
3 Background on the Short Term CDS and transition to the Proposed Medium Term CDS

3.1 Introduction

The purpose of this section of the submission is to update the Commission on the operation of the Short Term CDS and to put the Proposed Medium Term CDS in context.

3.2 The Hunter Valley coal chain and the cause of congestion at the Newcastle Port

As the Commission will be aware from its consideration of the Short Term Authorisation, the Hunter Valley coal chain consists of the following stages that Hunter Valley coal passes through from mine to port:

- mined coal is transported either through a railway siding (“**load point**”) located at the mine or to a coal loading facility;
- PWCS advises Pacific National¹ of the transport requirements for the shipment;
- the coal is then transported to the Port, almost exclusively by rail;
- at the Port, the coal is offloaded onto stockpiles where it may be blended with other coals; and
- once the vessel arrives at the port, coal is reclaimed from the stockpile and loaded onto the vessel, which then transports the coal to its destination.

Vessels at the Port are loaded on a ‘turn of arrival’ basis and any party wishing to use the Port to load coal may do so once they sign a Coal Handling Services Agreement (“**CHSA**”) with PWCS and pay a flat coal handling services charge, which is currently set at \$2.70 per tonne.

In the latter part of 2003, persistent queues of vessels formed off the Port waiting to load coal from PWCS’s export coal loading terminals. These queues were caused by a combination of the following factors:

- **Rail delivery limitations** -- even operating at close to full capacity, the Hunter Valley rail delivery system was not able to transport coal from Hunter Valley load points to the Port fast enough to meet shipping demand - in the Hunter Valley, the rail track infrastructure as from 5 September 2004 will be the subject of a long term lease to the ARTC;
- **High vessel arrival rates** -- reflecting high overseas demand for coal produced at Hunter Valley coal mines;

¹ Pacific National is currently the only rail freight provider for coal, although Queensland Rail (“**QR**”) has indicated it will wish to commence operations in 2005.

- **Historically, no effective planning system** -- shipping arrangements such as chartering vessels, arranging arrival dates, negotiating freight rates and meeting point requirements are the buyer's responsibility as the vast majority of Hunter Valley coal is sold on an FOB basis. Accordingly, no one party has knowledge of all the shipping arrangements of customers exporting coal through PWCS. In addition, PWCS and the providers of services and facilities in the Hunter Valley coal chain had no real control over the timing and quality of vessel arrivals; and
- **High levels of offshore demand** - particularly from Japan and, indirectly, China.

Accordingly, these limitations on the capacity of the Hunter Valley coal chain, together with the high demand for coal loading services due to high global demand for coal, created an imbalance between capacity and demand and consequently an imbalance between ship arrival and loading rates, creating an extensive vessel queue. PWCS estimates that Hunter Valley coal exporters paid a total of AUD\$100 million in demurrage to overseas shipping companies in 2003 for their ships to remain idle, during which time the vessel queue averaged 21 vessels. The vessel queue peaked at 56 ships on 14 March 2004, just prior to the introduction of the Short Term CDS.

3.3 The Short Term Authorisation

On 5 February 2004, PWCS applied to the Commission for an interim authorisation to implement the Short Term CDS in order to address the queues at the Port. On 5 March 2004, the Commission granted interim authorisation and PWCS implemented the Short Term CDS with the Commission ultimately granting a final authorisation on 9 July 2004. Since then, vessel queues off the Port have been reduced to the current level of efficient operation of approximately 10 vessels and PWCS estimates that Hunter Valley coal exporters have saved approximately US\$47 million in demurrage for the period April 2004 to August 2004 inclusive, with estimated demurrage savings to the end of December 2004 of US\$173.5 million.

The Short Term CDS was able to achieve this result without reducing the actual amount of coal throughput at the coal chain and Port - in fact, coal chain capacity reached an annualised 80 million tonnes in the six months to June 2004, which was an improvement of some 10% in the volume of tonnes actually loaded in 2003. Table Four below shows the estimated demurrage costs and savings over 2004 comparing the situation with and without the Short Term CDS and Figure Two shows the dramatic decrease in queue length since the introduction of the Short Term CDS.

