

## Chapter 10 - Reference Train Service

### KEY ASPECTS

**Tariff structure** - the tariff structure departs materially from that proposed by QR. The Authority proposes a cost-reflective tariff structure apply for use of the coal network, with separate charges to be levied for maintenance and capacity costs.

**Electrical overhead costs** - the costs for the use of the electrical overhead infrastructure will only be levied on those who use it.

**Costs unattributed** - costs that cannot be attributed on a cost-reflective basis will be attributed on a combination of a charge per net tonne and a charge per net tonne kilometre.

**Take-or-pay** – a take-or-pay charge may be levied to achieve even railings and also to discourage mines overstating volume forecasts in an attempt to lower access charges.

**Clusters** - QR's revised proposal of nine separate clusters has been accepted. There will be one cluster for each of the Moura, Newlands and West Moreton systems, with each of the Blackwater and Goonyella systems being separated into three clusters.

## 10.1 Introduction

Reference tariffs, for specified reference train services, have been proposed by QR in relation to access charges for coal traffic to overcome the problems that arise from the very broad limits established by floor and ceiling prices under a negotiated pricing regime. QR's proposed framework should provide increased pricing transparency. This will increase certainty for rail users and reduce negotiation costs.

The process of establishing reference tariffs will inevitably impose a degree of standardisation in the way in which services are specified and priced. The specification of train characteristics will therefore have important implications for the evolution of the above rail market. A related issue concerns the pricing structure to accompany the reference train service, that is the way in which charges will be levied for the reference train service as well as any other train service that utilises QR's network.

If the services covered by the reference tariffs are not representative of the coal traffic that traverses QR's network, or a pricing structure is created that does not provide relevant information to market participants, then the usefulness of the concept will be undermined. For example, it could result in the network being utilised in other than a cost effective manner and subsequently, the total cost of coal transport not being minimised.

The Draft Undertaking specifies, but does not define, the relevant characteristics. However, on 9 November, 2000, QR submitted reference tariffs for certain defined services. Assessing QR's proposed reference tariff approach requires a number of issues be addressed:

- the approach that should be taken to choosing the reference train service;
- the pricing structure for the reference train service;
- the characteristics of the applicable reference train service including the relevant standards of service and the specific technical parameters, including:
  - the tolerance around these dimensions before triggering an assessment as to the applicability of the reference tariff for the particular service in question;
  - where a variation is required, how it might be quantified;
- the geographic scope of the services to be considered as a group (or 'cluster') for the purposes of a reference tariff; and
- how new mines are to be treated under the arrangements.

## 10.2 Basis for choosing the reference train service

### *Background*

In recognition of the fact that the reference train concept is being superimposed on a pre-existing rail system, QR submitted that the reference train service should reflect the predominant train service currently operating on each corridor.

The QCA did not accept this. The effectiveness of reference tariffs was seen to depend upon ensuring that the specification of the reference train service represents the most appropriate set of train service parameters, consistent with customers obtaining their preferred price/service quality trade-off. A competitive above-rail market would develop alternative above-rail

solutions to better satisfy these requirements. Basing reference tariffs on QR's existing operations may constitute a barrier to entry and limit the dynamic evolution of this market.

Nevertheless, the Authority has recognised, in the present absence of alternative above-rail operators, that QR's predominant train service will influence the specification of the reference train service. However, only those elements of QR's reference train necessary will be adopted, having regard to the cost-reflective tariff structure and the efficient utilisation of the infrastructure.

In future reviews, the benchmark configuration operating on a corridor will be judged on the basis of providing the most efficient outcome for end customers.

### ***Stakeholder views***

**QR** - basing the reference train service on the 'most efficient' train service introduces a significant level of uncertainty and complexity to the assessment of reference tariffs in the future, for little, if any, benefit. There are a number of reasons underlying QR's concern.

First, there is an issue about how the QCA would identify the 'most efficient' train service. In this regard, QR believes that the assessment of the 'most efficient' train service is case specific – what may be the most efficient train service in one situation may not be the most efficient train service in another situation.

Further, each operator may have made different trade-offs between above- and below-rail costs, or between rail costs and other elements of the transport chain. If both operators are competitive in terms of rail haulage charges (that is, able to offer similar prices to end-users), which of those operations is considered to be 'most efficient'?

Further, if they are serving end-users with different service requirements, which of these service levels is considered to be 'most efficient'? Given the arbitrary nature of this choice, it is difficult to see how the QCA can be accountable in its decision on the 'most efficient' train service.

Apart from QR's concerns regarding how the QCA will identify the 'most efficient' train service, it is questionable whether the choice of the reference train service is going to be of such significance to warrant using a train service other than the predominant train as the benchmark. In this regard, the following issues are relevant:

- while the reference train service does set a benchmark, variations to the reference train service are costed on the basis of incremental changes (both increases and decreases). Therefore, this pricing approach should not create disincentives for changes to the train service – the variation in cost to the operator will be no more than the variation in cost to QR;
- in this regard, the QCA must recognise that even if the predominant train service is not the 'most efficient' train service, there are likely to be costs for QR associated with moving to the 'most efficient' train;
- in order to reflect the above, if the 'most efficient' train is different to the predominant train, it would be necessary to build the reference tariffs up from a different cost structure to that currently incurred by QR. This would effectively create a 'hypothetical efficient railway system' upon which the reference tariffs are based. The QCA has rejected this approach in the context of assessing the appropriate optimisation framework for valuing QR's rail infrastructure assets.

The QCA's concern regarding the adoption of the predominant train as the reference train service may mean more 'efficient' trains pay a premium is simply a reflection of the costs that those trains are expected to impose on the railway network and that will need to be recovered. However, there is one area where QR does not intend to use the current predominant train performance as the benchmark for the reference train service. The reference train service will not necessarily have a transit time reflective of the current performance of the predominant train. QR intends to base its commitment to transit time (expressed as part of the reference train service) on a transit time that reflects a balance of the interests of railway operators (who

will typically wish to minimise cycle times) and QR as railway manager (who wishes to maximise the number of train services that can operate on the infrastructure without expanding the network).

**FreightCorp** - particular care needs to be taken in both the definition of the reference services and the quantifications and incremental (or decremental) prices chosen to adjust them for train services that differ from the reference.

It is FreightCorp's view the methodology chosen by the QCA has achieved an appropriate balance between allowing for the benefits to be gained from a relatively homogeneous service while allowing for variations to arise. The main concern remaining for FreightCorp is the implementation of that methodology by Network Access. This concern is centred around the calculation of the number of standard train paths that are consumed by an operator.

**Stanwell** - in relation to reference tariffs, the Authority states "The predominant service operating on the corridor should not be the reference train service". SCL would suggest this be changed to "...*need* not be the reference train service...", in accordance with the Authority's reasoning in Volume 3 of the Draft Decision.

### ***QCA's analysis***

QR considers that the reference train service should be based on the predominant train operating on the system and that the QCA's proposal to base it on the most efficient train will create uncertainty and ambiguity for minimal benefit.

The QCA believes that the most efficient train should be viewed in the context of minimising the long-term total coal chain costs. In the Draft Decision, the QCA indicated that it had little choice other than to accept the predominant train operating on the corridor for the first regulatory period. However, it intends to revise this position in the context of future regulatory reviews.

The QCA has made a minor wording change to its position to reflect Stanwell's concern.

#### ***QCA's position***

##### **In assessing QR's reference tariffs:**

1. **the QCA does not automatically accept that the predominant service operating on the corridor should be the reference train service. Instead, those elements of QR's reference tariffs that are necessary will be adopted, having regard to the cost-reflective tariff structure and the efficient utilisation of the infrastructure; and**
2. **in future reviews, the reference train service will be judged on the basis of providing the most efficient outcome for end customers.**

## **10.3 Structure of reference tariffs**

### ***Background***

QR identified a preference for a linear tariff based on gross tonne kilometres for each nominated reference train service, and proposed to review this tariff to take account of the productivity changes associated with volume variations outside the nominated volume range. In conjunction

with this approach, QR included a take-or-pay element to encourage the efficient utilisation of available capacity.

