annum. The short gain expansion consisted of: optimising the terminal's control systems; upgrading shiploader no. 3 (SL3); and replacing reclaimers no. 1 (RL1) and upgrading conveyor R1.

On the basis of having undertaken (to date) \$33.3 million in capital expenditure on the short gain expansion, DBCT Management has sought to amend the undertaking to:

- increase the Annual Revenue Requirement (ARR) by \$2,199,493 for the 2006-07 financial year (as at 1 September 2006);
- increase the revenue cap by \$2,163,092 for the 2006-07 financial year (as at 1 September 2006);
- increase the reference tariff from \$1.4659/tonne to \$1.5096/tonne, effective 1 September 2006 for the 2006-07 financial year; and
- increase the ARR by \$2,673,332 for the 2007-08 financial year, resulting in a reference tariff of \$1.4977 for the 2007-08 financial year (excluding any amounts relating to the DBCT 7x expansion).

The Authority's Assessment Process

Section 142(2) of the QCA Act requires the Authority to consider a DAAU given to it and either approve, or refuse to approve, that DAAU.

In considering amendments to the ARR, revenue cap and reference tariffs due to capital expenditure, the Authority has focussed on the prudence of the capital expenditure undertaken. In this regard, clause 12.5(m) of the undertaking provides additional guidance on the matters the Authority will have regard to when considering the scope, standard and the costs of works undertaken.

Following receipt of the DBCT Management submission, the Authority published a position paper which indicated that its preliminary view was that the short gain capital expenditure was prudent and that DBCT Management's proposed increases to its regulated revenues and tariff were reasonable.

The Authority received no submissions in response to its position paper.

Therefore on the basis of the information provided by DBCT Management, independent technical advice and its own analysis, and given stakeholders made no submissions, the Authority confirms its preliminary views on this matter. Accordingly, the Authority approves the short gain DAAU.

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GLOSSARY

ARR	Annual Revenue Requirement
Authority	Queensland Competition Authority
DAAU	Draft Amending Access Undertaking
DBCT, Terminal	Dalrymple Bay Coal Terminal
DBCT Management Holdings	BBI (DBCT) Management Pty Ltd DBCT Holdings Pty Ltd
IDC	Interest During Construction
mtpa	million tonnes per annum
PCQ	Ports Corporation of Queensland
PSA	Port Services Agreement
QCA Act	Queensland Competition Authority Act 1997
RAB	Regulatory Asset Base
TCMP	Tender and Contract Management Process
TIC, reference tariff	Terminal Infrastructure Charge
tph	tonnes per hour
the undertaking	DBCT 2006 Access Undertaking
WACC	Weighted Average Cost of Capital

1. INTRODUCTION

In August 2006, DBCT Management commissioned its short gain expansion which increased terminal capacity from 54.5 to 59 mtpa.

Consistent with its 2006 access undertaking, DBCT Management has submitted, for the Authority's approval, a draft amending access undertaking seeking an increase in its revenue and tariff based on the capital expenditure associated with the short gain expansion.

The Authority's consideration of this application is guided by assessment criteria in the QCA Act and in the DBCT 2006 access undertaking.

1.1 The Dalrymple Bay Coal Terminal

The Dalrymple Bay Coal Terminal (the terminal) is a coal export terminal located in central Queensland 40 kilometres south of Mackay. The terminal opened in 1983 as a common user coal export terminal, servicing mines in the Goonyella system of the Bowen Basin coal fields.

The Queensland Government owns DBCT through a wholly Government owned entity, DBCT Holdings Pty Ltd (Holdings). In September 2001, a group led by international investment bank, Babcock and Brown, acquired a lease of the terminal for 50 years, with an option to extend this lease by a further 49 years. The leasehold interest in the terminal was transferred to Prime Infrastructure (DBCT) Management Pty Limited, which is now BBI (DBCT) Management Pty Ltd (DBCT Management), upon its listing on the Australian Stock Exchange in June 2002.

Since its commissioning, the terminal has been expanded from time to time to service the growth in demand. In June 2003, the stage 6 expansion was completed, which increased the terminal's capacity to 56.0 million tonnes per annum (mtpa).

In response to user demand for additional capacity, DBCT Management's master plans established a terminal expansion program consisting of the:

- *short gain expansion* – increases nominal capacity to 59 mtpa; and
- *DBCT 7x expansion* – increases nominal capacity to 68 mtpa (phase 1) and ultimately to 85 mtpa (phases 2 and 3).

Short Gain Expansion

The original scope of the short gain expansion involved undertaking a series of relatively low capital cost operational improvements to increase the terminal's nominal capacity from 56 to 59 mtpa. These improvements included optimising control systems to reduce time delays associated with the stopping and starting of equipment (eg surge bin conveyors and feeders) and upgrading shiploader no. 3 (SL3).

The scope of the short gain expansion was extended when, in February 2004, reclaimer no. 1 (RL1) collapsed, which temporarily decreased capacity to 54.5 mtpa. As a consequence, the scope of the short gain was revised to incorporate replacing the collapsed reclaimer with a new reclaimer capable of reclaiming at a higher average reclaim rate of 4,200 tonnes per hour (tph) and to incorporate an associated upgrade to conveyor R1 to cater for this higher rate. The short gain expansion was commissioned and handed over to DBCT P/L on 4 August 2006.

Concurrent with this expansion, dredging of the port's departure path was undertaken by the Ports Corporation of Queensland (PCQ), which operates the Port of Hay Point which services

the two coal export terminals of DBCT and Hay Point Services Coal Terminal. While the dredging to achieve the full depth of 14.9m is on-going, DBCT Management has indicated that the current depth of 14.5m is sufficient to realise a further 1 mtpa, increasing the terminal's nominal capacity to 60 mtpa. As the departure path dredging was undertaken by PCQ, the costs of this work will be recovered through the port's charges and will not be included as part of DBCT Management's charges.