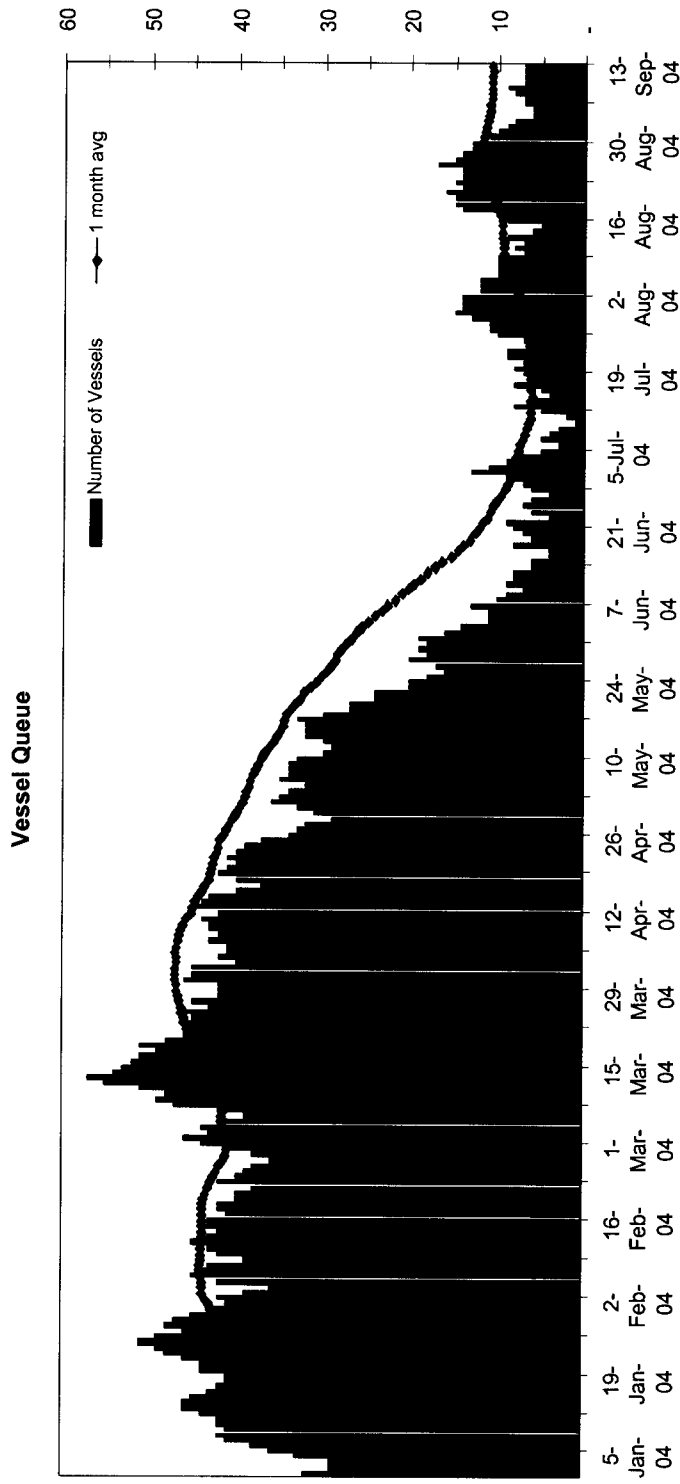
**Table Four: Queue length and demurrage 2004
(no maximum queue length assumed)**

Month	Cumulative (Average) Queue Days		Demurrage \$US mil		
	Forecast (without CDS)	Actual (with CDS)	Forecast (without CDS)	Actual (with CDS)	Demurrage Savings
April	1,430 (48)	1,169 (39)	14.10	12.00	2.10
May	1,639 (53)	825 (27)	16.50	9.18	7.32
June	1,743 (58)	223 (7)	17.86	0.48	17.38
July	1,963 (63)	202 (7)	20.40	0.07	20.33
Total (average)	6,775 (55)	2,419 (20)	58.86	21.73	47.13

Source: Accenture based on a sample of actual figures provided by a number of producers

This increased throughput was achieved during the period of authorisation which further supports PWCS' position that it has continued to seek efficiencies and that the authorisation process has not "taken the pressure off" PWCS to find solutions to the medium or longer term issues.

Figure Two: Vessel Queue January- September 2004 (assumed 4 vessels at berth)



Source: Accenture

In addition to the public benefits which the Commission found arising from the Short Term CDS and the associated reduced demurrage, a number of PWCS customers have received positive feedback from overseas coal buyers who have noted the quicker loading times and turn-around times for vessels at the Port since the introduction of the Short Term CDS. This improvement in loading time has resulted in reduced detention charges paid by coal importers. Detention charges relate to the imbalance between contract and charter demurrage rates applied to loading delays and are above the cost of demurrage to coal shippers. PWCS believes the reduction in the vessel queue and resulting time and cost savings have improved the international reputation of the Port of Newcastle, the Hunter Valley coal industry and the Australian coal industry generally.

At the very least, the reduction in vessel queues has resulted in the increase of availability of coal transportation vessels, which has had the effect of decreasing shipping costs, as discussed in the extract appearing at Confidential Attachment F.

