

西澳州在建或拟建矿产能源项目清单

一、石油、天然气类项目：

| 项目                                     | 公司                                       | 地点                                  | 状态  | 预期启动时间    | 产能                                  | 投资额      |
|--|--|-------------------------------------|---|-----------|-------------------------------------|----------|
| Enfield oil project                    | Woodside Energy/Mistui                   | 50km N of Exmouth                   | New Project, committed  | Late 2006 | 100kbd                              | 14.8 亿澳元 |
| John Brookes gas project               | Apache Energy/Santos/Encana/Exxon Mobil  | Offshore Carnarvon                  | New Project, under construction                                 | mid 2005  | 20mcpd                              | 2.2 亿澳元  |
| Kwinana refinery clean Disel project   | BP                                       | Kwinana                             | Redevelopment, under construction                               | 2005      | nil                                 | 6000 万澳元 |
| Mutineer/Exeter oilfield               | Santos/Kufpec/Nippon Oil/Woodside Energy | 150km N of Dampier, Carnarvon Basin | New Project, committed  | mid 2005  | 100kbd                              | 4.8 亿澳元  |
| Telfer gas pipeline                    | GasNet Australia                         | Port Hedland to Telfer              | New Project, under construction                                 | Late 2004 | na                                  | 1.14 亿澳元 |
| Blacktip gas discovery (incl pipeline) | Woodside/Shell/Agip                      | Offshore Bonaparte Basin            | New Project, Feasibility study under way, Location under review | 2007      | 40PJ pa gas<br>1.7 mmbbl condensate | 10 亿澳元   |
| Cliff Head oil project                 | Roc Oil/AWE/Wandoo/VoyagerEnergy/CIECO   | Offshore Perth Basin                | New Project, Feasibility study completed, FEED under way        | Late 2005 | 10-20 kbd                           | 1.56 亿澳元 |
| Dimethyl Ether project                 | Japan DME                                | Burrup Peninsula                    | New Project, Feasibility study under way                        | Late 2007 | 1.7 Mt DME                          | 11 亿澳元   |
| Gas to liquid fuels plant              | SASOL/ Chevron JV                        | Barrow Island                       | New Project, Feasibility  | 2005-06   | 30-45 kbd                           | 20 亿澳元   |

|   |                                      |                  |  |      |   |         |
|---|--------------------------------------|------------------|--|------|---|---------|
|   |                                      |                  | study under way                                    |      | diesel,<br>7.3 kbd<br>naptha and<br>LPG | (第一阶段)  |
| Gorgon LNG  | Chevron Texaco/Shell/<br>Exxon Mobil | Barrow Island    | New Project, Feasibility<br>study under way        | 2008 | 10Mt LNG<br>300 TJ/day<br>natural gas   | 110 亿澳元 |
| Liquigaz methanol plant                             | GTL Resources                        | Burrup Peninsula | New Project, Feasibility<br>study completed        | 2006 | 1Mt methanol                            | 7.7 亿澳元 |
| North West Shelf Project<br>Extension (fifth train) | Woodside Energy                      | North West Shelf | Expansion, Feasibility<br>study under way          | 2008 | 4.2Mt LNG                               | 16 亿澳元  |
| Pilbara LNG plant<br>(based on Scarborough<br>gas)  | BHP Billiton                         | Near onslow      | New Project,<br>pre-feasibility study<br>under way | 2010 | 6Mt LNG                                 | 40 亿澳元  |

## 二、铜矿项目

| 项目                              | 公司                        | 地点                     | 状态   | 预期启动时间      | 产能                                     | 投资额               |
|---------------------------------|---------------------------|------------------------|--|-------------|--|-------------------|
| <b>Nifty sulphide resource</b>  | <b>Aditya Birla Group</b> | <b>Pilbara Region</b>  | <b>Expansion,<br/>Under construction</b>                 | <b>2005</b> | <b>60kt Cu<br/>in<br/>concentrates</b> | <b>1.48 亿澳元</b>   |
| Maroochydore                    | Aditya Birla Group        | 60km S of Telfer       | New Project, Feasibility<br>study under way              | na          | 30kt Cu<br>cathode                     | na                |
| Panorama Copper-Zinc<br>project | Sipa Resources            | 100km SE of Pt Hedland | New Project, review of<br>feasibility study under<br>way | na          | 73kt Cu<br>226 kt Zn                   | 4000-6000 万<br>澳元 |

