Dalrymple Bay Infrastructure

Dalrymple Bay Terminal

8X Expansion – FEL 2 Study

Application for Ruling on Pricing Method

March 2021

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1 Application

1 On 26 February 2021, Dalrymple Bay Infrastructure Management (**DBIM**) completed the FEL 2 Feasibility Study[1] (**FEL 2**) for the 8X Expansion (**8X**) which supports proceeding to a FEL 3 Feasibility Study (**FEL 3**), conditional on the Pricing Method for 8X being Socialised.[2]

2 After applying the Expansion Pricing Principles in s.11.13 of the Dalrymple Bay Terminal (**DBT**) 2017 Access Undertaking (**AU**), DBIM has assessed that Socialisation of 8X would increase the Reference Tariff[3] for users of the Existing Terminal (**Cost Sensitive Expansion**), and should therefore be treated as a Differentiated Expansion Component.

3 However, pursuant to s.11.13(c) of the AU, a Cost Sensitive Expansion may be treated as forming part of the Existing Terminal (and therefore, not treated as a Differentiated Expansion Component) where circumstances exist that justify Socialisation. DBIM considers that circumstances exist that justify Socialisation of the whole of 8X, and consequently DBIM has assessed that 8X should be Socialised.[4]

4 DBIM submits this application to the QCA in accordance with s.150D of the *Queensland Competition Authority Act 1997 (Qld)* (**QCA Act**), seeking a ruling pursuant to s.5.12(a)(2)(A) of the AU that the applicable Pricing Method for 8X is Socialised.

5 DBIM notes that the QCA intends to publish a final decision on the DBCT 2019 Draft Access Undertaking (**2019 DAU**) in early 2021.[5] It is possible that the 2019 DAU will take effect during the QCA's consideration of this application.

6 In the event that the new access undertaking is materially similar to that submitted by DBIM in its response to the QCA draft decision,[6] then the provisions relating to rulings on the Pricing Method remain substantially the same. As a result, regardless of the access undertaking in effect at the time, DBIM considers that the information in this application will remain appropriate for the purposes of a ruling on the Pricing Method. However, the new access undertaking may not require the QCA to determine Access Charges if the Pricing Method is Differential.

7 A ruling in respect of any Different Terms is not applicable under the circumstances. This is because the Access Agreements for expansion capacity will be in the form of the Standard Access Agreement (**SAA**) at the time of the Shipping Commencement Dates, in accordance with clause 3.2 of the Conditional Access Agreements (**CAA**s) entered into between DBIM and the Expansion Parties. Consequently, Different Terms do not apply.

8 DBIM has applied for a ruling at this time, rather than wait for approval of the new access undertaking, because the ruling is on the critical path for the expansion. A delay on the ruling will delay the required feasibility studies, which in turn will delay the construction of the expanded facilities and the Shipping Commencement Dates for Access Seekers that will receive access to the terminal. In addition, the team of specialist engineering consultants for FEL 3 would need to be demobilised, with the potential for key personnel to be reassigned, such that remobilisation will take longer and impact efficient design work and the related cost. Therefore, DBIM considers the timing of this application to be prudent and efficient under the circumstances.

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[1] Capitalised terms in this application refer to definitions in the 2017 AU

[2] Refer Appendix 1 FEL 2 Study

[3] The 2017 AU is due to expire in June 2021 and will be replaced by a new AU. It is possible the replacement AU will not include reference tariffs. This application refers to the existing AU and reference tariffs, as any impact upon pricing would reasonably be expected to have substantially the same effect under an AU that does not include an ex ante reference tariff.

[4] Refer 4.6 Assessment of the Pricing Method

[5] QCA 03-Feb-21 Notice for timing on final decision

[6] DBIM 23-Oct-20 Amended 2019 DAU 2 (mark-up)

9 DBIM further notes that, prior to the QCA ruling on the Pricing Method, it is possible that DBT may not be declared as a result of the decision handed down by the Supreme Court in relation to the judicial review of the Treasurer's decision to declare DBT,[7] despite the QCA's recommendation that DBT should not be declared.[8] Under those circumstances the QCA's preliminary views or draft ruling would allow the expansion to proceed in accordance with the Access Framework.

10 In support of this application, DBIM provides the attached submission which addresses the requirements of the AU and the QCA Act. Some components of this submission have been redacted from the material published on the QCA website, as summarised in Table 1 below.

Table 1 – Components of submission redacted for publication

Location	Redaction	Reason for redaction
Entire submission	Identification of access seekers	Confidentiality requirements in section 8 of the AU
Appendix 1	FEL 2 Study	Confidential Information in accordance with SUA
Appendix 2	ILC throughput loss report	Circulation limited in accordance with s.12.1 of the AU
Appendix 3	Analysis of 8X & NECAP costs	DBI confidential information (modelling)
Appendix 4	Operator's OMCP	Circulation limited in accordance with OMC
Appendix 5	Endorsements of Socialisation	Confidentiality requirements of CAA (SAA), SUA & AU

2 Executive summary

11 This submission provides the information required by the AU and the QCA Act to support the QCA's consideration of its ruling in respect of the applicable Pricing Method for 8X. This submission is structured as follows:

11.1 Section 3 details the events and regulatory processes in the lead-up to FEL 3, which form the basis for this application.

11.2 Section 4 provides the information required by the AU to support this application.

11.3 Section 5 provides the additional information required by the QCA Act in respect of the matters and factors which the QCA must have regard to in making its determination.

FEL 2 outcomes

12 Following its investigation into 8X and the satisfactory outcome of FEL 2, DBIM has confirmed:

12.1 There is no available capacity at the existing terminal. Existing users have extended their access over the relevant period for 8X in accordance with Clause 20 of their access agreements.[9]

12.2 The genuine demand for expansion capacity ranges from 14.87Mtpa (secured by Expansion Parties with CAAs) to 25.1Mtpa (the extent of the current Queue).[10]

12.3 FEL 2, which is underwritten by Expansion Parties, supports the expansion pathway outlined in Master Plan 2019, which is fully integrated with the existing facilities.[11]

12.4 The capacity to be made available by 8X is 14.9Mtpa (increasing System Capacity to 99.1Mtpa) through 4 incremental expansion phases to be commissioned between 2024 and 2028. The

[7] Government of Queensland 01-Jun-20 Extraordinary Queensland Government Gazette no. 31 p270
[8] QCA 02-Jun-20 Declaration reviews: final recommendations – Part C: DBCT service p4
[9] Refer Section 3 The processes leading to FEL 3
[10] Refer Section 4.5 Forecast demand for expansion capacity
[11] Refer Section 4.6 Assessment of the Pricing Method: Integration of the expansion

expansion provides long-term benefits to existing users, including improvements in terminal reliability, reduced risk and reduced operating & NECAP costs.[12]

12.5 The cost of the expansion is estimated at $1.276 billion in 2020 terms.[13] If 8X is Socialised, the Reference Tariff (**TIC**) would increase by approximately 13%. However, because the 8X Operating & Maintenance Charges (**O&MC** or **handling charges**) are relatively low, Total Access Charges (**TAC**) would reduce by approximately 1%.[14] The relevant charges are summarised in Table 2 below, comparing the cases of Socialised and Differentiated expansions. DBIM notes that these calculations cannot be treated as forecasts other than for the purposes of comparing Socialisation and Differentiation of 8X pursuant to s.5.12(b)(9) of the AU, and as further qualified in this submission.

Table 2 – Summary of Estimated Access Charges – Socialised vs Differentiated

Component	TIC	Handling	TAC
Socialised expansion			
Existing terminal	3.14	4.21	7.34
...with 8X	3.55	3.73	7.29
Change	13%	(11%)	(1%)
Differentiated expansion			
Existing terminal	2.51	3.61	6.12
...with 8X	15.44	4.49	19.93
Change	514%	24%	225%

12.6 If 8X was Differentiated, the Reference Tariff would increase by more than 500% and the Total Access Charges would increase by more than 200% for new users. However the related cross-subsidisation would reduce these by 20% and 17% respectively for existing users. This is because 8X is designed to improve the whole-of-life costs of the terminal and this is reflected in the major NECAP works, which benefit existing users more than new users in a Differentiated expansion.

12.7 In view of the high level of integration with the existing terminal, the long-term benefits to existing users, the reduced Total Access Charges, the requirements of Access Seekers, and the risks associated with a Differentiated expansion, DBIM has assessed that 8X should be Socialised.[15]

13 Following completion of FEL 2, the QCA must provide a ruling as to the applicable Pricing Method. The next step required in the expansion process is the completion of FEL 3, after which DBIM may submit a Capacity Expansion Application (**CEA**).

14 Following completion of FEL 2, DBIM issued a notice to Expansion Parties to underwrite FEL 3 (**Underwriting Notice**) in accordance with the terms of the SUA for Further Studies issued with the Underwriting Notice. The total cost of FEL 3 is estimated at $26m, however as negotiated with Expansion Parties, the expenditure on FEL 3 is capped at $8m until the QCA ruling is published. If the QCA rules that 8X should be Socialised, then the Expansion Parties will continue to underwrite FEL 3 to completion, and DBIM will continue to incur the related costs. However, if the QCA rules that part or all of 8X should be Differentiated, then the expansion is unlikely to proceed under the current agreements. Without the support of Expansion Parties, FEL 3 will be halted. In that event, the Expansion Parties would be required to pay for the related costs incurred by DBIM to the extent they are not added to the asset base.

[12] Refer Section 4.4 The impacts on existing users
[13] Refer Section 4.1 Capital cost of 8X
[14] Refer Section 4.8 Estimates of Reference Tariff and Section 4.9 Access Charges
[15] Refer Section 4.6 Assessment of the Pricing Method

15 The QCA's ruling will provide stakeholders with an important level of certainty in regard to 8X. Consequently, the QCA's ruling is critical to the timing and implementation of 8X.

Impact on NECAP

16 The expansion includes a significant component of NECAP-type work, which if the expansion did not proceed, would need to be provided for in the ongoing NECAP program. The inclusion of such work in an expansion program is efficient, as it provides the following opportunities:

16.1 Alignment of the required shutdowns and minimisation of throughput losses for existing users;

16.2 Use of the large skilled workforce already mobilised and established on the site, which minimises interfaces and thereby supports safe work practices and improved coordination of activities;

16.3 Reduced whole-of-life costs of the terminal; and,

16.4 Full ongoing engagement with the independent user-owned terminal operator DBCT Pty Ltd (**Operator**) for operability assessments, and training in maintenance and operating requirements of the new facilities.

17 DBIM assesses that 46% of the cost of the expansion (around $583m) is NECAP-type works, including works such as: [16]

17.1 A new shiploader and related infrastructure facilitating refurbishment instead of replacement of the older shiploaders, saving around $150m in NECAP costs alone in the initial round of shiploader refurbishments;

17.2 A new inloading system IL4 replacing the original 36 year old inloading system IL1, which would otherwise need to be replaced or renewed at some point at a cost of around $130m and causing significant throughput loss while the work was being completed;

17.3 Many plant throughput optimisations across the terminal to improve reliability and reduce maintenance requirements;

17.4 Replacement of reclaimer RL2 costing around $26m, which would otherwise need to be replaced by 2029;

17.5 Replacement of various buildings and offices, costing around $10m; and,

17.6 The L5/L6 Drive Tower Structural Modification. This work is required to accommodate the additional conveyor braking loads imposed on the tower associated with the OL2 rate increase. During FEL 2, the detailed analysis of the drive tower identified that even if 8X did not proceed then this work is still required because of potential overload of this critical structure in an extreme wind event.

18 Including this value with the currently forecast NECAP works brings the entire NECAP program expenditure up to 2044 to nearly $2 billion. This is reflective of the age of the terminal assets and the requirement for ongoing capital to ensure compliance with Good Operating and Maintenance Practice.

19 Therefore the proportion of purely expansion-related facilities regarding 8X is 54%, or around $693m. DBIM considers that if the expansion was based only on this cost, then Socialisation of the expansion would actually decrease the Reference Tariff for existing users, and in accordance with the Expansion Pricing Principles in s.11.13 of the AU, the expansion would be treated as forming part of the Existing Terminal (a Socialised Expansion).

20 Despite this, DBIM does not propose to separate the NECAP components of 8X from the purely expansion-related components for the purposes of this ruling or the CEA. While these components may be separable from a cost perspective, they cannot be separated from the scope of the expansion, as they have been

[16] Refer Table 12 – Works included in 8X that would otherwise be required as NECAP

included in the expansion because they are required to support the outcome of the expansion or for reasons of efficiency and to reduce the whole-of-life cost of the terminal.

Stakeholder expectations

21 Prior to FEL 2, key stakeholders expected 8X to be Socialised, based on the information available to them at the time:

21.1 The User Group expects 8X will be Socialised, as evidenced in submissions to the QCA.[17]

21.2 Expansion Parties expect 8X will be Socialised, and will continue to underwrite feasibility studies on that basis. Expansion Parties also endorsed that 8X should be Socialised.[18]

21.3 DBIM expects that 8X is more likely to proceed if it is Socialised, as evidenced in the DBCT Master Plan 2019.[19]

21.4 DBI and its investors (including the State of Queensland)[20] expected that 8X would be Socialised, as forecast in the DBI Prospectus.[21]

21.5 The QCA considered (without prejudice) that 8X would be Socialised, based on the information available at the time of the Declaration Review.[22]

22 The reasoning which supports these expectations should also apply following FEL 2, as the scope of the expansion has not changed significantly from FEL 1, and while the estimated cost of the expansion has increased by around 10%, the expected capacity has also increased by 1.6Mtpa such that the overall capital efficiency has improved.

Compliance with the QCA Act

23 The requirements of sections 120(1), 138(2) and 168A were assessed comparing a Socialised expansion with a Differentiated expansion. Notably:

23.1 The object of Part 5 is promoted if 8X is Socialised, by constraining inefficient and unfair differentiation between access holders and access seekers;

23.2 The legitimate business interests of the access provider include that the risk of asset stranding should be minimised, which is achieved if 8X is Socialised;

23.3 The interests of access holders and access seekers are aligned in their expectation that 8X will be Socialised, and cross-subsidisation between new users and existing users is minimised under those circumstances;

23.4 A Socialised expansion is of greater value to access seekers due to its lower cost per tonne than a Differentiated expansion; and,

23.5 In other matters that the QCA must have regard to, given that 8X is more likely to proceed in its current configuration if it is Socialised, then on balance a Socialised expansion will better satisfy the criteria than a Differentiated expansion. For example the public interest will be better served, by providing increased benefits to the local region, including jobs in construction and operations, and additional royalties for the State of Queensland.

24 Accordingly, the relevant requirements of the QCA Act will be satisfied if 8X is Socialised.

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[17] For example, in QCA 28-Oct-19 DBCT User Group further submission on the DBCT service p24-25
[18] Refer endorsements included in Appendix 6
[19] DBI 21 August 2019 DBT Master Plan 2019 p54
[20] Industry Queensland 09-Nov-20 State takes a stake in key CQ coal terminal
[21] Dalrymple Bay Infrastructure December 2020 Prospectus page 134
[22] QCA 18-Dec-18 Declaration Review Part C Draft recommendation on DBCT p86 "Based on the information available to the QCA, it would appear that a differentiated access charge may not apply for the expansion projects required to meet foreseeable demand."

3 The processes leading to FEL 3

25 In August 2019, DBIM issued the DBT Terminal Master Plan 2019 (**Master Plan**) following its approval by DBCT Holdings in accordance with the Port Services Agreement (**PSA**). The Master Plan identified the appropriate pathway for expansion, summarised in Table 3 below.[23] The next expansion step is 8X, which includes 4 incremental expansion phases within the existing footprint of the terminal, enabling smaller expansions to match the typically lower volumes requested in individual Access Applications. The capacities and costs of the 8X phases were assessed in accordance with the requirements of a FEL 1 Feasibility Study (**FEL 1**), with the result that all phases of 8X could be expected to increase system capacity at DBT by 13.3Mtpa at a cost of $1.16 billion.[24]

Table 3 – Master Plan 2019 Expansion Pathway

Expansion Step				Scope	Incremental Capacity	Capacity (Mtpa)	Cost ($m)
Within Footprint	New		Old				
	8X	Phase 1	SL4 on Berth 3	New Shiploader 4 on Berth 3 plus outloading debottlenecking	4.3	88.5	240 (indicative)
		Phase 2	8X Phase 1	Stockyard Augmentation Project (SAP) plus upgrade of Stacker ST2 and conveyors S5, S6A, S6, R1 and R2	2.7	91.2	175 (indicative)
		Phase 3	8X Phase 2	Rail Receival Pit 4 & Inloading System 4 plus upgrade to Inloading 2 and Outloading 2	3.3	94.5	350 (indicative)
		Phase 4	Zone 4	Completion of Row 8, vertical western wall, replacement of Reclaimer RL2 with a new Stacker Reclaimer to suit the new row 8 configuration, a new stacking conveyor and a new Stacker to the west of Row 8.	3	97.5	395
New Stockyard	9X			New Stockyard at Louisa Creek, upgrades to Inloading 1, new Outloading System 4 and up to 2 berths to the north including significant land reclamation to accommodate dredge spoil	≈34	131	3,000 (indicative)

26 During 2019, the Access Queue (**Queue**) increased to a peak of 56.6Mtpa.[25] Discussions between DBIM and Access Seekers indicated that for a number of Access Seekers in the Queue, sufficient genuine demand existed to warrant further investigation of 8X.

27 In December 2019, in order to determine if sufficient existing capacity[26] was available to satisfy the Access Applications, DBIM requested Access Holders to exercise their options to extend the term of their Access Agreements, in accordance with clause 20 of those agreements. If any Access Holder waived its option to extend, then the related existing capacity would be made available to Access Seekers on expiry of the term.

28 Concurrently, in order to determine the bona fide Access Applications and the genuine level of demand for capacity at DBT, DBIM issued Expansion Notices to all eligible Access Seekers, pursuant to s.5.4(j) of the AU. If the Access Seeker did not enter into a Conditional Access Agreement (**CAA**) consistent with its Access Application, the Access Seeker would be removed from the Queue.

29 In February 2020, the QCA approved the Standard Underwriting Agreement (**SUA**).[27] Subsequently, in order to progress the investigation of 8X, DBIM issued Underwriting Notices to all eligible Access Seekers,

[23] DBIM 31-Aug-19 DBCT Master Plan 2019 – Expansion Opportunities at the Dalrymple Bay Coal Terminal Table 5 (page 40)
[24] This value reflects a 50% probability the final project cost will not exceed the P50 value
[25] The requirements for Access Applications at DBT involve no ongoing fees or commitments. The date of the Access Application determines its position in the Queue. A position close to the start of the Queue could reasonably be considered an asset to the Access Seeker and the related mine development.
[26] In this submission, "existing capacity" is System Capacity at the existing terminal
[27] QCA 10-Feb-20 Standard underwriting agreement

pursuant to s.5.10(b) of the AU. If the Access Seeker did not enter into a SUA for FEL 2 as required for 8X, they would be removed from the Queue.

30 In April 2020, Access Holders extended their Access Agreements such that no existing capacity was available to Access Seekers. Consequently, the Access Applications could only be satisfied with expansion capacity.

31 In May 2020, DBIM identified the Access Seekers which had not signed a CAA and SUA, and those Access Seekers were removed from the Queue. Consequently, a new Queue was formed comprising only Access Seekers that required expansion capacity, reflecting the genuine level of demand for access at DBT.

32 In June 2020, DBIM executed CAAs in the order of the new Queue, to the extent of the entire capacity of 8X. Consequently, those Access Seekers became Expansion Parties for 8X, and the extensions of existing Access Agreements became binding on Access Holders.

33 Concurrently, DBIM executed the relevant SUAs, and immediately commenced FEL 2. On completion, FEL 2 would confirm the preferred expansion to be studied under FEL 3, as well as satisfying the other requirements as defined in the AU.

34 In February 2021, DBIM completed FEL 2, which supports proceeding to FEL 3 conditional on a Socialised expansion. The outcomes of FEL 2 and the reasons for the condition of a Socialised expansion are detailed in *Appendix 1 FEL 2 Study*.

35 In accordance with s.5.12(a)(2) of the AU, within 20 business days of completing FEL 2, DBIM submitted this Application to the QCA for a ruling in respect of the Pricing Method for 8X. DBIM notes that, in accordance with s.150F(3)(a) of the QCA Act, the QCA must comply with natural justice in making the ruling, and therefore DBIM has provided 6 months in its schedule for the process to be completed. This is important for the purposes of scheduling FEL 3 and the 8X expansion, and for the information of Access Seekers. Consequently, this ruling is on the critical path for 8X, which means that the date the QCA makes its ruling will directly impact the date of provision of access to the Expansion Parties.

36 DBIM demonstrated to Expansion Parties that if FEL 3 commenced after the QCA made its ruling (as contemplated by the AU), then their access to the terminal would be delayed by up to 10 months, including 6 months for the Price Ruling process, 3 months to remobilise the study team and execute SUAs for FEL 3, and 1 month for the Christmas-New Year break. In order to minimise impact to the critical path, continuity in feasibility studies is essential. Expansion Parties agreed that FEL 3 should continue after the completion of FEL 2, with the condition that their underwriting of the full cost of FEL 3 ($26m) would only apply if 8X was Socialised.

37 In February 2021, in accordance with clause 5 of the SUA for FEL 2, DBIM issued a Further Studies Notice and Further Studies Proposal to Expansion Parties. Expansion Parties must notify DBIM within 14 days whether they agree to underwrite FEL 3, and if so, they must enter into the SUA within 14 days after notifying DBIM to that effect.