The authorisation granted by the Commission for the Short Term CDS expires on 31 December 2004. While accepting the weight of public benefits exceeded any detriments, the Commission declined to extend the Short Term Authorisation beyond this time as the Commission considered it could not properly assess whether the vessel queue would persist in 2005. The Commission formed the view that there was uncertainty and practical difficulties surrounding whether forecasts would accurately predict the aggregate level of Hunter Valley coal exports for 2005 and in particular, whether economic growth in countries such as China would continue at high rates in 2005. The Commission also considered that it was not aware of the likely capacity of the Hunter Valley coal chain in 2005 and so could not determine whether a capacity distribution system would generate a public benefit in that year. Accordingly, the Commission only granted the authorisation until 31 December 2004.

3.4 Hunter Valley coal chain capacity and demand for coal in 2005

Since the Short Term Authorisation, high levels of demand for coal in China have continued and global demand for coal remains high. The Chinese Government has taken steps to reduce growth rates (described by the economic press as a “soft landing”). However this has not produced any significant degree of reduction in demand. If the Commission reviews the internet sites of listed Australian coal producers, there are numerous presentations which continue to forecast strong growth in Asian coal markets in 2005. From recent information available to PWCS, demand for coal in 2005 is forecast to remain high.

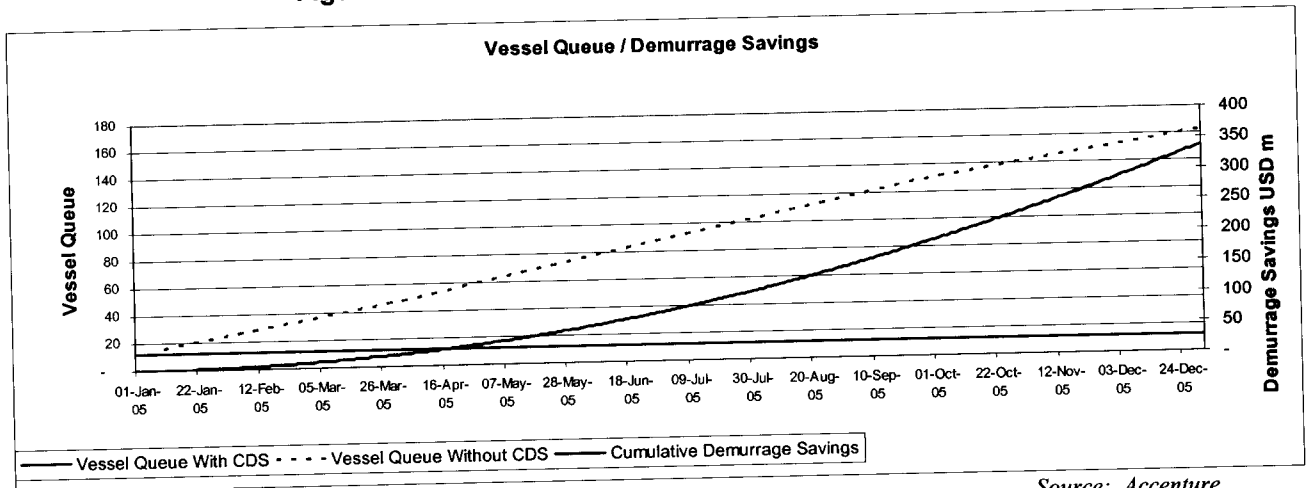
In July 2004, PWCS received indicative demand nominations from Hunter Valley coal producers for 2005, of 96 million tonnes in aggregate, which is a significant increase on the previous demand nominations provided to PWCS in August 2003 of 88 million tonnes. Data from producer nominations is attached as Confidential Attachment C. Although capacity of the Hunter Valley coal chain has improved from 74 million tonnes in 2003 to 80 million tonnes in 2004, this improvement has not been able to match the continual increase in demand for coal. It is also worthwhile noting that demand for 2004 coal to date has exceeded but otherwise closely tracked the forecast

figures provided by producers to Barlow Jonker referred to in PWCS's previous submission for the Short Term Authorisation and so these forecasts have been proven to be broadly accurate. Based on more recent and up to date data from individual producers, PWCS believes demand for coal for 2005 will remain high and above the capacity of the Port of Newcastle to export coal.

Although PWCS remains committed to developing a long term solution to congestion at the Port of Newcastle, as discussed below, this solution will require a number of years to implement and so a transition is necessary. As such, capacity on the Hunter Valley coal chain in 2005 will not vary substantially from capacity levels in 2004 and PWCS estimates that the Hunter Valley coal chain capacity for 2005 will be approximately 84 million tonnes.

