



# Australian banks financing coal and renewable energy

A research paper prepared for Greenpeace Australia Pacific

*Profundo*  
economic research

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## Summary

This report assesses and compares the role of the major Australian banks in the financing of coal mining, coal fired power stations, coal export ports and renewable energy generation in the past five years. The following banks are included in the analysis:

- Australia and New Zealand Banking (ANZ)
- Bendigo Bank
- Commonwealth Bank of Australia
- mecu
- National Australia Bank
- Suncorp
- Westpac Banking

The investments of these banks over the past five years in the following companies are analysed:

- The 20 largest coal mining companies in Australia
- The 16 largest operators of coal-fired power stations in Australia;
- All planned coal export port expansions in Australia
- The 10 largest renewable energy companies in Australia.

All forms of financing are analysed: loans, project finance and other forms of credits, underwriting of share and bond issuances, investments in shares and bonds and other financial services. Some of these investments (such as loans) are made by the bank with its own means, for others (underwriting and asset management) the bank plays an intermediate role by helping the company to raise capital from investors.

When a company undertakes other activities as well, only the relative share of the investment which was used for the researched activity is taken into account.

Table 1 provides total investments per bank in the selected companies over the past five years, in million Australian dollars.

**Table 1 Investments per bank in coal and renewables (A\$ million)**

| <b>Bank</b>                    | <b>Coal mining</b> | <b>CFPS</b>    | <b>Ports</b>   | <b>Total coal</b> | <b>Renewables</b> |
|--------------------------------|--------------------|----------------|----------------|-------------------|-------------------|
| ANZ                            | 726.9              | 649.8          | 309.0          | 1,685.7           | 276.1             |
| Bendigo Bank                   | -                  | 0              | 0              | -                 | 0                 |
| Commonwealth Bank of Australia | 599.9              | 546.4          | 440.0          | 1,586.3           | 77.1              |
| mecu                           | -                  | 0              | 0              |                   | 0                 |
| National Australia Bank        | 632.9              | 382.4          | 0              | 1,015.3           | 139.9             |
| Suncorp                        | -                  | 17.9           | 209.0          | 226.9             | 0                 |
| Westpac                        | 349.6              | 454.0          | 220.0          | 1,023.6           | 290.5             |
| <b>Total</b>                   | <b>2,309.3</b>     | <b>2,050.5</b> | <b>1,178.0</b> | <b>5,537.8</b>    | <b>783.5</b>      |

As the various banks differ in size, Table 2 expresses the same investments in relative terms. For each bank, the absolute investment amounts are corrected for the size of the bank by dividing them by the total assets of the bank and then multiplying by a thousand. As many investments are not included on the bank's balance sheet, this comparison only is meant to give an indication of the relative involvement of each bank in the financing of each sector.

**Table 2 Investments in coal and renewables, corrected for size of the bank**

| <b>Bank</b>                    | <b>Coal mining</b> | <b>CFPS</b> | <b>Ports</b> | <b>Total coal</b> | <b>Renewables</b> |
|--------------------------------|--------------------|-------------|--------------|-------------------|-------------------|
| ANZ                            | 152                | 136         | 65           | 353               | 58                |
| Bendigo Bank                   | -                  | -           | -            | -                 | -                 |
| Commonwealth Bank of Australia | 97                 | 88          | 71           | 256               | 12                |
| mecu                           |                    | -           | -            |                   | -                 |
| National Australia Bank        | 97                 | 58          | -            | 155               | 21                |
| Suncorp                        | -                  | 18          | 214          | 233               | -                 |
| Westpac                        | 59                 | 77          | 37           | 174               | 49                |

## Introduction

This report assesses and compares the role of the major Australian banks in the financing of coal mining, coal fired power stations, coal export ports and renewable energy generation in the past five years. The following banks are included in the analysis:

- Australia and New Zealand Banking (ANZ)
- Bendigo Bank
- Commonwealth Bank of Australia
- mecu
- National Australia Bank
- Suncorp
- Westpac Banking

The contents of this report are as follows:

Chapter 1 provides an overview of the methodology used for this research project.

Chapter 2 profiles each of the seven banks. Their policies on mining and energy financing are described and the findings of the previous chapters are summarized per bank.

Chapter 3 discusses 20 coal mining companies with the largest capacity in Australia, providing general information for each company, the company's mines and the role of the Australian banks.

Chapter 4 provides a similar analysis for the largest coal-fired power generators.

Chapter 5 summarizes all completed and planned coal export port expansions since 2005. In this chapter, the role of the Australian banks is assessed in the form of project finance facilities which are specifically directed to the port expansions.

Chapter 6 investigates the role of the major Australian banks in financing the 10 largest renewable energy companies in Australia.

Chapter 7 summarizes 10 coal-fired power stations (CFPS's) which are currently planned to be built in Australia.

A summary of the findings of this report can be found on the first pages of this report.

# Chapter 1 Methodology

## 1.1 Objective

This report assesses and compares the role of the major Australian banks in providing and raising financing for coal mining, coal fired power stations, coal export ports and renewable energy generation in Australia in the past five years.

## 1.2 Definitions

The following definitions are used in this study:

- **Australian banks**

The following banks are included in the research project:

- Australia and New Zealand Banking (ANZ)
- Bendigo Bank
- Commonwealth Bank of Australia
- mecu
- National Australia Bank
- Suncorp
- Westpac Banking

- **Forms of financing**

Forms of financing analysed in this report are loans, project finance and other forms of credits, underwriting of share and bond issuances, investments in shares and bonds and other financial services.

- **Capacity**

The largest coal mining companies are selected on the basis of their annual coal mining capacity in Australia. This is the maximum coal output expressed in million tonnes per annum (Mtpa), when its mines operate without disruption.

The largest coal-fired power generators are selected on the basis of their coal-fired power generating capacity in Australia. This is the maximum power, which can be generated by the plant, expressed in MW. The actual electric energy generated per year, expressed in MWh, is the generating capacity multiplied by the number of operating hours per year.

## 1.3 Research activities

### 1.3.1 Selection of companies per sector

Long lists were made of coal mining companies operating in Australia, companies active in coal-fired power generation, expansion projects for Australian coal export ports and companies active in renewable energy generation and associated equipment in Australia:

- The analysis for coal mining contains the 20 most important companies in this sector, selected on the basis of their capacity in million tonnes per annum (Mtpa) in Australia. Together, these companies own 85% of the total coal mining capacity in Australia;
- The analysis for coal-fired power generators in Australia is based on the 16 largest producers in the sector, selected on the basis of coal-fired capacity in megawatt (MW). Together, these producers own 95% of the coal-fired power capacity in Australia;

- The list of expansion projects for Australian coal export ports includes all completed and planned coal export port expansions since 2005;
- The list of renewable energy companies contains the 10 largest players in this sector, selected on the basis of renewable energy capacity in MW in Australia. Together, the 10 largest renewable energy companies own 91% of total renewable energy production capacity.

For each company, the total capacity in a specific sector (like coal mining in Australia) as well as the proportion of the assets devoted to this sector in relation to the company's total assets were summarized. In some cases, the percentage of assets was unknown, so an estimate based on other producers in the sector was made (see Appendix 1).

### **1.3.2 Identifying investments by the Australian banks**

The investments of the Australian banks in the selected companies and projects in each sector in the past five years were identified by using annual reports, stock exchange filings and other publications of the companies involved, company register filings, archives of the international financial journals, international press archives, archives of national press publications as well as specialized financial databases.

In some cases, the exact amount a bank or financial institution has provided in a specific investment is unknown. In this case, we used the following approximations:

- Bank loans: Arrangers together provide 40 per cent of the loan, participants provide the remaining 60 per cent;
- Bond or share issuances: Bookrunners together provide 80 per cent of the loan, participants provide the remaining 20 per cent;
- If the amount of participants is lower than 10, the amount is equally divided among the participants.

For all investments, it is clearly indicated whether the amount used was based on an estimate or was based on available sources.

### **1.3.3 Determining total investments per bank**

To assess how much each Australian bank has invested in coal mining, coal-fired power generation, port expansions and renewable energy generation in Australia in the past five years, all individual investments were added per category. When a company undertakes other activities as well, only the relative share of the investment which was used for the researched activity was taken into account. To do so, each individual investment was combined with multiplier and the results were added up.

Which multiplier was used, was dependent on the type of investment:

- Project finance: when a bank provided an investment facility (loans, bonds, etc.) to one of the companies which was related directly to the company's activities in a specific sector (like coal mining or renewable electricity generation in Australia), the whole amount of the loan was added to the bank's investment in the sector. The multiplier was 100%;
- General finance: when a bank provided an investment facility to one of the companies which was not directly related to the company's activities in a specific sector (like loans or bonds for general corporate purposes, working capital or refinancing of debt), the amount the bank provided was multiplied by the proportion of assets devoted to the specific sector of a company. For example, if a bank provided a loan of A\$ 100 million to a company which devotes 5.0% of its assets to Australian coal mining, A\$ 5 million was added to the bank's total investments in this sector.

- Finance provided by the Australian banks that was used for purposes unrelated to the sectors of focus (like coal mining or renewable energy generation in other countries, or different business segments) was not included in the analysis. The multiplier was 0%.

Using these multipliers for each individual investment, a total investment amount over the past five years is calculated per category for each bank.

#### **1.3.4 Correcting investments for differences in bank size**

As the various banks differ in size, the same investment amounts per bank and per category are also expressed in relative terms. For each bank, the absolute investment amounts are corrected for the size of the bank by dividing them by the total assets of the bank and then multiplying by a thousand. As many investments are not included on the bank's balance sheet, this comparison only is meant to give an indication of the relative involvement of each bank in the financing of each sector.

## Chapter 2 Bank profiles

### 2.1 Australia and New Zealand Banking Group (ANZ)

#### 2.1.1 Short profile

The Australia and New Zealand Banking Group (ANZ) is the fourth largest bank in Australia and the largest bank in New Zealand where it operates two brands, ANZ and the National Bank of New Zealand. ANZ's headquarters are located in Melbourne, Australia and the bank currently employs more than 39,000 people worldwide. In 2009 ANZ owned total assets of A\$ 476,987 million and provided its services to around 5.7 million retail customers. ANZ is a publicly listed company in Australia and has 396,181 shareholders.<sup>1</sup>

#### 2.1.2 Policies

ANZ has committed to the following relevant voluntary international principles:

- Carbon Disclosure Project
- Equator Principles
- Global Reporting Initiative
- UNEP Finance Initiative

In addition to these standards ANZ has also developed individual sustainability policies. With regard to power generation, ANZ has developed a *Climate Change policy* and a *Greenhouse and Energy policy*. Both policies commit ANZ to assess the emission intensity and environmental performance of customers followed by an agreement between the bank and the client about how the environmental risks of a client's activities should be mitigated.<sup>2</sup> These policies do however not lead to an exclusion of investments in companies that generate coal-fired power or develop new coal-fired power plants. ANZ also developed a specific *Mining and Minerals policy* which states that the bank will support activities demonstrating best practice environmental protection and community engagement measures when it comes to mining activities.<sup>3</sup>

#### 2.1.3 Investments

According to the results of this report, over the past five years ANZ has invested A\$ 726.8 million in coal mining projects, A\$ 650.0 million in coal-fired power plants, A\$ 309.0 million in ports and A\$ 276.1 million in renewable energy in Australia. Table 3 and Table 4 summarize the bank's investments in the coal sector (mining, ports and CFPS) and the renewables sector respectively. References are provided to the paragraphs in this report where more information on the bank's relationships with each company is available.

**Table 3 Investments of ANZ in the Australian coal sector**

| Sector | Company             | Amount (A\$ million) | Coal amount (A\$ million) | Paragraph |
|--------|---------------------|----------------------|---------------------------|-----------|
| Mining | AGL Energy          | 354                  | 48.5                      | 3.2       |
| Mining | BHP Billiton        | 517                  | 37.2                      | 3.4       |
| Mining | Centennial Coal     | 350                  | 350.0                     | 3.5       |
| Mining | CLP Group           | 325                  | 41.6                      | 3.6       |
| Mining | International Power | 70.5                 | 25.1                      | 3.8       |
| Mining | Itochu Corporation  | 37                   | 0.5                       | 3.9       |

| Sector              | Company                      | Amount (A\$ million) | Coal amount (A\$ million) | Paragraph |
|---------------------|------------------------------|----------------------|---------------------------|-----------|
| Mining              | Noble Group                  | 161                  | 9.5                       | 3.13      |
| Mining              | Queensland government        | 2,208                | 8.8                       | 4.11      |
| Mining              | Wesfarmers                   | 125                  | 5.6                       | 3.19      |
| Mining              | Whitehaven Coal              | 40                   | 40.0                      | 3.20      |
| Mining              | Xstrata                      | 607                  | 160.0                     | 3.21      |
| <b>Total mining</b> |                              |                      | <b>726.8</b>              |           |
| Ports               | Hay Point - BBI              | 109                  | 109.0                     | 5.7       |
| Ports               | Newcastle - NCIG             | 209                  | 209.0                     | 5.10      |
| <b>Total ports</b>  |                              |                      | <b>309.0</b>              |           |
| CFPS                | AGL Energy                   | 354                  | 26.6                      | 4.2       |
| CFPS                | Alinta Energy                | 715.4                | 119.5                     | 4.3       |
| CFPS                | CLP Group                    | 325                  | 36.0                      | 3.6       |
| CFPS                | Intergen                     | 100                  | 11.0                      | 4.5       |
| CFPS                | International Power          | 70.5                 | 27.5                      | 4.6       |
| CFPS                | NSW Government               | 867                  | 91.0                      | 4.7       |
| CFPS                | Queensland Government        | 2,208                | 70.7                      | 4.11      |
| CFPS                | Griffin Group                | 127                  | 127.0                     | 4.17      |
| CFPS                | Transfield Services/TSI Fund | 564                  | 140.7                     | 4.18      |
| <b>Total CFPS</b>   |                              |                      | <b>650.0</b>              |           |
| <b>Total coal</b>   |                              |                      | <b>1,685.8</b>            |           |

**Table 4 Investments of ANZ in the Australian renewables sector**

| Company                 | Amount (A\$ million) | Renewables amount (A\$ million) | Paragraph |
|-------------------------|----------------------|---------------------------------|-----------|
| AGL Energy              | 354                  | 120.4                           | 3.2       |
| ICG                     | 24                   | 7.9                             | 6.8       |
| NSW government          | 867                  | 2.6                             | 4.7       |
| Pacific Hydro           | 56                   | 33.3                            | 6.9       |
| Queensland government   | 2,208                | 4.4                             | 4.11      |
| Snowy Hydro             | 125                  | 107.5                           | 6.10      |
| <b>Total renewables</b> |                      | <b>276.1</b>                    |           |

ANZ itself reports its investments in mining together with agriculture, forestry and fishing. It is therefore difficult to determine what part of this should be attributed to mining alone. ANZ also does not report separate data concerning investments in the energy sector. These investments could partially fall under 'Government and official institutions' or under 'Manufacturing'.<sup>4</sup> It is however difficult to come up with precise numbers when using the bank's reports.

ANZ does provide some information on the project finance granted by the bank per sector. As at August 2010, the bank's project finance portfolio in the energy sector included 31.2% of project financings in the renewable energy sector, 32.3% in the coal-fired energy sector and 35.5% in the gas-fired energy sector. These figures deal with project finance worldwide, while our report looks at all types of investments, but limited to Australia. In addition, the total value of the project finance facilities the bank has outstanding in the energy sector is unknown. Therefore, it is difficult to compare these figures to the ones summarized in Table 3 and Table 4.<sup>5</sup>

## **2.2 Bendigo Bank**

### **2.2.1 Short profile**

The Bendigo Bank is the retail arm of the Australian Bendigo and Adelaide Bank Group which was formed in 2007 when the Bendigo Bank and the Adelaide Bank merged. The Bendigo and Adelaide Bank is headquartered in Adelaide, Victoria and had assets under management of around A\$ 47.1 billion and a market capitalisation of around A\$ 3.3 billion at the end of 2009. The Bendigo Bank provides banking and wealth management services to individuals and small and medium businesses. The bank has around 900 outlets across Australia.<sup>6</sup>

### **2.2.2 Policies**

The Bendigo and Adelaide Bank did not sign up to any of the relevant collective policies. The bank is however part of the Central Victorian Greenhouse Alliance, which comprises of 14 local governments, businesses and community organisations. The alliance tries to create sustainable, climate-aware communities and profitable, climate-friendly economies. Bendigo and Adelaide Bank did not develop special individual policies regarding sustainability but the bank does state in its annual report that it acknowledges its obligation to operate in a way that minimises the impact on the environment. In its explanation the bank however mainly refers to its efforts to minimise the bank's direct impacts on the environment (emission of its offices) and not so much to its indirect impact via the companies it is financing.<sup>7</sup>

### **2.2.3 Investments**

According to the results of this report, Bendigo has not invested anything in any of the four sectors during the last five years.

The Bendigo and Adelaide Bank itself reports some investments in mining and electricity in its last annual report. According to the bank, it had A\$ 256.5 million of its assets allocated in the 'mining' sector and A\$ 172.0 million in the 'electricity, gas and water supply' sector. It is however not clear if 'mining' includes coal mining or only other forms of mining. Also the 'electricity, gas and water supply' category obviously comprises much more than only coal and or renewable generated electricity. Moreover, it could be that the investments for 'mining' refer to mining projects outside Australia while this report only included Australian mining. Also, the investments given by the bank could include small companies that were not included in this report.

## 2.3 Commonwealth Bank

### 2.3.1 Short profile

The Commonwealth Bank is an Australian bank headquartered in Sydney. The bank has 38,000 employees worldwide and mainly operates in Australia, New Zealand, Asia and Europe. Commonwealth Bank is listed on the Australian Stock Exchange. As at December 2009, Commonwealth Bank owned total assets of A\$ 620 million.<sup>8</sup>

### 2.3.2 Policies

The Commonwealth Bank has signed the following collective principles:

- Carbon Disclosure Project
- EITI
- UN Global Compact
- UNEP Finance Initiative
- UNEP Principles for Responsible Investments

Commonwealth Bank has also developed additional sustainability policies. Commonwealth Bank's *Environmental Policy* focuses on both the bank's direct and indirect impact on the environment. However, no clear investment criteria are set.<sup>9</sup> The asset management division of the bank, Colonial First State, has developed a *Climate change position statement*. This statement does not exclude assets operating in specific sectors but integrates environmental, social and governance considerations into its investment process.<sup>10</sup>

### 2.3.3 Investments

According to this report, over the past five years Commonwealth Bank invested A\$ 600.0 million in coal mining, A\$ 546.2 million in coal-fired power plants, A\$ 440.0 million in port expansion projects and A\$ 77.0 million in renewable energy in Australia. Table 5 and Table 6 summarize the bank's investments in the coal sector and the renewables sector respectively. References are provided to the paragraphs in this report where more information on the bank's relationships with each company is available.

**Table 5 Investments of Commonwealth Bank in the Australian coal sector**

| Sector | Company               | Amount (A\$ million) | Coal amount (A\$ million) | Paragraph |
|--------|-----------------------|----------------------|---------------------------|-----------|
| Mining | AGL Energy            | 115.1                | 15.8                      | 3.2       |
| Mining | Anglo American        | 46.6                 | 3.5                       | 3.3       |
| Mining | BHP Billiton          | 639                  | 46.0                      | 3.4       |
| Mining | CLP Group             | 750.5                | 141.6                     | 3.6       |
| Mining | International Power   | 205.0                | 205.0                     | 3.8       |
| Mining | MacArthur Coal        | 18.9                 | 18.9                      | 3.10      |
| Mining | Noble Group           | 184                  | 44.7                      | 3.13      |
| Mining | Queensland government | 1,045.1              | 4.2                       | 4.11      |
| Mining | Rio Tinto             | 302.5                | 11.5                      | 3.15      |
| Mining | Vale                  | 103                  | 0.8                       | 3.18      |
| Mining | Wesfarmers            | 715                  | 32.2                      | 3.19      |

| Sector              | Company                      | Amount (A\$ million) | Coal amount (A\$ million) | Paragraph |
|---------------------|------------------------------|----------------------|---------------------------|-----------|
| Mining              | Xstrata                      | 489                  | 75.8                      | 3.21      |
| <b>Total mining</b> |                              |                      | <b>600.0</b>              |           |
| Ports               | Hay Point - BBI              | 340                  | 340.0                     | 5.7       |
| Ports               | Newcastle - PWCS             | 100                  | 100.0                     | 5.9       |
| <b>Total ports</b>  |                              |                      | <b>440.0</b>              |           |
| CFPS                | AGL Energy                   | 115.1                | 8.6                       | 4.2       |
| CFPS                | Alinta Energy                | 886.2                | 148.0                     | 4.3       |
| CFPS                | CLP Group                    | 750.5                | 123.0                     | 3.6       |
| CFPS                | International Power          | 205                  | 16.4                      | 4.6       |
| CFPS                | NSW Government               | 800                  | 84.0                      | 4.7       |
| CFPS                | Queensland Government        | 1045.1               | 33.4                      | 4.11      |
| CFPS                | Rio Tinto                    | 302.5                | 1.5                       | 3.15      |
| CFPS                | Transfield Services/TSI Fund | 448                  | 130.5                     | 4.18      |
| CFPS                | Western Australia            | 41.4                 | 0.8                       | 4.19      |
| <b>Total CFPS</b>   |                              |                      | <b>546.2</b>              |           |
| <b>Total coal</b>   |                              |                      | <b>1,586.2</b>            |           |

**Table 6 Investments of Commonwealth Bank in the Australian renewables sector**

| Company                 | Amount (A\$ million) | Renewables amount (A\$ million) | Paragraph |
|-------------------------|----------------------|---------------------------------|-----------|
| AGL Energy              | 115.1                | 39.1                            | 3.2       |
| Infigen                 | 90                   | 28.8                            | 6.7       |
| NSW government          | 800                  | 2.4                             | 4.7       |
| Pacific Hydro           | 16                   | 4.6                             | 6.9       |
| Queensland government   | 1045.1               | 2.1                             | 4.11      |
| <b>Total renewables</b> |                      | <b>77.0</b>                     |           |

Commonwealth Bank does not report itself on its investments in the different sectors relevant for this report.

## 2.4 mecu

### 2.4.1 Short profile

mecu is an Australian financial cooperative headquartered in Melbourne. mecu has 33 service centres located throughout Australia and around 330 members of staff. At the end of 2009 mecu owned total assets of A\$ 2.25 billion.<sup>11</sup>

### 2.4.2 Policies

mecu joined the following collective policies:

- UNEP Finance Initiative
- UNEP Principles for Responsible Investments
- UN Global Compact

In addition to this mecu developed its own *Environment Policy*. This policy outlines mecu's major impacts on the environment and articulates the credit union's approach to managing operational impacts in relation to paper, waste, energy, travel, water, land, procurement and partnerships. mecu does not currently have any environmental risk assessment procedures with regard to its provision of financial services and products, as mecu thinks it would be unlikely to receive a member request nor consider undertaking a transaction that required an environmental assessment. mecu does however recognise that its major impacts are those caused by the activities supported through its products and services and has therefore developed a number of products with features to encourage members to be more environmentally responsible and to help alleviate social issues within the community.<sup>12</sup>

### **2.4.3 Investments**

According to this report, mecu did not invest anything in coal mining, coal-fired power plants, port expansion projects or renewable energy over the last five years in Australia. Neither mecu's annual reports or sustainability reports report anything about specific sector investments.

## **2.5 National Australia Bank**

### **2.5.1 Short profile**

National Australia Bank is one of the four biggest banks in Australia and is headquartered in Melbourne. The bank mainly operates in Australia, New Zealand, United Kingdom, North America and Asia. At the end of 2009 the bank had a total assets of A\$ 654 billion and around 40,000 employees worldwide.<sup>13</sup>

### **2.5.2 Policies**

National Australia Bank has signed up to the following collective policies:

- Carbon Disclosure Project
- Equator Principles
- Global Reporting Initiative
- UNEP Finance Initiative

In addition to this, the National Australia Bank developed its own *Environmental Policy*. This policy applies to both the direct and indirect environmental impacts of the bank's activities. With regard to the indirect impacts of the bank's activities the policy states that the bank is committed to continuously review and improve its lending policy which includes environmental risk assessments and to, wherever possible, support investments in socially responsible investment products. It also states that the bank will try to actively offer its customers 'green' choices and assist its clients to operate their businesses in an environmentally sustainable manner.<sup>14</sup>

### 2.5.3 Investments

According to this report, over the past five years National Australia Bank has invested A\$ 632.9 million in coal mining projects, A\$ 382.4 million in coal-fired power plants and A\$ 139.9 million in renewable energy in Australia. In this period, the National Australia Bank did not invest in port expansions. Table 7 and Table 8 summarize the bank's investments in the coal sector and the renewables sector respectively. References are provided to the paragraphs in this report where more information on the bank's relationships with each company is available.

**Table 7 Investments of National Australia Bank in the Australian coal sector**

| Sector              | Company                               | Amount (A\$ million) | Coal amount (A\$ million) | Paragraph |
|---------------------|---------------------------------------|----------------------|---------------------------|-----------|
| Mining              | AGL Energy                            | 50                   | 6.9                       | 3.2       |
| Mining              | Anglo American                        | 275                  | 20.6                      | 3.3       |
| Mining              | BHP Billiton                          | 628                  | 45.2                      | 3.4       |
| Mining              | Centennial Coal                       | 329                  | 329.0                     | 3.5       |
| Mining              | CLP Group                             | 811                  | 142.2                     | 3.6       |
| Mining              | Queensland government (Tarong Energy) | 350                  | 1.4                       | 4.11      |
| Mining              | Wesfarmers                            | 125                  | 5.6                       | 3.19      |
| Mining              | Xstrata                               | 529                  | 82.0                      | 3.21      |
| <b>Total mining</b> |                                       |                      | <b>632.9</b>              |           |
| <b>Total ports</b>  |                                       |                      | <b>0</b>                  |           |
| CFPS                | AGL Energy                            | 50                   | 3.8                       | 4.2       |
| CFPS                | Alinta Energy                         | 681                  | 113.7                     | 4.3       |
| CFPS                | CLP Group                             | 811                  | 121.8                     | 3.6       |
| CFPS                | NSW Government                        | 267                  | 28.0                      | 4.7       |
| CFPS                | Queensland Government                 | 350                  | 11.2                      | 4.11      |
| CFPS                | Griffin Group                         | 77                   | 77                        | 4.17      |
| CFPS                | Transfield Services/TSI Fund          | 67                   | 26.1                      | 4.18      |
| CFPS                | Western Australia                     | 41.4                 | 0.8                       | 4.19      |
| <b>Total CFPS</b>   |                                       |                      | <b>382.4</b>              |           |
| <b>Total coal</b>   |                                       |                      | <b>1,015.3</b>            |           |

**Table 8 Investments of National Australia Bank in the Australian renewables sector**

| Company                  | Amount (A\$ million) | Renewables amount (A\$ million) | Paragraph |
|--------------------------|----------------------|---------------------------------|-----------|
| AGL Energy               | 50                   | 17.0                            | 3.2       |
| CSR                      | 135                  | 8.1                             | 6.4       |
| Hydro Tasmania           | 80                   | 80.0                            | 6.6       |
| NSW government (Eraring) | 267                  | 0.8                             | 4.7       |
| Pacific Hydro            | 56                   | 33.3                            | 6.9       |

| Company                               | Amount (A\$ million) | Renewables amount (A\$ million) | Paragraph |
|---------------------------------------|----------------------|---------------------------------|-----------|
| Queensland government (Tarong Energy) | 350                  | 0.7                             | 4.11      |
| <b>Total renewables</b>               |                      | <b>139.9</b>                    |           |

National Australia Bank itself only provides information on the project finance granted by the bank per sector. As at 30 September 2009, the bank provided 10.2% of its total portfolio value to project finance in the renewable energy sector, 30.1% in the coal and gas-fired energy sector, 35.3% in the infrastructure sector and 6.5% in the mining and refining sector (metals and coal). Based on the reported amount of project finance facilities, the amount invested in renewable energy would be A\$ 574 million, the amount invested in coal and gas-fired energy would be A\$ 1,695 million and the amount invested in mining would be A\$ 366 million.<sup>15</sup>

The reported investments in coal and gas-fired energy and renewable energy are higher than the numbers reported in Table 7 and Table 8, while the reported investment in mining is lower. However, these figures deal with project finance worldwide, while our report looks at all types of investments, but limited to Australia. Therefore the figures are difficult to compare.

In its annual report the bank also reports the concentration of its assets per industry. Here mining is taken together with agriculture, forestry and fishing. Energy could fall under 'government and public authorities' or under 'manufacturing'.<sup>16</sup> It is difficult to compare the numbers calculated in this report with the numbers given by the bank itself as the division of sectors and categories is not the same. Moreover, this report calculated the invested amount over the last five years together while National Australia Bank reports the amount outstanding at the end of 2009. The investments that the bank reports also refer to all investments of the bank worldwide, while this report only looks at the investments in the energy sector of Australia.

## 2.6 Suncorp

### 2.6.1 Short profile

Suncorp is an Australian financial institution headquartered in Brisbane. Its businesses include general insurance, banking, life insurance and wealth management. Suncorp operates in Australia and New Zealand and has more than 16,000 employees and seven million customers. Suncorp is listed on the Australian stock exchange and had about A\$ 95 billion in assets at the end of 2009.<sup>17</sup>

### 2.6.2 Policies

Suncorp did not sign up to any of the relevant collective policies. Neither did the bank develop individual specific policies regarding sustainability and the environment.

### 2.6.3 Investments

According to this report, over the past five years Suncorp invested A\$ 17.9 million in coal-fired power plants and A\$ 209.0 in port expansion projects in Australia. Suncorp did not invest anything in coal mining or renewable energy over the same period. References are provided to the paragraphs in this report where more information on the bank's relationships with each company is available.