38 DBIM expects that in March 2021, in accordance with the provisions for Further Studies in the SUAs for FEL 2, all current Expansion Parties will enter into SUAs for FEL 3 with the additional condition that expenditure on FEL 3 is capped at $8m until the QCA makes its ruling. If the QCA rules that 8X should be Socialised, then the full cost of FEL 3 ($26m) will be underwritten by the Expansion Parties. However, if the QCA rules that 8X should be Differentiated, then the $8m cap on FEL 3 expenditure will take effect, and without industry support the work on FEL 3 and other aspects of 8X would be suspended until alternative commercial arrangements could be made.

39 The cap on FEL 3 expenditure reflects a prudent balance of risk for Expansion Parties, allowing FEL 3 to proceed efficiently in the reasonable expectation that 8X will be Socialised, while minimising the costs of FEL 3 in the event the QCA rules 8X should be Differentiated. While this is primarily in the interests of Expansion Parties, it also protects the interests of Existing Users, considering that the prudent costs of a

stranded FEL 3 Study may be included in the RAB for the existing terminal pursuant to s.5.10(o)(3) of the AU.

4 Information required for a Price Ruling

40 This section provides the information required in an application for a Price Ruling in accordance with s.5.12(b), which includes:

40.1 information about the nature and amount of Capital Expenditure forecast to carry out the Terminal Capacity Expansion, as assessed in any Feasibility Studies (see *4.1 Capital cost of 8X*);

40.2 information about any Different Terms that will have been agreed or required in accordance with s.13.1(f) of the AU (see *4.2 Different Terms*);

40.3 a justification as to why the Access Agreement (incorporating any Different Terms) does not, and need not, comply with the Standard Access Agreement, but will nevertheless be economically and operationally prudent and result in DBIM achieving a regulated return that is commensurate with the cost and risks involved with the Terminal Capacity Expansion (see *4.2 Different Terms*);

40.4 information about the increase in Terminal Capacity expected to arise from the Terminal Capacity Expansion (and expected increases to System Capacity) (see *4.3 Increase in Terminal Capacity and System Capacity*);

40.5 information about positive or negative impacts on existing users of the Terminal or existing operations of the Terminal (see *4.4 The impacts on existing users*);

40.6 information about the forecast demand for Access to the increased Terminal Capacity (see *4.5 Forecast demand for expansion capacity*);

40.7 an assessment of the Pricing Method applicable to the Terminal Capacity Expansion, applying the Expansion Pricing Principles (see *4.6 Assessment of the Pricing Method*);

40.8 information about the anticipated impact on Non-Expansion Costs for the Terminal (see *4.7 Impact on NECAP*); and

40.9 an estimate of the Reference Tariff that will apply to the Terminal Component the subject of the Terminal Capacity Expansion, if it was Differentiated and if it was Socialised, having regard to the information referred to above and the other pricing arrangements set out in s.11 of the AU (see *4.8 Estimates of Reference Tariff*).

41 In regard to "…the other pricing arrangements set out in Section 11" referred to in s.5.12(b)(9) of the AU, DBIM considers that for the purposes of comparing Socialised and Differentiated components, the QCA should have regard to Access Charges as contemplated by s.11.3 of the AU. This is also relevant as s.5.12(a)(2)(B) of the AU requires the QCA to determine Access Charges (not only Reference Tariff) for a Differentiated expansion. This is addressed in *4.9 Access Charges*.

4.1 Capital cost of 8X

42 Section 5.12(b)(2) of the AU requires information about the capital cost of 8X, which was estimated in FEL 2. This is detailed in Appendix 1 and summarised below in Table 4 (in comparison to FEL 1).

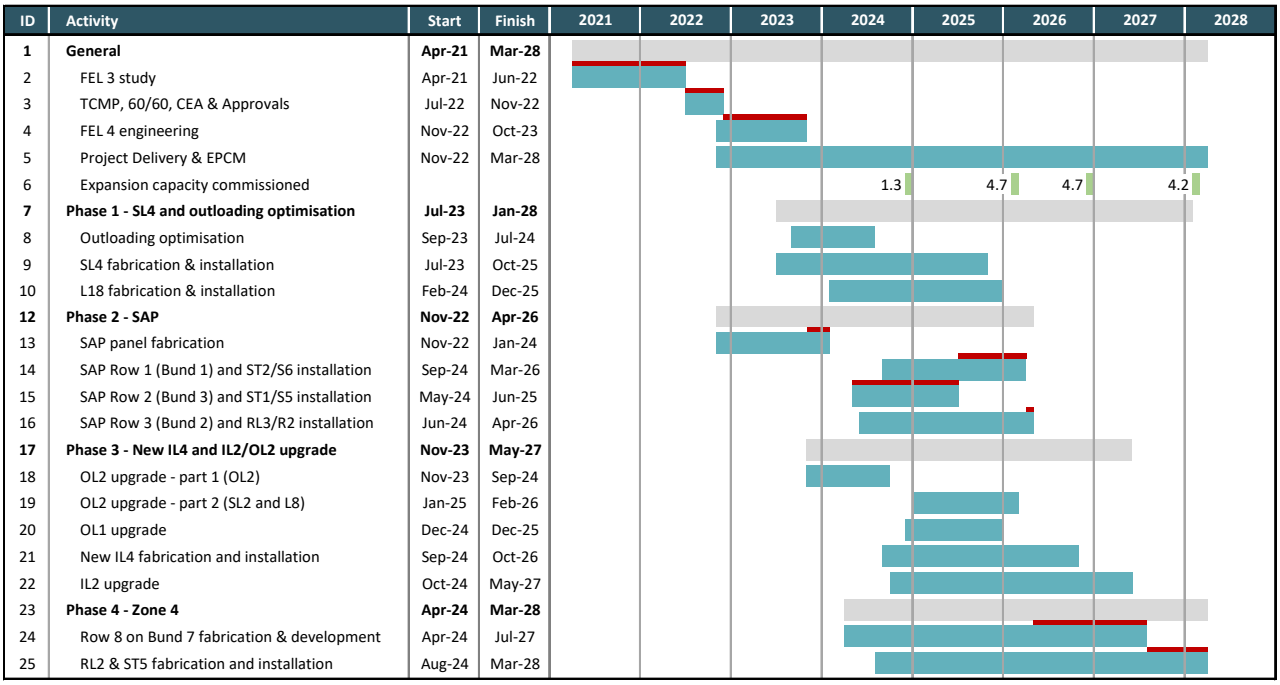
Table 4 – Comparison between FEL 1 & FEL 2 results

Phase & Scope	FEL 1 Study				FEL 2 Study			
	Capacity Mtpa		Cost		Capacity Mtpa		Cost P50[28]	
	Gain	Total	$m	$/tpa	Gain	Total	$m	$/tpa
1 – New SL4 on Berth 3 plus outloading debottlenecking	4.3	88.5	240	56	3.1	87.3	246	79
2 – Stockyard Augmentation plus upgrade ST2, S5-S6-S6A, R1-R2	2.7	91.2	175	65	3.9	91.2	229	59
3 – New RRP4 & IL4 plus upgrade to IL2 & OL2	3.3	94.5	350	106	5.5	96.7	461	84
4 – Complete Row 8 with new wall, RL2A, ST5 & S9	3.0	97.5	395	132	2.4	99.1	340	142
Total 8X	**13.3**	**97.5**	**1,160**	**87**	**14.9**	**99.1**	**1,276**	**86**
Variance from FEL 1 Study					**12%**	**2%**	**10%**	**-2%**

43 Compared with FEL 1, FEL 2 noted an increase in capital cost of 10% and an increase in capacity of 1.6Mtpa, with a corresponding reduction of 2% in the cost per annual tonne of capacity.[29] Given this improvement in capital efficiency and increased expansion capacity, DBIM is confident of the feasibility of 8X and has recommended that Expansion Parties should continue to underwrite further studies up to the completion of FEL 3, on the basis that 8X should be Socialised. At the completion of FEL 3, DBIM intends to submit a Capacity Expansion Application for 8X, in accordance with s.12.5(a) of the AU.

44 The costs for 8X have been estimated in consideration of the expected duration of the construction program, which allows Expansion Parties to gain access to the required capacity sooner than if 8X was constructed sequentially. The expansion delivery schedule is shown in Figure 1 below, with the critical path of the overall construction indicated in red.[30]

Figure 1 – 8X expansion delivery schedule



[28] P50 reflects the estimated cost with a 50% probability it will not be exceeded. This is the standard approach to reporting estimated costs for the purposes of comparison.

[29] Capital cost per annual tonne of capacity is an industry standard measure of capital efficiency. FEL 2 indicates that 8X is $86/tpa. By comparison, the 7X project completed in 2009 was $74/tpa (after application of a simple annual escalation of 2.5% from the mid-point of the project duration). Using a similar process, BMA's 11Mtpa expansion HPX3 at HPCT (2015) would be $335/tpa in 2020 terms.

[30] This reflects the critical path for the construction of the entire project, which may not align with the completion of individual phases or the commissioning of blocks of expansion capacity.

4.2 Different Terms

45 Section 5.12(b)(2) of the AU requires information about any Different Terms agreed, and s.5.12(b)(3) of the AU requires a justification for any Access Agreement does not comply with the SAA.

46 As noted in the Application, Different Terms do not apply to any Access Agreements for expansion capacity. The Access Agreements will be in the form of the approved SAA at the time of the Shipping Commencement Date, in accordance with clause 3.2 of the CAAs entered into between DBIM and the Expansion Parties.

4.3 Increase in Terminal Capacity and System Capacity

47 Section 5.12(b)(4) of the AU requires information about the increase in Terminal Capacity due to 8X and the expected increase in System Capacity. This information is provided in detail in the Independent Expert's report[31] (the **ILC Report**) in *Appendix 1 FEL 2 Study* and is summarised in Table 5 below.

Table 5 – Independent Expert Capacity Assessment for 8X (Mtpa)

Component	Terminal Capacity		System Capacity	
	Gain	Total	Gain	Total
Existing Terminal	-	94.7	-	84.2
8X Phase 1	2.8	97.5	3.1	87.3
8X Phase 2	3.3	100.8	3.9	91.2
8X Phase 3	9.7	110.5	5.5	96.7
8X Phase 4	0.7	112.0	2.4	99.1
Total	**16.5**	**112.0**	**14.9**	**99.1**

48 The System Capacity determined as part of FEL 2 is now sufficient to satisfy the entire demand of the five current Expansion Parties.

49 DBIM notes that the Terminal Capacity figures in the ILC Report are hypothetical estimates and should not be used for any purpose other than the capacity reporting requirements of the AU.

50 The distinction between System Capacity and Terminal Capacity relates to how the operating & capacity constraints of the mining load-outs, above-rail infrastructure and below-rail network affect the interfaces with DBT. Terminal Capacity is an estimate of the throughput the equipment at DBT could hypothetically handle with no constraints in the supporting supply chain components that affect the efficiency of DBT's operations. By contrast, System Capacity accounts for the operating & capacity constraints of these infrastructure components, which recognises that these considerations impose a limit on the capacity DBIM can contract to Access Seekers.

51 The Terminal Capacity figures in the ILC Report are derived by assuming the upstream rail and train load-out performance is unconstrained, and a demand of 120Mtpa is applied to the supply chain at all times. The ILC model estimates the maximum throughput that the terminal infrastructure could hypothetically achieve if inloading and outloading were flooded with supply and demand respectively. There is no real world application of this capacity figure because it is System Capacity which determines the capacity that may be contracted at DBT.

[31] Refer Appendix 1 FEL 2 Study, Appendix 2 ILC Report – Independent Expert Capacity Assessment, Section 5 Capacity Estimates.

4.4 The impacts on existing users

52 Section 5.12(b)(5) requires information about positive and negative impacts on existing users of the Terminal or existing operations of the Terminal.

53 8X will reduce ongoing operations and maintenance costs per tonne of capacity for existing users by about 11% on average after the completion of the expansion. This is due to:

53.1 The bulk of the additional System Capacity provided by 8X is derived from the following two factors, which also account for the majority of the reduction in operation and maintenance charges per tonne:

- the additional stockyard storage space which incurs no additional operation and maintenance charges; and,
- replacing lower capacity equipment with new higher capacity equipment, which generally requires no additional operators or maintainers than the equipment being replaced.

53.2 New equipment with improved design, materials and technology requires less maintenance. For example, older equipment (such as IL1 and SL1) was designed for a higher level of in situ maintenance, which was appropriate at the time when labour was a less significant component of maintenance costs. Newer designs (such as IL4 and SL4) instead provide for a high level of modularity, which facilitates quick and safe replacement of larger modular components, reducing downtime and the related throughput losses. This results in reduced labour costs associated with maintenance.

53.3 Similarly, new equipment is designed to be operated more easily and safely, with more sophisticated technology and anti-collision systems providing for fewer operators or even remote operation, with minimal risk of damage, improved performance, and improved material handling requiring less cleaning. Accordingly, the cost of labour for operations is lower.

53.4 In addition, components for new equipment are more energy efficient, which reduces the cost of electricity per tonne of capacity compared with the older systems being replaced.

54 The new facilities installed in 8X will provide cost reductions for existing users in the ongoing NECAP program, as well as more effective shutdowns and reduced throughput losses for NECAP-related works. An important example is the new SL4 (in Phase 1). In the case that 8X does not proceed, SL1, SL2 and SL3 require replacement by 2026, 2028 and 2033 respectively. This is expected to cost around $300m and reduce throughput by around 10Mt during the shutdowns required for replacement, which corresponds to a potential loss of revenue for existing users of around $1 billion[32]. Replacement is the preferred option because throughput loss for replacement (around 4-8 weeks each) is much less than refurbishment (up to 1 year each). However, in the case that 8X does proceed, then the new SL4 and associated infrastructure provides for the other shiploaders to be refurbished instead, costing around $150m and with no throughput loss during the required shutdowns.

55 The following section provides more detail on the impacts on existing users associated with 8X, on a phase-by-phase basis. This section demonstrates that 8X provides significant long-term benefits to existing users and to the existing operations of the terminal. These benefits offset the negative impacts which are mostly short-term and related to the construction of the new facilities – noting that DBIM and the Operator will coordinate the construction schedule to minimise impacts and throughput losses. These factors are summarised in Table 6 below, including the negative impacts also addressed by Section 4.6 in *Risks to existing users*.

[32] Assuming average coal price of US$100/t, exchange rate of 0.75 AUD/USD, and 75% utilisation.

Table 6 – Impacts on existing users and operations

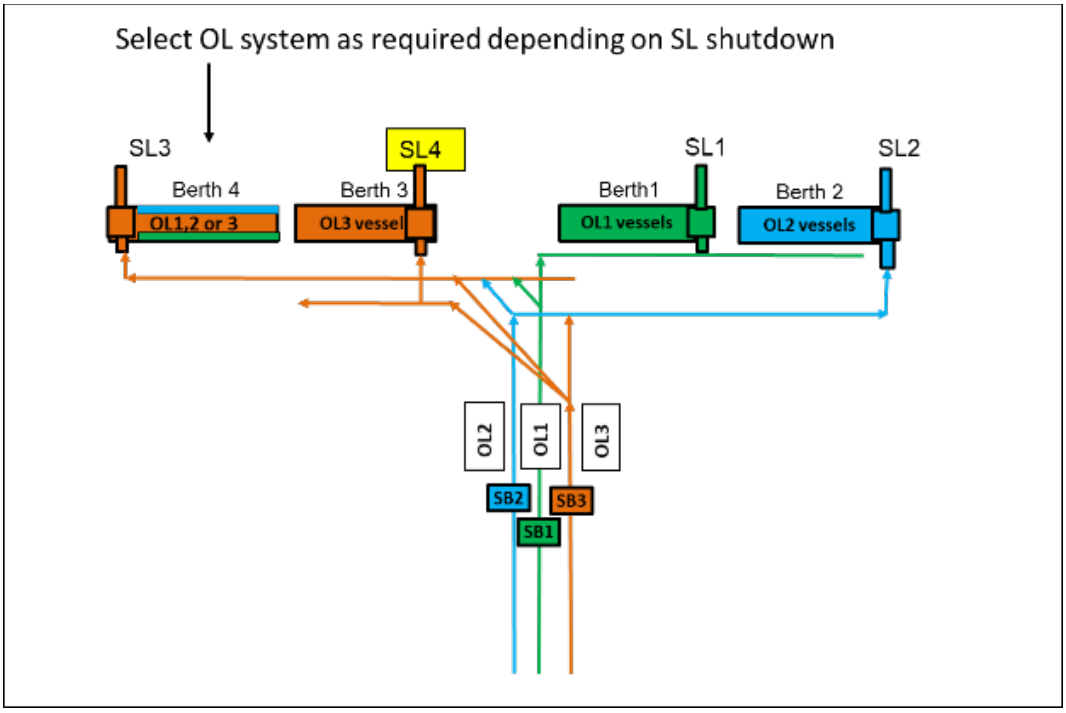
Positive impacts	Negative impacts
…for existing users	
• Reduced ongoing operations & maintenance charges due to reduced costs for 8X per tonne of capacity • Overall Total Access Charges are reduced • Spare shiploader and berth will reduce the risk of throughput loss due to an unplanned event (e.g. maintenance or damage to any one shiploader or berth) • Reduced costs and throughput losses associated with essential future NECAP works, in particular due to SL4. • Increased outloading availability for improved throughput • Improved secondary capacity trading opportunities due to increased number of participants	• Shutdowns and associated temporary throughput losses during construction • Increased TIC charges • Increased competition •
…for existing operations	
• New equipment facilitates Good Operations & Maintenance Practice • Chronic reliability issues resolved by replacement of IL1 • Safer & more effective office facilities for staff and contractors • More stockyard space for better management of coal stock	• Additional training requirements • Lengthy construction period

Phase 1 – SL4 and outloading optimisation

Background

56 Since the completion of the 7X expansion DBT has observed a consistently low utilisation of contracted capacity. However, this gap has been narrowing since 2016 as some users rationalized their existing contracts to the extent they no longer significantly exceed mine production. This surplus capacity has generally been taken up by smaller miners that are likely to ship to their full contracted capacity in the interest of minimising unutilised take-or-pay obligations. Accordingly, DBIM expects availability of terminal equipment will be placed under more pressure in the next few years.

Figure 2 – Phase 1 – Outloading to Shiploader connectivity



57 The new fourth shiploader (**SL4**) will provide additional capacity by allowing a higher availability of the 3 outloading systems. DBT has 3 shiploaders, each with its own outloading conveyor system. From a downtime perspective, it is easier to maintain the outloading systems than the shiploaders. At present, the Shiploader & Outloading System combinations can achieve a 91% availability. The shiploaders are significant contributors to limitations on the availability of the outloading systems. When considering the outloading systems in isolation (without the shiploaders), it is possible to achieve 95% availability. With 4 shiploaders, the Operator can ensure that a shiploader is always available for each of the three outloading systems. Therefore, with the new SL4, the outloading systems will be available for 95% of the time. This integration of SL4 with the existing terminal is illustrated in Figure 2 above.

58 The Operator's 5 year plan identified that Shiploader 1 (**SL1**) must be replaced before the end of 2026[33], after which time the current 91% availability will deteriorate due to the requirement for longer shutdowns for SL1 maintenance. If 8X did not proceed, in the absence of SL4, replacement of SL1 would cost around $100m as a NECAP project, and DBIM calculates a throughput loss of around 3.4Mt would be incurred during the required shutdown.[34]

59 The outloading optimisation works will implement a number of improvements to outloading facilities that will bring about an increase in System Capacity of around 1Mtpa. The improvements include:

59.1 reclaim bucketwheel upgrades

59.2 surge bin control system modifications

59.3 hatch change automation software

Impacts on existing users

60 SL4 will be fully integrated with the existing infrastructure and will restore the availability of SL1 at much lower cost and without throughput loss,[35] compared to the situation if 8X did not proceed. Efficient utilisation of SL4 will allow SL1 (and the other shiploaders) to be refurbished at less than half the cost of replacement, as SL4 can assume the duty of SL1 thereby allowing SL1 to be removed, refurbished and reinstalled as part of the NECAP program without impacting throughput at the terminal. This strategy also provides an opportunity to complete essential repairs to Berth 1, which would otherwise impact throughput over a 6-12 month period.

61 This strategy is still feasible if the QCA ruled that 8X should be Differentiated, however it is unlikely that DBIM and the Expansion Parties would proceed with the current configuration of 8X in consideration of the costs and risks outlined elsewhere in this submission. If 8X did not proceed, the opportunity would be lost to prudently and effectively mitigate the negative impacts to existing users of the deterioration of SL1. As a last resort, 8X could be reconfigured as an extended series of sequential phases (rather than the existing concurrent configuration), which may allow the SL4 component to proceed as an individual Socialised Expansion instead of a Cost Sensitive Expansion. However this increases the risk that SL1 might not be remediated before 2026 leading to extended shutdowns.[36] In any of these cases, the outcome is not as efficient as that currently proposed, as continual disruption to throughput for existing users is likely, while the timing for new capacity for Access Seekers is likely to be significantly delayed. Consequently, DBIM considers that the current configuration of 8X, and that it should be Socialised, reflects the most effective strategy for mitigating the negative impacts to existing users of the Shiploader Replacement Program.

[33] Refer Figure 9 – DBT asset life profile

[34] DBIM and Aurecon have calculated the throughput loss based on berth length restrictions and operating conditions during the installation works and related shutdowns.

[35] If OL2 and SL2 were upgraded first, then the loss of 1Mt would be substantially mitigated

[36] Key decisions need to be made by early 2023.

62 While SL1 is the most immediate issue, the availability of SL4 will allow refurbishment of SL2 & SL3 in a series of smaller shutdowns without significant loss of throughput. Existing users benefit in the same way from lower future NECAP costs associated with the refurbishment of shiploaders rather than replacement.