As demand is forecast to remain high, PWCS believes an imbalance between demand and capacity of around 10-14 million tonnes will re-emerge on 1 January 2005 once the Short Term CDS ceases to operate. Unless a medium term mechanism is implemented upon the cessation of the Short Term CDS, extensive vessel queues and high demurrage costs will return on 1 January 2005. As set out in Figure Three below, if no medium term system is in place, PWCS estimates that the vessel queue will reach 24 by February 2005 and 56 vessels by April 2005, generating an estimated \$US163 million in demurrage costs for producers for the period to 31 December 2005.

Figure Three: Forecast Vessel Queue / Demurrage Savings for 2005



Source: Accenture

3.5 The Proposed Medium Term Solution

Throughout 2004, PWCS has undertaken extensive industry consultation in order to determine the most suitable solution to congestion in the Hunter Valley coal chain. To determine the most appropriate way forward, PWCS conducted individual discussions with all PWCS customers, organised a number of inclusive industry forums, arranged a number of auction simulation workshops and issued a detailed industry survey, the results of which are attached at Attachment G. PWCS then engaged the independent consultants Accenture to assist and manage this process and develop the Proposed Medium Term CDS to address the problem of congestion on the Hunter Valley coal chain and Port of Newcastle. The information and customer feedback PWCS obtained through this recent consultation indicates that the Proposed Medium Term CDS has broad based industry support. It also demonstrates, given the expertise within the Hunter Valley coal companies, that there are no practical alternatives to the Proposed Medium Term CDS.

The Proposed Medium Term CDS is designed to efficiently share the coal chain capacity among producers and provides them with the option to accept a pro-rata reduction in demand, or participate in a demand auction, in the event that demand for coal shipping services on the Hunter Valley coal chain exceeds available capacity by 3 million tonnes. As with the Short Term CDS, the Proposed Medium Term CDS should not affect the volume of coal *actually* delivered through the Hunter Valley coal chain or the amount of coal that PWCS *actually* loads onto ships, except to a *de minimis* extent. The results of the Short Term CDS were that at the end of each quarter, only approximately 1% of the allocation was not used. While the Commission considered that this was a detriment as there was a reduction in possible *theoretical* throughput by that 1%, due to under-use at the end of a quarter, this may not be the case in actuality. As there is significant stockpile capacity in the coal chain, notably a working stockpile range of 1Mt or 5% of quarterly throughput at PWCS alone, a minor under-use of allocation at the end of a quarter within the provided flexibility provisions will not necessarily affect the actual throughput at the coal chain. In the case of the 1% “under-use” in allocation at the end of June 2004, this did not affect the actual throughput at the coal chain, which remained at maximum capacity as evidenced by the fact that a vessel queue remained in place. Accordingly, the 1% loss at the end of June was only a *theoretical* loss and so could not produce the detriment anticipated by the Commission.

In addition, PWCS released an additional 1Mt of loading allocation in June that was available for use until September 2004. PWCS and the Administrator can clearly demonstrate that enough loading allocation has been made available so that vessel arrival is not significantly restricted and hence full capacity has been available to be used at all stages in the last six months. Notwithstanding that PWCS believes that this 1% allocation loss is theoretical, the enhancements to the Short Term CDS as included in the Proposed Medium Term CDS have built in incentives to further reduce any such unused allocation. The features of the Proposed Medium Term Solution are discussed in more detail in Section Four of this submission. In particular:

- the audit process provides additional accountability and transparency;

- the take or pay system provides additional accountability, to encourage efficient re-distribution to ensure all potential unused capacity is returned earlier by producers who may not use that capacity so that figures below the previous 1% will be expected with a *de-minimis* decrease in theoretical exports (having regard to the additional certainty and increased capacity arguments raised in this section);
- the auction system will facilitate the efficient allocation of capacity to those that value allocation most, an issue raised regarding the Short Term CDS; and
- it will have an automatic re-set mechanism for each calendar year such that the adjustment mechanism will not operate in periods where demand does not exceed available capacity at the Port of Newcastle.

The Medium Term CDS is an efficient, equitable and transparent system in which all producers may participate equally. As it is a market based system, the Proposed Medium Term CDS allows greater commercial alignment of demand, supply and coal chain capacity. The take-or-pay component, together with the compensation provisions, creates strong incentives to ensure that all capacity in the coal chain is used or returned to other producers with additional demand at the earliest opportunity.

Implementing the Proposed Medium Term CDS on 1 January 2005 after the Short Term CDS ceases will ensure that the vessel queue does not grow to its pre-Short Term Authorisation levels and will remain at its current efficient level of approximately 10 ships. In turn, the Proposed Medium Term CDS will minimise delays at the Port and PWCS estimates that this will represent a saving of approximately US\$163 million in demurrage costs over 2005 assuming a vessel queue of 56 vessels, which producers will incur if no medium-term mechanism is put in place on 1 January 2005.