**Table 9 Investments of Suncorp in the Australian coal sector**

| Sector              | Company          | Amount (A\$ million) | Coal amount (A\$ million) | Paragraph |
|---------------------|------------------|----------------------|---------------------------|-----------|
| <b>Total mining</b> |                  |                      | <b>0</b>                  |           |
| Ports               | Newcastle - NCIG | 209                  | 209                       | 5.10      |
| <b>Total ports</b>  |                  |                      | <b>209.0</b>              |           |
| CFPS                | Alinta Energy    | 107                  | 17.9                      | 4.3       |
| <b>Total CFPS</b>   |                  |                      | <b>17.9</b>               |           |
| <b>Total coal</b>   |                  |                      | <b>226.9</b>              |           |

The bank itself does not report specifically on its investments in different sectors.

## 2.7 Westpac

### 2.7.1 Short profile

Westpac is an Australian banking group headquartered in Sydney. Westpac has branches and affiliates throughout Australia, New Zealand and the near Pacific region and maintains offices in London, New York, Hong Kong and Singapore among others. As at 31 March 2010, Westpac employed approximately 37,000 people around the world and had global assets of A\$ 601 billion.<sup>18</sup>

### 2.7.2 Policies

Westpac participates in the following collective policies:

- Equator Principles
- UNEP Finance Initiative
- Global Compact
- Global Reporting Initiative

In addition to this, Westpac developed a number of individual sustainability policies. The bank's *Environmental Policy* states that applications for finance includes an assessment of the potential environmental risk along with other risks. Where appropriate, specific measures to manage environmental risk aspects may be required as a condition of lending.<sup>19</sup> Westpac also developed a *Climate change position statement* in which it states that the bank works to reduce its direct environmental impact and identify emerging risks and opportunities. It also contributes to policy development and drives awareness about climate change in the community.<sup>20</sup> This policy however does not state anything about the indirect environmental impact of Westpac's businesses.

### 2.7.3 Investments

According to this report, Westpac invested A\$ 349.6 million in coal mines, A\$ 454.0 million in coal-fired power plants, A\$ 220.0 million in port expansion projects and A\$ 290.5 million in renewable energy over the last five years in Australia. Table 10 and Table 11 summarize the bank's investments in the coal sector and the renewables sector respectively. References are provided to the paragraphs in this report where more information on the bank's relationships with each company is available.

**Table 10 Investments of Westpac in the Australian coal sector**

| Sector              | Company                               | Amount (A\$ million) | Coal amount (A\$ million) | Paragraph |
|---------------------|---------------------------------------|----------------------|---------------------------|-----------|
| Mining              | AGL Energy                            | 338                  | 46.3                      | 3.2       |
| Mining              | Centennial Coal                       | 205                  | 205.0                     | 3.5       |
| Mining              | CLP Group                             | 531                  | 61.4                      | 3.6       |
| Mining              | International Power                   | 20.5                 | 20.5                      | 3.8       |
| Mining              | Noble Group                           | 66                   | 3.9                       | 3.13      |
| Mining              | Queensland government (Tarong Energy) | 1,734                | 6.9                       | 4.11      |
| Mining              | Wesfarmers                            | 125                  | 5.6                       | 3.19      |
| <b>Total mining</b> |                                       |                      | <b>349.6</b>              |           |
| Ports               | Hay Point - BBI                       | 220                  | 220.0                     | 5.7       |
| <b>Total ports</b>  |                                       |                      | <b>220.0</b>              |           |
| CFPS                | AGL Energy                            | 338                  | 25.4                      | 4.2       |
| CFPS                | Alinta Energy                         | 225                  | 37.6                      | 4.3       |
| CFPS                | CLP Group                             | 531                  | 51.4                      | 3.6       |
| CFPS                | International Power                   | 20.5                 | 20.5                      | 4.6       |
| CFPS                | NSW Government                        | 841.3                | 88.3                      | 4.7       |
| CFPS                | Queensland Government                 | 1,734                | 55.5                      | 4.11      |
| CFPS                | Griffin Group                         | 51                   | 51                        | 4.17      |
| CFPS                | Transfield Services/TSI Fund          | 512                  | 124.3                     | 4.18      |
| <b>Total CFPS</b>   |                                       |                      | <b>454.0</b>              |           |
| <b>Total coal</b>   |                                       |                      | <b>1,023.6</b>            |           |

**Table 11 Investments of Westpac in the Australian renewables sector**

| Company                               | Amount (A\$ million) | Renewables amount (A\$ million) | Paragraph |
|---------------------------------------|----------------------|---------------------------------|-----------|
| AGL Energy                            | 338                  | 114.9                           | 3.2       |
| Infigen                               | 90                   | 28.8                            | 6.7       |
| NSW government (Eraring)              | 841.3                | 2.5                             | 4.7       |
| Pacific Hydro                         | 56                   | 33.3                            | 6.9       |
| Queensland government (Tarong Energy) | 1,734                | 3.5                             | 4.11      |
| Snowy Hydro                           | 125                  | 107.5                           | 6.10      |
| <b>Total renewables</b>               |                      | <b>290.5</b>                    |           |

The bank itself reports about its financing in the different segments of the infrastructure and utilities sector in its *Annual review and Sustainability report*. According to Westpac itself, it had invested in the infrastructure and utilities sector outstanding at the end of 2009 with a total value of A\$ 2,220 million. This includes 16.8% gas, 32.3% coal, 13.4% renewable and 37.4% hydro.<sup>21</sup>

Probably this refers to electricity investments only. But as most investments of Westpac in this sector are in companies which operate power plants which use different energy sources, Westpac must have used a calculation methodology to make these estimates. Westpac refers to its website for the calculation methodology, but it could not be found there. It is difficult to compare the findings of this report with the reported numbers of Westpac itself as both the time span and the categories differ. While this report looks at investments over the last five years in total, Westpac probably reports loans outstanding at the end of 2009. Moreover, Westpac divides 'renewable' and 'hydro' while this report includes most hydro projects in the category renewable energy. Also, the data of Westpac concern Australia and New Zealand while this report is only concerned with investments in Australia.

## Chapter 3 Coal mining companies

### 3.1 Selection of Australian coal mining companies

Total coal mining capacity in Australia is estimated at 500 million tonnes per annum (Mtpa). This estimation is based on capacity data of a large amount of Australian coal mining companies. Table 12 gives an overview of the 20 companies with the largest coal mining capacity in Australia. Together, these companies own 84.9% of the total coal mining capacity in Australia. For each company the “weighted coal mining capacity” is calculated by multiplying the capacity of each of the company’s coal mines by the shareholding the company holds in each coal mine.

The table shows that about half of the companies are based in Australia. Other companies are based in Japan, the United Kingdom and other countries. The largest coal mining company in Australia is Xstrata, which is based in Switzerland. This company has a weighted capacity of 87.1 Mtpa, or 17.4% of the total coal mining capacity in Australia.

For each company, the amount of assets devoted to coal mining in Australia as well as the percentage of these assets in relation to total assets is presented. These numbers give an indication about the relative importance of coal mining activities in Australia for a company. For some companies, the amount of assets devoted to Australian coal mining was unknown. Table 56 summarizes all companies for which the amount was known. For these companies, the average amount of assets devoted to Australian coal mining per Mtpa capacity is A\$ 127.1 million.

To calculate the amount of Australian coal mining assets for companies with no available information, this average was multiplied by the weighted capacity of the company. For example for AGL Energy, 9.8 Mtpa was multiplied by the average of A\$ 127.1 million, resulting in an estimate for its Australian coal mining assets of A\$ 1,246 million.

For companies that solely engage in coal mining, the proportion of Australian coal mining assets to its total assets equals 100%. Other companies have very diverse business portfolios. For example the Japanese electric power company TEPCO has a percentage of assets devoted to Australian coal mining of only 0.7%.

**Table 12 Coal mining in Australia**

| Company                | Country        | Weighted capacity in Australia (Mtpa) | % of total Australian capacity | Australian coal mining assets (A\$ million) | Australian coal mining / total assets (%) |
|------------------------|----------------|---------------------------------------|--------------------------------|---|---|
| Xstrata                | Switzerland    | 87.1                                  | 17.4%                          | 11,070                                      | 15.5                                      |
| BHP Billiton           | UK / Australia | 63.4                                  | 12.7%                          | 7,100                                       | 7.2                                       |
| Mitsubishi Corporation | Japan          | 33.7                                  | 6.7%                           | 4,283                                       | 3.0                                       |
| Rio Tinto              | UK / Australia | 32.9                                  | 6.6%                           | 4,182                                       | 3.8                                       |
| Peabody Energy         | United States  | 28.8                                  | 5.8%                           | 3,792                                       | 33.8                                      |
| Anglo American         | United Kingdom | 27.0                                  | 5.4%                           | 4,700                                       | 7.5                                       |
| International Power    | United Kingdom | 18.4                                  | 3.7%                           | 2,339                                       | 9.2                                       |
| CLP Group              | Hong Kong      | 18.0                                  | 3.6%                           | 2,288                                       | 9.6                                       |
| Centennial Coal        | Australia      | 16.8                                  | 3.4%                           | 1,189                                       | 100.0                                     |
| Wesfarmers             | Australia      | 12.7                                  | 2.5%                           | 1,749                                       | 4.5                                       |
| Idemitsu Kosan         | Japan          | 10.3                                  | 2.1%                           | 1,309                                       | 4.3                                       |

| Company                     | Country   | Weighted capacity in Australia (Mtpa) | % of total Australian capacity | Australian coal mining assets (A\$ million) | Australian coal mining / total assets (%) |
|-----------------------------|-----------|---------------------------------------|--------------------------------|---|---|
| Whitehaven Coal             | Australia | 10.3                                  | 2.1%                           | 1,007                                       | 100.0                                     |
| AGL Energy                  | Australia | 9.8                                   | 2.0%                           | 1,246                                       | 13.7                                      |
| TEPCO                       | Japan     | 9.8                                   | 2.0%                           | 1,246                                       | 0.7                                       |
| MacArthur Coal              | Australia | 8.6                                   | 1.7%                           | 1,428                                       | 100.0                                     |
| Itochu Corporation          | Japan     | 8.5                                   | 1.7%                           | 1,080                                       | 1.4                                       |
| Mitsui & Co                 | Japan     | 8.4                                   | 1.7%                           | 1,068                                       | 0.8                                       |
| Vale                        | Brazil    | 7.5                                   | 1.5%                           | 953   | 0.8                                       |
| Tarong Energy               | Australia | 7.0                                   | 1.4%                           | 890   | 42.6                                      |
| Noble Group                 | Australia | 5.5                                   | 1.1%                           | 699   | 5.9                                       |
| <b>Total</b>                |           | <b>424.5</b>                          | <b>84.9%</b>                   |   |   |
| Other coal mining companies |           | 75.5                                  | 15.1%                          |   |   |
| <b>Total</b>                |           | <b>500.0</b>                          | <b>100.0%</b>                  |   |   |

This chapter will discuss the 20 companies which are summarized in Table 12. For each company, a short profile is presented, discussing the general activities of the company and the company's Australian coal mining operations. After that, the role of the Australian banks of focus in this report will be assessed, in the form of loans, project finance and other forms of credits, underwriting of share and bond issuances, investments in shares and bonds and other financial services.

## 3.2 AGL Energy

### 3.2.1 Short profile of AGL Energy

AGL Energy is Australia's leading renewable energy company and Australia's largest private owner, operator and developer of renewable generation assets. The company has a diverse power generation portfolio including base, peaking and intermediate electricity production plants. These are spread across traditional energy sources (e.g. gas and coal) as well as renewable sources (including hydro, wind, landfill gas and biogas). AGL is listed on the Australian Stock Exchange since 2006. The company is based in Sydney, Australia.<sup>22</sup>

Table 13 summarizes the details on the company's coal mining operations, which consist of a 32.5% share in GEAC - the owner of the Loy Yang coal mine project. The total capacity of the mine is 30 million tonnes per annum (Mtpa). Multiplying the capacity by the share of the company in the mine, the weighted production capacity of the AGL Energy is 9.8 Mtpa.

**Table 13 Australian coal mines of AGL Energy**

| Subsidiary        | Mine     | State | Mtpa      | Share in mine | Weighted Mtpa |
|-------------------|----------|-------|-----------|---------------|---------------|
| GEAC              | Loy Yang | Vic   | 30        | 32.5%         | 9.8           |
| <b>Total Mtpa</b> |          |       | <b>30</b> |               | <b>9.8</b>    |

Source: AGL Energy, "Annual Report 2009", *AGL Energy*, September 2009.

At the end of June 2009 AGL's total assets amounted to A\$ 9,034 million.<sup>23</sup> As the weighted production capacity of the company is 9.8 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 1,246 million, or 13.8% of total assets.

### 3.2.2 Shareholders

As at July 2010, AGL Energy had 450 million shares outstanding. Colonial First State, a subsidiary of the **Commonwealth Bank of Australia**, owned 7,196 of these shares as at February 2010. When multiplying the number of shares by the current share price, the total value of this investment amounts to A\$ 106,789.<sup>24</sup>

### 3.2.3 Bank loans

The following information could be found regarding bank loans provided to AGL Energy by the researched banks since early 2005:

- In December 2006 AGL Energy secured a syndicated loan with a total value of A\$ 2,680 million. The loan was split into five tranches: an A\$ 380 million one-year tranche, an A\$ 633 million three-year tranche, an A\$ 887 million five-year tranche, an A\$ 500 million three-year tranche and an A\$ 280 million three-year tranche. The proceeds from the loan were intended for general corporate purposes and for refinancing of debt. The following of the researched banks participated in the syndicate, with an estimated amount of:<sup>25</sup>

- **ANZ** A\$ 136 million
- **Westpac** A\$ 154 million

- In October 2007 AGL Energy secured an A\$ 270 million one-year loan with an international banking syndicate. The proceeds from the loan were intended for general corporate purposes and for refinancing of debt. The following of the researched banks participated in the syndicate, providing an amount of:<sup>26</sup>

- **ANZ** A\$ 19 million
- **Commonwealth Bank of Australia** A\$ 10 million
- **Westpac** A\$ 22 million

- In April 2008 AGL Energy secured an A\$ 550 million loan with an international banking syndicate. The loan was split into two tranches: an A\$ 328 million two-year tranche and an A\$ 223 million two-year tranche. The proceeds of the loan were intended to refinance the A\$ 270 million one-year loan mentioned above and for general corporate purposes. The following of the researched banks participated in the syndicate, providing an amount of:<sup>27</sup>

- **ANZ** A\$ 99 million
- **Commonwealth Bank of Australia** A\$ 55 million
- **Westpac** A\$ 62 million

- In June 2009 AGL Energy secured an A\$ 800 million from an international banking syndicate. The loan was split into two tranches: an A\$ 200 million three-year tranche and a A\$ 600 million three-year tranche. The proceeds of the loan were intended to refinance existing debt and for general corporate purposes. The following of the researched banks participated in the syndicate, providing an amount of:<sup>28</sup>

- **ANZ** A\$ 100 million
- **Commonwealth Bank of Australia** A\$ 50 million

- **National Australia Bank** A\$ 50 million
- **Westpac** A\$ 100 million

### 3.3 Anglo American

#### 3.3.1 Short profile of Anglo American

The British company Anglo American plc is a company that mines, processes and refines resources such as platinum, diamonds, coal, base metals, ferrous metals, and industrial minerals. Anglo American operates in Africa, Europe, South and North America, Australia, and Asia. The company was founded in 1917 and is based in London, the United Kingdom.<sup>29</sup>

At the end of 2009, total assets of Anglo American plc amounted to US\$ 56.3 billion (A\$ 63.0 billion). Coal production in Australia (grouped under the company's segment metallurgical coal, all of which is produced in Australia) accounted for US\$ 4.2 billion (A\$ 4.7 billion), or 7.5% of the company's total assets.<sup>30</sup>

Table 14 summarizes all Australian coal mining projects in which Anglo American has an interest. Most of its projects are based in Queensland. The total capacity of the company's mining projects is 40.0 Mtpa. Multiplying the capacity by the share of the company in all mines, the weighted capacity of the company is 27.0 Mtpa.

**Table 14 Australian coal mines of Anglo American**

| Subsidiary           | Mine           | State | Mtpa        | Share in mine | Weighted Mtpa |
|----------------------|----------------|-------|-------------|---------------|---------------|
| Anglo Coal Australia | Callide        | Qld   | 8.8         | 100%          | 8.8           |
| Anglo Coal Australia | German Creek   | Qld   | 7.0         | 70%           | 4.9           |
| Anglo Coal Australia | Dawson         | Qld   | 7.4         | 51%           | 3.8           |
| Anglo Coal Australia | Drayton        | NSW   | 4.1         | 88%           | 3.6           |
| Anglo Coal Australia | Foxleigh       | Qld   | 2.3         | 70%           | 1.6           |
| Anglo Coal Australia | Moranbah North | Qld   | 3.0         | 88%           | 2.6           |
| Anglo Coal Australia | Jellinbah      | Qld   | 4.0         | 23%           | 1.7           |
| <b>Total Mtpa</b>    |                |       | <b>36.6</b> |               | <b>27.0</b>   |

Source: Anglo American, "Our business", *Website Anglo American*, Viewed in July 2010.

#### 3.3.2 Shareholders

Anglo American plc has 1.2 billion shares outstanding. When adding ADRs and ordinary shares, Colonial First State, part of **Commonwealth Bank of Australia**, owns 0.19% of the company's shares. When multiplying the number of shares by the current share price, the total value of the investment amounts to A\$ 46.6 million.<sup>31</sup>

#### 3.3.3 Bank loans

The following information could be found regarding bank loans provided to Anglo American by the researched banks since early 2005:

- In July 2006 Anglo American plc extended its existing US\$ 750 million (A\$ 1,101 million) facility signed two years earlier. The maturity of the loan is July 2007. Among the 16 arranging banks of the facility was **National Australia Bank**, which provided an estimated amount of US\$ 47 million (A\$ 63 million).<sup>32</sup>
- In March 2007 Anglo American plc secured a US\$ 2.5 billion (A\$ 3.2 billion) five-year revolving credit facility for general corporate purposes. **National Australia Bank** participated in the syndicate of 15 banks, providing an estimated amount of US\$ 167 million (A\$ 212 million).<sup>33</sup>
- In June 2010 the company was self-arranging a new US\$ 2.5 billion loan that would replace the loan secured in March 2007. According to banking sources, this new loan would be completed on a club basis with banks that already have a relationship with the company. It is not certain if **National Australia Bank** will participate in this new loan.<sup>34</sup>

### 3.4 BHP Billiton

#### 3.4.1 Short profile of BHP Billiton

BHP Billiton Ltd is a diversified natural resources company which operates in Australia, the Americas and southern Africa. BHP Billiton Ltd operates as a subsidiary of the BHP Billiton Group. It was created through the Dual Listed Companies (DLC) merger of BHP Ltd (now BHP Billiton Ltd) and Billiton plc (now BHP Billiton plc) in June 2001. BHP Billiton Limited and BHP Billiton plc continue to exist as separate companies, but operate on a combined basis as BHP Billiton. The company was founded in 1885 and is based in Melbourne, Australia.<sup>35</sup>

At the end of June 2009, BHP Billiton's assets had a value of US\$ 78.8 billion (A\$ 97.3 billion). Of these, 12.0% were related to coal mining and marketing. The company's coal divisions consist of Metallurgical coal (US\$ 4.9 billion), all of which is produced in Australia, and Energy coal (US\$ 4.6 billion), 17% of which is produced in Australia. Therefore, coal mining in Australia is estimated to account for US\$ 5.7 billion (A\$ 7.1 billion), or 7.2% of the company's assets.<sup>36</sup>

Table 15 summarizes the coal mines in Australia in which the company has an interest. Almost all mines are located in Queensland. The total capacity of the company's mining projects is 94.2 Mtpa. Multiplying the capacity by the share of the company in all mines, the weighted capacity of the company is 63.4 Mtpa.

**Table 15 Australian coal mines of BHP Billiton**

| Subsidiary              | Mine                   | State | Mtpa        | Share in mine | Weighted Mtpa |
|-------------------------|------------------------|-------|-------------|---------------|---------------|
| BHP Mitsubishi Alliance | Blackwater             | Qld   | 14.0        | 50.0%         | 7.0           |
| BHP Mitsubishi Alliance | Broadmeadow            | Qld   | 3.0         | 50.0%         | 1.5           |
| BHP Mitsubishi Alliance | Goonyella<br>Riverside | Qld   | 15.0        | 50.0%         | 7.5           |
| BHP Mitsubishi Alliance | Gregory Crinum         | Qld   | 5.0         | 50.0%         | 2.5           |
| BHP Mitsubishi Alliance | Norwich Park           | Qld   | 5.0         | 50.0%         | 2.5           |
| BHP Mitsubishi Alliance | Peak Downs             | Qld   | 9.0         | 50.0%         | 4.5           |
| BHP Mitsubishi Alliance | Saraji                 | Qld   | 8.0         | 50.0%         | 4.0           |
| BHP Mitsui Coal         | South Walker<br>Creek  | Qld   | 3.5         | 80.0%         | 2.8           |
| BHP Mitsui Coal         | Poitrel                | Qld   | 3.0         | 80.0%         | 2.4           |
| Illawarra Coal Holdings | Illawarra Coal         | NSW   | 8.7         | 100.0%        | 8.7           |
| Mt Arthur Coal          | Mt Arthur Coal         | NSW   | 20.0        | 100.0%        | 20.0          |
| <b>Total Mtpa</b>       |                        |       | <b>94.2</b> |               | <b>63.4</b>   |

Source: BHP Billiton, "Energy Coal", *Website BHP Billiton*, Viewed in July 2010; BHP Billiton, "Metallurgical Coal", *Website BHP Billiton*, Viewed in July 2010.

### 3.4.2 Shareholders

BHP Billiton plc and BHP Billiton Ltd together have 5.6 billion shares outstanding. When adding ADRs and ordinary shares, Colonial First State, part of **Commonwealth Bank of Australia**, owns 0.2% of the company's shares. When multiplying the number of shares by the current share price, the total value of the investment amounts to A\$ 417 million.<sup>37</sup>

### 3.4.3 Bank loans

The following information could be found regarding bank loans provided to BHP Billiton by the researched banks since early 2005:

- In March 2005 BHP Billiton plc secured a US\$ 6.5 billion (A\$ 8.2 billion) credit facility from a syndicate of 17 banks. The facility was split between a US\$ 3 billion (A\$ 3.8 billion) extendible 18-month term loan, a US\$ 2.5 billion (A\$ 3.1 billion) five-year term loan and a US\$ 1 billion (A\$ 1.3 billion) revolver. The proceeds were used for an A\$ 9.2 billion takeover of WMC Resources, an Australian mining and fertilizer company. Among the 17 participants were the following Australian banks:<sup>38</sup>
  - **ANZ** A\$ 318 million
  - **Commonwealth Bank of Australia** A\$ 222 million
  - **National Australia Bank** A\$ 318 million
- In June 2005 BHP Billiton Ltd secured a US\$ 400 million (A\$ 529 million) short-term credit facility for the purchase of trade debts and working capital purposes. **ANZ** provided US\$ 150 (A\$ 199 million) of the loan.<sup>39</sup>

### 3.4.4 Bond issuances

The following information could be found regarding bond issuances by BHP Billiton since 2005 in which one or more of the researched Australian institutions were involved:

- In March 2009 BHP Billiton's financing subsidiary BHP Billiton Finance (USA) issued bonds on the American capital market with a total value of US\$ 3.3 billion (A\$ 5.1 billion), of which a tranche of US\$ 1.5 billion (A\$ 2.3 billion) matures in April 2014 and US\$ 1.8 billion (A\$ 2.8 billion) matures in April 2019. **National Australia Bank** was responsible for selling US\$ 33 million (A\$ 51.6 million) in the first tranche and US\$ 38.5 million (A\$ 60.2 million) in the second. This results in a total of US\$ 71.5 million (A\$ 112 million).<sup>40</sup>
- Later in March 2009 BHP Billiton Finance (USA) issued seven-year bonds on the European capital market with a value of € 2.3 billion (A\$ 3.3 billion) comprising € 1.3 billion (A\$ 1.9 billion) of 4.75% bonds due in 2012 and € 1 billion (A\$ 1.4 billion) of 6.375% bonds due in 2016. The proceeds are being used for general corporate purposes. **National Australia Bank** participated as co-lead manager, underwriting an estimated A\$ 198 million.<sup>41</sup>

## 3.5 Centennial Coal

### 3.5.1 Short profile of Centennial Coal

Centennial Coal Company Ltd is an Australian coal mining and marketing company that operates solely in Australia. The company supplies thermal and coking coal to power stations and steel mills in Japan, Korea, India, Europe, and South America. Centennial Coal was founded in 1989 and is based in Sydney, Australia.<sup>42</sup> On the 5<sup>th</sup> of July 2010, Banpu Pcl, Thailand's biggest coal producer, bought 80 per cent of the shares of Centennial Coal for A\$ 2 billion. This Thai producer already owned 20 per cent of the company's shares.<sup>43</sup>

At the end of June 2009, Centennial Coal owned assets with a total value of A\$ 1,189.3 million. The company operates solely in the coal mining industry in New South Wales, so Australian coal mining accounted for 100% of the company's assets.<sup>44</sup>

Table 16 lists all Australian coal mines of Centennial Coal. All of the company's projects are based in New South Wales. The total production of the company's mines is 24.7 Mtpa. If we take into account the partial ownership of the company in some mines, the weighted coal mining capacity amounts to 16.8 Mtpa.

**Table 16 Australian coal mines of Centennial Coal**

| Subsidiary        | Mine                    | State | Mtpa        | Share in mine | Weighted Mtpa |
|-------------------|-------------------------|-------|-------------|---------------|---------------|
| Centennial Coal   | Newstan                 | NSW   | 4.0         | 100.0%        | 4.0           |
| Centennial Coal   | Awaba                   | NSW   | 0.8         | 100.0%        | 0.8           |
| Centennial Coal   | Myuna                   | NSW   | 1.5         | 100.0%        | 1.5           |
| Centennial Coal   | Mandalong               | NSW   | 5.0         | 100.0%        | 5.0           |
| Centennial Coal   | Mannering               | NSW   | 1.0         | 100.0%        | 1.0           |
| Centennial Coal   | Angus Place/ Springvale | NSW   | 7.0         | 50.0%         | 3.5           |
| Centennial Coal   | Charbon                 | NSW   | 1.2         | 95.0%         | 1.1           |
| Centennial Coal   | Airly                   | NSW   | 1.7         | 100.0%        | 1.7           |
| Centennial Coal   | Clarence                | NSW   | 2.5         | 85.0%         | 2.1           |
| <b>Total Mtpa</b> |                         |       | <b>24.7</b> |               | <b>16.8</b>   |

Source: Centennial Coal Company, "Annual Report 2009", *Centennial Coal Company*, October 2009.

### 3.5.2 Shareholders

As of June 2009, **National Australia Bank** owned 6.88% of the shares of Centennial Coal. When multiplying the amount of shares by the current share price, the value of the holding can be estimated at A\$ 189 million.<sup>45</sup> In July 2010 these shares were sold to Banpu Pcl.

### 3.5.3 Bank loans

The following information could be found regarding bank loans provided to Centennial Coal by the researched banks since early 2005:

- In August 2005 Centennial Coal secured an A\$ 765 million multi-tranche facility from a syndicate of banks. All tranches were three-year revolvers. The proceeds were used for general corporate purposes. Among the 8 participants were the following Australian banks:<sup>46</sup>
  - **ANZ** A\$ 185 million
  - **National Australia Bank** A\$ 110 million
  - **Westpac Banking** A\$ 130 million
- In December 2007 Centennial Coal secured an A\$ 460 four-year credit facility for refinancing and general corporate purposes. Among the 7 participants were the following Australian banks:<sup>47</sup>
  - **ANZ** A\$ 165 million
  - **National Australia Bank** A\$ 30 million
  - **Westpac Banking** A\$ 75 million

## 3.6 CLP Group

### 3.6.1 Short profile of the CLP Group

The CLP Group is an electricity company, headquartered in Hong Kong. Incorporated in 1901 as the China Light & Power Company Syndicate, the company's core businesses are power generation and transmission. In recent years the CLP Group has invested in Australia, China, India and Thailand.<sup>48</sup>

The CLP Group owns the Yallourn mine, Australia's second largest open cut mine, adjacent to the Yallourn Power Station. As Table 17 shows, the mine annually produces around 18 million tonnes of high moisture brown coal.<sup>49</sup>

**Table 17 Australian coal mines of the CLP Group**

| Subsidiary        | Mine     | State | Mtpa        | Share in mine | Weighted Mtpa |
|-------------------|----------|-------|-------------|---------------|---------------|
| TRUenergy         | Yallourn | Vic   | 18.0        | 100.0%        | 18.0          |
| <b>Total Mtpa</b> |          |       | <b>18.0</b> |               | <b>18.0</b>   |

Source: TRUenergy, "About us", Website TRUenergy, Viewed in July 2010.

In 2009, total assets of the CLP Group amounted to HK\$ 156,531 million (A\$ 23,893 million). The company's activities in Australia accounted for HK\$ 37,032 million (A\$ 5,653 million) of its assets.<sup>50</sup> As the company has an Australian coal mining capacity of 18 Mtpa, the amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is estimated at A\$ 2,288 million, or 9.6% of total assets.

