HOW NEWCASTLE WILL MEET THE TONNAGE CHALLENGE

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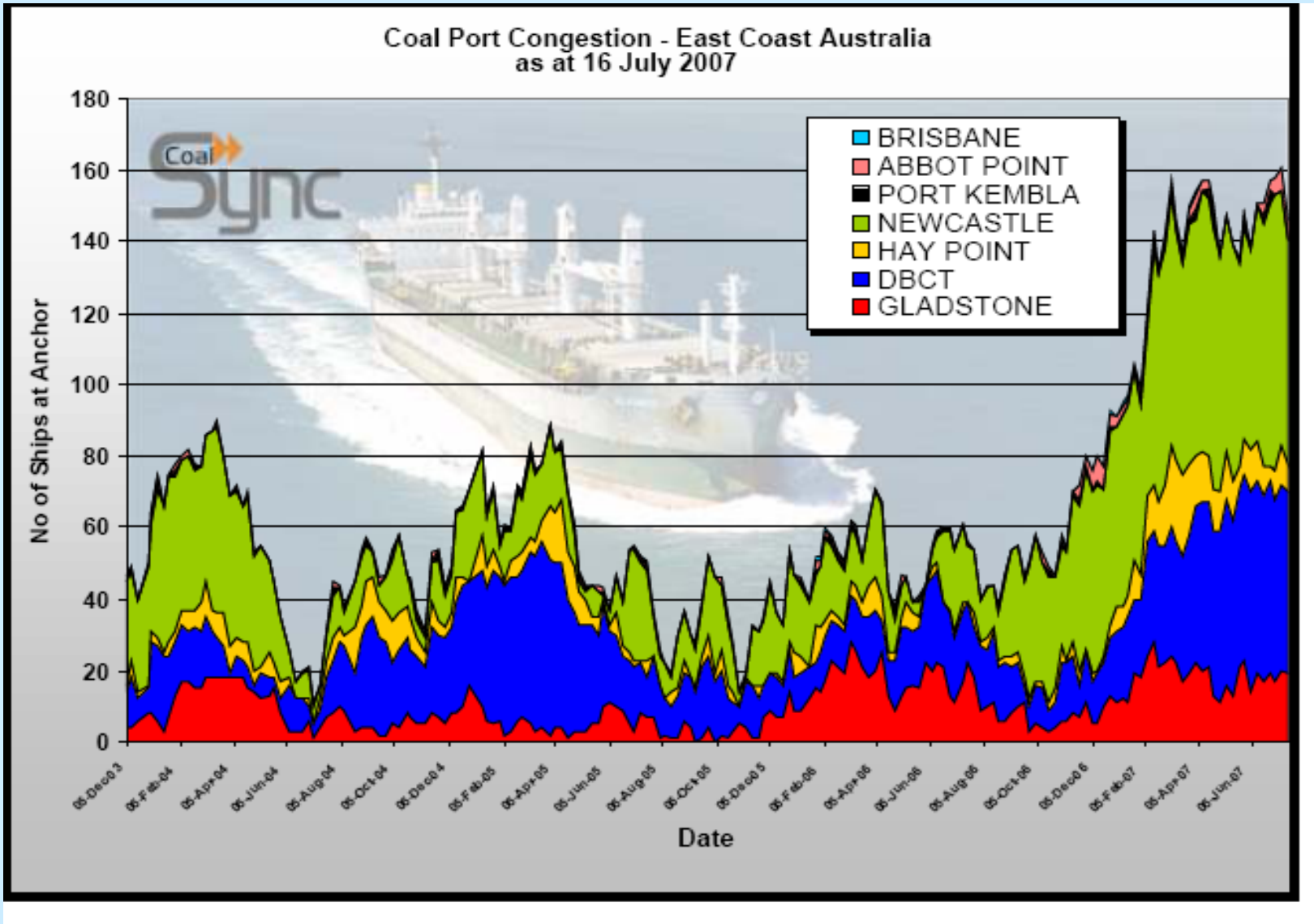
MINEC Pty Ltd **Convener**

AustCoal Consulting Alliance


Carrington Terminal
Kooragang Terminal


Coal Port Congestion - East Coast Australia
as at 16 July 2007
No of Ships at Anchor
180
160
140
120
100
80
60
40
20
0
BRISBANE
ABBOT POINT
PORT KEMBLA
NEWCASTLE
HAY POINT
DBCT
GLADSTONE
05-Dec-03
06-Feb-04
05-Apr-04
06-Jun-04
05-Aug-04
05-Oct-04
06-Dec-04
05-Feb-05
06-Apr-05
05-Jun-05
06-Aug-05
06-Oct-05
06-Dec-05
06-Feb-06
05-Apr-06
06-Jun-06
05-Aug-06
05-Oct-06
05-Dec-06
06-Feb-07
05-Apr-07
06-Jun-07
Date