3.6 Long term solution

The Proposed Medium Term CDS is a proposed transition from the Short Term CDS to a long term industry-wide solution that goes beyond steps that can be implemented by PWCS alone. At the lodgement of the initial proposal in February 2004, there was considerable scepticism whether PWCS, if granted an interim authorisation, would continue to seek capacity improvements. PWCS did so and has also, consistent with its statements, put considerable amounts of its shareholder funds in providing a medium term solution and ultimately a long term solution.

The vessel queue problem is one which requires a long term solution and PWCS is also in the process of considering a number of potential long term reforms to its operational arrangements with exporters and other participants in the coal chain. PWCS forecasts demand for coal loading services at the Port of Newcastle to increase significantly at least until 2007 and so the capacity of the Hunter Valley coal chain is required to be upgraded to ensure there is no ongoing imbalance between demand and capacity.

The upgrades and reforms aim to enable PWCS to plan and manage more effectively the process for loading vessels having regard to exporters' demand nominations, available rail capacity and vessel scheduling. This will assist in preventing congestion and vessel queues at the Port from arising in the future.

Table Five below lists the indicative demand nominations by producers from 2005-2007:

Table Five: Forecast aggregate demand nominations for 2005-2007

Year	2005	2006	2007
Aggregate Demand (tonnes)	96,249	112,795	123,335

Source: Accenture

PWCS is currently considering, and discussing the exact form of the long term solution with its customers and industry participants. However, at this stage, PWCS anticipates that the long term solution will seek to address two key objectives:

- avoiding the development of persistent vessel queues; and
- ensuring capacity is available when required.

As part of the long term solution, PWCS will also seek to encourage a definitive timetable for rail infrastructure upgrades by ARTC and for coal exporters to restructure their contractual arrangements with rail service providers so that their rail tonnage commitments (potentially also on a take or pay basis) match their ship loading tonnage commitments with PWCS and appropriate logistics interfaces occur. PWCS will also work with other participants on the Hunter Valley supply chain to lift load point capabilities, increase train / day peaking capacity to match cargo build times of all load points, reduce load rate variability and plan around random vessel arrival patterns.

Although PWCS is committed to developing this long term solution, implementing the necessary upgrades and reforms requires considerable time and financial investment. PWCS does not anticipate such a solution to be operational until at least 2007 - 2008. Accordingly, the Proposed Medium Term CDS is needed until that time to ensure vessel queues and high demurrage costs do not return on 1 January 2005.

Extensive details on PWCS' work on the long term solution are included in the Power Point presentations/industry consultations set out in Attachment D.

4 Proposed medium term capacity distribution system

4.1 Introduction

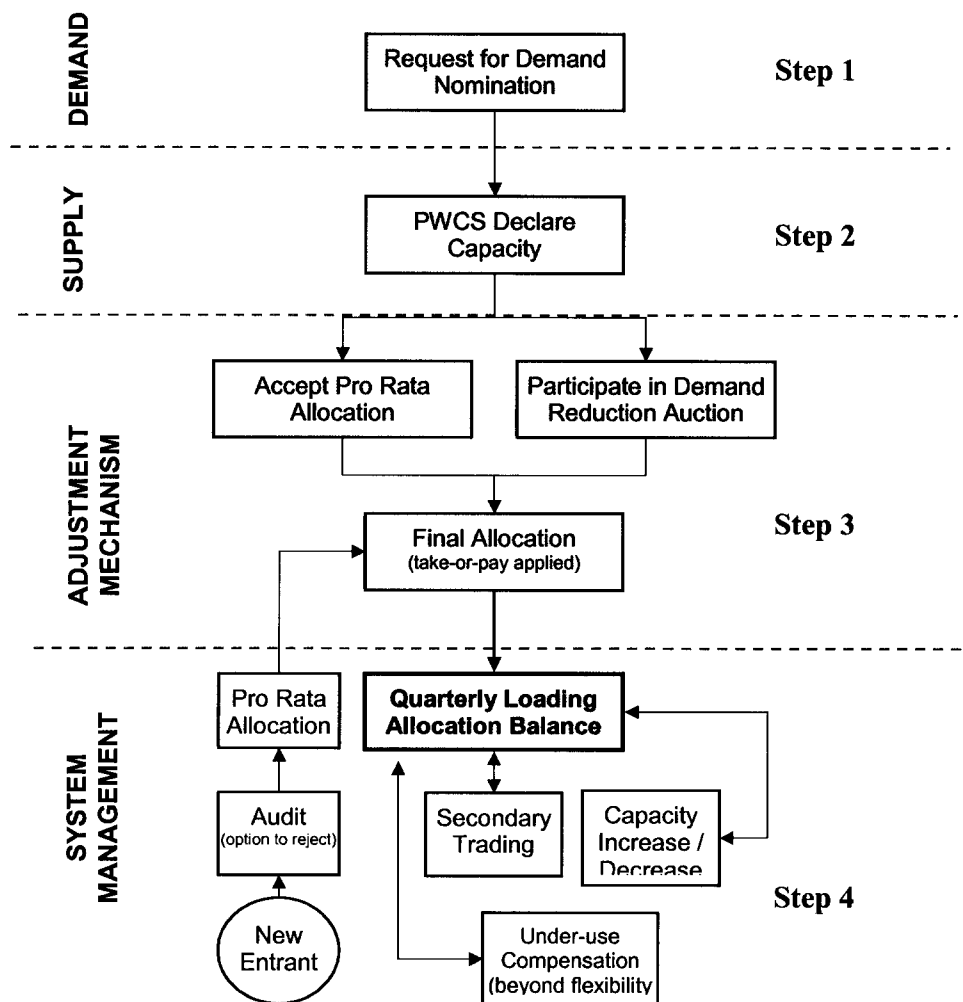
PWCS, together with Accenture, has engaged in an extensive process of consultation with each of its customers in order to determine how the imbalance between demand and coal chain capacity should be addressed over the medium term (that is, until a longer term solution can be implemented). In particular, PWCS and Accenture have run a number of consultation workshops and obtained direct feedback (in the form of survey responses) from PWCS' customers. This feedback has enabled Accenture to facilitate the construction of a medium term solution which has, ultimately, been designed by the industry.