1.2 Declaration of Third Party Access

The service of the *handling of coal at DBCT by the terminal operator* has been declared under Part 5 of the *Queensland Competition Authority Act 1997* (QCA Act) for the purposes of third party access.

The effect of declaration under Part 5 of the QCA Act is that the access provider, in this case DBCT Management, is *inter alia* obliged to negotiate with, and provide information to, access seekers, and it is also prohibited from hindering or preventing access.

The access regime established by Part 5 of the QCA Act is a negotiate/arbitrate model. That is, the prime responsibility is on the access provider and the access seeker to negotiate on price and non-price terms, with the Queensland Competition Authority (Authority) becoming involved only where provided for under the QCA Act – for example, where agreement cannot be reached and either party has lodged a dispute notice with the Authority.

While Part 5 of the QCA Act imposes broad obligations on an access provider, it also provides for the development, and the Authority's approval, of an access undertaking.

Among other things, an undertaking is designed to assist the access negotiation process, to reduce the scope for disputes between access seekers and the access provider, and to provide certainty about how the Authority will deal with access disputes. The parties to an access agreement may agree to terms and conditions of access that are inconsistent with an approved undertaking. However, an approved undertaking provides greater certainty to both access seekers and the access provider, as any access determination made by the Authority in the event of a dispute during the negotiation process must be consistent with the approved access undertaking.

Ultimately, the terms and conditions for access will be embodied in an access agreement between the access provider and the access holder (ie the user of the declared service). In the event of a dispute once an access agreement has been signed, that dispute is resolved in accordance with the terms of that agreement.

An approved undertaking also provides a 'safe harbour' for an access provider in that any conduct in accordance with an approved undertaking will not breach the preventing and hindering access provisions of the QCA Act.

1.3 The DBCT 2006 Access Undertaking

On 15 June 2006, the Authority published its decision to approve the DBCT 2006 access undertaking (the undertaking) as submitted by DBCT Management.

The undertaking sets out a range of matters including:

- negotiation arrangements for new access applications, including priority of access applications and dispute resolution;
- the scope and term of the undertaking;
- access charges;
- capacity determination and capacity expansion procedures; and
- DBCT Management's public and regulatory reporting requirements.

The undertaking provides for access charges to be determined with reference to a revenue cap, based on an Authority approved Annual Revenue Requirement (ARR). Each user makes constant monthly payments to DBCT Management at the rate of the terminal infrastructure charge (TIC) (ie the reference tariff) equal to one-twelfth of that user's annual reference tonnage regardless of the volume of coal actually shipped in each month.

The undertaking provides for the ARR to be revised each year in line with movements in the Consumer Price Index. On 18 April 2007, the Authority approved an ARR of \$88,578,285 for 2006-07, and on 23 May 2007, the Authority approved an ARR of \$89,138,229 for 2007-08. These ARRs are for the existing (ie pre short gain expansion) assets only.

The undertaking also provides that DBCT Management will submit a draft amending access undertaking (DAAU) to revise the ARR and reference tariff in certain circumstances, including upon the commissioning of a capacity expansion. The undertaking provides for the Authority to approve certain aspects of a capacity expansion prior to the commissioning of the works and the submission of a DAAU.

In particular, clauses 11.3(d) and 12.5(o) of the undertaking require DBCT Management to submit a DAAU for the Authority's approval, in accordance with schedule C, part A, 4(g). The purpose of the DAAU is to amend the ARR, revenue cap, and/or reference tariff as a result of a 'Review Event'. Schedule G of the undertaking defines a 'Review Event' as "any one or more of the following events:

- (a) a change in Reference Tonnage;
- (b) a change in non-Reference Tonnage;
- (c) commissioning and handover to the Operator of the whole of a discrete phase of a Capacity Expansion;
- (d) receipt of insurance proceeds, damages or other compensation for loss, damage or destruction of an asset comprised in the Terminal, to the extent that those moneys are not applied in repair, reinstatement or replacement; or
- (e) annually on 1 July in respect of:
 - (i) Capital Expenditure incurred during the preceding 12 months which do not relate to a Capacity Expansion (or which relate to a Capacity Expansion and are paid by DBCT Management after commissioning of the relevant phase); and
 - (ii) sale of assets comprised in the Terminal during the preceding 12 months" (DBCT 2006 Access Undertaking: 65-66).

As the commissioning of the short gain expansion constitutes a 'Review Event' as defined in schedule G, it triggered DBCT Management's obligation under schedule C, part A, section 4(g), to lodge a DAAU for the Authority's approval.

Accordingly, on 10 May 2007, DBCT Management submitted a DAAU seeking the Authority's approval of an amendment to the ARR, revenue cap and reference tariff. The amendments are for 2006-07 and for 2007-08, with the amendment to the former being effective from 1 September 2006 – ie the first day of the month following the commissioning and handover of the short gain expansion (schedule C, part A, s. 4(h)). These amendments are based on a short gain capital expenditure of \$33.3 million, which DBCT Management has sought to include in the DBCT regulatory asset base (RAB) as at 1 September 2006.

In lodging this DAAU, DBCT Management has indicated that it intends to make a stand-alone submission in the near future regarding the insurance settlement and related insurance action costs associated with the collapsed claimer RL1. As DBCT Management's settlement with its insurer has yet to be resolved, the Authority accepts that this matter will be dealt with as part of a subsequent DAAU. In this regard, the Authority notes that the undertaking (Schedule C, part A, 4(g)) places a clear obligation on DBCT Management to lodge a DAAU to amend the revenue requirement as a consequence of such an event (ie see (d) of the definition of 'Review Event' above).