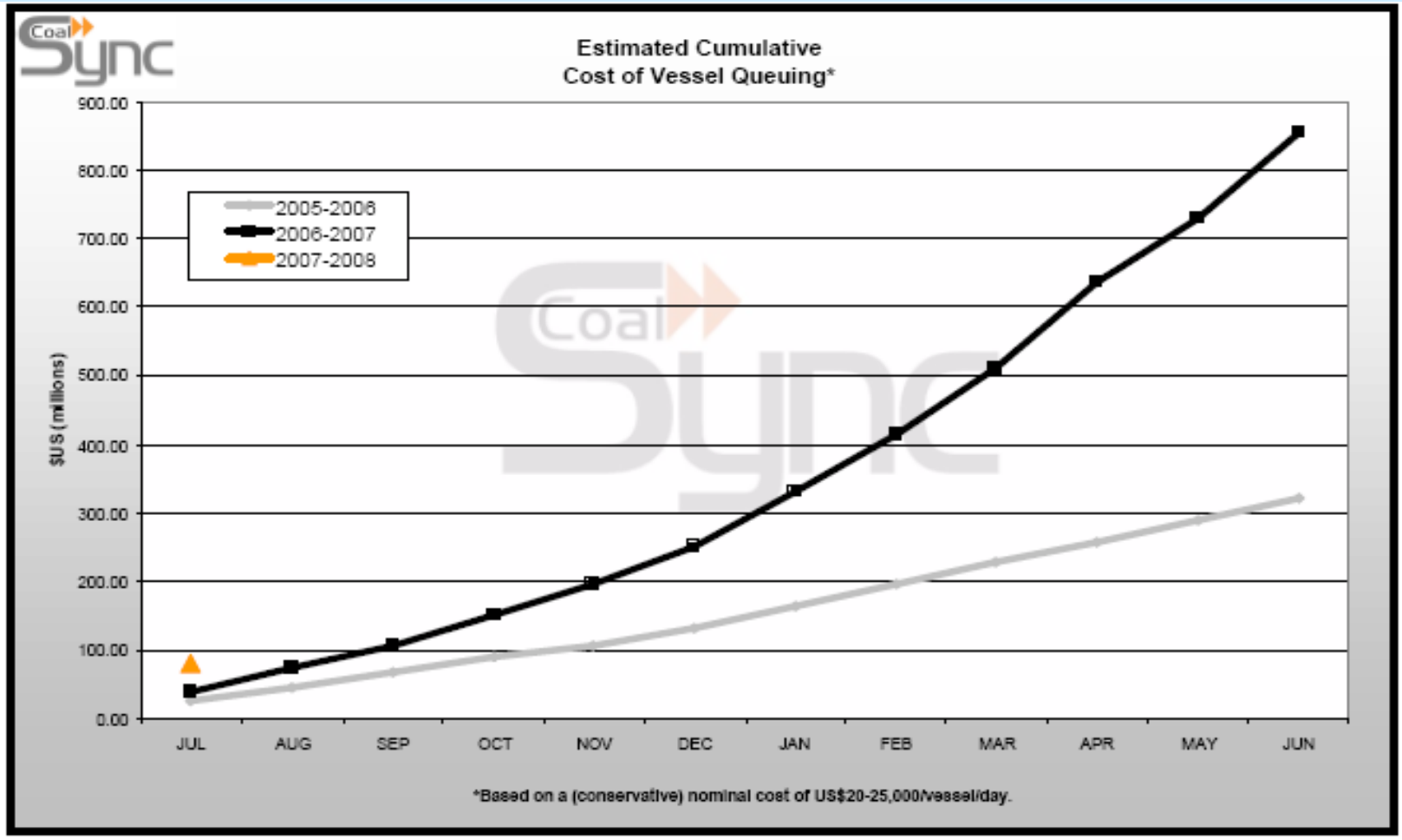

Coal Sync
Estimated Cumulative
Cost of Vessel Queuing*
900.00
800.00
700.00
600.00
500.00
400.00
300.00
200.00
100.00
0.00
$US (millions)
2005-2006
2006-2007
2007-2008
JUL
AUG
SEP
OCT
NOV
DEC
JAN
FEB
MAR
APR
MAY
JUN
*Based on a (conservative) nominal cost of US$20-25,000/vessel/day.