三、金矿项目：

| 项目                                  | 公司  | 地点                        | 状态  | 预期启动时间                | 产能   | 投资额      |
|-------------------------------------|---|---------------------------|---|-----------------------|--|----------|
| Daisy-Milano                        | Perilya   | Near Kalgoorlie           | New Project, under construction                     | Late 2004             | 60000-70000 oz                             | Na       |
| St Ives                             | Gold Fields Australasia                         | Lake Lefroy Region        | Expansion, under construction                       | Late 2004             | 100000 oz                                  | 1.25 亿澳元 |
| Paulsens                            | Nustar Mining (Taipan)                          | 180 km W of Paraburdoo    | New Project, under construction                     | mid 2005              | 80000 oz initially increasing to 135000 oz | 3200 万澳元 |
| Sunrise Dam underground development | AngloGold                                       | 55km S of Laverton        | underground development committed                   | Progressively to 2007 | na   | 8700 万澳元 |
| Telfer redevelopment                | Newcrest  | 400km ESE of Port Hedland | Redevelopment, Under construction                   | Late 2004             | 800000 oz Au<br>30kt Cu                    | 12 亿澳元   |
| Boddington (Wandoo)                 | Newmont/Anglogold/<br>Newcrest                  | SE of Pinjarra            | Redevelopment, feasibility study being updated      | 2007                  | 600000 oz Au<br>22.5kt Cu                  | 7.35 亿澳元 |
| Bronzewing redevelopment            | View Resources                                  | 65 km NE of Leinster      | Redevelopment, feasibility study nearing completion | Early 2005            | 110000-<br>130000 oz                       | na       |
| Frog's Leg underground              | Dioro Exploration/Mines and Resources Australia | WA                        | New project, feasibility study nearing completion   | 2006                  | 60000 oz                                   | 1800 万澳元 |
| Gwalia Deeps                        | Sons of Gwalia                                  | WA                        | Expansion underground,                              | na                    | 120000-                                    | 12.5 亿澳元 |

|   |                                   |                     |  |          |           |               |
|---|-----------------------------------|---------------------|--|----------|-----------|---------------|
|   |                                   |                     | Feasibility study under review                     |          | 150000 oz |               |
| Indee                                       | Range River Gold/Bullion Minerals | Near Whim Ck        | New project, feasibility study nearing completion  | 2005     | 50000oz   | 1200-1500 万澳元 |
| Sunrise Dam underground expansion           | Anglogold                         | WA                  | Expansion underground, Feasibility study under way | 2007     | na        | 8700 万澳元      |
| Wallaby underground extension(Granny Smith) | Placer Dome                       | 23 km S of Laverton | Expansion underground, Feasibility study completed | na       | na        | na            |
| Westonia                                    | Westonia Mines                    | Westonia            | Reopening,, feasibility study under review         | mid 2005 | 90000oz   | 4300 万澳元      |

#### 四、铁矿砂项目

| 项目                                    | 公司             | 地点                         | 状态                              | 预期启动时间    | 产能                      | 投资额      |
|---------------------------------------|----------------|----------------------------|---------------------------------|-----------|-------------------------|----------|
| Koolyanobbing expansion               | Portman        | 50km NNE of Southern Cross | Expansion, under construction   | Late 2005 | 3Mt                     | 5500 万澳元 |
| Mining Area C expansion               | BHP Billiton   | Pilbara                    | Expansion, under construction   | end 2004  | 8Mt(incl port and rail) | 1.52 亿澳元 |
| Mt Gibson Hematite                    | Mt Gibson Iron | 324 km SE of Geraldton     | New Project, committed. On hold | na        | 1.5Mt                   | 2200 万澳元 |
| BHP Billiton's Rapid Growth Project 2 | BHP Billiton   | Pilbara                    | New project, committed          | mid 2006  | 8Mt(incl port and rail) | 8.2 亿澳元  |