63 Apart from the major capital works programs, SL4 will remain available to sustain throughput while any other shiploader is undergoing short term maintenance, minor upgrade, or outage for other purposes. This is an important benefit for existing users because, if 8X did not proceed, throughput (currently around 70Mtpa) is expected to reach 84.2Mtpa in the next few years, which places a much higher demand on shiploader availability and consequently outages for shiploaders will become more difficult to schedule and more disruptive to throughput.

64 A new SL4 will mitigate the risk of loss of throughput due to damage to any one shiploader or berth. As there are only 3 inloading and outloading systems at the terminal, a fourth shiploader is technically a spare machine. Any of the 4 shiploaders and their corresponding berths may perform the function of a spare, which significantly improves reliability and efficient operation of the terminal. While such incidents are relatively uncommon, shiploaders and berths are critical components of the terminal with the potential to reduce throughput by 30% for a significant period in the event of damage. Incidents have occurred at other terminals, causing injuries to staff, major outages and associated loss of throughput, and significant repair costs:

64.1 NCIG – in 2020, one shiploader was blown off its rails in a storm, reducing capacity by 30% [37]

64.2 BMA – SL1 was damaged after impacting a ship's crane, reducing capacity by 30% [38]

64.3 Westshore Coal Terminal (Canada) – in 2003 a storm destroyed 2 shiploaders, and in 2013 a ship damaged a berth [39]

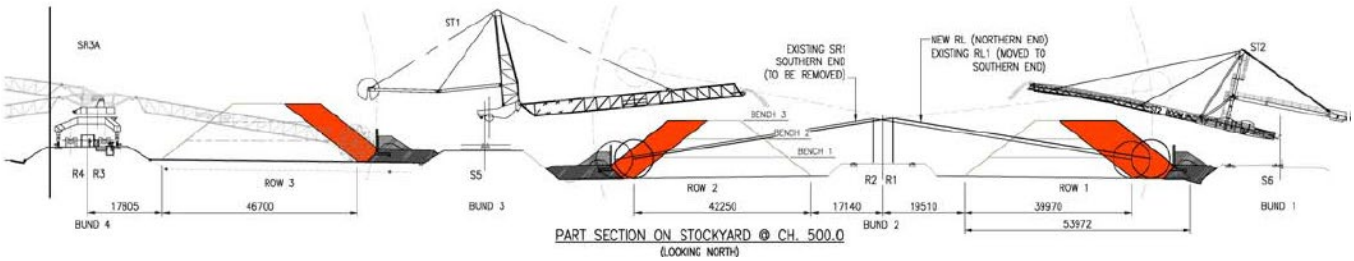
65 Outloading optimisation will improve throughput capability and outloading efficiency. Combined with the first part of the OL2 upgrade, this will provide the first tranche of expansion capacity of around 1.3Mtpa to the first Expansion Party (in late 2024). [40]

Phase 2 – SAP and S5, ST2 and R2 Upgrades

Background

66 The Stockyard Augmentation Project (**SAP**) increases the stockpile volumes in Rows 1, 2, and 3 by 30% to 42% (depending on row) by replacing the sloping earth banks of the related bunds with vertical concrete walls. This is shown in Figure 3 below.

Figure 3 – Phase 2 – cross-section of Rows 1 to 3 showing proposed walls and additional stockpile volume



[37] Argus Media 15-Feb-21 Australia's NCIG coal loader out for 6-12 months and Australian Financial Review 07-Dec-21 Wild weather slashes NCIG coal export capacity by 30pc

[38] Daily Mercury 13-Jan-06 Collision cuts [HPCT] capacity by 30%

[39] Bulk Materials International January/February 2003 Westshore bounces back and Delta Optimist 14-Dec-12 [Westshore] "Months, not weeks" to repair

[40] Expansion capacity will be released in tranches to match commissioning of facilities rather than phases. This will provide capacity to new users in time to match their requirements.

67 The project provides additional System Capacity by allowing more coal products to be stored in the stockyard at any one time. This is achieved as follows:

67.1 The terminal's mode of operation is cargo assembly, where the terminal draws cargoes from the rail network as required to suit vessel arrival patterns. More volume in the stockyard allows the terminal to build more simultaneous cargoes at any given time The ability to build more cargoes simultaneously naturally load balances the demand on other infrastructure in the supply chain, as more mine loadouts will be feeding coal to DBCT at any one time.

67.2 Spreading the load effectively on the network provides a more even draw on the system and reduces congestion due to mine loadout capacity limitations or rail network capacity constraints in particular sections.

68 The S5 Conveyor, ST2, and R2 Conveyor Upgrade projects allow these existing systems to operate at a higher rate and therefore handle coal more efficiently.

Benefits to existing users

69 The majority of the increase in System Capacity from Phase 2 is due to the increased stockpile volume as a result of SAP. The improved terminal performance due to the concrete bund walls benefits existing users by providing:

69.1 Higher stockpile capacity, efficiency gains in the DBCC, reduced congestion at peak throughput

69.2 Reduction of stockpile slumping in rain events, reducing clean-up costs and downtime until the stockpile is restored to operations

70 The S5, ST2, and R2 Upgrades improve the operation of 2 existing stackers and 1 existing reclaimer. These machines will run more efficiently, providing faster train unloading and higher shiploading rates, and therefore increased throughput capability and reliability, and reduced operating and maintenance costs due to equipment upgrades, to the benefit of existing users.

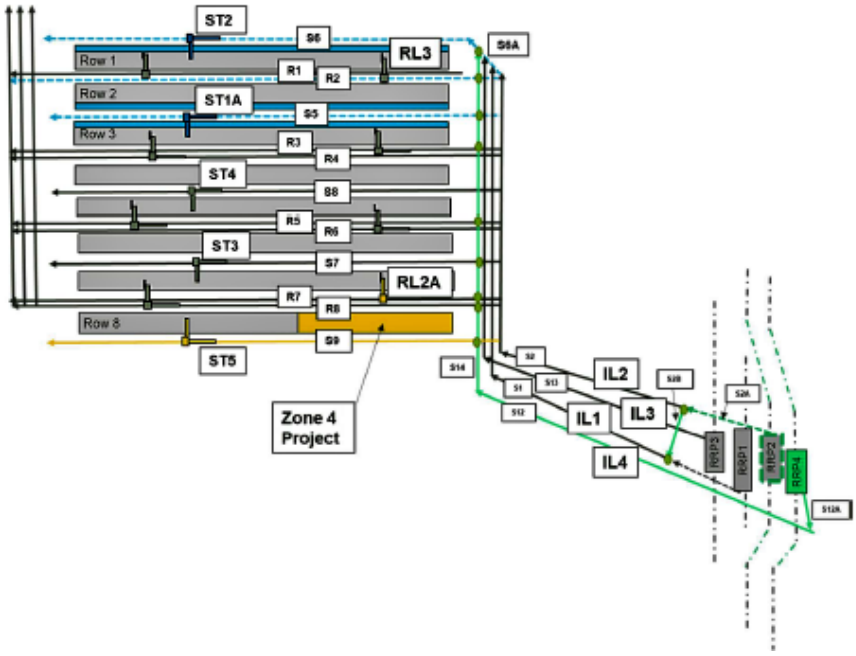
71 The S5 upgrade will involve replacing a 37-year-old yard conveyor with a new S5 conveyor. This will reduce maintenance costs and downtime providing benefits to existing users in terms increased availability of reduced Operating & Maintenance Charges per tonne.

Phase 3 – IL4, IL2, and OL2 Upgrades and SL2 Upgrade

Background

72 Of the three inloading systems installed at DBT, only Inloading System 3 (**IL3**) is a high capacity system capable of unloading trains at 8100tph. The other 2 systems, IL1 and IL2, are limited to a maximum unloading rate of 5500tph. It is possible to upgrade both IL1 and IL2 to an unloading rate to match the current Rail Receival Pit 3 (**RRP3**) unloading rate of 8100tph, however the upgrade would require significant operational outages of at least 6 months for each system. The operational losses associated with these upgrades would be significant and likely to be unacceptable to existing users. To avoid these losses, 8X provides for the construction and commissioning of an entire new inloading system (**IL4**) at the higher rate of 8100tph, followed by the realignment of rail tracks away from IL2 to IL4 to provide an opportunity over several months to upgrade IL2 to the same rate as IL3 and IL4. The rail tracks will then be realigned from RRP1 to RRP2, followed by the decommissioning of RRP1, leaving three high rate inloading systems. The new configuration is illustrated in Figure 4 below.

Figure 4 – Phase 3 – Inloading IL4 & IL2 upgrade showing S2A & S2B conveyors feeding IL1 & IL2



73 Outloading Systems 1 (**OL1**) and 2 (**OL2**) including SL2 will also be upgraded from 7200tph and 7600tph respectively to 8650tph.

Benefits to existing users

74 Existing users benefit because all trains unloaded following 8X will be unloaded at a consistently higher rate, thereby maximising the trains' efficiency and reducing the planning effort.

75 The new RRP4 replaces RRP1 which will be 40 years old at that stage. The technology will be similar to RRP3, an efficient, current-technology facility which will be significantly easier to maintain than RRP1, resulting in lower operating and maintenance charges, less disruption due to maintenance outages, and increased throughput capability to the benefit of existing users.

76 The cost of the new IL4 is higher than upgrading both IL1 and IL2 to 8100tph. This solution has been adopted to ensure that the existing users do not incur significant throughput losses during the construction.

77 The OL2 upgrade requires a higher speed conveyor on SL2 to achieve the higher loading rate. In addition, higher reaction loads from the telechute necessitate some relatively minor structural upgrades. The Operator has identified that additional work on SL2 is required due to structural deterioration. This work has been incorporated into the expansion as the most efficient means of completion in parallel with the other work on SL2. The installation of SL4 in Phase 1 will enable the extended outage required, without any throughput losses that would otherwise result if 8X did not proceed. The existing users will benefit as these works would otherwise be NECAP, and would incur significant throughput losses.

78 FEL 2 identified that under certain load conditions, L5 and L6 drive towers would be overloaded. This presents a current risk to operations for existing users, which will be resolved by the structural reinforcements included in the OL2 upgrade. If 8X did not proceed, this work would be undertaken as NECAP, also incurring significant throughput losses for the duration of the required shutdown.

Phase 4 – Zone 4

Background

79 The Zone 4 project includes completing the stockpile Row 8 (which is currently half the length of the other rows) and the construction of a concrete wall bund on the western side of the stockpile row, complete with a new Stacker ST5. The existing Hilltop office building (a demountable office built in 2006 for the 7X expansion, which will be end of life before the 8X expansion) is compromised by the extension of Row 8. The building will be demolished and an appropriate facility built elsewhere. Similarly, the corporate centre and control tower will be 40 years old at that stage, and will be demolished and new facilities built elsewhere. In addition, Reclaimer RL2 must be replaced because its geometry does not match row 8 (RL2 boom is 9m too short). RL2 was initially commissioned in 1999 as Stacker Reclaimer SR4 with a 25-year design life, which was converted to RL2 in 2008 as part of the 7X project. The extent of the Zone 4 works is shown in Figure 5 below.

Figure 5 – Phase 4 – Extent of works for Zone 4

Benefits to existing users

80 The Zone 4 capacity is due to the creation of additional stockpile volume. This allows more parcels to be built simultaneously. In turn, this means that trains will source coal from more mine loadouts at any one time, thereby creating more system capacity.

81 Zone 4 necessitates the replacement of RL2 around the time it reaches the end of its design life. This will remove RL2 from the machine replacement program (part of NECAP). Existing users will benefit from the lower operating and maintenance costs as the new machine will require less maintenance than the machine it will replace.

82 Zone 4 will necessitate a significant upgrade of office space and Operations facilities. A majority of existing users are shareholders of the Operator, which benefits existing users in terms of:

82.1 more efficient administration, with more appropriate office and control room layouts

82.2 a safer workforce, with significantly reduced commute between offices, eliminating road crossings and trip hazards

82.3 reduced O&MC associated with upkeep and continual expansions to the existing facilities..

4.5 Forecast demand for expansion capacity

83 Section 5.12(b)(6) requires information about forecast demand for access to expansion capacity, which is provided in this section.

84 In the lead-up to FEL 2, five Access Seekers entered into agreements with DBIM in respect of expansion capacity, being CAAs for the entire 8X capacity and SUAs for underwriting of FEL 2. Subsequently, the Queue was reduced from 56Mtpa to 14.9Mtpa.

85 Following the assignment of 8X capacity, a number of former Access Seekers re-joined the Queue, with the awareness that no existing capacity was available, and that any new capacity would only be made available by 8X. The Queue now includes a majority of Access Seekers with existing access at DBT or other coal terminals, as shown in Table 7 below.

Table 7 – Current Queue

Nº	Access Seeker	Mine	Product	Mine status	Commitment at DBT	Status	Existing access	Peak Mtpa
1	[redacted]		Coking coal	[redacted]				2.37
2			Coking coal					0.80
3			Coking coal					2.20
4			Coking & PCI					2.00
5			Coking & thermal					7.50
6			Coking & PCI					2.50
7			Coking coal					2.00
8			Coking coal					4.50
9			Coking & thermal					1.20

86 DBIM has determined that:

86.1 No existing capacity is available at the terminal. This was confirmed by the formal extensions of existing access agreements over the relevant period of the expansion.

86.2 Genuine demand for expansion capacity is between 14.9Mtpa (comprising all Expansion Parties) and 25.1Mtpa (comprising the entire Queue). This was confirmed by execution of CAAs with Expansion Parties, as well as the re-entry into the Queue of former Access Seekers with robust prospects.

87 The impact of these processes on the Queue and its subsequent recovery is reflected in Figure 6 below.

Figure 6 – Evolution of the Access Queue

Chart 1. Existing capacity after extensions

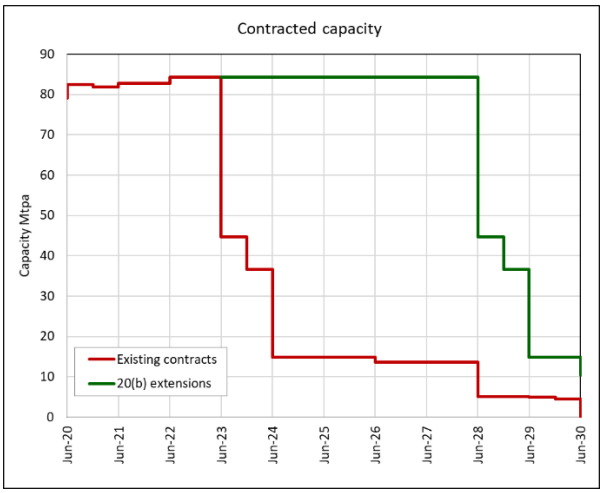


Chart 2. Queue consolidates after CAA and SUA

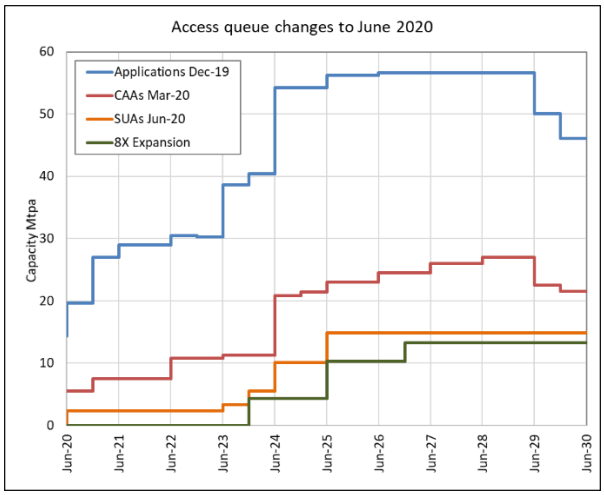


Chart 3. Queue rebuilds after 8X processes complete

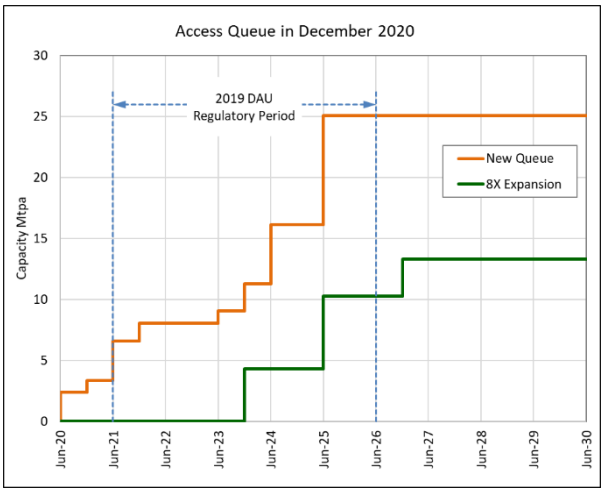
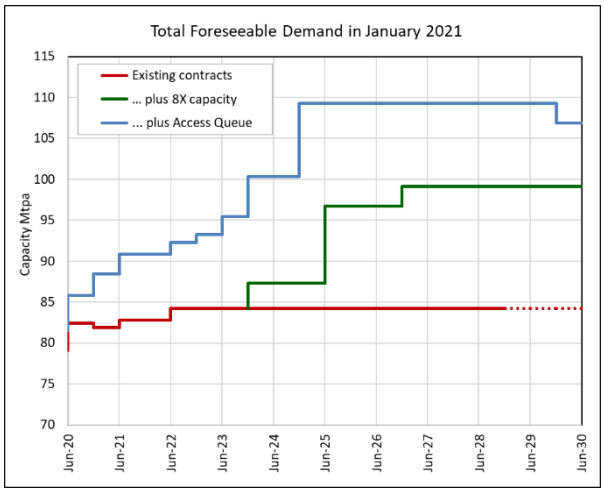


Chart 4. Foreseeable demand



88 This process also addresses the issues regarding reliable indicators of total foreseeable demand noted by the QCA in its recent Declaration Review.[41] The total foreseeable demand is at least 99.1Mtpa (including Expansion Parties only) and up to 109.3Mtpa (including the entire Access Queue).[42] This is within the order of 107Mtpa assessed by the QCA at the time.

89 Consequently, the forecast (or foreseeable) demand exceeds the expansion capacity expected to be made available by 8X, as shown in Chart 4 of Figure 6 above.

90 In the event of a reduction in the capacity required by Expansion Parties, 8X may be scaled down to match the requirement by selection of Phase 1 only, or Phases 1-2, or Phases 1-2-3.

91 DBIM notes that s.12.5(h)(1)(A) of the AU (relating to the **60/60 Requirement**) provides for an expansion to be approved if at least 60% of the capacity is contracted. However, it would be inefficient for 8X to proceed with only 60% of its capacity contracted, as it would not be commercially viable for existing users and Access Seekers, and would increase the risk of asset stranding for the access provider. Therefore DBIM considers that the expansion, or discrete phases within the expansion, are likely to proceed only if almost entirely contracted.

[41] QCA 02-Jun-20 Declaration reviews: final recommendations – Part C: DBCT service Box 3 page 47

[42] DBIM expects other genuine Access Seekers to join the Queue in 2021

92 Accordingly, 8X is appropriate in consideration of the forecast demand for expansion capacity, and the expansion can adapt effectively in the event of reduced demand.

93 Accordingly, a ruling that 8X should be Socialised will facilitate the expansion as follows:

93.1 Socialisation supports the ongoing viability of the expanded terminal and therefore limits the risk of asset stranding, encourages efficient use of the facilities, and promotes competition. This further ensures that demand for access at DBT remains at capacity over the long term.

93.2 Agreements between Expansion Parties and DBIM would remain in effect, such that 8X could proceed through to the next steps. These agreements were entered into on the reasonable expectation that all phases of 8X would be Socialised.[43] However if 8X was Differentiated, it is possible that some or all agreements would be terminated. Otherwise, these agreements may require amendment to include terms consistent with the QCA's ruling, possibly also requiring departures from the SAA and therefore triggering provisions in the AU relating to Different Terms.

4.6 Assessment of the Pricing Method

94 Section 5.12(b)(7) of the AU requires an assessment of the Pricing Method applicable to 8X, applying the Expansion Pricing Principles in s.11.13, which for a Cost Sensitive Expansion are:

94.1 the materiality of the increase in the Existing Terminal's Reference Tariff that would be affected by socialising the Cost Sensitive Expansion

94.2 the extent to which assets or infrastructure the subject of the Cost Sensitive Expansion will operate wholly or partly, in an integrated way with the Existing Terminal or as a stand-alone development

94.3 the extent to which the Cost Sensitive Expansion is likely to benefit users of the Existing Terminal (for example, such as through higher efficiency, reliability or flexibility of the Existing Terminal)

94.4 any differences in the risks of providing Access to users of the Existing Terminal in respect of additional Terminal Capacity created by the Cost Sensitive Expansion

94.5 any other factor that the QCA considers relevant

94.6 and in addition, there may be circumstances in which parts and not the whole of a Cost Sensitive Expansion may be Socialised

95 After considering the matters above, DBIM has assessed that the Pricing Method for 8X should be Socialised. This is summarised in Table 8 below.

Table 8 – Assessment of Pricing Method of 8X

s.11.3(c) considerations	Summary of findings	Assessment
(1) Materiality of TIC increase	TIC increase is not sufficiently material ($0.42/t or 13%). The QCA decided in the Declaration Review that an increase of up to $3.50/t was not material.	Socialised
(2) Integration with existing terminal	8X is fully integrated with existing facilities, with no separable components	Socialised
(3) Benefits to existing users	Significant long-term benefits to existing users, including reduced operations and maintenance charges, reduced NECAP, reduced throughput losses due to SL4 and other upgrades (higher efficiency, reliability & flexibility)	Socialised

[43] Socialisation is not a condition in the CAAs, which are consistent with the AU. In some circumstances Differentiation of an expansion may be appropriate, however 8X is not such an expansion.

s.11.3(c) considerations	Summary of findings	Assessment
(4) Risks to existing users	Minimal increase in risks to existing users: terminal operates in the same way, throughput losses are minimised, impact of default is reduced with increased number of users	Socialised
(5) Impact on Access Charges	Combined capital & operating charges are similar, and overall total Access Charges are reduced	Socialised
Should part of 8X be Socialised	Partial Differentiation distorts incentives for users and Access Seekers	Socialised

Materiality of increase in TIC

96 In accordance with s.11.13(c)(1) of the AU, the QCA must have regard to the materiality of the increase in the TIC,[44] in determining if a Cost Sensitive Expansion should be Socialised.