Fig. Average Monthly Demurrage in A$/tonne for PWCS, Newcastle Port

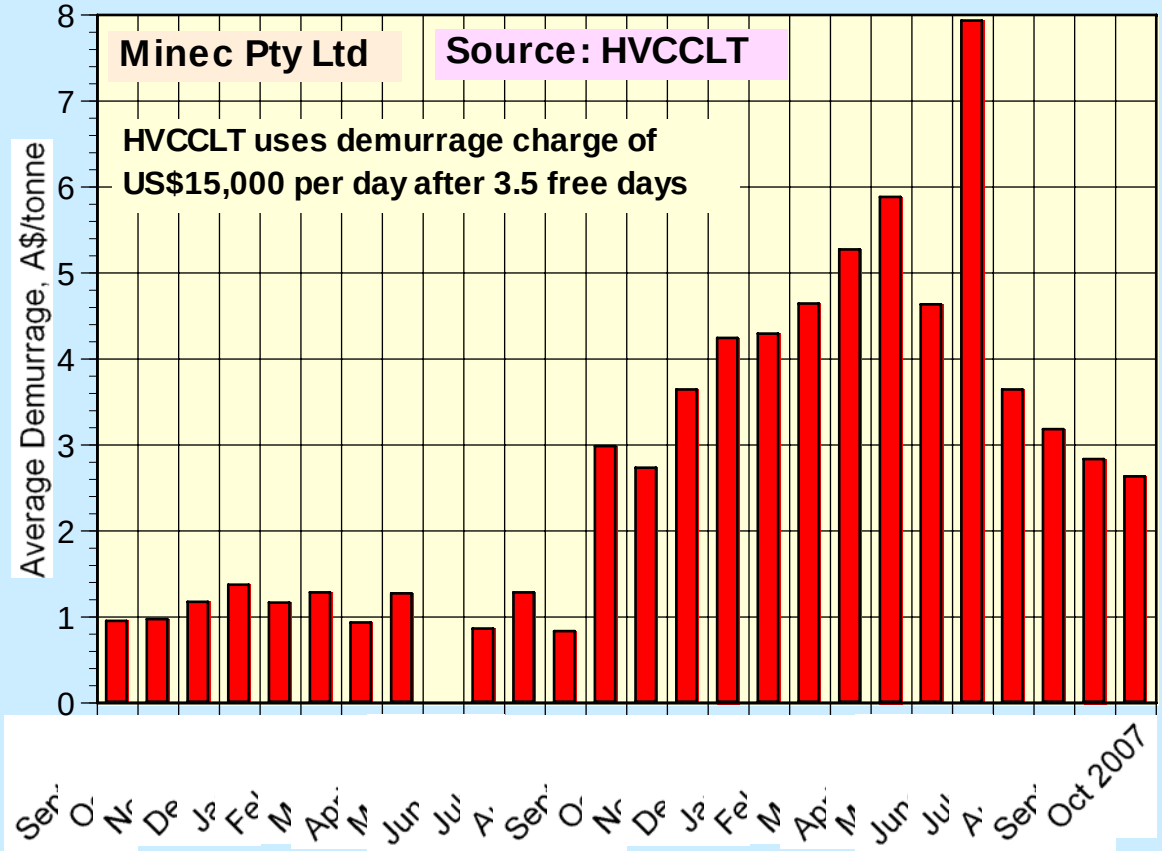
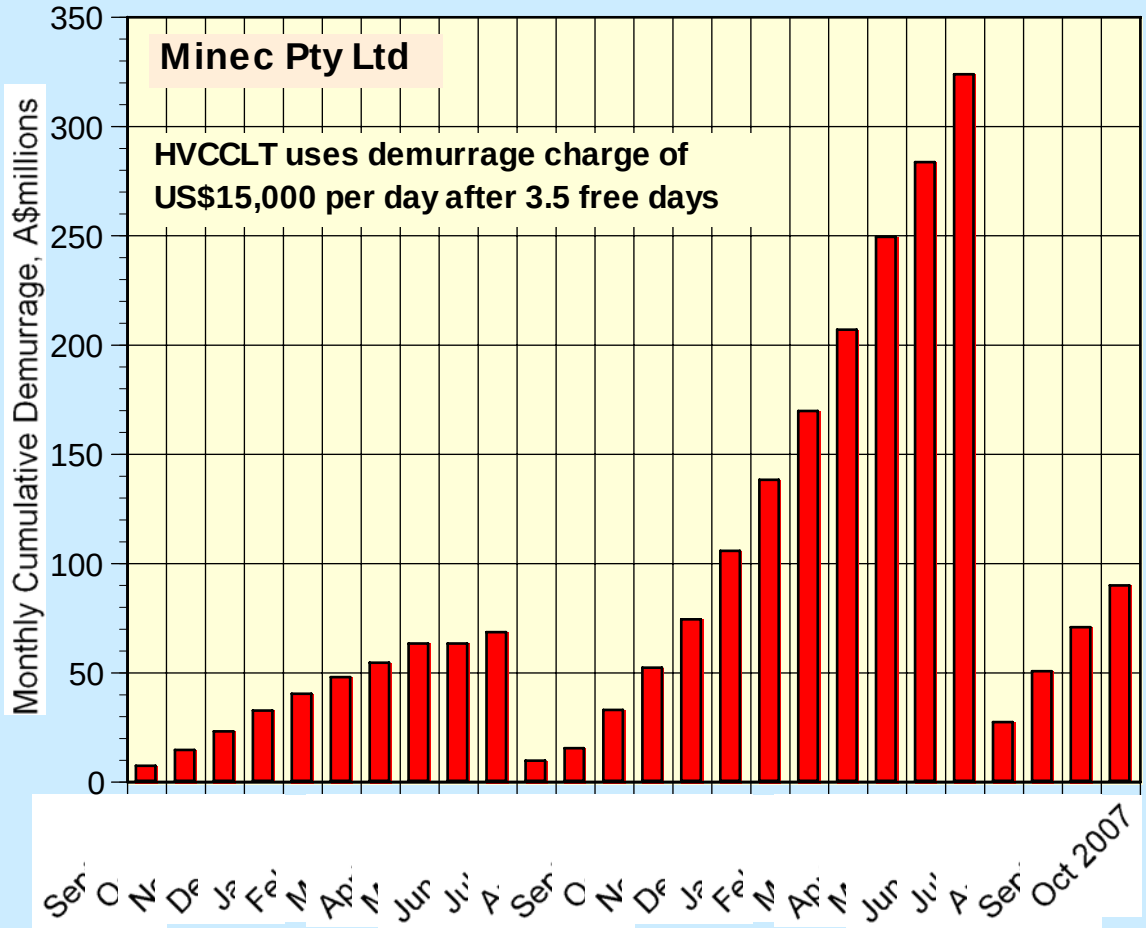