1.4 The Authority's Considerations

Section 142 of the QCA Act requires the Authority to consider a DAAU submitted to it for the purpose of amending an approved access undertaking, and either approve, or refuse to approve, that DAAU.

The Authority's assessment criteria for considering a DAAU are the same as for considering a draft access undertaking.

Section 138(2) of the QCA Act states that the Authority may approve a draft access undertaking only if it considers it appropriate to do so having regard to:

- (a) the legitimate business interests of the owner or operator of the service;
- (b) the public interest;
- (c) the interests of people who may seek access to the service; and
- (d) any other matter the Authority considers relevant.

Under s 138(3) of the QCA Act, the Authority may approve a draft access undertaking only if it has published the undertaking and invited persons to make submissions and has considered submissions received.

In considering amendments to reference tariffs due to capacity expansions, the Authority has focussed on the prudence of the capital expenditure and the recovery of that expenditure through a change in the reference tariffs.

Relevantly, clause 12.5(m) of the undertaking provides additional guidance by stating that in assessing whether capital expenditure is prudent, the Authority will have regard for the scope of the works undertaken, the standard of the works undertaken and the reasonableness of the cost of works undertaken.

Moreover, clause 12.5(m) provides that:

In assessing the scope of the works and any associated ancillary services undertaken, the Authority will have regard for, inter alia:

- (a) *the scope of the proposed Capacity Expansion;*
- (b) *the current Master Plan (and any variations to the Master Plan approved by Holdings);*
- (c) *the extent of current contracted demand, likely future demand and any spare capacity considered appropriate, and the need for capital works to accommodate that demand;*
- (d) *the appropriateness of DBCT Management's processes to evaluate and select proposed capital works, including the extent to which alternatives are evaluated as part of the process;*
- (e) *the extent to which capital projects that were undertaken were subjected to DBCT Management's evaluation and selection process; and*
- (f) *the extent to which consultation has occurred with relevant stakeholders about the proposed capital works.*

In assessing the standard and specifications of the works undertaken, the Authority will ensure that the proposed works do not involve any unnecessary works or contain design standards that exceed those standards necessary to comply with Section 12.1 of the Port Services Agreement (PSA).

In assessing the reasonableness of the cost of works undertaken, the Authority will have regard for, inter alia:

- (a) *the level of such costs relative to the scale, nature, cost and complexity of the project;*
- (b) *the circumstances prevailing in the markets for engineering, equipment supply and construction;*
- (c) *the manner in which the Capacity Expansion has been managed, including but not limited to the manner in which DBCT Management has balanced the needs of:*
 - (i) *safety during construction and operation;*
 - (ii) *compliance with environmental requirements during construction and operation;*
 - (iii) *minimising disruption to operating capacity during construction;*
 - (iv) *accommodating the reasonable requests of Access Holders to change the scope and sequence of the works undertaken to suit their needs;*
 - (v) *a prudent balance between:*
 - a. *a higher price in return for more certainty as to final cost;*
 - b. *a lower price accepting that final cost may be less certain; and*
 - c. *costs, schedule and minimising disruption to operating capacity during construction;*

- (vi) *minimising whole of asset life costs including future maintenance and operating costs; and*
- (vii) *minimising the total cost of the Capacity Expansion which may at times not be consistent with minimisation of individual costs.*

In assessing the prudence of capital expenditure undertaken, the Authority will take advice as necessary from independent advisors using appropriate benchmarks and experience, and consult as necessary with relevant stakeholders.

The Authority will include all prudent capital expenditure in the RAB.

1.5 The Authority's Assessment Process

On 10 May 2007, DBCT Management submitted a DAAU seeking the Authority's approval of amendments to the ARR, revenue cap and reference tariff to recognise the capital expenditure associated with the short gain expansion of DBCT. As a consequence, on 10 May 2007, the Authority issued its Notice of Investigation of the short gain expansion.

On 11 May 2007, the Authority published DBCT Management's short gain DAAU and supporting information on the Authority's web site (www.qca.org.au) and invited submissions from interested parties by 7 June 2007.

Prior to DBCT Management's submission of the DAAU, the Authority engaged engineering firm WorleyParsons to provide advice on the technical aspects of the short gain capacity expansion with specific reference to the relevant criteria in clause 12.5(m) of the undertaking. On this basis, WorleyParsons has prepared a report, which is also available for download from the Authority's web site.

On 23 May 2007, the Authority published a position paper to provide interested parties with its preliminary assessment of DBCT Management's short gain DAAU in order to assist them in making submissions.

The Authority received no submissions from stakeholders.

On the basis of the information provided by DBCT Management, independent technical advice and its own analysis, and given stakeholders made no submissions, the Authority confirms that the preliminary views and supporting reasoning set out in its position paper are its final views and reasoning. Accordingly, the Authority approves the short gain DAAU.

In making this decision, the Authority has reconsidered all of the matters it considered in reaching its preliminary view (including the independent advice received from its technical consultant WorleyParsons) and has reassessed each of the factors to which it is required to have regard under the QCA Act.

2. SCOPE, STANDARD AND REASONABLENESS OF COSTS

The short gain expansion involved optimising the terminal's control systems to reduce the down time associated with the stopping and starting of equipment, upgrading shiploader SL3, replacing reclaimer RL1 and upgrading conveyor R1. To date, the capital expenditure of these works has totalled \$33.3 million.

Based on its assessment of the scope, standard and reasonableness of the costs of the work undertaken, the Authority considers that the short gain capital expenditure was prudent.