### 3.6.2 Bondholders

Colonial First State, part of **Commonwealth Bank of Australia**, owns 0.02% of the outstanding bonds of the CLP Group. The value of this holding is A\$ 501,000.<sup>51</sup>

### 3.6.3 Bank loans

The following information could be found regarding bank loans provided to the CLP Group by the researched banks since early 2005:

- In March 2005 CLP Power Australia Energy, a subsidiary of the CLP Group, secured an A\$ 2,450 million credit facility. The facility consisted of an A\$ 250 million one-year revolver, an A\$ 600 million one-year bridge loan, an A\$ 650 three-year revolver and an A\$ 950 five-year term loan. The proceeds were used to fund the acquisition of the company's merchant energy business, to refinance the company's existing Yallourn project finance facilities, and to fund the working capital requirements for the company's business in Australia. The following Australian banks participated in the facility:<sup>52</sup>
  - **ANZ** A\$ 100 million
  - **Commonwealth Bank of Australia** A\$ 150 million
  - **National Australia Bank** A\$ 150 million
  - **Westpac Banking** A\$ 100 million
- In August 2006 CLP Australia Finance Pty Ltd, a subsidiary of TRUenergy, secured a A\$ 1.6 billion loan facility from a syndicate of banks. The facility consists of an A\$ 650 three-year tranche and an A\$ 950 million five-year tranche. The proceeds were used for refinancing, restructuring and to fund the development of greenfield projects of the company. The following Australian banks participated in the facility.<sup>53</sup>

- **Commonwealth Bank of Australia** A\$ 100 million
  - **National Australia Bank** A\$ 150 million
  - **Westpac Banking** A\$ 200 million
- In May 2008 CLP Australia Finance Pty Ltd, a subsidiary of TRUenergy, secured a one-year A\$ 300 million loan for refinancing purposes. The following banks participated in the loan.<sup>54</sup>
- **Commonwealth Bank of Australia** A\$ 150 million
  - **National Australia Bank** A\$ 150 million
- In August 2009 CLP Australia Finance Pty Ltd, a subsidiary of TRUenergy, secured an A\$ 239 million three-year loan to refinance debt. The following banks participated in the loan.<sup>55</sup>
- **Australia and Zealand Bank** A\$ 75 million
  - **National Australia Bank** A\$ 61 million
  - **Westpac Banking** A\$ 81 million

### 3.6.4 Bond issuances

The following information could be found regarding bond issuances by the CLP Group since 2005 in which one or more of the researched Australian institutions were involved:

- In November 2005 TRUenergy, through CLP Australia Finance Pty Ltd, completed an A\$ 700 million Australian domestic bond issue. The issue comprised A\$ 650 million in seven-year fixed and floating rate tranches and A\$ 50 million at a ten-year floating rate. Proceeds from the issuance were used to repay a bridging acquisition loan and for Yallourn refinancing. The balance of the funds was used to repay an existing debt facility. **Commonwealth Bank of Australia** and **National Australia Bank** were joint bookrunners for the issuance, each providing an estimated A\$ 350 million.<sup>56</sup>

## 3.7 Idemitsu Kosan

### 3.7.1 Short profile of Idemitsu Kosan

Idemitsu Kosan Co Ltd engages in the manufacture and sale of petroleum and petrochemical products. The company was founded in 1911 and is based in Tokyo, Japan. Idemitsu Australia Resources Pty Ltd (IAR) is the Australian subsidiary of Idemitsu Kosan. IAR was established in 2006 to manage Idemitsu Kosan's Australian coal operations.<sup>57</sup>

Table 18 summarizes the Australian coal mines of Idemitsu Kosan. IAR is the owner of the Boggabri and Muswellbrook Coal Mines in New South Wales, a joint venture partner in the Tarrawonga Coal Project and also a joint venture partner in the Ensham mine in Queensland. The production of these mines is 12.5 Mtpa, and the weighted capacity of Idemitsu Kosan is 10.3 Mtpa.

**Table 18 Australian coal mines of Idemitsu Kosan**

| Subsidiary                   | Mine         | State | Mtpa        | Share in mine | Weighted Mtpa |
|------------------------------|--------------|-------|-------------|---------------|---------------|
| Idemitsu Australia Resources | Ensham       | Qld   | 8.0         | 85.0%         | 6.8           |
| Idemitsu Australia Resources | Boggabri     | NSW   | 1.5         | 100.0%        | 1.5           |
| Idemitsu Australia Resources | Tarrawonga   | NSW   | 1.5         | 30.0%         | 0.5           |
| Idemitsu Australia Resources | Muswellbrook | NSW   | 1.5         | 100.0%        | 1.5           |
| <b>Total Mtpa</b>            |              |       | <b>12.5</b> |               | <b>10.3</b>   |

Source: Idemitsu Australia Resources, "Operations", *Website Idemitsu Australia Resources*, Viewed in July 2010.

Total assets of Idemitsu as of March 2009 amounted to ¥ 2,290 billion (A\$ 30,417 million).<sup>58</sup> As the weighted Australian coal mining capacity of Idemitsu Kosan is 10.3 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 1,309 million, or 4.3% of total assets.

### 3.7.2 Financing of Idemitsu Kosan

The Australian banks of focus in this report do not play a role in financing Idemitsu Kosan.

## 3.8 International Power

### 3.8.1 Short profile of International Power

International Power plc is a global independent electricity generating company with interests in power generating capacity in operating plants that are located in five core regions: North America, Europe, Middle East, Australia and Asia. The company engages in the development, acquisition and operation of power generation plants. International Power was founded in 1989 and is based in London, the United Kingdom.<sup>59</sup>

Table 19 shows that International Power Australia owns 91.8% of the Hazelwood power station and mine in the Latrobe Valley, Victoria. The other 8.2% is owned by the Commonwealth Bank Group. The mine has a capacity of 20 million tonnes of brown coal annually, so the weighted capacity of International Power is 18.4 Mtpa.<sup>60</sup>

**Table 19 Australian coal mines of International Power**

| Subsidiary                    | Mine      | State | Mtpa        | Share in mine | Weighted Mtpa |
|-------------------------------|-----------|-------|-------------|---------------|---------------|
| International Power Australia | Hazelwood | Vic   | 20.0        | 91.8%         | 18.4          |
| <b>Total Mtpa</b>             |           |       | <b>20.0</b> |               | <b>18.4</b>   |

Source: International Power, "Assets", *Website International Power*, Viewed in July 2010.

At the end of 2009, total assets of International Power plc amounted to £ 14,184 million (A\$ 25,292 million). The Australia division accounted for £ 2,760 million (A\$ 4,922 million) of the company's assets.<sup>61</sup> As the company has a weighted capacity of 18.4 Mtpa, the amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is estimated at A\$ 2,339 million, or 9.2% of total assets.

### 3.8.2 Project finance

The following information could be found regarding project finance facilities provided to International Power by the researched banks since early 2005:

- In January 2010, International Power plc announced that it had completed a restructuring of its existing non-recourse debt of A\$ 742 million for its coal-fired Hazelwood power station and mine. The new single tranche facility has a maturity date of June 2012. Among the 18 banks that participated in the restructured facility were **ANZ** and **Westpac Banking**, each providing an estimated amount of A\$ 41 million.<sup>62</sup>

### 3.8.3 Bond issuances

The following information could be found regarding bond issuances by International Power since 2005 in which one or more of the researched Australian institutions were involved:

- In July 2009, International Power plc secured a US\$ 780 million (A\$ 1,000 million) revolving credit facility with a maturity of October 2012. The proceeds of the loan were used for refinancing and general corporate purposes. Among the 20 arranging banks was **ANZ**, providing an estimated amount of A\$ 50 million.<sup>63</sup>

### 3.8.4 Joint venture partners

The **Commonwealth Bank of Australia** owns 8.2% of the Hazelwood power station and mine. In 2003, the bank spent US\$ 230 million (A\$ 410 million) on capital expenditure for this project. Assuming that half of this expenditure was directed to the mine, the Commonwealth Bank Australia has invested A\$ 115 million (A\$ 205 million) in the coal mine.<sup>64</sup>

## 3.9 Itochu Corporation

### 3.9.1 Short profile of Itochu Corporation

Itochu Corporation is a Japanese company that operates as a general trading company worldwide. The company is engaged in domestic trading, import/export, and overseas trading of various products such as textile, machinery, metals, minerals, insurance and business investment in Japan and overseas. Itochu Corporation was founded in 1858 and is based in Tokyo, Japan.<sup>65</sup>

Table 20 summarizes all Australian coal mines in which Itochu Corporation holds a significant interest. The company operates through its Australian subsidiary Itochu Coal Resources Australia Pty Ltd. The weighted capacity of the Australian coal mines of Itochu Corporation is 8.5 Mtpa.

**Table 20 Australian coal mines of Itochu Corporation**

| Subsidiary                      | Mine            | State | Mtpa        | Share in mine | Weighted Mtpa |
|---------------------------------|-----------------|-------|-------------|---------------|---------------|
| Itochu Coal Resources Australia | Newlands        | Qld   | 10.0        | 35.0%         | 3.5           |
| Itochu Coal Resources Australia | Oaky Creek Coal | Qld   | 11.0        | 20.0%         | 2.2           |
| Itochu Coal Resources Australia | Collinsville    | Qld   | 6.0         | 35.0%         | 2.1           |
| Itochu Coal Resources Australia | Wandoan         | Qld   | 4.0         | 12.5%         | 0.5           |
| Itochu Coal Resources Australia | Foxleigh        | Qld   | 2.3         | 10.0%         | 0.2           |
| <b>Total Mtpa</b>               |                 |       | <b>33.2</b> |               | <b>8.5</b>    |

Source: Itochu Australia, "Our business", *Website Itochu Australia*, Viewed in July 2010.

At the end of March 2009, Itochu Corporation owned assets with a value of ¥ 5,192 billion (A\$ 78,070 million).<sup>66</sup> As the weighted Australian coal mining capacity of Itochu is 8.5 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 1,080 million, or 1.4% of total assets.

### 3.9.2 Bank loans

The following information could be found regarding bank loans provided to Itochu Corporation by the researched banks since early 2005:

- In May 2010, Itochu Corporation secured a US\$ 500 million (A\$ 613 million) credit facility from a syndicate of banks. The proceeds were used for refinancing and general corporate purposes. Among the 12 banks that participated in the syndicate was **ANZ**, which provided an estimated amount of US\$ 30 million (A\$ 37 million).<sup>67</sup>

## 3.10 MacArthur Coal

### 3.10.1 Short profile of MacArthur Coal

Macarthur Coal Ltd engages in the exploration, evaluation, development, and mining of coal properties in the Bowen Basin in Queensland, Australia. Macarthur supplies coal primarily to steel mills in Asia, Europe and Brazil. The company was incorporated in 1995 and is based in Brisbane, Australia.<sup>68</sup>

At the end of June 2009, MacArthur coal owned assets worth A\$ 1,428 million, all of which is invested in Australian coal mining.<sup>69</sup>

Table 21 summarizes the two coal mines in Australia in which MacArthur Coal has an interest. Both mines are based in Queensland. The total weighted capacity of the company is 8.6 Mtpa.

**Table 21 Australian coal mines of MacArthur Coal**

| Subsidiary        | Mine       | State | Mtpa       | Share in mine | Weighted Mtpa |
|-------------------|------------|-------|------------|---------------|---------------|
| Coppabella Coal   | Coppabella | Qld   | 7.0        | 100.0%        | 7.0           |
| Coppabella Coal   | Moorvale   | Qld   | 2.2        | 73.3%         | 1.6           |
| <b>Total Mtpa</b> |            |       | <b>9.2</b> |               | <b>8.6</b>    |

Source: MacArthur Coal, "Annual Report 2009", *MacArthur Coal*, August 2009.

### 3.10.2 Shareholders

Colonial First State, a subsidiary of the **Commonwealth Bank of Australia**, owns 0.61% of the shares of MacArthur Coal. When multiplying the number of shares by the current share price, the total value of the investment amounts to A\$ 18.9 million.<sup>70</sup>

## 3.11 Mitsubishi Corporation

### 3.11.1 Short profile of Mitsubishi Corporation

Mitsubishi Corporation operates as a general trading company worldwide. The company operates through different segments, like business innovation, metals and machinery. Mitsubishi Corporation was founded in 1950 and is headquartered in Tokyo, Japan.<sup>71</sup>

Mitsubishi Development Pty Ltd is a wholly-owned subsidiary of Mitsubishi Corporation and is based in Sydney, Australia. The company owns investments in coal and iron ore in Australia, including a 50% share of BHP Billiton Mitsubishi Alliance, the world's largest metallurgical coal producer.<sup>72</sup>

Table 22 summarizes all Australian coal mines in which Mitsubishi Corporation has an interest. Most mines are operated by BHP Mitsubishi Alliance and based in Queensland. The weighted total capacity of the company is 33.7 Mtpa.

**Table 22 Australian coal mines of Mitsubishi Corporation**

| Subsidiary               | Mine                | State | Mtpa        | Share in mine | Weighted Mtpa |
|--------------------------|---------------------|-------|-------------|---------------|---------------|
| BHP Mitsubishi Alliance  | Blackwater          | Qld   | 14.0        | 50.0%         | 7.0           |
| BHP Mitsubishi Alliance  | Broadmeadow         | Qld   | 3.0         | 50.0%         | 1.5           |
| BHP Mitsubishi Alliance  | Goonyella Riverside | Qld   | 15.0        | 50.0%         | 7.5           |
| BHP Mitsubishi Alliance  | Gregory Crinum      | Qld   | 5.0         | 50.0%         | 2.5           |
| BHP Mitsubishi Alliance  | Norwich Park        | Qld   | 5.0         | 50.0%         | 2.5           |
| BHP Mitsubishi Alliance  | Peak Downs          | Qld   | 9.0         | 50.0%         | 4.5           |
| BHP Mitsubishi Alliance  | Saraji              | Qld   | 8.0         | 50.0%         | 4.0           |
| Mitsubishi Development   | Ulan                | NSW   | 5.0         | 10.0%         | 0.5           |
| Coal & Allied Industries | Hunter Valley       | NSW   | 11.2        | 10.2%         | 1.1           |
| Coal & Allied Industries | Bengalla            | NSW   | 5.5         | 4.1%          | 0.2           |
| Coal & Allied Industries | Mount Thorley       | NSW   | 3.3         | 8.2%          | 0.3           |
| Coal & Allied Industries | Warkworth           | NSW   | 5.2         | 40.6%         | 2.1           |
| <b>Total Mtpa</b>        |                     |       | <b>89.2</b> |               | <b>33.7</b>   |

Source: BHP Billiton, "About BMA", *Website BHP Billiton*, Viewed in July 2010; Coal & Allied, "Mount Thorley Warkworth", *Website Coal & Allied*, Viewed in July 2010; Ulan Coal, "Ulan coal mine", *Website Ulan Coal*, Viewed in July 2010.

At the end of March 2010 Mitsubishi Corporation owned assets with a value of ¥ 10,891 billion (A\$ 144,659 million).<sup>73</sup> As the weighted coal mining capacity of Mitsubishi is 33.7 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 4,283 million, or 3.0% of total assets.

### 3.11.2 Financing of Mitsubishi Corporation

The Australian banks of focus in this report do not play a role in financing Mitsubishi Corporation.

## 3.12 Mitsui & Co

### 3.12.1 Short profile of Mitsui & Co

Mitsui & Co. Ltd operates as a general trading company of various commodities. The company engages in manufacturing, selling and trading iron and steel products, machinery products, chemical products, food products, textiles, and IT products, as well as oil, gas, and related products. It also develops raw material resources of iron and non-ferrous metals and offers raw materials and metal products. The company has operations in the Americas, Europe, the Middle East, Africa, and the Asia Pacific. Mitsui & Co. was founded in 1947 and is based in Tokyo, Japan.<sup>74</sup>

Table 23 summarizes all coal mines in which Mitsui has a significant interest. Most mines are owned in partnership with other companies, like Anglo American (in the case of German Creek). The weighted capacity of Mitsui & Co. is 8.4 Mtpa.

**Table 23 Australian coal mines of Mitsui & Co**

| Subsidiary           | Mine               | State | Mtpa        | Share in mine | Weighted Mtpa |
|----------------------|--------------------|-------|-------------|---------------|---------------|
| Mitsui Coal Holdings | Bengalla           | NSW   | 5.5         | 10%           | 0.6           |
| Mitsui Coal Holdings | Kestrel            | Qld   | 4.2         | 20%           | 0.8           |
| Mitsui Coal Holdings | Dawson             | Qld   | 7.4         | 49%           | 3.6           |
| Mitsui Coal Holdings | German Creek       | Qld   | 7.0         | 30%           | 2.1           |
| BHP Mitsui Coal      | South Walker Creek | Qld   | 3.5         | 20%           | 0.7           |
| BHP Mitsui Coal      | Poitrel            | Qld   | 3.0         | 20%           | 0.6           |
| <b>Total Mtpa</b>    |                    |       | <b>30.6</b> |               | <b>8.4</b>    |

Source: Mitsui & Co, "Segment Information: Energy", *Website Mitsui & Co*, Viewed in July 2010; BHP Billiton, "Metallurgical Coal", *Website BHP Billiton*, Viewed in July 2010.; Rio Tinto, "What we produce", *Website Rio Tinto*, Viewed in July 2010; Capcoal Management, "Capcoal German Creek Mine", *Website Capcoal*, Viewed in July 2010.

At the end of March 2009, total assets of Mitsui & Co. amounted to ¥ 8,574 billion (A\$ 135 billion).<sup>75</sup> As the weighted Australian coal mining capacity of Mitsui & Co. is 8.4 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 1,068 million, or 0.8% of total assets.

### 3.12.2 Financing of Mitsui & Co

The Australian banks of focus in this report do not play a role in financing Mitsui & Co.

### 3.13 Noble Group

#### 3.13.1 Short profile of the Noble Group

Noble Group Ltd offers supply chain management services for agricultural, energy, and mining commodities all over the world. The company operates in four segments, being Agriculture, Energy, Logistics and Metals, Minerals & Ores. Noble Group has five mining facilities, four of which are based in Australia and one in Brazil. The company was founded in 1987 and is based in Hong Kong.<sup>76</sup>

Noble Group owns Gloucester Coal, an Australian mining company which produces and markets coking and thermal coal. Until 2009, Noble Group owned 21.7% of the shares of Gloucester Coal. In 2009, this percentage increased to 87.7%. The company aimed to buy all the shares of Gloucester Coal, increasing its share to 91.54% in July 2010. Noble Group also owns the Donaldson Coal mine in New South Wales and has a 25 per cent equity interest in the Middlemount project in Queensland, which is not yet in the production phase but plans to achieve a capacity of 5.4 Mtpa.<sup>77</sup>

Table 24 summarizes the details of the mining projects of the Noble Group, all of which are based in New South Wales. The company already has an annual capacity of 5.5 Mtpa and plans to expand its Duralie coal mine by an additional 1.2 Mtpa and the Middlemount project by 5.4 Mtpa.

**Table 24 Australian coal mines of the Noble Group**

| Subsidiary        | Mine           | State | Mtpa       | Share in mine | Weighted Mtpa |
|-------------------|----------------|-------|------------|---------------|---------------|
| Gloucester Coal   | Stratford      | NSW   | 2.0        | 91.5%         | 1.8           |
| Gloucester Coal   | Duralie        | NSW   | 1.8        | 91.5%         | 1.6           |
| Donaldson Coal    | Donaldson Coal | NSW   | 2.2        | 100.0%        | 2.2           |
| <b>Total Mtpa</b> |                |       | <b>6.0</b> |               | <b>5.5</b>    |

Source: Gloucester Coal, "Operations", *Website Gloucester Coal*, Viewed in July 2010.  
Greens Mining, "Duralie and Stratford", *Website Greens Mining*, Viewed in July 2010;  
Noble Group, "Annual Report 2009", *Noble Group*, March 2010.

At the end of December 2009, total assets of the Noble Group amounted to US\$ 10,655 million (A\$ 11,930 million).<sup>78</sup> As the weighted Australian coal mining capacity of Noble Group amounted to 5.5 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 699 million, or 5.9% of total assets.

#### 3.13.2 Project finance

The following information could be found regarding bank loans provided to Gloucester Coal by the researched banks since early 2005:

- In March 2008 Gloucester Coal, a subsidiary of Noble Group, secured an A\$ 36 million credit facility to refinance the construction facility for its coal mine. **Commonwealth Bank of Australia** provided the entire amount of the loan.<sup>79</sup>

#### 3.13.3 Bank loans

The following information could be found regarding bank loans provided to Noble Group by the researched banks since early 2005:

- In September 2005 Noble Group secured a US\$ 500 million (A\$ 652 million) three-year revolving credit facility from a syndicate of 34 banks. The proceeds were used for working capital purposes and for debt refinancing. **ANZ** participated among the arrangers of the loan, providing US\$ 12 million (A\$ 16 million).<sup>80</sup>
- In December 2006 Noble Group secured a US\$ 500 million (A\$ 639 million) two-year loan to refinance the loan of September 2005. The following Australian banks participated in the syndicate of 18 banks:<sup>81</sup>
  - **Commonwealth Bank of Australia** A\$ 32 million
  - **Westpac Banking** A\$ 45 million
- In July 2007 Noble Group secured a US\$ 1,200 million (A\$ 1,374 million) three-year revolver for general corporate purposes, working capital purposes and refinancing of debt. Among the 34 participants were the following Australian banks:<sup>82</sup>
  - **ANZ** A\$ 92 million
  - **Commonwealth Bank of Australia** A\$ 57 million
- In April 2008 Noble Group secured a US\$ 700 million (A\$ 802 million) two-year dual-currency standby letter of credit (SBLC) for working capital purposes and debt refinancing. Among the 14 participants was **Commonwealth Bank of Australia**, providing US\$ 25 million (A\$ 27 million) of the loan.<sup>83</sup>
- In May 2009 Noble Group secured a US\$ 700 million (A\$ 745 million) two-year loan to refinance the loan of April 2008. **Commonwealth Bank of Australia** provided US\$ 25 million (A\$ 32 million) of the facility.<sup>84</sup>
- In October 2009 Noble Group secured a US\$ 2,400 million (A\$ 2,617 million) multi-loan facility from a syndicate of banks. The loan was divided in three tranches: a US\$ 877 million (A\$ 956 million) three-year revolver, a US\$ 645 million (A\$ 703 million) one-year revolver and a US\$ 877 million (A\$ 956 million) two-year revolver. The proceeds were used for general working capital. The following Australian banks participated in the facility:<sup>85</sup>
  - **ANZ** A\$ 53 million
  - **Westpac Banking** A\$ 21 million

### 3.14 Peabody Energy

#### 3.14.1 Short profile of Peabody Energy

Peabody Energy Corporation is an American mining firm that operates in the exploration, mining, and production of coal worldwide. It owns interests in 30 coal operations located in the United States and Australia. Peabody Energy also markets, brokerages, and trades coal. The company sells its steam coal to electric utilities and metallurgical coal to industrial customers. The company was founded in 1883 and is based in Missouri, the United States.<sup>86</sup>

At the end of 2009, Peabody Energy's total assets amounted to US\$ 9,955 million (A\$ 11,146 million), of which US\$ 3,387 million (A\$ 3,792 million), or 33.8%, was related to Australian coal mining.<sup>87</sup>

Table 25 summarizes all Australian coal mines of Peabody Energy. The company currently operates ten surface and underground mines producing thermal and metallurgical coal in Queensland and New South Wales. The total weighted capacity of the company is 28.8 Mtpa.

**Table 25 Australian coal mines of Peabody Energy**

| Subsidiary               | Mine                         | State | Mtpa        | Share in mine | Weighted Mtpa |
|--------------------------|------------------------------|-------|-------------|---------------|---------------|
| Peabody Energy Australia | Burton                       | Qld   | 4.0         | 100.0%        | 4.0           |
| Peabody Energy Australia | North Goonyella & Eaglefield | Qld   | 3.3         | 100.0%        | 3.3           |
| Peabody Energy Australia | Millennium                   | Qld   | 3.3         | 100.0%        | 3.3           |
| Peabody Energy Australia | Wilkie Creek                 | Qld   | 2.4         | 100.0%        | 2.4           |
| Peabody Energy Australia | Wilpinjong                   | NSW   | 8.8         | 100.0%        | 8.8           |
| Peabody Energy Australia | Wambo                        | NSW   | 5.5         | 100.0%        | 5.5           |
| Peabody Energy Australia | Metropolitan                 | NSW   | 1.5         | 100.0%        | 1.5           |
| <b>Total Mtpa</b>        |                              |       | <b>28.8</b> |               | <b>28.8</b>   |

Source: Peabody Energy, "Operations", *Website Peabody Energy*, Viewed in July 2010.

### 3.14.2 Financing of Peabody Energy

The Australian banks of focus in this report do not play a role in financing Peabody Energy.

## 3.15 Rio Tinto

### 3.15.1 Short profile of Rio Tinto

The Rio Tinto Group is a British-Australian mining and resources group with headquarters in London and Melbourne. The company was founded in 1873 and since then, the company has grown through a long series of mergers and acquisitions to place itself among the world leaders in the production of many commodities, including aluminium, iron ore, copper, uranium, coal, and diamonds. The company has operations on six continents but is mainly concentrated in Australia and Canada.<sup>88</sup>

Table 26 summarizes all Australian coal mines of Rio Tinto. The company currently operates seven surface and underground mines producing thermal and metallurgical coal in Queensland and New South Wales. The total weighted capacity of the company is 32.9 Mtpa.

**Table 26 Australian coal mines of Rio Tinto**

| Subsidiary               | Mine        | State | Mtpa | Share in mine | Weighted Mtpa |
|--------------------------|-------------|-------|------|---------------|---------------|
| Rio Tinto Coal Australia | Blair Athol | Qld   | 12.0 | 71.2%         | 8.5           |
| Rio Tinto Coal Australia | Hail Creek  | Qld   | 8.0  | 82.0%         | 6.6           |
| Rio Tinto Coal Australia | Kestrel     | Qld   | 4.2  | 80.0%         | 3.4           |

| Subsidiary               | Mine          | State | Mtpa        | Share in mine | Weighted Mtpa |
|--------------------------|---------------|-------|-------------|---------------|---------------|
| Coal & Allied Industries | Hunter Valley | NSW   | 11.2        | 75.7%         | 8.5           |
| Coal & Allied Industries | Bengalla      | NSW   | 5.5         | 30.3%         | 1.7           |
| Coal & Allied Industries | Mount Thorley | NSW   | 3.3         | 60.6%         | 2.0           |
| Coal & Allied Industries | Warkworth     | NSW   | 5.2         | 42.1%         | 2.2           |
| <b>Total Mtpa</b>        |               |       | <b>49.4</b> |               | <b>32.9</b>   |

Source: Rio Tinto, "What we produce", *Website Rio Tinto*, Viewed in July 2010.

At the end of 2009, Rio Tinto owned assets worth US\$ 97,236 million (A\$ 108,872 million).<sup>89</sup> As the weighted Australian coal mining capacity of Rio Tinto is 32.9 Mtpa, the estimated amount of assets devoted to Australian coal mining based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 4,182 million, or 3.8% of total assets.

### 3.15.2 Shareholders

Rio Tinto is a Dual Listed Company, consisting of Rio Tinto plc, listed on the London Stock Exchange (LSE), and Rio Tinto Ltd, listed on the Australian Securities Exchange. When combining these listings, Colonial First State, part of **Commonwealth Bank of Australia**, owns 0.28% of the company's shares. When multiplying the number of shares by the current share prices, the total value of the investment amounts to A\$ 302.5 million.<sup>90</sup>

## 3.16 Tarong Energy

### 3.16.1 Short profile of Tarong Energy

Tarong Energy Corporation Ltd engages in the generation and sale of electricity primarily in Queensland, Australia. The company owns and operates the coal-fired Tarong Power Station. The company also owns the Meandu coal mine to supply coal to its power station. Tarong Energy is fully owned by the Queensland government. The company was founded in 1997 and is based in Brisbane, Australia.<sup>91</sup>

Tarong Energy currently operates the Meandu Mine, which has a capacity of 7 Mtpa. The company acquired this mine from Rio Tinto in February 2008. In addition, Tarong Energy has acquired the Kunioon Mineral Development Licence to plan for a future 10 Mtpa mine at Kunioon and secure a long-term fuel source for Tarong and Tarong North power stations. The Kunioon coal resource is located about 15 km north of the power stations. The company also owns the Glen Wilga and Haystack Road coal resources.

**Table 27 Australian coal mines of Tarong Energy**

| Subsidiary        | Mine   | State | Mtpa       | Share in mine | Weighted Mtpa |
|-------------------|--------|-------|------------|---------------|---------------|
| Tarong Energy     | Meandu | Qld   | 7.0        | 100.0%        | 7.0           |
| <b>Total Mtpa</b> |        |       | <b>7.0</b> |               | <b>7.0</b>    |

Source: Tarong Energy, "What we do", *Website Tarong Energy*, Viewed in July 2010.

At the end of June 2009 Tarong Energy owned total assets of A\$ 2,087.5 million.<sup>92</sup> As the weighted Australian coal mining capacity of Tarong Energy is 7.0 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 889.7 million, or 42.6% of total assets.

### 3.16.2 Financing of Tarong Energy

Borrowings of Tarong Energy are sourced from QTC unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings. No information was found on financing provided directly to Tarong Energy.

Of all the loans of the Queensland Treasury Corporation (QTC), 1.01% is directed to Tarong Energy (see Table 44). Because 42.6% of the company's assets are devoted to coal mining, 0.4% of the finance of QTC is directed to the Australian coal mining assets of Tarong Energy. For the financing of the Queensland government see paragraph 4.11.

## 3.17 TEPCO

### 3.17.1 Short profile of TEPCO

The Tokyo Electric Power Company (TEPCO) engages in the generation and supply of electric power in Japan. It operates through five segments: Electric Power, Information and Telecommunication, Energy and Environment, Living Environment and Lifestyle-Related, and Overseas. The company was founded in 1951 and is based in Tokyo, Japan.<sup>93</sup>

Table 28 summarizes the details on the Loy Yang coal mine of GEAC, in which TEPCO has a 32.5% share.