Fig. Monthly Cumulative Fiscal Year Demurrage for PWCS for 2006 and 2007, A$mil.



DECLARED, PLANNED AND ACTUAL CAPACITY 2005, 2006, 2007, 2008

	2005	2006	2007	2008
Declared Cap	84.3	87.5	95.3	105 +
Planned Cap	85.3	87.9	101.9	114
Shipload-ing	80.9	80.2	~85	95 hvcc forecast

PWCS Performance 2006; Declared, Average, Actual Assembly and Loadout, million tonnes

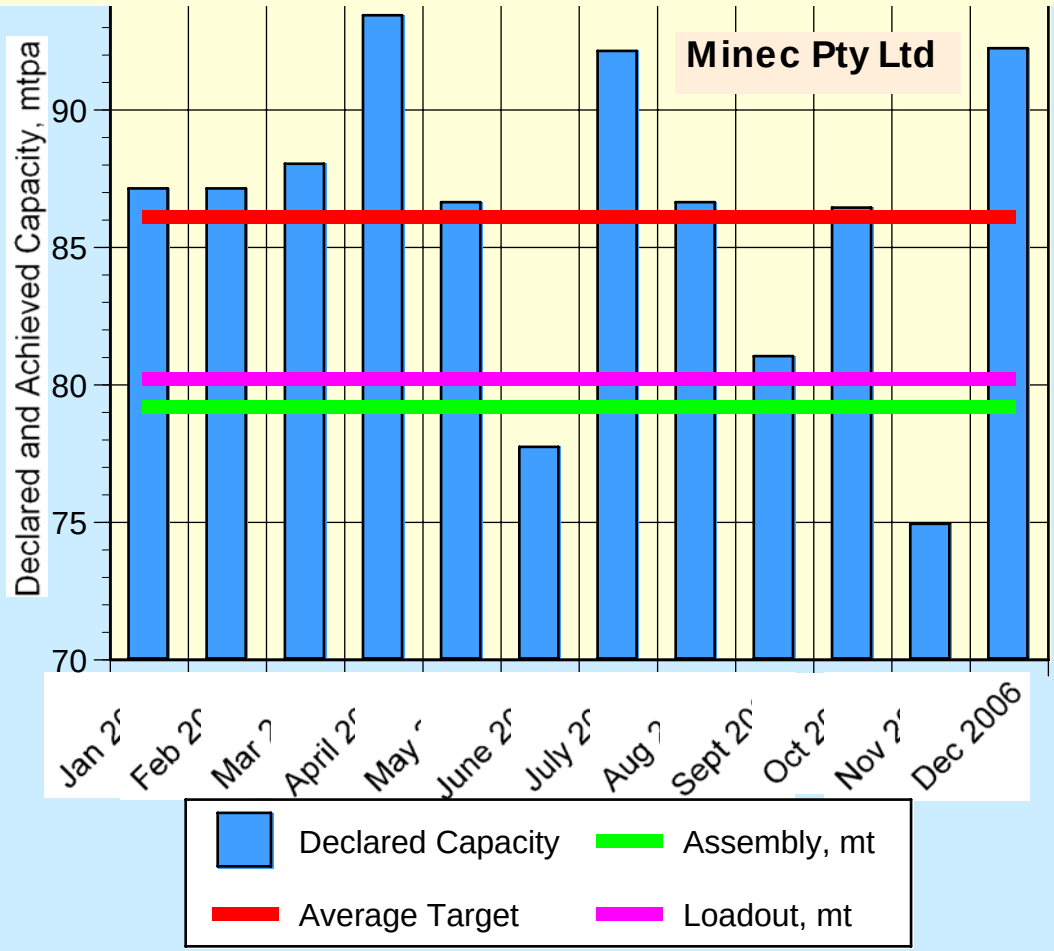
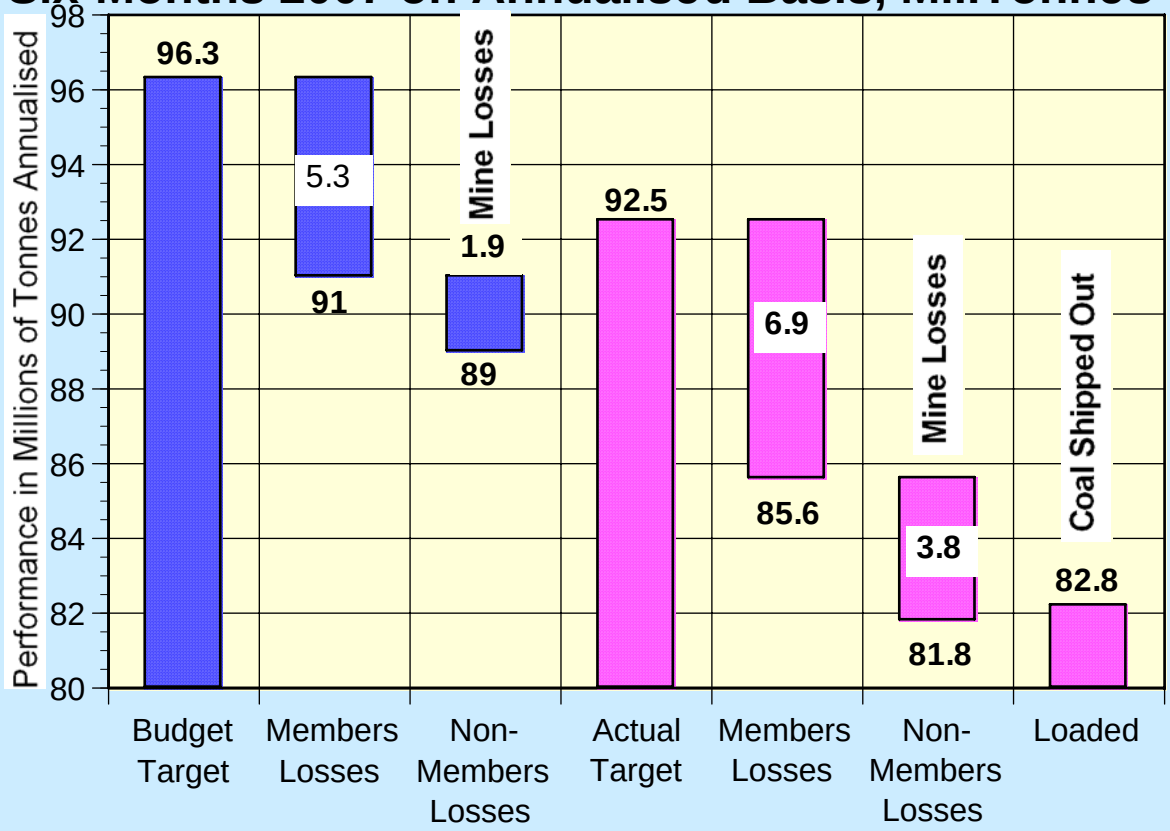