2.1 Scope

DBCT Management's Proposal

The short gain expansion consists of three main elements.

The first element consists of a number of feasibility studies for scoping terminal capacity expansion options and a number of projects to optimise the terminal's control systems.

DBCT Management indicated that in developing an expansion path comprising the short gain expansion and the stage 7x expansion, it undertook a number of environment feasibility studies. These studies covered a broad cross section of the terminal's activities including: preliminary engineering studies for upgrades to the terminal's inloading and outloading systems; feasibility studies to increase the capacity of the stacking and reclaiming rates for certain yard machines and associated conveyors; a review of electrical requirements; and terminal capacity modelling (DBCT Management, sub. no. 1, att. 2: 2/1-2/2).

Moreover, as part of its 2004 Master Plan, DBCT Management identified a range of projects to improve the efficient operation of the terminal by optimising the terminal's control systems. In general, these projects sought to optimise the terminal's operations, including the interaction of different items of equipment within the terminal's coal handling systems, with a view to reducing equipment idle time and increasing coal throughput. In consultation with DBCT P/L, some of these projects were included as part of the short gain expansion, some were deferred to the stage 7x expansion and others were not implemented. Examples of projects that were implemented and included in the short gain expansion include: surge bin calibration; conveyor start-up sequencing; and improving the bucket reclaimer control algorithm for RL1, SR1 and SR5 (DBCT Management, sub. no. 1, att. 2: 2/2 and appx. 1).

DBCT Management indicated that candidate optimisation programs were not implemented if preliminary work indicated that the project would not deliver the anticipated benefit or that benefit was achievable at a lower cost (DBCT Management, sub. no. 1, att. 2: 2/2 and att.2/appx. 1).

Second, SL3 was upgraded to reduce the time taken to move between the hatches on the ships into which coal is loaded. In particular, the upgrades included:

- *increasing the long travel speed* – the rate at which the shiploader moves along the wharf; and
- *increasing the boom luffing winch speeds* – the rate at which the shiploading boom (ie telescopic arm) is raised and lowered over the deck of the ship.

Similar upgrades to SL1 were deferred to the 7x expansion to coincide with major maintenance of, and upgrades to, SL1, which will be combined into one major shutdown (DBCT Management, sub. no. 1, att. 2: 2/3).

The third, and most costly, element of the short gain expansion involved replacing the collapsed RL1. This element consisted of a contract for Voest-Alpine Materials Handling to design, supply, deliver to site, erect, commission and test the new reclaimer to meet the specified technical requirements. A key feature of the new reclaimer is the capability to reclaim at a rate of 4,200 tph average, which substantially exceeds the reclaim rate of 3,300 tph of the collapsed RL1 (DBCT Management, sub. no. 1, att. 2: 2/3 and appx. 12: 5).

The scope of work for the RL1 contract package included the supply of new slew bearings for stacker reclaimers SR4 and SR5. DBCT Management indicated that, while replacing these bearings will occur as part of the 7x expansion, it included them within the scope of the RL1 contract as it had negotiated a significant discount, and therefore cost saving, on their manufacture in this contract (DBCT Management, sub. no. 1, att. 2: 2/3-2/4).

In order to ensure consistency with the higher reclaiming rate of the new RL1, the short gain expansion also included upgrading the speed and capability of conveyor R1. This element of the expansion consisted of installing new drives and drive pulleys, brake station, transfer chutes and 45° carry idlers (DBCT Management, sub. no. 1, att. 2: 2/3).

In support of its application, DBCT Management indicated that the scope of the short gain expansion is consistent with its master plans and that the resultant capacity has been contracted by new and existing users (DBCT Management, sub. no. 1, att. 2: 2/4-2/5).

Authority's Analysis and Final Decision

Stakeholders did not comment on the scope of the short gain expansion. Accordingly, the Authority confirms its position, as set out in its position paper, and accepts that the scope of the expansion works undertaken is appropriate.

In reaching this conclusion, the Authority accepted that the scope of the short gain expansion works was consistent with the terminal's master plans. In this regard, the Authority noted WorleyParsons' advice that the upgrades to SL3 to increase its long travel and luffing speeds and the upgrade to R1 to utilise the increased reclaiming capacity of RL1 were consistent with the relevant master plans.

At the same time, the Authority noted that some aspects of the short gain application were not included in the short gain works. However, the Authority also noted WorleyParsons' advice that the enlivenment and feasibility studies were essential to define the scope of the overall expansion project incorporated in the 2005 Master Plan.

On this basis, the Authority accepted that these studies were a necessary input in determining the preferred expansion path for the terminal.

In addition, the Authority also accepted that the benefit of some of the options considered and equipment purchased will not be realised until aspects of the 7x expansion are commissioned. However, the Authority proposed to recognise this capital expenditure at this time, as the studies and the equipment were part of contract packages that were overwhelmingly part of the short gain expansion and as the terminal's users will gain the benefits of these projects in the immediate future.

The Authority also accepted that a relevant factor is that the capacity delivered by the short gain expansion is the subject of long term contracts with terminal users.

2.2 Standard

DBCT Management's Proposal

DBCT Management indicated that the enlivenment feasibility studies were undertaken to support the evaluation of capacity expansion options, including identifying the terminal's optimal expansion path as provided for in its approved master plans. DBCT Management also noted that the engineering was undertaken in accordance with accepted site standards that had been used on previous terminal expansions. In particular, it noted that the site standards had been developed and tested over many years and the design work has taken account of:

- whole of life asset costs, including future maintenance and operating costs;
- applicable laws; and
- good industry practice.

DBCT Management concluded that the short gain capacity expansion does not use design standards that exceed those necessary to comply with clause 12.1 of the PSA or, in the case of contract terms, use terms that have a material, adverse impact on a prudent balance between price and risk (DBCT Management, sub. no. 1, att. 2: 3/1-3/2).