**Table 28 Australian coal mines of TEPCO**

| Subsidiary        | Mine     | State | Mtpa        | Share in mine | Weighted Mtpa |
|-------------------|----------|-------|-------------|---------------|---------------|
| GEAC              | Loy Yang | Vic   | 30.0        | 32.5%         | 9.8           |
| <b>Total Mtpa</b> |          |       | <b>30.0</b> |               | <b>9.8</b>    |

Source: Loy Yang Power Station, "About LYP", *Website Loy Yang Power Station*, Viewed in July 2010; TEPCO, "Annual Report 2009", *TEPCO*, July 2010.

As of the end of March 2009, TEPCO owned assets with a value of ¥ 13,559 billion (A\$ 180,097 million).<sup>94</sup> As the weighted Australian coal mining capacity of TEPCO amounts to 9.8 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 1,246 million, or 0.7% of total assets.

### 3.17.2 Financing of TEPCO

The Australian banks of focus in this report do not play a role in financing TEPCO.

## 3.18 Vale

### 3.18.1 Short profile of Vale

Vale S.A. is a Brazilian diversified metals and mining company that operates worldwide. The company's business divisions are Mining, Steelmaking, Logistics and Energy. Vale was founded in 1942 and is based in Rio de Janeiro, Brazil.<sup>95</sup>

Vale produces thermal and metallurgical coal through its subsidiary Vale Australia. This subsidiary operates coal assets in Australia through wholly owned companies and unincorporated joint ventures. Table 29 summarizes the Australian coal mines in which Vale has an interest. The total weighted capacity of the company is 7.5 Mtpa.

**Table 29 Australian coal mines of Vale**

| <b>Subsidiary</b> | <b>Mine</b>            | <b>State</b> | <b>Mtpa</b> | <b>Share in mine</b> | <b>Weighted Mtpa</b> |
|-------------------|------------------------|--------------|-------------|----------------------|----------------------|
| Vale Australia    | Integra Coal           | NSW          | 4.5         | 61.2%                | 2.8                  |
| Vale Australia    | Carborough Downs Mine  | Qld          | 4.9         | 80.0%                | 3.9                  |
| Vale Australia    | Isaac Plains Coal Mine | Qld          | 3.6         | 50.0%                | 1.8                  |
| <b>Total Mtpa</b> |                        |              | <b>13.0</b> |                      | <b>7.5</b>           |

Source: Vale, "Annual Report 2009", Vale, April 2010.

At the end of 2009 total assets of Vale amounted to US\$ 102.3 billion (A\$ 114.5 billion).<sup>96</sup> As the weighted Australian coal mining capacity of Vale is 7.5 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 953 million, or 0.8% of total assets.

### **3.18.2 Shareholders**

In January 2010 Vale had issued Common Shares and Preferred A Shares, both also having issued ADRs.<sup>97</sup> When adding all different shares, Colonial First State, part of **Commonwealth Bank of Australia**, owns 0.12% of the company's shares. When multiplying the number of different shares by the current share prices, the total value of the investment amounts to A\$ 103 million.<sup>98</sup>

## **3.19 Wesfarmers**

### **3.19.1 Short profile of Wesfarmers**

Wesfarmers Ltd is a diversified Australian public company which has as its main business divisions supermarkets, department stores, home improvement and office supplies, coal mining, energy, insurance, chemicals and fertilisers and industrial and safety products. The company was founded in 1914 and is based in Perth, Australia.<sup>99</sup>

Total assets of Wesfarmers at the end of June 2009 amounted to A\$ 39,295 million. The Resources division of the company, which consists solely of coal mining and marketing in Australia, accounted for A\$ 1,749 million, or 4.5% of total assets.<sup>100</sup>

Wesfarmers involves in open-cut mining and produces metallurgical and steaming coal with its mining interests in Australia. Table 30 shows the three mines in which the company has an interest. The weighted capacity of the company amounts to 12.7 Mtpa.

**Table 30 Australian coal mines of Wesfarmers**

| Subsidiary           | Mine                    | State | Mtpa        | Share in mine | Weighted Mtpa |
|----------------------|-------------------------|-------|-------------|---------------|---------------|
| Wesfarmers Resources | Curragh                 | Qld   | 7.0         | 100.0%        | 7.0           |
| Wesfarmers Resources | Wesfarmers Premier Coal | WA    | 3.5         | 100.0%        | 3.5           |
| Wesfarmers Resources | Bengalla                | NSW   | 5.5         | 40.0%         | 2.2           |
| <b>Total Mtpa</b>    |                         |       | <b>16.0</b> |               | <b>12.7</b>   |

Source: Wesfarmers Resources, "About us", *Website Wesfarmers Resources*, Viewed in July 2010.

### 3.19.2 Shareholders

Colonial First State, part of **Commonwealth Bank of Australia**, owns 1.86% of the shares of Wesfarmers Ltd. When multiplying the amount of shares by the current share price, the value of the holding is A\$ 590 million.<sup>101</sup>

### 3.19.3 Bond issuances

The following information could be found regarding bond issuances by Wesfarmers since 2005 in which one or more of the researched Australian institutions were involved:

- In September 2009, Wesfarmers Ltd issued new notes, consisting of A\$ 400 million fixed rate medium term notes and A\$ 100 million floating rate medium term notes, both maturing in September 2011. The proceeds were used for general corporate purposes. The following four Australian banks acted as joint bookrunners of the issuance, each underwriting an estimated amount of A\$ 125 million:<sup>102</sup>
  - **ANZ** A\$ 125 million
  - **Commonwealth Bank of Australia** A\$ 125 million
  - **National Australia Bank** A\$ 125 million
  - **Westpac Banking** A\$ 125 million

## 3.20 Whitehaven Coal

### 3.20.1 Short profile of Whitehaven Coal

Whitehaven Coal Ltd engages in the development and operation of coal projects in the Gunnedah Region of New South Wales. The company is listed on the Australian Securities Exchange (ASX). Whitehaven Coal was incorporated in 2007 and is headquartered in Sydney, Australia.<sup>103</sup>

At the end of June 2009 total assets of Whitehaven Coal amounted to A\$ 1,007 million. Because the company only operates in the coal mining sector in Australia, 100% of its total assets are related to Australian coal mining.<sup>104</sup>

Table 31 summarizes the Australian coal mines of Whitehaven Coal. The company (partially) owns 7 mines in New South Wales, with a total weighted capacity of 10.3 Mtpa.

**Table 31 Australian coal mines of Whitehaven Coal**

| Subsidiary             | Mine                     | State | Mtpa        | Share in mine | Weighted Mtpa |
|------------------------|--------------------------|-------|-------------|---------------|---------------|
| Whitehaven Coal Mining | Canyon                   | NSW   | 1.3         | 100.0%        | 1.3           |
| Whitehaven Coal Mining | Narrabri North           | NSW   | 0.7         | 85.0%         | 0.6           |
| Narrabri Coal          | Narrabri North Expansion | NSW   | 4.6         | 85.0%         | 3.9           |
| Whitehaven Coal Mining | Rocglen                  | NSW   | 1.5         | 100.0%        | 1.5           |
| Whitehaven Coal Mining | Sunnyside                | NSW   | 1.0         | 100.0%        | 1.0           |
| Whitehaven Coal Mining | Tarrawonga               | NSW   | 1.5         | 70.0%         | 1.1           |
| Werris Creek Coal      | Werris Creek             | NSW   | 1.5         | 100.0%        | 1.5           |
| <b>Total Mtpa</b>      |                          |       | <b>12.1</b> |               | <b>10.3</b>   |

Source: Whitehaven Coal, "Operations", *Website Whitehaven Coal*, Viewed in July 2010.

### 3.20.2 Bank loans

The following information could be found regarding bank loans provided to Whitehaven Coal by the researched banks since early 2005:

- In October 2009 Whitehaven Coal announced that it had entered into a three-year A\$ 80 million banking facility with **ANZ** and Macquarie Bank to replace existing facilities which were being wound down by the company's current financier as it withdrew from the mining and resource sectors in Australia.<sup>105</sup> ANZ provided an estimated A\$ 40 million.

## 3.21 Xstrata

### 3.21.1 Short profile of Xstrata

Xstrata is a Swiss mining company active in 19 countries predominantly in copper, coking coal, thermal coal, ferrochrome, nickel, vanadium and zinc. Its coal division, Xstrata Coal, is the world's largest exporter of thermal coal and a significant producer of premium quality hard coking coal and semi-soft coal. Xstrata Coal has interests in over 30 operating coal mines in Australia, South Africa and Colombia and an exploration project in Nova Scotia, Canada. The company was founded in 1926 and is based in Zug, Switzerland.<sup>106</sup>

Table 32 summarizes all Australian coal mines in which Xstrata has an interest. All mines are based in Queensland or New South Wales. The total capacity of the company's Australian mines is 121.2 Mtpa. Taking into account the partial ownership of the company in some mines, the weighted coal mining capacity amounts to 87.1 Mtpa.

**Table 32 Australian coal mines of Xstrata**

| Subsidiary                  | Mine              | State | Mtpa         | Share in mine | Weighted Mtpa |
|-----------------------------|-------------------|-------|--------------|---------------|---------------|
| Saxonvale Coal (78% owned)  | Beltana           | NSW   | 6.8          | 68.3%         | 4.6           |
| Oakbridge Group (78% owned) | Baal Bone         | NSW   | 2.5          | 74.1%         | 1.9           |
| Oakbridge Group (78% owned) | Bulga Coal        | NSW   | 10.8         | 68.3%         | 7.4           |
| Xstrata Coal                | Collinsville      | Qld   | 6.0          | 55.0%         | 3.3           |
| Xstrata Coal                | Newlands          | Qld   | 10.0         | 55.0%         | 5.5           |
| Xstrata Coal                | Narama            | NSW   | 2.5          | 100.0%        | 2.5           |
| Ravensworth Operations      | Ravensworth West  | NSW   | 1.8          | 100.0%        | 1.8           |
| Xstrata Coal                | Ulan              | NSW   | 5.0          | 90.0%         | 4.5           |
| United Collieries           | United Collieries | NSW   | 3.0          | 95.0%         | 2.9           |
| Xstrata Coal                | Liddell Colliery  | NSW   | 4.5          | 67.5%         | 3.0           |
| Oceanic Coal Australia      | Westside          | NSW   | 0.8          | 80.0%         | 0.6           |
| Oceanic Coal Australia      | West Wallsend     | NSW   | 3.0          | 80.0%         | 2.4           |
| Xstrata Coal                | Mangoola          | NSW   | 10.5         | 100.0%        | 10.5          |
| Xstrata Coal                | Mt Owen           | NSW   | 15.0         | 100.0%        | 15.0          |
| Xstrata Coal                | Cumnock           | NSW   | 1.4          | 100.0%        | 1.4           |
| Xstrata Coal                | Glendell          | NSW   | 4.5          | 100.0%        | 4.5           |
| Xstrata Coal Queensland     | Oaky Creek Coal   | Qld   | 11.0         | 55.0%         | 6.1           |
| Xstrata Coal                | Rolleston         | Qld   | 5.0          | 75.0%         | 3.8           |
| Xstrata Coal                | Togara North      | Qld   | 5.5          | 33.3%         | 1.8           |
| Cook Resource Mining        | Cook              | Qld   | 0.8          | 95.0%         | 0.8           |
| Xstrata Coal Queensland     | Wandoan           | Qld   | 4.0          | 75.0%         | 3.0           |
| Saxonvale Coal (78% owned)  | Beltana           | NSW   | 6.8          | 68.3%         | 4.6           |
| <b>Total Mtpa</b>           |                   |       | <b>121.2</b> |               | <b>87.1</b>   |

Source: Xstrata, "Xstrata's operations", *Website Xstrata*, Viewed in July 2010; Xstrata, "Xstrata coal ore reserves & mineral resources", *Xstrata*, October 2009.

In addition to these operating mines, Xstrata also has some mining projects that are still to be fully operational. These projects include Cardiff Borehole in New South Wales which is 80% owned by Xstrata, Mitchell's flat in New South Wales, which is 100% owned by Xstrata and Running Stream in New South Wales, which is 78% owned by Xstrata. The planned capacity of these mines is still unknown.<sup>107</sup>

At the end of 2009, Xstrata's total assets amounted to US\$ 63,824 million (A\$ 71,462 million).<sup>108</sup> As the weighted Australian coal mining capacity of Xstrata is 87.1 Mtpa, the estimated amount of assets devoted to Australian coal mining (based on an average of A\$ 127.1 million/Mtpa, see Appendix 1) is A\$ 11,070 million, or 15.5% of total assets.

### 3.21.2 Shareholders

When adding ADRs and ordinary shares, Colonial First State, part of **Commonwealth Bank of Australia**, owns 0.46% of the company's shares. When multiplying the number of shares by the current share price, the total value of the investment amounts to A\$ 42 million.<sup>109</sup>

### 3.21.3 Project finance

The following information could be found regarding coal-related project finance provided to Xstrata by the researched banks since early 2005:

- In July 2005, MIM Holdings Ltd-Oaky Creek, a subsidiary of Xstrata, secured a A\$ 16 million project finance facility from **ANZ**. The proceeds were used to fund the company's Oaky Creek coal mine gas project.<sup>110</sup>
- In November 2006, MIM Holdings Ltd-Oaky Creek secured another A\$ 15 million loan for its Oaky Creek project from **ANZ**.<sup>111</sup>
- In August 2007, the **ANZ** provided another A\$ 17 million for the Oaky Creek project to MIM Holdings.<sup>112</sup>
- In January 2008, Resource Pac-Newpac Mine, a subsidiary of Xstrata, secured a A\$ 30 million three-year project finance facility from **ANZ**. The proceeds were used to refinance the company's Newpac mine.<sup>113</sup>

### 3.21.4 General bank loans

The following information could be found regarding bank loans provided to Xstrata by the researched banks since early 2005:

- In October 2007, Xstrata (Schweiz) AG secured a US\$ 2 billion (A\$ 2.25 billion) one-year credit facility from a syndicate of banks. The proceeds were used for general corporate purposes. **ANZ** and **National Australia Bank** participated among the 8 banks in the syndicate, each providing an estimated A\$ 281 million.<sup>114</sup>
- In October 2008 Xstrata plc secured a three-year revolving credit facility of US\$ 5.4 billion (A\$ 6.7 billion) from a syndicate of 15 banks for general corporate purposes. The **Commonwealth Bank of Australia** participated in the syndicate, providing an estimated amount of A\$ 447 million.<sup>115</sup>

### 3.21.5 Bond issuances

The following information could be found regarding bond issuances by Xstrata since 2005 in which one or more of the researched Australian institutions were involved:

- In May 2008, Xstrata Canada Financial Corporation issued 5.875% guaranteed notes due 2011 with a value of € 750 million (A\$ 1,247 million), 6.25% guaranteed notes due 2015 with a value of € 600 million (A\$ 998 million), and 7.375% guaranteed notes due 2020 worth £ 500 million (A\$ 1,053 million). The proceeds were used for general corporate purposes. **ANZ** and **National Australia Bank** participated in the facility, each providing an estimated amount of € 149 million (A\$ 248 million).<sup>116</sup>

## 3.22 Conclusion

Table 33 summarizes the investments of the Australian banks of focus in the coal mining sector in Australia since early 2005. Total investments in the sector amount to A\$ 2.3 billion. The table shows that the largest investor in this sector is ANZ, which provided A\$ 722 million to the sector since 2005. Other important financiers are Commonwealth Bank of Australia and National Australia Bank.

**Table 33 Financing of coal mining in Australia**

| <b>Bank</b>                    | <b>Total assets (A\$ billion)</b> | <b>Investment in coal mining (A\$ million)</b> | <b>Investment corrected for total assets</b> |
|--------------------------------|-----------------------------------|--|--|
| ANZ                            | 477.0                             | 726.9  | 152  |
| Bendigo Bank                   | 47.1                              | -  | -  |
| Commonwealth Bank of Australia | 620.4                             | 599.9  | 97   |
| mecu                           | 2.3                               | -  | -  |
| National Australia Bank        | 654.1                             | 632.9  | 97   |
| Suncorp                        | 97.5                              | -  | -  |
| Westpac                        | 589.6                             | 349.6  | 59   |
| <b>Total</b>                   |                                   | <b>2,309.3</b>                                 |  |

## Chapter 4 Coal-fired power stations

### 4.1 Overview of coal-fired power plant operators

Total coal-fired power generation capacity in Australia is estimated at 29.2 GW. Table 34 gives an overview of the largest companies in the sector, which together own 95% of the total generating capacity. For each company the “weighted coal-fired power generating capacity” is calculated by multiplying the capacity of each of the company’s power plants by the shareholding of the company in each power plant.

Most of the companies are based in Australia. The largest coal-fired power generator is Macquarie, which has a weighted capacity of 4,640 MW in Australia.

For each company, the amount of assets devoted to coal-fired power generation in Australia as well as the percentage of these assets in relation to total assets is presented. For some companies, the amount of assets devoted to Australian coal-fired power generation was unknown. Table 57 summarizes all companies for which the amount was known. For these companies, the average amount of assets devoted to Australian coal-fired power generation per MW capacity is A\$ 0.82 million.

To calculate the amount of Australian coal-fired power generation assets for companies with no available information, this average was multiplied by the weighted capacity of the company.

For some companies, like Macquarie and Delta Electricity, Australian coal-fired power generation accounts for a very large percentage of assets. For other companies this percentage is very low, because they operate in other business segments or because most of their power generating capacity is located in countries other than Australia.

**Table 34 Coal-fired power generators in Australia**

| Company             | Country        | Weighted capacity in Australia (MW) | % of total Australian capacity | Australian coal power assets (A\$ million) | Australian coal power / total assets (%) |
|---------------------|----------------|-------------------------------------|--------------------------------|--|--|
| Macquarie           | Australia      | 4,640.0                             | 15.9%                          | 4,106                                      | 99.7%                                    |
| Delta Electricity   | Australia      | 4,320.0                             | 14.8%                          | 2,857                                      | 87.1%                                    |
| Eraring Energy      | Australia      | 2,640.0                             | 9.0%                           | 1,644                                      | 86.0%                                    |
| CS Energy           | Australia      | 2,510.0                             | 8.6%                           | 1,982                                      | 78.2%                                    |
| Verve Energy        | Australia      | 2,271.0                             | 7.8%                           | 1,387                                      | 70.0%                                    |
| International Power | United Kingdom | 2,259.0                             | 7.7%                           | 2,013                                      | 8.0%                                     |
| Tarong Energy       | Australia      | 1,843.0                             | 6.3%                           | 1,030                                      | 78.7%                                    |
| CLP Group           | Hong Kong      | 1,480.0                             | 5.1%                           | 1,789                                      | 7.5%                                     |
| Stanwell Corp       | Australia      | 1,400.0                             | 4.8%                           | 1,619                                      | 83.7%                                    |
| Alinta Energy       | Australia      | 931.0                               | 3.2%                           | 887  | 16.7%                                    |
| AGL Energy          | Australia      | 715.0                               | 2.4%                           | 678  | 7.5%                                     |
| TEPCO               | Japan          | 715.0                               | 2.4%                           | 586  | 0.3%                                     |
| Rio Tinto           | UK / Australia | 707.3                               | 2.4%                           | 580  | 0.5%                                     |
| Intergen            | Netherlands    | 689.0                               | 2.4%                           | 565  | 11.0%                                    |
| Transfield Services | Australia      | 488.0                               | 1.7%                           | 513  | 13.0%                                    |

| Company              | Country   | Weighted capacity in Australia (MW) | % of total Australian capacity | Australian coal power assets (A\$ million) | Australian coal power / total assets (%) |
|----------------------|-----------|-------------------------------------|--------------------------------|--|--|
| The Griffin Group    | Australia | 200.0                               | 0.7%                           | 164  | 30.0%                                    |
| <b>Total</b>         |           | <b>27,808.3</b>                     | <b>95.2%</b>                   |  |  |
| Other CFPS companies |           | 1,390.7                             | 4.8%                           |  |  |
| <b>Total</b>         |           | <b>29,199.0</b>                     | <b>100.0%</b>                  |  |  |

Source: Company reports; Australian Government, Department of Resources, Energy and Tourism, "Energy in Australia 2010", *Commonwealth of Australia*, 1 April 2010.

## 4.2 AGL Energy

### 4.2.1 Short profile of AGL Energy

AGL Energy is Australia's leading renewable energy company and is Australia's largest private owner, operator and developer of renewable generation assets. The company has a diverse power generation portfolio including base, peaking and intermediate electricity production plants. These are spread across traditional energy sources (e.g. gas and coal) as well as renewable sources (including hydro, wind, landfill gas and biogas). AGL also operates retail, merchant energy and upstream gas businesses and has over three million customer accounts.

Table 35 summarizes the details on AGL Energy's coal-fired power capacity, which consists of a 32.5% share in the Loy Yang power station. The total capacity of the Loy Yang power station is 2,200 MW. Multiplying the capacity by the share of the company in the power station, the weighted capacity of the company is 715.0 MW.

**Table 35 AGL Energy coal-fired power capacity in Australia**

| Subsidiary      | Existing CFPS    | State | MW             | Share in CFPS | Weighted MW  |
|-----------------|------------------|-------|----------------|---------------|--------------|
| GEAC            | Loy Yang Power A | Vic   | 2,200.0        | 32.5%         | 715.0        |
| <b>Total MW</b> |                  |       | <b>2,200.0</b> |               | <b>715.0</b> |

Coal-generated capacity accounts for about 18% of AGL's total generation portfolio, which was 3,940 MW at the end of 2009 (including plants under construction). All electricity generation takes place in Australia.<sup>117</sup>

AGL is listed on the Australian Stock Exchange since 2006. As at June 2009 AGL's assets were worth A\$ 9,034.0 million.<sup>118</sup> The division Merchant Energy accounts for assets with a total value of A\$ 3,764.3 million. When taking 18% of these assets, we can estimate that A\$ 678 million was invested by AGL Energy in coal-fired power generation in Australia. This equals 7.5% of total assets.<sup>119</sup>

### 4.2.2 Shareholders

As at July 2010, AGL Energy had 450 million shares outstanding. Colonial First State, a subsidiary of the **Commonwealth Bank of Australia**, owned 7,196 of these shares as at February 2010. When multiplying the number of shares by the current share price, the total value of the investment amounts to A\$ 106,789.<sup>120</sup>

### 4.2.3 Bank loans

The following information could be found regarding bank loans provided to AGL Energy by the researched banks since early 2005:

- In December 2006 AGL Energy secured a syndicated loan with a total value of A\$ 2,680 million. The loan was split into five tranches: an A\$ 380 million one-year tranche, an A\$ 633 million three-year tranche, an A\$ 887 million five-year tranche, an A\$ 500 million three-year tranche and an A\$ 280 million three-year tranche. The proceeds from the loan were intended for general corporate purposes and for refinancing of debt. The following of the researched banks participated in the syndicate, with an estimated amount of:<sup>121</sup>

- **ANZ** A\$ 136 million
- **Westpac** A\$ 154 million

- In October 2007 AGL Energy secured an A\$ 270 million one-year loan with an international banking syndicate. The proceeds from the loan were intended for general corporate purposes and for refinancing of debt. The following of the researched banks participated in the syndicate, with an amount of:<sup>122</sup>

- **ANZ** A\$ 19 million
- **Commonwealth Bank of Australia** A\$ 10 million
- **Westpac** A\$ 22 million

- In April 2008 AGL Energy secured an A\$ 550 million loan with an international banking syndicate. The loan was split into two tranches: an A\$ 328 million two-year tranche and an A\$ 223 million two-year tranche. The proceeds of the loan were intended to refinance the A\$ 270 million one-year loan mentioned above and for general corporate purposes. The following of the researched banks participated in the syndicate:<sup>123</sup>

- **ANZ** A\$ 99 million
- **Commonwealth Bank of Australia** A\$ 55 million
- **Westpac** A\$ 62 million

- In June 2009 AGL Energy secured an A\$ 800 million with an international banking syndicate. The loan was split into two tranches: an A\$ 200 million three-year tranche and an A\$ 600 million three-year tranche. The proceeds of the loan were intended to refinance existing debt and for general corporate purposes. The following of the researched banks participated in the syndicate:<sup>124</sup>

- **ANZ** A\$ 100 million
- **Commonwealth Bank of Australia** A\$ 50 million
- **National Australia Bank** A\$ 50 million
- **Westpac** A\$ 100 million

## 4.3 Alinta Energy

### 4.3.1 Short profile of Alinta Energy

Alinta Energy (formerly Babcock & Brown Power) is a power generation business, with assets diversified by geographic location, fuel source, customers, contract types and operating mode. The company has interests in 12 operating power stations representing approximately 3,000 MW of installed generation capacity. In Western Australia, Alinta Energy also operates the largest integrated private gas and electricity retailer with over 580,000 customers.<sup>125</sup>

Alinta's ownership has varied throughout the past years. A short overview is given below:

- In August 2007 Babcock & Brown Power (BBP), a member of the Babcock & Brown Group and Singapore Power International (SP) consortium, acquired the whole of the share capital of Alinta Ltd. The purchase of these assets was funded through the issue of A\$ 335 million BBP stapled securities at a fixed ratio of 0.669 per Alinta share and a cash contribution of A\$ 25 million that was sourced through committed debt representing a combined incremental contribution of approximately A\$ 37.5 million to the Alinta shareholders.<sup>126</sup>
- Babcock & Brown Ltd. was an international specialized fund and asset management group that provides syndication and management of asset and cash flow based investments. The company's services are provided through its real estate, infrastructure, operating leasing, and corporate & structured finance divisions.<sup>127</sup> It went insolvent in March 2009. BBP continued to exist, but changed its name into Alinta Energy in December 2009.<sup>128</sup>
- On 11 March 2010 Babcock & Brown Asset Holdings Pty Ltd sold its 114.2 million (14.15%) Alinta Energy Markets securities to Infigen for US\$ 8.57 million (around A\$ 10 million). Alinta Energy Markets is a subsidiary of Alinta Energy that owns the Capital Wind Farm.<sup>129</sup>

Table 36 shows that Alinta Energy owns three CFPS's with a combined generating capacity of 931.0 MW. Of Alinta Energy's 3,032 MW of power generating capacity 2,101 MW was gas-fired and 931 was coal-fired (30.7%).<sup>130</sup>

**Table 36 Alinta Energy coal-fired power capacity in Australia**

| Subsidiary      | Existing CFPS | State | MW           | Share in CFPS | Weighted MW  |
|-----------------|---------------|-------|--------------|---------------|--------------|
| Alinta Energy   | Northern      | SA    | 540.0        | 100.0%        | 540.0        |
| Alinta Energy   | Playford      | SA    | 240.0        | 100.0%        | 240.0        |
| Alinta Energy   | Redbank       | NSW   | 151.0        | 100.0%        | 151.0        |
| <b>Total MW</b> |               |       | <b>931.0</b> |               | <b>931.0</b> |

On 30 June 2009 Alinta Energy, which was then called Babcock & Brown Power (BBP) had total assets of A\$ 5,297.2 million. Total assets for the electricity generation activities of Alinta Energy amount to A\$ 2,889.9 million.<sup>131</sup> If we estimate that 30.7% is invested in coal-fired power stations, this would equal A\$ 887 million or 17% of total assets.