97 DBIM has estimated the potential implications for the existing TIC if 8X is Socialised. DBIM notes that these calculations cannot be treated as forecasts other than for the purposes of assessing the materiality of the TIC due to 8X pursuant to s.11.13(c)(1) of the AU, and as further qualified below:

97.1 All pricing parameters remain the same as the current AU. A new AU will apply from 2021 and will necessarily require updates to pricing assumptions.

97.2 The TIC for the existing terminal includes a reasonable forecast of NECAP expenditure, with the machine replacement program assessed by the Operator. These costs are significant.

97.3 The cost of capital works (NECAP and 8X) is at the P50 level, with no provision for escalation.

97.4 The cost is the average over the period 2027 to 2036, which includes the commissioning of the 8X facilities and the 10 year term of the Access Agreements.

97.5 On this basis, the estimated increase in TIC would be $0.42/t or 13%.[45]

98 DBIM notes the following guidance from the QCA as to what might constitute a material increase in TIC: [46]

> Our view is that, given the varying costs and nature of any potential future expansions, we are not inclined to place a 'hard-and-fast' threshold on assessment of materiality. We also consider that, while materiality is an important consideration, as with separability, it is one of a number of factors we have identified as appropriate to take into account in making differential pricing decisions.

99 This statement is significant, given that the 4 phases of 8X have differing costs and various ways of contributing to capacity and benefiting existing users. The costs and nature of the four phases are explained in detail in Section 4.4 regarding impacts to existing users.

100 The QCA also noted that: [47]

> We consider it is unreasonable for the economic viability of already operating investments to be negatively impacted by a material expansion triggered by another user. Similar to findings in our draft decision (policy and pricing) on Aurizon Network's 2014 DAU, we consider that the risk of material increases to reference tariffs would add a level of uncertainty and inefficiency to development decisions in the [Central Queensland Coal Region] that could discourage efficient development of the Queensland coal industry in the long run

[44] For convenience TIC (Terminal Infrastructure Charge) is used interchangeably with Reference Tariff, to encompass all Capital Charges
[45] Refer to section 4.8 Estimates of Reference Tariff for TIC calculations
[46] QCA 25-Aug-15 Final Decision - DBCT Differential Pricing DAAU p27-28
[47] QCA 25-Aug-15 Final Decision - DBCT Differential Pricing DAAU p16

101 DBIM supports the QCA's position that it is unreasonable for material increases in TIC to negatively affect the economic viability of already operating investments (such as existing mines using DBT). Therefore, in assessing materiality, the QCA should have regard to whether an existing user would have to alter its operating decisions as a result of the increase in TIC.

102 In this context, the QCA noted that a Total Access Charge (**TAC**) of $8.50/t (due to a TIC increase) would be about 3-5% of the forecast metallurgical coal price, and that this would not "appear to be materially different" from the existing TAC of $5/t (2-3% of the forecast metallurgical coal price).[48] DBIM interprets this to indicate that a $3.50 increase in the TIC (or TAC) (in 2018 dollars) would not unreasonably affect "…the economic viability of already operating investments…".

103 DBIM notes that a $0.42/t increase due to 8X is well below the $3.50/t increase that the QCA considered would not be material.

104 In addition, DBIM observes that major NECAP work scheduled in the 10-year averaging period 2027-2036 is estimated to increase the TIC by $0.68/t. The forecast NECAP costs are established by DBIM based on the Major Asset Management Program[49] developed by the Operator, which must be approved by Users prior to commencement. Historically, Users have not objected to TIC increases that have been triggered by NECAP alone.[50] This context is important for establishing that the TIC increase due to 8X of $0.42/t is not material.

105 DBIM has also assessed the TIC increase against key reference points identified by the QCA in its Declaration Review. These reference points indicate the considerations of an investor in determining whether to continue operating or investing in the Hay Point Catchment. These included forecast metallurgical coal prices, mine unit production costs and profit margins, as summarised in Table 9 below. [51]

Table 9 – Reference points for miners decisions to continue operating or investing

Reference point	Average A$/t	8X impact
Forecast metallurgical coal price for new mine (lowest was Hillalong 2021)	138	0.3%
Forecast metallurgical coal unit production cost for existing mines (2021)	95	0.4%
Lowest profit margin for new mines (base case 2020s)	16 to 21	2.0% to 2.6%

106 Given the evidence above, a TIC increase of $0.42/t as a result of 8X, does not appear to be material for existing users. This finding is consistent with the QCA's analysis in the Declaration Review.

Benchmarking with other expansions

107 The last expansion at DBT was 7X completed in 2009, which is summarised in Table 10 below. Two Capacity Expansion Approvals (**CEA**s) for 7X were approved by the QCA (Phase 1 and Phase 2/3), and Phase 2/3 was commissioned in two Steps (A and B).

[48] QCA 18-Dec-18 Draft Recommendation to declare coal handling service at DBCT pages 85-86
[49] Refer Figure 9 – DBT asset life profile
[50] Users have approved $418m of NECAP for implementation to date, and have not objected to the $267m NECAP expenditure submitted to the QCA for inclusion in the RAB (up to NECAP 2020), noting the largest single TIC increase due to NECAP was 2% (for the $58.8m addition in NECAP 2017)
[51] QCA March 2020 Final Recommendation Part C: DBCT declaration review p159,161,168

Table 10 – 7X TIC increases[52]

Phase	Cost[53] $m		Capacity Mtpa		TIC $/t		
	Built	Total	Gain	Total	Initial	Final	Increase
1	562	625	8	68	1.50	2.10	41%
2/3 Step A	329	367	4	72	2.10	2.46	17%
2/3 Step B	417	472	13	85	2.46	2.65	8%
Total 7X	**1,308**	**1,464**	**25**	**85**	**1.50**	**2.65**	**77%**

108 While the TIC increases due to the 7X appear to be material, they would also fall below the QCA's implied thresholds for materiality as indicated in the analysis earlier in this section.

Integration of the expansion

109 In accordance with s.11.13(c)(2), the QCA must have regard to the extent to which assets or infrastructure the subject of the Cost Sensitive Expansion will operate wholly or partly, in an integrated way with the Existing Terminal or as a stand-alone development.

110 The Master Plan describes 8X as a fully integrated incremental expansion which is not purely focused on Terminal Expansion but has a stronger focus on the entire coal chain's efficiency and the resulting System Capacity improvement. While the Master Plan acknowledges that 8X may be a Cost Sensitive Expansion, it highlights that "…the extent to which assets or infrastructure … will operate wholly or partly, in an integrated way with the existing terminal…"[54] is a significant consideration for the QCA in determining whether an expansion warrants socialisation. While the Master Plan was compiled by DBIM, stakeholders including existing users, Access Seekers and the Operator of the terminal were consulted extensively, and these parties did not indicate that 8X was characterised incorrectly. The Master Plan was approved by the owner of the facilities, DBCT Holdings (an entity wholly owned by the State of Queensland).

111 The *Technical and operating requirements* section of *Section 4.3 Expansion assessment* in the FEL 2 Study in Appendix 1 describes the integrated nature of each phase of 8X.

112 In this submission, *Section 4.4 The impacts on existing users* describes certain aspects of each phase which provide further evidence that 8X is fully integrated with the existing terminal.

113 Therefore, 8X is a fully integrated expansion within the footprint of the existing terminal. No components are separable or capable of being operated standalone on behalf of a single user or group of users, or with a different operator.

114 The AU states that the QCA may decide that part of an expansion may be Socialised and part may be Differentiated. Given 8X is one expansion project and that the capacity from each phase will be allocated to Access Seekers on the basis of their position in the Access Queue, Access Seekers are likely to consider it inequitable if some phases of 8X are Socialised but others are Differentiated. DBIM submits that all phases of 8X should be Socialised.

115 By contrast, the 9X expansion[55] as shown in Figure 7 below, includes many features which would indicate a Differentiated Price Method, including:

115.1 A design that could be operated as a standalone terminal

[52] TIC values extracted from QCA final decisions on actual costs for Phase 1 and Phase 2/3, archived on the QCA website but available on request. Does not include TIC due to 7X outstanding costs.
[53] Actual cost approved by the QCA ("Built" is construction cost, "Total" is Built plus financing & IDC costs)
[54] In accordance with the Expansion Pricing Principles in s.11.13(c)(2) of the AU
[55] DBIM August 2019 DBT Master Plan 2019 p51-54

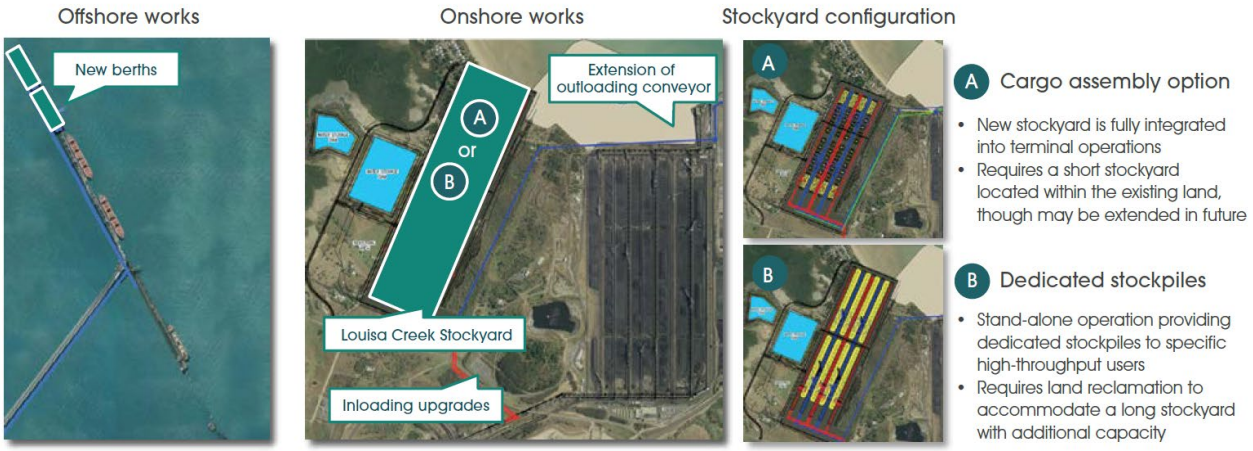
115.2 A major capital dredging program to facilitate two new berths

115.3 A new outloading system which would be operationally separable from the existing facilities

115.4 A new stockyard at Louisa Creek, fully separated from the existing stockyard, providing dedicated stockpile facilities for specific users

115.5 A new fourth rail loop which could allow separate dedicated above rail providers

Figure 7 – 9X long stockyard arrangement



116 This compares to the arrangement for 8X in Figure 8 below, showing the location of the new facilities, all within the existing terminal boundaries.

Figure 8 – 8X arrangement

Benefits to existing users

117 In accordance with s.11.13(c)(3), the QCA must have regard to the extent to which the Cost Sensitive Expansion is likely to benefit users of the Existing Terminal (for example, such as through higher efficiency, reliability or flexibility of the Existing Terminal)

118 In this submission, *Section 4.4 The impacts on existing users* provides specific reference to the features and facilities of 8X and the manner in which existing users benefit from the expansion, which include:

118.1 Reduced ongoing operations and maintenance charges, due to the new facilities

118.2 Reduced future NECAP costs due to efficient inclusion of appropriate NECAP works into the expansion, for example replacement of IL1 with IL4

118.3 Reduced risk of throughput losses during construction and in future NECAP or maintenance works, for example due to the new shiploader SL4

118.4 Reduce Total Access Charge as a result of the lower operating and maintenance costs per tonne for 8X

119 Accordingly, 8X provides significant long term benefits to existing users, which are facilitated by a Socialised Pricing Method.

Risks to existing users

120 In accordance with s.11.13(c)(4), the QCA must have regard to any differences in the risks of providing Access to users of the Existing Terminal in respect of additional Terminal Capacity created by the Cost Sensitive Expansion.

121 In seeking guidance on this matter, DBIM notes that the QCA considers that risks should be distributed across those parties best able to mitigate them: [56]

> An efficient outcome would usually involve some degree of risk-sharing between parties
>
> …
>
> The allocation of risk should reflect stakeholders' comparative advantage in risk-bearing based on their preferences for risk.

122 DBIM notes that the regulatory arrangements under the AU (and proposed new AU) protects users and DBIM, depending on which party is considered best placed to manage the risk for the particular situation. For example, it is possible that some capacity may remain uncontracted for a long periods, however, DBIM's revenue will be substantially maintained over these periods due to the current and proposed pricing arrangements.

123 The pricing arrangements under the current AU (and proposed new AU) provide DBIM with stability with respect to its cashflows. The take-or-pay pricing structure allocates volume risk amongst the users and, in doing so, seeks to encourage users to contract at levels close to their future requirements and avoid systematic over- or under-contracting at the Terminal.[57]

124 It is important to consider the risks that may exist for either the users or DBIM in respect of the additional capacity created, and which party is considered to be in the best position to manage the risks.

125 In relation to a Cost Sensitive Expansion, the QCA has not provided a specific framework about how it may review the risks to existing users in respect of the additional capacity created. DBIM considers the following

[56] QCA August 2013 Statement of Regulatory Pricing Principles p16-17
[57] QCA June 2006 Final Decision on DBCT 2006 DAU p23

criteria may assist the QCA to assess the risks to the users or DBIM in determining whether 8X should be Socialised:

125.1 Any operational issues that could cause delays or losses for users during and after 8X construction

125.2 Impact on users in the event of increased risk of defaults following expansion

125.3 Allocation of spare capacity between new and existing users and the impact on DBIM.

Risks to terminal operations

126 In determining the most efficient options with regard to upgrading and maintaining the infrastructure at DBT, DBIM plans to mitigate any major impacts to services for existing users during the construction phase, as follows:

126.1 For Phase 1, the new shiploader (SL4) will be commissioned before any refurbishment works are carried out for the three remaining shiploaders ensuring that users are not affected during the refurbishment (or maintenance) phases.

126.2 For Phases 2 and 4, the construction phase could potentially cause significant disruption to operations however DBIM plans to minimise this by adopting a program that deliberately targets a slower construction that would disrupt only a minor portion of the yard at any one time over an extended duration.

126.3 For Phase 3, rather than upgrade IL1 which would reduce throughput by 30% for the 6 month shutdown required, 8X will install a new IL4 system and new RRP4, so RRP1 & IL1 will continue to operate until RRP4 and IL4 are commissioned, which will minimise any throughput loss for existing users.

126.4 As part of the FEL 2 Study, the ILC undertook detailed brown-out modelling to quantify the interim losses associated with 8X. The ILC confirmed that there would be zero losses if the terminal was shipping at a rate of 70Mtpa and up to a total of 3.2Mt total throughput loss over 84 weeks during construction if the terminal was shipping at 84.2Mtpa during the implementation.[58]

126.5 The entire expansion is scheduled for the individual phases to be constructed concurrently. This provides the opportunity to schedule shutdowns to minimise the impact of throughput losses on existing users.

127 Further, given the highly integrated nature of 8X with the existing terminal operationally (as detailed previously in this section), there are no risks to the Operator in providing services to existing users after 8X construction is completed. Reliability and the flexibility of the terminal services are improved for all users, thereby reducing any risks of providing access to existing users.

128 Importantly, the Operator will assign a number of its highly experienced staff to 8X for the duration of the expansion, to provide ongoing support to the expansion by:

128.1 providing the Operator's knowledge and expertise in the design phase, in operability and safety reviews;

128.2 coordinating with existing operations in the construction phase;

128.3 assisting in identifying and procuring capital spares required for the new facilities; and

128.4 facilitating the handover of 8X by ensuring that operations and maintenance personnel are trained and equipped to manage the new plant.

[58] Refer Appendix 3 Throughput Loss during Construction

129 The Operator has identified the costs of providing these services, both during the expansion and for the ongoing operation. [59] The resulting costs to operate the new plant are lower per tonne than the existing plant, which provides the existing users with lower Operations & Maintenance Charge. This indicates there is no risk that the operating costs will increase as a result of 8X being Socialised.

Default by new users

130 The AU allows DBIM to address the risk of default by new users by requesting that access seekers demonstrate creditworthiness,[60] through the provision of letters of credit and bank guarantees or other forms of security acceptable to DBIM. If, acting in good faith, DBIM considers that the access seeker is unlikely to comply with the material terms and conditions of an access agreement or if the access seeker is not of good financial standing, then DBIM may cease negotiations or refuse access.

131 Despite this, it is possible that a user could default on its payments. In this instance, if 8X is Socialised and a new or current user defaults, the current pricing framework allows DBCTM to socialise this cost among all the users as noted by QCA:[61]

> We agree with the DBCT User Group that DBCTM's proposal will reduce the impact on DBCTM's revenue from an early termination of an access agreement. However, we consider socialising these risks across Terminal users in an undertaking period is consistent with the revenue cap pricing model and the interests of DBCTM (s. 138(2)(c)). Indeed, as we said in our Statement of Regulatory Pricing Principles:
>
> > *An important property is that revenue caps protect the regulated firm from demand volatility. This is because, if quantity demanded decreases, the regulated price increases to keep the regulated firm's revenue constant*

132 Therefore if 8X is Socialised, the financial impact on users due to the default of one user would not be onerous as the costs would be shared across all the remaining users.[62] The Expansion Parties include existing users and new users with large throughput requirements. These parties have risk profiles comparable with existing users.

133 If 8X is Socialised, it is likely that overall risk profiles of users would improve from the addition of the new users of 8X capacity. This is beneficial for all users and DBIM, providing flow-on benefits including increased willingness of institutions to fund capex at the terminal on an ongoing basis.

134 No user has ever defaulted on payments to DBIM, which indicates the effectiveness of this approach in a Socialised terminal. However DBI has noted in its Prospectus that the risk of default is significantly higher for Differentiated users. This risk will be mitigated if 8X is Socialised.

Allocation of spare capacity between new and existing users

135 All of the expansion capacity expected to be created by 8X (14.9Mtpa) has been contracted to the Expansion Parties, with Access Applications for another 10.2Mtpa in the Queue.

136 However, DBIM notes it is possible that some capacity may become available, for example:

136.1 if 8X generates more capacity than expected and the remaining Access Seekers have exited the Queue for other terminals;

136.2 if any user defaults on their contract; and

[59] Refer Appendix 1 FEL 2 Study
[60] QCA September 2018 DBT 2017 AU (Trading SCB DAAU) s.5.9
[61] QCA April 2016 Draft Decision on 2015 DAU
[62] The proposed replacement AU also includes socialisation mechanisms to address potential user default

136.3 if an existing user terminates its access agreement due to end of mine life.

137 Under such circumstances the risk of any spare capacity is unlikely to materially adversely affect existing users, if 8X is Socialised. However, if 8X is Differentiated then the queue for Differentiated capacity would be significantly smaller, such that the capacity may be stranded while Access Seekers await the availability of Socialised capacity, and any existing users requiring additional capacity will face significantly higher costs.

Conclusion

138 If 8X is Socialised, DBIM assesses the risks of providing access to existing users as no different to the existing risks, with the benefit that the risk may be reduced by a larger pool of users to share Operating & Maintenance costs, and to defray the additional costs in the unlikely event of default.

4.7 Impact on NECAP

139 Section 5.12(b)(8) of the AU requires information about the anticipated impact on NECAP costs. This section will address the following areas of impact:

139.1 A base case of a NECAP program with no expansion

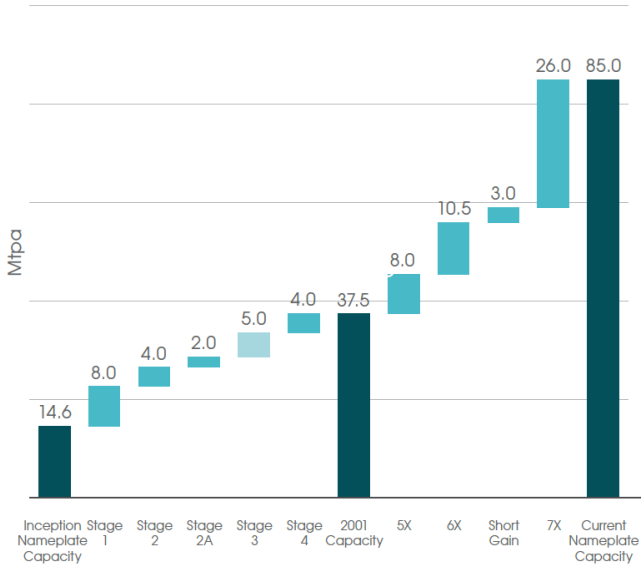
139.2 An expansion case, split between a concurrent NECAP program and 8X

139.3 A focus on NECAP-type work included in 8X on the basis of efficiency

140 After operations commenced in 1983, the terminal was expanded in multiple stages as shown in Figure 9 below. Expansions occurred with reasonable frequency such that any significant non-expansion capex (**NECAP**) could be integrated with the expansion. This strategy was prudent as it took advantage of a skilled workforce that was already mobilised, and typically minimised the throughput loss associated with any required shutdowns. However, such a strategy could not be sustained as no further expansions were required after 7X was completed, and consequently NECAP emerged as a standalone program.