Authority's Analysis and Final Decision

Stakeholders did not comment on the standard of the short gain expansion works. Accordingly, the Authority confirms its position, as set out in its position paper, and accepts that the standard of the expansion works undertaken is appropriate.

In its position paper, the Authority confirmed that the standard and specifications of the works for the short gain expansion do not involve any unnecessary works or contain design standards that exceed those necessary to comply with section 12.1 of the PSA. In this regard, the Authority noted, for example, WorleyParsons' advice that the technical specifications for reclaimer RL1 and shiploader SL3 were comprehensive and referenced appropriate Australian design standards.

2.3 Reasonableness of Costs

DBCT Management's DAAU seeks to include in the DBCT RAB a total capitalised value of \$33.3 million, comprising two elements (see Table 1):

- engineering and construction costs of \$31.1 million; and
- financial costs of \$2.2 million.

Table 1: Short Gain Expansion Expenditure

Asset Description	Total Expenditure ^a (\$million)
Reclaimer RL1	19.9
Conveyor R1	6.5
Shiploader SL3	2.9
Enlivenment and Optimisation Studies	4.1
Short Gain Total	33.3

^a Total for each asset includes an allowance for project management costs and interest during construction.

The remainder of this section consider these two elements of DBCT Management's proposal in more detail.

Engineering and Construction Costs

DBCT Management's Proposal

DBCT Management stated that the engineering and construction expenditure of \$31.1 million is reasonable. In this regard, DBCT Management indicated that a fundamental aspect of its tendering process for the short gain expansion was the preference for lump sum competitive tendering where possible and indicated that employing this procurement strategy contributed to competitive and efficient outcomes.

In support of this contention, DBCT Management further noted that it employed a tender and contract management process that ensured that a competitive tendering approach resulted in reasonable cost outcomes. In this regard, DBCT Management submitted that this process was consistent with accepted industry practice with respect to tender calls, assessment and contract award and administration and reflected in its Project Execution Plan, which seeks to adopt, *inter alia*:

- competitive lump sum tendering where appropriate; and
- use of BBI DBCT approved general and special conditions of contract for the short gain (DBCT Management, sub. no. 1, att. 2: 4/1-4/2).

In seeking competitive lump sum tenders, multiple, pre-qualified bidders were identified where possible and tender packages were managed at 'arms length' to ensure a 'level playing field' for all tenderers, including access to the same information. DBCT Management undertook a detailed assessment of competing tenders, including analysis of technical conformances, scope exclusions, pricing, commercial conformance, schedule, risk and including legal review. Contract award was approved by DBCT Management and standardised processes and documentation were developed and employed for contract administration, including cost control reporting, variation registers and monthly progress reporting (DBCT Management, sub. no. 1, att. 2: 4/1-4/2 and appx. 13).

Further, DBCT Management indicated that the tendering and contract management process adopted for the competitive lump sum contracts for the supply and installation of the shiploader upgrade, the design, supply, erection and commissioning of the new reclaimer and the supply and installation of the conveyor upgrade incorporated general industry practices which are

embodied in the Tender and Contract Management Process (TCMP) approved by the Authority for the DBCT 7x expansions of the terminal (DBCT Management, sub. no. 1, att. 2/appx. 13).¹

Where procurement did not involve a competitive tender, DBCT Management submitted that the approach adopted was justified either by the nature of the work or the particular circumstances prevailing at the time. For example, DBCT Management indicated that it is standard industry practice to adopt a schedule of rates procurement approach for engineering and site works for which the scope is not fully defined or is being developed during the course of such works. In circumstances where procurement departed from a competitive tendering approach, DBCT Management noted that all tenders were subject to DBCT Management's internal review and assessment processes prior to award and, therefore, resulted in reasonable cost outcomes (DBCT Management, sub. no. 1, att. 2: 4/1-4/2 and appx. 13).

Specifically, of the \$33.3 million in capital expenditure, DBCT Management incurred \$4.1 million on the enlivenment feasibility studies and the optimisation projects. In support of the reasonableness of these costs, DBCT Management indicated that it awarded the relevant contracts on a schedule of rates basis, given the short time frame available for completion, the uncertain scope of work and the high degree of specialist knowledge required. DBCT Management noted that a fixed lump sum approach was not considered appropriate under the circumstances, as the tight time frame would have led consultants to 'load' their quotes with indeterminate risk provisions, ultimately increasing costs and causing delays (DBCT Management, sub. 1, att. 2/appx. 13).

DBCT Management noted that, while the enlivenment feasibility studies exceeded the original budget estimate, the increase was attributable to DBCT Management's commissioning of additional, detailed engineering to meet site implementation program requirements for the expansion works (DBCT Management, sub. no. 1, att. 2: 4/4).

DBCT Management incurred about \$2.9 million in costs for the SL3 upgrade. In this regard, DBCT Management submitted that letting the engineering services contract (about 11% of the SL3 upgrade budget) to Connell Hatch on a schedule of rates basis was the most cost-effective approach, given Connell Hatch's experience in designing the existing DBCT shiploaders. In terms of the contract for supplying and installing the SL3 upgrade, DBCT Management adopted a competitive lump sum tender approach on the basis that this approach would provide the best balance between risk and price given the availability of multiple tenderers (DBCT Management, sub. 1, att. 2/appx. 13).