The proposed medium term solution involves the following 4 key steps:

- demand nominations by producers;
- capacity declaration by PWCS;
- demand adjustment; and
- management of allocations by the Administrator,

as represented in Figure Four below.

Figure Four: Diagram for Medium Term Capacity Distribution



A summary of each of those steps is set out below. Further details in relation to the operation of the proposed medium term solution are set out in the Protocols contained in Attachment H and in the industry consultation presentations contained in Attachment D.

In summary, the proposed medium term solution retains a number of key features from the current Short Term CDS. However, the medium term solution also incorporates:

- more flexibility for producers and an explicit market-based method for balancing demand with available capacity; and
- greater safeguards and accountability measures to ensure the accuracy of demand nominations and use of loading allocations by producers.

The proposed medium term solution Protocols will not affect the Objectives, Principles & Protocols currently in place in relation to the Short Term CDS. The Short Term CDS will continue to operate until the Commission's authorisation ends on 31 December 2004.

4.2 Step 1 - Demand nominations by producers

The Short Term CDS

Under the existing Short Term CDS, demand nominations for 2004 (that is, producers' forecast demand for export coal loading services provided at the Port of Newcastle) were based on the forecasts provided to Barlow Jonker by individual producers. The producers provided those forecasts to Barlow Jonker in 2003, in accordance with their obligations under the CHSA, at a time before any active solution to the vessel queue problem was contemplated.

The Short Term CDS also provided a mechanism for any new entrant to obtain a loading allocation, even if it had not submitted an initial forecast to Barlow Jonker. In this regard, PWCS allocated loading capacity to Newpac when it commenced production in May 2004.

At the time of that application, certain participants also raised concerns that the forecasts provided to Barlow Jonker by individual producers were not transparent or publicly available. This was the case even though some of those producers themselves had not consented to PWCS disclosing that information in respect of their own operations.

In response to those concerns, the proposed medium term solution contains a number of additional accountability measures which have been designed specifically to address any concerns about the accuracy and transparency of producers' demand nominations.

The proposed medium term solution

The demand nomination process under the proposed medium term solution involves producers submitting new demand nominations to PWCS for each quarter of 2005 and for the calendar years 2006 and 2007, in each case on a mine by mine basis. If any producer chooses not to submit a demand nomination, that producer will be taken not to require any coal handling services from PWCS under the CHSA and will not be given a loading allocation.

As with the existing Short Term CDS, *only producers* will be entitled to submit a demand nomination or obtain an initial loading allocation from PWCS. Non producer customers will continue to be able to source coal from producers with allocation and will not be restricted in their ability to purchase coal from producers or be liable for any under-use of allocation.

The proposed medium term solution incorporates 3 key controls or accountability measures to ensure the accuracy of producers' demand nominations -- namely:

- **Audit:** an ability for individual demand nominations to be audited;
- **Transparency:** the publication of demand nominations (at a producer level) to all producers who have submitted a demand nomination; and
- **Take or pay:** producer's final allocations will attract a take or pay obligation, payable to PWCS.

Each of those accountability measures is described in more detail below.

