MALABAR COAL



MAXWELL PROJECT

ATTACHMENT 5

Capital Investment Value Report

Maxwell Project (SSD 9526) - Capital Investment Value

The following is the estimate of the Capital Investment Value (CIV) of the works included in the scope of the Maxwell Project (SSD 9526).

The CIV has been assessed based on:

1) The contents of Planning Circular PS 10-008 New Definition of Capital Investment Value issued 10 May 2010.
2) The contents of Circular PS13 – 002 Calculating the Genuine Estimated Cost of Development dated 14 March 2013.
3) Plans, concept drawings and documentation developed for the Project, including infrastructure engineering and mine planning studies.

The EP&A Regulation defines Capital Investment Value as follows:

capital investment value of a development or project includes all costs necessary to establish and operate the project, including the design and construction of buildings, structures, associated infrastructure and fixed or mobile plant and equipment, other than the following costs:

a) amounts payable, or the cost of land dedicated or any other benefit provided, under a condition imposed under Division 6 or 6A of Part 4 of the Act or a planning agreement under that Division,
b) costs relating to any part of the development or project that is the subject of a separate development consent or project approval,
c) land costs (including any costs of marketing and selling land),
d) GST (within the meaning of A New Tax System (Goods and Services Tax) Act 1999 of the Commonwealth).

In addition, the Planning Circular PS 10-008, issued 10 May 2010, outlines the elements that should be incorporated in the calculation of Capital Investment Value as follows:

Design and construction;
The calculation of CIV should include the amount required to design and construct all buildings and other facilities that are part of/ included in the application, including any temporary buildings that will be used during the construction phase.

Structures and infrastructure;
CIV should include all costs incurred from the construction of associated structures and infrastructure that are the subject of the current application. These costs include any supplementary or site preparatory works such as remediation, demolition, excavation and filling, that are required for the construction of buildings, provided these works are needed to make the site suitable for construction and for the operation of the project.

Site services;
CIV should include the costs of providing electrical services, water, gas, sewerage and stormwater drainage, including any temporary diversions and/ or arrangements during construction, and should form part of the application. The costs of fire protection and communications services that are reasonably required to construct and operate the project should also be included. Site works such as landscaping, car parking, roads and footpaths should also be included.

Plant and equipment;
CIV should include standard building plant, such as lifts and air-conditioning, and all specialist and specific equipment related to the operation of the project, provided these are specifically

included as part of the application. Fit-out costs of a building may be included in the calculation of CIV where the costs are subject to the application. In such cases, the application would need to include specific tenancy use, and would be defined by specific reference to description in the application. Where such tenancy is not referred to or will be subject to further applications, the fit-out costs should not be included.

Labour fees;
All labour and personnel costs, including the payment of long service levies and other associated construction and labour costs should be included in the calculation of the CIV.

In accordance with Planning Circular PS 10-008 the Capital Investment Value estimate of the Maxwell Project is provided in Table 1. This value is the initial capital required to establish all facilities and equipment to operate the Maxwell Project.

Based on this information, the Capital Investment Value of the Project is assessed to be $509,000,000.

Description	**Total Cost AUD (000's)**
Pre-Construction	20,000
Earthworks and Access Road	28,000
Drifts and Ventilation	77,000
Mine Entry Area Services (Including Buildings)	30,000
ROM Coal Management and Overland Conveyor	54,000
Coal Handling & Preparation Plant Upgrades	37,000
Mine Infrastructure	54,000
Mining Plant/ Equipment	185,000
Owner's Costs/ Indirect	24,000
Total Capital Investment Cost	**509,000**

Table 1. Malabar Coal, Maxwell Project, Capital Investment Value Estimate

Estimate Notes*:* -

1. The Capital Investment Value is the capital required to establish the Maxwell Project. The Capital Investment Value differs from the capital cost estimates in the Economic Assessment prepared for the Maxwell Project Environmental Impact Statement, as the Economic Assessment includes replacement capital and sustaining capital and other elements that are not included in capital investment calculations (e.g. planning agreements and Goods and Services Tax).

2. Costs are in 2019 AUD.

3. Basis of estimates: -

- Conceptual Layouts
- Recent tendered prices

4. Estimated costs include: -

- Design
- Temporary works
- Site preparation works
- Earthworks
- Demolition (where required)
- Power supply
- Water supply and management
- Services (Communications, potable water, etc)
- Labour including long service leave levies

5. Assumptions: -

- Project staff will be accommodated in the existing buildings at Maxwell Infrastructure.
- Water for construction purposes will be sourced from the existing water storage dams and facilities within the Maxwell Infrastructure area.
- Modest Run-of Mine (ROM) stockpile located at the Mine Entry Area (MEA), to manage surges from the underground mine. The primary crusher will be located underground and the secondary crusher downstream of the ROM stockpile.
- Construction of a larger ROM stockpile facility adjacent to the existing CHPP at the Maxwell Infrastructure. Capacity of c. 200 kt.
- Nominal ROM throughput – 8 Mtpa.
    - Existing CHPP will be used with some minor debottlenecking to increase capacity to 1,000 tph.
    - Construction of a bypass system to allow ROM coal that meets product specification to bypass the CHPP directly to the product stockpiles.
- Utilise existing product stockpiles (potential to expand capacity if required) – 300 kt.
- Utilise the existing TLO facility with reclaim and feed systems upgraded to increase the loadout rate to nominally 4,500 tph.
- Utilise the existing rail loop and spur.
- Construction power to be supplied from the existing 33kV infrastructure. A new 66kV supply may be established to power the longwall.