Figure 9 – DBT expansion history[63]

Expansion Phase	Date	Incremental Capacity (Mtpa)	Revised Nameplate Capacity (Mtpa)
Inception	1983	–	14.6
Stage 1	1990	8.0	22.6
Stage 2	1995	4.0	26.6
Stage 2A	1997	2.0	28.6
Stage 3	1999	5.0	33.6
Stage 4	1999	4.0	37.5
5X	2002	8.0	45.5
6X	2003	10.5	56.0
Short Gain	2006	3.0	59.0
7X	2009	26.0	85.0



141 NECAP comprises a number of distinct types of work as listed below. The first two types are implemented after a comprehensive process involving formal recommendation by the Operator and approval by existing

[63] Refer DBI Prospectus Figure 4.2 DBCT Nameplate Capacity Expansions page 65

users, in accordance with s.12.10(b) of the AU. As noted previously, existing users have approved $418m to date for implementation, and have not objected to the $267m submitted to the QCA for approval to include in the RAB (up to NECAP 2020). The third type is implemented as part of the rigorous expansion approvals process.

141.1 Minor NECAP, including one-off small projects and studies, and ongoing phased maintenance capex programs such as safety guards and offshore pile wrapping.

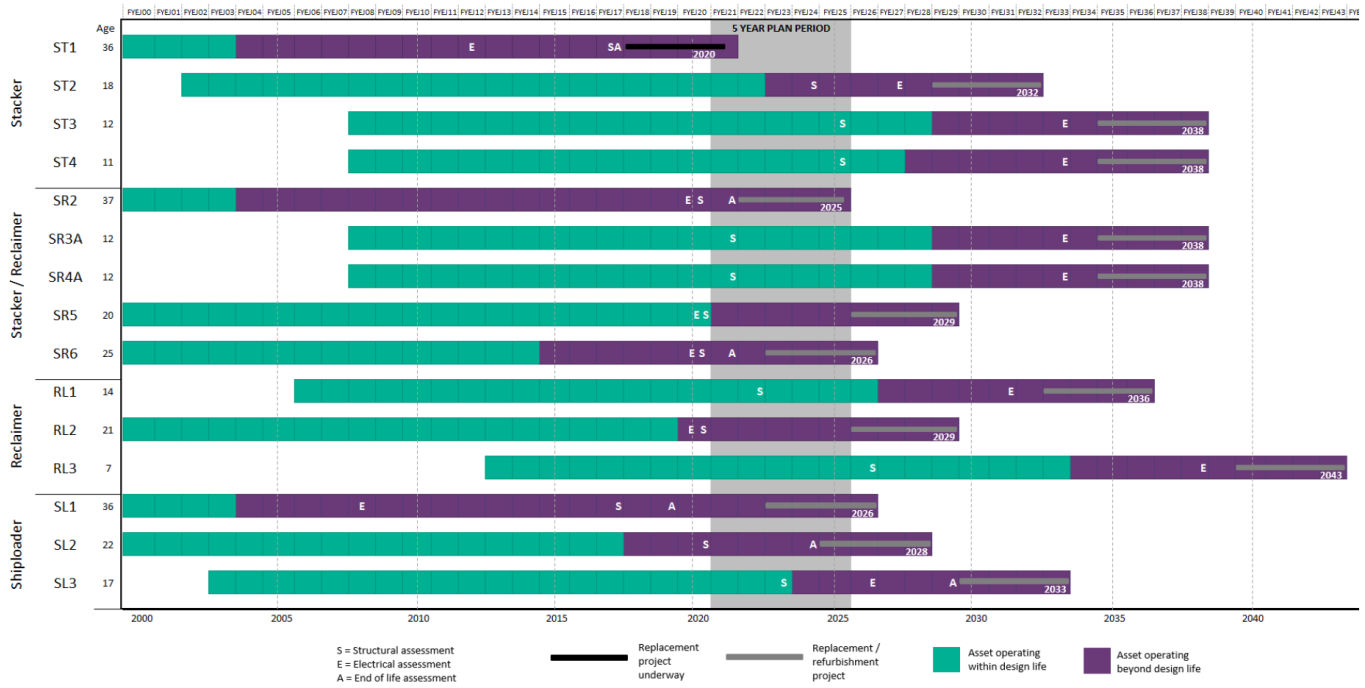
141.2 Major NECAP, larger standalone projects such as machine replacements, now including the Operator's Asset Replacement Program.

141.3 NECAP-type works that do not expand capacity but form part of an expansion where they aid efficiency, reduce whole-of-life costs, or mitigate loss of throughput for existing users that may occur if the works were part of the standalone NECAP program.

NECAP – base case

142 The Operator's Annual and 5 year Operations, Maintenance and Capital Plans (**OMCP**)[64] includes a long-term asset management plan (as show in Figure 10 below) based on design life of the relevant facilities amended to take account of their condition and any expected maintenance. While these are intended to be refurbished or replaced with similar facilities as part of the NECAP program, the consequential losses of throughput during the shutdowns required for refurbishment have typically justified replacement – for example in the most recent cases of the replacement of Stacker-Reclaimer SR1 with Reclaimer RL3 (in 2013), and replacement of ST1 with a new Stacker ST1A (currently in progress).

Figure 10 – DBT asset life profile[65]



143 This list only includes rail-mounted mobile equipment such as yard machines and shiploaders, which are the most susceptible to structural fatigue issues. Other structures such as berths, offshore piles, drive towers, surge bins and the like are also monitored, and are included in the program as required depending on the nature of the rectification work. DBIM has estimated the related costs in Table 11 below.

144 The base case assumes no expansion and the existing terminal remains at the same contracted capacity of 84.2Mtpa for the duration of the plan, which extends to 2045. It does not include the NECAP-type works

[64] The current OMCPs are included in Appendix 5 Operator's Annual and 5-Year Operations, Maintenance & Capital Plans 2021-2025
[65] Refer Appendix 5 Operator's Annual and 5-Year Operations, Maintenance & Capital Plans 2021-2025, slides 41 & 37 respectively

currently included in the 8X scope, other than Reclaimer RL2, the replacement of which has been brought forward from 2029 for purposes of the expansion.

145 The minor NECAP program remains similar for the duration of the plan, in the order of $30m annually on a variety of individual smaller on long-term ongoing projects recommended by the Operator, such as wrapping of the offshore piles, safety & environmental compliance projects, and throughput & terminal performance upgrades which do not increase system capacity.

NECAP – expansion case

146 The NECAP Program will continue while 8X is being constructed, with some variations as highlighted in Table 11 below:

146.1 The shiploaders will be refurbished after Shiploader SL4 is installed. This will reduce the NECAP cost [66] and minimise the throughput loss that would otherwise occur in the base case.

146.2 The replacement of Reclaimer RL2 must be brought forward from 2029 in order to facilitate the required increase in System Capacity.

146.3 The reduction in NECAP costs as a result of the expansion is therefore $150m due to the shiploaders, and excluding the impact of RL2.

Table 11 – Standalone NECAP program costs base case (no expansion) vs expansion case

Machine	Type	Built	Current age	Replace age	NECAP Program $m	
					Base	with 8X
SR2	Stacker-Reclaimer	1983	38	42	60.0	60.0
B1	Berth 1 (repairs only)	1983	38	42	15.0	15.0
SL1	Shiploader	1983	38	42	100.0	50.0
SR6	Stacker-Reclaimer	1995	26	33	60.0	60.0
SL2	Shiploader	1998	23	32	100.0	50.0
SR5	Stacker-Reclaimer	1999	22	31	60.0	60.0
RL2	Reclaimer (cost included in 8X)	1995	26	34	54.0	-
ST2	Stacker	2002	19	31	41.0	41.0
SL3	Shiploader	2003	18	31	100.0	50.0
RL1	Reclaimer	2004	17	33	54.0	54.0
SR3A	Stacker-Reclaimer	2008	13	30	60.0	60.0
SR4A	Stacker-Reclaimer	2008	13	31	60.0	60.0
ST3	Stacker	2008	13	32	41.0	41.0
ST4	Stacker	2008	13	33	41.0	41.0
RL3	Reclaimer	2014	7	30	54.0	54.0
Total cost					**900.0**	**696.0**

NECAP-type work included in 8X

147 8X provides the opportunity to complete certain NECAP works consistent with the principle of lowest whole-of-life cost of the terminal. Importantly, many of these works also reduce or eliminate the throughput losses for existing users that would be incurred if the works were completed as part of the NECAP program. As noted previously, DBIM does not intend to separate these works from the expansion,

[66] The cost of replacement a shiploader replacement is now expected to be in the range of $100m to $125m. A refurbishment is expected to be $50m less.

as the scope of the expansion has been developed including these works to maximise the efficiency of the capital expenditure. The existing NECAP program will continue to run concurrently with 8X.

148 The scope included in 8X comprises the following categories, which is broken down in Table 12.

148.1 Pure Expansion – works which provide additional capacity and would not be expected to be included in any NECAP works

148.2 Likely NECAP – works that do not directly increase capacity, but which provide significant benefits to users in risk mitigation, and would need to be adapted to new circumstances if it was transferred to NECAP

148.3 Definite NECAP – works which do not increase capacity and would typically remain unchanged if it was transferred to NECAP

149 The expansion phases are scheduled to be constructed concurrently during the period 2023 to 2028. If the expansion was not undertaken, then the following works would need to be completed at some stage. These works have not been included in the base case NECAP program (other than RL2).

149.1 Outloading optimisation

149.2 Refurbishment of RRP1 and IL1, likely completed over a relatively long period by a large number of short outages

149.3 Replacement of onshore offices for the Operator and DBIM, which are near end of life

149.4 Replacement of offshore offices for the Operator and contractors, which are past end of life

149.5 Replacement of RL2, this is scheduled for 2029 in the base case

149.6 An SL4 program would be developed for approval of existing users, as noted below

149.7 Various other works as listed in Table 12

150 One example of works in the *Likely NECAP* category is the new SL4 which allows the other shiploaders to be refurbished, rather than replaced as would be necessary if 8X did not proceed, but without the loss of any throughput. If 8X did not proceed, it is possible (with the approval of existing users) that DBIM could convert this to a major NECAP program for the installation of a new SL4, as the benefits for the existing terminal are compelling.

151 Another example is IL1 and RRP1 which were commissioned in 1983, but which are now well past the end of their service lives and require significant ongoing maintenance. If 8X did not proceed, then IL1 and RRP1 would need to be refurbished, which would cost $50m and require a 6 month shutdown for the works to take place, impacting throughput by 10Mt for that period. Due to their obsolete design and critical functionality, these facilities are difficult to upgrade to optimise throughput or increase capacity. This has been resolved in 8X by installation of a new IL4 and RRP4 of the same design as IL3 and RRP3, while IL1 and RRP1 remain operational with their existing throughput unaffected. When the new IL4 and RRP4 are operational, then IL1 and RRP1 will be decommissioned. As a result, the new facilities provide additional capacity, and the ongoing maintenance costs of IL1 and RRP1 are avoided, as is the throughput loss that would have occurred if IL1 and RRP1 were refurbished. This is a prudent and efficient strategy, which implements a lowest whole-of-life cost solution for the terminal and reduced handling charges for Users. So in this case, the implicit NECAP component is the estimated cost of refurbishing IL1 and RRP1.

152 This process helps to identify the actual expansion scope which would otherwise be masked by NECAP, and therefore reflects the true cost of the expansion. The NECAP included in 8X is summarised in Table 12 below, based on the detailed analysis included in Appendix 4. Note that Indirect Costs include allocations for temporary facilities required for construction, EPCM, Owner's Costs and Contingency.

Table 12 – Works included in 8X that would otherwise be required as NECAP [67]

Activity	Total	Pure Expansion	Likely NECAP	Definite NECAP
Phase 1 - SL4 and outloading optimisation				
Outloading optimisation	9.2	-	-	9.2
SL4 fabrication & installation	77.5	-	77.5	-
L18 fabrication & installation	71.6	-	69.7	1.9
Phase 1 - direct costs	**158.3**	**-**	**147.2**	**11.1**
Phase 1 - indirect costs	**87.6**	**-**	**81.4**	**6.1**
Phase 1 - total costs	**245.9**	**-**	**228.7**	**17.2**
Phase 2 - SAP				
SAP panel fabrication	37.0	37.0	-	-
SAP Row 1 (Bund 1) and ST2/S6 installation	26.6	25.5	-	1.2
SAP Row 2 (Bund 3) and ST1/S5 installation	44.4	28.4	16.0	-
SAP Row 3 (Bund 2) and RL3/R2 installation	40.6	39.8	-	0.7
Phase 2 - direct costs	**148.6**	**130.6**	**16.0**	**1.9**
Phase 2 - indirect costs	**80.9**	**71.1**	**8.7**	**1.0**
Phase 2 - total costs	**229.5**	**201.8**	**24.7**	**3.0**
Phase 3 - New IL4 and IL2/OL2 upgrade				
OL2 upgrade - part 1 (OL2)	17.6	15.0	-	2.6
OL2 upgrade - part 2 (SL2 and L8)	22.0	4.4	8.8	8.8
OL1 upgrade	28.4	24.1	-	4.3
New IL4 fabrication and installation	201.0	55.8	14.3	130.9
IL2 upgrade	39.5	35.5	-	4.0
Phase 3 - direct costs	**308.4**	**134.8**	**23.1**	**150.6**
Phase 3 - indirect costs	**152.6**	**66.7**	**11.4**	**74.5**
Phase 3 - total costs	**461.1**	**201.5**	**34.6**	**225.1**
Phase 4 - Zone 4				
Row 8 on Bund 7 fabrication & development	162.7	162.7	-	-
RL2 & ST5 fabrication and installation	76.8	41.9	10.2	24.8
Phase 4 - direct costs	**239.5**	**204.6**	**10.2**	**24.8**
Phase 4 - indirect costs	**100.1**	**85.5**	**4.3**	**10.4**
Phase 4 - total costs	**339.6**	**290.1**	**14.4**	**35.1**
8X Total				
8X - direct costs	**854.9**	**470.0**	**196.5**	**188.3**
8X - indirect costs	**421.2**	**223.3**	**105.8**	**92.0**
8X - total costs	**1,276.1**	**693.3**	**302.4**	**280.4**
8X - percentage	**100%**	**54%**	**24%**	**22%**

153 As noted by the User Group in recent submissions, 8X does include a significant component of NECAP-type works. This is in the order of 46%, and purely expansion-related works comprise the remainder of 54%.

[67] The costs are P50 values. Direct Costs include the costs directly related to the construction of the facilities. Indirect Costs include allowances for shared temporary facilities required for construction, Engineering, Procurement & Construction Management (EPCM) costs, Owner's Costs (associated with DBIM, such as insurance, spares, labour costs for the project team), and Contingency as assessed in the Aurecon Engineering Report

4.8 Estimates of Reference Tariff

154 Section 5.12(b)(9) of the AU requires an estimate of the Reference Tariff that will apply to 8X, if it was Differentiated and if it was Socialised, having regard to the information referred to above and the other pricing arrangements set out in Section 11 of the AU.

155 The Reference Tariffs (TIC) have been assessed for both Socialised and Differentiated expansion cases, as shown in Table 13 below. In the Differentiated case, the depreciation of costs for 8X were accelerated to match the 10 year term of the Expansion Parties' access agreements, in order to mitigate the risk of asset stranding. After this period, the expansion would only be subject to Socialised charges. The impacts to users over the relevant 10 year period after the expansion is complete are as follows:

155.1 If 8X was Socialised, the Reference Tariff would increase by around $0.42/t (13%) on average. This is below the threshold of $3.50 for materiality indicated by the QCA.[68]

155.2 For comparison, the last expansion (7X, completed in 2009) increased Reference Tariff by $1.15/t (77%).[69]

155.3 If 8X was Differentiated, the Reference Tariff for existing users would be reduced by $0.62/t (20%) on average due to the cross-subsidy associated with a pro-rata allocation of charges for the existing terminal, which would be appropriate considering the existing facilities are shared equally by the new users. However, the Reference Tariff for new users would be around $15.44/t.

156 Consequently, if 8X was Socialised, then the related Reference Tariff impact appears reasonable under the circumstances. However if 8X was Differentiated, then the related charges for 8X users appear to be a significant barrier to entry.

4.9 Access Charges

157 As discussed previously in paragraph 41, Access Charges are a relevant matter for the QCA's consideration. Access Charges comprise a Capital Charge incorporating the Reference Tariff and an Operations & Maintenance Charge which recovers the Terminal Operating Costs. For convenience in this comparison, DBIM proposes that Total Access Charges (**TAC,** comprising all Access Charges) equals Terminal Infrastructure Charges (**TIC,** comprising all Capital Charges) plus Operations & Maintenance Charge (**O&MC**, comprising Operations & Maintenance Charges, or **handling charges**). So TIC + O&MC = TAC, used interchangeably between charges (in $/t) and costs (in $) as appropriate for the context. The relevant charges are as follows:

157.1 If 8X is Socialised, the TAC paid by users would be reduced by about 1%, because 8X operations & maintenance costs per tonne are proportionally lower.

157.2 However if 8X was Differentiated, the TAC for new users would be around $20/t.

[68] QCA 18-Dec-18 Draft Recommendation to declare coal handling service at DBCT pages 85-86
[69] Refer Table 10 – 7X TIC increases

Table 13 – Comparison of Access Charges [70]

Access Charges	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	Average
Socialised expansion - Reference Tariff (TIC) $/t											
Existing terminal	2.67	2.92	2.98	3.07	3.16	3.25	3.34	3.31	3.33	3.35	3.14
… with Socialised expansion	2.93	3.20	3.50	3.54	3.67	3.68	3.71	3.71	3.78	3.80	3.55
Change $/t	0.27	0.28	0.52	0.48	0.51	0.43	0.37	0.40	0.45	0.45	0.42
Change %	9.9%	9.6%	17.5%	15.5%	16.3%	13.3%	10.9%	12.2%	13.5%	13.5%	13.3%
Socialised expansion - Operation & Maintenance Charges (O&MC) $/t											
Existing terminal	3.67	3.78	3.89	4.01	4.13	4.26	4.38	4.51	4.65	4.79	4.21
… with Socialised expansion	3.46	3.40	3.43	3.53	3.64	3.74	3.86	3.97	4.09	4.21	3.73
Change $/t	(0.21)	(0.38)	(0.47)	(0.48)	(0.50)	(0.51)	(0.53)	(0.54)	(0.56)	(0.57)	(0.47)
Change %	(6%)	(10%)	(12%)	(12%)	(12%)	(12%)	(12%)	(12%)	(12%)	(12%)	(11%)
Socialised expansion - Total Access Charges (TAC) $/t											
Existing terminal	6.34	6.70	6.88	7.08	7.29	7.50	7.73	7.82	7.98	8.14	7.34
… with Socialised expansion	6.39	6.60	6.93	7.07	7.30	7.42	7.57	7.68	7.87	8.01	7.29
Change $/t	0.06	(0.10)	0.06	(0.00)	0.02	(0.08)	(0.16)	(0.14)	(0.11)	(0.12)	(0.06)
Change %	0.9%	(1.5%)	0.8%	(0.1%)	0.2%	(1.1%)	(2.1%)	(1.8%)	(1.4%)	(1.5%)	(0.8%)
Differentiated expansion - Reference Tariff (TIC) $/t											
Existing terminal	2.47	2.36	2.38	2.42	2.54	2.54	2.57	2.57	2.63	2.65	2.51
Change vs Socialised $/t	(0.20)	(0.56)	(0.60)	(0.65)	(0.62)	(0.70)	(0.78)	(0.74)	(0.70)	(0.69)	(0.62)
Change vs Socialised %	(7%)	(19%)	(20%)	(21%)	(20%)	(22%)	(23%)	(22%)	(21%)	(21%)	(20%)
Differentiated expansion	13.72	14.34	16.00	15.94	15.96	15.88	15.81	15.69	15.61	15.47	15.44
Change $/t	11.26	11.98	13.62	13.52	13.42	13.33	13.24	13.12	12.97	12.81	12.93
Change %	456%	507%	573%	560%	529%	525%	515%	511%	492%	483%	514%
Differentiated expansion - Operation & Maintenance Charges (O&MC) $/t											
Existing terminal	3.39	3.29	3.31	3.41	3.51	3.62	3.72	3.84	3.95	4.07	3.61
Differentiated expansion	4.33	4.14	4.10	4.22	4.34	4.48	4.61	4.75	4.89	5.04	4.49
Change $/t	0.95	0.85	0.79	0.81	0.83	0.86	0.89	0.91	0.94	0.97	0.88
Change %	28%	26%	24%	24%	24%	24%	24%	24%	24%	24%	24%
Differentiated expansion - Total Access Charges (TAC) $/t											
Existing terminal	5.86	5.65	5.69	5.83	6.05	6.16	6.29	6.40	6.58	6.72	6.12
Decrease vs Socialised	0.48	1.05	1.19	1.25	1.24	1.34	1.43	1.42	1.39	1.41	1.22
Discount for existing users	8%	16%	17%	18%	17%	18%	19%	18%	17%	17%	17%
Differentiated expansion	18.06	18.48	20.09	20.16	20.30	20.35	20.42	20.43	20.50	20.50	19.93
Change $/t	12.20	12.83	14.41	14.34	14.26	14.19	14.12	14.03	13.91	13.78	13.81
Change %	208%	227%	253%	246%	236%	231%	224%	219%	211%	205%	225%

158 If 8X was Socialised, the TAC paid by existing users would not increase. Therefore Socialisation is appropriate in the circumstances addressed in this analysis. However, if 8X was Differentiated, the high TAC paid by new users, and the cross-subsidy to existing users, does not appear equitable.

5 Criteria in the QCA Act

159 This section addresses the matters the QCA will consider in making its ruling, specifically those matters in s.120(1) and s.138(2)(h), pursuant to s.150F(3)(b).

160 The matters in s.120(1) and s.138(2) are aligned in Table 14 below. While the sections relate to different purposes of the QCA Act (respectively *Matters to be considered by authority in making access determination* and *Factors affecting approval of draft access undertaking*), DBIM considers that the matters in s.120(1) encompass all the factors in s.138(2) for the purposes of this application, other than s.138(2)(h).