Audit

Demand nominations by producers may be subject to an audit in accordance with the guidelines mentioned below to confirm the producer's capacity and intent to export the volume of coal nominated. The identity of the Auditor and Arbiter, together with the criteria under which an audit will be conducted, will be determined in consultation with producers.

Guidelines for the audit will be formulated in consultation with the producers. Factors that may be taken into account by the Auditor may include:

- whether the producer has obtained the appropriate authorisations (eg mining lease and development consent);
- the capacity of the producer's plant and equipment (eg wash plant, stockpile capacity etc);
- mine plans and budgets;
- the number of employees and shifts in the producer's budget plans;
- the producer's train contracts and loading point capacity (aggregate forecasts for each specific load point to determine feasibility);
- the producer's plans for export and domestic production; and
- historical exports.

The Auditor will submit a report, together with the producer's demand nomination and any supporting information to the Arbiter who will determine quarterly production amounts which in their opinion best reflect the producer's intent and capability.

If the Arbiter's Determined Amount is less than the producer's nomination the producer can choose either to:

- accept the Arbiter's view as the starting point for the calculation of any allocation; or
- retain its nominated demand as the starting point for the calculation of any allocation, with the following consequences:
 - the producer will not be entitled to participate in any demand auction as a seller and thus they will not be able to sell any allocation at the auction;
 - the producer will not be entitled to engage in any one-way trades or gifts of its allocation throughout the year which result in a net decrease in their aggregate demand forecast allocation.

If the producer does not use its nominated allocation on a quarterly basis (beyond the flexibility provisions), it will be required to financially compensate other producers for the “lost” allocation up to the Arbiter’s Adjustment (defined to be the difference between the demand nomination and the Arbiter’s Determined Amount) at a rate equal to the value attached to that allocation by producers, being \$20.00, varied at the discretion of the Board of PWCS to reflect changes in the value of the lost opportunity for participating producers to use the relevant amount in each case. This amount will be payable within 30 days and distributed to all other participating producers in proportion to their loading allocation at the end of the relevant quarter.

Transparency

In order to increase confidence in the initial demand nominations, the Administrator will also request permission to make each producer’s demand nomination available for inspection by other producers prior to any audits.

Take or pay

In addition, producers’ final allocations will attract a take or pay obligation to PWCS. That obligation will apply to both used and unused allocations (beyond flexibility limits) each quarter.

The purpose of the take or pay obligation is to provide a financial incentive for producers to nominate demand only in line with their capability and intent to export coal, and to exchange loading allocations early if allocation cannot be used. As mentioned above, the take or pay obligation will also assist in sending the correct investment signals concerning capacity and efficiency upgrades. The take or pay price will be the coal handling fee as set by the PWCS Board in accordance with the CHSA.

If producers exchange or otherwise transfer their loading allocations, the take or pay obligation will transfer with that allocation.

4.3 Step 2 - Capacity declaration

In parallel with receiving demand nominations from producers, PWCS in consultation with the Hunter Valley Coal Chain Logistics Team (“HVCCLT”) will “declare” the quarterly capacity of the coal chain and the desired volume of an operational queue. The declared capacity will be based on actual historical performance in 2004, adjusted for known maintenance and expected performance gains. This is consistent with the process adopted in relation to the current Short Term CDS.

PWCS and the HVCCLT will make the rationale for the decision (together with relevant supporting information) available to ensure transparency and as a further check on the accuracy of the declaration.

PWCS and the HVCCLT will continue to monitor coal chain performance on a regular basis and make any necessary adjustments to the declared capacity and operational queue (eg release additional capacity, if possible, to reflect capacity improvements). In this regard, PWCS and other industry participants have already implemented, and will continue to pursue, a significant number of initiatives to enhance the performance and efficiency of the Hunter Valley coal chain.

4.4 Step 3 - Demand adjustment

The Short Term CDS

As the Commission is aware, the existing Short Term CDS involved a *pro rata* decrease in each producer's demand nomination in order to match aggregate demand nominations with the declared capacity of the coal chain.

Although the demand allocation mechanism under the existing Short Term CDS involved a *pro rata* decrease on each producer's demand nomination, the Short Term CDS also provides each producer with certain flexibility in meeting its loading allocations each quarter. That flexibility is also continued under the proposed medium term solution. In addition, the CDS required larger producers to accept the largest reduction in Q2 (the first quarter in which the CDS operated).

Under the existing Short Term CDS, producers are entitled to exchange or swap their loading allocations. This is an important facility which ensures the efficient allocation of loading rights and smooth operation of the system.

Proposed medium term solution

Application of the solution

The demand adjustment mechanism contained in the proposed medium term solution will only apply *if*, following the audited demand nomination and capacity declaration processes, demand for coal loading services by PWCS exceeds the declared capacity of the coal chain by more than 3 million tonnes for any year.