The above estimates have been developed with reference to infrastructure engineering and mine planning studies conducted by GHD Pty Ltd and Palaris Mining Pty Ltd respectively, along with Malabar's internal costings and employment estimates that are benchmarked and represent a true estimate for the Maxwell Project based on currently available information.

Yours sincerely



William G Dean
General Manager Projects
Malabar Coal Limited

Curriculum Vitae of William George (Bill) Dean

QUALIFICATIONS

Engineering Graduate - Deakin University (Civil Engineering)

Member - Australian Institute of Mining and Metallurgy

Open Cut Mine Managers Certificate of Competency, NSW.

Quarry Managers Certificate of Competency WA.

Open Cut Mine Managers Certificate of Competency WA.

Quarry Manager Superintendent, Department of Minerals and Energy (Victoria)

FIELDS OF SPECIAL COMPETENCE

- Management of major open-cut and underground coal mines
- Contract establishment and construction management of major Infrastructure and building works
- Strategic review of mining operations (including mining process optimisation)
- Mining equipment specification and selection
- Due diligence with respect to purchase of mining operations
- Obtain statutory approvals (EIS and Development Applications [DAs])
- Safety management systems implementation
- Human resources and industrial relations

EXPERIENCE SUMMARY

Over 40 year's practical and hands-on experience in the Australian mining industry, predominantly in the coal sector in senior site management roles.

PROFESSIONAL EXPERIENCE

April 2013 to Present: General Manager, Projects, Malabar Coal.

Management of Malabar's Hunter Valley assets including; (i) the rehabilitation of the Drayton mine site (ii) technical studies and the like to support feasibility studies and DAs, (iii) the management of the EIS and DA process, and, (iv) due diligence of potential acquisitions.

April 2012 to August 2012: Principal Business Systems and Operability, BHP Billiton, Mount Arthur Mine.

Senior project role for the MAC 32 project, position focused on achieving operational efficiency as the mine expands.

September 2007 to April 2012: Group Manager Surface Operations, UGM Engineers

Senior consultant to mining companies. Development of a surface business unit.

Due diligence on potential acquisition targets.

December 2002 – August 2007: General Manager/ Operations Manager, Wambo Coal

Management of operations at Wambo Coal. Outcomes included;

- Grant of development consent to expand operations from 3 Mtpa of product coal to 11Mtpa.
- Expansion of open cut operations to 6Mtpa.
- Construction of a 14.7 km rail line and associated coal-loading infrastructure.
- Establishment of a new underground longwall operation capable of producing in excess of 4Mtpa.
- Design and construction of a new CHPP module.
- Director on the board of the Mount Thorley Coal Loader.

April 2001 – December 2002: Open cut Mine Manager, Wambo Coal.

Establishment and management of the open cut mining operations. Operations commenced at 1 Mtpa and increased to 4 Mtpa.

October 2000 – April 2001: Manager Projects, Coal and Allied (Rio Tinto) Operations

Member of the planning and due diligence team for Coal and Allied's purchase of the Lemington mine and the Australian mining assets of Peabody.

September 1999 – October 2000: Manager Services, Coal and Allied Operations

Safety, human resources and employee relations support for the mining, maintenance and CHPP areas following the merging of the Hunter Valley #1 and Howick operations.

October 1995 – September 1999: Manager Mining, Coal and Allied Operations

Accountability for safety, production, industrial relations and planning of a 8 Mtpa (ROM) coal mine. During the period productivity increased from 8,500 product tonnes per employee to 20,000 tonnes per employee.

April 1995 - October 1995: Manager Production Planning, Coal and Allied Operations

Management of the production planning department.

August 1992 - April 1995: Manager Mine Re-Development, Novacoal Australia

Conducted a strategic review of the Howick coal mine. Implementation of the recommendations improved profitability for the mine. Member of the team that purchased the Coal and Allied operations for Rio Tinto.

November 1990 - August 1992: Manager Mining Engineering, Novacoal Australia

Management of the mining engineering team that provided technical support and, planning and monitoring functions for the Howick mine.

August 1988 - November 1990: Chief Mining Engineer, BP Coal Australia

Preparation of 20-year mining plans for the expansion of the Howick mine. The successful tender of a 20-year supply contract of domestic coal to Pacific Power.

December 1984 - August 1988: Mining Engineer/ Senior Mining Engineer, BP Coal Australia

December 1981 - December 1984: Mining Engineer and Production Supervisor, Griffin Coal Mining (WA)

December 1975 - December 1981: Deputy Quarry Manager Australian Portland Cement Limited