### 4.3.2 Bank loans

- In September 2005 Alinta Ltd obtained a A\$ 450 million loan facility of which the first tranche of A\$ 250 million matures in September 2010 and the second tranche of A\$ 200 million matures in September 2012. Amongst the two bookrunners was **Westpac Banking**, with an estimated allotted amount of A\$ 225 million.<sup>132</sup>
- In October 2006 Alinta Ltd obtained a A\$ 500 million loan facility from a syndicate of six banks that will mature in October 2011. **National Australia Bank** was one of the two arrangers, with an allotted amount of A\$ 100 million, and **Commonwealth Bank of Australia** was a participant for A\$ 75 million.<sup>133</sup>
- In August 2007 BBP Holdings obtained a term loan of A\$ 310.0 million of a syndicate of three banks, for the acquisition of Alinta Gas (now Alinta Ltd) by Babcock & Brown and SP. The loan matured in August 2008. **Commonwealth Bank Australia** was one of the arrangers and was responsible for A\$ 97.8 million.<sup>134</sup>
- Also in August 2007 BBP Holdings received another term loan of A\$ 210.0 million for the acquisition of Alinta Gas (now Alinta Ltd) that matured in September 2008. The two arrangers **ANZ Banking Group** and **Commonwealth Bank Australia** each had allotted amounts of A\$ 105.0 million.<sup>135</sup>
- In June 2008 BBP Finance Australia, a subsidiary of Babcock & Brown Power, received a loan facility of A\$ 2,700.0 million from a syndicate of ten banks. Proceeds of the facility were used to refinance the assets of BBP Finance, consisting of ten operating power projects, energy retailing businesses, plus two other energy related businesses. The first two tranches of A\$ 60 million and A\$ 80 million matured in June 2009. The A\$ 60 million tranche was fully allocated to **Commonwealth Bank of Australia** and the A\$ 80 million tranche was fully allocated to **ANZ Banking Group**.<sup>136</sup> The next tranche of A\$ 1,600 million matures in June 2011. Here, **ANZ Banking Group** had an allotted amount of A\$ 126 million, **Commonwealth Bank of Australia** had an allotted amount of A\$ 138 million, **National Australia Bank** had an allotted amount of A\$ 176 million and **Suncorp** had an allotted amount of A\$ 106 million.<sup>137</sup> The final tranche of A\$ 960.0 million matures in June 2013. In this facility **ANZ Banking Group** had an allotted amount of A\$ 75 million, **Commonwealth Bank of Australia** had an allotted amount of A\$ 83 million, **National Australia Bank** had an allotted amount of A\$ 105 million and **Suncorp** had an allotted amount of A\$ 64 million.<sup>138</sup> This means that overall, the banks were responsible for the following amounts:
 

|                                  |                          |
|----------------------------------|--------------------------|
| • ANZ Banking Group              | <b>A\$ 281.0 million</b> |
| • Commonwealth Bank of Australia | <b>A\$ 279.0 million</b> |
| • National Australia Bank        | <b>A\$ 281.0 million</b> |
| • Suncorp                        | <b>A\$ 170.0 million</b> |
- In August 2008 BBP Holdings received a seven-month bridge facility of A\$ 117.76 million for refinancing its August 2007 loan. Amongst the four arrangers were **ANZ Banking Group** and **Commonwealth Bank Australia** which each had allotted amounts of A\$ 29.4 million.<sup>139</sup>
- In December 2009 BBP Finance obtained a A\$ 2,700.0 million term loan for restructuring the company's project finance facility of August 2007, and its renewal in August 2008. This facility will mature in September 2012. Amongst the nine syndicate members are (with estimated allotted amounts):<sup>140</sup>

|                     |                 |
|---------------------|-----------------|
| • ANZ Banking Group | A\$ 300 million |
|---------------------|-----------------|

- Commonwealth Bank of Australia A\$ 300 million
- National Australia Bank A\$ 300 million

#### 4.3.3 Bond issuances

- In September 2005 Alinta Ltd issued bonds for A\$ 450 million of which A\$ 250 million matures in September 2010 and A\$ 200 million in September 2012. Amongst the two bookrunners was **Westpac Banking**, with an estimated allotted amount of A\$ 225 million.<sup>141</sup>

#### 4.3.4 Project finance

- In June 2003 Redbank Power Co, at the time a subsidiary of BBP, obtained a 15-year A\$ 320.0 million loan from a syndicate of three banks to fund the Redbank 130 MW expansion project in the Hunter Valley. Amongst the banks was **ANZ Banking Group**, with an estimated allotted amount of A\$ 106.7 million.<sup>142</sup>

### 4.4 CLP Group

#### 4.4.1 Short profile of the CLP Group

The CLP Group is an electricity company, headquartered in Hong Kong. Incorporated in 1901 as the China Light & Power Company Syndicate, the company's core businesses are power generation and transmission. In recent years the CLP Group has invested in Australia, China, India and Thailand.<sup>143</sup>

TRUenergy has an electricity-generating portfolio of 3,040 MW. The Yallourn coal-fired power plant in the state Victoria, owned by its wholly owned subsidiary Auspower, has a capacity of around 1,480.0 MW.<sup>144</sup>

**Table 37 CLP Group coal-fired power capacity in Australia**

| Subsidiary      | Existing CFPS | State | MW             | Share in CFPS | Weighted MW    |
|-----------------|---------------|-------|----------------|---------------|----------------|
| Auspower        | Yallourn W    | Vic   | 1,480.0        | 100.0%        | 1,480.0        |
| <b>Total MW</b> |               |       | <b>1,480.0</b> |               | <b>1,480.0</b> |

In 2009, total assets of the CLP Group amounted to HK\$ 156,531 million (A\$ 23,893 million). The company's activities in Australia, grouped under the company's subsidiary TRUenergy, accounted for HK\$ 37,032 million (A\$ 5,653 million) of its assets.

In paragraph 3.6.1 we estimated that A\$ 2,288 million of CLP's assets are devoted to Australian coal mining. Of the remaining A\$ 3,365 million, we estimate that 53% (A\$ 1,789 million) is devoted to Australian coal-fired power generation. This amounts to 7.5% of total assets.<sup>145</sup>

#### 4.4.2 Financing of the CLP Group

For information on the financing of CLP Group, see paragraph 3.6.

## 4.5 InterGen

### 4.5.1 Short profile of InterGen

InterGen N.V. is a global power generation firm with 12 power plants representing a total generation capacity of 8,088 MW (6,254 net equity MW). InterGen's plants are located in the UK, the Netherlands, Mexico, the Philippines and Australia. 87% of the generating capacity of InterGen is fired by natural gas and 13% of the capacity is being fired by coal. The company's headquarters are located in Burlington, MA, United States, but InterGen is officially registered in the Netherlands.<sup>146</sup>

InterGen is jointly owned by the Canadian pension fund Ontario Teachers' Pension Plan (50%) and Indian energy corporation GMR Group, through its wholly owned subsidiary GMR Infrastructure Limited (50%). GMR acquired this 50% stake in InterGen from AIG Highstar in October 2008 for US\$ 954 million (A\$ 1.1 billion). This was the largest ever acquisition of a global energy utility by an Indian company.<sup>147</sup>

Table 38 shows that InterGen has interests in two CFPS's in Australia with a combined capacity of 1,770.0 MW and a weighted capacity of InterGen of 689.0 MW. The Callide C plant is a coal-fired power plant with a capacity of 920 MW. It is a 50/50 joint venture between Queensland government owned CS Energy and OzGen BV, which in turn is a 50/50 joint venture between the Chinese China Huaneng Group and InterGen.<sup>148</sup>

The Millmerran Power facility, about 170 km west of Brisbane, also in Queensland, was commissioned at the end of January 2003. The A\$ 1.6 billion plant and supporting infrastructure represented the second largest private investment in Queensland and the largest such project in the world to be funded on a non-recourse project finance basis. The plant is owned by Millmerran Power Partners including InterGen, with a 54% interest, and Marubeni Corp with 35%, while GE Structured Finance, the EIF Group, and Tohoku Electric Power Co Inc hold stakes in the plant of about 3.7%. Marubeni acquired its stake in Millmerran back in April 2000 for about A\$ 260 million. As with Callide C, the output from the plant is traded on the National Electricity Market on a merchant basis through a combination of spot and hedging contracts.<sup>149</sup>

**Table 38 InterGen coal-fired power capacity in Australia**

| Subsidiary                | Existing CFPS | State | MW             | Share in CFPS | Weighted MW  |
|---------------------------|---------------|-------|----------------|---------------|--------------|
| OzGen BV                  | Callide C     | Qld   | 920.0          | 25.0%         | 230.0        |
| Millmerran Power Partners | Millmerran    | Qld   | 850.0          | 54.0%         | 459.0        |
| <b>Total MW</b>           |               |       | <b>1,770.0</b> |               | <b>689.0</b> |

Based on a weighted coal-fired power generating capacity in Australia of 689 MW, we estimate the company's coal-fired power assets in Australia to have a value of about A\$ 565 million (see Table 57).

The company has a total net equity share in 6,254 MW of electricity generating capacity worldwide. The 689 MW of coal-fired power generating capacity it owns in Australia therefore represents 11% of its power portfolio. We estimate it to be the same percentage of InterGen's total assets.

## 4.5.2 Bank loans

- In July 2007 InterGen received a US\$ 1,550.0 million (A\$ 1,800.0 million) loan from a syndicate of 18 banks. The first tranche of US\$ 800 million matures in July 2013 and the second tranche of US\$ 750 million matures in July 2014. The proceeds were used for the refinancing of a US\$ 1,075.0 million loan for the 2005 buyout of InterGen by AIG Highstar and Ontario Teacher's Pension Plan. Amongst the bookrunners was **ANZ** with an estimated allotted amount of A\$ 100.0 million.<sup>150</sup>

## 4.6 International Power

### 4.6.1 Short profile of International Power

International Power plc is a global independent electricity generating company with headquarters in London. It has interests in power generating capacity in operating plants that are located in five core regions: North America, Europe, Middle East, Australia and Asia. The company engages in the development, acquisition and operation of power generation plants. Total capacity of its power plants is 32,358 MW, of which 20,671 MW comes for the account of International Power.<sup>151</sup>

Table 39 shows that International Power has interests in two coal-fired power stations with a combined capacity of 2,701 MW. Since it only owns 70.0% and 91.8% respectively of these stations, its weighted capacity is 2,259 MW. The remaining 8.2% of International Power Hazelwood is owned by the Commonwealth Bank Group.<sup>152</sup>

**Table 39 International Power coal-fired power capacity in Australia**

| Subsidiary                    | Existing CFPS    | State | MW             | Share in CFPS | Weighted MW    |
|-------------------------------|------------------|-------|----------------|---------------|----------------|
|                               | Loy Yang Power B | Vic   | 1,026.0        | 70.0%         | 718.2          |
| International Power Hazelwood | Hazelwood        | Vic   | 1,675.0        | 91.8%         | 1,537.7        |
| <b>Total MW</b>               |                  |       | <b>2,701.0</b> |               | <b>2,255.9</b> |

At the end of 2009, total assets of International Power plc amounted to £ 14,184 million (A\$ 25,292 million). The Australia division accounted for £ 2,760 million (A\$ 4,922 million) of the company's assets. The total electricity generating capacity of International Power in Australia amounts to 3,221 MW, of which 2,256 MW is coal-fired.<sup>153</sup>

In paragraph 3.8.1 we estimated that A\$ 2,339 million of the company's assets are devoted to Australian coal mining. Of the remaining A\$ 2,583 million of Australian assets, we estimate that 78% (A\$ 2,013 million) is used for coal-fired power plants. This equals 8% of total assets.

### 4.6.2 Financing of International Power

For information on the general financing of International Power, see paragraph 3.8. The following information was found on the financing of International Power's CFPS activities specifically:

### 4.6.3 Joint venture partners

The **Commonwealth Bank of Australia** owns 8.2% of the Hazelwood power station and mine. In 2003, the bank spent US\$ 230 million (A\$ 410 million) on capital expenditure for this project. Assuming that half of this expenditure was directed to the power station, the Commonwealth Bank Australia has invested A\$ 115 million (A\$ 205 million) in the coal-fired power station.<sup>154</sup>

### 4.6.4 Project finance

The following information could be found regarding project finance facilities provided to International Power by the researched banks since early 2005:

- In January 2010, International Power plc announced that it had completed a restructuring of its existing non-recourse debt of A\$ 742 million for its coal-fired Hazelwood power station and mine. The new single tranche facility has a maturity date of June 2012. Among the 18 banks that participated in the restructured facility were **ANZ** and **Westpac Banking**, each providing an estimated amount of A\$ 41 million.<sup>155</sup>

## 4.7 New South Wales Government

### 4.7.1 Short profile of New South Wales Government

New South Wales (NSW) is Australia's most populous state with 7.1 million people and most of Australia's industrial activity. It is located in the south-east of the country, and encompasses the whole of the Australian Capital Territory. Executive authority is vested in the Governor of New South Wales, who represents and is appointed by Queen Elizabeth II. Coal and related products are the state's biggest export. Its value to the state's economy is over A\$ 5 billion, accounting for about 19% of all exports from NSW.<sup>156</sup>

The NSW government plays a large role in energy provision, generating 90 percent of the state's electricity requirements. NSW government wholly owns seven energy corporations (with their total assets in the financial year 2008/2009):<sup>157</sup>

- Country Energy (A\$ 4,600.0 million)
- Delta Electricity (A\$ 3,280.2 million of which 87.1% coal fired)
- EnergyAustralia (A\$ 8 948.1 million)
- Eraring Energy (A\$ 1,911.3 million of which 86.0% coal fired)
- Integral Energy (A\$ 4,305.7 million)
- Macquarie Generation (A\$ 4,118.8 million of which 99.7% coal fired)
- TransGrid (A\$ 5,170.9 million)

The aggregated total assets of these energy corporations are A\$ 32,335 million. Delta Electricity, Eraring Energy and Macquarie Generation produce electricity by means of coal-fired power plants. Their share of assets - when corrected for their respective coal fired percentages - in the energy corporations of the NSW government is **26.6%**. An overview of the coal-based electricity activities of these companies is given in Table 40. The remaining four state-owned companies operate in the energy distribution sector.

**Table 40 NSW Government coal-fired power capacity**

| Subsidiary               | Existing CFPS     | State | MW              | Share in CFPS | Weighted MW     |
|--------------------------|-------------------|-------|-----------------|---------------|-----------------|
| Macquarie Generation     | Bayswater A       | NSW   | 2,640.0         | 100.0%        | 2,640.0         |
| Macquarie Generation     | Liddell           | NSW   | 2,000.0         | 100.0%        | 2,000.0         |
| Delta Electricity        | Mount Piper       | NSW   | 1,400.0         | 100.0%        | 1,400.0         |
| Delta Electricity        | Munmorah          | NSW   | 600.0           | 100.0%        | 600.0           |
| Delta Electricity        | Vales Point B     | NSW   | 1,320.0         | 100.0%        | 1,320.0         |
| Delta Electricity        | Wallerawang C     | NSW   | 1,000.0         | 100.0%        | 1,000.0         |
| Eraring Energy           | Eraring           | NSW   | 2,640.0         | 100.0%        | 2,640.0         |
| <b>Total Existing MW</b> |                   |       | <b>11,600.0</b> |               | <b>11,600.0</b> |
| Subsidiary               | Planned CFPS      | State | MW              | Share in CFPS | Weighted MW     |
| Macquarie Generation     | Bayswater B       | NSW   | 2,000.0         | 100.0%        | 2,000.0         |
| Delta Electricity        | Mount Piper 2     | NSW   | 2,000.0         | 100.0%        | 2,000.0         |
| Delta Electricity        | Munmorah 2        | NSW   | 100.0           | 100.0%        | 100.0           |
| Eraring Energy           | Eraring expansion | NSW   | 360.0           | 100.0%        | 360.0           |
| <b>Total Planned MW</b>  |                   |       | <b>4,460.0</b>  |               | <b>4,460.0</b>  |

Source: Websites and Annual Reports of Delta Electricity, Eraring Energy and Macquarie Generation, Viewed in June 2010.

#### 4.7.2 Financing of New South Wales Government

The government of NSW obtains its financing from a special unit called the New South Wales Treasury Corporation (TCorp). TCorp is the central financing authority for the New South Wales public sector, and is a leading issuer of semi-government securities in the Australian market. It has a key role in managing investments and liabilities for the government, its authorities and businesses.<sup>158</sup> NSW Treasury Corporation (“TCorp”) has, as one of its core functions, the provision of financing to the NSW Government Sector and all NSW Government Agencies. This central financing role underpins a balance sheet for TCorp of around A\$ 50 billion. This balance sheet is funded through the issuance of a range of debt instruments to both domestic and international investors. All of TCorp’s borrowings are fully guaranteed by the NSW Government.<sup>159</sup>

Borrowings of Macquarie, Delta and Eraring are sourced from New South Wales Treasury Corporation (NSW TCorp) unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings.

In 2009 TCorp issued loans to NSW Government entities with a total value of A\$ 37,888.7 million. This amount was subdivided over the different governmental sectors as follows:<sup>160</sup>

- Crown Entity (New South Wales General Government) A\$ 13,055.3 mln
- **Electricity entities** **A\$ 14,929.4 mln**
- Transport entities A\$ 1,155.9 mln
- Water entities A\$ 6,728.8 mln
- Other entities A\$ 2,019.3 mln

This indicates that the electricity entities, consisting of three coal-fired power generators and four electricity distributors, receive 39.4% of all NSW loans. If we only look at coal-fired power generation, we multiply this percentage by the percentage of coal-fired assets within the power companies that we calculated above (26.6%). We therefore estimate that **10.5%** of all loans provided by TCorp to government-owned entities is used for coal-fired power generation.

#### 4.7.3 Bondholders

In July 2010 TCorp has bonds outstanding with a total value of A\$ 45,952.1 million. The only bondholder amongst the studied Australian banks was:<sup>161</sup>

- **Colonial First State Asset Management**                      A\$ 10.1 million                      (0.0%)

#### 4.7.4 Bond issuances

At the end of 2008 and 2009 TCorp had the following bonds outstanding:

**Table 41 Bond programmes of TCorp**

| <b>Bond type</b>          | <b>2008 Fair value (mln A\$)</b> | <b>2009 Fair value (mln A\$)</b> |
|---------------------------|----------------------------------|----------------------------------|
| Domestic Benchmark Bonds  | 13,789.9                         | 30,814.8                         |
| Global Exchangeable Bonds | 14,275.4                         | 7,366.0                          |
| Euro Medium Term Notes    | 2,400.6                          | 3,340.1                          |
| CPI Linked Bonds          | 980.8                            | 1,518.6                          |
| Other borrowings          | 362.5                            | 416.0                            |
| <b>Total</b>              | <b>31,809.2</b>                  | <b>43,455.5</b>                  |

Source: TCorp, "Annual Report 2009", New South Wales Treasury Corporation, 12 November 2009.

TCorp's Panel of Market Makers comprises the major participants in the Australian fixed interest market, providing ready access to competitive prices. Dealer Panel members provide prices in TCorp Benchmark bonds to market participants and other panel members. The basis of this price making is determined by each member individually with counterparties and customers.<sup>162</sup>

While panel members receive no payment and are under no commitment to purchase TCorp bonds, their performance is constantly monitored and acknowledged as essential to the liquidity of TCorp bonds. Turnover in TCorp stock continues to be the highest of any semi-government issuer in Australia.<sup>163</sup>

Amongst the twelve panel members of the Domestic Bonds are:<sup>164</sup>

- **ANZ**
- **Commonwealth Bank of Australia**
- **National Australia Bank**
- **Westpac Banking**

The Euro Medium Term Note programme includes eleven panel members, including the following:<sup>165</sup>

- **Commonwealth Bank of Australia**

- **National Australia Bank**

The Global Exchangeable Bonds programme includes eleven panel members, including the following:<sup>166</sup>

- **ANZ**
- **Commonwealth Bank of Australia**
- **National Australia Bank**
- **Westpac Banking**

On 1 July 2010 TCorp created a Capital Indexed Bond Dealer Panel, which reflects both the importance of Inflation Bonds to TCorp's funding programme and the commitment of panel members to help TCorp successfully meet the financial needs of its clients. TCorp announced eight appointments to the newly established Capital Indexed Bond Dealer Panel, of which four are amongst the studied banks for this report:

- **ANZ**
- **Commonwealth Bank of Australia**
- **Westpac Banking**

These appointments were effective from 1 July 2010 and grant members equal rights to access TCorp's Capital Indexed Bond Programme.<sup>167</sup>

The following information was found on actual bond issuances since January 2005 in which one or more of the studied banks were involved:

- In June 2009 TCorp conducted a placement of A\$ 825 million of a 6.0% May 2023 bond, bringing the total outstanding amount of this bond to A\$ 1.08 billion. UBS Australia was lead manager and **Westpac Banking** was amongst the four co-managers with an allotted amount of A\$ 41.3 million. The proceeds were used for general corporate purposes.<sup>168</sup>
- In October 2009 TCorp issued A\$ 1.5 billion of a new 6.00% June 2020 bond. TCorp has appointed **ANZ** and UBS Australia as joint lead managers, with estimated allotted amounts of A\$ 600 million and **Commonwealth Bank of Australia, Westpac** as two of the four co-managers with estimated allotted amounts of A\$ 75 million.<sup>169</sup>

TCorp is in the process of obtaining coverage under the Commonwealth Government Guarantee for this bond. The deal was supported by a broad base of both domestic and international investors and will be applied towards TCorp's current A\$ 10.4 billion funding programme for the 2009/2010 financial year.<sup>170</sup>

- In March 2010 TCorp issued A\$ 1.0 billion of a new 6.00% April 2016 bond. It appointed **ANZ, National Australia Bank** and UBS Australia as joint lead managers with estimated allotted amounts of A\$ 266.7 million each. **Commonwealth Bank of Australia** was one of the two participants with an estimated allotted amount of A\$ 100 million. The proceeds are used for general corporate purposes.<sup>171</sup>

The deal was supported by a broad base of both domestic and international investors and will be applied towards TCorp's current A\$ 10.4 billion funding programme for the 2009/2010 financial year.<sup>172</sup>

- In April 2010 TCorp issued A\$ 1.0 billion of a new 6.0% May 2020 bond. Amongst the four joint lead managers was **Westpac** with an estimated allotted amount of A\$ 200 million. **Commonwealth Bank of Australia** was one of the two co-managers with an estimated allotted amount of A\$ 100 million. The proceeds were used for general corporate purposes.<sup>173</sup>

## 4.8 Macquarie Generation

### 4.8.1 Short profile of Macquarie Generation

Macquarie Generation is a state owned corporation established in 1996. Its core business is the production and wholesale of electricity to the Australian electricity market. Macquarie Generation owns and operates the Liddell Power Station (2,000 MW) and Bayswater Power Station (2,640 MW) between Singleton and Muswellbrook in the Upper Hunter Valley of NSW.<sup>174</sup> Furthermore it operates two biomass stations of 5 MW that run on wood waste, one hydroelectric generator of 0.85 MW and one solar field of 4 MW that is jointly owned with Ausra Australia. Of its total generating capacity of 4,652.8 MW, 99.7% is generated with coal.<sup>175</sup>

Macquarie Generation is Australia's largest electricity generator and also the largest domestic buyer of Hunter Valley coal. Its Liddell power station consumes approximately 5.5 million tonnes per year and the existing Bayswater station consumes approximately 7.5 million. Macquarie employs just over 600 people.

Macquarie has total assets of A\$ 4,118.8 million. Macquarie Generation operates predominantly in one business segment, that being the coal-based generation of electricity, and within one geographical segment, Australia. We estimate that 99.7% (A\$ 4,106 million) of its assets is used for coal-fired power generation.<sup>176</sup>

### 4.8.2 Financing of Macquarie Generation

Borrowings of Macquarie Generation are sourced from New South Wales Treasury Corporation (NSW TCorp) unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings. For financing of TCorp, see paragraph 4.7.2. Specific financial information that was found on Macquarie generation is stated below:

- Macquarie Generation has financial relationships with the **Commonwealth Bank of Australia** and the NSW TCorp.<sup>177</sup> Details on the relationship with the CBA or any other of the studied banks are unknown.

## 4.9 Delta Electricity

### 4.9.1 Short profile of Delta Electricity

Delta Electricity is the largest electricity generator in the National Electricity Market with an installed capacity of over 5,000 megawatts. In 2008/2009 the company sent out 23,746 GWh of electricity. In that year it achieved power sales revenues of A\$ 983.1 million and profits before tax of A\$ 100.7 million. Delta Electricity is fully owned by the government of New South Wales.<sup>178</sup>

In 2008/2009 Delta Electricity had a electricity generating capacity of 4,958 MW, of which 4,320 MW from coal-fired power stations (CFPS's), representing 87.1% of Delta's power portfolio. Details are provided in Table 42.<sup>179</sup>

**Table 42 Delta Electricity coal-fired power capacity**

| <b>Subsidiary</b>        | <b>Existing CFPS</b> | <b>State</b> | <b>MW</b>      | <b>Share in CFPS</b> | <b>Weighted MW</b> |
|--------------------------|----------------------|--------------|----------------|----------------------|--------------------|
| Delta Electricity        | Mount Piper          | NSW          | 1,400.0        | 100.0%               | 1,400.0            |
| Delta Electricity        | Munmorah             | NSW          | 600.0          | 100.0%               | 600.0              |
| Delta Electricity        | Vales Point B        | NSW          | 1,320.0        | 100.0%               | 1,320.0            |
| Delta Electricity        | Wallerawang C        | NSW          | 1,000.0        | 100.0%               | 1,000.0            |
| <b>Total Existing MW</b> |                      |              | <b>4,320.0</b> |                      | <b>4,320.0</b>     |
| <b>Subsidiary</b>        | <b>Planned CFPS</b>  | <b>State</b> | <b>MW</b>      | <b>Share in CFPS</b> | <b>Weighted MW</b> |
| Delta Electricity        | Mount Piper 2        | NSW          | 2,000.0        | 100.0%               | 2,000.0            |
| Delta Electricity        | Munmorah 2           | NSW          | 100.0          | 100.0%               | 100.0              |
| <b>Total Planned MW</b>  |                      |              | <b>3,100.0</b> |                      | <b>3,100.0</b>     |

Source: Websites and Annual Reports of Delta Electricity, Viewed in June 2010.

Delta Energy plans to expand coal-fired power production at its Mount Piper and Munmorah electricity plants. The financing of the Mount Piper expansion is discussed in paragraph 7.9.

Delta Electricity's total assets were A\$ 3,280.2 million in June 2009. Delta is an electricity generation corporation that operates in this single business only. All production facilities are located in New South Wales, Australia. Therefore it is estimated that the percentage of assets devoted to Australian coal-fired power generation lies close to the share of coal in the company's power portfolio, namely 87.1%. This equals A\$ 2,857.1 million.<sup>180</sup>

#### **4.9.2 Financing of Delta Electricity**

Borrowings of Delta Electricity are sourced from New South Wales Treasury Corporation (NSW TCorp) unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings. For financing of TCorp, see paragraph 4.7.2. Specific financial information that was found on Delta Electricity is stated below:

- In June 2009 the carrying value of borrowings and derivatives (net of funds held at call) for Delta Energy managed by NSW TCorp stood at A\$ 1,118.9 million. At that point it had also secured current bank loans for a total amount of A\$ 4.0 million and non-current bank loans for an overall A\$ 64.7 million. However, these bank loans relate to the participation of Delta Electricity Australia Pty. Ltd (wholly owned subsidiary) in a joint venture arrangement to develop and operate renewable electricity generation plant,<sup>181</sup> so investments of these banks are not directly supporting Delta's coal-fired power plant activities.

## 4.10 Eraring Energy

### 4.10.1 Short profile of Eraring Energy

Eraring Energy is a state owned corporation that manages a diverse set of electricity-generating assets located throughout New South Wales (NSW), Australia. Eraring Energy has a combined generating capacity of 3,082 megawatts (MW), including the coal-fired Eraring Power Station at 2,640 MW, which is Australia's largest together with the Bayswater CFPS of Macquarie Generation.

The generation portfolio of Eraring consists of ten power stations, with 86% of capacity being sourced from the coal-fired Eraring Power Station (located on Lake Macquarie) with the remaining 13% consisting of smaller hydro and wind generation plant and 1% diesel.<sup>182</sup>

Electricity Production and Energy Trading are the core business activities of Eraring Energy. The Energy Trading Business Unit together with the Corporate support, Treasury and Information Technology functions are managed from the Sydney business office.

Eraring Energy was established as a state owned corporation in August 2000.<sup>183</sup> Its only shareholder is the NSW Government. In the financial year 2008-2009 Eraring Energy had electricity sales of A\$ 634.6 million and earnings before tax were A\$ 215.5 million.<sup>184</sup>

The Cobbora Unincorporated Joint Venture was formed to enable the three state owned power generators, Macquarie Generation, Delta Electricity and Eraring Energy, to investigate the feasibility of developing a new coal resource in western New South Wales. On 15 May 2009 the Minister for Mineral Resources, Ian Macdonald announced that the joint venture had been invited to apply for a coal exploration licence in the Cobbora area near Dunedoo, NSW. Eraring Energy's involvement in the project will continue through the subsidiary company Rocky Point Holdings Pty Limited established for that purpose.<sup>185</sup>

At the end of the financial year 2008-2009 Eraring Energy had total assets of A\$ 1,911.3 million. Since it only operates in the business segment of electricity generation within Australia,<sup>186</sup> we estimate that 86% of assets (A\$ 1,643.7 million) are devoted to coal-fired power generation.

### 4.10.2 Financing of Eraring Energy

Borrowings of Eraring Energy are sourced from New South Wales Treasury Corporation (NSW TCorp) unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings. For financing of TCorp, see paragraph 4.7.2. Specific financial information that was found on Eraring Energy is stated below:

- Eraring Energy uses the **Commonwealth Bank of Australia** for intra day cash management (real time gross settlements - A\$ 20.0 million) and credit card facilities (A\$ 1.25 million).<sup>187</sup>

## 4.11 Queensland Government

### 4.11.1 Short profile of Queensland Government

Queensland is a state of Australia that occupies the north-eastern section of the mainland continent. It is bordered by the Northern Territory to the west, South Australia to the south-west and New South Wales to the south. Queensland's economy has enjoyed a boom in the tourism and mining industries over the past 20 years.<sup>188</sup> Six of the Queensland Government Owned Corporations are part of the energy industry (including their total assets):<sup>189</sup>

- CS Energy (A\$ 2,534 million of which 78.2% is coal fired)
- Energex (A\$ 8,011.0 million)
- Ergon Energy (A\$ 7,994.2 million)
- Powerlink Queensland (A\$ 5,528.0 million)
- Integral Energy (A\$ 4,305.7 million)
- Stanwell Corporation (A\$ 1,931 million of which 83.7% is coal fired)
- Tarong Energy (A\$ 2,087.5 million of which 78.7% is coal fired)

As shown in Table 43, the Queensland government owns stakes in seven coal-fired power plants with a total capacity of 6,213 MW. The weighted capacity of the Queensland government amounts to 5,753 MW.