The QCA recognised the importance of ensuring that access charges are structured so that QR's below-rail costs can be recovered in a manner that promotes both efficient and innovative above-rail solutions to haul coal. Consequently, it determined that a more complicated pricing structure than that proposed by QR is necessary to provide transparency and ensure that appropriate pricing signals are sent to market participants. The Authority's cost-reflective reference tariff structure incorporates causative and non-causative (or allocative) elements.

Causative elements in the pricing structure have been separately identified so that the costs imposed on the system through different operational arrangements are reflected in the prices that are charged. These are:

- a usage-based charge which reflects the incremental operating and maintenance costs expressed on a per GTK basis;
- a capacity charge that covers the incremental cost to the network owner of the provision of capacity expressed per train path; and
- a charge for the use of the electrical overhead network only if an above-rail operator chooses to use it.

The allocative component accounts for the extent of the causative elements' shortfall in the recovery of QR's efficiently incurred costs. This charge is based, for each cluster, on equal amounts being collected on:

- a per tonne basis; and
- a per net tonne kilometre basis.

The QCA agreed with QR that a take-or-pay component should be included as part of reference tariff arrangements to provide discipline to both mines and above-rail operators. However, the Authority saw QR's proposal, based on a percentage of the grossed-up access charge rather than the actual usage of contracted capacity, as being too inflexible, unable to distinguish between events within and beyond an operator's control, discouraging system-wide co-operative scheduling and distorting the above-rail market.

Consequently, the QCA developed a two-stage test based on an initial system-wide threshold trigger being where a cluster to which a particular mine belongs fails to rail 90% of that cluster's monthly average requirement. The second stage of the test is based on whether that individual mine fails to meet 90% of its average haulage requirement for both the month in question and the three months ending with the month that the system-wide threshold is met.

### ***Stakeholder views***

#### *Tariff structure*

**QR** - while QR considers the adoption of a multi-part tariff introduces a level of complexity that is not necessarily warranted, QR will accept the use of the 4-part tariff for the track access component, subject to the following:

- all stakeholders must be aware that the multi-part tariff does not address all variations that may occur from the reference train service. In essence, the multi-part tariff only provides an indication of the change in price for train services that cause a different utilisation of capacity or train services that are of a different size (that is, gross or net tonnes) to the

reference train service. Other variations from the reference train service will need to be negotiated in order to reflect the incremental change in costs or risk to QR;

- in recognition of the above, adequate constraints must be specified in relation to the applicability of the reference tariff to reduce the risk of operators misunderstanding the pricing implications;
- it is essential the quantum of the various components of the tariff reflect the best available information regarding the incremental costs of capacity and gross tonnage. It is likely to be necessary to undertake further analysis on the quantum of the components of the tariff for some, if not all, of the clusters to ensure that they will provide reasonable pricing signals; and
- the multi-part tariff must be able to be reviewed if it becomes apparent the tariff structure is leading to inappropriate pricing signals, for example, if the structure of the tariff is leading to perverse decisions on the part of operators for the purpose of minimising access charges, or if the operating paradigm on a system changes to such an extent that the cost elements are no longer reflective of future incremental costs. In such circumstances, the tariff structure needs to be able to be reviewed, irrespective of whether a review of the quantum of the reference tariffs has been triggered.

**FreightCorp** - strongly supports the structure of reference tariffs proposed by the QCA.

**Stanwell** - the QCA states that it supports a 'multi-part tariff' structure for its reference tariffs.<sup>1</sup> Under a multi-part tariff, the average price per unit of service (eg. per tonne, or per tonne kilometre) changes as the quantity consumed changes. Generally, there is an effective decrease in price per unit as the total usage increases. However, it is unclear from the descriptions of the reference tariffs depicted in the Draft Decision<sup>2</sup> whether this occurs or not. If not, SCL considers that the objectives and spirit of the third party access provisions of the QCA Act - in particular, those of economic and regional development<sup>3</sup> - would be better served if other multi-part tariff structures were adopted. For example, 'declining block' tariff structures could be adopted, in which the per-unit price declines in a stepwise manner as volume increases, and users effectively receive volume discounts on set prices.

#### *Impact of cost drivers*

**FreightCorp** – the incremental capacity charge that should apply is both workable and appropriate. However, it is a concern that the Draft Decision leaves the calculation of the number of standard train paths (STPs) consumed by an operator in the hands of QR without any objective test that would allow the operator to verify the correctness of the QR determination. Of particular concern to FreightCorp is QR's apparent disavowal of the mechanism and any part in its authorship during negotiations subsequent to the release of the Draft Decision.

As a result, FreightCorp recommends the QCA:

- document explicitly the method for calculating the consumption of STPs;
- nominate a tool that is commercially available (or someone or panel of suitably qualified and equipped consultants) to enable operators to perform the calculations themselves; and
- require QR to release the base data required for the calculation to be made, in a format suitable for use in the nominated tool.

Several clarifications are sought from the QCA regarding the charging of the incremental capacity charge:

- Over what period is the capacity charge to be accounted for?

<sup>1</sup> Draft Decision, Volume 1, p.13.

<sup>2</sup> See for example, Draft Decision, Volume 1, pp. 13-16.

<sup>3</sup> See for example, section 76(3) of the *QCA Act*.

- Should an incremental capacity charge be made for paths provided by QR on an ad hoc basis, or paths provided in excess of those that have been reserved?
- How frequently operators should specify the paths required?
- How broadly should paths be defined in an access contract, or how should variation in the use of paths over the life of a contract be achieved?

FreightCorp supports the QCA's treatment of electric traction infrastructure costs as separate from the other rail infrastructure. It is important, however, to be sure all of the costs associated with the electric traction system are captured and not otherwise allocated to the remainder of below rail Use or Pay (UOP) provisions.

UOP provisions have been a significant point of contention between FreightCorp and QR in access negotiations. It has always been FreightCorp's view the main purpose of UOP provisions is to provide some level of revenue certainty, and not to impose a degree of rigidity on users of the service.

QR advised FreightCorp it had modelled the UOP provisions proposed by the QCA over the last two years on the Blackwater system. If they had been in place during that period, the UOP would not have been triggered. This gives FreightCorp confidence the QCA's trigger levels are appropriate.

FreightCorp also seeks clarification as to whether it was the QCA's intention that the UOP component should be calculated as 20% of the total price or 20% of total price less incremental capacity charge, given the incremental capacity charge is already under a UOP mechanism.

#### *Capacity Charge*

**QR -** QR has significant concerns, both with the QCA's quantification of the incremental capacity costs as well as with the methodology proposed by the QCA for analysing the capacity consumption of a train service. Appendix 1 of its submission provides detailed comments on the QCA's analysis of incremental capacity costs.

#### *Maintenance Charges*

**QR -** QR agrees the impact of a train service on the maintenance costs of the network is an important issue that can, to a certain degree, be addressed in the development of a multi-part tariff. It is, however, critical to recognise the limitations of a multi-part tariff in this regard. Essentially, the only issue that can directly be addressed by the reference tariff structure is the extent to which maintenance costs vary as a result of changes in train size (that is, the gross tonnage per train). A change in any other parameter, such as axle load, speed or any of QR's standard rollingstock interface standards, must result in a case by case adjustment to the reference tariff.

QR notes the QCA has developed a methodology for assessing the impact of different operations on the infrastructure maintenance costs. QR's detailed comments on this methodology are set out in Appendix 2 to this submission.

#### *Allocative element*

**QR -** QR is prepared to accept the QCA's approach.

#### *Electric access*

**QR -** The only real issues from a regulatory perspective should be:

- overseeing that QR's charges for access to the electric overhead system do not create distortions in a market (the most likely market being the provision of coal transportation). This includes both the manner in which QR charges for competing electric train services, as well as the manner in which QR charges for diesel trains competing with electric trains; and

- ensuring prices for access to the electric overhead system are not established in a manner that is expected to produce excessive returns over the remaining life of the electric overhead assets.

The introduction of the diesel fuel excise rebate to rail transport has significantly affected the competitiveness of electric traction compared to diesel traction. Whereas prior to the extension of the diesel fuel rebate to rail, the competitive position of electric traction compared to diesel traction allowed QR to fully recover the cost of its investment in electric traction assets, there is now a substantial risk that QR will not be able to fully recover this investment. As a result, although the reference tariffs considered by the QCA provide for a full recovery of QR's investment in electric overhead assets, QR is currently reviewing these charges in order to ensure that, in the long term, electric traction is competitive with diesel traction.