|  |                           |                            |  |           |  |                   |
|--|---------------------------|----------------------------|--|-----------|--|-------------------|
| West Angelas                                 | Rio Tinto/Robe River      | Pilbara                    | Expansion,<br>Under construction             | mid 2005  | 5Mt                                      | 1.42 亿港元          |
| Yandicoogina mine and Dampier Port expansion | Rio Tinto                 | Pilbara                    | Expansion,<br>Under construction             | 2005      | 12Mt                                     | 12.5 亿港元<br>(含港口) |
| BHP Billiton capacity expansion project      | BHP Billiton              | Pilbara                    | Expansion, feasibility study under way       | 2005-2006 | 27-32Mt                                  | na                |
| Cape Preston mine and pellet plant           | Mineralogy                | Fortescue                  | New project, feasibility study under way     | 2007-2008 | 5Mt iron ore concentrates<br>7Mt pellets | 18 亿港元            |
| Hope Downs                                   | Hancock prospecting/Kumba | Pilbara                    | New project, feasibility study completed     | 2007-2008 | 25Mt                                     | 17 亿港元            |
| Koolan Island                                | Aztec Resources           | Koolan island              | New project, feasibility study under way     | 2006      | 3-4Mt                                    | 5000 万澳元          |
| Koolanooka pellet Project                    | Midwest Corporation       | 55km N of Mullewa          | New project, feasibility study completed     | 2007      | 4.5 iron ore pellets                     | 5.4 亿港元           |
| Pilbara Infrastructure project               | Fortescue Metals Group    | Pilbara                    | New project, feasibility study under way     | 2006-2007 | na                                       | 14.4 亿港元          |
| Pilbara Iron ore project                     | Fortescue Metals Group    | Chichester Ranges, Pilbara | New project, feasibility study under way     | 2006-2007 | 45Mt                                     | 4.1 亿港元           |
| Weld Range                                   | Midwest Corporation       | 370 km N of Geraldton      | New project, pre-feasibility study under way | na        | 10Mt                                     | 7.33 亿港元          |

## 六、铅-锌-银矿类

| 项目                              | 公司   | 地点                    | 状态  | 预期启动时间     | 产能                             | 投资额      |
|---------------------------------|--|-----------------------|---|------------|--------------------------------|----------|
| Magellan lead project (stage 1) | Magellan Metals (Ivernial/Sentient Global Resources) | 30km W of Wiluna      | New project, Under construction                   | Early 2005 | 70kt Pb in concentrates        | 3600 万澳元 |
| Magellan lead project (stage 2) | Magellan Metals (Ivernial/Sentient Global Resources) | 30km W of Wiluna      | New Project, committed                            | 2007       | 90kt Pb in concentrates        | 2500 万澳元 |
| Jaguar base metals              | Jabiru Metals  | 260km N of Kalgoorlie | New Project, feasibility study nearing completion | 2006       | 34kt Zn<br>10kt Cu<br>1m oz Ag | 4300 万澳元 |

第七、矿物砂项目类：

| 项目              | 公司               | 地点                   | 状态  | 预期启动时间    | 产能  | 投资额           |
|-----------------|------------------|----------------------|---|-----------|---|---------------|
| Coburn          | Gunson Resources | 250km N of Geraldton | New project, feasibility study nearing completion | mid 2006  | 172kt ilmenite<br>78 kt zr<br>21kt leucoxene<br>14kt rutile | 6200 万澳元      |
| Dongara         | Ticor            | Eneabba              | New Project, feasibility study under way          | 2005      | 200kt ilmenite<br>30kt rutile<br>30kt zircon                | 1500-7100 万澳元 |
| Jangardup South | BeMax Resources  | Jangardup South      | New Project, EIS and                              | 2005-2006 | 250kt mineral   | 4000 万澳元      |

|  |  |  |                             |  |                    |  |
|--|--|--|-----------------------------|--|--------------------|--|
|  |  |  | feasibility study under way |  | sands concentrates |  |
|--|--|--|-----------------------------|--|--------------------|--|