**Table 43 Queensland Government coal-fired power capacity**

| Subsidiary               | Existing CFPS | State | MW             | Share in CFPS | Weighted MW    |
|--------------------------|---------------|-------|----------------|---------------|----------------|
| CS Energy                | Kogan Creek   | Qld   | 750.0          | 100.0%        | 750.0          |
| CS Energy                | Swanbank A&B  | Qld   | 480.0          | 100.0%        | 480.0          |
| CS Energy                | Callide A&B   | Qld   | 820.0          | 100.0%        | 820.0          |
| CS Energy                | Callide C     | Qld   | 920.0          | 50.0%         | 460.0          |
| Stanwell Corp            | Stanwell      | Qld   | 1,400.0        | 100.0%        | 1,400.0        |
| Tarong Energy            | Tarong A&B    | Qld   | 1,400.0        | 100.0%        | 1,400.0        |
| Tarong Energy            | Tarong North  | Qld   | 443.0          | 100.0%        | 443.0          |
| <b>Total Existing MW</b> |               |       | <b>6,213.0</b> |               | <b>5,753.0</b> |
| Subsidiary               | Planned CFPS  | State | MW             | Share in CFPS | Weighted MW    |
| CS Energy                | Callide A     | Qld   | ?              | 100.0%        | ?              |
| <b>Total Planned MW</b>  |               |       | <b>?</b>       |               | <b>?</b>       |

The Queensland government is financing the three coal-fired power station operators with loans provided by the Queensland Treasury Corporation (QTC). Table 44 provides an overview of the loan amounts outstanding to the three companies at the end of 2008 and 2009.<sup>190</sup>

**Table 44 Loans of QTC to CFPS operators**

| <b>Company</b>             | <b>Outstanding end 2008 (mln A\$)</b> | <b>Outstanding end 2009 (mln A\$)</b> | <b>Average (mln A\$)</b> | <b>Corrected for coal %</b> |
|----------------------------|---------------------------------------|---------------------------------------|--------------------------|-----------------------------|
| CS Energy                  | 1,055.6                               | 851.4                                 | 953.5                    | 745.64                      |
| Stanwell Corp              | 127.2                                 | 258.8                                 | 193.0                    | 161.54                      |
| Tarong Energy              | 376.4                                 | 450.6                                 | 413.5                    | 325.42                      |
| <b>Total</b>               | <b>1,559.2</b>                        | <b>1,560.8</b>                        | <b>1,560.0</b>           | <b>1,232.6</b>              |
| <b>As % of total loans</b> | <b>4.7%</b>                           | <b>3.5%</b>                           | <b>4.1%</b>              | <b>3.2%</b>                 |

Based on the figures in Table 44, we estimate that 3.2% of all loans provided by QTC are used for coal-fired power generation.

#### **4.11.2 Financing of Queensland Government**

The Queensland Treasury Corporation (QTC) plays a pivotal role in the growth of Queensland, providing financial advice and risk management services, sourcing and managing debt funding for infrastructure and investing cash surpluses for Queensland's public sector organisations.<sup>191</sup> Total assets of QTC in the financial year 2008/2009 were A\$ 71.5 billion. It had total debt outstanding for the amount of A\$ 44.4 billion.<sup>192</sup>

On 30 June 2009 the financial partners of QTC were:<sup>193</sup>

- **ANZ**
- **Commonwealth Bank of Australia**
- **National Australia Bank**
- **Westpac Banking**

All of these banks are part of the 12-member Domestic and Global Bond Facility Distribution Group, and of the 7-member ATC Treasury Note Facility Dealer Panel.

**ANZ** and **Commonwealth Bank of Australia** are also amongst the 10 banks in the Multicurrency US Medium-Term Note Facility Dealer Panel.<sup>194</sup>

Borrowings of CS Energy, Stanwell and Tarong are sourced from QTC unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings.

#### **4.11.3 Bondholders**

In July 2010 QTC has bonds outstanding with a total value of A\$ 62,022.4 million. The only bondholder amongst the studied Australian banks was:<sup>195</sup>

- **Colonial First State Asset Management**                      A\$ 15.1 million                      (0.0%)

#### 4.11.4 Bond issuances

At the start of 2010, QTC had A\$ 19,799 million of borrowings outstanding. Most of these borrowings originated from the A\$ 11,601 million benchmark bonds that were used for refinancing of maturing debt, and the A\$ 12,985 million that were newly borrowed for capital works and asset procurement.<sup>196</sup> The domestic benchmark bonds represented 86% of QTC's funding sources, and the global benchmark bonds were 6% as at 8 June 2010. Overall, Australian funding sources represented 52% of all QTC's funding, against 48% of offshore funding sources.<sup>197</sup>

The following information was found on bond issuances in which one or more of the studied Australian banks were involved:

- In September 2007 QTC issued bonds for NZ\$ 375 million (A\$ 318.7 million) that will mature in September 2017. They have an interest rate of 7.18% and the proceeds are used for general corporate purposes. Amongst the three bookrunners was **ANZ** with an estimated allotted amount of A\$ 106.2 million.<sup>198</sup>
- In September 2008 QTC issued bonds for NZ\$ 175 million (A\$ 144.3 million) that will mature in September 2017. They have an interest rate of 6.56% and the proceeds are used for general corporate purposes. Amongst the two bookrunners was **ANZ** with an estimated allotted amount of A\$ 72.2 million.<sup>199</sup>
- In June 2009 QTC issued A\$ 3,250.0 million of bonds with a maturity date in June 2019, for an interest rate of 6.41%. Proceeds are used for general corporate purposes. Amongst the three bookrunners are none of the studied banks, but amongst the four co-lead managers are **ANZ** and **Commonwealth Bank of Australia** with estimated allotted amounts of A\$ 162.5 million.<sup>200</sup>
- In January 2010 QTC launched a A\$ 4 billion November 2014 bond. The bond carries a 5.75% coupon with an outright yield of 5.8425%. Like all QTC benchmark bonds, the new 21 November 2014 \$A Benchmark Bonds are guaranteed by the State of Queensland. **ANZ**, Deutsche Bank Australia and **Westpac Institutional Bank** acted as joint lead managers with estimated allotted amounts of A\$ 1,066.7 million each, and **Commonwealth Bank of Australia** and **National Australia Bank** were amongst the four co-managers, each with estimated allotted amounts of A\$ 200 million. The proceeds were used for general corporate purposes.<sup>201</sup>
- In February 2010 QTC launched A\$ 2.5 billion bonds that will mature in February 2020. The bonds have a yield of 6.32% and proceeds are used for general corporate purposes. **Commonwealth Bank of Australia**, Deutsche Bank Australia and **Westpac Institutional Bank** acted as joint lead managers with estimated allotted amounts of A\$ 666.7 million each.<sup>202</sup>
- In April 2010 QTC issued bonds for a total amount of A\$ 3.0 billion with a maturity date in April 2016. The interest rate is 6.26% and the proceeds will be used for general corporate purposes. **ANZ** acted as one of the three bookrunners with an estimated allotted amount of A\$ 800 million, and **National Australia Bank** was one of the four co-lead managers with an estimated allotted amount of A\$ 150 million.<sup>203</sup>

## 4.12 CS Energy

### 4.12.1 Short profile of CS Energy

CS Energy is a Queensland Government-owned electricity generator with more than 670 employees, four power stations and a generating capacity of 3,210 megawatts. In the financial year 2008/2009 CS Energy achieved electricity sales of A\$ 781 million and recorded a A\$ 93.8 million net profit after tax, up A\$ 34 million from the previous year.<sup>204</sup>

The company owns a total coal-fired power capacity of 2,510 MW, equivalent to 78.2% of its total capacity. Its coal-fired operating sites are:

- Swanbank Power Station, near Ipswich in south east Queensland;
  - Swanbank B (480 MW)
- Callide Power Station, near Biloela in central Queensland;
  - Callide A (120 MW)
  - Callide B (700 MW)
  - Callide C (920 MW, of which 460 MW are owned by CS Energy, the other 50% are owned by InterGen)
- Kogan Creek Power Station, near Chinchilla in south west Queensland.
  - Kogan Creek A (750 MW)

At the end of June 2009, total assets of CS Energy amounted to A\$ 2,534 million. All production facilities are located in Queensland, Australia. Therefore it is estimated that the percentage of assets devoted to Australian coal-fired power generation lies close to the share of coal in the company's power portfolio, namely 78.2% or A\$ 1,982 million.<sup>205</sup>

### 4.12.2 Financing of CS Energy

Borrowings of CS Energy are sourced from QTC unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings. For information on the financing of QTC, see paragraph 4.11.2.

## 4.13 Stanwell Corp

### 4.13.1 Short profile of Stanwell Corp

Stanwell Corporation Limited is another Queensland state-owned energy provider with coal, hydro and wind generation facilities. In 2009, Stanwell had a total generating capacity of 1,672 MW, of which 1,400 MW or 83.7% is generated from its coal-fired power station. Stanwell trades the output of the Gladstone Power Station in the National Electricity Market and also has gas interests, including an equity stake in Blue Energy Limited. Furthermore, it has a coal supply agreement with Wesfarmers Resources that includes the sharing of revenue from their coal exports.<sup>206</sup>

In the financial year 2008/2009 Stanwell achieved a revenue result of A\$ 670.4 million.<sup>207</sup> Total assets amounted to A\$ 1,931 million. All production facilities of the company are located in Australia. Therefore it is estimated that the percentage of assets devoted to Australian coal-fired power generation lies close to the share of coal in the company's power portfolio, namely 83.7% or A\$ 1,619 million.<sup>208</sup>

#### **4.13.2 Financing of Stanwell Corp**

Borrowings of Stanwell Corp are sourced from QTC unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings. For information on the financing of QTC, see paragraph 4.11.2. No specific information was found on the financing of Stanwell Corp.

#### **4.14 Tarong Energy**

##### **4.14.1 Short profile of Tarong Energy**

Tarong Energy is an energy provider in Queensland, Australia, that is fully owned by the Queensland government.<sup>209</sup> It was established in 1997 and currently has about 500 employees. Tarong Energy owns a diverse mix of generation assets, with a total capacity of 2,343 MW, as well as mining assets and coal resources. Tarong Energy has coal-fired generating capacity of 1,843 MW, representing 78.7% of Tarong's total generating capacity.<sup>210</sup>

In the financial year 2008/2009 Tarong Energy had total consolidated assets of A\$ 2,087.5 million.<sup>211</sup> In paragraph 3.16.1 we estimated that A\$ 778.4 million of Tarong Energy's assets is devoted to coal mining. Of the other A\$ 1,309 million, we estimate that 78.7% (A\$ 1,030.2 million) is devoted to coal-fired power stations. This equals 49% of total assets.

Tarong Energy operates the following coal-fired power stations in Queensland:

- Tarong Power Station, located near Nanango in the South Burnett region, comprises four units with a gross generating capacity of 1,400 megawatts (MW). In 2009 a new control system was installed in Unit 1 and Unit 2 at the coal-fired Tarong Power Station - the first stage of an approximately A\$ 168 million maintenance program to enhance the station's performance and reliability. Tarong Power Station produced 7,026 gigawatt hours (GWh) of electricity during 2008/2009.<sup>212</sup>
- The neighbouring Tarong North Power Station is a supercritical coal-fired power station with a gross generating capacity of 443 MW. Tarong North Power Station is jointly owned by TN Power Pty Ltd (a subsidiary of Tarong Energy) and TM Energy (Australia) Pty Ltd, a company jointly owned by Tokyo Electric Power Company (TEPCO) and Mitsui & Co. Ltd (Mitsui).<sup>213</sup>

##### **4.14.2 Financing of Tarong Energy**

Borrowings of Tarong Energy are sourced from QTC unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings. For information on the financing of QTC, see paragraph 4.11.2. No specific financial information was found on Tarong Energy.

## 4.15 Rio Tinto

### 4.15.1 Short profile of Rio Tinto

The Rio Tinto Group is a British-Australian mining and resources group with headquarters in London and Melbourne. The company was founded in 1873 and since then, the company has grown through a long series of mergers and acquisitions to place itself among the world leaders in the production of many commodities, including aluminium, iron ore, copper, uranium, coal, and diamonds. The company has operations on six continents but is mainly concentrated in Australia and Canada.<sup>214</sup>

Table 45 shows that Rio Tinto has a 42.1% interest in the Gladstone Power Station in Queensland.<sup>215</sup> This power station is the largest within the state, and Rio Tinto owns the largest share of the plant within the joint venture through its wholly owned subsidiary Rio Tinto Alcan.<sup>216</sup>

**Table 45 Rio Tinto coal-fired power capacity in Australia**

| Subsidiary      | Existing CFPS | State | MW             | Share in CFPS | Weighted MW  |
|-----------------|---------------|-------|----------------|---------------|--------------|
| Rio Tinto Alcan | Gladstone A&B | Qld   | 1,680.0        | 42.1%         | 707.3        |
| <b>Total MW</b> |               |       | <b>1,680.0</b> |               | <b>707.3</b> |

At the end of 2009, Rio Tinto owned assets worth US\$ 97,236 million (A\$ 108,872 million).<sup>217</sup> Based on a weighted coal-fired power capacity in Australia of 707.3 MW, we estimate that A\$ 580 million of Rio Tinto's assets is devoted to coal-fired power plants in Australia (see Appendix 1). This equals 0.5% of Rio Tinto's total assets.

### 4.15.2 Financing of Rio Tinto

For information on the financing of Rio Tinto, see paragraph 3.15.

## 4.16 TEPCO

### 4.16.1 Short profile of TEPCO

The Tokyo Electric Power Company (TEPCO) engages in the generation and supply of electric power in Japan. It operates through five segments: Electric Power, Information and Telecommunication, Energy and Environment, Living Environment and Lifestyle-Related, and Overseas. The company was founded in 1951 and is based in Tokyo, Japan.<sup>218</sup>

Table 46 summarizes the details on the Loy Yang power station which is owned by GEAC, in which TEPCO has a 32.5% interest.

**Table 46 TEPCO coal-fired power capacity in Australia**

| Subsidiary      | Existing CFPS    | State | MW             | Share in CFPS | Weighted MW  |
|-----------------|------------------|-------|----------------|---------------|--------------|
| GEAC            | Loy Yang Power A | Vic   | 2,200.0        | 32.5%         | 715.0        |
| <b>Total MW</b> |                  |       | <b>2,200.0</b> |               | <b>715.0</b> |

As of the end of March 2009, TEPCO owned assets with a value of ¥ 13,559 billion (A\$ 180,097 million).<sup>219</sup> Based on a weighted coal-fired power generation capacity of 715 MW, we estimate that TEPCO has assets with a value of A\$ 586 million invested in the Loy Yang power station (see Appendix 1). This represents 0.3% of its total assets.

#### 4.16.2 Financing of TEPCO

For financing of TEPCO, see paragraph 3.17.

### 4.17 The Griffin Group

#### 4.17.1 Short profile of The Griffin Group

The Griffin Group is a large Australian private enterprise, owned by the Australian businessman Rick Stowe. The company operates in the business segments energy, property, agriculture, coal, office products and helicopters. The coal mining operations of the company are grouped under Griffin Coal Mining Company Pty Ltd (Griffin Coal). Griffin Coal is a significant provider of coal to the domestic market. The company's operations are based in Collie, located south east of Western Australia's capital city, Perth.<sup>220</sup>

At the end of 2009, Griffin Coal became financially in trouble, because the company was unable to sell its coal production. Griffin Coal failed to pay A\$ 25 million of interest due to noteholders by December 31, and missed a payment to Australia's tax authority. In April 2010 it was announced that the Griffin Group could not pay bills on corporate debt of about A\$ 2 billion.<sup>221</sup> Griffin Coal would start the sale of its coal mines and stake in its Bluewaters Power Project in Western Australia by June 2010.<sup>222</sup> In April 2010 it was estimated that the company's coal mines were worth around A\$ 500 million.<sup>223</sup>

Table 47 provides an overview of the coal-fired power plants of the Griffin Group.

**Table 47 The Griffin Group coal-fired power capacity in Australia**

| <b>Subsidiary</b>        | <b>Existing CFPS</b> | <b>State</b> | <b>Share in CFPS</b> | <b>MW</b>    | <b>Weighted MW</b> |
|--------------------------|----------------------|--------------|----------------------|--------------|--------------------|
| Griffin Energy           | Bluewaters 1         | WA           | 100.0%               | 200.0        | 200.0              |
| <b>Total Existing MW</b> |                      |              |                      | <b>200.0</b> | <b>200.0</b>       |
| <b>Subsidiary</b>        | <b>Planned CFPS</b>  | <b>State</b> | <b>Share in CFPS</b> | <b>MW</b>    | <b>Weighted MW</b> |
| Griffin Energy           | Bluewaters 2         | WA           | 100.0%               | 208.0        | 208.0              |
| Griffin Energy           | Bluewaters 3         | WA           | 100.0%               | 208.0        | 208.0              |
| Griffin Energy           | Bluewaters 4         | WA           | 100.0%               | 208.0        | 208.0              |
| <b>Total planned MW</b>  |                      |              |                      | <b>624.0</b> | <b>624.0</b>       |

The financing of the expansion plans of the Griffin Group is discussed in paragraph 7.4.

Based on a weighted coal-fired power generation capacity of 200 MW, we estimate that The Griffin Group has assets with a value of A\$ 164 million invested in Australian coal-fired power generation (see Appendix 1). We estimate that this represents 30% of its total assets.

#### 4.17.2 Financing of The Griffin Group

- **Project finance**

In October 2007 Griffin Power Corp received a syndicated term loan of A\$ 1,015 million (US\$ 884.5 million), consisting of five tranches:

- The first tranche of A\$ 35 million (US\$ 30.5 million) matured in February 2009 and the proceeds were used for repaying the debt for the Bluewaters CFPS's I and II. Amongst the bookrunners were **ANZ Banking Group** and **NAB Capital**, with allotted amounts of US\$ 3 million and US\$ 2 million respectively. **Westpac Banking** was co-manager and had an allotted amount of US\$ 1 million.<sup>224</sup>
- Tranche two was A\$ 200 million (US\$ 174.3 million) and matured in February 2013. The proceeds are used for providing construction and term financing for the 208 MW Bluewaters II power station. Bookrunners **ANZ Banking Group** and **NAB Capital** had allotted amounts of US\$ 20 million and US\$ 12 million respectively, and co-manager **Westpac Banking** had an allotted amount of US\$ 8 million.<sup>225</sup>
- The third tranche of A\$ 127 million (US\$ 110.7 million) will mature in February 2014 and the proceeds are being used for refinancing the A\$ 350 million 208 MW Bluewaters I power station project finance facility. Bookrunners **ANZ Banking Group** and **NAB Capital** had allotted amounts of US\$ 13 million and US\$ 8 million respectively, and co-manager **Westpac Banking** had an allotted amount of US\$ 5 million.<sup>226</sup>
- Tranche four was A\$ 400 million (US\$ 348.6 million) and will mature in February 2018. The proceeds are being used for providing construction and term financing for the 208 MW Bluewaters II power station. Bookrunners **ANZ Banking Group** and **NAB Capital** had allotted amounts of US\$ 39 million and US\$ 24 million respectively, and co-manager **Westpac Banking** had an allotted amount of US\$ 16 million.<sup>227</sup>
- The last tranche of A\$ 253 million (US\$ 220.5 million) matures in February 2019 and identical to the third tranche, the proceeds are used for refinancing the A\$ 350 million 208 MW Bluewaters I power station project finance facility. Bookrunners **ANZ Banking Group** and **NAB Capital** had allotted amounts of US\$ 25 million and US\$ 15 million respectively, and co-manager **Westpac Banking** had an allotted amount of US\$ 10 million.<sup>228</sup>

Overall, the allotted amounts of these banks were as follows:

|                            |              |               |
|----------------------------|--------------|---------------|
| • <b>ANZ Banking Group</b> | US\$ 100 mln | A\$ 126.8 mln |
| • <b>NAB Capital</b>       | US\$ 61 mln  | A\$ 77.4 mln  |
| • <b>Westpac Banking</b>   | US\$ 40 mln  | A\$ 50.7 mln  |

In the first half of 2010, the Griffin Group could not pay bills on corporate debt of about A\$ 2 billion. The failure of the company to repay the loan described above made the three banks mentioned creditors of the company.<sup>229</sup>

## 4.18 Transfield Services

### 4.18.1 Short company profile

Transfield Services Ltd is an Australian company providing operations, maintenance and asset management services in the mining, transport and utility sectors. It operates in Australia, New Zealand, the United States, the United Arab Emirates, Qatar, South East Asia, India and Canada across diverse industries including mining, public transport and power.<sup>230</sup>

Transfield Services has a 48.41% interest in the Transfield Services Infrastructure Fund (TSI Fund) that owns a portfolio of interests in essential infrastructure assets including five power stations, two water filtration plants and three wind farms). In Australia, TSI Fund owns three wind farms (Starfish Hill, Toora, and Windy Hill) with a total capacity of 68 MW. TSI Fund also has coal-fired power generating activities.<sup>231</sup>

Table 48 shows how TSI Fund has interests in two coal-fired power stations in Australia. Overall, TSI Fund has interests in companies producing 2,380.0 MW of coal-fired electricity per year.<sup>232</sup>

**Table 48 Transfield Services coal-fired power capacity in Australia**

| Subsidiary      | Existing CFPS    | State | MW             | Share in CFPS | Weighted MW  |
|-----------------|------------------|-------|----------------|---------------|--------------|
| GEAC            | Loy Yang Power A | Vic   | 2,200.0        | 14.0%         | 308.0        |
|                 | Collinsville     | Qld   | 180.0          | 100.0%        | 180.0        |
| <b>Total MW</b> |                  |       | <b>2,380.0</b> |               | <b>488.0</b> |

As at 30 June 2009 Transfield Services owned assets worth A\$ 1,927.5 million.<sup>233</sup>

As at 30 June 2009, TSI Fund has A\$ 1,332 million of total assets, of which A\$ 855 million were used for its power stations.<sup>234</sup> Coal-fired power stations make up an estimated 60% of its power portfolio, so we estimate that A\$ 513 million is invested in coal-fired power assets. This amounts to 39% of TSI Fund's total assets. As Transfield Services owns 48.13% of TSI Fund, this makes up 13% of Transfield Services' total assets.

### 4.18.2 Bank loans

The following information was found on bank loans provided to Transfield Services by the researched banks since early 2005:

- In February 2005, Transfield Services secured an A\$ 150 million one-year loan. The proceeds from the loan were intended to finance future acquisitions. **ANZ** and **Westpac** were the only two banks participating in the loan, both providing A\$ 75 million.<sup>235</sup>
- In February 2006, Transfield Services secured an A\$ 450 million five-year loan. The proceeds from the loan were intended to refinance Transfield Services' power assets. The following of the researched banks participated in the loan syndicate:<sup>236</sup>
  - **ANZ** A\$ 80 million
  - **Commonwealth Bank of Australia** A\$ 140 million
  - **Westpac** A\$ 80 million

- In July 2007, Transfield Services secured an A\$ 750 million with an international banking syndicate. The loan was split into three tranches: an A\$ 250 million one-year tranche, an A\$ 250 million three-year tranche and an A\$ 250 five-year tranche. The following of the researched banks were among the eight participants in the syndicate:<sup>237</sup>

- **ANZ** A\$ 150 million
- **Westpac** A\$ 135 million

- In November 2007, Transfield Services Infrastructure Fund, secured an A\$ 150 million five-year loan with an international banking syndicate. The proceeds of the loan were intended for general corporate purposes. The following of the researched banks were among the five banks participating in the syndicate with an estimated amount of:<sup>238</sup>

- **ANZ** A\$ 30 million
- **Commonwealth Bank of Australia** A\$ 30 million
- **Westpac** A\$ 30 million

- In April 2008, Transfield Services Infrastructure Fund secured an A\$ 833 million loan with an international banking syndicate. The loan was split into two tranches: an A\$ 800 million three-year tranche and an A\$ 83 million three-year tranche. The proceeds from the loan were intended for refinancing purposes and to complete the acquisitions of the wind farms it bought from the Queensland government in 2007. The following of the researched banks were among the nine banks participating in the first tranche of the loan:<sup>239</sup>

- **ANZ** A\$ 142 million
- **Commonwealth Bank of Australia** A\$ 175 million
- **Westpac** A\$ 105 million

- In June 2010, Transfield Services Infrastructure Fund secured an A\$ 500 million five-year loan. The proceeds of the loan were intended to refinance existing facilities relating to Transfield Services Infrastructure. The following of the researched banks were among the nine banks participating in the loan.<sup>240</sup>

- **ANZ** A\$ 87 million
- **Commonwealth Bank of Australia** A\$ 73 million
- **National Australia Bank** A\$ 67 million
- **Westpac** A\$ 87 million

#### 4.18.3 Share issuances

The following information could be found regarding share issuance services provided to Transfield Services by the researched banks since early 2005:

- In May 2007, Transfield Services Infrastructure Fund issued 136 million shares with a total value of A\$ 286 million. The proceeds of the issue were intended to reduce indebtedness and for capital expenditures. Commonwealth Securities, a subsidiary of **Commonwealth Bank of Australia**, was one of the eight participants in the issue and underwrote and estimated A\$ 30 million.<sup>241</sup>

## 4.19 Western Australia

### 4.19.1 Short profile of Western Australia

Western Australia (WA) is a state of Australia, occupying the entire western third of the Australian continent. Geographically, Australia's largest state and the second largest subnational entity in the world, it has 2.2 million inhabitants (10% of the national total). Western Australia's economy is largely driven by the abundance of natural resources found in the State. Coal mined at Collie is the main fuel for base load electricity generation in the state's south-west.<sup>242</sup>

The Office of Energy of WA leads the development and implementation of policy and programs to meet WA's energy needs. WA possesses abundant fossil fuel resources, particularly coal and natural gas. Black coal accounts for around 49 per cent of total fossil fuel resources within the State. Coal is mined in the Collie basin in the state's South West and is used for domestic use only, mainly for electricity generation. Efforts are also being made to develop an export market for WA coal. The Western Power Corporation, that was directly responsible for producing and distributing WA's energy requirements, was restructured into four separate corporations on 31 March 2006:

- **Synergy** - responsible for the sale of electricity within the South West Interconnected System (SWIS) - the area bound by Kalbarri, Kalgoorlie and Albany;
- **Horizon Power** - the regional business responsible for the generation, transport and sale of electricity in areas outside of the SWIS;
- **Verve Energy** - responsible for power generation within the SWIS; and
- **Western Power** - responsible for operating, maintaining and expanding the electrical transmission and distribution network in the SWIS.

A number of private companies throughout the WA also generate electricity, although some companies do so primarily to supply their own mining, mineral processing or other operations. In 2004, private generation accounted for about 45% of total electricity generation capacity within WA. Synergy and Horizon Power are currently the major suppliers of electricity to the residential and commercial markets, although other suppliers are competing for contestable customers. Contestable customers are those who use more than 50 MWh per year (equating to an annual electricity bill of about A\$ 8,000).<sup>243</sup>

We estimate that Verve Energy accounts for 2% of the loans provided by WATC.

### 4.19.2 Financing of Western Australia

The financing of the Western Australian government is managed by the Department of Treasury and Finance of Western Australia, or the Western Australian Treasury Corporation (WATC). The following information was found on the financing of WATC:

### 4.19.3 Bond issuances

- Each year on 31 October, WATC renews its fixed interest rate bonds for a maximum amount of US\$ 2 billion (A\$ 2.3 billion) under the Euro Medium Term Note Programme. The Notes will be guaranteed by WATC on behalf of the State of Western Australia. Notes will have maturities from 1 month to 30 years from the date of issue and the proceeds are used for general corporate purposes. During the past five years the arranger of this deal has been Crédit Suisse, and amongst the eleven dealers were **Commonwealth Bank of Australia** and **National Australia Bank**, each with estimated allotted amounts of A\$ 41.4 million.<sup>244</sup>

## 4.20 Verve Energy

### 4.20.1 Short profile of Verve Energy

Verve Energy is Western Australia's largest electricity producer with a generating capacity of 2,967 MW. The Government imposed a ceiling on Verve Energy's capacity in order to encourage competition. Verve Energy's installed generating capacity has been capped at 3,000 MW. Verve Energy owns and operates four major coal-fired power stations - Muja (coal), Kwinana (gas, coal and oil), Cockburn (gas), Collie (coal), Pinjar (natural gas and distillate). Verve Energy's smaller coal-fired power stations are situated at Mungarra, West Kalgoorlie, Geraldton and Kwinana and a joint venture power station at the Worsley alumina refinery near Collie. It also has an agreement with the owners of the coal-fired Kemerton Peaking Plant, near Bunbury, to purchase electricity during periods of peak demand.<sup>245</sup>

Verve Energy participates in the Wholesale Electricity Market, which was established in September 2006, competing with privately-owned energy companies in the SWIS. The bulk of our electricity is contracted to Synergy, which sells it to its customers. Outside the SWIS, Verve Energy sells power from wind and wind-diesel systems to Horizon Power.

Coal is used to produce around 70% of the electricity generated by Verve Energy; the remaining electricity is primarily produced by gas, with a small contribution of wind power and bioenergy.

Verve Energy has wind farms at Albany, Esperance, Bremer Bay, Hopetoun, Denham, Kalbarri and Coral Bay. It operates a solar facility at Kalbarri and a pilot biomass plant at Narrogin.<sup>246</sup>

Owned by the State Government, Verve Energy has its own Board which reports to the Minister for Energy.

At the end of June 2009 Verve Energy owned assets with a value of A\$ 1,981 million. The company operates in only one business and geographical segment being the generation and supply of electricity in Western Australia. Therefore it is estimated that the percentage of assets devoted to Australian coal-fired power generation lies close to the share of coal in the company's power portfolio, namely 70% or A\$ 1,387 million

**Table 49 Verve Energy coal-fired power capacity in Australia**

| Subsidiary               | Existing CFPS | State | MW             | Share in CFPS | Weighted MW    |
|--------------------------|---------------|-------|----------------|---------------|----------------|
| Verve Energy             | Collie A      | WA    | 330.0          | 100.0%        | 330.0          |
| Verve Energy             | Muja A,B,C&D  | WA    | 1,040.0        | 100.0%        | 1,040.0        |
| Verve Energy             | Kwinana A,B&C | WA    | 901.0          | 100.0%        | 901.0          |
| <b>Total existing MW</b> |               |       | <b>2,271.0</b> |               | <b>2,271.0</b> |
| Subsidiary               | Planned CFPS  | State | MW             | Share in CFPS | Weighted MW    |
| Verve Energy             | Muja A & B    | WA    | 240.0          | 100.0%        | 240.0          |
| <b>Total planned MW</b>  |               |       | <b>240.0</b>   |               | <b>240.0</b>   |

#### 4.20.2 Financing of Verve Energy

Verve Energy obtains its financing from the WATC. For information on the financing of WATC, see paragraph 4.19.2.