Effectively, the price QR can charge for electric traction (including both the cost of accessing the electric overhead system and electric energy costs) is capped by the total cost of operating a diesel traction service. QR intends to levy a 'rolled up' electric access charge, initially as a single \$/000 gtk price, covering both access to the electric overhead system and electric energy. This effectively results in QR taking the risk on future movements in electric energy costs. In the future, QR anticipates varying the charge in accordance with measures impacting on electric energy usage to encourage operators to use electric energy in the most efficient way.

The choice an operator makes between using electric or diesel traction is a long term decision, therefore, QR does not consider it necessary or appropriate that the price vary regularly in relation to movements in the spot price of diesel. Rather, QR intends the electric traction charge would vary on an irregular basis, primarily to reflect expected long term changes in diesel costs (which is the key variable in the competitiveness of electric traction). However, this is not to say other factors will not impact on the competitiveness of diesel and electric traction and, hence, potentially impact the electric access charge.

Given the difficulty in predicting events that will lead to a change in the competitiveness of diesel and electric traction, QR does not consider it appropriate to attempt to regulate the frequency or timing of changes to the electric access charge.

#### *Take-or-pay component*

**QR** - the QCA has recommended alterations to a number of tools at QR's disposal to manage its volume risk. Whilst, on their own, any of these variations may not have been considered unreasonable, the combination of the alterations results in QR facing an unacceptable risk of volumes varying markedly from that assumed in the development of reference tariffs.

QR agrees with the QCA's assumed allocation of short-term and medium to long-term volume risk to a certain extent. Accepted risk management principles typically assign the risk of an event occurring to the party most able to manage that risk. QR believes that an individual operator or end-user should accept the majority of the volume risk associated with whether or not it can offer the volume it has contracted to.

The QCA's approach essentially results in the individual party that creates a reduction in volume (either a mine or an operator) bearing little or none of the cost associated with that reduction, on the assumption that QR or the system will bear that cost. QR is particularly concerned this presumption applies even where that individual party has a long-term commitment to QR to maintain that volume, and effectively reneges on that commitment. It would appear the QCA has recommended an operator should only be liable to pay limited ongoing take-or-pay obligations if it wants to keep the contract on foot. There appears to be no consequence whatsoever if the operator wishes to relinquish that capacity.

As a fundamental principle, if there is no cost associated with an operator exiting the system or reducing its capacity entitlement (even in the presence of a long term contract) this will significantly increase the likelihood of this occurring. As a result, the presence of contracted capacity entitlements will be of little value in predicting future utilisation of the network if those contracts do not represent a genuine commitment on the behalf of the operator or the mine.

These sorts of measures may produce undesirable outcomes that the QCA may not have considered. For instance, QR is concerned that the package of volume management arrangements that the QCA has put forward will give parties an incentive to overstate capacity requirements, both for the purpose of allowing themselves greater flexibility (given there will be limited cost for not using that capacity), but potentially also for the purpose of manipulating the reference tariff setting process to arrive at a lower reference access charge than would otherwise be the case.

Furthermore, if this were to happen, the QCA's recommendations leave QR little or no ability to impose a consequence on the party involved. In the former case, this creates a significant risk of QR's investment in the network not matching the demand requirements. In the latter case, it is clearly contrary to QR's legitimate business interests. While QR is prepared to accept volume risk through a price cap arrangement, this should not be taken as absolving operators and/or mines of the consequences of not using the capacity they commit to. If QR is to accept any volume risk, it should also be permitted the use of mechanisms to manage and minimise this risk.

The above comments are primarily focused on reference tariff traffics. The impact for non-reference tariff traffics will not be as great. However, even in the context of non-reference tariff traffics, QR should still be permitted to use mechanisms to manage its volume risk by encouraging operators to manage their volume risk.

The take-or-pay arrangements the QCA has proposed will be exceedingly difficult to trigger.

As an example, in a small system where some, if not all, of the mines have common ownership, the vast majority of the system, if not the entire system, would need to be railing at less than 90% each month for three months before QR had any recourse to take-or-pay, and this recourse would only provide a partial mitigation for QR's revenue loss for the final month of that three month period. In fact, the benefits to the mines of overstating their requirements will outweigh the costs they will pay in take-or-pay payments. As a result, this approach will provide little or no incentive for those mines on that system to either commit to capacity that reflects a realistic expectation of their future demand, or to rail evenly over time. In fact, the QCA's approach appears to actively promote such mines overstating demand, while providing significant opportunity to rail in a variable manner so as to avoid the take-or-pay arrangements triggering.

Even in a larger system with a greater number of mines and less common ownership, the same problems will be evident. The system itself could be railing at significantly less than 90% over a reasonable period of time, with only a fraction of the mines triggering take-or-pay provisions.

The concerns that QR has with the structure of the QCA's proposed take-or-pay arrangements are exacerbated by the large margins allowed before the take-or-pay arrangements trigger. In themselves, these margins result in the take-or-pay arrangements having little influence on the railing patterns of an operator and/or mine. As a result, QR considers the arrangements proposed by the QCA will clearly be ineffective in achieving the objectives of the take-or-pay arrangements. However, QR acknowledges the issues that the QCA has raised, and is prepared to amend its take-or-pay proposal to reflect the QCA's key concerns.

First, given the volatility in railings for individual mines in the relevant systems, it is reasonable that the take-or-pay arrangements only trigger if the system in its entirety is railing short (either in terms of gross tonne kilometres or train kilometres). This allows both operators and mines significant flexibility in the manner in which they rail, while not triggering the take-or-pay. Given this substantial increase in flexibility, QR considers it reasonable, in the event that the system as a whole is short railing, the take-or-pay provisions trigger with certainty.

In this regard, QR's initial thought was where the system trigger was activated, any mine in that system that had short railed in the particular month should make payments under the take-or-pay provisions. However, taking into account the QCA's concerns the take-or-pay arrangements should not give a disincentive for mines or operators to compensate for low railings by another mine or operator, QR is proposing the amount of take-or-pay to be paid by each mine in the system will be assessed based on its average performance over the preceding three months.

Therefore, a mine that is railing in excess of 100% of its contracted entitlement in the month that the system take-or-pay triggers may still pay take-or-pay, if its railings in the previous two months were significantly less than its commitment. Given the substantial flexibility that mines and operators will have with this arrangement, QR does not believe there is any requirement to provide further flexibility through aggregating mines with common ownership.

Such an approach simply serves to provide an automatic advantage in rail haulage arrangements for the large mining companies that own multiple mines. In addition, QR is not indifferent to the origin/destination combination – a train from one mine does not have the same operational or financial impact as a train from another mine, irrespective of whether there is common ownership of those mines. A further complication would arise in determining what is required to meet the common ownership test.

In addition to these modifications to the structure of the take-or-pay arrangements, QR believes, for them to provide any influence on the behaviour patterns of mines and operators, they must have a smaller ‘grace’ period than put forward by the QCA, so there is the potential for them to trigger.

QR believes this approach incorporates the key elements of the QCA’s proposal, but ensures there is sufficient balance in the arrangements to ensure the take-or-pay provisions provide some incentive for both even railings and genuine contractual commitments.

In summary, QR proposes the following take-or-pay arrangements, applicable to the average performance over three months:

- a \$/train path component to be paid monthly (consistent with the QCA’s proposal); and
- an additional take-or-pay arrangement (the amount of which is discussed below) that would trigger in the following circumstances:
  - the system the mine belongs to fails to rail 97.5% of the monthly average requirement of that system (measured against reference tariff forecasts); and
  - over the preceding three months, measured on an individual mine basis, the operator fails to rail 100% of its average requirement (measured against its contracted volume).

In moving to a system wide trigger for take-or-pay, it is apparent QR has a far greater revenue risk on smaller systems resulting from the potential for mines to ‘overstate’ volumes in order to artificially reduce the reference tariff. The increased numbers of mines in the larger systems serve to mitigate against the risk as individual mines have far less ability to distort the applicable reference tariff.