[70] Costs include reasonable forecasts for ongoing NECAP works & major assets per Operator recommendations, 10 year depreciation period for expansion costs to mitigate asset stranding risk, access charges for existing terminal shared pro-rata with expansion users. This does not include all NECAP-type costs included in the expansion, therefore the forecast is considered conservative.

Consequently DBIM will address the factors in s.120(1) in this application as indicated in the *Proposed Treatment* column.

Table 14 – Alignment of s.120(1) and s.138(2)[71]

Matters in section 120(1)	Factors in section 138(2)	Proposed treatment
(a) the object of this part	(a) the object of this part	Address s.120(1)(a), specifically s.63E Object of part 5
(b) the access provider's legitimate business interests and investment in the facility	(b) the legitimate business interests of the owner or operator of the service (c) if the owner and operator of the service are different entities—the legitimate business interests of the operator of the service are protected	Address s.120(1)(b) noting that DBIM is the operator of the service and the owner is DBCT Holdings reflecting the public interest and the State of Queensland
(c) the legitimate business interests of persons who have, or may acquire, rights to use the service	(e) the interests of persons who may seek access to the service, including whether adequate provision has been made for compensation if the rights of users of the service are adversely affected;	Address s.120(1)(c) noting that DBIM considers that the rights of users are part of their legitimate business interests, and that any compensation should be in accordance with their existing user agreements.
(d) the public interest, including the benefit to the public in having competitive markets	(d) the public interest, including the public interest in having competition in markets (whether or not in Australia);	Address s.120(1)(d)
(e) the value of the service to— (i) the access seeker; or (ii) a class of access seekers or users;		Address s.120(1)(e)
(f) the direct costs to the access provider of providing access to the service, including any costs of extending the facility, but not costs associated with losses arising from increased competition		Address s.120(1)(f)
(g) the economic value to the access provider of any extensions to, or other additional investment in, the facility that the access provider or access seeker has undertaken or agreed to undertake		Address s.120(1)(g)
(h) the quality of the service		Address s.120(1)(h)
(i) the operational and technical requirements necessary for the safe and reliable operation of the facility		Address s.120(1)(i)
(j) the economically efficient operation of the facility		Address s.120(1)(j)
(k) the effect of excluding existing assets for pricing purposes	(f) the effect of excluding existing assets for pricing purposes	Address s.120(1)(k)
(l) the pricing principles mentioned in section 168A	(g) the pricing principles mentioned in section 168A	Address s.120(1)(b), specifically s.168A Pricing principles
	(h) any other issues the authority considers relevant	Address s.138(2)(h), noting that s.120(2) considers a similar requirement

[71] Extracted from the QCA Act s.120 and s.138

5.1 The object of Part 5

161 In making its ruling the QCA must have regard to Section 120(1)(a), the object of Part 5 of the QCA Act, which is:

> to promote the economically efficient operation of, use of and investment in, significant infrastructure by which services are provided, with the effect of promoting effective competition in upstream and downstream markets

162 In providing guidance as to the application of the object of Part 5 in respect of expansion pricing, the QCA noted: [72]

> To ensure that effective competition is promoted in both upstream and downstream markets, we consider that … the expansion pricing arrangements for DBCT should:
>
> - enable users to confidently commit to long-term investments
> - be underpinned by clear and transparent legal and regulatory frameworks, which all stakeholders can understand
> - provide users with reasonable certainty about the level of infrastructure they will be expected to fund

163 Further, in its draft decision on the 2019 DAU, the QCA noted that the promotion of the efficient use of, and investment in, the terminal would also promote competition in related markets: [73]

> We consider economically efficient outcomes are facilitated, among other things, by a robust access framework that constrains the potential exercise of market power by the owner of a facility with monopoly characteristics.
>
> In the context of DBCT, the access framework should be directed at the following:
>
> - **Constraining inefficient or unfair differentiation between access holders, access seekers and, where appropriate, other market participants (such as rail operators).**
> - Supporting efficient entry and competition in upstream and downstream markets, including by providing appropriate incentives for efficient investment in new capacity.
> - Providing an opportunity for DBCTM to recover at least its efficient costs, including a return on investment that appropriately reflects the commercial and regulatory risks commensurate with providing access.
> - Providing appropriate protections of the interests of access seekers and access holders, including in respect of confidentiality, disputes and access rights.
> - Providing incentives to reduce costs or otherwise improve productivity, including through innovation.
> - **Providing a stable, transparent and predictable regulatory framework, with appropriate oversight and enforcement.**
>
> **By promoting the efficient use of, and investment in the infrastructure by which declared services are provided, competition in related markets is also promoted.** (emphasis added)

[72] QCA 25-Aug-15 Final Decision - DBCT Differential Pricing DAAU p10-11
[73] QCA August 2020 Draft decision on DBCT 2019 DAU p18-19

164 During the 2019 DAU, the User Group noted: [74]

> DBCT User Group comprises of both access holder[s] and access seekers, including both users of the existing terminal and proposed customers of the 8X DBCT expansion

165 During the Declaration Review, the User Group concluded that socialisation would be the likely outcome of the QCA's consideration of the applicable pricing method for 8X: [75]

> It is notable that all 8X phases are within the terminal footprint, operate in integrated ways with the existing terminal and mostly involve upgrades or replacements of existing capital assets and equipment which will need to be updated or replaced as non-expansion capital expenditure in due course even if the expansions did not proceed.
> …
> The DBCT User Group strongly considers that, when regard is had to the nature of the next incremental expansions proposed by DBCTM, the likely outcome with declaration is that all incremental expansions required to meet foreseeable demand during the declaration period will be socialised.

166 DBIM notes that all users clearly expect 8X to be Socialised, and in addition, no users to date have objected to this expected outcome. This expectation reasonably underpins the users' confidence in committing to long-term investments and provides them with certainty about the level of infrastructure they all need to fund. They will also have confidence that s.11.13(c) of the AU is working as intended, such that a Cost Sensitive Expansion such as 8X will be Socialised where the circumstances justify Socialisation.

167 As an example of how Socialisation promotes efficiency, Phase 1 (with new SL4 and outloading optimisation) will promote a $150m saving in NECAP costs because it facilitates the refurbishment of the remaining shiploaders, instead of replacement. In addition, users will avoid the extended shutdowns and associated throughput losses required for replacement. This provides all users with a share in the efficiency and reliability benefits of Phase 1, which reflects a more efficient operation of the Terminal. However, Differentiation of 8X could promote inefficient operation of the terminal, for example if the price of Differentiation is such that it presents a sufficiently high barrier to entry that Access Seekers withdraw from the expansion and it does not proceed, in which case the benefits will not be available to users.

168 Partial Differentiation would be inefficient because all users benefit from the increase in System Capacity, which applies to the entire terminal and cannot be separated. In addition, the capital efficiency[76] for the entire expansion is different between phases. For example, the overall capital efficiency is $86/tpa for all 4 phases, however if Phases 1 & 2 were Socialised, and Phases 3 & 4 were Differentiated, then the capital efficiency is $68/tpa and $101/tpa respectively. In this case, Expansion Parties may consider Differentiation to be inequitable.

169 If 8X was Differentiated, the principle of "providing a stable, transparent and *predictable* regulatory framework" may be not be satisfied. Users expect the four phases of 8X to be Socialised, so a QCA decision to Differentiate any part of 8X would be inconsistent with users' predictions. The lack of predictability of such outcomes may undermine users' confidence about committing to long-term investments.

170 In summary, DBIM considers that a Socialised Pricing Method is more likely to support the object of Part 5 than a Differentiated Pricing Method. This is because, on the basis of their own assessment, users and other stakeholders expect 8X to be Socialised, and further that Socialisation promotes more efficient use of the terminal than Differentiation.

[74] QCA 23-Oct-20 DBCT User group submission on draft decision on 2019 DAU p4
[75] QCA 28-Oct-19 DBCT User Group further submission on the DBCT service p24-25
[76] Capital efficiency is measured by the capital cost per annual tonne of capacity (refer Table 4 and footnote 29)

5.2 The interests of the access provider

171 In making its ruling the QCA must have regard to s.120(1)(b), being the access provider's legitimate business interests and investment in the facility. DBIM is the relevant access provider for the purposes of this section.

172 The 8X expansion enables DBIM to perform its function as access provider, by providing the access required by access seekers, which may only be satisfied with expansion capacity. The related access agreements allow DBIM to earn a commercial return on investment commensurate with the regulatory and commercial risks involved in supplying the service. DBIM's legitimate business interests and investment in the facility are therefore served by 8X.

173 If 8X is Socialised, then all the expansion capacity of 8X may be used to satisfy the access seekers' requirements, and DBIM's return on investment could reasonably be expected to accord with the expectation of investors.

174 However if 8X is Differentiated, the related higher risks and costs may cause a number of access seekers to exit the Queue and seek other alternatives, such that not all of the expansion capacity of 8X is used. This outcome is inefficient and not consistent with the expectations of investors.

175 If 8X is Socialised, DBIM's risk profile remains tolerable, returns will be commensurate with risks, and appetite for investment is likely to be maintained. However, if 8X is Differentiated, then the risk of asset stranding would be significantly higher, costs to new users and the attendant risk of default would be higher, and therefore investment in the expansion is likely to be unreasonable and uneconomic under the circumstances.

176 Therefore DBIM's legitimate business interests are better served if 8X was Socialised, and its investment in the facility is subject to less risk.

177 In seeking guidance as to the QCA's view of DBIM's legitimate business interests, the QCA noted: [77]

> We consider the legitimate business interests of DBCTM include the commercial interest in having an opportunity to recover at least the efficient costs of providing the relevant service, including a commercial return on investment commensurate with the regulatory and commercial risks in supplying the declared service.
>
> In addition, we recognise that DBCTM may have a range of other legitimate business interests, including to:
>
> - **promote incentives to maintain, improve and invest in the Terminal and the efficient provision of the declared services**
> - meet its contractual obligations to existing users
> - **seek to attract and contract for additional tonnages from new and existing coal producers within the relevant region**
> - improve commercial returns, where these returns are generated from, for example, innovative investments or improved efficiencies
> - ensure the Terminal is maintained and operated to meet legal requirements, including providing for its safe operation and compliance with all relevant environmental obligations
> - comply with other contractual or regulatory requirements such as the PSA—recognising that contractual arrangements do not bind or constrain the QCA in our assessment (emphasis added)

[77] QCA August 2020 Draft decision on DBCT 2019 DAU p20-21

178 The principle that DBIM should recover at least the efficient costs of providing the service is consistent with the QCA's final decision on the differential pricing DAAU, which stated that the differential pricing approach should: [78]

> …ensure that the legitimate business interests of the access provider are protected, by ensuring that expected revenue from expanded capacity remains sufficient to meet the efficient costs of providing access, including a risk-adjusted return on capital

Recovering efficient costs

179 If 8X was Socialised, it is highly likely that DBIM can recover its efficient costs of providing the service. This is because revenue losses due to user defaults (after any security deposits are exhausted) may be socialised over a range of other users.

180 By contrast, if 8X was Differentiated, any revenue losses (after any security deposits are exhausted) may only be socialised across the remaining new users, further increasing the risk of user default. In addition, if demand for the DBT service is reduced in the future, access seekers would prefer Socialised capacity at the existing terminal to the (higher priced) Differentiated capacity, potentially leaving DBIM unable to recover the cost of the expansion. In other words, volume risk is magnified considerably by Differentiation of 8X, since there is a materially greater chance of a price spiral on a small wedge of capacity at the margin than for the entire capacity of the terminal, similar to the experience on WICET. [79]

Incentives to invest in the terminal

181 Socialisation of 8X would allow for example $150m of future NECAP savings due to the new SL4, which promotes incentives regarding the efficient provision of the service. However if 8X is Differentiated, the incentives for efficient provision of the service may be impacted if the Differentiated pricing causes contention between existing users and new users for example in relation to the approval processes for NECAP in accordance with s.12.10(b) of the AU, which does not account for the Cost Allocation process for NECAP in accordance with s.11.11.

Attracting new business

182 The foreseeable demand for 8X capacity is underpinned by existing users (35%) and new users (65%). Therefore, it is not simply the case that only new users want 8X capacity; this context is important for the QCA's assessment.

183 If 8X is Socialised, the increase in the TIC (and TAC) is not material, such that DBIM should be able to attract and contract for additional tonnages from new and existing coal producers within the Hay Point Catchment. By comparison, Differentiation will result in a considerably higher TIC (and TAC), which will be less commercial for the expansion access seekers.

184 In summary, a Socialised Pricing Method for 8X will promote the access provider's legitimate business interests and investment in the facility. Differentiation of 8X increases the risks to the access provider and is unlikely to promote investment in the facility.

5.3 The interests of users and access holders

185 In making its ruling the QCA must have regard to Section 120(1)(c) of the QCA Act which is the legitimate business interests of persons who have, or may acquire, rights to use the service. DBIM considers this

[78] QCA 25-Aug-15 Final Decision - DBCT Differential Pricing DAAU p19
[79] The Australian 26-Jan-18 WICET put back in limbo as Brookfield walkout on $4bn deal

matter relates to access holders and access seekers (including Expansion Parties which may also be access holders, and renewing, new and future access seekers).

186 DBIM notes the following statements by the QCA regarding this matter: [80]

> The interests of access holders will generally coincide with the interests of access seekers, as all access seekers who sign contracts will become access holders. However, we consider the interaction between access holders and future access seekers has an intergenerational dimension, where the interests of access holders and future access seekers may differ. For example, the approach to pricing capacity expansions can give rise to tension when a pricing outcome favours one group over another.
>
> And
>
> … we consider the interests of access seekers may include:
>
> - the provision of access on reasonable commercial terms, including through the availability of standard access agreements that represent an appropriate risk allocation (including appropriately protecting existing contractual entitlements)
> - being treated in a fair, equitable and non-discriminatory manner
> - tariffs that do not exceed the efficient costs of access, provided that tariffs (and the tariff structure) also provide an appropriate incentive to DBCTM to increase efficiency over time
> - clear and transparent information about access to, and use of, the declared service, which supports a principled negotiation framework and an effective dispute resolution process
> - a clear and effective framework for capacity expansion decision-making
> - reasonable protection of an access seeker's confidential information
> - effective transitional arrangements as one undertaking replaces another.

187 As noted in *Section 5.1 The object of Part 5*, the views of the User Group are stated to reflect those of existing access holders and expansion access seekers, and therefore DBIM considers that their views regarding 8X are likely to be captured by the submissions to the QCA. As noted elsewhere in this submission, the User Group anticipates that all phases of 8X will be Socialised. There is therefore no apparent tension between access holders and access seekers about the pricing method to apply for 8X, and consequently all parties' interests are aligned on this matter.

Tariffs that do not exceed the efficient costs of service

188 Differentiation of 8X will result in Expansion Parties cross-subsidising existing users because the handling charges must effectively be socialised in order that new users also pay for their use of the existing facilities. As explained in other parts of this submission, the incremental handling charges due to 8X is lower than the existing handling charges. Therefore, if the handling charges are Socialised but the TIC is Differentiated, expansion users are paying a TAC that exceeds the efficient costs of access relating to their usage of the terminal.

Effective transitional arrangements as one undertaking replaces another

189 This application has been made under the 2017 AU while the QCA is preparing a final decision on the 2019 DAU. DBIM considers that an effective transitional arrangement is promoted if users' expectations are met regarding the Pricing Method of 8X. In this instance, all users (via the User Group) have made it clear they

[80] QCA August 2020 Draft decision on DBCT 2019 DAU p20, p20-24

expect the four phases of 8X to be Socialised. Therefore, socialisation will promote an effective transitional arrangement from the current 2017 AU to the new 2021 AU.

190 Differentiation of any phase of 8X would be inconsistent with the expectations of DBIM and users. This is unlikely to facilitate effective transitional arrangements from the 2017 AU to the new 2021 AU.

191 In summary, the legitimate business interests of persons who have, or may acquire, rights to use the service will be promoted if 8X is Socialised. If 8X is Differentiated, cross-subsidisation, inefficient pricing and other factors are less likely to promote the interests of new users.

5.4 The public interest

192 In making its ruling the QCA must have regard to Section 120(1)(d) which is the public interest, including the benefit to the public in having competitive markets. DBIM has assessed the following aspects of the public interest in regard to 8X:

192.1 the benefits associated with the expansion;

192.2 the benefits associated with the ownership of DBI; and

192.3 how the public interest is promoted if 8X is Socialised.

193 The public interest is served by 8X because it promotes the sustainable and efficient development of the Queensland coal industry, which in turn provides a stimulus to the Queensland economy and local employment. Industry Queensland reported the main benefits expected due to 8X, from the perspective of the local resource sector:[81]

> The Queensland Government is taking a stake of almost 10 per cent in the Dalrymple Bay Coal Terminal amid plans for a $1.2 billion expansion.
>
> A spokesman for Treasurer Cameron Dick said the Queensland Investment Corporation (QIC) had signed a commitment for a 9.99 per cent stake in the Brookfield-owned facility.
>
> That stake is understood to be worth about $150 million.
>
> Brookfield has flagged intentions to lift capacity at the major coal export facility, near Mackay, from 85Mtpa to 100Mtpa.
>
> Mr Dick's spokesman said this would provide terminal capacity to support another six Bowen Basin mines, including the Olive Downs operation which received final approvals in September.
>
> The expansion works are expected to create about 500 construction jobs.
>
> Mackay-based Resource Industry Network general manager Dean Kirkwood welcomed the QIC investment as confirmation of the State Government's commitment to the resource sector.
>
> "It shows that the government sees that coal mining is an important part of the economy and something that is going to be around long term," he said.
>
> Mr Kirkwood said also the expected 15Mtpa lift in capacity at Dalrymple Bay would help encourage development of new mines or mine expansions in the region.
>
> He believed it was important the government remain a minority shareholder in the operation rather than it becoming a fully state-owned asset.

[81] Industry Queensland 09-Nov-20 State takes a stake in key CQ coal terminal

194 DBIM notes that QIC's 10% shareholding in DBI was funded by the $500m Backing Queensland Business Investment Fund (**BQBI Fund**), set up by the State of Queensland and managed by QIC. The key investment objectives and criteria for the BQBI Fund are as follows: [82]

> The Fund will:
>
> - support good quality Queensland businesses
> - invest in strategic assets where it means more jobs for Queenslanders.
>
> The Fund will target commercial returns to offset any additional State debt borrowed to invest in the Fund. This will also allow the Fund to partner with private investors, financiers, superannuation funds and other financial institutions.
>
> While the Fund will have a strong commercial focus to ensure that any State debt to establish the Fund is offset and repaid, concessional terms may be offered for the right projects. QIC will apply their skills and expertise to engage with Queensland businesses and identify commercial investment proposals with opportunities for appropriate returns for Government.
>
> QIC will target investments in small to medium sized business that:
>
> - create Queensland-based jobs
> - have a proven product and defined market opportunity but require significant capital to aggressively build scale or grow market share
> - are relatively mature, well beyond proof of concept and are generally profitable or approaching profitability
> - are seeking capital to expand or restructure operations, enter new markets or finance significant acquisition, and
> - have well established and reputable owners who are committed to growing the business from and in Queensland.
>
> QIC will also select strategic assets for investment by the Fund.

195 QIC invests funds on behalf of the State of Queensland, including underpinning the retirement benefits of people in the Queensland public service.[83] The QIC investment in DBI is consistent with the objectives of the BQBI Fund, and is based on the expectation of commercial returns. The Prospectus for the DBI IPO in December 2020 provided the following information to potential shareholders in respect of 8X:[84]

> Assuming that the Company moves as expected to a lighter handed regulatory framework than exists today (and on the terms currently contemplated by the QCA's draft decision in relation to DBI's proposed DAU), or becomes unregulated, DBI will target to grow distributions per share by 1% – 2% per annum for the foreseeable future. This is based on the fact that the forecast distribution is initially expected to be at the lower end of the payout ratio range after 1HY21 and the fact that DBI anticipates:
>
> 1. that access charges will reflect a return on investment commensurate with the regulatory and commercial risks involved (consistent with pricing principles in the QCA Act);
> 2. a requirement to invest further capital in DBT for NECAP and to expand;
> 3. that the QCA will determine that the costs of the 8X Expansion will be socialised (or that outcome will be otherwise achieved in an unregulated environment); and
> 4. that there will be additional adjustments to pricing to compensate for the further investment.

[82] Queensland Treasury – Programs and Policies Backing Queensland Business Investment Fund
[83] Australian Financial Review 10-Sep-20 Dalrymple Bay coal terminal a good asset, says QIC boss
[84] Dalrymple Bay Infrastructure December 2020 Prospectus page 134

196 DBIM also notes Differentiated capacity is a higher risk to DBI, including that DBI's decision to proceed with 8X will be influenced by the QCA's ruling on Pricing Method:[85]

> Whether DBI will proceed with the planned 8X Expansion will be influenced by the outcome of feasibility studies currently underway and the price ruling of the QCA in accordance with the … Access Undertaking on whether the costs of the expansion should be socialised across all Users of DBT or paid for only by the those Users who will receive capacity created by the expansion. Expansion tonnage would be higher risk to DBI if the QCA requires that the capacity which is the subject of an expansion is differentially priced (i.e. the cost of the expansion is reflected in the access charges paid by the Users of the specific expansion capacity rather than being shared by all Users of DBT).

197 DBIM considers that if 8X is Socialised, then this is consistent with the expectations of returns provided to investors in DBI (including QIC), which is in the public interest. If 8X is Differentiated, such an outcome may influence a decision not to proceed, in which case the public interest would not be served. Socialisation improves the prospects of 8X proceeding, in which case the following public benefits will be achieved:

197.1 Increased jobs for Queenslanders including around 500 jobs during the 5 year period of construction for the expansion, 40 ongoing jobs in terminal operations to support the new facilities, and increased employment in ancillary and related businesses mostly in the local communities. The expansion also facilitates 2 major new mine projects, and the new jobs associated with those developments.