The cost associated with replacing the collapsed RL1 comprises the majority of the short gain expenditure (\$19.9 million). The principal contract involved the design, supply, erection and commissioning of a new machine. In letting this contract, DBCT Management adopted a competitive lump sum tender approach, with the contract being awarded to Voest-Alpine Materials Handling, on the basis of the lowest cost-adjusted price, including supply of needed slew bearings, which were obtained at a significantly discounted price. While a sole source schedule of rates procurement approach was subsequently utilised for the independent mechanical/structural and electrical design audits of the new machine, DBCT Management submitted that this approach was appropriate due to the specialist knowledge required for these audits (DBCT Management, sub. 1, att. 2/appx. 13).

The upgrade of conveyor R1 incurred costs of about \$6.5 million. DBCT Management adopted a competitive lump sum tender approach for awarding the principal contract for the supply and

¹ The TCMP establishes a comprehensive framework for tendering, award and contract management, including a series of detailed processes, procedures and proformas that comply with industry 'best practice' standards. The TCMP is premised on a competitive lump sum contract delivery approach but allows alternative forms of contract delivery when a competitive approach is not optimal or possible. Where these alternative strategies are adopted, the TCMP requires DBCT Management to provide appropriate justification.

installation of this upgrade. While the contracts for the conveyor parts (eg transfer chutes) were awarded on a sole source, lump sum basis, DBCT Management submitted that technical specifications for the parts would require other suppliers to make modifications to their conventional designs, the cost of which would more than offset any cost savings achievable through competitive tender (DBCT Management, sub. 1, att. 2/appx. 13).

Authority's Analysis and Final Decision

Stakeholders did not comment on the reasonableness of the engineering and construction costs of the short gain expansion. Accordingly, the Authority confirms its position, as set out in its position paper, and accepts that the engineering and construction costs of the expansion works undertaken are reasonable.

In its position paper, the Authority considered that DBCT Management's tendering processes for the short gain expansion had resulted in reasonable cost outcomes.

In this regard, the Authority confirmed that DBCT Management adopted a competitive tender approach for the principal contracts for the short gain expansion. As these contracts comprise about two-thirds of the short gain expenditure, the Authority accepted that the majority of the short gain capital expenditure was subject to competitive tender and, therefore, market forces.

In addition, the Authority was satisfied that DBCT Management's tender and contract management process was comprehensive, involving a series of detailed commercial, technical (engineering), and legal processes consistent with standard industry practice. In this regard, the Authority noted WorleyParsons' advice that the tender and contract management processes were appropriate and that each contracting approach and the rationale for its adoption were documented.

The Authority also noted that DBCT Management's short gain tender and contract management process shares a number of relevant similarities with the approved 7x expansion TCMP. For example, the key contract principles and risk allocation contained in the general conditions of contract for the new reclaimer are in accordance with the approved general conditions of contract in the TCMP.

The Authority was also of the view that the remaining expenditure was reasonable. While this expenditure was incurred on the basis of adopting a sole-sourcing procurement approach (either fixed lump sum or schedule of rates), the Authority accepted DBCT Management's justifications for utilising the approach adopted. In addition, the Authority accepted WorleyParsons' advice that it was reasonable to award the environment feasibility studies on a schedule of rates basis given the requirement for specialist skills and the uncertainty surrounding the scope of the work. In addition, the Authority accepted WorleyParsons' advice that these contracts resulted in costs that, when benchmarked against similar projects elsewhere, were considered reasonable.

Financial Costs

DBCT Management's Proposal

In addition to the engineering and construction costs, DBCT Management has proposed an allowance of \$2.2 million for interest during construction (IDC), noting that the undertaking provides for construction-related financing costs:

... which will include a return on capital over the construction period on the Capacity Expansion expenditure incurred (DBCT Management, sub. no. 1, att. 1: 3).

In estimating this allowance, DBCT Management indicated that it has adopted standard regulatory assumptions by:

- applying the regulatory (benchmark) debt / equity ratio (in the case of DBCT, 60% debt and 40% equity) to the expenditure, even though the short gain expansion was funded with 100% equity;
- allocating the \$31.1 million of capital expenditure into the 34-month construction profile (ie 'S-curve');
- assuming a progressive (ie at the same time) draw down of debt and equity in the 60% / 40% benchmark proportion; and
- rolling forward (ie capitalising) these payments over the construction period at the regulatory Weighted Average Cost of Capital (WACC) until the commissioning date (DBCT Management, sub. no. 1, att. 1: 3-4).

DBCT Management noted that the undertaking provides for the regulatory WACC to be updated in the context of a capacity expansion for IDC purposes on the basis of the risk-free rate prevailing over the 20 days immediately preceding the earlier of:

- the first draw down date on floating rate construction debt financing; or
- the interest rate set date on a fixed rate construction debt financing.

In seeking to adopt this approach, however, DBCT Management indicated that, as it did not utilise any debt to fund the short gain expansion, the undertaking provides no guidance for updating the risk-free rate under these circumstances. In the absence of a prescribed approach, DBCT Management indicated it sought to follow normal regulatory practice and adopted the risk-free rate, and therefore regulatory WACC (ie 9.02%), of the established assets for the purpose of calculating IDC (DBCT Management, sub. no. 1, att. 1: 3-4).

DBCT Management has not proposed additional allowances for either debt or equity raising costs. Specifically, DBCT Management noted that the debt margin already includes an allowance for debt raising costs. In terms of equity raising costs, given the relatively low capital cost of the short gain expansion, DBCT Management has adopted the assumption that equity would not need to be raised to finance this particular expansion. As a result, DBCT Management has not claimed an allowance for equity raising costs (DBCT Management, sub. no. 1, att. 1: 4).

Authority's Analysis and Final Decision

Stakeholders did not comment on the reasonableness of the financial costs of the short gain expansion. Accordingly, the Authority confirms its position, as set out in its position paper, and accepts that the financial costs of the expansion works undertaken are also reasonable.