In reviewing the take-or-pay components to recognise this greater risk on smaller systems, QR considers the risks can be balanced across all of the coal systems. As a result, QR proposes one take-or-pay rate for all the proposed clusters in the coal systems to be set at 35% of the applicable tariff. QR acknowledges this rate is significantly higher than the 20% level proposed by the QCA. However, QR believes this higher take-or-pay percentage is warranted, both to ensure the take-or-pay arrangements create an effective incentive for even railings and genuine contractual commitments, as well as providing some mitigation for QR’s loss in revenue associated with the reduced volume.

Based on the structure of take-or-pay QR is now proposing, the take-or-pay provisions will only trigger when the total system is railing less than expected and, hence, QR is achieving a lesser contribution to fixed costs than expected. As can be clearly seen from the QCA’s analysis of QR’s cost structure, the percentage of QR’s costs that are fixed in nature is in excess of 70%. QR’s proposed take-or-pay percentage effectively shares QR’s risk of not recovering its fixed costs as a result of operators not meeting their contractual commitments.

**QMC** - interprets the basic approach to take-or-pay in the draft decision as follows:

- the take-or-pay arrangements should aim to influence not only mine/operator behaviour but also total system behaviour in ways that increase coal chain efficiency and reduce overall transport and handling costs; and
- mines/operators should be encouraged to:

- rail within a specified degree of variability around their contracted amounts;
- do things that will help reduce cluster railings variability (for example, by making up other mines' shortfalls); and
- contract for realistic amounts of capacity.

QMC is broadly supportive of the above approach. However, it recommends a refinement of the draft decision that would base the take-or-pay mechanism on annual cluster and mine railings, rather than monthly/three monthly railings. Specifically, it recommends that:

- if at the end of a year, a cluster's actual railings are less than 90% of its contracted railings, then a take-or-pay element be applied to those mines which failed to rail at least 90% of their individual contracted amounts; and
- the take-or-pay element would be 20% of the difference between:
  - the mine's actual amount of access charge paid in the year; and
  - the amount that the mine would have paid had it railed at least 90% of its contracted amount.

Assessment on this basis over this longer period would recognise a number of factors as follows:

- it would meet the objective of providing at least 90% of the contract tonnage across the system;
- it would not unnecessarily penalise individual mines whose railings over short periods can be subject to uncontrollable factors;
- there is a capacity for any short term user shortfall to be absorbed by the system as a whole (which will be facilitated by the inevitable evolution of a secondary capacity market);
- the real driver for individual companies minimising their weekly and monthly variability is that such variability exposes them to the risk that future make up capacity may not be available when required;
- a major influence (as acknowledged by the Authority in the Draft Decision) will be the above track market, where the incentive for competing operators to maximise their rolling stock utilisation will discourage uneven railings and capacity overestimation by individual mines; and
- currently QR appears satisfied to look at a company's railings over a full year without penalties for fluctuations over shorter periods, provided there is a level of balance in whole of system railings over these shorter periods.

QMC believes that it is important to distinguish between take-or-pay arrangements aimed at influencing behaviour, and the issue of volume risk sharing between Network Access and the mines which the Authority has addressed in its consideration of Network Access' allowable rate of return and form of incentive regulation. That said, QMC would be prepared to consider the above take-or-pay proposal in the context of a revenue cap on Network Access as opposed to the price cap approach proposed by QR and accepted by the Authority in the Draft Decision.

**FreightCorp** - in the Final Determination, the QCA should nominate specifically what is meant by the 'monthly average requirement', 'the average requirement over [the preceding 3 months]'. We would also note our strong support for the 90% level to prevail. In negotiations with QR, they have suggested a preference for a 2-pronged trigger, being gross tonne kilometres (gtk) and train kilometres (train km), where failure to achieve 97.5% of either measure would cause the UOP provisions to be invoked. The measurement is proposed to be based on the forecast gtk and train km. In FreightCorp's view, this is far too prescriptive a measure and goes well beyond the intended purpose to encourage even railings.

At the level of 97.5%, it is almost imposing an absolute fixed price for access on a monthly basis rather than genuinely reflecting the ebbs and flows in the system that naturally occur. Coupled with QR's view that the fixed charge should be of the order of 35% (rather than the QCA's proposed 20%), the UOP becomes an onerous imposition. Again, the fact that this is a charge that only really affects third parties (due to the cash neutral position for the transaction between QR's above- and below-rail groups), it has the potential to impact on the competitive neutrality of the Undertaking.

FreightCorp would recommend that the measure used to quantify the 90% limit for the application of UOP be contracted net tonne kilometres (ntk) for the particular system. We make this recommendation on the basis that the charge our mostly mass related and ntk has both a mass and distance component that measures the productive output of the system. The use of forecasted tonnages will forestall the situation where people under-forecast so as to avoid being caught by the UOP mechanism.

If the QCA endorses a higher level of UOP charges or a higher trigger, the resulting reduction in revenue risk to QR should be factored into the rate of return that is allowed.

FreightCorp seeks clarification that it is the QCA's intention that the UOP test is intended to apply across coal systems and not just clusters. We raise this as it appears from the footnote on p.62 of the Draft Determination that it is the intention that the test applies to coal systems, but the text of the decision (p. 63) refers to clusters.

FreightCorp also seeks clarification as to whether it was the QCA's intention that the UOP component should be calculated as 20% of the total price or 20% of the total price less incremental capacity charge, given that the incremental capacity charge is already under a UOP mechanism. It would also appear that the way in which it is presented currently is the former and that this might result in a double count of a portion of the charge.

**Dalrymple Bay Coal Terminal** – supports the reference tariff structure with the following exceptions related to the take-or-pay arrangements. Both clause 1 and clause 2 of the test detract from the efficient use of the supply chain.

Clause 1 is ambiguous and would suggest that a cluster would hold entitlement or that a poor railing program for an individual mine within a cluster might well affect the other mines within that cluster. This is inappropriate, as the railing commitment should be based on the individual mine.

Clause 2 is inappropriate because it is not at all uncommon for railing programs **per mine** to vary between 10% and 180% of entitlement – based on historical figures.

Clause 3 is the most appropriate arrangement. Historical data has shown that over a 3-month period the levels of demand for coal per mine (DBCTPL mines) tend to cycle and what has not been shipped in the earlier months will be shipped in later months and vice versa.

DBCTPL has undertaken much research into the levels of variability within the Goonyella Corridor Supply Chain. The findings have indicated that 10% variability in the railing demand across all mine sites (the supply chain) is appropriate, however the variability within each cluster may well be higher.

The ability to accommodate demand fluctuations of 10% enables the supply chain to be more responsive to the demand of the ship stream – ship arrival pattern being the ultimate source of variability throughout the supply chain.

To impose a more aggressive 'take-or-pay' element within this structure would be detrimental to the overall efficiency of the Goonyella Corridor Supply Chain. A more aggressive 'take-or-pay' element would impose a far more strict railing consistency. Historically, this has lead the Terminal into a stock bound situation, reduced throughput and increasing demurrage. Analysis has shown demurrage to be exponentially accumulating, and the inability to handle variability ultimately drives demurrage higher.

It is DBCTPL's firm belief that variability is an inherent element of the Goonyella Corridor Supply Chain – a tolerated non-conformance. The cost of this non-conformance upon the ultimate client should be minimised by providing the ability to manage this non-conformance through their tariffs via the take-or-pay element.

**Queensland Government** – there is a need to strike an appropriate balance between arrangements to ensure even railings for coal mines, accurate forecasting of capacity requirements and genuine contractual commitments. The take-or-pay arrangements proposed by the QCA arguably favour the mines and operators. The threshold, before which QR can trigger the take-or-pay provisions within a contract, has been set fairly high. Such a high threshold will mean the take-or-pay arrangements will place minimal discipline on the coal mines and operators to commit to capacity which reflects a realistic expectation of their future demand or to rail evenly over time. For example, the cluster or system-wide trigger of 10% would have resulted in the first threshold being reached only once in the past 22 months on the Blackwater system. Accordingly, the Government believes the QCA should reconsider the balance of the approach it has proposed.

### *QCA's analysis*

There are three sets of issues that emerge from the reference tariff structure:

- the appropriateness of the current proposal for access to QR's network;
- the inclusion of additional elements in the structure on account of new services; and
- the appropriateness of the take-or-pay arrangements.