### 第八、镍矿项目

| 项目                                 | 公司                 | 地点                         | 状态  | 预期启动时间    | 产能   | 投资额               |
|------------------------------------|--------------------|----------------------------|---|-----------|--|-------------------|
| Maggie Hays                        | LionOre            | 130km W of Norseman        | New Project, under construction                   | Late 2004 | 4kt Ni   | 2800 万澳元          |
| Perseverance underground extension | WMC Resources      | Leinster                   | Expansion, under construction                     | late 2005 | na   | 2 亿澳元             |
| Ravensthorpe                       | QNI (BHP Billiton) | 35km E of Ravensthorpe     | New project, under construction                   | 2007      | 220kt mixed Ni/Co hydroxide Intermediate Product(feed for Yabulu refinery) | 15 亿澳元            |
| Black Swan open pit                | MPI Mines          | Near Kalgoorlie            | Expansion, Feasibility study under way            | 2005      | 5.5-7.5kt Ni in concentrates   | 5500 万澳元          |
| Forrestania                        | Western Areas      | 130 km S of Southern Cross | New Project, Feasibility study nearing completion | 2006      | 10kt Ni  | 7000 万澳元          |
| Honeymoon Well (Wedgetail)         | MPI Mines          | 37km SSE of Wiluna         | New Project, Feasibility study nearing completion | Late 2005 | 8 kt Ni  | 3500 万 或 5500 万澳元 |
| Kalgoorlie nickel project          | Heron Resources    | N of Kalgoorlie            | New Project,                                      | na        | 50kt Ni ,  | 14 亿澳元            |

|  |                                 |                      |  |      |                     |             |
|--|---------------------------------|----------------------|--|------|---------------------|-------------|
|  |                                 |                      | pre-feasibility study under way  |      | 3kt Co              |             |
| Mt Keith   | WMC Resources                   | S of Wiluna          | Expansion, feasibility study completed. Development options being considered | 2005 | 22kt Ni             | 1.5 亿澳元     |
| Mt Keith concentrator and low pressure leach plant | WMC Resources                   | S of Wiluna          | Expansion, feasibility study under way                                       | 2006 | 25kt Ni             | 5.5-6.5 亿澳元 |
| Murrin Murrin                                      | Minara Resources                | 53 km ENE of Leonora | Expansion, on hold   | 2007 | 10kt Ni             | 2.5 亿澳元     |
| Sherlock Bay                                       | Sherlock Bay Nickel Corporation | Near Karratha        | New Project, feasibility study completed                                     | 2005 | 8kt Ni<br>1.6 kt Cu | 3400 万澳元    |
| Yakabindie   | WMC Resources                   | S of Wiluna          | Expansion, pre-feasibility study under way                                   | 2009 | 32kt Ni             | na          |

第九、稀土矿项目：

| 项目                                | 公司                      | 地点                  | 状态  | 预期启动时间 | 产能  | 投资额           |
|-----------------------------------|-------------------------|---------------------|---|--------|---|---------------|
| Mt Weld                           | Lynas Corp              | Meenaar and Mt Weld | New project, feasibility study nearing completion | 2006   | 33kt concentrates containing 40-45% rare earth oxides | 4300-5000 万澳元 |
| Pinjarra gallium extraction plant | Geo Specialty Chemicals | Pinjarra            | New Project, deferred indefinitely                | na     | 100t of '4N' gallium metal                            | 7500 万澳元      |

第十、钽矿项目

| 项目 | 公司 | 地点 | 状态 | 预期启动时间 | 产能 | 投资额 |
|----|----|----|----|--------|----|-----|
|----|----|----|----|--------|----|-----|

|                  |                    |                    |  |      |                    |         |
|------------------|--------------------|--------------------|--|------|--------------------|---------|
| Mt Deans project | Tantalum Australia | 6km SW of Norseman | New project, feasibility study under way | 2005 | 100000 lb tantalum | 500 万澳元 |
|------------------|--------------------|--------------------|--|------|--------------------|---------|