Fig. PWCS Target and Actual Preformance for First Six Months 2007 on Annualised Basis, Mil.Tonnes



Hunter Valley Coal Chain: The Worlds Largest Coal Export Operation

- 17 Producers
- 40 Coal Mines
- 30 Load Points
- > 80 Different Brands of Coal

- 2 Above Rail Operators
- 29 Trains/15,000 trips per year
- 2 Track Owner/Operators
- Haulage distances up to 350km

- 2 Coal Loading Terminals – KCT & CCT
- 5 Dump Stations
- 1.5Mt of Working Stockyard
- 5 Ship Berths and Loaders, “4 Queues”

- Approx. 1000 vessels per year
- Average vessel size is 84kt
- Avg 2 Cargoes per Vessel
- Multiple Components per Cargo
- Tidal constrained river port

- 10% Domestic Consumption
- 90% Export – mostly Thermal coal
- 70% to Japanese Power Stations

- Turn of Arrival loading port
- JIT cargo assembly process
- 16 independent organisations required to move each tonne of coal
- No control over demand – only two weeks visibility and highly variable volumes
- Avg 5 days clean coal on stock at the mines

How to maximise system throughput and drive efficient asset utilisation?

A: Plan and operate the system as though owned by a single shareholder

HUNTER VALLEY COAL CHAIN LOGISTICS TEAM

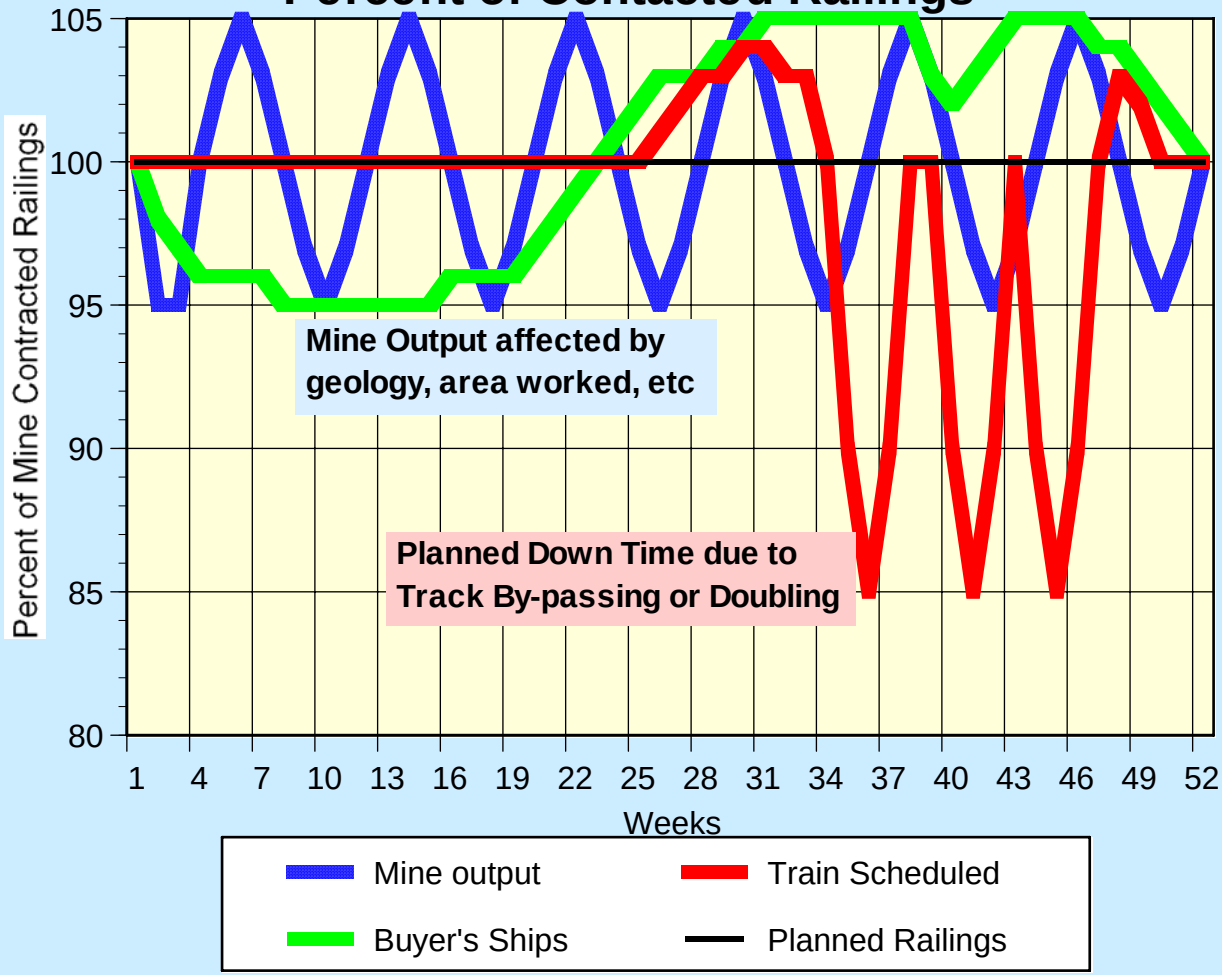
Hunter Valley Coal Chain – Rail Network and Train Load/Unload Points (HVCCLT)