#### *Appropriateness of proposed tariff structure*

Stanwell suggested that it would be desirable if a declining block tariff structure were adopted. However, developing such a tariff structure would add enormous complexity to the reference tariff arrangements. It is thought those that are proposed are complex enough for the early stages of the above-rail market and that it would be undesirable to add additional complexity at this stage, although this may become an issue in future reviews. Accordingly, the QCA has not adopted this approach at this time.

The QCA remains open to changes in the components of a tariff structure if evidence emerges that changes are appropriate. In particular, the Authority believes that this is the case for the calculation of capacity, which is discussed below. The QCA is therefore comfortable with QR bringing forward further information, as they have done so in the context of this review, in future reviews. Also, within the term of a review, QR is free to bring forward a change to a tariff structure through lodgement of an amending undertaking. However, above-rail operators must be allowed an opportunity to revise their operational configuration in response to any QCA-approved change in reference tariffs. Moreover, a critical consideration in any such review will be to assess whether the change is sufficiently material to warrant an adjustment to reference tariffs – clearly there is merit in maintaining a relatively stable pricing environment.

The QCA accepts QR's suggestion that it is not appropriate to regulate the frequency of changes in the electric power tariff structure. The QCA's key concern is that QR's changes to prices for use of the overhead system should not be pursued to achieve anti-competitive objectives, but this is unlikely under QR's proposed approach. The Authority considers that the appropriate vehicle for this to be resolved would be the submission of an amended undertaking. Indeed, the proposals outlined in the Draft Decision were intended to increase rather than reduce QR's flexibility in this regard.

#### *Impact of cost drivers*

The QCA accepts the concerns that have been expressed by stakeholders in relation to the quantification of capacity consumption for the purposes of calculating access charges for the coal system. The Authority's work in this area has continued since the release of the Draft Decision.

However, at the time of the release of this Final Decision, there remain issues on the QCA's approach that are yet to be resolved. Accordingly, the Authority intends publishing a detailed paper following the release of the Final Decision. It is proposed that the paper deal with all relevant issues associated with the measurement and pricing of capacity consumption, including whether a tool will be nominated and data released by QR to assist third party operators conduct their own analysis.

To remove doubt, in response to stakeholder queries, it is intended that all paths that are consumed should attract the incremental capacity charge and the frequency of specification and re-specification of paths required should be determined in the standard access agreement process.

Similarly to remove doubt, it is proposed light engine running on the coal systems attract the incremental cost (maintenance and capacity) arising from the movement.

#### *Take-or-pay component*

There are two distinct objectives that are sought to be achieved through the take-or-pay arrangements:

- the achievement of even railings; and
- a mechanism to discourage mines overstating volume forecasts in an attempt to lower access charges.

The QCA does not accept that difficulty in triggering the take-or-pay arrangements is in itself evidence of a deficiency in the arrangements. The QCA's concern is to create a pricing structure that is consistent with minimising the long-term costs of the coal chain. In particular, the Authority considers a conservative approach is desirable for below-rail utilisation given the prospect that aggressive take-or-pay arrangements could increase the total costs of the coal chain.

For example, the QCA notes DBCT's submission that highlighted the potentially perverse results that could arise under an aggressive even railings policy because of the higher demurrage costs that it may entail. With relatively little known about these interdependencies, the Authority considers it would be dangerous to impose aggressive take-or-pay requirements at this time. In addition, the pressures produced in the above-rail market are likely to be a far more effective driver of even railings than a below-rail utilisation factor. Consequently, the even railing take-or-pay trigger must be comprehended in the context of the coal chain, and in particular, the fact that below-rail capacity is a relatively inexpensive component of that chain.

Accordingly, the QCA does not consider it appropriate to revise the test that was outlined in the Draft Decision. However, the Authority recognises the practical limitations of its proposed approach in relation to the aggregation of mines that QR put forward and accordingly accepts that it would be inappropriate to aggregate mine output for those mines with common ownership. For clarification, the test that would be applied would be that 20% of access charges would be paid on the difference between actual railing and 90% of forecast railing for that month.

The second rationale for the take-or-pay arrangements is to encourage mines to be realistic when indicating future railings. This problem is a particular concern on the Newlands corridor because of the common ownership of the mines that comprise it. However, under the current approach the desirability of adopting such a strategy is not clear. For example, the triggers for the review of tariffs place a natural limit on the extent to which mines can overstate volume

forecasts. Moreover, the mine that overstated its capacity would pay the take-or-pay, but the entire corridor would benefit from the lower charges from expanded output.

In addition, the long-term costs of coal transportation will increase if QR expands capacity (that is, commits to below-rail investment) to meet demand that never arises. The QCA's limited approach to the optimisation of system capacity was motivated in part by a desire to send QR a signal that tolerated a degree of surplus capacity on its system.

Indeed, a major concern for the QCA in considering this issue is the risk that the take-or-pay arrangements will encourage mines to underestimate output in order to minimise the risk of the take-or-pay arrangements being triggered. In a take-or-pay environment, a free rider problem could emerge where individual end users have an individual incentive to understate throughput. The congestion this could create could impose significant costs on the economy in foregone output.

Accordingly, whilst the QCA accepts QR's legitimate business interests should be protected which requires some arrangement to be established, it is reluctant to impose a threshold test that is easily triggered. Accordingly, it is proposed that if a mine fails to rail 100% of its annual commitment, and the corridor also fails to rail 100% of its collective commitments, then that mine must pay 20% of the access charge based on the difference between its commitment and actual railings. This would displace the requirement to buy paths up-front.

This raises the issue as to the appropriate treatment for those mines that prematurely cease operation. The QCA understands that a feature of the Queensland coal mining industry is that the output of non-producing mines is typically taken up by other Queensland mines. This is important because QR's volume risk is ultimately a function of industry-wide railing. Moreover, the incidence of take-or-pay arrangements will have little if any effect on the decision of a mine to reduce production.

Apart from risks associated with industry-wide railing, QR faces risks associated with the stranding of its investment in spur lines. However, spur lines that are not privately owned already form part of QR's asset base, irrespective of the original funding arrangements. The QCA would be reluctant to strand these assets even if the mine they served closed operation (unless there is evidence of the lines not being depreciated appropriately). The financing of spur lines for new mines will be determined by negotiations between QR and the mine (under the QCA Act, QR cannot be forced to finance investment in further rail infrastructure).

Whilst QR would not appear to be unreasonably exposed in the event of mine closure, it is proposed that the maximum liability for the mine be determined by applying QR's 2-year rule for take-or-pay (at 20% of total annual access charges) where a mine shuts down.

#### ***QCA's position***

**The QCA considers it appropriate that the Draft Undertaking be amended such that the reference tariffs are structured as follows:**

- 1. a usage-based charge which reflects the incremental operating and maintenance costs expressed on a per GTK basis;**
- 2. a capacity charge that covers the incremental cost to the network owner of the provision of capacity expressed per train path;**
- 3. a charge for the use of the electrical overhead network only if**

- an above rail operator uses it;
4. **an allocative charge for the remainder of QR's revenue which is based, for each cluster, on equal amounts being collected on:**
    - a per tonne basis; and
    - a per net tonne kilometre basis;
  5. **take-or-pay arrangements for even railings which are only triggered for a mine where:**
    - the cluster in which the mine belongs fails to rail 90% of the monthly average requirement for that cluster (adjusted for the number of days in the month);
    - the mine fails to rail 90% of its monthly average requirement (adjusted for the number of days in the month); and
    - over the preceding 3 months the operator and the mine fail to rail 90% of their average requirement over that period, with the charge being calculated on the basis of 20% of the difference between the actual access charges paid and the access charges that would have been paid if 90% of the commitment had been hauled;
  6. **take-or-pay arrangements for mines failing to rail committed tonnages only where:**
    - the corridor in which the mine belongs fails to rail 100% of the total annual commitment for that corridor; and
    - the mine fails to rail 100% of its annual commitment, with the charge being calculated on the basis of 20% of the difference between the actual access charges paid by the mine over the course of the year and the access charges that would have been paid if 100% of that mine's commitment had been hauled; and
  7. **where a mine is abandoned, maximum liability of the mine be limited to a 2-year take-or-pay requirement based on 20% of annual commitment as contained in the contract.**

## 10.4 Specification of the reference train service

### *Background*

The Draft Undertaking envisages that train service characteristics that depart from the reference train service could normally be expected to attract a price difference. In this context, reference tariffs will promote commercial negotiation by clarifying the pricing implication of departures from this benchmark.