#### 4.21 Conclusion

Table 50 summarizes the investments of the Australian banks of focus in the coal-fired power generation sector in Australia. The table shows that the largest investor in this sector is ANZ, which provided A\$ 549.4 million to the sector since 2005. Other important financiers are Commonwealth Bank and Westpac.

**Table 50 Financing of coal-fired power stations in Australia**

| <b>Bank</b>                    | <b>Total assets (A\$ billion)</b> | <b>Investment in coal-fired power stations (A\$ million)</b> | <b>Investment corrected for total assets</b> |
|--------------------------------|-----------------------------------|--|--|
| ANZ                            | 477.0                             | 649.8  | 136  |
| Bendigo Bank                   | 47.1                              | 0.0  | -  |
| Commonwealth Bank of Australia | 620.4                             | 546.4  | 88   |
| mecu                           | 2.25                              | 0.0  | -  |
| National Australia Bank        | 654.1                             | 382.4  | 58   |
| Suncorp                        | 97.5                              | 17.9   | 18   |
| Westpac                        | 589.6                             | 454.0  | 77   |
| <b>Total</b>                   |                                   | <b>2,050.5</b>   |  |

## Chapter 5 Coal export ports

### 5.1 Expansion projects

The export coal industry in Australia is serviced by nine coal loading terminals located in Queensland and New South Wales. These terminals have a total handling capacity in excess of 330 million tonnes of coal a year (Mtpa), with further expansion planned or in progress.<sup>247</sup> Table 51 summarizes the expansion projects of coal export ports in Australia since 2005. The expansions are taking place in Abbot Point (Queensland), Gladstone (Queensland), Hay Point (Queensland) and Newcastle (New South Wales). While some projects have already been completed, others are in the planning phase. If all projects will be realized, the capacity will initially increase by 317.5 and if some companies have also executed the second phase of their project, capacity will increase by 407.5 Mtpa.

**Table 51 Expansion projects of coal export ports in Australia**

| Subsidiary                                 | Owner(s)  | Name project   | Port             | Additional capacity (Mtpa) | Project cost (A\$ million) | (Estimated) completion | Source |
|--|---|--|------------------|----------------------------|----------------------------|------------------------|--------|
| Hancock Coal                               | Hancock Prospecting   | Alpha Coal   | Abbot Point, QLD | 60                         | -                          | -                      | 248    |
| BHP Billiton                               | BHP Billiton  | Abbot Point Coal Terminal                            | Abbot Point, QLD | 55                         | 2,000                      | -                      | 249    |
| Waratah Coal                               | Waratah Coal Metallurgical Corp. of China   | China First  | Abbot Point, QLD | 40                         | -                          | January 2012           | 250    |
| Xstrata Coal                               | Xstrata   | Balacava Island Coal Export Terminal Project (BICET) | Gladstone, QLD   | 35                         | 1,140                      | 2014                   | 251    |
| BHP Billiton Mitsubishi Alliance (BMA)     | BHP Billiton (50%) Mitsubishi Corporation (50%)   | Hay Point Coal Terminal (HPCT): HPX3 – HPX4          | Hay Point, QLD   | 31                         | -                          | 2015                   | 252    |
| DBCT Management                            | Babcock & Brown Infrastructure  | Dalrymple Bay Coal Terminal                          | Hay Point, QLD   | 30.5                       | 1,500                      | June 2009              | 253    |
| Newcastle Coal Infrastructure Group (NCIG) | BHP Billiton (35.5%) Peabody Energy (17.7%) Felix Resources (15.3%) Donaldson Coal (11.6%) Whitehaven Coal (11.1%) Centennial Coal (8.8%) | Kooragang expansion                                  | Newcastle, NSW   | 30,66                      | 1,000, -                   | 2010, 2013             | 254    |
| WICET Group                                | 17 coal companies (see paragraph 5.6)   | Wiggins Island Coal Terminal                         | Gladstone, QLD   | 25, 70                     | 1,600, 4,400               | 2012, 2020             | 255    |
| Port Waratah Coal Services (PWCS)          | Xstrata (32%) Rio Tinto (26%) Japanese Trading Houses (18%) Japanese Steel Mills (7%) Bloomfield (3%)                                     | Kooragang expansion                                  | Newcastle, NSW   | 11,20                      | 513-674                    | 2009,2011              | 256    |
| <b>Total</b>                               |   |  |                  | <b>317.5, 407.5</b>        |                            |                        |        |

This chapter will discuss all expansion projects as summarized in Table 51. The details of the expansions are summarized for each project. In addition, the role of the Australian banks of focus is assessed, in the form of project finance facilities which are specifically directed to the port expansions.

## **5.2 Abbot Point - BHP Billiton**

### **5.2.1 Expansion**

In April 2010, BHP Billiton won preferred developer status for the construction of a new coal terminal in Abbot Point port. The company is currently in discussion with Australia's Queensland state government on the construction of the terminal. The expansion, called 'X80', would increase capacity from the current 25 Mtpa to around 80 Mtpa at a cost of around A\$ 2 billion.<sup>257</sup> The proposed coal terminal is expected to be connected to Queensland Rail's coal rail system.<sup>258</sup>

### **5.2.2 Project finance**

Because the Abbot Point Coal Terminal project of BHP Billiton is still in a very early stage, no project finance has yet been secured. The Australian banks of focus in this report do not play a role in financing the project (yet).

## **5.3 Abbot Point - Hancock Prospecting**

### **5.3.1 Expansion**

In April 2010, Hancock Coal Pty Ltd (HCPL) won preferred developer status for the construction of a new coal terminal in Abbot Point port. The company plans to build a port with an initial capacity of 30 Mtpa, and aims to increase it to 60 Mtpa.<sup>259</sup> The new port is part of the company's Alpha Coal project, which also includes a mine and a rail corridor.<sup>260</sup>

### **5.3.2 Project finance**

Because the Alpha Coal project is still in a very early stage, no project finance has yet been secured. The Australian banks of focus in this report do not play a role in financing the project (yet).

## **5.4 Abbot Point - Waratah Coal**

### **5.4.1 Expansion**

Waratah Coal plans to construct a 40 Mtpa, two-berth export coal terminal at Abbot Point near Bowen, as part of its broader US\$ 5.15 billion (A\$ 5.86 billion) 'China First' project. This project also includes 490 kilometres of railway line. A key feature of the project is a right to mine 1.4 billion tonnes of coal over the project period. The port is expected to be operational in January 2012. Waratah Coal entered into a Memorandum of Understanding with Metallurgical Corporation of China Ltd (MCC) to develop the project.<sup>261</sup>

### **5.4.2 Project finance**

Waratah Coal and MCC agreed to arrange debt funding of up to 60% of the total capital cost, estimated at US\$ 3.1 billion (A\$ 3.5 billion), from Chinese banks. The Australian banks of focus in this report do not play a role in financing the China First project.

## **5.5 Balaclava Island - Xstrata Coal**

### **5.5.1 Expansion**

Xstrata Coal Queensland (XCQ), a subsidiary of Xstrata Coal, has open cut and underground mining operations in Queensland and manages the Abbott Point coal ship loading terminal. In August 2008, XCQ explored the viability for development of a proposed coal terminal in the vicinity of Port Alma. The most suitable location appeared to be Balaclava Island.<sup>262</sup>

In October 2009 it was announced that Xstrata planned to build a new \$1 billion (A\$ 1.14 billion) coal export terminal on Balaclava Island with an export capacity of up to 35 million tonnes per annum (Mtpa), for shipment to Asian markets. The company hopes to start construction of the port in 2012 and for the facility to be operational by 2014.<sup>263</sup> In May 2010, the Queensland Coordinator General's director gave the project 'State Significant Project' status.<sup>264</sup>

### **5.5.2 Project finance**

Because the Balaclava Island project of Xstrata Coal is still in a very early stage, no project finance has yet been secured. The Australian banks of focus in this report do not play a role in financing the project (yet).

## **5.6 Gladstone - WICET Group**

### **5.6.1 Expansion**

In October 2008, the WICET Group was granted Preferred Proponent status to develop Wiggins Island Coal Export Terminal in Gladstone. The coal terminal would have an initial capacity of 25 Mtpa (by 2012) and a capacity of up to 70 Mtpa in later stages (by 2020). The project cost for the initial expansion is estimated at US\$ 1.3 billion (A\$ 1.6 billion), increasing to US\$ 3.5 billion (A\$ 4.4 billion) in later stages.<sup>265</sup>

WICET is comprised of the following 17 coal companies:

- Anglo Coal Australia
- Argos (Qld)
- Bandanna Energy
- Belvedere Coal Management
- BHP Coal
- BM Alliance Coal Operations
- Caledon Coal
- Cockatoo Coal
- Felix Resources
- Jellinbah Resources
- Macarthur Coal
- Northern Energy Corporation
- QCoal
- Rio Tinto Coal Australia
- Syntech Resources
- Wesfarmers Curragh
- Xstrata Coal Queensland

The Gladstone Ports Corporation (GPC), owned by the State of Queensland, will be the lessor and operator of the facility on behalf of WICET.<sup>266</sup>

### 5.6.2 Project finance

The following information could be found regarding coal-related project finance provided by the researched banks since early 2005:

- The WICET expansion project strives towards reaching financial close in July 2010. **Australia and New Zealand Bank** is financial adviser on the deal. The bank has already had some preliminary discussion with potential lenders.<sup>267</sup> No information is yet available about the banks participating in the facility.

## 5.7 Hay Point - Babcock & Brown Infrastructure

### 5.7.1 Expansion

Dalrymple Bay Coal Terminal in Hay Point port exports thermal and metallurgical coal from central Queensland's Bowen Basin mines to ports around the world. BBI (DBCT) Management Pty Ltd, a subsidiary of Babcock & Brown Infrastructure (BBI), operates the Dalrymple Bay Coal Terminal. The company expanded its capacity from 54.5 Mtpa in 2003 to 85 Mtpa in June 2009. Before this seventh expansion project ('DBCT 7X'), the company already expanded the port six times, from 14.5 Mtpa in 1982. The project cost of the seventh expansion was US\$ 1.2 billion (A\$ 1.5 billion).<sup>268</sup>

### 5.7.2 Project finance

According to DBCT Management, approximately 70% of cost of the DBCT 7X expansion was funded by debt. The following information could be found regarding coal-related project finance provided by the researched banks since early 2005:

- In June 2006 BBI (DBCT) Finance Pty Ltd issued a new A\$ 680 million note facility to fund the first stage of its coal loader expansion. The notes were issued in four tranches: 10-year fixed-rate notes, 10-year floating-rate notes, 15-year floating-rate notes and 20-year floating rate notes. **Commonwealth Bank of Australia** acted as joint bookrunner of the issuance, underwriting an estimated A\$ 340 million.<sup>269</sup>
- In February 2008 BBI (DBCT) Finance Pty Limited secured a A\$ 574 million term loan to fund phase 2/3 of its DBCT 7X Dalrymple Bay Coal Loader project. The loan was divided in two tranches: a three-year A\$ 287 million term loan and a five-year A\$ 287 million term loan. The following Australian banks participated in this project finance facility:<sup>270</sup>

- |   |                 |
|---|-----------------|
| • <b>Australia and New Zealand Bank</b> | A\$ 100 million |
| • <b>Westpac Banking</b>                | A\$ 220 million |

## 5.8 Hay Point - BHP Billiton Mitsubishi Alliance

### 5.8.1 Expansion

In January 2010 it was announced that BHP Billiton Mitsubishi Alliance (BMA) planned to increase the capacity of its Hay Point coal terminal from 44 Mtpa to about 55 Mtpa through the 'HPX3' expansion plan, to be completed in 2015. A potential further stage (HPX4) would increase capacity from 55 Mtpa to approximately 75 Mtpa. The company is currently progressing Owner and Government approvals. The owners of BMA are BHP Billiton (50%) and Mitsubishi Corporation (50%).<sup>271</sup>

### 5.8.2 Project finance

In January 2010 BHP Billiton announced US\$ 267 million (A\$ 289 million) of pre-approval capital expenditure to accelerate the development of the Caval Ridge and Hay Point Coal Terminal Stage 3 Expansion (HPX3) projects. The funds would be used for feasibility studies, the procurement of long-lead time items and initial project activities.<sup>272</sup> No information could be found regarding project finance provided by the Australian banks of focus in this report.

## 5.9 Newcastle - Port Waratah Coal Services

### 5.9.1 Expansion

Kooragang Coal Terminal, located on 255 hectares of land on Kooragang Island in New South Wales, began operating in 1984. Originally managed by BHP, the coal terminal was purchased by Port Waratah Coal Services (PWCS) in 1990. From 1994, PWCS invested over one billion dollars to expand the capacity of the terminal.<sup>273</sup>

In late 2009 PWCS completed its so-called 'Project 3Exp' expansion of the Kooragang Coal Terminal, increasing capacity by 11 Mtpa for a cost of US\$ 458 million (A\$ 513 million) to reach a capacity of 113 Mtpa. In February 2010, the company approved further investment in the expansion of the Kooragang Coal Terminal. This project, known as 'Project MPC' (Master Plan Completion) would increase total capacity by an additional 20 Mtpa to 133 million tonnes by the end of 2011. The costs of Project MPC amount to US\$ 596 million (A\$ 674 million).<sup>274</sup>

PWCS is owned by:<sup>275</sup>

|                           |     |
|---------------------------|-----|
| • Xstrata                 | 32% |
| • Rio Tinto               | 26% |
| • Japanese trading houses | 18% |
| • Japanese steel mills    | 7%  |
| • Bloomfield              | 3%  |

### 5.9.2 Project finance

The following information could be found regarding coal-related project finance provided by the researched banks since early 2005:

- In May 2010 PWCS secured an A\$ 100 million term loan to finance the expansion of its coal export terminal. The maturity of the facility is September 2014. **Commonwealth Bank of Australia** provided the entire amount of the loan.<sup>276</sup>

## 5.10 Newcastle - Newcastle Coal Infrastructure Group

### 5.10.1 Expansion

In the first half of 2010, the consortium Newcastle Coal Infrastructure Group (NCIG) opened a new coal terminal on Kooragang Island in Newcastle port with a capacity of 30 Mtpa. The company spent more than A\$ 1 billion on the new terminal. The first cargo of coal was shipped in June 2010.<sup>277</sup> NCIG also has development approval to expand the new terminal further to 66 million tonnes per year by 2013.<sup>278</sup>

NCIG is owned by:<sup>279</sup>

|  |       |
|--|-------|
| • BHP Billiton                         | 35.5% |
| • Peabody Energy                       | 17.7% |
| • Felix Resources                      | 15.3% |
| • Donaldson Coal, owned by Noble Group | 11.6% |
| • Whitehaven Coal                      | 11.1% |
| • Centennial Coal, owned by Banpu      | 8.8%  |

### 5.10.2 Project finance

The following information could be found regarding coal-related project finance provided by the researched banks since early 2005:

- In January 2008 NCIG secured an A\$ 1,465 million term loan to finance the construction of its coal loader and the associated infrastructure. The loan was split into six tranches: an A\$ 800 million three-year term loan, an A\$ 270 million 15-year mezzanine debt facility, a A\$ 265 million three-year term loan, an A\$ 75 million three-year revolver an A\$ 30 million one-year working capital facility and an A\$ 25 million three-year letter of credit. Among the seven arrangers of the facility were **Australia and New Zealand Bank** and **Suncorp**, each providing an estimated A\$ 209 million.<sup>280</sup>
- In May 2010 NCIG announced that it expected to reach financial close within weeks with its 14 member banking group for an A\$ 2.2 billion facility to fund the coal loader expansion. The senior facility would be a club loan, which means that only banks that already have a relationship with the company participate. The loan allocates A\$ 200 million in the top range and A\$ 75 million at the bottom. **Australia and New Zealand Bank**, which was in the initial deal, would also be part of the new 14-bank club. However, the deal has not yet been closed.<sup>281</sup>

## 5.11 Conclusion

Table 52 summarizes the investments of the Australian banks of focus in coal export port expansions Australia. In total, the banks have provided A\$ 1.2 billion to the sector since 2005. The table shows that the largest investor is Commonwealth Bank of Australia, which provided A\$ 440 million to the sector since 2005. Other important financiers are ANZ, Westpac and Suncorp.

**Table 52 Financing of coal export port expansions in Australia**

| <b>Bank</b>                    | <b>Total assets (A\$ billion)</b> | <b>Investment in coal export ports (A\$ million)</b> | <b>Investment corrected for total assets</b> |
|--------------------------------|-----------------------------------|--|--|
| ANZ                            | 477.0                             | 309.0  | 64.8   |
| Bendigo Bank                   | 47.1                              | 0.0  | -  |
| Commonwealth Bank of Australia | 620.4                             | 440.0  | 70.9   |
| mecu                           | 2.3                               | 0.0  | -  |
| National Australia Bank        | 654.1                             | 0.0  | -  |
| Suncorp                        | 97.5                              | 209.0  | 214.4  |
| Westpac                        | 589.6                             | 220.0  | 37.3   |
| <b>Total</b>                   |                                   | <b>1,178.0</b>                                       |  |

## Chapter 6 Renewable energy

### 6.1 Introduction

At the end of 2009 Australia a total renewable energy capacity of 10,824 MW was in operation in Australia.<sup>282</sup> Table 53 gives an overview of the ten companies that account for 93% of this renewable energy capacity. These are either companies that solely generate renewable energy or companies with a mixed generating portfolio.

For each company, the amount of assets devoted to renewable energy in Australia as well as the percentage of these assets in relation to total assets is presented. These numbers give an indication about the relative importance of renewable energy activities in Australia for a company. For some companies, the amount of assets devoted to Australian renewable energy was unknown. Table 58 summarizes all companies for which the amount was known. For these companies, the average amount of assets devoted to Australian renewable energy capacity per MW is A\$ 1.43 million. To calculate the amount of Australian renewable energy assets for companies with no available information, this average was multiplied by the production capacity of a company.

**Table 53 Energy companies producing renewable energy in Australia**

| Company                      | Subsidiary                   | Energy sources         | Renewable prod. cap. in Aus. (MW) | % of total Aus. renewable energy prod. cap. | Aus. renewable energy assets (A\$ million) | as % of total assets |
|------------------------------|------------------------------|------------------------|-----------------------------------|---|--|----------------------|
| Snowy Hydro                  | Snowy Hydro                  | Hydro                  | 3,756                             | 35%   | 2,054                                      | 86%                  |
| Hydro Tasmania               | Hydro Tasmania               | Hydro, wind            | 2,510                             | 23%   | 5,213                                      | 100%                 |
| AGL Energy                   | AGL Energy                   | Hydro, wind, gas, coal | 1,340                             | 12%   | 3,230                                      | 34%                  |
| Infigen                      | Infigen                      | Wind                   | 508                               | 5%  | 1,402                                      | 32%                  |
| Queensland government        | Tarong Energy                | Hydro, coal            | 500                               | 5%  | 275  | 13%                  |
| New South Wales government   | Eraring Energy               | Wind, hydro, coal      | 402                               | 4%  | 248  | 13%                  |
| IFM                          | Pacific Hydro                | Wind, hydro            | 303                               | 3%  | n/a  | 29%                  |
| Acciona                      | Acciona Energy               | Wind, solar            | 225                               | 2%  | 485  | 3%                   |
| CSR                          | Sucrogen                     | Bio-ethanol            | 171                               | 2%  | 245  | 6%                   |
| Infrastructure Capital Group | Infrastructure Capital Group | Wind, gas, coal        | 162                               | 1%  | 325  | 33%                  |
| <b>Total top-10</b>          |                              |                        | <b>9,877</b>                      | <b>91%</b>                                  |  |                      |
| Others                       |                              |                        | 947                               | 9%  |  |                      |
| <b>Total</b>                 |                              |                        | <b>10,824</b>                     | <b>100%</b>                                 |  |                      |

Source: Websites of the listed companies, Viewed in July 2010; Australian Government, "List of Renewable Power Projects".

As Table 53 shows, the three largest companies producing renewable energy together account for 70% of the total renewable capacity of Australia. The other only account for a small part each. Together, the top-10 companies account for 93% of the total capacity.

The next paragraphs of this chapter will discuss the companies listed in Table 53 separately and will discuss their financing.

## **6.2 Acciona**

### **6.2.1 Short profile of Acciona**

The Spanish company Acciona develops and manages infrastructure, logistics and airport services and has interests in waste management, energy and real estate through its different subsidiaries and its presence in 30 different countries. One of its subsidiaries, Acciona Energy, is the world third-largest renewable energy company with a total installed capacity of 7,437 MW, of which 7,337 MW renewables in 2009.<sup>283</sup> Acciona is controlled by chairman José Manuel Entrecanales and his family through Grupo Entrecanales.

In Australia Acciona owns the 192 MW Waubra wind farm located West of Ballarat in Victoria. The wind farm began generating green power in February 2009 and was fully operational from July 2009.<sup>284</sup> Acciona also owns a 50% stake in the Cathedral Rocks Wind Farm, located in South Australia, which has a capacity of 66 MW. The other 50% is owned by Roaring 40s, a partnership between Hydro Tasmania (see paragraph 6.6) and CLP Group (see paragraph 3.6).<sup>285</sup>

Total renewable energy capacity of Acciona in Australia therefore now amounts to 225 MW. But the company has expansion plans: Acciona Energy has approval to build a 50 MW wind farm at Woodlawn, NSW a 24 MW wind farm at Berrimal, Victoria, a 46MW wind farm at Gunning NSW and a 22 MW wind farm at Newfield in Victoria.<sup>286</sup>

At the end of 2009, Acciona owned assets with a total value of € 20.5 billion. Acciona Energy accounted for € 10.0 billion of this. As Australia accounts for 3.0% of Acciona Energy's total energy generating capacity, we estimate that 3.0% of Acciona's assets can be attributed to renewable energy projects in Australia. This equals € 302 million (A\$ 485 million).<sup>287</sup>

### **6.2.2 Financing of Acciona**

No information could be found regarding financing of Acciona by the researched banks.

## **6.3 AGL Energy**

### **6.3.1 Short profile of AGL Energy**

AGL Energy is Australia's leading renewable energy company and is Australia's largest private owner, operator and developer of renewable generation assets. AGL has a diverse power generation portfolio including base, peaking and intermediate electricity production plants. These are spread across traditional energy sources (e.g. gas and coal) as well as renewable sources (including hydro, wind, landfill gas and biogas). AGL also operates retail, merchant energy and upstream gas businesses and has over three million customer accounts. Renewable energy accounts for about 34% (1,340 MW) of AGL Energy's total generation capacity, which was 3,940 MW over 2009.<sup>288</sup>

AGL Energy is listed on the Australian Stock Exchange since 2006. As at June 2009 the company's assets were worth A\$ 9.5 billion.<sup>289</sup> When taking 34% of these assets, we can estimate that A\$ 3.2 billion was invested by AGL Energy in renewable energy in Australia.

### 6.3.2 Financing of AGL Energy

For the financing of AGL Energy see paragraph 3.2.

## 6.4 CSR

### 6.4.1 Short profile of CSR

CSR Ltd (CSR) is a large diversified manufacturing company with operations throughout Australia as well as in Asia and New Zealand. Through its three principal businesses, CSR is a leading supplier of building products and sugar and holds an effective 25% interest in the Tomago aluminium smelter.<sup>290</sup>

CSR is involved in sugar and renewable energy businesses through its subsidiary Sucrogen (previously CSR Sugar). Sucrogen participates across all aspects of the sugar value chain including cane products, sweeteners and bioethanol. As Australia's largest sugar producer, Sucrogen has seven mills located in some of Australia's most productive sugarcane regions. Sucrogen generates electricity at each of this seven sugar mills using the by-product of cane sugar production, bagasse. With a capacity of 171 MW, Sucrogen is Australia's largest renewable energy generator from biomass.<sup>291</sup>

In July 2010 it has been announced that Wilmar International (Singapore) has entered into an agreement to buy Sucrogen from CSR for a value of A\$ 1,750 million, comprising A\$ 1,347 million in equity and A\$ 403 million of net debt. The transaction is expected to be completed around the end of September 2010. The effective date of acquisition is 1 April 2010.<sup>292</sup>

As at 31 March 2010, CSR owned assets with a total value of A\$ 3,875 million. CSR's sugar and renewable energy business (Sucrogen) accounted for A\$ 1,445 million.<sup>293</sup> Based on average investment costs for renewable energy per MW, we estimate that assets with a total value of A\$ 245 million - equalling 6% of CSR's total assets - are related to renewable energy production.

### 6.4.2 Shareholders

As at July 2010 CSR has a total of 1,515 million shares outstanding.<sup>294</sup> As at 31 April 2010, **National Australia Bank** had an interest in 76 million shares, which represented 5.02% of CSR's issued capital.<sup>295</sup> When multiplying this amount by the current share price, the value of the investment is A\$ 135 million.

### 6.4.3 Investment banking services

The following information was found regarding investment banking services provided to CSR by the researched banks:

- CSR has a set-off arrangement of cash balances with **Commonwealth Bank of Australia**.<sup>296</sup>

## **6.5 Eraring Energy**

### **6.5.1 Short profile of Eraring Energy**

Eraring Energy is an Australian energy company owned by the government of New South Wales. Eraring Energy (Eraring) generates a part of its capacity through renewable sources. This is generated from wind farms, hydro power stations and pumped storage stations in New South Wales. Eraring Energy operates two wind farm sites: Crookwell, with a total generation capacity of 4.8 MW and Blayney, with a total generation capacity of 9.9 MW. Additionally, Eraring operates six hydro power stations: Burrinjuck, Keepit, Hume, Brown Mountain, Shoalhaven (incorporating Kangaroo Valley and Bendeela power stations) and Warragamba. In total these hydro and wind power station have a capacity of 402 MW, which comprises 13% of the total generating capacity of Eraring Energy.<sup>297</sup>

At the end of the financial year 2008-2009 Eraring Energy had total assets of A\$ 1,911.3 million. Since it only operates in the business segment of electricity generation within Australia,<sup>298</sup> we estimate that 13% of assets, A\$ 248 million, are devoted to power generation from renewable sources.

### **6.5.2 Financing of Eraring Energy**

For the financing of the government of New South Wales see paragraph 4.7.

## **6.6 Hydro Tasmania**

### **6.6.1 Short profile of Hydro Tasmania**

Hydro Tasmania is Australia's leading renewable energy business. It provides renewable energy to the national grid and trades energy and environmental products in the National Electricity Market. Hydro Tasmania Consulting provides energy and water solutions for hydropower and renewable energy, dams, catchment management, environment and power engineering in the Asia-Pacific region.<sup>299</sup>

Hydro Tasmania's hydro-power scheme is an integrated system of 29 hydro power stations, numerous lakes and over 50 large dams. Its total hydro capacity was 2,270 MW in 2009. Additionally, Hydro Tasmania owns the King Island Huxley Hill Wind Farm and two diesel power stations on King and Flinders Islands in Bass Strait. It holds further wind farm interests as joint owner of Roaring 40s Pty with CLP Group (see paragraph 3.6). Roaring 40s has an operated capacity of 260 MW and a further 609 MW planned. Total energy generating capacity of Hydro Tasmania - exclusively renewable - is 2,510 MW.<sup>300</sup>

Hydro Tasmania also owns 100% of Momentum Energy, the only electricity retailer in Victoria to specialise in servicing small to medium business customers. Hydro Tasmania is a Government Business Enterprise, owned by the State of Tasmania.<sup>301</sup>

As at June 2009, Hydro Tasmania's assets were worth about A\$ 5.213 million.<sup>302</sup> As 100% of Hydro Tasmania's capacity consists of renewable energy production in Australia we can assume that this whole amount was invested in renewable energy in Australia.

### **6.6.2 Project finance**

The following information was found on project finance provided to Hydro Tasmania by the researched banks since early 2005:

- In April 2005, Hydro Tasmania received project finance for more than A\$ 80 million from **National Australia Bank** to finance its wind farm at Woolnorth in North West Tasmania. Hydro Tasmania used its internal funds to build the wind farm and has now secured project finance for the next 10 years. Before 2005, **National Australia Bank** also financed the construction of Roaring 40s' Cathedral Rocks.<sup>303</sup>

## 6.7 Infigen

### 6.7.1 Short profile of Infigen

Infigen Energy is a leading Australian independent renewable energy business with interests in 35 wind farms across Australia, the United States and Germany. Wind energy is the only segment that Infigen operates in. Infigen Energy, formerly called Babcock & Brown Wind Partners, was formed in June 2003 and was listed on the Australian Securities Exchange (ASX) in October 2005.<sup>304</sup>

Infigen Energy's Australian portfolio consists of the Lake Bonney 1, Lake Bonney 2, Lake Bonney 3, Alinta and Capital wind farms. Present generating capacity is 508.3 MW, when Lake Bonney 3 comes on stream another later this year. This amounts to 32% of the Infigen's total generating capacity (1,598.7 MW) at the end of September 2009.<sup>305</sup>

As at 30 June 2009 Infigen owned assets worth A\$ 4,408 million. Infigen's assets in Australia amount to a total A\$ 1,383 million.<sup>306</sup> This equals around 31%.