In its position paper, the Authority accepted DBCT Management's estimate of \$2.2 million for IDC, as it was based on standard regulatory practice and, in particular, on:

- applying the regulatory benchmark of 60% debt and 40% equity to the capital expenditure of \$31.1 million;
- allocating this expenditure into a 34-month construction profile;

- assuming that debt and equity are drawn down progressively (ie at the same time) in the benchmark 60% / 40% proportion to finance construction costs; and
- applying the existing regulatory WACC of 9.02%.

2.4 Conclusion

In summary, DBCT Management proposed a total capitalised value of \$33.3 million (as at 1 September 2006) for inclusion in the DBCT RAB for the short gain expansion, comprising capital expenditure of \$31.1 million and IDC of \$2.2 million.

In accordance with clause 12.5(m), the Authority has undertaken an assessment of the prudence of this capital expenditure with respect to scope, standard and reasonableness of costs. This assessment has been informed by independent technical advice from engineering firm, WorleyParsons.

As stakeholders have not commented on the prudence of the short gain capital expenditure of \$33.3 million, the Authority has not changed its position that this expenditure was prudent. Accordingly, the Authority confirms that \$33.3 million should be included in the DBCT RAB, as at 1 September 2006.

3. REVENUE MODELLING

Based on \$33.3 million (as at 1 September 2006) of short gain capital expenditure, DBCT Management has requested the Authority to approve an:

- increase in the ARR by \$2,199,493 for the 2006-07 financial year (as at 1 September 2006);
- increase in the revenue cap by \$2,163,092 for the 2006-07 financial year (as at 1 September 2006);
- increase in the reference tariff from \$1.4659/tonne to \$1.5096/tonne, effective 1 September 2006 for the 2006-07 financial year; and
- increase in the ARR by \$2,673,332 for the 2007-08 financial year, resulting in a reference tariff of \$1.4977 for the 2007-08 financial year (excluding any amounts relating to the DBCT 7x expansion).

Based on its own modelling of the terminal's revenue requirements, the Authority considers that the requested amendments to the ARR, revenue cap and reference tariff are reasonable.

3.1 The Building Block Components

The Authority employs a nominal, post-tax 'building blocks' financial model to assess whether proposed revenues and prices are sufficient to ensure that DBCT Management is able to cover its costs and earn an adequate return on capital invested. The model's principal building blocks include:

- *return on capital* – a rate of return on assets, including capital expenditure, that compensates investors for the opportunity cost of their investment, taking into account the risks involved;
- *return of capital* – an allowance for depreciation of the assets that compensates investors for their loss in value over time;
- *operating expenditure* – an allowance for efficient operating and administrative costs required to provide the regulated service; and
- *tax payable* – an allowance for the expected tax liability arising from the revenue.

In applying the building blocks model to assess the proposed ARR for the short gain expansion, the Authority notes that DBCT Management is not seeking to increase its existing operating cost allowance.

Moreover, DBCT Management's proposed allowance for tax payable is based on the same approach applied by the Authority in its April 2005 decision (ie a benchmark statutory corporate tax rate of 30% and a 'gamma' of 0.50 for the value of dividend imputation credits).

The other major components of the building block model and the adjustments to reflect the timing of the receipt of revenues are discussed in more detail below.

Return on Capital

The Authority's April 2005 and June 2006 decisions provided for a WACC of 9.02% based on a risk-free rate of 5.84%² and a WACC margin above the risk-free rate of 3.18%. The undertaking provides for recalculating the WACC on capital expenditure (not the existing asset base) on the basis of the risk-free rate applying on the first day of the month immediately following the commissioning of the expansion.

DBCT Management's Proposal

The return on capital component of DBCT Management's proposed ARR is based on a WACC of 9.03%. DBCT Management indicated that this WACC comprises a WACC margin of 3.18% and a risk-free rate of 5.85%, with the latter reflecting the average daily yield of 10-year Commonwealth nominal bond rates over the 20 days preceding 1 September 2006 (DBCT Management, sub. no. 1, att. 1/appx. 1: 3).

Authority's Analysis and Final Decision

Stakeholders did not comment on the return on capital for the short gain expansion. Accordingly, the Authority confirms its position, as set out in its position paper, and accepts that the return on capital is appropriate.

In its position paper, the Authority confirmed that DBCT Management calculated the applicable WACC consistent with the relevant provisions of the undertaking and applied an appropriate methodology for calculating the return on capital.

Return of Capital

DBCT Management's Proposal

The return of capital component of DBCT Management's proposed ARR is \$0.6 million for the 2006-07 financial year and \$0.8 million for the 2007-08 financial year, based on its depreciation approach, which comprises these elements:

- assuming asset lives of 48 years for reclaimer RL1 and 47 years for shiploader SL3 taking into account the remaining lives for the same, or similar, assets applied by the Authority in its April 2005 decision and that the 30 June 2054 economic constraint on the terminal's life constrains the remaining life of the new RL1 from 50 years to 48 years³;
- adopting an asset life of 32 years for yard conveyor R1, based on DBCT Management's assessment of its remaining asset life post-refurbishment;
- applying depreciation on a straight-line basis; and
- applying a scrap value of zero for these assets, which reflects DBCT Management's recent experience where the scrap proceeds of the collapsed reclaimer RL1 were only sufficient to compensate DBCT Management for RL1's site removal costs (DBCT Management, sub. no. 1, att. 1: 5 and att. 2: 5/1).

² Estimated on the basis of the average daily yield of the 10-year Commonwealth bond over the 20 days preceding 1 July 2004.

³ The remaining life of the shiploader is unaffected by the economic constraint, as its remaining life was 49 years as at 1 July 2004.