QR indicated that the choice of parameters comprising the reference train service was driven by a desire to reflect those factors likely to significantly affect the costs or risks of providing train services. QR's reference train service description, contained in reference tariff schedules for each of the proposed clusters, is subdivided into various components – service to be provided; commodity type; geographic scope; technical characteristics; capacity-related characteristics; and conditions of access.

The QCA was concerned that the effectiveness of reference tariffs depends upon ensuring that the specification of the reference train service represents the most appropriate set of train service characteristics, consistent with customers obtaining their preferred price/service quality trade-off. The Authority considered each parameter on a case-by-case basis and, in a number of instances, indicated variations to QR's proposals.

In addition, the QCA indicated the parameters where departures are likely to involve material pricing implications as opposed to those that will not.

### ***Stakeholder views***

**QR** - it appears that the QCA has misunderstood the purpose of the specification of the reference train service and the reference tariff schedule, particularly in the context of the access agreement that will be entered into between QR and the operator.

QR has proposed the reference tariff schedule, including the specification of the reference train service, as a tool to aid negotiation of an access agreement. Hence, the specification of the reference train service does not necessarily reflect an unlimited use of the declared service, rather a certain standard of service within the scope of the declared service. QR will negotiate with operators, in accordance with the terms of the Undertaking, regarding a variation to the reference train service so long as it remains within the scope of the declared service.

Once an access agreement is signed, the access agreement will govern the relationship between QR and the operator. In this context, the reference tariff schedule has no relevance to the ongoing management of the access arrangement, unless the operator is seeking guidance on the implications of it changing its train service.

The Draft Decision discusses a wide range of parameters for the reference train services, however, it is not necessarily clear what variation to these parameters the QCA is envisaging resulting from this discussion.

QR acknowledges there will need to be amendments to certain reference train service parameters given the adoption of the multi-part tariff for track access. The most significant of these is the limit on train size (identified by way of gross tonnage per train). QR will address this in the revisions to the reference tariff schedules. In addition, there are a number of reference train service parameters that were not finalised at the time of the provision of the draft reference tariff schedules to the QCA, namely transit time, loading and unloading time and stowage time. Below is a brief discussion on each of these parameters and QR's position on how these should be treated in the reference train service definition.

*Transit time* - In practice, QR will only provide a different level of crossing delays for different services where it is confident that such service can be robustly scheduled and consistently provided. QR will not offer operators an automatic right to obtain a different priority at crossings.

Within the flexible scheduling environment provided for the coal reference train services, QR does not consider that it will be able to deliver this objective for one coal train service compared to other coal train services ie different priority for different coal train services without causing substantial disruption to the operation of the system overall.

It should be noted QR may be prepared to offer different crossing delays (via different crossing priority) for timetabled services, as in these circumstances QR has a greater ability to ensure this service variation can be provided in a robust and consistent way. This approach is

consistent with the manner in which different priority services are currently provided on the network.

While the requirement all coal services utilising the flexible scheduling system accept the same priority differs from the QCA's position, it is consistent with the views put to QR by other key stakeholders in the coal logistics chain, specifically:

- QMC has strongly advocated to QR the continuation of 'in line running' for the coal systems (that is, not providing different priority for different train services) on the basis that this approach leads to by far the most efficient utilisation of the system, and the greatest robustness of service delivery; and
- this approach is also consistent with the views railway operators have put to QR. In particular, FreightCorp is not seeking a different level of priority from QR's Coal & Freight Services in operating on the Blackwater system. QR acknowledges this approach puts a great deal of emphasis on developing a transit time for the reference train service that is a reasonable balance between the interests of operators and QR as railway manager and that is, therefore acceptable to all operators. As noted previously, QR does not intend to simply assume the existing transit time of train services is the appropriate balance, there needs to be substantial analysis in order to develop this transit time. This analysis is being progressively undertaken for each system, with Blackwater the first to be finalised.

A further implication of this approach is it will only be necessary for the reference tariff to be able to be adjusted to reflect any change in section run times from the reference train service (that is, not to reflect the different priority given to various coal carrying services). QR's detailed comment on the methodology for assessing the different capacity utilisation of trains with different section run times is incorporated in Appendix 1 of the submission.

*Stowage* - QR is concerned the QCA has misinterpreted the stowage allowance that will be included as part of the reference train service. The stowage allowance is intended to reflect the *average* stowage time per train service that is *scheduled* to occur. The QCA's suggested one week or more stowage time would be inappropriate for the reference train service as it is referring to the *maximum* stowage that may occur due to a combination of *scheduled* and *unforeseen* circumstances. This is not to say QR will not provide additional stowage for an operator if required, but rather that the requirement to schedule additional stowage (over and above the allowance in the reference train service) would incur an additional charge, as stowage facilities are not costless for QR to maintain.

It is likely the average stowage time for each reference train service will number in the hours, rather than in the days, however further analysis is required prior to finalising the proposed stowage allowance. Once again, this analysis is being undertaken on a progressive basis and the Blackwater system will be the first to be finalised.

*Loading/Unloading Times* - It is critical the reference train service establishes a benchmark time for both loading and unloading. The extent to which the access charge varies from the reference tariff as a result of a variation in the loading/unloading time will depend on the impact such variation has on the capacity utilisation of the network.

As with the other factors impacting on the capacity utilisation of the reference train service, QR is currently undertaking the required analysis on a progressive basis, and the Blackwater system will be the first to be finalised.

**FreightCorp** - supports the QCA's relaxation of the definition of the reference train. This is a logical flow-on from the way in which the charging mechanism is constructed.

### ***QCA's analysis***

QR argued that the QCA has misunderstood the purpose of the specification of the reference train service and the reference tariff schedule. In its view, both are tools to assist in the commercial negotiation of an access agreement. Accordingly, the specification of the reference train service does not reflect an unlimited use of the declared service, but rather a certain standard of service within the scope of the declared service.

The QCA accepts this point. However, it notes that QR has not been specific about the particular standard of service it actually intends providing. In this context, the Authority is unable to adequately respond to these matters until all stakeholders are fully aware of the details. It is expected that this information will be made available during the course of the development of the Standard Access Agreement, subsequent to the release of the Final Decision.

QR points out that the Draft Decision discussed a wide range of parameters and did not make it clear what variations to these parameters that the QCA was seeking. To the contrary, the Authority did not see this as the objective of its analysis. It viewed QR's reference tariff schedules as putting forward a number of parameters for its reference train service without providing adequate indication of the implications of a departure from those parameters. Accordingly, the Draft Decision merely sought to provide some guidance as to the likely outcomes of dispute resolution processes in connection with departures from the stated parameters.

QR identified that a number of reference train service parameters were not finalised at the time that draft reference tariff schedules were provided to the QCA. As part of their submission to the Draft Decision, QR identified how each of these should be treated in respect of the reference train service definition:

- transit time – QR proposes that there will be no variation to the level of priority for the coal reference train services because it cannot be confident that service levels with a differing level of priority can be accommodated. Furthermore, QR argued that QMC has strongly advocated in-line running as the most efficient utilisation of the system and that FreightCorp is not seeking a different level of priority from QR's coal and freight services operating on the Blackwater system. The QCA notes that the effect of QR's proposed arrangement is to impose a desired level of priority on all operators, as opposed to sectional running times. Whilst it acknowledges that differing levels of priority may significantly impact on the consumption of capacity, the Authority remains concerned that QR is automatically setting the only possible level of priority on the system. The QCA considers that an option may be to develop, in conjunction with the specification of capacity entitlements, a transit time that reflects a reasonable balance for all operators. This will be addressed through negotiations to develop a Standard Access Agreement;
- stowage – the stowage allowance is intended to reflect the average stowage time per train service (in hours) that is scheduled to occur, rather than a maximum stowage that may occur due to a combination of scheduled and unforeseen circumstances. If required, QR will be prepared to provide additional stowage for an operator, at an additional cost. The QCA is concerned that QR has not identified the stowage level it proposes to incorporate into the access agreement, nor any arrangement for the development of charges for additional stowage; and
- loading/unloading times – the extent to which access charges vary from the reference tariff as a result of the variation in these times will depend on the impact such variation has on the capacity utilisation of the network. The QCA notes that QR has not put forward any loading and unloading times nor attempted to quantify the cost impacts of variations.