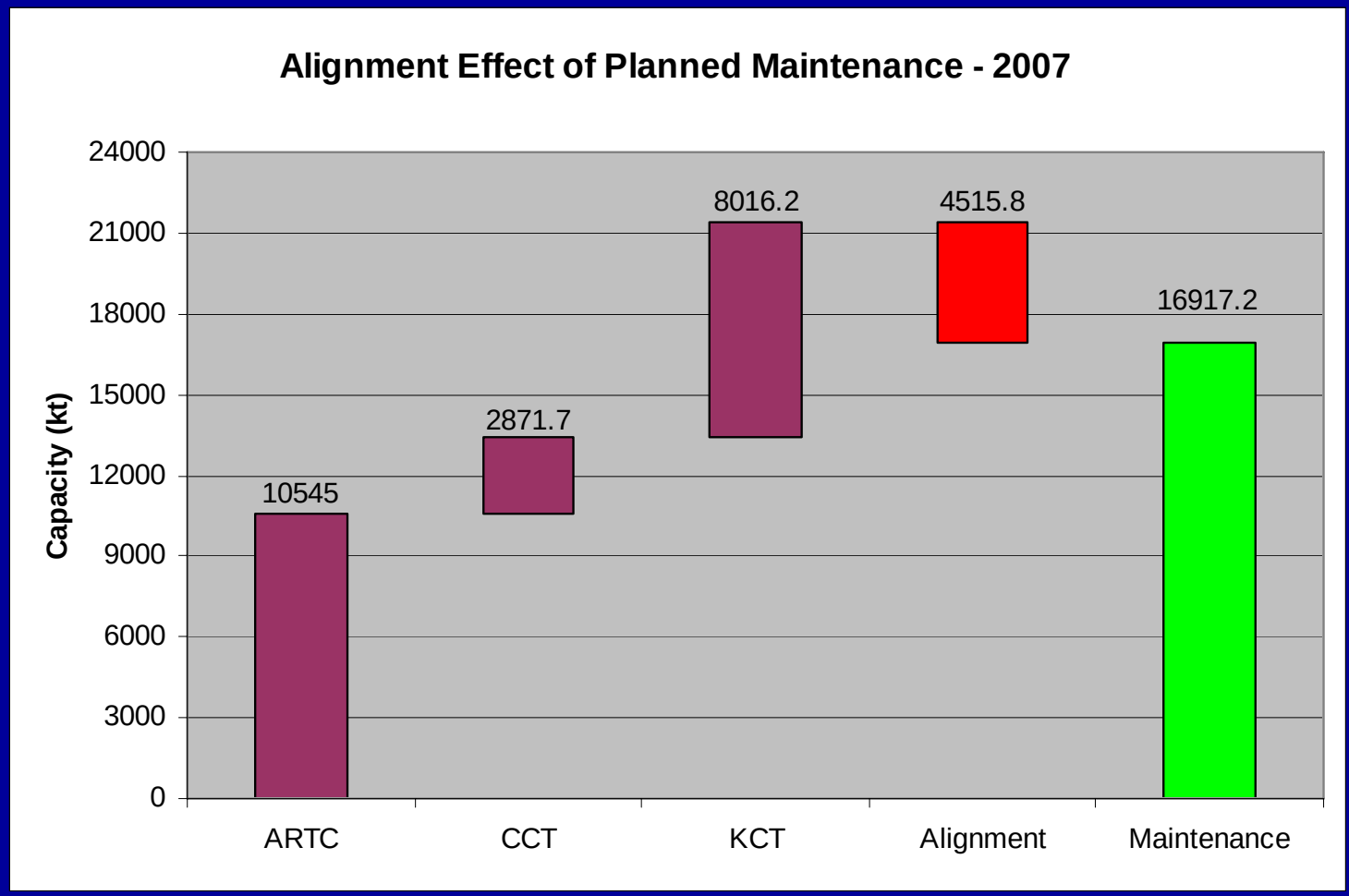
Expansion Capacity “Name Plate” not Throughput