197.2 Increased royalties in the order of $200m annually for the State of Queensland due to the increased export volumes through the expanded facilities[86], as well as increased revenues due to payroll tax, stamp duties, harbour dues and other state and local government tariffs and fees.

197.3 Increased returns for the Australian shareholders of the Expansion Parties and infrastructure businesses providing the expanded capacity (including Aurizon, Pacific National, OneRail, DBI, tug businesses).

198 In seeking guidance as to the QCA's views on the matter, DBIM notes the following statements: [87]

> We also note that any assessment of the public interest will be shaped by its context, and will vary over time. For example, when the coal market is experiencing a period of growth, it may be that the public interest requires particular attention be paid to facilitating efficient investment in new or expanded capacity.
>
> And [88]
>
> Some issues we may consider in our assessment of the public interest … include:
>
> - competition in markets (whether or not in Australia)
> - **investment effects, including investment in facilities and markets that depend on access to the DBCT service**
> - the incidence of costs, including administrative and compliance costs, and costs associated with having multiple users of the service
> - **the sustainable and efficient development of the Queensland coal industry**, and related industries

[85] Dalrymple Bay Infrastructure December 2020 Prospectus page 139
[86] Queensland Treasury 04-Jan-21 Public Ruling MRA001.2 Determination of coal royalty – calculation based on average US$130/t, AUD/USD=0.75, average 80% throughput of 14.9Mtpa contracted capacity
[87] QCA 21-Nov-16 Final decision on 2015 DAU p26
[88] QCA August 2020 Draft decision on DBCT 2019 DAU p21

- **economic and regional development issues, including employment and investment growth**
- environmental considerations, including legislation and government policies relating to ecologically sustainable development. (emphasis added)

Investment effects

199 The expectations of the User Group, reflecting the views of existing users and access seekers, is that all four phases of 8X will be Socialised. Predictability of the Pricing Method to apply to 8X promotes investment in facilities and markets that depend on access to the DBT service. The socialisation of 8X is consistent with users predictions, providing confidence to the industry to invest in developing existing and new coal mines. Differentiating any phase of 8X would be inconsistent with this outcome.

Economic and regional development

200 Socialisation of 8X, compared with Differentiation, will increase the likelihood that 8X proceeds and that the required capacity will become available in the required time. This promotes increased benefits to the Queensland economy, particularly from metallurgical coal, given most of 8X capacity is allocated to metallurgical coal.

201 Socialisation provides reasonable access charges for all users, reducing the overall risk of any user defaulting. Even if a user does default with a reasonable access charge in place, socialisation enables the shortfall in revenue to be covered by all other users, not just expansion users. This acknowledges that the expanded DBT and Queensland coal mines will remain in operation, preserving employment and prospects of regional development for Mackay and local communities.

202 Metallurgical coal operations and investment in Queensland remains commercially viable: [89]

> …while the demand profile of coking coal is negative, the lack of direct and commercially viable alternatives means that absent a very high global price on carbon emissions, Queensland's existing coking coal capacity has limited stranded asset risk over the coming decade or two.

203 If 8X is Differentiated, especially if depreciation of the expansion assets occurs over a 10-year period, it will place pressure on profit margins for new mines seeking access to DBT. This would be higher than the existing TIC by around $13/tonne, which the QCA's analysis suggested could be a material difference (i.e. a difference that is considerably greater than $3.50 per tonne).

204 Such a high TIC could adversely affect investment in the Hay Point Catchment. This would not promote employment and investment in the Mackay and local communities, which would be contrary to promoting employment and investment outcomes in Regional Queensland, as set out in the Queensland December 2020 State Budget.

Sustainable development

205 The sustainable development of the Queensland coal industry must acknowledge that despite the generally negative investor sentiment in regard to coal, there are few alternatives for the use of coking coal to produce steel. DBIM notes that "…Queensland is the world's largest supplier of seaborne coking coal globally, with a market share of almost 50%". [90]

206 Therefore, Queensland will remain a significant contributor to the global metallurgical coal export volumes, even in the circumstances of declining demand. In most part, this is due to Bowen Basin metallurgical coal

[89] IEEFA June 2019 Conflating Queensland's Coking and Thermal Coal Industries p2, 6-7
[90] IEEFA June 2019 Conflating Queensland's Coking and Thermal Coal Industries p2, 6-7

mines being on the lowest end of global cost curves and the relatively predictable and stable rail and port access arrangements in Central Queensland. Consistent with these sentiments, IEEFA noted:

> Coking coal is valued by the market at three times as much per tonne as Queensland's thermal coal, and boosted by the progressive royalty rates already in place, coking coal pays four times the royalties of thermal coal per tonne

207 In this context, DBIM notes that 8X capacity has been allocated almost entirely for metallurgical coal, which is used in steel production. Therefore 8X is consistent with independent market observations that metallurgical coal will remain critical to the Queensland economy and the welfare of its residents. Socialisation of 8X will maintain reasonable access costs for access seekers, promoting sustainable development of the Queensland coal industry, particularly for metallurgical coal.

208 Differentiation will make access costs considerably higher for mines requiring 8X capacity in order to export their coal. As the cost difference between the socialised price and differential price is material, the sustainability of the metallurgical coal investments in Queensland would be less certain for expansion access seekers than a socialised expansion.

209 In summary, the public interest is promoted if 8X is Socialised, however if 8X is Differentiated, the public interest is not promoted to the same extent, including that the expansion is less likely to occur.

5.5 The value of the service

210 In making its ruling the QCA must have regard to Section 120(1)(e) being the value of the service to the access seeker, or a class of access seekers or users. DBIM considers this matter relates to access holders and access seekers (including Expansion Parties which may also be access holders, and renewing, new and future access seekers for existing or expansion capacity). In particular, this section compares the value of a Socialised service to that of a Differentiated service.

The value to access seekers

211 In a submission to the QCA on the 2019 DAU, DBIM observed that the "price …. should not be higher than the value of the service to the access seeker",[91] and that prices above this level would likely result in the access seeker either substituting to another terminal, or altering its investment decisions such that access at DBT was no longer required.

212 If 8X was Socialised, the TIC would be lower than the value of the service to the Expansion Parties.

213 If 8X was Differentiated, the TAC for 8X users would comprise a differentiated TIC and socialised O&MC, representing a cost of around $20/tonne to 8X users (which is around $14/tonne higher than the socialised TAC). In DBIM's view, this TAC could exceed the value of the service to the Expansion Parties, particularly for mines located further away from DBT.

214 The value of the service to access seekers also includes an access solution for their mine development, specifically access to the next tranche of capacity available in the Hay Point Catchment. This improves the value of their project, in the event it was to be divested because for example the mine development did not meet the required level of returns, or no longer fit within their portfolio.

215 All current access seekers would consider that DBT provides the lowest cost option in terms of transporting their coal, as DBT is the closest export terminal to their operations, and therefore above and below rail

[91] QCA 23-Apr-20 DBCTM submission on interim draft decision on 2019 DAU p31

access costs are lower than other terminals as well.[92] Other considerations of the value of the service include:

215.1 [redacted]

215.2 [redacted]

215.3 [redacted]

215.4 [redacted]

215.5 [redacted]

216 In view of the importance of continuity of the engineering and FEL studies, the Expansion Parties have fully underwritten FEL 2 and have proposed to cap the expenditure on FEL 3 at $8m unless 8X is Socialised. This reflects that the value of the service to Expansion Parties is reduced if 8X is Differentiated.

The value to access holders

217 When the service at DBT was declared in 2001, it was expected that all new capacity would be continue to be socialised, and this was applied to the 7X expansion which was completed in 2009. However, in its final decision on 2010 DAU, the QCA indicated a future review of Differential Pricing was appropriate, to ensure that users did not bear the cost of services for which they did not share in the benefits.

218 DBIM notes that the AU provides for Differentiation in the following areas:

218.1 expansion capacity per s.5.12 of the AU

218.2 Operating & Maintenance Charges per s.11.10(b) of the AU

218.3 NECAP expenditure per s.11.11 of the AU

219 Some classes of users could be identified such that aspects of the service may be Differentiated where other existing users are affected, for example:

219.1 Users requiring services which impact the overall performance of the terminal

219.2 Users not supporting NECAP works recommended by the independent Operator

219.3 Users which are not shareholders of the terminal Operator

[92] QCA 02-Jun-20 Declaration reviews: final recommendations – Part C: DBCT service Table 5 p20 [redacted]

219.4 Users not complying with monthly throughput limits and other Terminal Regulations

219.5 Users with high levels of coal fines in their products, increasing the volume of recovered coal and lowering returns for all users.

219.6 Users with contaminated coal affecting operating costs

219.7 Users which were provided access by the 7X expansion (which increased TIC by 77%)

219.8 Users with short term capacity (including assignments or short term access agreements)

219.9 Users with access not associated with operating mines

219.10 Users with access in excess of their production capacity

219.11 Users with access not aligned with above and below rail access (nominally stranded)

219.12 Users with access not aligned with mine life

219.13 Users not producing coal used in steelmaking, or any other ESG compliance issue

220 Despite these significant areas of disparity between users of the existing terminal, no disputes have been raised in respect of these matters and therefore DBIM concludes that the value of access to Socialised services is higher than that of any prospective Differentiated services at the existing terminal. This also applies to new users of available capacity at the existing terminal.

221 In summary, the value of the service to access seekers is increased if 8X is Socialised. DBIM notes that some access seekers are also access holders at the existing terminal, which indicates that value of the service to a class of access holders is increased if 8X is Socialised.

5.6 The direct cost of providing access

222 In making its ruling the QCA must have regard to Section 120(1)(f), being the direct costs to the access provider of providing access to the service, including any costs of extending the facility, but not costs associated with losses arising from increased competition.

223 The direct costs to DBIM of extending the facility via 8X includes costs of constructing the new infrastructure, interest during construction, and financing and transaction costs. This also includes any upgrade or NECAP costs associated with 8X, and any ongoing finance costs.

224 The direct costs include the incremental costs of operations and maintenance, which would be the same if 8X was Socialised or Differentiated. DBIM notes that such costs are passed through directly to users, with a 10% margin applied by the Operator which incurs the charges.

225 If 8X is Socialised, DBIM expects that finance and transaction costs would be lower than if 8X is Differentiated. This is because financiers would be more willing to fund expansions underwritten by a mechanism which socialises the costs of user default across all contracted capacity , rather than expansion capacity alone. In addition, it is highly likely that DBIM would secure lower costs of debt if 8X was Socialised, given the risk profile is more favourable.

226 Similar concerns would emerge when refinancing debt associated with a Differentiated expansion.

227 In summary, if 8X is Socialised the direct costs of providing access are expected to be lower than if 8X is Differentiated.

5.7 The economic value of the expansion

228 In making its ruling the QCA must have regard to Section 120(1)(g), being the economic value to the access provider of any extensions to, or other additional investment in, the facility that the access provider or access seeker has undertaken or agreed to undertake.

229 The economic value to DBIM of 8X is derived from achieving a return for DBI shareholders commensurate with the costs and risks associated with 8X, that is also sufficient to incentivise the investment in DBT.

230 Socialisation promotes a higher likelihood that 8X will provide the expected economic value. This is because the impact of user default can be better managed and spread across more users, reducing the risk of asset stranding. In addition the high cost of Differentiated capacity increases the difficulty of reselling the capacity, which reduces the economic value.

231 Accordingly, the economic value of the expansion would be higher is 8X was Socialised.

5.8 The quality of the service

232 In making its ruling the QCA must have regard to Section 120(1)(h), being the quality of the service.

233 The indicators relating to service quality are set out in s.10.3 of the AU, including:

233.1 System delivery

233.2 Inloading performance

233.3 Stockyard performance

233.4 Outloading performance

233.5 Vessel performance

233.6 Vessel queuing

233.7 Operating efficiency (including inloading and outloading)

233.8 Environmental performance.

234 The performance of these indicators of service quality is affected by the following factors:

234.1 Mine operators (load out, coal quality, proportion of fines)

234.2 Rail operators (delays, derailments, congestion)

234.3 DBCC operator (coordination, scheduling)

234.4 Terminal Operator (operation & maintenance, outages)

234.5 The management of the vessels (port authority, pilotage, tugs, berthing)

234.6 Unforeseen events (safety incident, floods, cyclone, rain, waves, fire, etc)

235 In view of these factors:

235.1 There does not appear to be any possibility that the Pricing Method could influence the behaviour of any of these factors such that the quality of the service would be affected to a noticeable degree.

235.2 It seems unlikely that any variance could be detected between the Socialised and Differentiated facilities, because the indicators of quality of the service are not separated into existing and expansion facilities, and are fully integrated for the purposes of monitoring the entire terminal.

235.3 The entire terminal performance is expected to improve when 8X is completed, regardless of the Pricing Method.

235.4 The service is the same for the existing and expansion facilities, so it is likely that the quality of the service will be the same if 8X is Socialised or Differentiated.

5.9 The safe and reliable operation of the facility

236 In making its ruling the QCA must have regard to Section 120(1)(i), being the operational and technical requirements necessary for the safe and reliable operation of the facility.

237 The new facilities will be fully integrated with the operation of the existing terminal, and will include the most recent and appropriate technology that facilitate safe and reliable operation of the terminal, for example safe zones for people working in the vicinity of rail-mounted machines, LiDAR-based anti-collision systems for shiploaders and GPS-based 3D stockyard mapping for yard machines.

238 8X will require additional operational and maintenance staff, however this is at a lower level per tonne of capacity than the existing terminal. Congestion issues associated with the increased number of staff will also be resolved as part of the expansion, including new offices with improved access.

239 In summary, 8X includes the operational and technical requirements necessary for the safe and reliable operation of the facility, which will function effectively regardless if 8X is Socialised or Differentiated.

5.10 The economically efficient operation of the facility

240 In making its ruling the QCA must have regard to Section 120(1)(j), being the economically efficient operation of the facility.

241 DBIM notes the following statement from the QCA in regard to this matter: [99]

> We consider that economically efficient outcomes are facilitated by, among other things, a robust access framework that constrains the potential exercise of market power by the owner of a facility with monopoly characteristics. In the context of DBCT, the access framework should be directed at the following:
>
> - Constraining inefficient or unfair differentiation between access holders, access seekers and, where appropriate, other market participants (such as rail operators).
> - Supporting efficient entry and competition in upstream and downstream markets, including by providing appropriate incentives for efficient investment in new capacity.
> - Providing an opportunity for DBCTM to recover at least its efficient costs, including a return on investment that appropriately reflects the commercial and regulatory risks commensurate with providing access.
> - Providing appropriate protections of the interests of access seekers and access holders, including in respect of confidentiality, disputes and access rights.
> - Providing incentives to reduce costs or otherwise improve productivity, including through innovation.
> - Providing a stable, transparent and predictable regulatory framework, with appropriate oversight and enforcement

242 If 8X is Socialised, the TAC would be 1% less than the existing terminal. However if 8X is Differentiated, the TAC would be 225% more than the existing terminal. This appears to be a form of "…inefficient or unfair differentiation between access holders [and] access seekers…".

[99] QCA August 2020 Draft decision on DBCT 2019 DAU p19

243 Partial Differentiation would be inefficient because all users benefit from the increase in System Capacity, which applies to the entire terminal and cannot be separated. In addition, the capital efficiency [100] for the entire expansion is different between phases, which is indicative of the related TIC. For example, the overall capital efficiency is \$86/tpa for all 4 phases, however Phases 1 & 2 combined is \$68/tpa and is \$101/tpa. If the combined Phases 1 & 2 were Socialised, and combined Phases 3 & 4 were Differentiated, this would significantly increase the difference between the Socialised and Differentiated facilities. This would also appear to be a form of unfair differentiation.

244 In summary, if 8X was Socialised, then economically efficient operation of the facility would be promoted. However if 8X was Differentiated then unfair differentiation is not as constrained, and consequently the operation of the facility would not be as economically efficient.

5.11 The effect of excluding existing assets for pricing purposes

245 In making its ruling the QCA must have regard to matters in Section 120(1)(k), being the effect of excluding existing assets for pricing purposes.

246 In assessing the pricing for 8X, the Expansion Pricing Principles do not exclude existing assets for pricing purposes. To determine if an expansion is Cost Sensitive, the Reference Tariff (which is derived largely from the existing RAB covering all DBT assets) is used as the reference point for Socialisation or Differentiation. Accordingly, DBIM considers this matter is not a relevant consideration for the QCA's assessment.

5.12 The pricing principles in section 168A

247 In making its ruling the QCA must have regard to matters in Section 120(1)(l), being the pricing principles mentioned in section 168A for which (in relation to the price of access to a service) the price should:

247.1 generate expected revenue for the service that is at least enough to meet the efficient costs of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved; and

247.2 allow for multi-part pricing and price discrimination when it aids efficiency; and

247.3 not allow a related access provider to set terms and conditions that discriminate in favour of the downstream operations of the access provider or a related body corporate of the access provider, except to the extent the cost of providing access to other operators is higher; and

247.4 provide incentives to reduce costs or otherwise improve productivity.

248 DBIM notes that QCA has previously made decisions on the actual costs of Phase 1 and Phase 2/3 of the 7X expansion in respect of the price of access to the service at DBT, which had regard to the pricing principles in s.168A. At the time, the AU had no provision for Differential Pricing, and therefore 7X was Socialised, causing an increase in TIC of \$0.60/t (41%) due to Phase 1 and \$1.15/t (77%) due to all phases of 7X.[101] The 8X expansion is similar in many respects to 7X, including the scale of capex required, and the level of integration with the existing terminal, however the increase in TIC of \$0.42/t (13%) is less material than 7X.

249 The AU also contains the prospect of a Differentiated price of access, and therefore it is possible that under some circumstances it may be consistent with the requirements of s.168A. A specific issue occurs for 8X with s.168(a) in term of the risk associated with default of a Differentiated user and the potential for asset stranding, which cannot be easily assessed or included in the price. In respect of these risks, it is likely that the costs of financing would be unreasonably high. It is also possible that the Differentiated pricing of 8X would contaminate the Socialised pricing of the existing terminal, to the extent that the entire terminal would be deemed to have the same risk profile as the Differentiated facilities. In this case, refinancing

[100] Capital efficiency is measured by the capital cost per annual tonne of capacity (refer Table 4 – Comparison between FEL 1 & FEL 2 results and footnote 29)

[101] Refer Table 10 – 7X TIC increases

would become increasingly difficult, and it would also introduce significant complexity around appropriate rates of return.

250 Therefore DBIM considers that if 8X is Socialised, the price of access will promote consistency with s.168A.

Expected revenue

251 In making its ruling the QCA must have regard to s.168A(a) in which the price of access should generate expected revenue for the service that is at least enough to meet the efficient costs of providing access to the service and include a return on investment commensurate with the regulatory and commercial risks involved.

252 The QCA considers this principle to be consistent with DBIM's legitimate business interests and the economically efficient operation of the Terminal. Hence, generating expected revenue that is at least enough to meet DBIM's efficient costs of providing access to the service is important to the QCA's assessment.[102]

253 For revenue to meet the efficient costs of providing access to the service, it is important that all users pay access charges in reasonable time, that the risk of user default is kept low, and that any user default can remedied by existing mechanisms for DBIM to recover revenue shortfalls associated with the default.

254 Socialisation reduces the risk of user default, by providing for a reasonable TIC increase ($0.42/t) to be paid by all users. By contrast, if 8X is Differentiated, new users will pay an increase of $12.93/t [103], which is considerably in excess of the threshold for materiality of $3.50/t the QCA indicated. The increase in access charges for the Differentiated expansion relative to the Socialised expansion increases risk of default.

255 If 8X is Socialised, a user default would be covered by the mechanisms in the AU, initially by exhausting any security deposits and bank guarantees, and finally by socialising the revenue shortfalls proportionally across the remaining users. Therefore, the cost increase for all users would be the lowest possible under the circumstances. However if 8X was Differentiated, the revenue shortfalls could only be socialised to the remaining Expansion Parties, and the cost impact on remaining Expansion Parties would be significant. In addition, the related security for the risk of default is still likely to be onerous for Expansion Parties. The combined impact of the increased security requirements and the reduced pool for socialisation of revenue shortfalls is likely to further increase the risk of default, impacting DBIM's opportunity to recover revenue reflecting the efficient costs of service provision.

256 In summary, Socialisation of 8X would promote a price of access that would generate the expected revenue for the service consistent with the requirements of s.168A(a) of the QCA Act. A Differentiated expansion is unlikely to promote a price of access which is commensurate with the commercial risks involved.

Multi-part pricing and price discrimination

257 In making its ruling the QCA must have regard to s.168A(b) in which the price of access should allow for multi-part pricing and price discrimination when it aids efficiency.

258 DBIM notes the following statement by the QCA relevant to this matter: [104]

> …should a dispute on pricing matters be referred to arbitration under the 2019 DAU, the arbitration process may be informed by any relevant price ruling and the characteristics of the relevant Terminal component, including any risk that price discrimination or differentiation between users

[102] QCA August 2020 Draft decision on DBCT 2019 DAU p19-20
[103] Refer Table 13 – Comparison of Access Charges
[104] QCA August 2020 Draft decision on DBCT 2019 DAU p57

gives rise to inefficient or otherwise inappropriate transfer of risk (or cross subsidies) as between users

259 In the circumstances of 8X, price discrimination due to the Differentiation of 8X would lead to inefficient outcomes. Section 5.13 below outlines a number of examples where Differentiation would lead to inefficient investment and operational outcomes (including reasons relating to cross-subsidies between new users and existing users).