The QCA expects that these matters will be more closely assessed as part of the negotiations process for the development of the Standard Access Agreement.

***QCA's position***

**In assessing QR's reference tariffs, the QCA accepts QR's proposed arrangements in the Reference Tariff Schedules, subject to:**

- 1. the reference train not specifying gross tonnages;**
- 2. capacity consumption being determined by reference to the standard train path for the corridor rather than the dominant train; and**
- 3. allowance being made for acceptable variations as itemised in the QCA's consideration in Chapter 10 of the Draft Decision.**

## **10.5 Geographic scope of the reference train service**

### ***Background***

Schedule G of QR's Draft Undertaking identified seven origin-destination combinations or mine clusters (Moura, West Moreton, Blackwater, Goonyella South, Goonyella North, Goonyella West and Newlands), based on a number of characteristics, including their contribution to total net tonnes and traffic movements on the network, traffic stability and the fact that neighbouring mines will reasonably expect to be charged similar access charges. QR later proposed that the Blackwater cluster be separated into three distinct clusters (Central Blackwater, Stanwell and Gregory) and indicated a reference tariff for mines on the Gregory cluster to travel on the Goonyella system.

The QCA accepted QR's proposed clusters. However, the Authority determined that where a system comprised multiple clusters, such as Blackwater, the clusters are not to be considered as separate groupings for the application of take-or-pay arrangements. Rather, the take-or-pay component of the reference tariff would operate on the basis of system-wide activity levels.

Mines within the Gregory cluster, principally Kestral and Gregory/Crinum but extending to Ensham and Oaky Creek, have a choice as to which port they export their coal from. The QCA resolved that these mines should not be penalised because a choice exists and therefore, unless QR can justify it not doing so, the reference tariff for the South Goonyella system will apply to these mines when hauling coal north.

For assessing access charges applicable to the Stanwell cluster, the Blackwater system was broken into two parts – the system to Stanwell and the system from Stanwell to Gladstone Port. Reference tariffs for the traffic terminating at Stanwell Power Station were calculated on a consistent basis to the other reference tariffs.

### ***Stakeholder views***

#### ***Assessment of proposed clusters***

**QR** - proposes the Blackwater to Stanwell cluster will incorporate all mines in the Blackwater system as potential origins (rather than just those mines currently railing to Stanwell). This provides greater certainty for Stanwell as to the likely access charges that will apply in relation to a range of coal sources.

**FreightCorp** - endorses the QCA decision to base UOP provisions on a system rather than individual mine or cluster demand. The decision to include the Stanwell Power Station traffic

in the Gladstone export coal correctly identifies that this traffic is an integral part of that wider system even though it is a shorter haul.

*Cross-system traffic access charges – Gregory cluster*

**QR** - agrees with the QCA's comments that the mines on the Burngrove to Gregory branch (referred to as the Gregory branch) have the greatest potential to use either system, as they are roughly equal distance from both Gladstone and Hay Point/Dalrymple Bay.

QR is extremely concerned with the approach the QCA is taking in relation to the reference tariff to apply to mines on the Gregory branch and believes the purpose behind the QCA's recommendation is unclear.

The approach QR has proposed to apply is fully consistent with the pricing limits identified in Part 5 of the Draft Undertaking. In particular, no mine, nor group of mines, is paying access charges that recover greater than the stand-alone cost of provision of access for those mines. The QCA has endorsed this concept for establishing pricing limits.

- QR believes it is clearly within its legitimate business interests to use the flexibility afforded it through the pricing principles to avoid giving a major financial incentive to mines to transfer tonnages from the Blackwater system to the Goonyella system, given that this is likely to have a significant negative financial impact on QR's Blackwater system, the mines continuing to use the Blackwater system and the Gladstone Port Authority. The QCA has a clear obligation under the QCA Act to consider QR's legitimate business interests.
- QR does not believe the transfer of these tonnages north represents a desirable allocation of resources from the perspective of the State economy. Such a movement will create a requirement for additional investment in QR's Goonyella system as well as further investment in the ports at Hay Point/Dalrymple Bay, while concurrently creating underutilised assets on QR's Blackwater system and the Gladstone Port Authority. Therefore, QR does not consider it is obvious the public interest is promoted as a result of these mines having a pricing incentive to rail north.

Given the above, it seems the QCA appears to be using the reference tariff mechanism to require QR to price at a specific point within the accepted pricing limits, purely from the point of view of assessing what is 'fair' from the perspective of those mines on the Gregory branch. The QCA's criteria for assessing what is 'fair' is unclear, as competition theory does not include any expectation or requirement for 'fairness' and as such provides no guidance on what is 'fair' from an economic perspective. However, QR would like to make the following observations on 'fairness' in the context of the reference tariffs to apply to the Gregory branch:

- QR does not believe the approach it had proposed for developing the package of reference tariffs will necessarily result in QR 'penalising' those mines on the Gregory branch with a choice of which port they will use. The fact these mines have this choice means QR has created a pricing structure that provides for these mines to be relatively better off than the adjoining Blackwater Central cluster when railing south, but relatively worse off than the adjoining Goonyella South cluster when railing north. At this time, the majority of tonnages from all of these mines are railed south. As a result, in total, QR believes it is difficult to sustain that these mines are being penalised for having a choice as to which port they use.
- The outcome of the QCA approach is the parties that will pay in order to facilitate the Gregory branch mines being charged a marginal price to rail to Hay Point/Dalrymple Bay are the mines on the Central Blackwater and Stanwell clusters (via higher access charges), and QR and the Gladstone Port Authority (via potential stranded assets).

These stakeholders can equally ask the question of whether this is 'fair'. The alternate view is that if those mines on the Gregory branch create the stranding of assets, then they should be the parties that effectively pay the cost of that asset stranding. QR believes the QCA should not be using the reference tariff mechanism to require QR to price at a particular point within the floor/ceiling pricing limits, unless this is clearly required in order to ensure QR complies with the pricing principles set out in the undertaking.

## ***QCA's analysis***

### *Assessment of proposed clusters*

Prior to the release of the Draft Decision, QR submitted reference tariff schedules which separately identified a Stanwell cluster for those mines railing coal to the power station near Rockhampton. The points of origin listed in the Stanwell schedule were limited to Curragh, Cook, Blackwater and Ensham - those mines railing coal to Stanwell at the time.

In its submission to the Draft Decision, QR proposed to recognise the potential for additional hauls by incorporating all mines in the Blackwater system as points of origin. The QCA accepts this amendment.

The QCA also believes that given its proximity on the network and the fact that it currently rails coal on both the Goonyella and Blackwater systems, Oaky Creek could be included as part of the Gregory and South Goonyella clusters.

### *Cross-system traffic access charges – Gregory cluster*

Given the potential for mines on the Gregory branch to rail tonnages on the Blackwater or Goonyella systems, QR submitted reference tariffs for the Gregory via Blackwater and Gregory via Goonyella clusters. In establishing these tariffs, QR stated that it did not wish to give these mines a substantial pricing incentive to move tonnages north rather than south, as this would have adverse consequences for QR, the remaining mines on the Blackwater system and the Gladstone Port Authority. As a result, QR established the reference tariffs such that, from an access charge perspective, mines on the Gregory branch would be close to indifferent to their choice of port.

The QCA did not accept QR's proposal for a Gregory via Goonyella reference tariff. In the Draft Decision, the QCA took the view that mines should not be penalised because a choice of corridor exists. Consequently, when railing north, the Authority believed that these mines should pay an access charge based on the South Goonyella reference tariff, unless QR can show that this does not cover the incremental cost to the Goonyella system of these mines railing north.

In its submission to the Draft Decision, QR expressed concern that the QCA's approach did not give sufficient regard to QR's legitimate business interests and that competition theory does not include any expectation nor requirement for fairness. However, the Authority considers that this contention misses the point in regard to competitive market outcomes. Conceivably, if the Goonyella and Blackwater systems were both competing, it may be expected that market forces would ensure that mines having a genuine choice would attract the lowest prices from both systems rather than the highest that QR is asserting. This highlights the perversity of QR's proposed approach.

QR correctly points out that the public interest is served by minimising total resource consumption. This was identified by the QCA in the Draft Decision. However, the QCA considers that in this context, rather than the pricing structure, the most relevant consideration should be the additional above-rail costs imposed on users from the alignment of the Blackwater system.