- Phase 1 Expansion: Name Plate 119mtpa (end 2008 early 2009)
- Phase 2 Expansion: 129mtpa (end 2009)
- NCIG +30mtpa, 2009/10
- Part Duplication rail Muswellbrook-Antiene: 112mtpa end 2007
- Full rail Duplication: 145mtpa end 2008?
- PN: 330 wagons end 2007: 110mtpa
- Eliminate refuelling KCT end 2008 +25mtpa

- Underperformance in any sector of coal chain affects performance in other sectors
- Total loss to the system is greater than the individual loss
- If problems occur in more than one sector cumulative loss compounds

Fig. Schematic Mine, Train and Buyer's Ships Performance Scheduling Over Typical Year in Percent of Contacted Railings




Alignment Effect of Planned Maintenance - 2007
Capacity (kt)
24000
21000
18000
15000
12000
9000
6000
3000
0
10545
2871.7
8016.2
4515.8
16917.2
ARTC
CCT
KCT
Alignment
Maintenance

- Can’t assume after current port expansions in place problems solved
- Will need ongoing planning, executive energy, funds and supervision of the coal chain to allow Australia to reap the full benefits

What Can be Done For Newcastle to Cope?

- Increase capacity of PWCS ASAP as big as possible
- Add NCIG quickly to 66mtpa
- Use take or Pay to ensure funding
- Add more track capacity ASAP
- Add more train consists ASAP
- Build Liverpool tunnel
- Mines limit coal brands urgently

Creating Competitive Advantage through the Hunter Valley Coal Chain

Our objective is to

1. Look at the drivers that caused the current constraints to export growth
2. Explore opportunities for enhanced coal chain performance in meeting market needs

Lessons from the coal boom

1. we did not see the boom coming and we are now experiencing sustained and unprecedented global demand for thermal and coking coal.
2. mine developments, rail and port infrastructure constructed in a boom cycle are constrained by dramatic escalation in construction costs and time delays.
3. when any individual element of the coal chain is nearing its capacity operational losses cumulate, are non recoverable and result in lost export sales revenue.

Lessons from the coal boom - cont

4. the business imperative is to focus on the efficiency and effectiveness of the whole chain from mine to port
5. we have focussed on the “inevitable” downside of the demand cycle and have underinvested in the coal chains.
6. we need to capture the upside of the demand cycle.
7. We need to ensure alignment of capacity and economic interests across the coal chain

Investment requires long term coal supply contract security

Spot supply contracts lead to

- short term
- ad hoc
- fragmented and
- overcautious

Investment Decisions for vital Infrastructure

The way forward

First Task is to optimize utilization of existing infrastructure through enhanced collaboration from mine to port - HVCCLT provides a good model

However, we should question value of current

- Turn of Arrival?
- Multi cargo vessels?
- Common user provisions?
- Provision of capacity for future users?
- Explosion of brands and ‘small parcels’ of coal?

Create Operating Task Force to focus on bottlenecks.

The way forward - cont

Second Task is to coordinate investment in new export infrastructure aligned with market needs

Buyers - long term coal supply contracts

Government – reforms to competitive regulation and inconsistent project approval legislation

Industry - agreed decision-making process for required capacity and timing for infrastructure aligned with market needs

The way forward - cont

Integrated whole of System Planning

- Export Task Force to facilitate strategic investment decisions
- Accurate Forecasts underpin Master Plan

Integrated Coal Chain Management

- HVCCLT – a good model of cooperation
- Task Force focused on bottlenecks

Producers Export Projections
156Mtpa by 2010 – 186Mtpa by 2014

Capacity	2007	2010	2015
PWCS	102	113	130?
(actual	86)		
NCIG		33	66?
Total Capacity		146	196

Both NCIG development and PWCS expansions need to be fast tracked