Where demand for coal loading services by PWCS is less than the declared capacity of the coal chain (or does not exceed it by more than 3 million tonnes), PWCS will provide each producer with an allocation equal to its nomination. However, take or pay obligations attaching to each loading allocation will continue.

If demand for coal loading services by PWCS exceeds the declared capacity of the coal chain by more than 3 million tonnes for any year, the Administrator will calculate the annual *pro rata* reduction for each producer that would be necessary to balance demand with available capacity. Each producer will then have 2 options:

- accept the *pro rata* allocation and exclude itself from the auction process; or
- participate in the demand auction.

The demand auction process is described in more detail below.

Overview of the demand reduction auction

The auction will be conducted once for each year in which an auction is required. The proposed auction process provides a mechanism for producers to increase or decrease their allocation by bidding with other auction participants to effectively buy or sell loading allocation around the pro-rata position.

The auction is economically efficient in that it allows those who place a higher value on loading allocation (buyers) to acquire it from those who place lower value on the allocation (sellers). A market based mechanism to distribute allocation was required by the producers.

Participants submit a series of bids that indicate their willingness to reduce their initial nominated amount in return for a per tonne compensation payment. Participants that bid to reduce their initial nomination by less than their required pro rata reduction are considered “buyers”, and participants that bid to reduce their initial nomination by more than their required pro rata reduction are considered “sellers”. The volume of tonnes “bought” or “sold” is the difference between a Producer’s required pro rata reduction and their actual reduction,

The auction can only result in “sellers” of allocation if there are corresponding “buyers” of allocation who are prepared to pay a price per tonne of allocation at or above the minimum price sellers are prepared to receive. No participants can be required to sell allocation at a price less than they are prepared to sell (floor), and similarly no participant can be required to buy allocation at a price more than they are prepared to pay (cap).

The auction results in a series of transactions settled by the participants between themselves, facilitated by the Administrator (ie it is a zero sum game among the auction participants in which PWCS does not participate).

There are three possible outcomes from the auction for each participant:

- sell allocation to end up with less allocation than under a pro-rata outcome. Sellers of allocation receive compensation at the auction clearing price for each tonne of allocation sold below their pro-rata equivalent position;
- buy allocation to end up with more allocation than under a pro-rata outcome. Buyers of allocation pay compensation at the auction clearing price for each tonne of allocation purchased above their pro-rata equivalent position; and
- neither buy or sell allocation and end up with allocation equal to the pro-rata outcome. These participants neither pay or receive compensation as a result of the auction.

The default position from the auction is that all participants end up with a pro-rata equivalent outcome and no transactions between participants occur.

PWCS believes the proposed demand reduction auction provides an equitable market-based mechanism to facilitate the efficient allocation of scarce coal chain capacity between participants. Small and large producers are treated equally in every respect, with bids ranked purely on price. With allocation from the auction being determined independently, without reference to other participant bids and based only on the value attributed by the participating producers the proposed auction process can be considered both fair and equitable.

Auction conduct

Producers will make bids, where each bid specifies the volume of tonnes and price by which a producer is prepared to decrease its demand forecast.

- any bid to decrease by *less* than the *pro rata* equivalent position is effectively a bid to buy additional loading allocation; and
- any bid to decrease by *more* than the *pro rata* equivalent position is effectively a bid to sell loading allocation.

Producers will be entitled to submit conditional “all or nothing bids” as well as “staggered bids” (it will be open to each producer to specify both the amount by which they would increase or decrease their entitlements and the conditions on which they would increase or decrease that entitlement).

This design ensures that each participant can cap its own financial exposure by specifying a minimum price at which it is prepared to sell any loading allocations (below the amount that they would receive under a *pro rata* allocation) and a maximum price at which it is prepared to buy any additional loading allocations. Participants will also be required to bid *at least* their *pro rata* decrease, so as to cap their liability to buy allocation, and to ensure that the auction clears.

The Administrator will collate the bids in order from lowest to highest price.

- The auction clearing volume is the sum of the auction participants’ pro-rata equivalent demand reductions.
- The auction clearing price is the price of the marginal bid(s) at which the auction clearing volume is achieved.

All tonnes bid at a price less than the auction clearing price are sold, (all tonnes bid above the auction clearing price are not sold) and all tonnes bid at the auction clearing price will be shared in proportion to the total tonnes sold at that price (subject to any “all or nothing” bids).

The Administrator will determine each participants outcome from the auction and advise each as to whether they have sold or purchased allocation, or ended up with their pro-rata equivalent outcome.

Settlement of funds flowing from the auction will occur between the auction participants. The Administrator will reflect the outcome of the auction in the loading allocation balance for each participant.