第十一、其他矿产开发项目：

| 项目                                      | 公司  | 地点                      | 状态  | 预期启动时间           | 产能   | 投资额             |
|---|---|-------------------------|---|------------------|--|-----------------|
| <b>Ammonia plant</b>                    | <b>Burrup Fertilisers</b>                 | <b>Burrup Peninsula</b> | <b>New Project, under construction</b>          | <b>Late 2005</b> | <b>760kt ammonia</b>                                     | <b>6.45 亿澳元</b> |
| Ammonia nitrate plant                   | Deepak Fertilisers                        | Burrup Peninsula        | Expansion, feasibility study under way          | na               | 300kt ammonia nitrate, 270kt nitric acid, i150kt ammonia | 3 亿澳元           |
| Argyle underground study (diamonds)     | Rio Tinto                                 | 130 km SSW of Kununurra | New Project, feasibility study under way        | 2007             | Na   | na              |
| Dampier Nitrogen project (ammonia/urea) | Dampier Nitrogen JV (Plenty River/Thiess) | Burrup Peninsula        | New Project, feasibility study under way        | 2005             | 1.2 Mt urea<br>100kt ammonia                             | 9 亿澳元           |
| Ellendale diamond mine expansion        | Kimberley Diamond Company                 | 140 km ESE of Derby     | Expansion, feasibility study nearing completion | 2007-2008        | na   | 7800 万澳元        |
| Exmouth Solar salt project              | Straits Salt                              | Near Exmouth            | New project, feasibility study under way        | 2008             | 3Mt  | 1.2 亿澳元         |
| Manganese dioxide                       | HiTec Energy                              | 50km N of Kalgoorlie    | New project, feasibility study under way        | 2006             | 14kt   | 5500 万澳元        |

|   |                      |                        |   |    |                              |                   |
|---|----------------------|------------------------|---|----|------------------------------|-------------------|
| projectt                                |                      |                        | study completed   |    | electrolytic<br>Mn dioxide   |                   |
| Panton platinum<br>palladium project    | Platinum Australia   | 60 km N of Halls Creek | New Project, feasibility<br>study completed<br>Under review | na | 69000-95000<br>oz PGM's      | 5700-6400 万<br>澳元 |
| Swan River (Kerrigan)<br>Kaolin project | Minerals Corporation | Near Tammin            | New Project, technical<br>feasibility study<br>completed    | na | 250kt<br>processed<br>kaolin | na                |

#### 第十二、氧化铝加工项目：

| 项目  | 公司   | 地点             | 状态  | 预期启动时间     | 产能     | 投资额      |
|---|--|----------------|---|------------|--------|----------|
| Pinjarra refinery<br>efficiency upgrade   | Alcoa/ Alumina                               | Pinjarra       | Expansion, under<br>construction                                      | Late 2005  | 600kt  | 4.4 亿澳元  |
| Worsley refinery<br>expansion (Worsley<br>Alumina Development<br>Capital Project) | BHP Billiton/Japan<br>Alumina/Sojitz Alumina | Near bunbury   | Expansion, committed  | Early 2006 | 250kt  | 2.36 亿澳元 |
| Wagerup refinery<br>expansion (Unit 3)  | Alcoa/ Alumina                               | Darling Ranges | Expansion, feasibility<br>study and public<br>consultations under way | na         | 2000kt | 15 亿澳元   |

#### 第十三、粗铁和港加工项目

| 项目                 | 公司  | 地点      | 状态                 | 预期启动时间    | 产能        | 投资额   |
|--------------------|-----|---------|--------------------|-----------|-----------|-------|
| Hismelt iron plant | Rio | Kwinana | New project, under | Late 2004 | 820kt pig | 4 亿澳元 |

|  |                                     |  |              |  |      |  |
|--|-------------------------------------|--|--------------|--|------|--|
|  | Tinto/Nucor/Mitsubishi/<br>shougang |  | construction |  | iron |  |
|--|-------------------------------------|--|--------------|--|------|--|

第十四、钛矿加工项目：

| 项目                          | 公司                             | 地点       | 状态  | 预期启动时间 | 产能                 | 投资额     |
|-----------------------------|--------------------------------|----------|---|--------|--------------------|---------|
| Kemerton TiO2 pigment plant | Millennium Inorganic Chemicals | Kemerton | Expansion, on hold  | na     | 110kt TiO2 pigment | 4.7 亿澳元 |
| Kwinana TiO2 pigment plant  | Tiwest JV                      | Kwinana  | Three stage expansion, stage 1 environmental approval granted | na     | 180kt TiO2 pigment | 2 亿澳元   |

注： 资料引自澳农业和资源经济局；

背景为阴影部分为已决定兴建或在建项目，无阴影部分为处于可行性研究阶段或尚未决定兴建的项目；

na: not available

kbd: kilo barrels/day

Mt: million tons

kt: kilo tons