### 6.7.2 General corporate loans

The following information could be found regarding general corporate loans provided by the researched banks to Infigen since early 2005:

- In 2007 Infigen secured a 15 year global credit facility in place with a consortium of 17 banks. At the end of June 2009, A\$ 1,538 million was outstanding. **Westpac Banking** and **Commonwealth Bank of Australia** participated in the facility with an estimated A\$ 90 million.<sup>307</sup>

## 6.8 Infrastructure Capital Group

### 6.8.1 Short profile of Infrastructure Capital Group

Infrastructure Capital Group (ICG) is a specialist adviser and investment manager across all sectors of energy, infrastructure and utilities markets. It has teams based in Sydney and Melbourne. Until June 2009, Infrastructure Capital Group was called ANZ Infrastructure Services and was 80% owned by the **ANZ Banking Group**. The company was renamed after it was sold to an investors group: Mike Fitzpatrick (50%), John Clark (40%) and Less Fallick (10%).<sup>308</sup>

ICG manages two special purpose investment trusts for managing investments in infrastructure: the Energy Infrastructure Trust (EIT) and the Diversified Infrastructure Trust (DIT). Investors in the trust are more than 20 superannuation schemes, such as Military Super & Benefits Scheme, Catholic Super and AGEST. Total assets under management in the two funds amounts to A\$ 1 billion.<sup>309</sup> EIT is an open-ended unlisted unit trust established in February 2003. The fund acquires and develops energy-related utility and infrastructure assets predominantly in Australia and New Zealand. The current EIT portfolio includes steam plants, electricity and gas power stations, gas pipelines, bio-diesel fuel plants, and wind farms. The two wind farms EIT owns in Australia have a total capacity of 162 MW. The 91 MW Wattle Point Wind Farm was bought from Alinta in April 2007. EIT has funded this acquisition from existing equity reserves.<sup>310</sup> The other wind farm, Hallett 2, with a capacity of 71 MW, was sold to EIT in August 2008 by AGL.<sup>311</sup> In addition to these two wind farms, EIT has interests in four fossil-fuel power station projects in Western Australia and Queensland. Total generation capacity of EIT-owned energy projects in Australia is around 990 MW.

ICG bought the Wattle Point Wind Farm for A\$ 225 million and the Hallett 2 Wind Farm for A\$ 100 million.<sup>312</sup> As the company has approximately A\$ 1,000 million in funds under management<sup>313</sup>, we estimate that 33% of total assets is invested in renewable energy.

### **6.8.2 Share ownership**

**ANZ** owned 80% of ICG until September 2009. As the company was sold for approximately A\$ 30 million<sup>314</sup>, we estimate ANZ's investment at A\$ 24 million.

### **6.8.3 Banking services**

Although ANZ no longer owns ICG, the company is still collaborating with ANZ's investment banking team and **ANZ** still is the banker of ICG. Specific loan amounts are not found.<sup>315</sup>

## **6.9 Pacific Hydro**

### **6.9.1 Short profile of Pacific Hydro**

Pacific Hydro is an Australian company specialising in hydroelectric and wind farm projects. Pacific Hydro currently has 1,057 MW of hydro power and wind farm projects in construction or operation in Australia, Chile, Brazil and the Philippines. It also produces and trades carbon credits.

In Australia the company has 303 MW of hydro and wind projects in construction or operation across Western Australia, South Australia and Victoria and five operating wind farms in Victoria. 29% of Pacific Hydro's generation capacity is thus based on renewable energy projects in Australia. Beyond wind, Pacific Hydro will continue to assess opportunities for conventional geothermal energy through the licences it holds in the Great Artesian Basin in South Australia.<sup>316</sup>

Since 2005 Pacific Hydro is a wholly owned subsidiary of the Australian Infrastructure Fund (AIF), which had invested 43% of its total assets in renewable at the end of 2009. When we assume that Pacific Hydro accounts for 100% of this, we estimate that 12% of AIF's assets is invested in renewable energy in Australia.

AIF is managed by Industry Funds Management (IFM). IFM is an investment management company specialising in the management of private investment products across private equity, infrastructure, private debt, specialised property as well as listed equity portfolios. At the end of March 2010, IFM assets under management totalled A\$ 22.5 billion.

IFM is wholly owned by 36 major Australian industry superannuation funds (i.e. member owned pension funds) who are also IFM's major clients.<sup>317</sup>

## 6.9.2 Shareholders

As at July 2010, AIF had 621 million shares outstanding. Colonial First State, a subsidiary of the **Commonwealth Bank of Australia**, owned 9.4 million of these shares as at August 2009, which represents 1.52% of the total shares. When multiplying the number of shares by the current share price, the total value of the investment amounts to A\$ 15.8 million.<sup>318</sup>

## 6.9.3 Project finance

The following information could be found regarding bank loans provided to Pacific Hydro by one or more of the researched banks:

- In December 2008 Pacific Hydro secured an A\$ 262 million loan. The loan was split into four tranches: an A\$ 90 million three-year tranche, an A\$ 60 million three-year tranche, an A\$ 45 million three-year tranche and an A\$ 67 million three-year tranche. The proceeds of the A\$ 90 million and the A\$ 60 million tranche were intended to refinance existing debt. The proceeds of the A\$ 45 million tranche and the A\$ 60 million tranche were intended to fund the construction of the Portland wind farm in Victoria and the Clements Gap wind farm respectively. The amounts provided by the following Australian banks specifically for the renewable energy division of Pacific Hydro are:<sup>319</sup>

- |                                  |                |
|----------------------------------|----------------|
| • <b>ANZ</b>                     | A\$ 24 million |
| • <b>National Australia Bank</b> | A\$ 24 million |
| • <b>Westpac</b>                 | A\$ 24 million |

The amounts provided for refinancing of debt are:

- |                                  |                |
|----------------------------------|----------------|
| • <b>ANZ</b>                     | A\$ 32 million |
| • <b>National Australia Bank</b> | A\$ 32 million |
| • <b>Westpac</b>                 | A\$ 32 million |

## 6.10 Snowy Hydro

### 6.10.1 Short profile of Snowy Hydro

Snowy Hydro is a renewable energy generator and one of the largest producers and traders of Renewable Energy Certificates. It only operates in Australia and is based in New South Wales and Victoria. The company currently employs over 640 people. Snowy Hydro provides clean, renewable hydro electricity to its wholly owned energy retailer, Red Energy. The company is owned by the government of New South Wales (58%), the government of Victoria (29%) and the federal government (13%).

Snowy Hydro owns, manages and maintains the Snowy Mountains Hydro-electric Scheme, which consists of seven power stations, 31 generating units and sixteen large dams located mainly in the Kosciuszko National Park (New South Wales), and has a capacity of 3,756 MW. Snowy Hydro also owns two gas-fired power stations in Victoria; a 320 MW power station at Laverton North and Valley Power, a 300 MW power station in the Latrobe Valley.<sup>320</sup> This brings the total capacity of Snowy Hydro to 4,376 MW in Australia.

As at July 2009, Snowy Hydro owned total assets of A\$ 2,388 million.<sup>321</sup> As 86% of Snowy Hydro's capacity is generated through renewable energy sources, we estimate that A\$ 2,054 million of its total assets are devoted to power generation from renewable sources.

### 6.10.2 Bank loans

The following information could be found regarding bank loans provided to Snowy Hydro by the researched banks since early 2005:

- In October 2006 Snowy Hydro secured an A\$ 250 million three-year revolving credit facility. The proceeds of the loan were intended to refinance existing bank facilities, for working capital and for other general corporate purposes. **ANZ Bank** and **Westpac Bank** both provided A\$ 125 million.<sup>322</sup>

## 6.11 Tarong Energy

### 6.11.1 Short profile of Tarong Energy

Tarong Energy is an Australian power generator established in 1997. The company is owned by the Queensland government. Tarong Energy owns a diverse mix of generation assets, with a total capacity of 2,343 MW, as well as mining assets and coal resources. Part of Tarong Energy's capacity is generated through its Wivenhoe Power Station. Wivenhoe Power Station is a pumped storage hydroelectric plant and has a capacity of 500 MW. The power station is located on the eastern side of Wivenhoe Dam, about 90 kilometres north-west of Brisbane. As Tarong Energy's total generation capacity stood at 2,343 MW at the end of June 2009, the renewable share stood at 21%.<sup>323</sup>

At the end of June 2009 Tarong Energy owned consolidated assets of A\$ 2,087.5 million.<sup>324</sup> In paragraph 3.16.1 we estimated that A\$ 778.4 million of Tarong Energy's assets is devoted to coal mining. Of the other A\$ 1,309 million, we estimate that 21% (A\$ 275 million) is devoted to renewable energy. This equals 13% of total assets.

### 6.11.2 Financing of Tarong Energy

Borrowings of Tarong Energy are sourced from QTC unless specific approval is granted under the Public Authorities (Financial Arrangements) Act 1987 to source private borrowings. No information was found on financing provided directly to Tarong Energy.

Of all the loans of the Queensland Treasury Corporation, 1.01% is directed to Tarong Energy. Because 13% of the company's assets are devoted to renewable energy generation, 0.1% of the finance of Tarong Energy is directed to the Australian renewable energy assets of Tarong Energy. For the financing of the Queensland Treasury Corporation see paragraph 4.11.

## 6.12 Conclusion

Table 54 summarizes the investments of the Australian banks of focus in the renewable energy sector in Australia. In total, the banks have provided A\$ 783.5 million to the sector since 2005. The table shows that the largest investor is Westpac, which provided A\$ 291 million to the sector since 2005. Other important financiers are ANZ and National Australia Bank.

**Table 54 Financing of renewable energy in Australia**

| <b>Bank</b>                    | <b>Total assets (A\$ billion)</b> | <b>Investment in renewable energy (A\$ million)</b> | <b>Investment corrected for total assets</b> |
|--------------------------------|-----------------------------------|---|--|
| ANZ                            | 477.0                             | 276.0   | 58   |
| Bendigo Bank                   | 47.1                              | 0.0   | -  |
| Commonwealth Bank of Australia | 620.4                             | 77.1  | 12   |
| mecu                           | 2.3                               | 0.0   | -  |
| National Australia Bank        | 654.1                             | 139.9   | 21   |
| Suncorp                        | 97.5                              | 0.0   | -  |
| Westpac                        | 589.6                             | 290.5   | 49   |
| <b>Total</b>                   |                                   | <b>783.5</b>  |  |

## Chapter 7 Planned coal-fired power stations

### 7.1 Introduction

Table 55 summarizes 10 coal-fired power stations (CFPS's) which are currently planned to be built in Australia. Together, these projects have planned an additional capacity of almost 8 GW. The two largest projects are owned by the NSW government.

**Table 55 Planned coal-fired power stations in Australia**

| Company                            | Subsidiary                   | Country                  | Planned CFPS                | (Planned) effective MW |
|------------------------------------|------------------------------|--------------------------|-----------------------------|------------------------|
| NSW Government                     | Delta Electricity            | Australia                | Mt Piper 2                  | 2,100                  |
| NSW Government                     | Macquarie Generation         | Australia                | Bayswater B                 | 2,000                  |
| Waratah Coal                       | Galilee Power                | Australia                | Galilee (Phase 1 & Phase 2) | 900                    |
| Altona Energy, CNOOC               | Arckaringa Energy, CNOOC-NEI | Australia, China         | Arckaringa CTL              | 560                    |
| HRL                                | Dual Gas Pty                 | Australia                | HRL                         | 550                    |
| Queensland Government              | ZeroGen                      | Australia                | ZeroGen                     | 530                    |
| Aviva Corporation, AES Corporation | -                            | Australia, United States | Coolimba                    | 400                    |
| GE Energy, Stanwell Corporation    | -                            | United States, Australia | Wandoan                     | 400                    |
| The Griffin Group                  | Griffin Coal                 | Australia                | Bluewaters 3                | 208                    |
| The Griffin Group                  | Griffin Coal                 | Australia                | Bluewaters 4                | 208                    |
| Strike Oil                         | Hybrid Energy Australia      | Australia                | FuturGas                    | 40                     |
| <b>Total</b>                       |                              |                          |                             | <b>7,896</b>           |

The following paragraphs will describe the projects listed in Table 55. For each project, it was researched which banks are involved in, or will potentially become involved in financing the coal-fired power plant.

### 7.2 Arckaringa

#### 7.2.1 Project

The Arckaringa Coal-to-Liquids and Power Project is a proposal by Altona Energy for an integrated 10 million barrel per year Coal to Liquid (CTL) plant with a 560 MW co-generation power facility. The project is supported by an open-cut coal mine.

Altona Energy Plc is an Australia-based energy company listed on the AIM stock exchange. The company's principal asset consists of three exploration licenses in the Arckaringa Basin in South Australia, including three coal deposits which contain more than 7.8 billion tonnes of coal. An interest of 51% in the exploration licences was transferred to CNOOC-NEIA, the Australian subsidiary of the Chinese company CNOOC, with Arckaringa Energy retaining 49%. In return, CNOOC-NEIA acts as the operator and takes responsibility for assessing the full potential of the coal resource. The company will also fund the bankable feasibility study (BFS) for the project. This study is expected to take between 12 and 15 months.<sup>325</sup>

## **7.2.2 Financing**

Under the agreement, CNOOC-NEIA will fund the bankable feasibility study ('phase 1') for Arckaringa, estimated at A\$ 50 million, with the aim of eventually developing the multi billion-dollar project.<sup>326</sup>

When one or more projects will be constructed ('phase 2'), one or more new joint-ventures will be set up. The share of CNOOC in these joint-ventures can be up to 70%, with Altona Energy taking the remainder of the shares. Both companies will contribute debt and equity equivalent to their share in the project. CNOOC will take the lead in raising the project finance.<sup>327</sup>

In its investor presentation of February 2010, Altona Energy mentions that it has received support for the Arckaringa project from major shareholder **Invesco** (United States), which owns 18.4% of the company.<sup>328</sup>

## **7.3 Bayswaters B**

### **7.3.1 Project**

Macquarie Generation (see paragraph 4.8) has completed a feasibility study on a new coal-fired generating plant in the Hunter Valley, known as Bayswaters B. The 2,000 MW station would be powered by either coal (using ultra-supercritical generating technology) or natural gas (using combined cycle generating technology). The project was approved by the NSW government in March 2010. The proposed project has a preliminary estimated value of between A\$ 2.6 and A\$ 5 billion.<sup>329</sup>

### **7.3.2 Financing**

No information was found on how the Bayswaters B project will be financed. But as Macquarie Generation is owned by the government of NSW and its financing is coming exclusively from the New South Wales Treasury Corporation (NSW TCorp), it is very likely the new project will be financed by bond issuances by NSW TCorp. For an overview of the banks involved in these issuances, see paragraph 4.7.

## **7.4 Bluewaters 3 and 4**

### **7.4.1 Project**

The Bluewaters power station expansion, proposed by the Griffin Group (see paragraph 4.17) comprises two new coal-fired, base-load generators, each with a capacity of 208 MW. If realized, the new generators would increase the facility's total output to approximately 830 MW. The first two units, Bluewaters I and II, are already in use. The two proposed new units were planned for completion in 2013 and 2015 respectively.<sup>330</sup>

At the end of 2009, Griffin Coal became financially in trouble, because the company was unable to sell its coal production. Griffin Coal would start the sale of its coal mines and stake in its Bluewaters Power Project by June 2010.<sup>331</sup> The Bluewaters power station and the Emu Downs wind farm at Cervantes together are carrying about A\$ 1.2 billion in debt.<sup>332</sup> If the Bluewaters expansion will ever be realized, it will probably be executed by a different company.

## 7.4.2 Financing

No information could be found on project finance provided to phase III and IV of the Bluewaters Power Station. Phase I and II were financed by a credit facility (see paragraph 4.17) from a large syndicate of 15 banks, with bookrunners ANZ, National Australia Bank, Societe Generale Australia, and WestLB.<sup>333</sup> It is uncertain if these banks will also finance the new phases of the expansion, since the future ownership of the power station is uncertain.

## 7.5 Coolimba

### 7.5.1 Project

The Coolimba Power project is a 400 MW power station in Western Australia, proposed by Aviva Corporation (Australia) and AES Corporation (United States). In September 2008, Aviva and AES entered into a Joint Development Agreement (JDA) for the project. Up to and including the completion of financing, the control of the project will be shared equally. Construction of the power plant is planned to commence in 2010 and will extend over three years for completion in 2013/14.<sup>334</sup> The total investment in Coolimba Power is expected to be A\$ 1 billion.<sup>335</sup>

### 7.5.2 Financing

Aviva and AES Corporation both pay 50% of the developers fee of the project. AES Corporation will reimburse Aviva for past expenses capped at A\$ 7 million and AES will make staged payments to Aviva for the initial assets of A\$ 26 million.<sup>336</sup> Until September 2008, Aviva was developing the project on its own. In this period, the company was assisted by the following financial institutions:

- In November 2007, Aviva Corporation issued new shares with a value of US\$ 19 million (A\$ 21 million). The proceeds were used for pre-development activities in Western Australia (including Coolimba) and Botswana, and for additional working capital used for new project generation. The issuance was underwritten by **Euroz Securities**.<sup>337</sup>

To finance the construction phase of the project it is likely that both companies will call upon the banks with which they have close relations to assist them in financing the project. The following information was found on the financiers of both companies:

- Aviva mentions **National Australia Bank** as its sole banker in its annual report of 2009.<sup>338</sup>
- Over the past few years, AES attracted several syndicated bank loans and issued several bonds. The most prominent financiers of the company are the US banks **Citigroup**, **Bank of America** and **JP Morgan**, who participated as arrangers and bookrunners in several facilities and issuances.<sup>339</sup>

## 7.6 FuturGas

### 7.6.1 Project

The FuturGas Project is an initiative by Hybrid Energy Australia to develop part of the Kingston lignite coal resource in South Australia, over which the company holds petroleum and mineral exploration licences. As a by-product of the gasification process, 40MW coal-fired electricity generation can be provided. The new power plant is expected to be commissioned in 2016. Hybrid Energy Australia is a special-purpose company, established in 2007, to develop environmentally responsible energy conversion project opportunities in Australia.<sup>340</sup> It is wholly-owned subsidiary of the ASX-listed and Australia-based oil and gas exploration and production company Strike Oil Ltd.<sup>341</sup>

Evaluation for the project includes a Pre-Feasibility Study (PFS) prior to the commitment to a Bankable Feasibility Study (BFS). In response to the difficult market conditions, Hybrid Energy Australia has implemented a plan designed to advance the FuturGas project with a reduced cost base until an investment partner is secured to commence the PFS.<sup>342</sup>

### 7.6.2 Financing

Hybrid Energy Australia is wholly-owned and, so far, fully funded by Strike Oil Ltd. In 2008, Hybrid Energy Australia appointed an (unknown) investment bank to assist it with investigating funding sources, and to identify and implement an appropriate funding strategy. The company is also hopeful of accessing approximately A\$ 1 million in Federal Government funding for developing low-emissions technologies through the A\$ 75 million Climate Ready grant program.<sup>343</sup>

The following information could be found on recent financing provided to Strike Oil, which will probably fund the largest share of the project:

- In April 2007 Strike Oil issued new shares for a total value of US\$ 7.2 million (A\$ 8.8 million). The proceeds were used for mining activities and project finance. **Macquarie Bank** was the sole bookrunner of the issuance.<sup>344</sup>
- On 28 April 2008 Strike Oil secured a credit facility from **Commonwealth Bank of Australia**. During the year 2008 the company repaid US\$ 4.3 million (A\$ 6 million) of the loan. The balance of the facility at 30 June 2009 was US\$ 5.3 million (A\$ 6.5 million).<sup>345</sup>

These financiers could also become important in the future, when the FuturGas project will be realized.

## 7.7 Galilee Power

### 7.7.1 Project

Galilee Power Pty Ltd, a wholly owned subsidiary of Waratah Coal Pty Ltd (Australia), proposes to build a 900 MW coal-fired power station that incorporates clean-coal low emission power generation technology and carbon capture and storage (CCS) to comply with the Queensland Government's ClimateQ: toward a greener Queensland strategy. The company will first construct a 450 MW power station, with a second 450 MW module to be added as demand increases. The project is complementary to Waratah's coal larger 'China First' project. The project will be to the east of Waratah Coal's proposed mine in the Galilee Basin, Central Queensland. Initial construction expenditures of the project amount to A\$ 1.25 billion and recurring operational expenditure of A\$ 265 million.<sup>346</sup>

Waratah Coal is wholly-owned by Mineralogy, a privately-held Australian resource company controlled by professor Clive Palmer which is engaged in the exploration for and development of mineral resources.<sup>347</sup>

### **7.7.2 Financing**

Waratah Coal is an Australian company, but it is listed on the Toronto Stock Exchange in Canada. According to CEO of Waratah Coal Peter Lynch, the company has sufficient equity finance to fund the project through the completion of formal feasibility studies. Various options will be progressed to provide the funding required for the eventual construction.<sup>348</sup>

When Waratah Coal issued new shares in August 2007 and March 2008, the sole bookrunner was **Jennings Capital Inc** (Canada).<sup>349</sup> This financier could also become important in the future, when the Galilee project will be realized.

## **7.8 HRL**

### **7.8.1 Project**

A consortium of local and international interests has come together to build and operate a 550 MW coal-fired demonstration plant near the existing Hazelwood power station in Victoria. The plant will use gasified brown coal combined with a natural gas and is designed to produce power with around 30 per cent less carbon dioxide emissions than current brown coal generation plants in the Latrobe Valley (Victoria). The consortium uses technology developed by Australian technology company HRL, which established the special purpose company Dual Gas Pty Ltd to develop the demonstration project.

Dual Gas Pty Ltd recently entered into a \$750M agreement with the China National Electric Equipment Corporation (CNEEC) for engineering, procurement and construction<sup>350</sup>. CNEEC is a state-owned enterprise, which derives 80 percent of its business from overseas projects. It is expected that the agreement between CNEEC and HRL will be signed on April 22 2011 in Beijing.<sup>351</sup>

The project is planned to commence construction in 2011 and be operational and commence generating electricity in 2013.

### **7.8.2 Financing**

The Chinese state owned company company China National Electric Equipment Corporation (CNEEC) has won a \$750 million contract for engineering, procurement and construction. CNEEC has the capacity to help with project finance however they will most likely require the involvement of local or international banks.

The Australian Government has committed A\$ 100 million to the demonstration project as part of the Low Emissions Technology Demonstration Fund (LETDF) and the Victorian Government has committed A\$ 50 million to the demonstration project as part of its Energy Technology Innovation Strategy (ETIS).<sup>352</sup>

## **7.9 Mount Piper 2**

### **7.9.1 Project**

Delta Electricity (owned by the NSW government, see paragraph 4.9) wants to increase the generating capacity of its Mount Piper power station in the Central West region of NSW, which is currently 1,400 MW, by building a new power station on site with an additional 2,000 MW capacity. The new power station may use either gas or coal as fuel. For gas, the extension would consist of a number of combined cycle gas turbines. If coal is chosen, the extension would consist of two ultra-supercritical units, the first of their type in Australia, to maximise thermal efficiency.<sup>353</sup> In March 2010, Delta Electricity received approval for the concept plan for the project.<sup>354</sup>

### **7.9.2 Financing**

Delta Electricity is owned by the NSW government, and receives most of its loans (95%) from the NSW Treasury Corporation.<sup>355</sup> It is very likely the new project will be financed by bond issuances by NSW TCorp. For an overview of the banks involved in these issuances, see paragraph 4.7.

## **7.10 Wandoan**

### **7.10.1 Project**

The Wandoan Power project is a proposed 400 MW power station using Integrated Gasification Combined Cycle (ICGG) with carbon capture and storage technologies. The project would be developed by the Wandoan Power consortium, consisting of energy company GE Energy (United States) and Queensland-owned energy generator Stanwell Corp. (see paragraph 4.13). In September 2009, the project was nominated for consideration in the next stage in the Australian Federal Government's Carbon Capture and Storage (CCS) Flagship Program.<sup>356</sup>

Xstrata Coal (see paragraph 3.21), while not being part of the Wandoan Power consortium, intends to supply coal from its Wandoan Coal Project and investigate the transport and storage of CO<sub>2</sub> as part of a CO<sub>2</sub> Transport and Storage Alliance with the Power Project.<sup>357</sup>

The Wandoan Power Project is currently conducting pre-feasibility studies, and is undergoing assessment for funding assistance from government and industry entities. Successful assessment and funding will be required to move the project forward. If funding is secured, the power station is expected to be commissioned in 2015.<sup>358</sup>

### **7.10.2 Financing**

The Wandoan Power project is undergoing a series of assessment processes for funding from governments and industry entities. Wandoan Power mentions The Federal Government's Clean Energy Initiative (CEI), the Queensland Clean Coal Council and the Australian Coal Association's Coal21 fund as possible sources of finance.<sup>359</sup>

As Stanwell Corp sources all its borrowings from the Queensland Treasury Corporation (QTC), it is very likely that part of the project will be financed through the bond issuances of the QTC. For an overview of the banks involved in these issuances, see paragraph 4.11.2.

## **7.11 ZeroGen**

### **7.11.1 Project**

ZeroGen was established by the Queensland Government to facilitate the accelerated development and deployment of low emission coal technologies. The ZeroGen project expects to be first in the world to construct and operate a commercial-scale 530 MW Integrated Gasification Combined Cycle (IGCC) with Carbon Capture and Storage (CCS) facility for the production of low-emission electricity. The estimated project cost is A\$ 4.3 billion. The feasibility study for the project is expected to be finalized in September 2011 and the plant is expected to be operational in 2015.<sup>360</sup>

### **7.11.2 Financing**

The following parties contribute to the financing of the ZeroGen project:

- Most of the costs of the ZeroGen project are met by the Queensland Government. The total cost of the feasibility study are about A\$ 125 million, of which the Queensland Government is contributing around A\$ 100 million.<sup>361</sup> For the financing of the Queensland Government, see paragraph 4.11.
- The Australian Coal Association, through the Coal21 Fund, is providing A\$ 26 million to cover additional costs in the revised feasibility study for Stage One. This coal fund aims to provide more than A\$ 1 billion over a ten year period to support research, development and demonstration of low emissions coal technologies to combat climate change.<sup>362</sup>
- The Queensland Government and ZeroGen will also be seeking Commonwealth Government funding support for the feasibility studies for Stage One and Two.<sup>363</sup>
- Other funders are the Japanese companies Mitsubishi Corporation (MC) and Mitsubishi Heavy Industries (MHI).<sup>364</sup>

## **7.12 Conclusion**

Most planned coal-fired power plants discussed in this chapter are still in a very early planning phase and in most cases, no financing has yet been secured. The federal and state governments of Australia will surely play an important role in the financing of the new power plants. The governments have established several initiatives through which companies with plans for coal-fired power plants are able to obtain funds, especially for coal-fired power plants that result in lower emissions than traditional power plants. In addition, three of the projects discussed in this chapter are executed by government-owned companies. Next to the government, a range of Australian and international banks and institutional investors that have provided recent finance to one of the companies that plan power plants could become important financiers of the new power plants when these reach the construction phase in the future.

## Appendix 1 Average assets needed per capacity unit

### Coal mines

Table 56 below shows that the average amount of assets devoted to one Mtpa capacity is A\$ 111.2 million. To calculate the amount of Australian coal mining assets for companies with no available information, this average is multiplied by the weighted capacity of a company.

**Table 56 Average asset value of coal mining capacity**

| Company         | Australian capacity (Mtpa) | Australian coal mining assets (A\$ million) | Assets per Mtpa (A\$ million) |
|-----------------|----------------------------|---|-------------------------------|
| Anglo American  | 27.0                       | 4,700                                       | 174.1                         |
| BHP Billiton    | 63.4                       | 7,100                                       | 112.0                         |
| Centennial Coal | 16.8                       | 1,189                                       | 70.8                          |
| MacArthur Coal  | 8.6                        | 1,428                                       | 166.0                         |
| Peabody Energy  | 28.8                       | 3,792                                       | 131.7                         |
| Wesfarmers      | 12.7                       | 1,749                                       | 137.7                         |
| Whitehaven Coal | 10.3                       | 1,007                                       | 97.8                          |
| <b>Average</b>  |                            |   | <b>127.1</b>                  |

### Coal-fired power stations

For some companies we estimated the value of assets used for generating renewable energy in Australia, by taking the average values calculated for other companies. Table 57 shows how this average value of A\$ 0.82 million per MW was calculated.

**Table 57 Average asset value of coal fired power stations**

| Company             | Australian capacity (MW) | Australian CFPS assets (A\$ million) | Assets per MW (A\$ million) |
|---------------------|--------------------------|--------------------------------------|-----------------------------|
| Macquarie           | 4,640                    | 4,106                                | 0.88                        |
| Delta Electricity   | 4,320                    | 2,857                                | 0.66                        |
| Eraring Energy      | 2,640                    | 1,644                                | 0.62                        |
| CS Energy           | 2,510                    | 1,982                                | 0.79                        |
| International Power | 2,259                    | 2,013                                | 0.89                        |
| Tarong Energy       | 1,843                    | 1,030                                | 0.56                        |
| CLP Group           | 1,480                    | 1,789                                | 1.21                        |
| Stanwell Corp       | 1,400                    | 1,619                                | 1.16                        |
| Alinta Energy       | 931                      | 887                                  | 0.95                        |
| AGL Energy          | 715                      | 678                                  | 0.95                        |
| <b>Average</b>      |                          |                                      | <b>0.82</b>                 |

**Renewables**

For some companies we estimated the value of assets used for generating renewable energy in Australia, by taking the average values calculated for other companies. Table 58 shows how this average value of A\$ 1.43 million per MW was calculated.

**Table 58 Average asset value of renewable energy capacity**

| <b>Company</b>               | <b>Australian capacity (MW)</b> | <b>Australian renewable assets (A\$ million)</b> | <b>Assets per MW (A\$ million)</b> |
|------------------------------|---------------------------------|--|------------------------------------|
| AGL Energy                   | 1,340                           | 3,230  | 2.41                               |
| Infrastructure Capital Group | 162                             | 325  | 2.01                               |
| Hydro Tasmania               | 2,510                           | 5,213  | 2.08                               |
| Acciona Energy               | 225                             | 485  | 2.16                               |
| Snowy Hydro                  | 3,756                           | 2,054  | 0.55                               |
| Eraring Energy               | 402                             | 248  | 0.62                               |
| Tarong Energy                | 500                             | 275  | 0.55                               |
| Infigen                      | 508                             | 1,402  | 2.76                               |
| <b>Average</b>               |                                 |  | <b>1.43</b>                        |

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