The QCA maintains that the approach it proposes ensures that stranding risk would only occur to the extent that the Blackwater system is optimised on account of the fact that the current alignment is sub-optimal, despite being rebuilt only 10 years ago. It is possible that cross-system traffic leakage to the Goonyella system could create an asset stranding risk for QR.

In the Draft Decision, the QCA proposed that there were several ways in which the asset stranding risk could be ameliorated without distorting the efficient allocation of resources. The Authority reaffirms these options which included:

- the assignment of network-wide benefits in a way that is consistent with the preservation of system-wide values;
- adjusting the reference tariff structure in such a way that does not conflict with QR's pricing principles; and
- the recovery of the shortfall on a non-distortionary basis from users on both the Blackwater and Goonyella systems.

However, these options would need to be considered in the context of whether optimisation of the Blackwater system was appropriate on the basis of the alignment of that corridor. In any event, these steps are unlikely to be necessary given the particular mines commitment to the ports.

The QCA maintains the view that mines on the Gregory branch should be subject to the South Goonyella reference tariff.

***QCA's position***

**In assessing QR's reference tariffs, the QCA accepts QR's proposed clusters except that the take-or-pay component of the reference tariff should operate on the basis of system-wide activity levels.**

## **10.6 Assigning new mines to clusters and deleting mines from existing clusters**

### ***Background***

The QCA was concerned that the determination of access charges for new mines, irrespective of whether they are included in the existing cluster arrangement, could potentially convey an inappropriate competitive advantage relative to existing mines.

Consequently, for new mines without a choice of corridor, the QCA determined that:

- a mine further away on the system cannot be arranged in a cluster such that, in absolute terms, it pays less per tonne than those other mines, based on the reference train service; and
- the access charge levied on the new mine must not increase access charges for existing users.

For new mines that do not fall within existing clusters, access charges will be set in a manner that recovers all additional costs that the new mine imposes on QR.

### ***Stakeholder views***

**QR** - the QCA's recommendations present a presumption that, provided application of the nearest reference tariff would meet the incremental cost for a new mine, then that is the rate that should be applied. Effectively, QR would be obliged, in such a situation, to charge that mine no more than the incremental cost it imposes on the network.

QR considers the charge that applies for a new mine is effectively a balance between the interests of the new user and the existing users of the system. Whereas a requirement for that new mine to be charged at average cost on a line section by line section basis is arguably weighting that balance towards existing users, and hence reducing the potential for development of new resources, an obligation to charge the new user at incremental cost can equally be argued as weighting that balance towards the new user, and promoting the development of resources that would otherwise be uneconomic.

QR and the QMC had been working towards an approach to balance the interests of the new and existing users (that is, the tonnes/distance ratio) and to create an environment where development of new resources could be facilitated where this was in the best interests of the industry and the state of Queensland. This approach effectively only guaranteed a new mine that it would get the existing reference tariff if it were expected to contribute a similar amount to the fixed costs of the line as the lowest contributing existing haul within that cluster. The tariff to apply for mines failing this test would then be assessed on a case-by-case basis.

QR continues to be of the view that, where a mine would make a significantly lesser contribution to the fixed costs of the infrastructure than the lowest contributing mine in the existing cluster, a case by case assessment of the tariff to be applied is required in order to develop a reasonable balance between the interests of the new and existing users. This effectively means this mine would be considered to form a new cluster, and the new reference tariff would need to be provided to the QCA for endorsement. QR does not believe there should be an automatic presumption the reference tariff for the existing cluster will apply, provided it covers the incremental costs of the new operation.

**FreightCorp** - supports the QCA's position that changes in cluster arrangements during the course of the undertaking would necessitate a new undertaking, reducing the risk QR would impose substantial changes in terms and conditions on operators without consultation and regulatory scrutiny. The safeguards outlined by the QCA appear appropriate to prevent either new mines or existing mines from being disadvantaged as a result of adding mines to a cluster.

**Stanwell** - the Authority proposes that access charges for new mines (except those on the Gregory cluster) "should be subject to a test that a mine further away (from its destination) than existing mines on a system cannot be arranged in a cluster such that, in absolute terms, it pays less per tonne than those other mines, based on the reference train service". Having reviewed the Authority's reasoning, two points can be made in relation to this assertion.

First, the Authority has not taken the possibilities of economies of scale and scope into account (except in the case of economies of scope for the Gregory cluster). If in the future a more distant mine produces substantially higher volumes than existing mines, there seems no reason (in terms of economic efficiency) why that mine ought not pay lower per-unit charges than the existing mines, whether these be in the form of lower access charges, volumetric charges, or both. Our comments in relation to declining block tariffs are also relevant in this context. Neither should a mine that, in the future, yields substantial economies of scope across the entire network, or a significant part of it, be precluded from lower per-unit charges simply because it is more distant from its destination.

Second, SCL notes that the Authority may have wrongly equated discriminatory pricing with different prices, in that it espouses non-discriminatory pricing, but advocates that more distant mines pay the same charge per tonne as applies to other mines on the same corridor. Pricing may still be discriminatory where the prices are the same across mines, but the costs are different; or where the ratios of price to (marginal) costs are different between users. Again, it matters little - in terms of economic efficiency - whether this occurs in relation to the access charge, the volumetric component, or both.

#### *Recognition of future up-front payments*

**QR** - although not included in its recommended variations to the Undertaking, the QCA has made a reference to the manner in which it expects credits for future up-front payments will be determined. The purpose of using up-front payment in the future will be to mitigate QR's volume risk on mine-specific investment in rail infrastructure. It is QR's view the manner in which credits are provided should be assessed on a case-by-case basis to ensure the resulting assumption of risk by both parties is consistent with this purpose. It is neither necessary nor appropriate for the QCA to make a general recommendation on how this occur.

***QCA's analysis***

QR does not believe that there should be an automatic presumption that the reference tariff apply for a new mine that is a significant distance from an existing cluster, even if the reference tariff would cover the incremental cost associated with access for that new mine. Rather, QR considers that the access charge should be set in a way that balances the interest of the new mine with the existing users of the system, using a tonnage-distance ratio. Where it is of the view that the existing reference tariff should not apply, QR proposes that the mine would form a new cluster and a new reference tariff would be provided to the QCA for endorsement. Whilst QR indicated this matter had been the subject of QR/QMC discussions, the QMC accepted the QCA's approach as outlined in the Draft Decision.

Stanwell provides a conflicting view. It argues that a new mine may be the recipient of lower access charges than incumbents by virtue of the longer distance for coal to be railed. As such, it is critical of the QCA's proposed reference tariff structure without offering a viable alternative.

The QCA recognises that there is no 'correct' nor definitive formula that can be applied for adding new mines to clusters. Its proposal to apply an incremental cost test provides the floor for new mines joining a new cluster as existing mines would be no worse off from such an approach. In this manner, the QCA considers that its approach is consistent with the public interest because it does not distort the development of new resources and is likely to be consistent with maximising the output of Queensland's coal mining industry.

***Recognition of future up-front payments***

In the Draft Decision, the QCA proposed that, where QR receives access charges up-front as part of a risk-sharing arrangement, the revenue should be amortised over the life of the proposed contract for the purpose of assessing future pricing arrangements. The discount rate for this amortisation would be the weighted average cost of capital applying at the time that the up-front payment is made.

QR does not believe that it is necessary nor appropriate for the Authority to make a general recommendation on the manner in which credits for up-front payments will be determined. Rather, in its view, the matter should be assessed on a case-by-case basis with regard had to the minimisation of QR's volume risk on mine-specific investment in rail infrastructure.

In practice, the Authority accepts that the future recognition of up-front contributions for mine-specific infrastructure would be the result of negotiations between QR and the mine owner.

***QCA's position***

**In assessing QR's reference tariffs, the QCA considers that access charges for new mines (other than those on the Gregory branch):**

- 1. should be subject to a test that a mine further away than existing mines on a system cannot be arranged in a cluster such that, in absolute terms, it pays less per tonne than those other mines, based on the reference train service; and**
- 2. should not cause new mines to pay a higher €/ntk component of the reference tariff than mines closer to their destination so long as this meets the first test and does not increase existing users' access charges.**