Related access providers

260 In making its ruling the QCA must have regard to s.168A(c), in which the price of access should not allow a related access provider to set terms and conditions that discriminate in favour of the downstream operations of the access provider or a related body corporate of the access provider, except to the extent the cost of providing access to other operators is higher.

261 DBIM notes that s.9.1 of the AU (and Section 8.1 of the 2019 DAU) provides that DBIM and its related parties will not own or operate a Supply Chain Business in any market that is related to or uses the Terminal. Accordingly, this matter is not relevant for the QCA's assessment.

Incentives

262 In making its ruling the QCA must have regard to s.168A(d), in which the price of access should provide incentives to reduce costs or otherwise improve productivity.

263 Socialisation encourages users to work together to maximise efficiency and productivity of terminal infrastructure, since all users benefit equally from any improvements. Price differentiation could compromise this outcome by distorting the incentives for users to work together effectively, for example by creating a second class of users that is unlikely to benefit from improvements to the terminal to the same degree as existing users.

264 It is likely that the incentives applying to the NECAP program in the existing terminal will not apply as effectively if 8X is Differentiated. The majority of NECAP expenditure accepted by the QCA to date was associated with projects approved by users prior to implementation in accordance with the Streamlined NECAP process in s.12.10(b) of the AU. This process improves transparency for users and reduces risk for DBIM. Many of these projects are upgrades which reduce costs or otherwise improve productivity. For example, the refurbishment of the existing shiploaders is an important strategy enabled by the new SL4 to significantly reduce costs and improve productivity for all users as mentioned previously in this submission. The related NECAP costs are likely to be classified as Identifiable Costs in accordance with the Cost Allocation Principles in s.11.11(h)(2)(a) of the AU, and it is expected that those costs would be allocated to the existing terminal, despite that new users would also benefit. However the Cost Allocation Principles relate to expenditure, not to the approval of the works prior to the expenditure, and if 8X was Differentiated it is possible that existing users would not approve the works unless they were also funded by new users. Similarly, any NECAP works on the new facilities might not be approved by new users unless the costs were shared by the existing users. Consequently, DBIM considers that Differentiation would cause disruption to the NECAP program and the related price of access would not provide the appropriate incentives to reduce costs or otherwise improve productivity for the terminal as a whole.

265 Access Holders manage the secondary market for capacity at DBT, which has traded capacity between users to support efficient and productive use of the terminal. Currently, the price of access is Socialised, however if 8X is Differentiated this would add another class of capacity, costing 3 times more than existing capacity. The market would then be distorted, at least during the first 10 years of the term of the Expansion Parties' access agreements. Potential outcomes include:

265.1 expansion capacity unutilised for a number of years

265.2 existing users which are also new users would pay two significantly different prices for the same coal and the same service levels at the same terminal, and in competition with itself

266 Consequently, if 8X is Differentiated, then there will be two prices of access to the terminal, a Socialised price for the existing terminal and a Differentiated price for 8X. It is unlikely that the Differentiated price will provide the appropriate incentives to reduce costs, as the two different classes of users will not share the benefits evenly.

5.13 Other relevant issues

267 The final section of the QCA Act to be addressed in this application is s.138(2)(h) "any other issues the authority considers relevant". The QCA has previously provided guidance as to the nature of such issues in its final decision on the 2015 DAU. The QCA said that the inclusion of "any other factor that the QCA considers relevant" for determining whether to socialise a Cost Sensitive Expansion would: [105]

> …make clear that DBCTM has the ability to build a case using whatever information is appropriate and relevant to explain why a variation to the incremental up/average down approach may be appropriate, in a particular case. It does not mean that the QCA will necessarily approve DBCTM's proposed approach, but clarifies DBCTM's ability to draw out information relevant to its case.
>
> And:
>
> ….make explicit that DBCTM is able to submit a case for uniform pricing based on the information it considers relevant and that the QCA will be able to assess a broad range of matters in making its pricing ruling.

268 This indicates that DBIM may propose factors for the QCA's consideration, including the reasons these factors are relevant. In this context, DBIM proposes the following factors:

268.1 The expectations of existing users – in its submissions on the Declaration Review, the User Group anticipated that all four phases of 8X would be Socialised, and importantly, did not object to this;

268.2 A comparison between the impact of Socialisation and Differentiation on total access charges;[106]

268.3 The potential for Differentiation to lead to inefficient outcomes; and

268.4 The timing of 8X, given the impact of the COVID pandemic on the Queensland economy.

Users expect that 8X will be Socialised

269 The User Group submission during the Declaration Review on the QCA's Consultation Paper on DBIM's Executed Deed Poll, said: [107]

> The DBCT User Group strongly considers that, when regard is had to the nature of the next incremental expansions [comprising the four 8X phases] proposed by DBCTM, the likely outcome with declaration is that all incremental expansions required to meet foreseeable demand during the declaration period will be socialised."
>
> And:
>
> It is notable that all 8X phases are within the terminal footprint, operate in integrated ways with the existing terminal and mostly involve upgrades or replacements of existing capital assets and

[105] QCA 21-Nov-16 Final decision on 2015 DAU p. 234 & p. 235

[106] Total Access Charge (**TAC**) is the sum of the Capital Charge (or Terminal Infrastructure Charge **TIC**) and the Operation & Maintenance Charge (**O&MC**) as those are defined in s.11.3 of the AU, representing all of the costs associated with the terminal paid by users of the service. For convenience in this application DBIM has used TIC + O&MC = TAC

[107] QCA 28-Oct-19 DBCT User Group further submission on the DBCT service p.24-25

> equipment which will need to be updated or replaced as non-expansion capital expenditure in due course even if the expansions did not proceed.

270 In the same submission, the User Group referred to the Expansion Pricing Principles in s.11.13(c) of the AU and assessed if each phase of 8X would be Socialised or Differentiated, concluding that all four phases would be Socialised, "…even if the average costs increased to some extent…". [108]

271 The User Group made specific comments regarding the benefits to existing users associated with each phase, and on reduced risks associated with the new facilities, based on the 2019 Master Plan. DBIM expects that the views of the Operator also informed the User Group submission on these matters, meaning that the User Group has been able to validate, to the extent it considered reasonable, the 8X expansion plans documented in 2019 Master Plan. The benefits identified by the User Group are listed in Table 15 below.[109]

Table 15 – User Group comments on benefits to existing users

Phase	Benefits to existing users
1	**New Shiploader 4 on Berth 3 and outloading debottlenecking** • benefits existing users through a 4% increase in overall shiploader availability, removing other current constraints on outloading availability and reducing long-term capacity outages, particularly in relation to shiploader replacements or major refurbishments • involves no difference in risk to providing access to the existing terminal (in fact, it is likely to involve less risk due to the reliance on newer equipment) • should reduce operating and maintenance costs per tonne through newer equipment
2	**Stockpile Augmentation Project and upgrade of stacker ST2 and conveyors S5, S6A, S6, R1 & R2** • provides benefits to existing users through the higher stockpile capacity upgrades benefiting all users given the cargo assembly mode of operations – with the Master Plan describing efficiency gains in the existing coal chain by allowing parcels to be sourced from more mine loadouts and accommodated in the stockyard at any one time and reducing peaking congestion • involves no difference in risk to providing access to the existing terminal (in fact, it may involve less risk due to the upgrades involves) • should reduce operating and maintenance costs per tonne through the equipment upgrades
3	**Replacement of IL1 and RRP1 with IL4 and RRP4, and upgrade of IL2, OL2 & SL2** • provides benefits to existing users through the higher loading and outloading rates (which will improve supply chain capacity more generally) • involves no evident difference in risk to providing access to the existing terminal (in fact, it may involve less risk due to what the upgrade involves) • should reduce operating and maintenance costs per tonne through new and upgraded equipment
4	**Zone 4 – complete Row 8, new western wall, replace RL2 with new SR5, new ST5 and S9 conveyor** • provides benefits to existing user through the higher stockpile capacity (which will benefit all users given the cargo assembly mode of operations) and higher loading and outloading rates (which will improve supply chain capacity more generally) • yields particular benefits to existing users to providing dedicated stockpiles for selected high-volume products – which has the potential to materially reduce demurrage for producers of such products • involves no evident difference in risk to providing access to the existing terminal • should reduce operating and maintenance costs per tonne through the new equipment

272 The User Group also said:

> "The DBCT User Group members who are shareholders in the user owned operator confirm that the user owned operator is investigating capital requirements to keep the terminal at its existing

[108] The User Group noted this only for Phases 1 & 2 specifically, however this applies to the entire expansion because if average costs increase due to 2 phases, then average costs for the combined 4 phases will also increase.

[109] QCA 28-Oct-19 DBCT User Group further submission on the DBCT service p.25-26

> capacity in the absence of expansions, and that there is a substantial overlap between those requirements and what DBCTM has classified as expansion investment".

273 The User Group understands that a large proportion of capex for 8X can be classified as NECAP-type expenditure, which benefits all users. This is consistent with the User Group's comments in Table 15 above, and is appropriate given the extensive consultation with Users as part of the Master Planning process. DBIM notes that NECAP-type expenditure included in 8X forms 46% ($583m) of the $1.276b capex.

274 DBIM notes that the QCA acknowledged the User Group's position in its final recommendations regarding the Declaration Review:[110]

> The DBCT User Group's view was that with declaration, existing users and new users would be subject to the same access charge (the terminal infrastructure charge—TIC) because existing terminal capacity will become available and terminal expansions are likely to be socialised.

275 In summary, the User Group clearly expects that 8X will be Socialised. Importantly, the User Group did not object to 8X being Socialised. Further, since the User Group identified benefits to existing users without identifying any aspects detrimental to existing users, and did not indicate any support for Differentiation, it is reasonable to conclude that the User Group supports that 8X should be Socialised.

Total Access Charges

Background

276 As part of its response to the QCA's draft decision on the 2015 DAU, DBIM said in regard to differential pricing matters:[111]

> …, [the TIC] does not include the costs of operating and maintaining DBCT. DBCTM considers that the appropriate metric for deciding on differential pricing should be the entire existing cost of providing the declared service.
>
> The declared service is the handling of coal at DBCT. The cost of coal-handing services includes the costs of operating and maintaining DBCT. DBCTM submits that the effect of the expansion on the TAC, which includes all relevant charges, is the appropriate metric upon which the QCA should decide whether an expansion's costs are socialised or differentiated.
>
> DBCTM notes that its current handling charges (HCF and HCV) are similar in value to the TIC expected to apply from the start of the upcoming regulatory period. One implication of using TAC is that an expansion might be socialised when it would have been differentiated if using the TIC. This may occur when an expansion reduces average handling costs for all users, such that the TAC decreases despite a TIC increase.

277 In response, the QCA said:

> We also accept that the TAC is more likely to reflect differences associated with the efficient costs of operating the Terminal than the TIC….
>
> The use of TAC would, [however], introduce a higher degree of emphasis on cost allocation issues related to O&M associated with an expansion. We also recognise that O&M costs (and therefore the TAC) are more likely to vary over the life of an expansion, which could make a determination based only on TAC subject to greater forecasting risk and potential error. The QCA therefore considers that the better balance is achieved by using TIC as the initial basis for determining whether differential pricing should be adopted, but with scope for DBCTM or other stakeholders

[110] QCA 02-Jun-20 Declaration reviews: final recommendations – Part C: DBCT service p.117
[111] QCA 11-Jul-16 DBCTM response to draft decision on 2015 DAU p58

> to point to operating or other cost factors in any particular case as a relevant factor for the QCA to take into account.[112]

278 In this context, DBIM submits that the impact of 8X on the TAC should be relevant consideration for the QCA's assessment.

Why TIC is the basis for Expansion Pricing Principles and not TAC

279 The revenue requirement for regulated entities typically includes the operating cost of the facilities. However, in the case of DBIM, the operating & maintenance costs (**handling charges**) associated with the terminal are not part of the revenue requirement. This is due to the nature of the operation of the terminal, in which the terminal operator is owned by terminal users rather than the terminal owner. The Operation and Maintenance Contract (**OMC**) was grandfathered from the previous ownership structure at the time the terminal was privatised, which entrenched DBCT P/L as the operator of the facility. Consequently, the handling charges incurred in accordance with the Access Agreements and the OMC (including a 10% profit margin for the Operator) is passed through to the users of the terminal, in accordance with the mechanisms in the AU.

280 This is explained by the QCA in its final decision on the 2006 AU: [113]

> The operation and maintenance of the terminal is currently undertaken by DBCT P/L under an Operations and Maintenance Contract (OMC) with DBCT Management. DBCT P/L is owned by a subset of the current users of the terminal, with each user's ownership interest (ie shareholding) capped in proportion to its contracted tonnage. All current users are entitled to be shareholders but some choose not to be. This arrangement is an extension of the arrangements in place since the terminal commenced operations.
>
> The OMC sets out the roles, responsibilities and contractual obligations of the Operator (DBCT P/L) to DBCT Management with respect to operating the terminal. These responsibilities include, inter alia, operating and maintaining the terminal to achieve optimum efficiency and reliability. In meeting these obligations, the Operator incurs the operating costs and recovers them, along with a margin, from DBCT Management. In turn, DBCT Management recovers from users these costs, along with other amounts (eg 'minor capital'). As a consequence, the operating and maintenance costs of the terminal are effectively a 'pass-through' to users.
>
> In its draft access undertaking, DBCT Management proposed a similar arrangement to the existing pass-through model for operating and maintenance costs, noting that the users' control of terminal operations helps to ensure incentives for optimal utilisation and efficiency.

281 For this reason, the TIC is used as the basis for the Expansion Pricing Principles, rather than TAC (which include Reference Tariff and handling charges). If the Operator was not owned by users, it is likely the Expansion Pricing Principles would have been based on Access Charges. This would be comparable to Aurizon Network. [114] As the QCA suggested, "…the TAC is more likely to reflect differences associated with the efficient costs of operating the Terminal than the TIC…", and it is important that the QCA give consideration the impact of 8X on the TAC.

8X Expansion impact on handling charges

282 As discussed in *Section 4.4 The impacts on existing users*, 8X provides for ongoing reductions in handling charges (per tonne), the majority of which is derived from the following two factors.

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[112] QCA 21-Nov-16 Final Decision on the 2015 DAU p242

[113] QCA 15-Apr-05 Final decision on the DBCT DAU p 158

[114] Aurizon Network's expansion pricing principles (clause 6.4.1 of the Aurizon Network 2019 Access Undertaking) refer to the Access Charge, which includes opex.

282.1 the additional stockyard storage space which incurs no additional operation and maintenance charges, due to the completion of Row 8 and the

282.2 replacing lower capacity equipment with new higher capacity equipment, which generally requires no additional operators or maintainers than the equipment being replaced..

283 In addition, 8X provides NECAP-type benefits such as:

283.1 refurbishment, rather than replacement, of the maintenance-intensive shiploaders SL1, SL2 & SL3 die to the new SL4.

283.2 replacement, rather than refurbishment, of the maintenance-intensive IL1 and RRP1, due to the new IL4 and RRP4.

284 The Operator includes a forecast of its handling charges in the OMCP to 2023-24, which increase on average around 3% annually. The Operator also estimated the additional charges due to the 8X infrastructure in Table 16 below (in 2020 terms). [115]

Table 16 – Additional handling charges due to 8X ($m)

8X Phase	Handling
1	5,283
2	259
3	3,110
4	604
Total	**9,254**

285 For the purposes of assessing handling charges to support calculation of the TAC, DBIM has made the following assumptions:

285.1 From 2024-25, handling charges will escalate at 3% annually for the existing terminal. This is below the 4% cumulative annual growth in the last 10 years during which around $250m has been expended on NECAP works.

285.2 No allowance for changes in handling charges have been made for the future NECAP works. A detailed assessment of the NECAP program will be included in FEL 3, taking into account any feedback from the Operator, existing users and the QCA.

285.3 The additional charges for 8X are included in accordance with Table 16, escalated at 3% annually from 2021.

285.4 If 8X is Differentiated, the allocation of Terminal Operating Costs will be made in accordance with s.11.10(b) of the AU. However, at this time, DBIM considers it appropriate that all users should share the costs associated with the existing terminal in proportion to their share of the total System Capacity of the terminal, and that the costs due to 8X should be shared proportionately by new users only.

Total Access Charges – Socialised vs Differentiated

286 DBIM has assessed the Access Charges in Table 17 below, comparing cases of Socialised and Differentiated expansions, on the basis of an average between 2027 to 2036, being the years in which the expansion phases are completed, and during the 10 year terms of the access agreements for the new users. If 8X is Socialised, the TIC would increase by around 13%. However because the handling charges for 8X are low,

[115] Refer Appendix 4 Analysis of 8X and NECAP costs

the TAC would be reduced by around 1%. [116] Therefore, if the Expansion Pricing Principles were based on TAC, then 8X would be considered to be a Socialised Expansion, and not a Cost Sensitive Expansion.

Table 17 – Summary of Estimated Access Charges – Socialised vs Differentiated

Component	TIC	Handling	TAC
Socialised expansion			
Existing terminal	3.14	4.21	7.34
...with 8X	3.55	3.73	7.29
Change	13%	(11%)	(1%)
Differentiated expansion			
Existing terminal	2.51	3.61	6.12
...with 8X	15.44	4.49	19.93
Change	514%	24%	225%

287 In summary, DBIM submits that the impact on TAC due to 8X is not material and accordingly, 8X should be Socialised.

Differentiation produces inefficient outcomes

288 The QCA has noted that in the context of terminal expansions at DBT:

> The principle of differential pricing is intended to provide a set of incentives for efficient investment based on the costs and risks associated with capacity at the time of an expansion project.
>
> And:
>
> …differential pricing attributes the costs associated with expanding the terminal over time to the users that give rise to the expansion, it ensures that, as new components of capacity are developed, users can invest in the [Central Queensland Coal Region] with certainty, knowing that they are not necessarily exposed to the cost of future expansions.[117]

289 If 8X is Differentiated, new users will pay for the entire cost of the facilities as part of the TIC, while existing users share the benefits of the increased efficiency, reliability and flexibility of 8X without paying for any of the costs of the new infrastructure. In this case, the new users will cross-subsidise the existing users, such that the allocation of cost is inefficient, and investment in the new facilities is not promoted. This is clearly the case for:

289.1 The new shiploader SL4, which minimises throughput losses in the event of maintenance or outages for the other shiploaders.

289.2 The Stockpile Augmentation Project which installs vertical concrete walls on the bunds, and the extension of Row 8, both of which increase the available volume in the stockyard and improve the efficiency of cargo assembly.

290 New users would pay around 5 times more handling charges than was incurred as a result of the new facilities, which is a cross-subsidy to existing users that appears inefficient to the point of being punitive. This is unlikely to promote investment, or to facilitate Good Operations and Maintenance Practice required by the OMC and AU.

[116] Refer Section 4.8 Estimates of Reference Tariff and Section 4.9 Access Charges. DBIM notes that these calculations cannot be treated as forecasts other than for the purposes of comparing Socialisation and Differentiation of 8X pursuant to s.5.12(b)(9) of the AU, and as further qualified in this submission.

[117] QCA 25-Aug-15 Final Decision - DBCT Differential Pricing DAAU p18-19

291 The inequity due to Differentiation may contribute to a contentious relationship between new users and existing users, resulting in long-term impacts in key elements of the operation, for example in regard to amendments to Terminal Regulations, and approval of NECAP works, the coordination of the DBCC, and trading of secondary capacity. These processes are important to the efficient operation of the terminal.

The COVID pandemic and timing of 8X

292 The 2020-21 Queensland Budget was delivered in December 2020, having been delayed due to economic uncertainty caused by the COVID-19 pandemic. In this budget, the Queensland Treasurer said:[118]

> Our government knows how important the ongoing growth of Queensland's regions is to our continued economic prosperity.
>
> It is the strength of sectors such as … the mining of coal … that has protected our economy from some of the worst effects of the COVID-19 downturn.
>
> Whether it is…the Olive Downs metallurgical coal mine in the Bowen Basin, the strategic stake we intend to take in the Dalrymple Bay Coal Terminal and its potential expansion, or the …., our government is committed to backing regional projects that will drive private sector jobs growth.

293 In addition, the importance of coking coal to the Queensland economy has been highlighted by independent institutions, for example IEEFA noted: [119]

> "Queensland is the world's largest supplier of seaborne coking coal globally, with a market share of almost 50%" and noted that calendar year 2018 yielded $3.6b in coking coal royalties.
>
> …
>
> Coking coal is used for steel manufacturing and is far from technologically obsolete.
>
> …
>
> …Queensland's existing coking coal capacity has limited stranded asset risk over the coming decade or two.

294 All Expansion Parties will produce coking coal grades. Therefore 8X will facilitate the export of coking coal.

295 DBIM's investment in DBT will have a role in insulating the Queensland economy from the impact of COVID-19. As observed by the Queensland Treasurer, the ongoing growth of regional Queensland (which includes Mackay and Sarina) is critical for the Queensland economy's success. The Queensland Treasurer identifies the Queensland Government's shareholding in DBI and the expansion of DBT as a key part of "backing regional projects that will drive private sector jobs growth".

296 In summary, if 8X is Socialised, it will promote the Queensland Government's 2020-21 budget objectives to safeguard the Queensland economy from COVID-19 impacts.

[118] Queensland Treasurer 2020-21 Queensland Budget, Budget Speech, Budget Paper No. 1 pages 19-20
[119] IEEFA June 2019 Conflating Queensland's Coking and Thermal Coal Industries pages 1, 6-7

Appendix 1 FEL 2 Study

REDACTED

Appendix 2 Throughput Loss during Construction

REDACTED

Appendix 3 Analysis of 8X and NECAP costs

REDACTED

Appendix 4 Operator's Annual and 5-Year Operations, Maintenance & Capital Plans 2021-2025

REDACTED

Appendix 5 Expansion Party endorsements of 8X

REDACTED