Authority's Analysis and Final Decision

Stakeholders did not comment on the return of capital for the short gain expansion. Accordingly, the Authority confirms its position, as set out in its position paper, and accepts that the return of capital is appropriate.

In its position paper, the Authority accepted DBCT Management's proposal, as it was generally consistent either with the Authority's approach in its DBCT April 2005 decision or with standard regulatory practice.

In doing so, the Authority accepted DBCT Management's proposed scrap value of zero for the short gain assets, as it considered this approach to be reasonable given DBCT Management's recent experience with the site removal of the collapsed RL1 machine.

Revenue Timing

The Authority's April 2005 decision provided for a revenue cap based on an ARR which was calculated as an end-of-year amount.

Following the release of that decision, the DBCT User Group observed that the Authority's revenue modelling approach resulted in DBCT Management over-recovering its allowed revenues as the net present value of the actual revenues received progressively throughout the year would be larger than the end-of-year ARR determined by the Authority.

Prior to the submission of the 2006 draft access undertaking, DBCT Management and the DBCT User Group agreed to a compromise position, where the ARR for the initial DBCT assets would be adjusted down by about \$1.66 million per annum. This compromise applied to the ARR associated with the initial DBCT assets for the duration of the undertaking. This compromise did not apply to revenues from new assets (eg the short gain expansion) in the context of the 2006 undertaking or to future undertakings.

The Authority accepted this compromise approach when it approved the undertaking in June 2006.

DBCT Management's Proposal

DBCT Management's proposed ARR for the short gain expansion reflects a standard approach for addressing the matter of revenue timing, namely:

- discounting the end-of-year ARR to the midpoint to proxy revenues and expenses occurring at a constant rate over the financial year; and
- reassessing the risk-free rate to take into account that the published daily yields for 10-year nominal Commonwealth bonds need to be converted from 6 month to 12 month estimates to obtain the annualised rate required for regulatory purposes (DBCT Management, sub. no. 1, att. 1/appx. 1: 3-5).

Authority's Analysis and Final Decision

Stakeholders did not comment on the revenue timing issue for the short gain expansion. Accordingly, the Authority confirms its position, as set out in its position paper, and accepts that the treatment of revenue timing is appropriate.

In its position paper, the Authority accepted DBCT Management's methodology for discounting the ARR to a midpoint estimate and for converting the published bond yields to an annual

estimate. In accepting this approach, the Authority noted that it adopted the same approach in its QR December 2005 decision.

3.2 Annual Revenue Requirement, Revenue Cap and Pricing

DBCT Management's Proposal

Based on \$33.3 million of short gain capital expenditure, as at 1 September 2006, and the modelling methodology summarised in section 3.1, DBCT Management has requested that the Authority approve an increase in the ARR of \$2.2 million and \$2.7 million for the 2006-07 and 2007-08 financial years respectively (see Table 2 for details).

As the ARR for the short gain expansion, when approved, becomes effective from 1 September 2006, DBCT Management adjusted downwards its proposed building blocks for the return on capital, return of capital and tax payable for 2006-07 to reflect the fact that the expansion generates revenue for only ten months of the 2006-07 financial year. In contrast, the building blocks for the 2007-08 financial year reflect a full financial year's revenue requirement.

Table 2: Short Gain Expansion Annual Revenue Requirement

ARR Building Block	2006-07 (\$000)	2007-08 (\$000)
Return on Capital	2,405.7	2,899.5
Inflationary Gain	(903.9)	(1,084.4)
Return of Capital	635.6	779.7
Tax Payable	62.1	78.6
Raw ARR	2,199.5	2,673.3

Authority's Analysis and Final Decision

Stakeholders did not comment on the calculation of the ARR, revenue cap and TIC for the short gain expansion. Accordingly, the Authority confirms its position, as set out in its position paper, and accepts the proposed amendments to the ARR, revenue cap and TIC, namely to:

- increase the ARR by \$2,199,493 for the 2006-07 financial year (as at 1 September 2006);
- increase the revenue cap by \$2,163,092 for the 2006-07 financial year (as at 1 September 2006);
- increase the reference tariff from \$1.4659/tonne to \$1.5096/tonne, effective 1 September 2006 for the 2006-07 financial year; and
- increase the ARR by \$2,673,332 for the 2007-08 financial year, resulting in a reference tariff of \$1.4977 for the 2007-08 financial year (excluding any amounts relating to the DBCT 7x expansion).

In its position paper, the Authority accepted DBCT Management's proposed changes to the ARR, revenue cap and reference tariff on the basis that DBCT Management's underlying

modelling assumptions and calculations were consistent with an appropriate building blocks methodology and with the relevant provisions of the undertaking.

Specifically, the Authority confirmed that DBCT Management had apportioned the ARR to reflect only that portion of total contracted tonnage that is reference tonnage. Total reference tonnage and total contracted tonnage of 59.42 and 60.42 million tonnes respectively for 2006-07 and of 60.3 and 61.3 million tonnes respectively for 2007-08 result in adjustment factors of 98.35% for 2006-07 and 98.37% for 2007-08. Applying these factors to the respective ARRs resulted in an increase in the revenue cap of \$2,163,092 for 2006-07 (as at 1 September 2006) and of \$2,629,721 for 2007-08.

The Authority also confirmed that the resulting impact on the TIC for 2006-07 was to increase it from \$1.47/tonne to \$1.51/tonne for the remainder of the 2006-07 financial year as from 1 September 2006. The resulting impact on the TIC for 2007-08 was to decrease it slightly to \$1.50/tonne.

LIST OF SUBMISSIONS

Organisation/Individual	Submission Number
DBCT Management	1